DAVIS 2050
General Plan Update

Natural Resources and Conservation Existing Conditions Report

FINAL DRAFT

OCTOBER 27, 2025

CONTENTS

FIGURES AND TABLES

ACRONYMS AND ABBREVIATIONS

Abbreviation	Definition
AB	Assembly Bill
AFY	acre-feet per year
ASR	Aquifer Storage and Recovery
BMP	best management practices
BP	before present
CAAP	Climate Action and Adaptation Plan
cal BP	calendar years before present
CalGEM	California Geologic Energy Management
CALGreen	California Green Building Standards Code
California Register	California Register of Historical Resources
CCA	Community Choice Aggregation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CLG	Certified Local Government
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CPG	Conaway Preservation Group
CR	County Road
CSA	county service area
CVP	Central Valley Project
FESA	federal Endangered Species Act
FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gas
gpcd	gallons per capita per day
gpm	gallons per minute
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan

HES	Home Energy Score
IOU	investor-owned utility
LID	low impact development
local register	Davis Register of Historical Resources
MBTA	Migratory Bird Treaty Act
MCL	Maximum Containment Level
mgd	million gallons per day
MRDS	Mineral Resources Data System
MRF	Materials Recovery Facility
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MWELO	Model Water Efficient Landscape Ordinance
National Register	National Register of Historic Places
NCCPA	Natural Community Conservation Plan Act
NDM	North Davis Meadows
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OHP	Office of Historic Preservation
PFAS	per- and polyfluoroalkyl substances
PG&E	Pacific Gas & Electric Company
ppb	parts per billion
ppt	parts per trillion
PRC	California Public Resources Code
PSPS	public safety power shutoffs
RPS	Renewables Portfolio Standard
RWTF	Regional Water Treatment Facility
SB	Senate Bill
SGMA	Sustainable Groundwater Management Act
SMARA	Surface Mining and Reclamation Act of 1975
SMGB	State Mining and Geology Board
SOI	Sphere of Influence
SSURGO	Soil Survey Geographic Database

SVP	Society of Vertebrate Paleontology
SWP	State Water Project
SWRCB	State Water Resources Control Board
UC Davis	University of California, Davis
UCMP	University of California Museum of Paleontology
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
UWUO	Urban Water Use Objective
VCE	Valley Clean Energy
WDCWA	Woodland-Davis Clean Water Agency
WWTP	wastewater treatment plant
YEP	Yolo Energy Partnership
Yolo HCP/NCCP	Yolo Habitat Conservation Plan/Natural Community Conservation Plan
YSGA	Yolo Subbasin Groundwater Agency

EXECUTIVE SUMMARY

This Natural Resources and Conservation Existing Conditions Report provides a comprehensive assessment of the environmental setting, natural systems, and resource conditions within Davis and its Planning Area. It compiles inventories and maps of key resources, including watersheds, groundwater, biological habitats, agricultural lands, mineral resources, soils, geology, energy infrastructure, and water quality. These topics were selected generally based on requirements found in California Government Code §65302(d) which prescribes that every general plan conservation element include a discussion of the "conservation, development, and utilization of natural resources, including water, forests, soils, rivers, harbors, fisheries, wildlife, minerals, and other natural resources" Typically included in a discussion of "other natural resources" is energy as the 2017 State of California General Plan Guidelines advise that energy topics and policies be accounted for within existing elements," commonly within the Conservation Element.

Below is a list of key findings discussed in the report.

Agricultural and Soil Resources

- While land within Davis is largely urbanized and built out, the area surrounding Davis has some of the most productive agricultural land in California. As a result, future development in the City could result in the loss of important farmland if additional land is designated for development outside the City limits under the General Plan update.
- Agriculture and biotechnology programs at The University of California, Davis (UC Davis), a growing number of locally based biotechnology firms, large and small farm operators, and specialty and organic agricultural producers all support the agricultural economy of Davis and its Planning Area. The General Plan update provides an opportunity for the City to further support this important economic sector by designating land for future agricultural related industries.
- While economic, technological, and environmental pressures, such as the effects of climate change, continue to contribute to farmland loss at the global and local levels, conservation of agricultural land through limited urban growth has been and continues to be a priority for the City. The primary mechanism for farmland preservation in the Davis Planning Area is the City's Open Space Program and its key implementing tools: the agricultural land mitigation requirement and the agricultural buffer requirement. The General Plan update provides an opportunity for the City to reinforce its commitment to the preservation of agricultural land and agricultural uses by encouraging landowners to participate in voluntary farmland preservation programs, such as the establishment of conservation easements.

Biological Resources

- The Davis Planning Area contains multiple natural and open space areas and conservation easements that provide suitable habitat for plants and wildlife. These areas contain several habitat communities such as grasslands, emergent wetlands, oak woodlands, and riparian forests. Example preserve areas that provide habitat to local flora and fauna within the Davis Planning Area include the Putah Creek Riparian Preserve, Davis Wetlands, and the Yolo Bypass Wildlife Area. Some agricultural lands are also set aside as conservation easements, and they provide suitable foraging habitat for some wildlife species. Together these features provide a critical network of habitat communities within the Sacramento River watershed. The General Plan update process provides an opportunity to further conserve and/or enhance these areas.
- Several special-status species, such as Swainson's hawk (*Buteo swainsoni)*, western burrowing owl (*Athene cunicularia*), and giant garter snake (*Thamnophis gigas*), are present within the Davis Planning Area. These species are protected under federal and/or state law, necessitating careful planning and impact mitigation on these sensitive biological resources in both current and future development efforts within the City and the City's Sphere of Influence (SOI). The City is also committed to protecting locally rare and common wildlife species that occur in the Davis Planning Area and the urban landscape.
- On January 11, 2019, the City adopted the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (Yolo HCP/NCCP). This countywide plan provides a comprehensive framework for balancing development and infrastructure needs with the conservation of habitats and special-status species. All future development under the General Plan update will be required to comply with provisions of the Yolo HCP/NCCP, including specific consideration for covered species and natural communities. The City plans to acquire additional land to preserve and/or restore ecological corridors, which will provide additional habitat connectivity for wildlife species.

Cultural and Tribal Resources

- The City has a diverse assortment of cultural and historic resources that span from the precontact period through the 20th century. Known resources are concentrated in the downtown area, but many areas of the City have yet to be surveyed for architectural resources or assessed for archaeological sensitivity work. As a Certified Local Government, Davis has committed to protecting and proactively managing its historic resources. This work is continual and ongoing, with the last comprehensive citywide survey completed in 2015. Future development allowed under the General Plan Update outside of the downtown will likely require additional surveys and evaluations to build on the previous work.
- The City is located within the ancestral territory of the Patwin tribes, today represented by the Cachil Dehe Band of Wintun Indians of the Colusa Indian Community, the Kletsel

Dehe Band of Wintun Indians, and Yocha Dehe Wintun Nation, who regularly engage in consultation with the City on a variety of projects. Future development allowed under the General Plan update would be required to consult with these tribes as part of the environmental review process.

Energy

- Since the last General Plan update was adopted in 2007, Valley Clean Energy has formed and is now providing City of Davis residents with more options for energy services. Additionally, the City, State, and local utilities now have ambitious renewable energy generation and greenhouse gas reduction goals. Through Pacific Gas and Electric, Valley Clean Energy, and local groups, City residents and businesses have opportunities to build upon existing partnerships and leverage regional resources to meet local goals and implement local policies.
- The City is continuing to promote and invest in building energy efficiency improvements through multiple planning and ordinance efforts. Future development allowed under the General Plan update would be required to comply with all applicable State Cal Green Tier 1 Standards and City programs and ordinances that promote building energy efficiency.
- Improvements in renewable energy generation will be needed to meet City goals and help Davis contribute to State goals. Policies included in the General Plan update can facilitate local renewable energy installation to help reach local goals and increase local energy resiliency.

Mineral Resources

- Although natural gas is extracted in the region and has been historically extracted from a few wells within the City limits, there are no active or idle wells within the City limits. The built-out urban nature of the City would discourage prospecting for natural gas. Therefore, future development allowed under the General Plan update would not interfere with natural gas recovery operations.
- There are no records of non-fuel mineral resources within the City limits. The subsurface geology is not favorable for non-fuel mineral resources. As a result, future development allowed under the General Plan update would not interfere with the recovery of non-fuel mineral resources.

Paleontological Resources

- Although paleontological resources have been found in Yolo county, most of the listings are found in older geologic formations too deep to be accessible to future development in the City. Therefore, only future development allowed under the General Plan Update

that would reach depths of 100 feet or that is in or adjacent to Putah Creek would have the potential to encounter significant paleontological resources.

Water Resources and Quality

- The City uses surface water and groundwater to meet its drinking water demand. Surface water is sourced from the Sacramento River and groundwater is pumped from seven local groundwater wells. Existing and future development allowed under the General Plan update would continue to be served by these sources, as well as the near-future implementation of a recycled water program.
- At buildout in 2045, the City's water demand is projected to be 10,291 AFY. The Woodland-Davis Clean Water Agency (WDCWA) can provide up to 11,425 acre-feet per year. To meet demand in normal years the City will rely on surface water delivered by the WDCWA.
- In single dry and multiple dry years, when surface water supplies are reduced the City can supplement surface water with groundwater to meet consumer demand, therefore, water supply shortages are not projected in any water year type through 2045. Furthermore. on-going water conservation and demand management measures will support the City's water use efficiency targets and sustainability goals. Therefore, surface and groundwater supplies are sufficient to meet the needs of existing and future development allowed under the General Plan update during normal, single dry and multiple dry years.
- Groundwater sources are vulnerable to historic and present-day land use activities, including agricultural and light industrial use, and naturally occurring contaminants such as selenium and chromium.
- The City's storm drain system is composed of on street and public parking area storm drain inlets; underground stormwater pipes; stormwater detention ponds; drainage channels; and stormwater lift stations. These facilities are all designed to convey stormwater and prevent flooding as they move stormwater away from properties and streets and eventually flow to the Davis Wetlands or the Sacramento River. New and redevelopment within the City is required to implement low-impact development measures such as porous pavement and bioretention to reduce stormwater runoff and pollution, and overall improve stormwater quality before it reaches surface waters.

Materials, Solid Waste, and Recycling

- The waste industry is constantly changing to adapt and adjust to the changing economy, product trends, and environmental regulations. The City's solid waste program staff continues to monitor and adapt to these changes. All future development allowed under the General Plan update would be required to comply with State and local regulations governing solid waste reduction and recycling.

- The City continues to focus on improving its organic waste collection program in response to legislation (such as California Senate Bill [SB] 1383) intended to reduce the disposal of organic waste to landfills. All future development allowed under the General Plan update would be required to comply with State and local regulations governing organic waste reduction and recycling.

AGRICULTURAL AND SOIL RESOURCES

Introduction

This section presents a detailed assessment of the agricultural landscape and soil conditions within Davis and its Planning Area. It explores the extent, classification, and productivity of local farmland, highlights the major crops and agricultural activities that shape the region's economy, and describes the programs and policies in place to preserve prime agricultural land. The section also examines soil types and quality, including their classification by the Natural Resources Conservation Service and their suitability for various agricultural uses. By analyzing both current conditions and long-term trends in farmland conversion, this section underscores the importance of protecting agricultural resources and maintaining healthy soils as essential components of Davis's natural environment and future planning efforts.

While land within the City limits is largely urbanized and built out, the area surrounding Davis has some of the most productive agricultural land in California. Major crops include tomatoes, rice, seed crops, wheat and other grains, fruit and nut crops, and wine grapes.[1] Agriculture and biotechnology programs at UC Davis, a growing number of locally based biotechnology firms, large and small farm operators, and specialty and organic agricultural producers all support the agricultural economy of Davis and its Planning Area. Accordingly, conservation of prime agricultural land through limited urban growth has been and continues to be a priority as part of the City's General Plan.

Agricultural Land Preservation

Agricultural Preservation Programs

In 1995, the City Council approved the Right to Farm and Farmland Preservation Ordinance. The main goals of the ordinance are to (1) preserve and encourage agricultural land use and operations within its Planning Area, (2) reduce the occurrence of conflicts between agricultural and non-agricultural land uses, and (3) reduce the loss of agricultural resources by limiting the circumstances under which agricultural operations may be deemed a nuisance. It is

[1] Yolo County. 2025. Industry Priorities in Yolo County. Agriculture - A Dynamic Future Building On Historic Strengths [webpage]. Available: https://www.yolocounty.gov/government/general-government-departments/county-administrator/county-administrator-divisions/economic-development/industry-priorities-in-yolo-county. Accessed April 22, 2025.

codified in the City's Municipal Code as Chapter 40A. To achieve the ordinance's objectives, the City Council included two key requirements that developers must comply with if a proposed project is adjacent to agricultural land and converts agricultural land to non-agricultural land. These requirements, which were updated and strengthened by the City Council in 2007, are the agricultural land mitigation requirement and the agricultural buffer requirement, two key implementing tools in the City's Open Space Program.[2]

AGRICULTURAL LAND MITIGATION REQUIREMENT

Under the City's agricultural land mitigation requirement, developers must permanently protect at least two acres of agricultural land somewhere within the Davis Planning Area to "mitigate" for every acre of agricultural land they convert to urban uses (i.e., the 2:1 requirement). Permanently protecting the land means either buying it outright or buying a conservation easement on the land. Developers must first preserve the land directly adjacent to their project (the "Adjacent Mitigation Land"). If this adjacent land is not enough to satisfy the 2:1 agricultural land mitigation requirement, then the developer must look elsewhere within the Davis Planning Area (the "Remainder Mitigation Land"). Both categories are briefly discussed below:

- **Adjacent Mitigation Land**. The developer must first protect the land along the entire non-urbanized perimeter of the project. For example, if a proposed development abuts farmland, the developer must protect that farmland. If the developer cannot protect this land for some reason, then the developer must provide the Adjacent Mitigation Land on the development site itself. The Adjacent Mitigation Land must be of a size that is economically viable as farmland (i.e., it must be a minimum 1/4 mile in width). Developers do not have to mitigate for the 100-foot portion of the required on-site agricultural buffer.
- **Remainder Mitigation Land**. If the Adjacent Mitigation Land is not enough to satisfy the 2:1 agricultural land mitigation requirement, then the developer must look to protect land elsewhere within the Davis Planning Area. Incentives, or location-based "credits," are provided to the developer to protect land in areas targeted for permanent protection by the City, such as land within a ¼ mile of the City limits and land within "priority acquisition areas" as determined by the City Council. These priority acquisition areas currently include land adjacent to the City limits, land separating the city from neighboring cities, and land providing particular agricultural, biological/natural and/or scenic benefits.

AGRICULTURAL BUFFER REQUIREMENT

Agricultural buffers are required for new developments under the City's agricultural buffer ordinance (Municipal Code Article 40A.01.050). To minimize future potential conflicts between agricultural and nonagricultural land uses and to protect the public health, all new developments adjacent to designated agricultural, agricultural reserve, agricultural open

[2] City of Davis. 2025. Agricultural Mitigation Requirements [webpage]. Available: https://www.cityofdavis.org/city-hall/community-development-and-sustainability/open-space-program/acquisitions/agricultural-mitigation-requirements. Accessed April 28, 2025.

space, greenbelt/agricultural buffer, Davis greenbelt or environmentally sensitive habitat areas according to land use and open space element maps must provide an agricultural buffer/agricultural transition area. In addition, if development limits or restricts opportunities to view farmlands, public access to a portion of the agricultural buffer must be provided to permit public views of farmland. Use of nonpolluting transportation methods (i.e., bikes), and use of the land to fulfill multiple policies including, but not limited to, agricultural mitigation and alternative transportation measures, meets the policy objectives of the Davis general plan. The agricultural buffer/agricultural transition area shall be a minimum of one hundred fifty feet measured from the edge of the agricultural, greenbelt, or habitat area. Optimally, to achieve a maximum separation and to comply with the five-hundred-foot aerial spray setback established by the counties of Yolo and Solano, a buffer wider than one hundred fifty feet is encouraged.

Preserved Agricultural Land

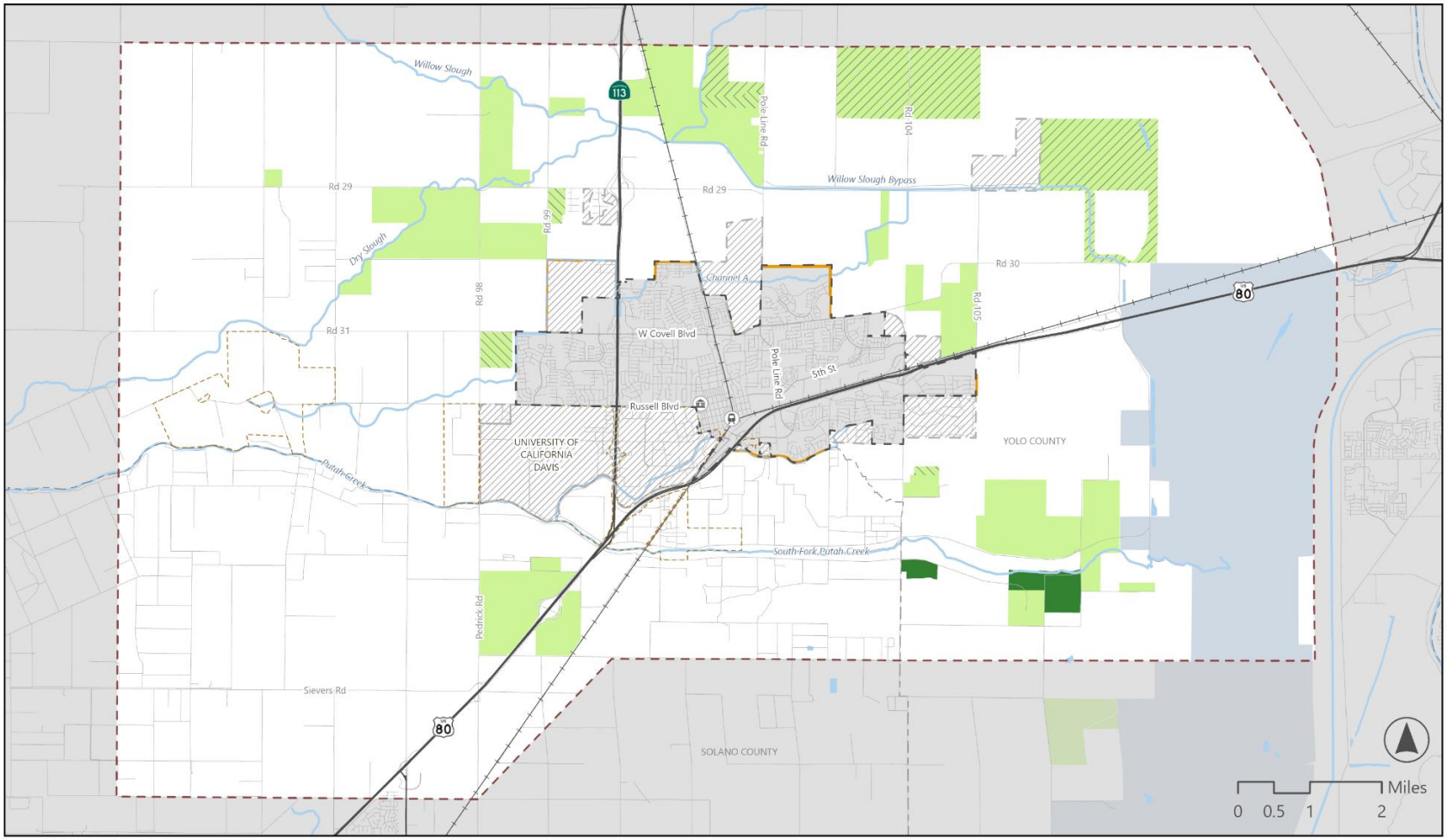
Table 1, *Preserved Agricultural Land in the Davis Planning Area*, provides the acreages of preserved agricultural land within the Davis Planning Area. **Figure 1**, *Agricultural Land Preservation in the Davis Planning Area*, shows the location protected agricultural lands within the Davis Planning Area. As shown, 17,667 acres of land within the Davis Planning Area is preserved for agricultural use. Agricultural conservation easements, including those with habitat restrictions and those required to mitigate for development, make up the largest component of preserved land with 9,024 acres, and are generally located to the north and south of the City limits. The next largest component set aside for agricultural preservation is the Yolo Bypass to the east of the City limits at 8,199 acres. Next, the City owns 348 acres of protected agricultural land to the southeast of the City limits to the north and east of Grasslands Regional Park. Finally, agricultural buffers generally located along portions of the northern and southern boundaries of the City limits total 96 acres.

Table 1. Preserved Agricultural Land in the Davis Planning Area

Preserve Land Categories	Acres
Agricultural Conservation Easements	
Regular	5,943
With Habitat Restrictions	342
Required to Mitigate for Development	2,739
Subtotal	9,024
City-Owned Protected Agricultural Land	348
City-Owned Agricultural Buffers	96
Yolo Bypass	8,199
Total	***17,667***

Source: City of Davis, 2025.

Figure 1. Agricultural Land Preservation in the Davis Planning Area



City of Davis General Plan Update

Figure 1
Agricultural Land Preservation

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), ESA (2025).

Farmland

Farmland Classification

The State of California maps and classifies farmland through the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP). Classifications are based on a combination of physical and chemical characteristics of the soil and climate that determines the degree of suitability of the land for crop production. The minimum land use mapping unit is 10 acres unless specified. The classifications under the FMMP are as follows:

- **Prime Farmland:** 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:** 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:** Farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated but may include non-irrigated 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:** Land of importance to the local agricultural economy.
- **Farmland of Local Potential:** Farmland of Local Potential is a subcategory of Farmland of Local importance and is aggregated with Farmland of Local Importance acreage in the land use conversion table. Four counties (Yolo, Santa Clara, San Luis Obispo, and Glenn counties) include Farmland of Local Potential. In Yolo County, Farmland of Local Potential is defined as Prime or Statewide soils which are presently not irrigated or cultivated.
- **Grazing Land:** Land on which the existing vegetation is suited to the grazing of livestock.
- **Urban and Built-Up Land:** Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- **Other Land:** Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural

land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.[3]

Farmland in the Davis Planning Area

Using the most recent FMMP data, farmland in the Davis Planning Area is shown in **Table 2**, *Farmland in the Davis Planning Area*, and on **Figure 2**, *Farmland in the Davis Planning Area*. As shown in Table 2, the Davis Planning Area includes 57,311 acres of Prime Farmland, 1,782 acres of Farmland of Statewide Importance, 2,436 acres of Farmland of Local Importance, 1,820 acres of Farmland of Local Potential, and 8,871 acres of Unique Farmland. Prime Farmland occupies approximately 8 acres within the City limits and approximately 1,600 acres within the SOI.[4]

Table 2. Farmland in the Davis Planning Area

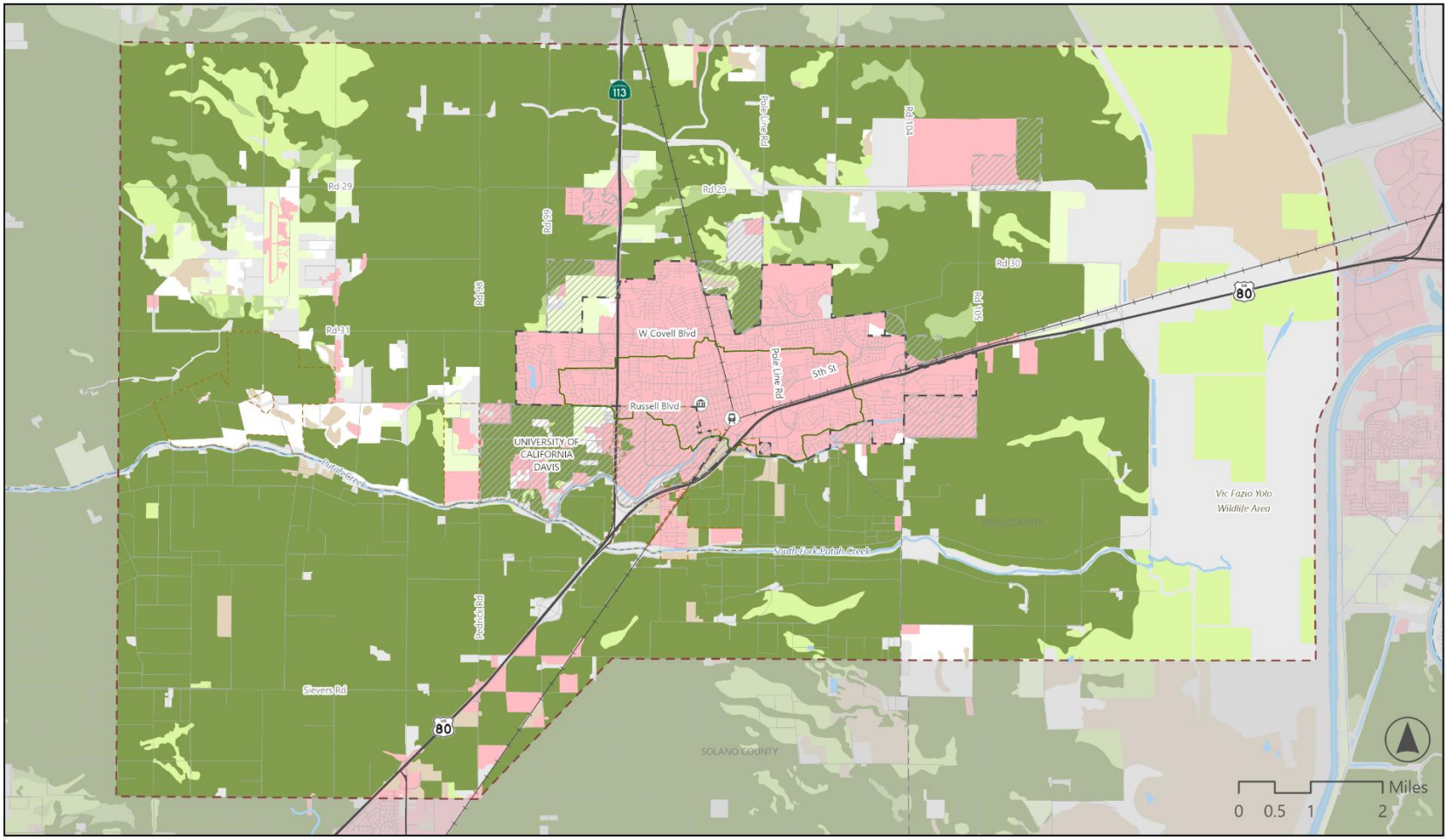
Farmland Category	Acres in City of Davis	Acres in Sphere of Influence	Acres in Remaining Planning Area	Planning Area Total Acres
Prime Farmland	8	1,608	55,695	57,311
Farmland of Statewide Importance	0.1	24	1,758	1,782
Farmland of Local Importance	90	341	2,004	2,436
Farmland of Local Potential	53	115	1,651	1,820
Unique Farmland	0.3	87	8,784	8,871
Developed	6,252	2,031	2,526	10,809
Grazing Land	54	38	3,271	3,363
Other Land	33	456	11,582	12,072
Total	***6,490***	***4,702***	***87,272***	***98,464***

Source: California Department of Conservation. 2020. Farmland Mapping & Monitoring Program, Important Farmland GIS Data for Yolo and Solano Counties.

[3] California Department of Conservation. 2025a. Important Farmland Categories [webpage]. Available: https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx. Accessed April 22, 2025.

[4] California Department of Conservation. 2025b. Farmland Mapping & Monitoring Program [webpage]. Available: https://www.conservation.ca.gov/dlrp/fmmp. Accessed April 22, 2025.

Figure 2. Farmland in the Davis Planning Area



City of Davis
Sphere of Influence
Planning Area
UC Davis Campus
County Boundary
Lakes

Amtrak Station
City Hall
Rail Lines
Highways
Roads
Bike Loop
Rivers/Creeks

Important Farmland
Prime Farmland
Farmland of Statewide Importance
Unique Farmland
Farmland of Local Importance

Grazing Land
Urban and Built Up Land
Other Land
Water

City of Davis General Plan Update

Figure 2
Important Farmland

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), California Department of Conservation (2020), ESA (2025).

Farmland Conversion Trends

According to the California Department of Conservation, farm and grazing lands in California decreased by more than 1.6 million acres between 1984 and 2018. This loss averages just over 47,000 acres per year, or about one square mile every five days. The type of farmland with the largest decrease has been Prime Farmland, which includes the best combination of physical and chemical features able to sustain long-term agricultural production. Urbanization accounts for the vast majority of this loss. Other major causes for farmland loss include land idling, habitat conversion, and rural development.

Based on FMMP historical data, between 1990 and 2020, Prime Farmland in Yolo county decreased from 261,461 acres to 243,748 acres, a decrease of 17,713 acres (or 7 percent). During this same period, Prime Farmland in Solano county decreased from 151,795 acres to 129,820 acres, a decrease of 21,975 acres (or 14 percent).[5]

Specific to the City of Davis, SOI, and remaining Planning Area, between 1990 and 2020, Prime Farmland in the City limits decreased from 1,762 acres to 8 acres, a decrease of 1,754 acres (nearly 100 percent). Prime Farmland in the SOI decreased from 2,215 acres to 1,608 acres, a decrease of 607 acres (or 27 percent). Prime Farmland in the remaining Planning Area decreased from 62,378 acres to 55,695 acres, a decrease of 6,683 acres (or 11 percent). In total, between 1990 and 2020, Prime Farmland in the Davis Planning Area decreased from 66,355 acres to 57,311 acres, a decrease of 9,043 acres (or 14 percent).[6]

Williamson Act Lands

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses. When a local government (such as a city or county) enters into a contract with the landowners under the Williamson Act, the landowner agrees to limit the use of the land to agriculture and compatible uses for a period of at least ten years and the local government agrees to tax the land at a rate based on the agricultural production of the land, rather than its real estate market value.[7]

Williamson Act lands in the Davis Planning Area are shown in **Table 3**, *Williamson Act Lands in the Davis Planning Area*, and on **Figure 3**, *Williamson Act Lands in the Planning Area*. As of 2023, there are approximately 51,392 acres of land under Williamson Act contracts the Davis

[5] California Department of Conservation. 2020. Farmland Mapping & Monitoring Program, Important Farmland GIS Data for Yolo and Solano Counties.

[6] California Department of Conservation. 2020. Farmland Mapping & Monitoring Program, Important Farmland GIS Data for Yolo and Solano Counties.

[7] California Department of Conservation. 2025c. Williamson Act Program [webpage]. Available: https://www.conservation.ca.gov/dlrp/wa. Accessed April 22, 2025.

Planning Area. The vast majority of these Williamson Act lands (51,251 acres) are located in the portions of the Davis Planning Area outside the City limits and SOI, with only 141 acres located within the SOI and none located within the City limits.

Table 3. Williamson Act Lands in the Davis Planning Area

Classification	Acres in City of Davis	Acres in Sphere of Influence	Acres in Remaining Planning Area	Planning Area Total Acres
Prime	0	49	25,591	25,639
Mixed	0	0	3,487	3,487
Nonprime	0	93	22,173	22,266
Total	***0***	***141***	***51,251***	***51,392***

Source: California Department of Conservation. 2023. Williamson Act Lands GIS Data for Yolo and Solano Counties.

Soils

The U.S. Department of Agriculture (USDA) provides the Natural Resources Conservation Service (NRCS) Soil Survey, which contains a wide range of information on the soils of an area. Soils are classified by order and type and how they can be used for agricultural uses.

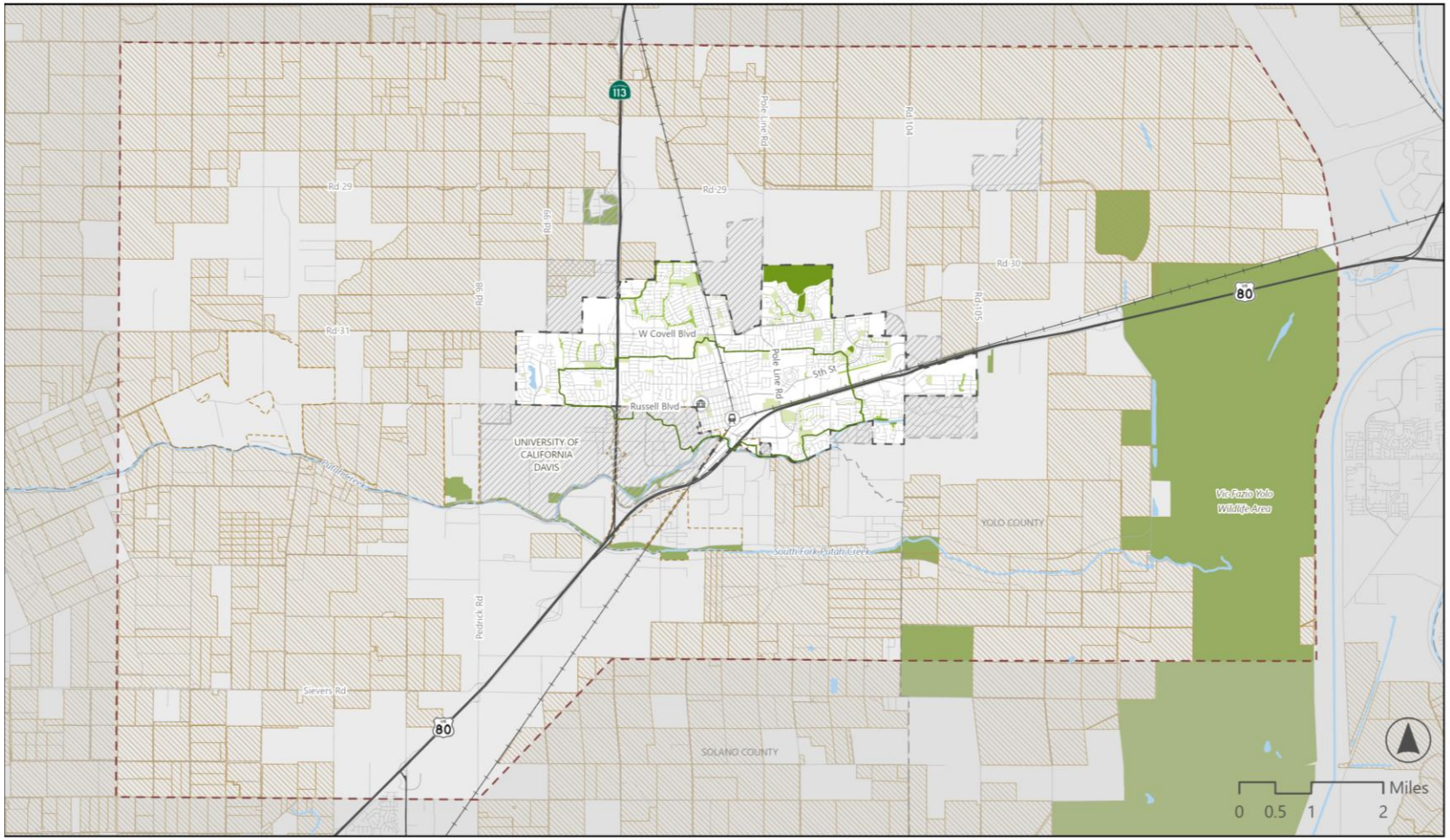
Soil Orders

A soil order is the broadest category in the USDA's Soil Taxonomy system, grouping soils with a few key, dominant diagnostic properties or soil-forming processes. There are 12 such orders (including Alfisols, Entisols, Inceptisols, Mollisols, and Vertisols) each representing a fundamental difference in soil characteristics due to factors like climate, parent material, weathering, and soil development.[8] Soil orders within the Davis Planning Area are described below.

- **Alfisols** are moderately leached soils with a subsurface accumulation of clay and relatively high base saturation. Alfisols are agriculturally favorable, especially under temperate climates, and suit a wide range of crops with routine fertility management.
- **Entisols** are very young soils with little to no profile development. Entisols are the most variable of the soils in terms of productivity and must be judged by parent material and context. Alluvial Entisols can be excellent, while sandy or very shallow Entisols are low-yielding or better left in pasture/forest or conserved.

[8] U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). The Twelve Orders of Soil Taxonomy. Available: https://www.nrcs.usda.gov/resources/education-and-teaching-materials/the-twelve-orders-of-soil-taxonomy. Accessed September 23, 2025.

Figure 3. Williamson Act Lands in the Davis Planning Area



City of Davis
Sphere of Influence
Planning Area
UC Davis Campus
County Boundary
Lakes
Amtrak Station
City Hall
Rail Lines
Highways
Roads
Bike Loop
Rivers/Creeks
Williamson Act Land

City of Davis General Plan Update

Figure 3
Williamson Act Land

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), California Department of Conservation (2023), ESA (2025).

- **Inceptisols** are soils with weakly developed horizons, more developed than Entisols but still young. Some Inceptisols are perfectly good for cropping where depth and texture are favorable; others are marginal in the absence of these conditions.
- **Mollisols** are soils with a thick, dark, organic-rich surface horizon, formed under grasslands. Mollisols are the most superior of the soil orders for conventional agriculture due to their deep, dark, nutrient-rich topsoils. Mollisols generally give the highest yields with standard management.
- **Vertisols** are clay-rich soils that shrink and swell dramatically with moisture changes. Vertisols can be highly fertile but require careful timing and special management because of extreme shrink–swell; drainage, planting timing, and machine selection to perform farm operations are critical.

Mollisols are considered best for crops while Alfisols are considered very good for agriculture. Vertisols are naturally fertile but their heavy swelling clays create management and engineering challenges while Inceptisols show only moderate soil development, so their productivity is variable. Finally, Entisols have little horizon development, occur on recent deposits or unstable landscapes, and are generally the least favorable for reliable agriculture.

Storie Index

The Storie Index is a semi-quantitative method of rating soils used mainly for irrigated agriculture based on crop productivity data collected from major California soils in the 1920s and 1930s. The Storie Index assesses the productivity of a soil from the following characteristics: the degree of soil profile development, surface texture, slope, and other conditions. A score ranging from 1 to 100 percent is determined for each factor, and the scores are then multiplied together to generate an index rating. Since 2005, the NRCS has published Storie Index ratings generated from the University of California revised Storie Index method.[9] Soils are classified by the revised Storie Index numerical ratings into six classes as follows:

- Grade 1: Excellent (81 to 100)
- Grade 2: Good (61 to 80)
- Grade 3: Fair (41 to 60)
- Grade 4: Poor (21 to 40)
- Grade 5: Very poor (11 to 20)
- Grade 6: Nonagricultural (10 or less)

Land Capability

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils does not include major and generally expensive land forming that

[9] University of California Division of Agriculture and Natural Resources. 2008. A Revised Storie Index for Use with Digital Soils Information. Available: https://anrcatalog.ucanr.edu/pdf/8335.pdf. Accessed April 22, 2025.

would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels: capability class, subclass, and unit. Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

- Class 1 soils have few limitations that restrict their use.
- Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.
- Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.
- Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.
- Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.
- Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Table 4, *Soils in the Davis Planning Area*, provides the descriptions, ratings, and acreages of the soils within the Davis Planning Area. **Figure 4**, *Soils in the Davis Planning Area*, shows the types and locations of soils within the Davis Planning Area. Overall, a substantial portion of the Davis Planning Area consists of high-quality agricultural soil, and most of this quality soil is located outside the City limits and SOI. With respect to the best soil orders for agriculture, Mollisols comprise approximately 13,601 acres (or 14 percent) of the Davis Planning Area, with 14 acres located in the SOI and 14,344 acres located in the remaining Davis Planning Area, while Alfisols comprise 19,429 acres (or 20 percent) of the Davis Planning Area, with 747 acres located within the SOI and 18,128 acres located in the remaining Davis Planning Area. Concerning the best Storie Index soil ratings for agriculture, Grade 1 (excellent) soils comprise 35,161 acres (or 36 percent) of the Davis Planning Area, with 2,962 acres located in the SOI and 27,874 acres located in the remaining Davis Planning Area, while Grade 2 (good) soils comprise 28,550 acres (or 29 percent) of the Davis Planning Area, with 612 acres located in the SOI and 26,646 acres located in the remaining Davis Planning Area. Finally, with respect to the best land capability classifications for agriculture, Class 1 soils (i.e., soils that have few limitations that restrict their use) comprise approximately 37,814 acres (or 38 percent) of the Davis Planning Area, with 3,168 acres located in the SOI and 29,563 acres located in the

remaining Davis Planning Area, while Class 2 soils (i.e., soils that have moderate limitations that reduce the choice of plants or that require moderate conservation practices) comprise 38,955 acres (or 40 percent) of the Davis Planning Area, with 919 acres located in the SOI and 36,834 acres located in the remaining Davis Planning Area.

Table 4. Soils in the Davis Planning Area

Soil Order	Soil Type	Storie Index Rating	Irrigated Land Capability Class	Non-Irrigated Land Capability Class	Acres in City of Davis	Acres in Sphere of Influence	Acres in Remaining Planning Area	Planning Area Total Acres
Alfisols	Corning gravelly loam, 0 to 12 percent slopes, MLRA 17	25	N/A	4			612	612
	Hillgate loam, 0 to 2 percent slopes, MLRA 17	50	2	4			379	379
	Hillgate loam, moderately deep, 0 to 2 percent slopes	63	3	4			1,178	1,178
	Marvin silty clay loam	65	2	4	190	39	1,945	2,174
	Pescadero silty clay	35	3	6	4	42	191	238
	Pescadero silty clay loam, 0 percent slopes, MLRA 17	45	3	4			332	332
	Pescadero silty clay, saline-alkali	14	4	6	132	253	983	1,368
	Pescadero soils, flooded	15	4	6			265	265
	Rincon clay loam, 0 to 2 percent slope	86	2	4			1,818	1,818
	Rincon silty clay loam	73	2	3	165	323	7,783	8,271
	Riz loam	45	4	4		4	719	723
	Riz loam, flooded	24	4	4			593	593
	San Ysidro loam, 0 to 2 percent slopes, MLRA 17	50	4	4			906	906
	San Ysidro sandy loam, 0 to 2 percent slopes	67	4	4			119	119
	Tehama loam, 0 to 2 percent slopes, loamy substratum, MLRA 17	72	2	4			305	305
	Zamora loam	95	1	4	60	86		147

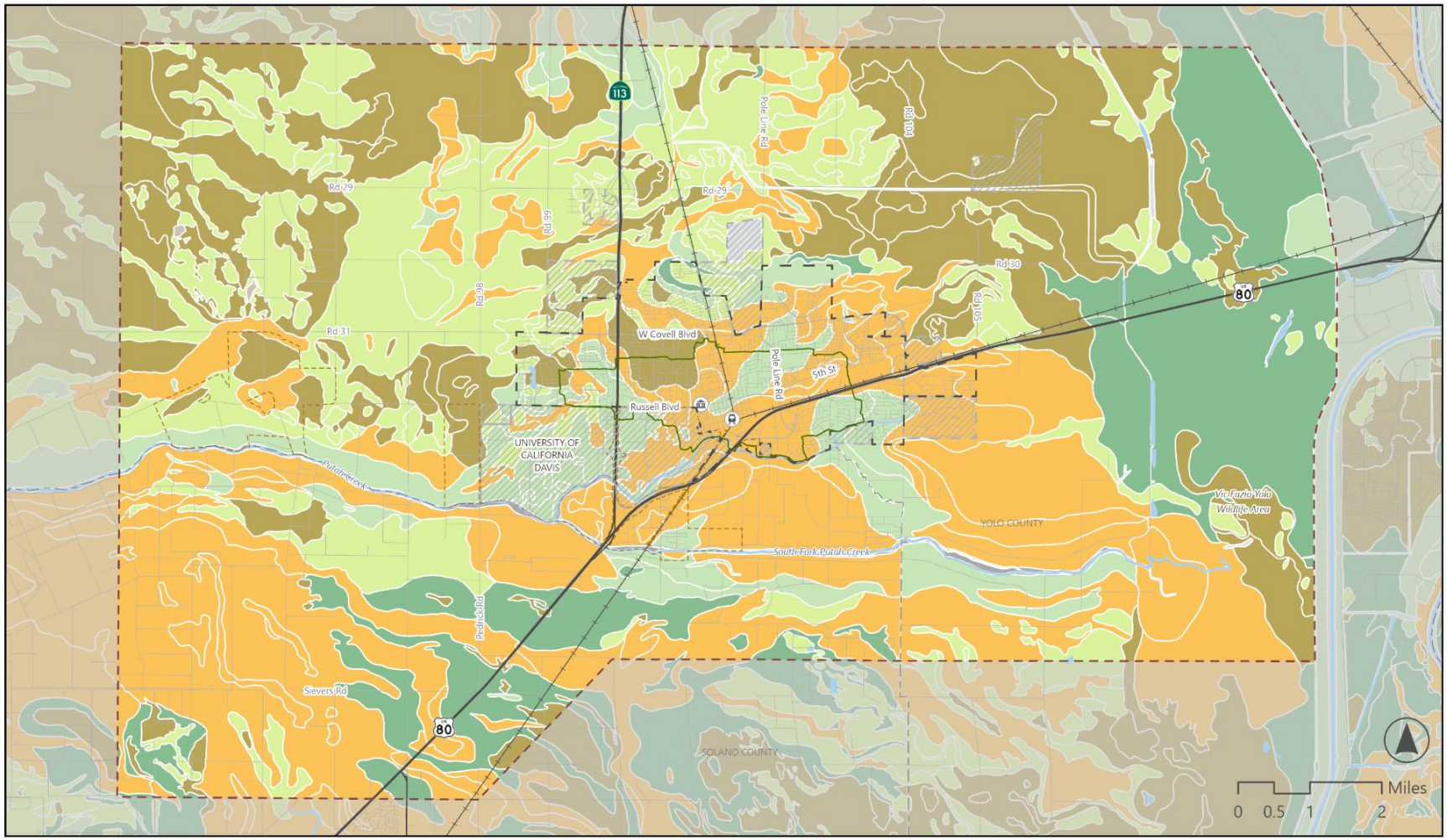
Soil Order	Soil Type	Storie Index Rating	Irrigated Land Capability Class	Non-Irrigated Land Capability Class	Acres in City of Davis	Acres in Sphere of Influence	Acres in Remaining Planning Area	Planning Area Total Acres
Entisols	Loamy alluvial land	59	4	4		26		26
	Reiff fine sandy loam	100	1	4		60	701	761
	Reiff gravelly loam	71	2	4	6		23	28
	Reiff very fine sandy loam	100	1	4	988	695	661	2,345
	Valdez complex, flooded	41	4	4			314	314
	Yolo loam, clay substratum	95	2	4			915	915
	Yolo silt loam, 0 to 2 percent slopes, MLRA 17	100	1	4	596	927	2,650	4,173
Inceptisols	Brentwood clay loam, 0 to 2 percent slopes	90	1	4			1,852	1,852
	Brentwood silty clay loam, 0 to 2 percent slopes	81	1	4	256	158	3,265	3,680
	Sycamore complex, drained	61	1	4	187	159	2,946	3,292
	Sycamore complex, flooded	26	4	4			1,279	1,279
	Sycamore silt loam, drained, 0 percent slopes, MLRA 17	90	1	4	1,564	752	1,134	3,450
	Sycamore silt loam, flooded	45	4	4			711	711
	Sycamore silty clay loam, drained, 0 percent slopes, MLRA 17	77	1	4	547	6	1,383	1,936
	Sycamore silty clay loam, drained, 0 to 2 percent slopes, MLRA 14	77	1	4	23	41	93	157
	Tyndall very fine sandy loam, drained	81	1	4	311	1	118	430
	Yolo loam, 0 to 4 percent slopes, MLRA 17	100	1	4	38	92	5,081	5,211
	Yolo silty clay loam, 0 to 2 percent slopes, MLRA 17	90	1	4	509	191	9,679	10,379

Soil Order	Soil Type	Storie Index Rating	Irrigated Land Capability Class	Non-Irrigated Land Capability Class	Acres in City of Davis	Acres in Sphere of Influence	Acres in Remaining Planning Area	Planning Area Total Acres
Mollisols	Capay silty clay loam, 0 percent slopes, MLRA 17	64	2	4			4,393	4,393
	Merritt complex, saline-alkali	27	4	4	64	14	108	186
	Sacramento clay, drained	46	2	4			311	311
	Sacramento silty clay loam, drained	73	2	4			954	954
	Sacramento soils, flooded	30	4	4			7,757	7,757
Vertisols	Capay clay, 0 percent slopes, MLRA 17	64	2	4			821	821
	Capay soils, overwash, 0 percent slopes, frequently flooded, MLRA 17	34	4	4			124	124
	Capy silty clay, 0 percent slopes, MLRA 17	50	2	4	621	148	8,668	9,437
	Clear Lake clay, 0 to 1 percent slopes, MLRA 17	32	2	4		278	2,842	3,120
	Clear Lake clay, 0 to 2 percent slopes, MLRA 17	49	2	4			34	34
	Clear Lake soils, flooded	31	4	4		16	1,608	1,624
	Myers clay, 0 to 1 percent slopes, MLRA 17	67	2	4	174	44	4,703	4,922
	Sehorn clay, 2 to 15 percent slopes	41	3	4			182	182
	Sehorn cobbly clay, 2 to 15 percent slopes	32	3	4			312	312
	Willows clay, 0 percent slopes, drained, sodic, MLRA 17	22	4	4		2	564	566
	Willows clay, 0 percent slopes, MLRA 17	29	2	4	36	97	940	1,073
	Willows clay, 0 percent slopes, sodic, MLRA 17	10	4	4	16	81	48	144
	Willows soils, overwash, 0 percent slopes, frequently flooded, MLRA 17	15	4	4			1,072	1,072

Soil Order	Soil Type	Storie Index Rating	Irrigated Land Capability Class	Non-Irrigated Land Capability Class	Acres in City of Davis	Acres in Sphere of Influence	Acres in Remaining Planning Area	Planning Area Total Acres
	Gravel pits	N/A	N/A	N/A			29	29
	Miscellaneous water	N/A	N/A	N/A		147		147
	River wash	N/A	N/A	N/A		2	201	203
	Other	N/A	N/A	N/A			190	190
	Water	N/A	N/A	N/A		16	478	494
				Totals	***6,490***	***4,702***	***87,272***	***98,464***

SOURCE: NRCS (Natural Resources Conservation Service). 2025. Soil Survey Geographic Database (SSURGO) of Yolo and Solano Counties. Soil types by Storie Rating [online database]. Available: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed September 22, 2025.

Figure 4. Soils in the Davis Planning Area



City of Davis
Sphere of Influence
Planning Area
UC Davis Campus
County Boundary
Lakes

Amtrak Station
City Hall
Rail Lines
Highways
Roads
Bike Loop
Rivers/Creeks

Soil Types
Alfisols
Entisols
Inceptisols
Mollisols
Vertisols
Bodies of Water

No Soil
Data Not Available

City of Davis General Plan Update

Figure 4
Soils

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), U.S. Department of Agriculture (2024), ESA (2025).

BIOLOGICAL RESOURCES

Introduction

This section provides an overview of the biological resources present within Davis and its Planning Area. It describes the region's major habitat types, native plant and wildlife species, and key ecological areas including riparian corridors, wetlands, grasslands, and open space preserves. This section also highlights both historical and current habitat conditions, identifying sensitive and special-status species that are protected under federal, State, or local regulations. It outlines the ongoing conservation and restoration efforts undertaken by Davis in collaboration with regional partners. Additionally, the section discusses regulatory frameworks that guide local resource protection, such as the Yolo HCP/NCCP, and outlines ongoing initiatives to enhance habitat quality, preserve biodiversity and maintain ecological connectivity across the region.

Background

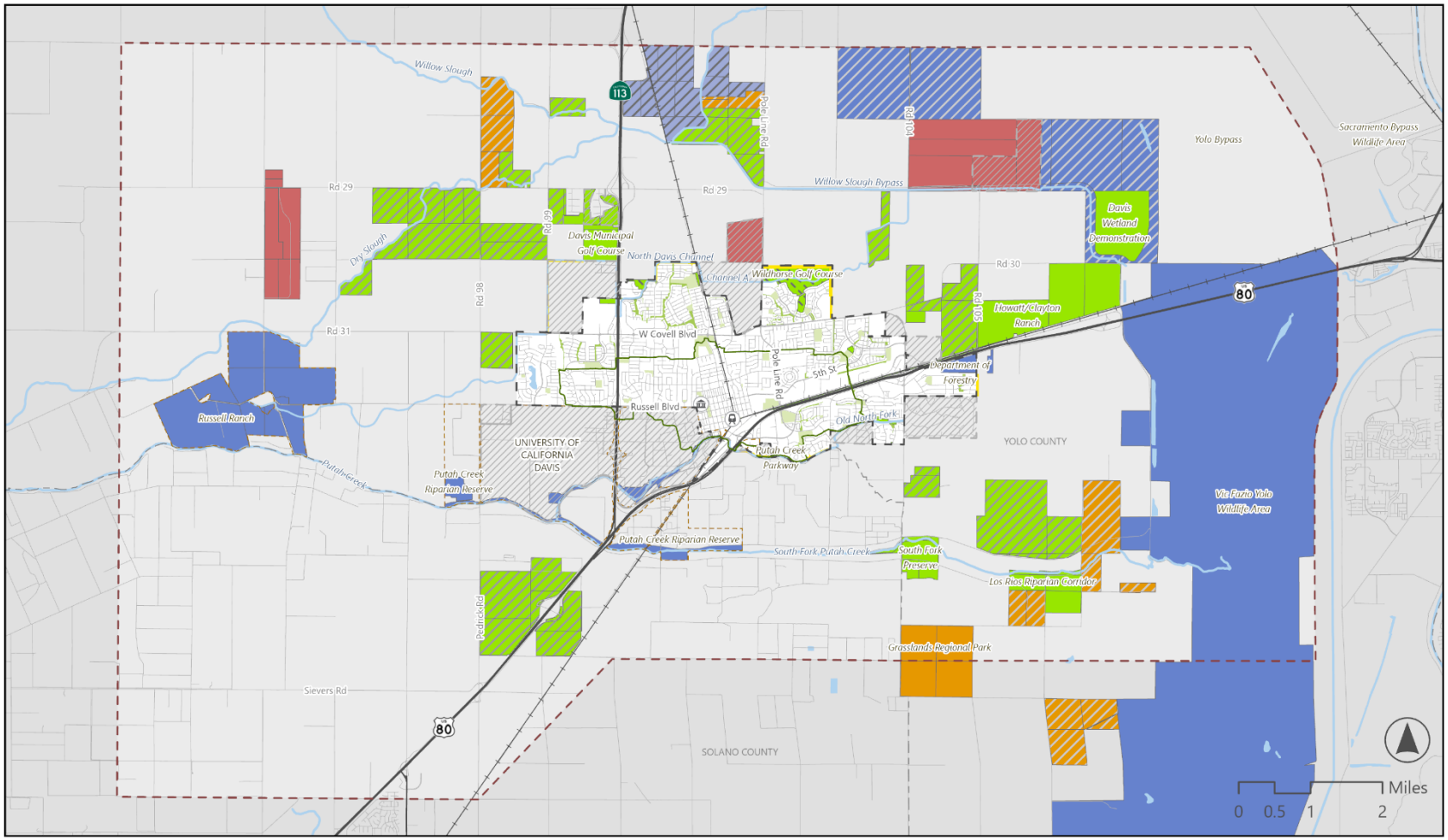
Prior to urban development and widespread agricultural land conversion, Davis and its Planning Area were characterized by native habitats including expansive grassland interspersed with valley oak woodlands, seasonal wetlands and alkali vernal pools, and riparian corridors along natural creeks and waterways. These riparian areas served as ecological corridors supporting native tree species including willows (*Salix* spp.), California sycamore (*Platanus racemosa*), box elder (*Acer negundo*), and various oak species (*Quercus* spp.),[10] contributing to the region's ecological richness. Together these habitat types provided essential resources to support a range of native wildlife and plant species.

Although urban development and population growth have significantly reduced the extent of these natural habitats within the City limits, Davis has made consistent efforts to restore and enhance natural areas throughout its Planning Area. These efforts include the integration of greenscapes and the enhancement of the City's greenbelt system with native vegetation.[11] Through targeted restoration projects on City-owned lands, Davis has expanded habitat for both resident and migratory wildlife species while reestablishing native plant communities across key locations in the Davis Planning Area (**Figure 5**, *Open Space and Natural Areas in the Davis Planning Area*). In addition, the City maintains a robust urban forest and an

[10] City of Davis. 2007. "Section VI: Community Resources Conservation, Chapter 14: Habitat, Wildlife, and Natural Areas." In *Davis General Plan*. Pages 283-288.

[11] City of Davis. 2024. Open Space Program: Overview and Updates [webpage]. Community Development & Sustainability Department. Available: https://www.cityofdavis.org/city-hall/community-development-and-sustainability/open-space-program. Accessed April 19, 2025.

Figure 5. Open Space and Natural Areas in the Davis Planning Area



City of Davis General Plan Update

Figure 5
Open Space and Natural Areas

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), ESA (2025).

extensive greenbelt network within the urban core. These features not only improve habitat connectivity and facilitate wildlife movement, but also provide forage and cover for a variety of protected, locally rare, and common species.

Davis and its Planning Area are strategically located along the Pacific Flyway, a key migratory route for millions of birds traveling between their breeding and wintering grounds.[12] The city also lies in the eastern portion of the Putah Creek Plain, a prominent landscape feature in the southwestern Sacramento River Valley. Just northeast of Davis is the Yolo Bypass, a vital ecological and floodplain zone within the Davis Planning Area. Spanning 16,800 acres, including roughly 6,000 acres of seasonal and permanent wetlands, the Bypass provides critical habitat for numerous species such as beavers, otters, mink, turtles, fish, snakes, and a wide variety of birds.[13] Seasonally flooded agricultural fields, including rice crops, also offer essential foraging habitat for migratory birds and support species of concern such as the State and federally threatened giant garter snake (*Thamnophis gigas*).[14]

Habitat Communities in the Davis Planning Area

Within the Davis Planning Area, restored and repurposed land support a variety of habitat types that provide both ecological value and plant and wildlife community benefits. One such habitat type are fresh emergent wetlands, which are typically found in low-lying areas with seasonally or periodically saturated soils. These types of wetlands are usually dominated by hydrophytic, or "water loving," vegetation that include key native species such as saltgrass (*Distichlis spicata*), common cattail (*Typha latifolia*), arrowhead (*Sagittaria* spp.), and various species of bulrush (*Schoenoplectus* spp.).[15] Such natural communities provide habitat for wildlife and contribute to flood attenuation. **Figure 6**, *Habitats in the Davis Planning Area,* illustrates the distribution of habitat types across the Davis Planning Area, including the 400-acre Davis Wetlands, a constructed wetland system developed by the U.S. Army Corps of Engineers, in 1998, in partnership with Davis.[16]

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[12] Yolo Basin Foundation. 2016. About the Yolo Bypass Wildlife Area [webpage]. Available: https://yolobasin.org/yolobypasswildlifearea/. Accessed April 17, 2025.

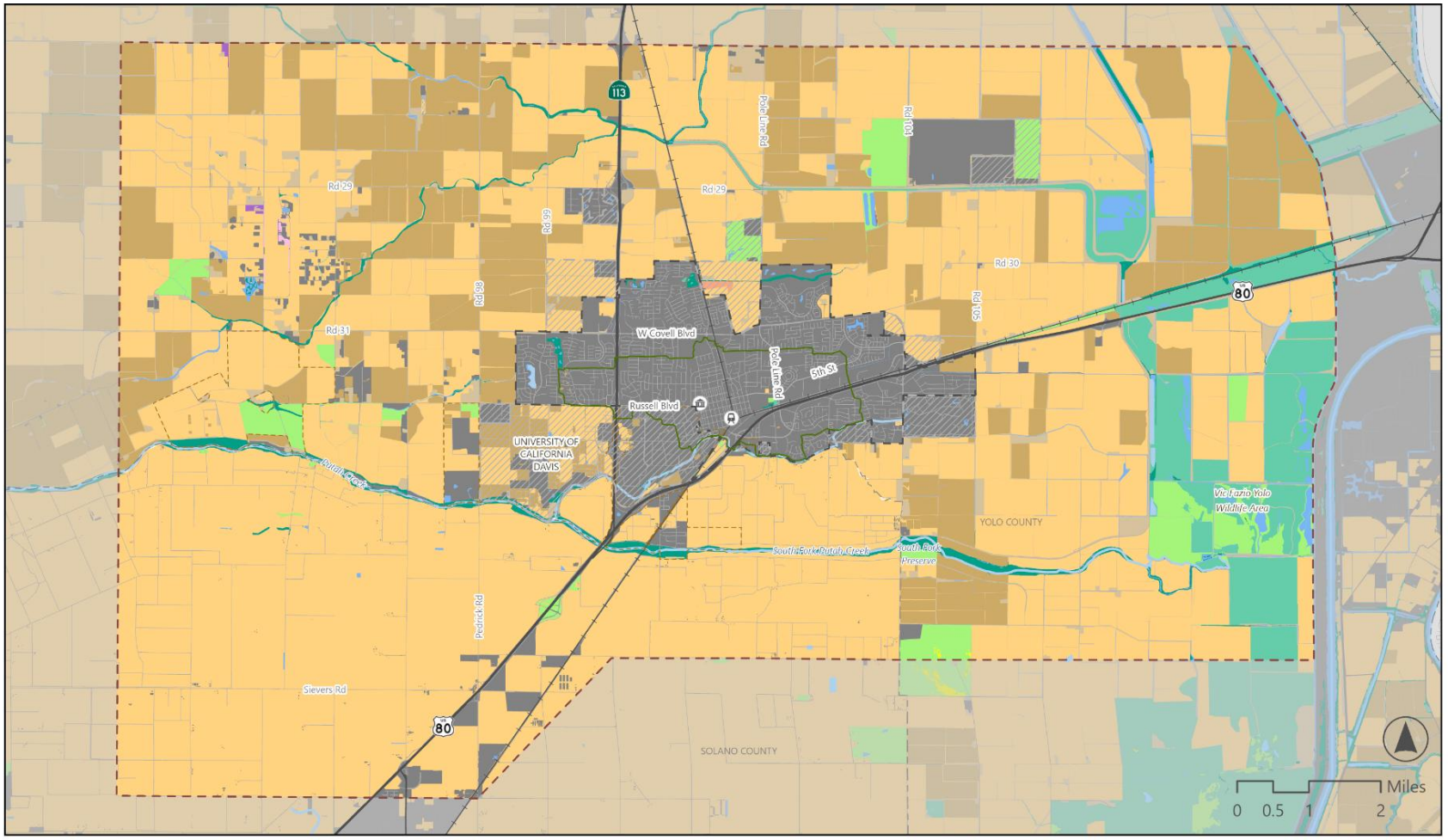
[13] CDFG. 2008. *Land Management Plan for the Yolo Bypass Wildlife Area*. Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=84924&inline. Accessed April 17, 2025.

[14] USFWS (U.S. Fish and Wildlife Service). 2025. Information for Planning and Consultation (IPaC) [online database]. Available: https://ipac.ecosphere.fws.gov/. Accessed March 30, 2025.

[15]California Department of Fish and Wildlife, Biogeographic Data Branch, 2021. California Wildlife Habitat Relationship System, Version 10. Sacramento, CA. Accessed October 6, 2025.

[16] City of Davis. 2025. Open Space Program: Overview and Updates [webpage]. Community Development & Sustainability Department. Available https://www.cityofdavis.org/city-hall/community-development-and-sustainability/open-space-program/open-space-areas/davis-wetlands. Accessed September 27, 2025.

Figure 6. Habitats in the Davis Planning Area



City of Davis
Sphere of Influence
Planning Area
UC Davis Campus
County Boundary
Lakes

Amtrak Station
City Hall
Rail Lines
Highways
Roads
Bike Loop
Rivers/Creeks

Habitat Types
Cultivated Lands
Other Agriculture
Semiagricultural/Incidental to Agriculture
Developed
Annual Grassland
Alkali Prairie

Vernal pool complex
Fresh Emergent Wetland
Lacustrine and Riverine
Valley Foothill Riparian
Eucalyptus
Barren

City of Davis General Plan Update

Figure 6
Habitats

Source: City of Davis (2025), UC Davis (2025), Yolo County (2023), Solano County (2023), CalTrans (2025), ESA (2025)

Another major habitat type that historically characterized Davis are annual grasslands. These grasslands were dominated by native species such as perennial bunchgrasses, like purple needlegrass (*Stipa pulchra*). Today annual grasslands are largely dominated by introduced species, including wild oats (*Avena fatua*), soft chess (*Bromus hordeaceus*), red brome (*Bromus rubens*), and foxtail barley (*Hordeum murinum*). Grasslands were not only found in open plains but also formed part of the understory in valley oak woodlands, which you can still see among stands of oak trees throughout the Davis Planning Area.

Located within the Davis Planning Area, Grasslands Regional Park is a 320-acre facility located approximately 2.5 miles to the south of the southeastern edge of the city that is owned by Yolo County. This open space has undergone restoration efforts to reestablish native plant communities and habitat types historically present in the area. It provides important habitat for several sensitive species, including the burrowing owl, a species of special concern and proposed candidate for listing by the State, and offers foraging habitat for the State-listed threatened Swainson's hawk. The park also contains seasonal vernal pools, another sensitive habitat type that supports unique flora and fauna.

Putah Creek, a major natural feature in the region, runs through the southern portion of the city and within portions of the Davis Planning Area and serves as an important ecological corridor. A segment of the creek is incorporated into the UC Davis Putah Creek Riparian Reserve, a 640-acre area dedicated to habitat restoration, scientific research, and long-term conservation. The reserve contains both riparian and grassland habitats, contributing significantly to regional biodiversity.[17]

The valley foothill riparian plant community within the reserve supports a diverse assemblage of native trees, including California buckeye (*Aesculus californica*), black walnut (*Juglans nigra*), Fremont cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), red willow (*Salix laevigata*), yellow willow (*Salix lutea*), and Goodding's willow (*Salix gooddingii*). Native shrubs such as coyote brush (*Baccharis pilularis*), mulefat (*Baccharis salicifolia*), and common buttonbush (*Cephalanthus occidentalis*) further enhance the area's structural and ecological complexity.

Another example of high-value riparian habitat in the Davis Planning Area is the South Fork Riparian Preserve—at 120 acres, it is the largest open space area in the city. Located along the South Fork of Putah Creek, the preserve features walking trails through a mix of riparian, upland, and grassland/oak savanna habitats. Formerly used for row crop agriculture, the site has undergone significant restoration efforts to reestablish native vegetation and natural habitat conditions. Today, the South Fork Riparian Preserve supports local biodiversity, contributes to ecological connectivity along the creek corridor, and offers opportunities for passive recreation, nature education, and community engagement.

[17] CDFW (California Department of Fish and Wildlife). 2025. Putah Creek Wildlife Area: Bay Delta Region (Region 3) [webpage]. Available: https://wildlife.ca.gov/Lands/Places-to-Visit/Putah-Creek-WA. Accessed April 17, 2025.

Finally, commercial and conservation easement agricultural lands within the Davis Planning Area, including grain and hay fields, deciduous fruit orchards, and vineyards, also contribute to the local ecological fabric by providing important resources for wildlife.[18] These crops offer foraging opportunities for pollinators and, during certain agricultural activities such as tilling, can benefit raptors such as the State-listed threatened Swainson's hawk. As fields are disturbed, small mammals like voles (*Microtus californicus*) and ground squirrels (*Otospermophilus beecheyi*) that use these areas for cover and habitat become more visible, increasing prey availability for predatory birds and other wildlife. Some of the agricultural lands are Swainson's hawk conservation easements, which were formed through a partnership between Davis and a farmer to further provide foraging habitat for the species.

Urban Wildlife

Within the Davis Planning Area, a variety of urban and alternative-use facilities provide essential habitat for wildlife and contribute to the City's broader biodiversity goals. These landscapes, though primarily designed for infrastructure, recreation, or educational purposes, also serve as informal ecological resources that support native species, enhance habitat connectivity, and integrate natural systems into the urban fabric.

Two notable examples include the Julie Partansky Pond and the West Area Pond, both managed by the Davis Public Works Department. While their primary function is stormwater detention, these man-made seasonal wetlands have also become important secondary habitat areas.[10] Over time, they have developed into informal refuges for waterfowl and other wildlife and serve as popular locations for birdwatching and nature observation.

Adjacent to the UC Davis Putah Creek Riparian Reserve, the UC Davis Arboretum spans approximately 119 acres along the north channel of Putah Creek. This botanical landscaped area supports a diverse assemblage of native and non-native plant species, including trees, shrubs, and herbaceous vegetation. The structural complexity of this vegetation contributes to ecological function within the urban setting by offering foraging resources, cover, and nesting sites. Additionally, the Arboretum enhances habitat connectivity along the creek corridor and serves as a green link between urban and natural areas.

A wide range of urban-adapted wildlife species are regularly observed within the City limits and open spaces. Notable examples include western bluebirds (*Sialia mexicana*), American robins (*Turdus migratorius*), black phoebes (*Sayornis nigricans*), wild turkeys (*Meleagris gallopavo*), western fence lizards (*Sceloporus occidentalis*), Sierran tree frogs (*Pseudacris sierra*), Pacific gopher snakes (*Pituophis catenifer* ssp. *catenifer*), and western honeybees (*Apis mellifera*), among many others. These regular wildlife sightings reflect the success of

[18] City of Davis. 2024. Open Space Program: Habitat Restoration and Enhancement [webpage]. Community Development & Sustainability Department. Available: https://www.cityofdavis.org/city-hall/community-development-and-sustainability/open-space-program/habitat-restoration-and-enhancement. Accessed April 19, 2025.

the City's ongoing efforts to support urban biodiversity and integrate natural systems into the built environment.

Special-Status Species

Special-status wildlife species and native plants were once widespread throughout the Central Valley, including Davis and its Planning Area. However, extensive agricultural development, flood control, and urbanization have significantly reduced their presence. Despite this decline, some special-status species still occur within the city's boundaries and surrounding regions where suitable habitat remains.

Species identified in the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) include those that are candidates, proposed, or currently threatened or endangered and receive protections under the federal Endangered Species Act (FESA), the Migratory Bird Treaty Act (MBTA), as well as those protected under the California Endangered Species Act (CESA).[19] Many are also designated as Species of Special Concern[20] or Fully Protected[21] under State law. Davis and the surrounding areas also support several wildlife species that do not have State or federal protections but are considered locally rare and/or have limited habitat.

In addition to the CNDDB, the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Plants of California* serves as a critical resource in identifying sensitive plant species that may occur within the region. This inventory includes plants ranked according to rarity, endangerment, and distribution, many of which are not formally listed under the FESA or CESA but are still considered of high conservation concern[22].

The CNDDB and CNPS rare plant inventory combined provide a vast database of special-status species and consultants and regulators frequently refer to it to determine what species have potential to occur within a project area. Agency staff then use these assessments to determine which species will require regulatory protections within a project area.

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[19] CDFW. 2025. *California Natural Diversity Database (CNDDB) Management Framework*. Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=181808&inline. Accessed March 30, 2025.

[20] CDFW. 2025. Conservation: Species of Special Concern [webpage]. Available: https://wildlife.ca.gov/Conservation/SSC. Accessed March 30, 2025.

[21] CDFW. 2025. Conservation: Fully Protected Animals [webpage]. Available: https://wildlife.ca.gov/Conservation/Fully-Protected. Accessed March 30, 2025.

[22] CNPS (California Native Plant Society). 2025. A Manual of California Vegetation Online: *Introduction* [webpage]. Available: https://vegetation.cnps.org/overview/introduction. Accessed March 30, 2025.

Table 5, *Special- Status Species with Potential to Occur in the Davis Planning Area*, summarizes special-status plants and animals with a low to high likelihood of occurring in the vicinity of the city, based on the presence of suitable habitat and available regional survey data.[23] Some species are confirmed as present through documentation in the CNDDB,[24] City staff observations;[25] or other biological reports prepared for Davis.[26] **Figure 7**, *Special-status Species Occurrences Within a 2-mile Radius of the Davis Planning Area*, shows the different occurrence records in the CNDDB within a 2-mile radius of the Davis Planning Area.

The likelihood of species occurrence is categorized as follows:

- **Low** – The area falls within the species' known range, and suitable habitat may or may not be present. However, the species has not been recorded in the area within the past 30 years.
- **Moderate** – The area is within the species' known range, and suitable habitat is present. Records of the species in the area are either historical, uncertain, or unavailable.
- **High** – The area is within the species' known range, suitable habitat is present, and one or more recent (within the last 30 years) records exist for the species in the area.
- **Present** – The species has been confirmed in the area through recent, verifiable documentation.

Yolo Habitat Conservation Plan/Natural Community Conservation Plan

In 2018, the Yolo Habitat Conservancy finalized the Yolo HCP/NCCP, which was officially adopted by five communities within Yolo county on January 11, 2019, including Davis. This comprehensive, long-term conservation plan provides a framework for balancing development and infrastructure needs with the protection of natural resources over the next 50 years.[27] It is designed to mitigate the impacts of growth by conserving habitat and supporting the recovery of species listed under the FESA and California Natural Community Conservation Plan Act (NCCPA) that may occur within the county.

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[23] CNPS Inventory of Rare Plants [online database]. Quad Search Results: Davis, Merritt. Available: https://www.cnps.org/rare-plants/cnps-inventory-of-rare-plants. Accessed March 30, 2025.

[24] CDFW. 2025. CNDDB Data Query [online database]. Quad Search Results: Davis, Merritt. Available: https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx. Accessed March 30, 2025.

[25] City of Davis. 2025. City of Davis Urban Wildlife Program unpublished data. Pers. comm. July 16, 2025.

[26] Madrone (Madrone Ecological Consulting, LLC). 2024. *Biological Resources Assessment for Village Farms Davis*. Prepared for North Davis Land Company, LLC. August 13, 2024.

[27] Yolo Habitat Conservancy. 2018. Yolo Habitat Conservation Plan/Natural Community Conservation Plan. Available: https://www.yolohabitatconservancy.org/__files/ugd/8f41bd_25d71974d7db4063afb21e687a44699f.pdf. Accessed April 17, 2025.

Table 5. Special-Status Species with Potential to Occur in the Davis Planning Area

Species Name	Protected Status and Habitat Requirements	Potential to Occur
Birds		
tricolored blackbird *Agelaius tricolor*	*California Threatened.* Typically requires open water, protected nesting substrate, and foraging grounds within vicinity of the nesting colony. Nests in dense thickets of cattails, tules, or blackberry shrubs, and occasionally in wheat and other taller crop fields. Forages in grasslands.	**Present.** Freshwater emergent marsh and blackberry brambles within the Davis Planning Area provides suitable nesting habitat for the species. Foraging habitat is available in the grassland areas within the Davis Planning Area. The Yolo Bypass Wildlife Area contains tule marsh habitat which provides suitable habitat for nesting colonies. Multiple occurrences of tricolored blackbird are recorded in the CNDDB within the Davis Planning Area.
burrowing owl *Athene cunicularia*	*California Proposed for Listing, currently California Species of Special Concern*. Found throughout California in dry open areas, usually in disturbed and ruderal habitats, flat areas with short grass and bare soil such as prairies and grasslands. Species claim previously occupied burrows made by ground squirrels for cover and nesting.	**Present.** Species known to occur in the Davis Planning Area. The Davis Planning area offers suitable foraging habitat and a substantial amount of ground squirrel burrows for cover and nesting.
Swainson's hawk *Buteo swainsoni*	*California Threatened.* Forages in open plains, grasslands, and prairies. Typically nests in trees or large shrubs, near riparian areas.	**Present.** Species occurs in the Central Valley, has been recorded nesting along Putah Creek, Covell Drain, and throughout the urban forest canopy in Davis. An abundance of foraging habitat is present within the Davis Planning Area.

Species Name	Protected Status and Habitat Requirements	Potential to Occur
northern harrier *Circus hudsonius*	*California Species of Special Concern*. Nests in emergent wetland marshes, open grasslands, and savannah habitats. Forages in open areas such as agricultural fields, grasslands, and wetlands.	**Present.** The Davis Planning Area offers substantial foraging areas and the grassland and wetland/ marsh habitat areas provide suitable nesting sites for this ground-nesting species. They are often observed foraging in the Yolo Bypass Wildlife Area and in and around agricultural fields.
white-tailed kite *Elanus leucurus*	*California Fully Protected*. Found in open grasslands, fields, and meadows used for foraging. Prefers trees close to foraging habitat, used for perching and nesting.	**Present.** Alkali prairies, grain and hay crops, provide suitable foraging habitat for this species. Suitable trees are available for nesting within the Davis urban canopy and other suitable locations in the Davis Planning Area
yellow-billed magpie *Pica nuttalli*	*Locally Rare in Davis.* Permanent resident of open oak woodlands and grasslands of central California. Will use orchards and urban forests to nest. Feed in agricultural fields, open spaces and on anthropogenic sources.	**Present.** Nesting and foraging habitat present within the Davis Planning Area. Once abundant, the species population in the Davis Planning Area has declined by 50 percent. Nesting has not been documented in the City limits since the early 2000s.
purple martin *Progne subis*	*California Species of Special Concern.* Nests in bridge weep holes and natural cavities in mature trees and cliff faces. Forages on aerial insects, especially dragonflies.	**Present.** Known to nest in small numbers within weep holes under the Pole line overcrossing and Dave Pelz Bike Overpass in Davis. Likely to occur in other suitable nest sites in the Davis Planning Area.
Mammals		
pallid bat *Antrozous pallidus*	*California Species of Special Concern*. Species roosts in crevices in rocky outcrops, cliffs, caves, mines, trees cavities, and human-made structures such as bridges.	**High.** Suitable roosting habitat present within surrounding areas of Davis; tree hollows present, many trees with exfoliating bark where species can also roost.

Species Name	Protected Status and Habitat Requirements	Potential to Occur
western gray squirrel *Sciurus griseus*	*Locally Rare in Davis.* Permanent resident of valley riparian habitats of California, Oregon and Washington. Largely aboral, rarely coming to the ground to forage. Nests in tree cavities or spherical nests in the tree canopy.	**Present.** Nesting and foraging habitat present within valley riparian habitat in the Davis Planning Area. Once widespread, the species currently only occupies the riparian canopy of Putah creek including the remnant North fork channel that runs through south Davis.
Sacramento Valley red fox *Vulpes vulpes patwin*	*California Species of Special Concern.* Not much is known about specific habitat needs for this species, but recent research suggests they associate with dry agriculture, human development and close proximity to grassland communities. Friable soils are required for den excavation.	**Present.** Denning and foraging habitat is present along the remanent North Fork of Putah Creek in south Davis. The species currently breeds within the City limits and likely dens in other suitable locations within the Davis Planning Area.
Amphibians		
California tiger salamander *Ambystoma californiense*	*Federally threatened/California threatened.* Species breed in ephemeral wetland features such as seasonal wetlands, vernal pools, and swales. After undergoing metamorphosis they seek upland refugia in small mammal burrows.	**Low.** Seasonal wetlands and vernal pools are within the Davis Planning Area. Only one occurrence record in the CNDDB was documented in the Davis Planning Area over 30 years ago.
western spadefoot *Spea hammondii*	*Federally Proposed Threatened, California Species of Special Concern.* Species breed in ephemeral wetland features such as seasonal wetlands, vernal pools, and swales. After undergoing metamorphosis they seek upland refugia in small mammal burrows.	**Low.** Seasonal wetlands and vernal pools are within the Davis Planning Area. Only one occurrence record in the CNDDB was documented in the Davis Planning Area over 50 years ago.

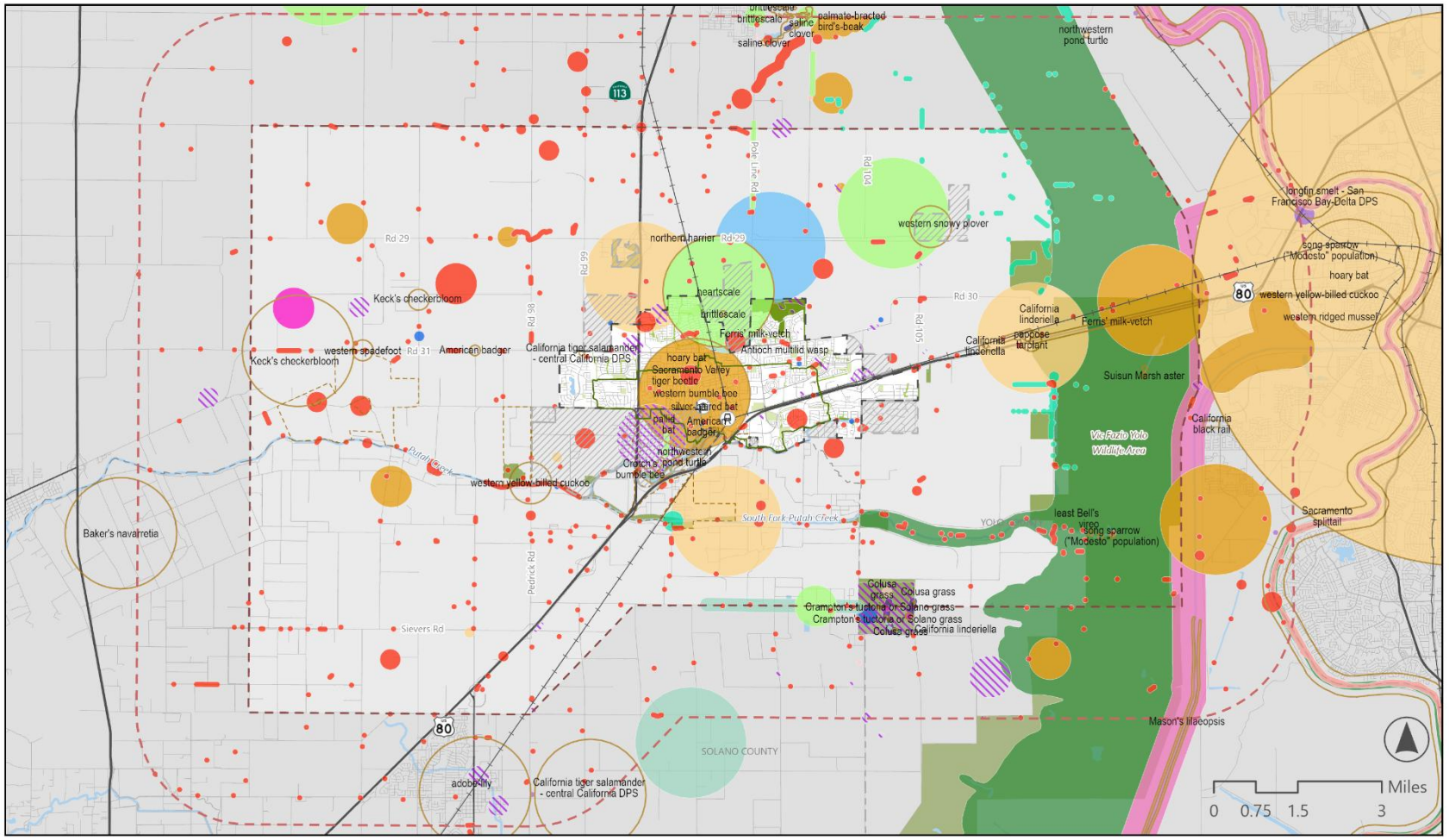
Species Name	Protected Status and Habitat Requirements	Potential to Occur
Reptiles		
northwestern pond turtle *Actinemys marmorata*	*Federally Proposed Threatened, California Species of Special Concern.* Species uses both terrestrial and aquatic habitats; it requires basking sites and suitable upland habitat (sandy bars or open grassy fields) necessary for egg-laying and overwintering use.	**Present.** Species has been documented in City of Davis Northstar Park Pond, UC Davis Arboretum and South Fork Riparian Preserve, and in the Yolo Bypass Wildlife Area.
giant garter snake *Thamnophis gigas*	*Federally Threatened/California Threatened.* Prefers permanent freshwater marsh and low gradient streams. It has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	**Present.** Waterways and agricultural ditches in the area are suitable aquatic habitat for species' habitat. Known occurrences of the species are recorded in the Davis Wetlands, Willow Slough Bypass and Yolo Bypass Wildlife Area.
Invertebrates		
Crotch's bumble bee *Bombus crotchii*	*California Candidate for Listing.* Species once occurred throughout the Central Valley in open grasslands and scrub habitats. Species depends on floral resources that bloom continuously throughout the colony's life.	**Moderate.** Many open areas surrounding Davis are disturbed, agricultural areas. Alkali prairie and California grassland may provide low quality seasonal habitat.
monarch butterfly *Danaus plexippus*	*Federally Proposed Threatened.* Migratory species; most prevalent in the Central Valley in summer and early fall. Dependent upon milkweed (*Asclepias* spp.) plants as their exclusive larval host.	**Present.** The species has been observed breeding in the Davis Planning Area. Multiple patches of host plants exist within Davis, which could potentially serve as foraging and breeding habitat.
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	*Federally Threatened.* Endemic to the central valley of California. Species only found on host plant- elderberry shrub (*Sambucus* spp.).	**Low.** Elderberry shrubs are present within the Davis Planning Area that could serve as habitat for this species. However, the species was last documented in the area in 1934, according to the CNDDB.

Species Name	Protected Status and Habitat Requirements	Potential to Occur
vernal pool fairy shrimp *Branchinecta lynchi*	*Federally threatened.* Found in seasonal wetland features, vernal pools, and playa pools, and swales.	**Present.** Suitable wetland and vernal pool habitat features are located in the Davis Planning Area. Occurrences are recorded in the CNDDB within the Davis Planning Area.
vernal pool tadpole shrimp *Lepidurus packardi*	*Federally Endangered.* Found only in seasonal freshwater wetlands including alkaline pools, clay flats, vernal lakes, vernal pools, vernal swales.	**Present.** Habitat for this species is present in the alkali vernal pools within the Davis Planning Area. Occurrences have been reported in the CDFW CNDDB.
Fish		
Chinook salmon – Central Valley spring and fall-run ESU *Oncorhynchus tshawytscha*	*Federally Threatened, California Threatened.* Found in the Sacramento-San Joaquin River system and its tributaries.	**Present.** Chinook salmon have been observed in Putah Creek since 2014, and recently have been breeding in the creek. Individuals have been observed completing their life cycle in Putah Creek during the fall run.
Plants		
Ferris' milk-vetch *Astragalus tener* var. *ferrisiae*	*California Rare Plant Rank 1B.1*. Occurs in meadows and seeps (vernally mesic), and valley foothill grassland (including subalkaline flats) (elevation 5'-245').	**Moderate.** Suitable grassland and wetland habitat is within the Davis Planning Area. Two occurrences for this species are recorded in the CNDDB within the Davis Planning Area.
alkali milk vetch *Astragalus tener* var. *tener*	*California Rare Plant Rank 1B.2*. Occurs in playas, valley and foothill grassland (adobe clay), and vernal pools (elevation 5'-195').	**Present.** Habitat for this species is present in the alkali playa and alkali wetlands within the Davis Planning Area. Multiple occurrences have been reported in the CDFW CNDDB- most recently in 2024.
heartscale *Atriplex cordulata* var. *cordulata*	*California Rare Plant Rank 1B.2*. Occurs in chenopod scrub, valley and foothill grassland (sandy), and meadows and seeps (elevation 0'-785').	**Low.** Suitable grassland and wetland habitat is within the Davis Planning Area. Oly one occurrence for this species is recorded in the CNDDB within the Davis Planning Area.

Species Name	Protected Status and Habitat Requirements	Potential to Occur
brittlescale *Atriplex depressa*	*California Rare Plant Rank 1B.2*. Occurs in chenopod scrub, valley and foothill grassland (sandy), meadows and seeps, vernal pools, playas (elevation 5'-1,050').	**Moderate.** Suitable grassland and aquatic habitat features are within the Davis Planning Area. Multiple occurrences for this species are recorded in the CNDDB within the Davis Planning Area.
palmate-bracted bird's beak *Chloropyron palmatum*	*California Rare Plant Rank 1B.2, California Endangered, Federally Endangered*. Found in wetlands in chenopod scrub and valley and foothill grassland areas (elevation 15'-510').	**Low.** Suitable wetland habitat is present in the Davis Planning Area. No occurrence records are in the CNDDB within the Davis Planning Area. Extremely rare.
San Joaquin spearscale *Atriplex joaquinana*	*California Rare Plant Rank 1B.2*. Found in seasonal alkali wetlands or alkali sink scrub (elevation 5'-2,740').	**Present.** Suitable habitat for this species is present in alkali prairie throughout the Davis Planning Area, especially around the alkali playa/alkali wetlands. This species has been documented within the area in the CNDDB.
Heckard's pepper-grass *Lepidium latipes* var. *heckardii*	*California Rare Plant Rank 1B.2*. Found in valley and foothill grassland (alkaline flats), usually occurs in wetlands but occasionally in non-wetlands (elevation 5'-655').	**Moderate.** Suitable grassland and wetland habitat is within the Davis Planning Area. One occurrence for this species is recorded in the CNDDB within the Davis Planning Area.
California alkaligrass *Puccinellia simplex*	*California Rare Plant Rank 1B.2*. Found in valley and foothill grassland, meadows and seeps, chenopod scrub, and vernal pools (elevation 5'-3,050').	**Moderate.** Suitable grassland and aquatic habitat features are within the Davis Planning Area. Multiple occurrences for this species are recorded in the CNDDB within the Davis Planning Area.
Notes: California Rare Plant Rank (CRPR): CRPR 1A: Plants presumed extinct. CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere. CRPR 2A: Plants extirpated in California, but common elsewhere.		

SOURCES: CNDDB 2025, CNPS 2025, Madrone 2024, City of Davis 2025.

Figure 7. Special-status Species Occurrences Within a 2-mile Radius of the Davis Planning Area



City of Davis
Sphere of Influence
Planning Area
Planning Area 2-mile Buffer
UC Davis Campus
County Boundary
Lakes

Amtrak Station
City Hall
Rail Lines
Highways
Roads
Bike Loop
Rivers/Creeks

CNDDB Occurrence
Alkali milk-vetch
American bumble bee
Burrowing owl
California alkali grass
Giant gartersnake
Green sturgeon - southern DPS
Heckard's pepper-grass
Sacramento splittail
San Joaquin spearscale
Steelhead - Central Valley DPS
Swainson's hawk
Tricolored blackbird
Valley elderberry longhorn beetle
Vernal pool fairy shrimp
Vernal pool tadpole shrimp
White-tailed kite
Other species (as labeled)

City of Davis General Plan Update

Figure 7
CNDDB Special-status Species Occurrences Within a 2-mile Radius of the Planning Area

Davis CALIFORNIA

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), California Department of Fish and Wildlife (2025), ESA (2025).

The plan focuses on two main goals: reducing the loss of biological resources due to urban development and preserving the agricultural character of areas where conservation efforts are carried out. By approaching conservation at the landscape scale, the Yolo Habitat Conservancy aims to support the long-term survival of native species in a more effective and sustainable way than isolated mitigation efforts could achieve.

Strategic Plan - Open Space Program

On March 20, 2018, the City Council approved a Strategic Plan for the City's Open Space Program (Strategic Plan), which was developed in partnership with the Open Space and Habitat Commission. This Strategic Plan is part of a set of planning and management documents that will guide program activities through 2030. Some of the main subject areas that benefit natural resources from the Strategic Plan include: 1. Acquisitions; 2. Habitat Restoration and Enhancement; and 3. Land and Resource Management.

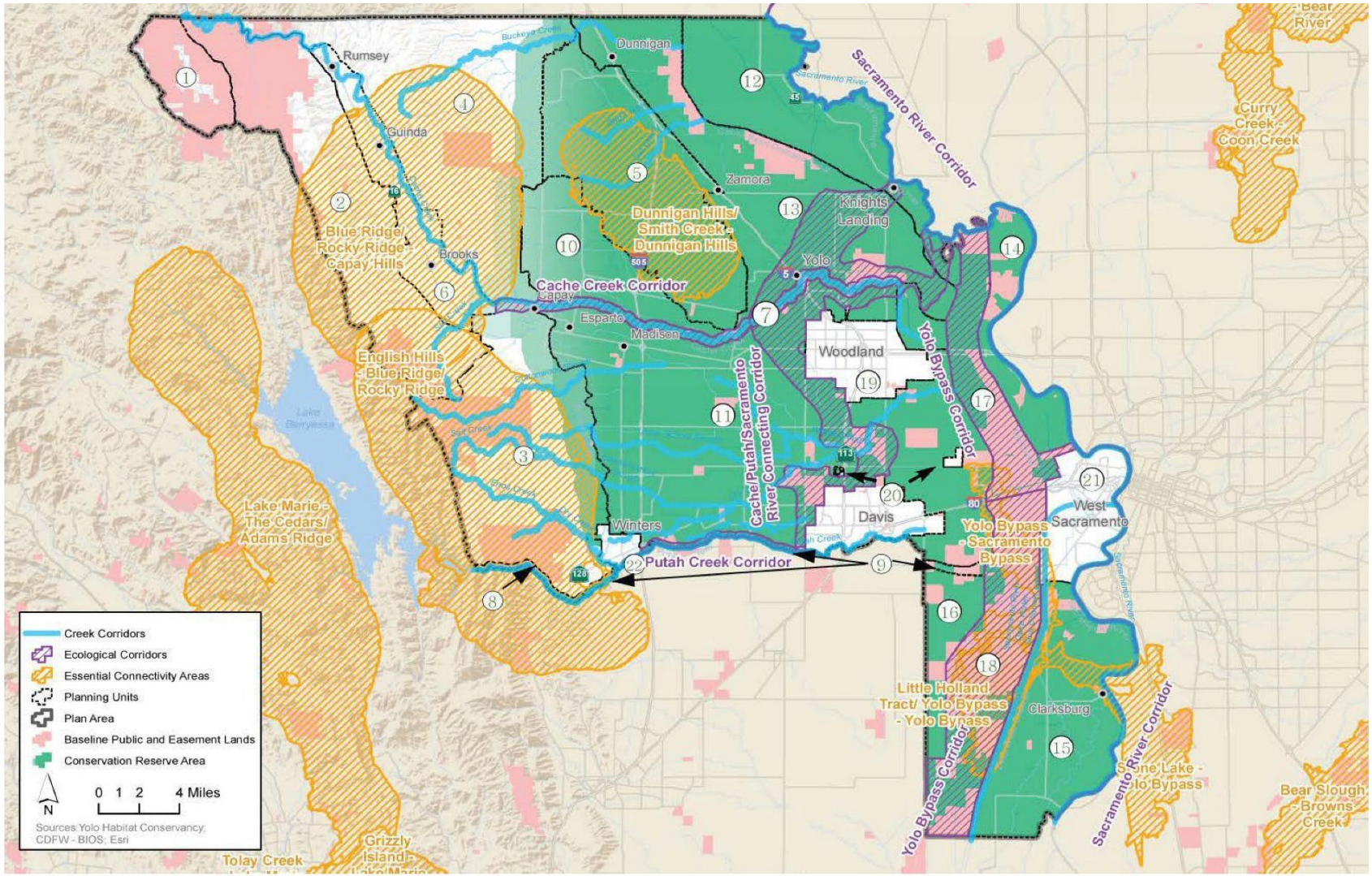
Since 1990, the City has been able to permanently protect more than 5,900 acres of land within the Davis Planning Area, which is approximately equal to the footprint of Davis itself. These acres include agricultural lands, riparian corridors, habitat areas, and land under threat of conversion to urban uses. The City co-owns 21 conservation easements with the Yolo Land Trust and three conservation easements with the Solano Land Trust.

The City's Open Space Program is part of the Strategic Plan, which actively maintains about 240 acres of open space for the enjoyment of Davis residents and as habitat for wildlife. These lands include agricultural buffers, grasslands/uplands habitat, riparian habitat and native plant sites. In March 2024, the City purchased a new agricultural conservation easement on 120 acres of farmland located approximately a half mile from the City limits, northeast of the Mace Boulevard curve, as a permanent preserve for farmland and open space. The City co-owns this agricultural conservation easement with the Yolo Land Trust that will monitor the easement in perpetuity on behalf of the City.

Land Acquisition for Habitat Connectivity

The City is committed to participating in the Yolo HCP/NCCP and implementing the Strategic Plan to support long-term environmental and community well-being. These efforts are designed to extend over the next 50 years and aim to preserve natural resources and strengthen habitat connectivity for both resident and migratory wildlife. Countywide initiatives, including land acquisition and the establishment of ecological corridors, are illustrated in **Figure 8**, *Ecological Corridors*. Additional focus areas are highlighted in **Figure 9**, *Priority Acquisition Areas*, which include areas critical to future development of potential reserve corridors and restoring habitat connectivity specifically for giant garter snakes, which is one of the many species for which Davis is committed to incorporating conservation efforts in their planning efforts.

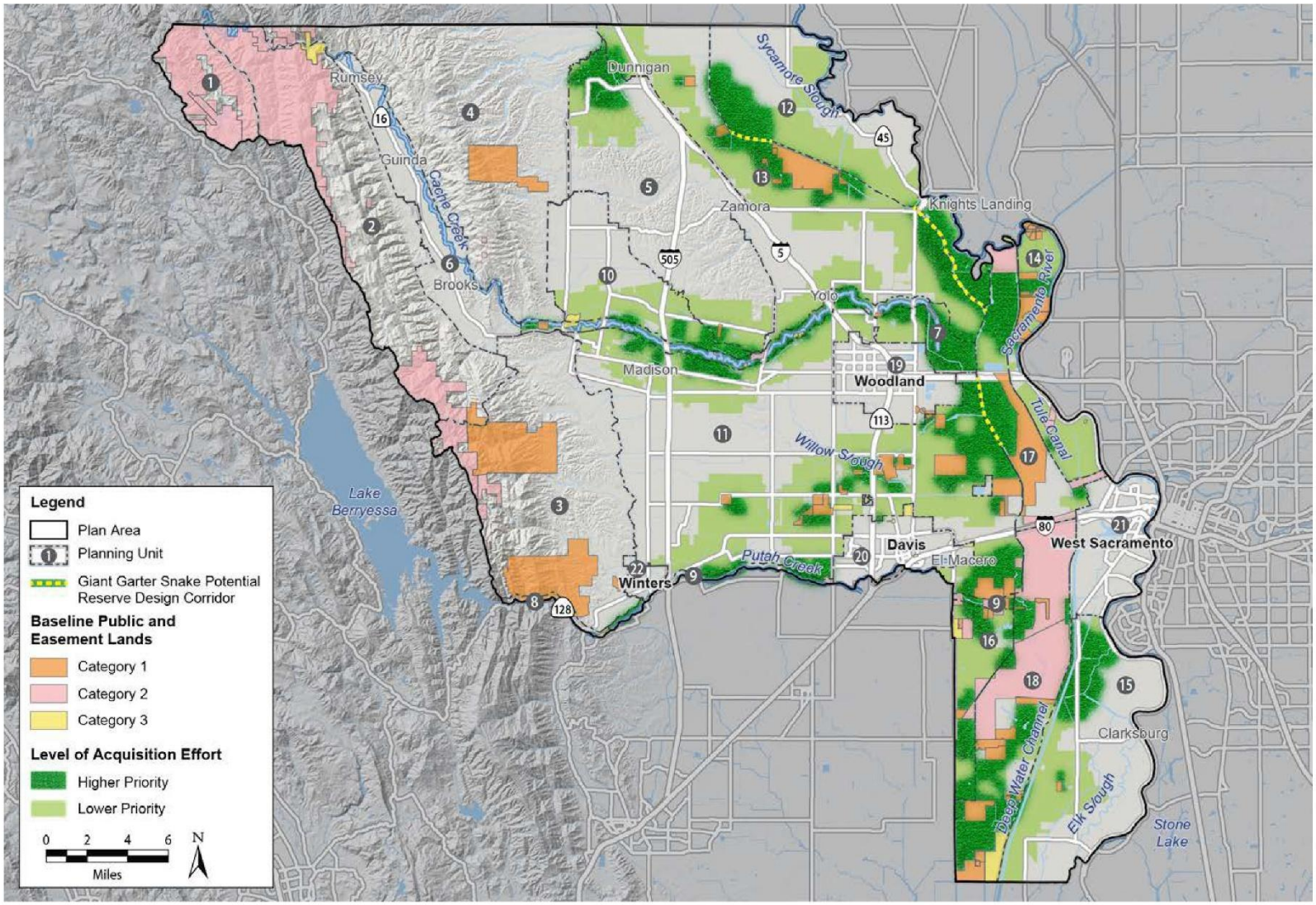
Figure 8. Ecological Corridors



City of Davis General Plan Update

Source: Yolo Final HCP/NCCP, 2018

Figure 9. Priority Acquisition Areas



City of Davis General Plan Update

Source: Yolo Final HCP/NCCP, 2018

CULTURAL AND TRIBAL RESOURCES

Introduction

This section provides an overview of the cultural and tribal resources within Davis and its Planning Area, including a summary of the region's human history from pre-contact Indigenous occupation through historic and modern development. It describes the types of cultural resources that may be present—such as archaeological sites, historic buildings, and tribal cultural resources—and assesses the sensitivity of the area for both known and undiscovered resources. The section also outlines the City's efforts to consult with California Native American Tribes and details the programs, procedures, and local ordinances implemented to manage and preserve historic architectural resources, including those established as a Certified Local Government.

Cultural Context

Pre-Contact Setting

Categorizing the pre-contact period into broad cultural stages allows researchers to describe a broad range of archaeological resources with similar cultural patterns and components during a given time frame, thereby creating a regional chronology. Rosenthal et al.[28] provide a framework for the interpretation of the Central Valley prehistoric record and have divided human history in the region into three periods: *Paleo-Indian* (13,550 to 10,550 before present [BP]), *Archaic* (10,550 to 900 BP), and *Emergent* (900 to 300 BP). The Archaic period is subdivided into three sub-periods: *Lower Archaic* (10,550 to 7550 BP), *Middle Archaic* (7,550 to 2,550 BP), and *Upper Archaic* (2,550 to 900 BP).[29] Economic patterns, stylistic aspects, and regional phases further subdivide cultural patterns into shorter phases. This scheme uses economic and technological types, socio-politics, trade networks, population density, and variations of artifact types to differentiate between cultural periods.

[28] Rosenthal, J.S., G.G. White, and M.Q. Sutton. 2007. "The Central Valley: A View from the Catbird's Seat." In *California Prehistory: Colonization, Culture, and Complexity*, edited by T.L. Jones and K.A. Klar, pp. 147-163. AltaMira Press.

[29] Rosenthal, J.S., G.G. White, and M.Q. Sutton. 2007. "The Central Valley: A View from the Catbird's Seat." In *California Prehistory: Colonization, Culture, and Complexity*, edited by T.L. Jones and K.A. Klar, pp. 147-163. AltaMira Press.

Ethnographic Setting

Indigenous Patwin people historically inhabited the area that includes Davis. Patwin territory was an extensive region within north-central California and included the lower portion of the west side of the Sacramento Valley west of the Sacramento River from about the location of the town of Princeton in the north to the city of Benicia in the south.[30] The Patwin were bounded to the north, northeast, and east by other Penutian-speaking peoples (the Nomlaki, Wintu, and Maidu, respectively), and to the west by the Pomo and other coastal groups. Within this large territory, the Patwin have traditionally been divided into River, Hill and Southern Patwin groups, although in actuality a more complex set of linguistic and cultural differences existed than is indicated by these three geographic divisions.

As with most of the hunting-gathering groups of California, a chief would reside in a major village where ceremonial events were also typically held. The status of such individuals was patrilineally inherited among the Patwin, although village elders had considerable power in determining who actually succeeded to particular positions. The chief's main responsibilities involved administration of ceremonial and economic activities. Such individuals decided when and where various fishing, hunting or gathering expeditions would occur, and similarly made critical decisions concerning the more elaborate ceremonial activities. He also played a central role in resolving conflicts within the community or during wars which occasionally broke out with neighboring groups. Apparently, a Patwin chief had more authority than his counterparts among many of the other central California groups.[31,32]

The onslaught of Euro-American culture negatively impacted Patwin culture and peoples. Euro-American influences within Patwin territory increased dramatically as ranching and farming became popular in the area. Euro-American settlers quickly made inroads into lands occupied by Native Americans. Conflicts grew in number, and Patwin populations continued to decline from military skirmishes, vigilante raids, and other causes. In 1972, the Bureau of Indian Affairs listed only 11 remaining Patwin descendants.[33] Despite the massive decline in population, the Patwin still reside in Yolo county and are represented in several California Native American Tribes including the Cachil Dehe Band of Wintun Indians of the Colusa Indian Community, the Kletsel Dehe Band of Wintun Indians, and Yocha Dehe Wintun Nation.

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[30] Kroeber, A.L. 1925. *Handbook of Indians of California*. Dover Publications.

[31] McKern, W.C. 1922. "Functional Families of the Patwin." *American Archaeology and Ethnology* 13(7):235-258. University of California Press.

[32] Kroeber, A.L. 1925. *Handbook of Indians of California*. Dover Publications.

[33] Johnson, P.J. 1978, "Patwin." In *California*, edited by R.F. Heizer, pp. 350-360. Handbook of North American Indians, Vol. 8, W.C. Sturtevant, general editor. Smithsonian Institution.

Historic-era Setting

MEXICAN ERA

Euroamerican settlement within the plan area began as early as 1840 when Juan Manuel Vaca and Juan Felipe Pena moved to southern Yolo and northern Solano counties and established permanent residences. At this time, the Mexican Government continued its policy of granting substantial tracts of land to prominent citizens. Vaca and Pena were given permission to settle on the land south of Putah Creek in 1842 before being granted Rancho de Los Putos by Governor Manuel Michaeltorna in 1843. This grant was confirmed by Governor Pio Pico in 1845.[34] This rancho included the area that is now occupied by the UC Davis campus. At the same time, in the western portion of the plan area, Rancho Rio de Los Putos was granted to William Wolfskill in 1842.[35] The land on which Davis is predominantly located was subject to intense legal battles and ownership disputes from 1854 until 1887.[36]

DEVELOPMENT HISTORY OF DAVIS

Gold Rush, Ranching, and Davisville (1848 – 1904)

Gold was discovered in the Sierra Nevada foothills near Coloma in 1848. This resulted in a tremendous influx of Euroamerican settlers coming to California in search of gold and fortunes. The resulting growth was especially dramatic in Sacramento where two major water transportation routes converged. It became a hub of trade and commerce between the goldfields and shipping ports farther west. Approximately 50 miles to the southwest, Joseph Chiles and his son-in-law Jerome Davis established an agricultural claim on 12,000 acres just north of Rancho de Los Putos in 1854. Davis' ranch soon became the center of a thriving farming community.[37]

The real growth, however, began in 1868 when the California Pacific Railroad built a line between San Francisco and Sacramento, with a stop and spur line to Woodland through Davis' ranch. The railroad planned a town named Davisville adjacent to the new depot, and a brief population and building boom occurred between 1868 and 1870. During the late

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[34] Electronic Cultural Atlas Initiative. 2024. Spanish and Mexican Land Grants of California [interactive mapping tool]. The Bancroft Library, UC Berkeley. Available: https://experience.arcgis.com/experience/79dced5171284ff2a8fe0156370f0e61/.

[35] Electronic Cultural Atlas Initiative. 2024. Spanish and Mexican Land Grants of California [interactive mapping tool]. The Bancroft Library, UC Berkeley. Available: https://experience.arcgis.com/experience/79dced5171284ff2a8fe0156370f0e61/.

[36] Vaught, D. 2004. "A Tale of Three Land Grants on the Northern California Borderlands." *Agricultural History* 78(2):140-154. https://www.jstor.org/stable/3744897.

[37] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 6.* Prepared for the City of Davis.

19th century, industrial development occurred near the railroad—where goods could be processed, stored, and shipped—and included a lumberyard and a manufacturing plant of almond hullers.[38] Commercial development was concentrated on G Street between First and Third streets, while modest residential development occurred along F Street and farther west.[39]

University Farm and Initial Development (1905 – 1939)

University Farm

In 1905, under the direction of Governor George Pardee, a California commission was established to identify a rural site for a teaching farm associated with University of California (what is today known as UC Berkeley). Among the many contending cities and towns, Davisville was ultimately selected as the site of the University Farm in large part because of its relative proximity and rail connection to the San Francisco Bay Area.[40] The name of the local newspaper was changed to the *Davis Enterprise* in 1906, and the name of the town itself was changed to Davis in 1907, the same year construction of the University Farm commenced and ushered in a period of rapid growth for both the farm and the town. A four-year degree was first offered by the University Farm in 1922, and a formal planned campus grew to encompass 1,000 acres by 1930.[41] In 1938, the campus was renamed the College of Agriculture at Davis.[42]

Municipal Growth and Commercial Development

A major fire in downtown Davis in 1916 prompted the urgent formation of a local government, and Davis was incorporated the following year. Over the next decade, an array of municipal improvements were realized, including a water system in 1920, garbage collection in 1921, and street improvements and beautification. The first city planner, Charles Cheney, was hired in 1927; among his realized proposals was the development of the north half of Central Park that was built in the 1930s by the Works Progress Administration. The downtown expanded to the north and west during the late 1910s and 1920s, and the area was characterized largely by masonry construction and a variety of commercial and institutional buildings including

[38] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 6.* Prepared for the City of Davis.

[39] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 7–8.* Prepared for the City of Davis.

[40] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 8–9.* Prepared for the City of Davis.

[41] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 9.* Prepared for the City of Davis.

[42] UC Davis. 2024. About Us [webpage]. Last modified September 11, 2024. Available: https://www.ucdavis.edu/about. Accessed April 30, 2025.

churches, social halls, banks, and theaters.[43] During the Great Depression, the City built a new City Hall and fire station.[44]

Residential Growth

Residential parcels were subdivided farther from downtown and nearer the area north of University Farm. This included the development of the College Park neighborhood, which was designed in 1923 by landscape architect Harry Shepard, and a housing covenant restricted property ownership and residency to white and non-Jewish people.[45]

Transportation Infrastructure Growth

While the railroad remained the dominant mode of transportation into the 20th century for people and goods in Davis and throughout Yolo county, the advent of the automobile brought about new infrastructure. Following the completion in 1915 of the Lincoln Highway, the nation's first transcontinental highway that circumvented the marshy terrain around Davis, the Yolo Causeway was built in 1916 as a narrow, elevated, wood-frame structure that provided a direct automobile route between the Bay Area and Sacramento. State Route 6 was constructed concurrently through Davis, and the Richards Boulevard underpass built in 1917 connected Davis to the State and Lincoln highways.[46]

World War II and Post-War Development (1940 – 1958)

Transformation of the College of Agriculture at Davis

At the end of 1942, the College of Agriculture at Davis suspended all classes because most of its student body, which was predominantly male, had enlisted in the U.S. armed forces. The teaching staff that remained continued to cultivate crops for the duration of World War II, and the crops were harvested by volunteers from the Davis community. When the war ended in September 1945, veterans returned to Davis in vast numbers, and, through the G.I. Bill (officially the Serviceman's Readjustment Bill of 1944), enrollment at the College of Agriculture at Davis quadrupled between 1946 and 1947. On- and off-campus housing was inadequate to support the local population growth. The University Regents appropriated $2.7 million for new construction at the College of Agriculture at Davis that included a new veterinary college and plant science and student health buildings as well as acquiring 530 acres of adjacent farmland

[43] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 9.* Prepared for the City of Davis.

[44] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 10.* Prepared for the City of Davis.

[45] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 10.* Prepared for the City of Davis.

[46] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 10, 38.* Prepared for the City of Davis.

to expand the campus.[47] In 1951, the College of Letters and Sciences at Davis was founded, and this broadened the academic focus and opportunities to more students, a trend that was consistent with the tremendous growth of the University of California system at that time.[48]

Residential Development

In addition to the returning veterans who enrolled in the Colleges at Davis, the city was also attractive to those outside of academia. It was located a convenient distance from Sacramento, and it was one of numerous growing communities across the country where home ownership was an attainable dream as a result in changes in mortgage insurance policies and tax deductions for mortgage interest. City officials formalized plans for Davis' expansion through annexation of adjacent areas.[49] Compared to the period 1930–45, during which time only one new residential neighborhood was subdivided, the period 1946–48 saw six new subdivisions. New construction was located northwest and northeast of the downtown as well as adjacent to the University of California property.[50] Due in part to the shortage of building materials after World War II, there was little construction in these neighborhoods until the early 1950s. Thirty-four more subdivisions were recorded from 1950 to 1959, effectively doubling the size of Davis' developed footprint.[51] In an effort to ease the shortage of housing, the Davis Planning Commission introduced the practice of zoning to encourage multiple-family residential development and limit single-family residential development to certain neighborhoods.[52] All new construction was paused for six months in 1955 to allow for "orderly growth" and to finance and implement new infrastructure.[53]

Explosive Growth and Modern Davis (1959 – Present)

UC Davis

In 1959, the University Regents designated Davis as general campus of the University of California marking the official beginning of UC Davis.[54] Within a decade, the student

[47] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 11.* Prepared for the City of Davis.
[48] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 12.* Prepared for the City of Davis.
[49] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 12.* Prepared for the City of Davis.
[50] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 13.* Prepared for the City of Davis.
[51] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 14–15.* Prepared for the City of Davis.
[52] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 16.* Prepared for the City of Davis.
[53] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 17.* Prepared for the City of Davis.
[54] UC Davis. 2024. About Us [webpage]. Last modified September 11, 2024. Available: https://www.ucdavis.edu/about. Accessed April 30, 2025.

population increased fivefold, requiring an expanded campus, new and enlarged facilities, the formation of several new departments and graduate programs, and larger faculty and staff. In this sense, UC Davis reflected nationwide trends in higher education during the 1960s.[55]

The local response to the Vietnam War was relatively quiet and unremarkable compared to many other college campuses across the country, perhaps most notably to UC Berkeley where demonstrations and protests regularly made headlines. Many students who enrolled at UC Davis desired to avoid the comparatively radical atmosphere at UC Berkeley. At UC Davis, the campus was closed to cars in 1967, and a university bus system was instituted the same year.[56]

Residential and Civic Development

The significant growth of the student, faculty, and staff populations at UC Davis during the 1960s necessitated the construction of many new multiple-family residential buildings (e.g., apartments and duplexes) near the university as well as 56 new, large-scale residential subdivisions around the city. Several new primary and secondary schools were also constructed. The city slowly grew beyond its preexisting boundaries in all directions, and in 1969, Davis was the city with the largest population in Yolo county.[57] Since that time, many of the new neighborhoods incorporated various types of open space such as greenbelts, parks, water features, and facilities for sports and recreation.[58] Prominent local builders and developers included Walker-Donant, Stanley M. Davis Organization, John Simmons, John Whitcombe, and the Streng Brothers.[59] Since the 1970s, larger single-family dwellings with two-car garages have been a common building type.[60]

Improvements to infrastructure and related city amenities were much slower to materialize. In 1965, the city's first electric traffic signal was installed near the intersection of B Street and Russell Boulevard, Central Park was renovated, new fire and police department buildings were constructed, and the sewer system expanded to new neighborhoods located to the north and west of downtown. The new Community Park and Municipal Golf Course opened to the public

[55] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 32.* Prepared for the City of Davis.
[56] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 32.* Prepared for the City of Davis.
[57] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 32.* Prepared for the City of Davis.
[58] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 34.* Prepared for the City of Davis.
[59] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 35–36, 52.* Prepared for the City of Davis.
[60] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 52–53.* Prepared for the City of Davis.

in 1967.[61] In 1972, Davis citizens approved a bond measure that funded the construction of five new public parks, a public swimming pool, and the Veterans Memorial Center at 203 E. 14th Street. Government services were established outside of downtown beginning in the 1980s, including the repurposing of the old Davis High School at 23 Russell Boulevard as the current City Hall and the construction of a new post office and California Department of Motor Vehicles at Pole Line Road and Fifth Street.[62]

Between the 1970s and 2000, more than 60 percent of the pre-war buildings in downtown Davis were demolished. Modern commercial development with large parking lots or parking structures replaced many earlier buildings, and commercial buildings were also constructed in farther-reaching neighborhoods and nearer the highways.[63]

Transportation

While bicycling was historically a popular mode of transportation, it was during the 1960s that cyclist-oriented infrastructure was implemented and prioritized at UC Davis. This, in turn, led to an increase in bicycle traffic and dedicated paths, lanes, and parking around the city. At UC Davis, the campus was closed to cars in 1967. The same year, the nation's first dedicated bike lanes on existing roadways were painted in Davis, cementing its bike-friendly reputation and nickname of the "City of Bicycles".[64] Bicycle ridership increased during the 1970s and 1980s, and at its highest point, approximately 30 percent of workers and students commuted across Davis on bicycle.[65] That number has steadily dwindled, and in 2023, it was estimated that 13.8 percent of Davis commuters were cyclists.[66]

Automobile-oriented infrastructure in and around Davis steadily increased during the 1960s. The antiquated Yolo Causeway was rebuilt in 1962 as a six-lane, elevated concrete highway, improving vehicular access between Sacramento and Davis, which gained a new and improved cloverleaf interchange at Richard Boulevard. In the following years, several streets in Davis were widened and/or realigned, 11 new traffic signals were installed, and a new Covell Boulevard overpass was approved to traverse the railroad tracks just east of F Street.[67] The

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[61] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 33–34.* Prepared for the City of Davis.

[62] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 51.* Prepared for the City of Davis.

[63] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 54–55.* Prepared for the City of Davis.

[64] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 37–38.* Prepared for the City of Davis.

[65] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 55.* Prepared for the City of Davis.

[66] Hairoman, N. 2023. "Davis Ranks #1 in U.S. as the Most Bike-Friendly City, Study Says." CBS Sacramento. May 26, 2023. Available: https://www.cbsnews.com/sacramento/news/davis-1-most-bike-friendly-city/.

[67] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 38.* Prepared for the City of Davis.

Yolo Causeway was widened in 1984, the Pole Line freeway overcrossing was constructed in 1995, and Amtrak has offered multiple daily trains from Davis to Sacramento and the Bay Area since 1992.[68]

DEVELOPMENT HISTORY OF THE PLAN AREA OUTSIDE OF DAVIS CITY LIMITS

General Development of Yolo County

The plan area encompasses Davis and other unincorporated portions of central and southeast Yolo county. Present-day Yolo county (one of California's original 27 counties) was transformed during the Gold Rush from an isolated farming region to a thriving agricultural center for numerous crops and prize livestock. The current county seat, Woodland, was selected in 1862.[69] During the 1850s through the 1870s, several railroad lines were constructed throughout the county, and many newly accessible areas were laid out as towns.[70] The ascendency of the automobile spurred the construction of better roads and highways, including the construction of the Yolo Causeway in 1916; State Route 16 in the 1930s; and Interstates 5, 80, and 505 during the 1960s.[71]

During the early 20th century, hundreds of miles of levees were constructed as flood controls throughout the Sacramento Valley. In Yolo county, thousands of acres of swampland near the Sacramento River were reclaimed, revitalizing many communities and allowing the development of large farms.[72] Due in large part to technological advancements developed at the University Farm in Davis (later UC Davis), the agriculture industry in Yolo county thrived through the two world wars.[73] In 1963, the Sacramento River Deep Water Ship Channel opened, connecting Yolo county's abundant produce to the rest of the world via the Port of Sacramento in West Sacramento.[74]

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[68] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 55.* Prepared for the City of Davis.

[69] LSA (LSA Associates, Inc.). 2009. *Yolo County 2030 Countywide General Plan Environmental Impact Report, 521–521.* Prepared for Yolo County.

[70] LSA (LSA Associates, Inc.). 2009. *Yolo County 2030 Countywide General Plan Environmental Impact Report, 523–524.* Prepared for Yolo County.

[71] LSA (LSA Associates, Inc.). 2009. *Yolo County 2030 Countywide General Plan Environmental Impact Report, 524.* Prepared for Yolo County.

[72] LSA (LSA Associates, Inc.). 2009. *Yolo County 2030 Countywide General Plan Environmental Impact Report, 525.* Prepared for Yolo County.

[73] LSA (LSA Associates, Inc.). 2009. *Yolo County 2030 Countywide General Plan Environmental Impact Report, 525–526.* Prepared for Yolo County.

[74] LSA (LSA Associates, Inc.). 2009. *Yolo County 2030 Countywide General Plan Environmental Impact Report, 526.* Prepared for Yolo County.

General Development of Solano County

The plan area also encompasses an unincorporated portion of northeast Solano county. During and immediately after the Gold Rush, many disenchanted miners realized they could make a greater fortune through farming and ranching in the lowlands than through gold prospecting. Early settlements in present-day Solano county were established between the late 1840s and early 1870s and were concentrated near Suisun and San Pablo bays and along sloughs and channels in the eastern part of the county. Also during that time, the portion of the California Pacific Railroad through Solano county was completed, greatly extending the distance local goods could be transported and bolstering the local economy and population.[75]

As in other nearby counties, the automobile became the dominant mode of transportation during the early 20th century, and this spurred the construction of roads and highways in Solano county. This also led to the end of passenger rail service on the electric interurban railway that served much of Solano county from 1913 to 1940.[76] In 2025, Solano county is home to many large employers including Travis Air Force Base, the California Medical Facility, Collins Aerospace, Duravent, Valero Benicia Refinery, Guittard Chocolate, and Jelly Belly Candy Co.[77]

Figure 10, *Date of Construction*, shows the distribution of buildings by construction date throughout Davis and surrounding area. This figure clearly shows the concentration of early development in Downtown Davis, near the rail corridor. It also demonstrates the tremendous expansion of development in the late-20th century into former rural agricultural areas surrounding the City limits.

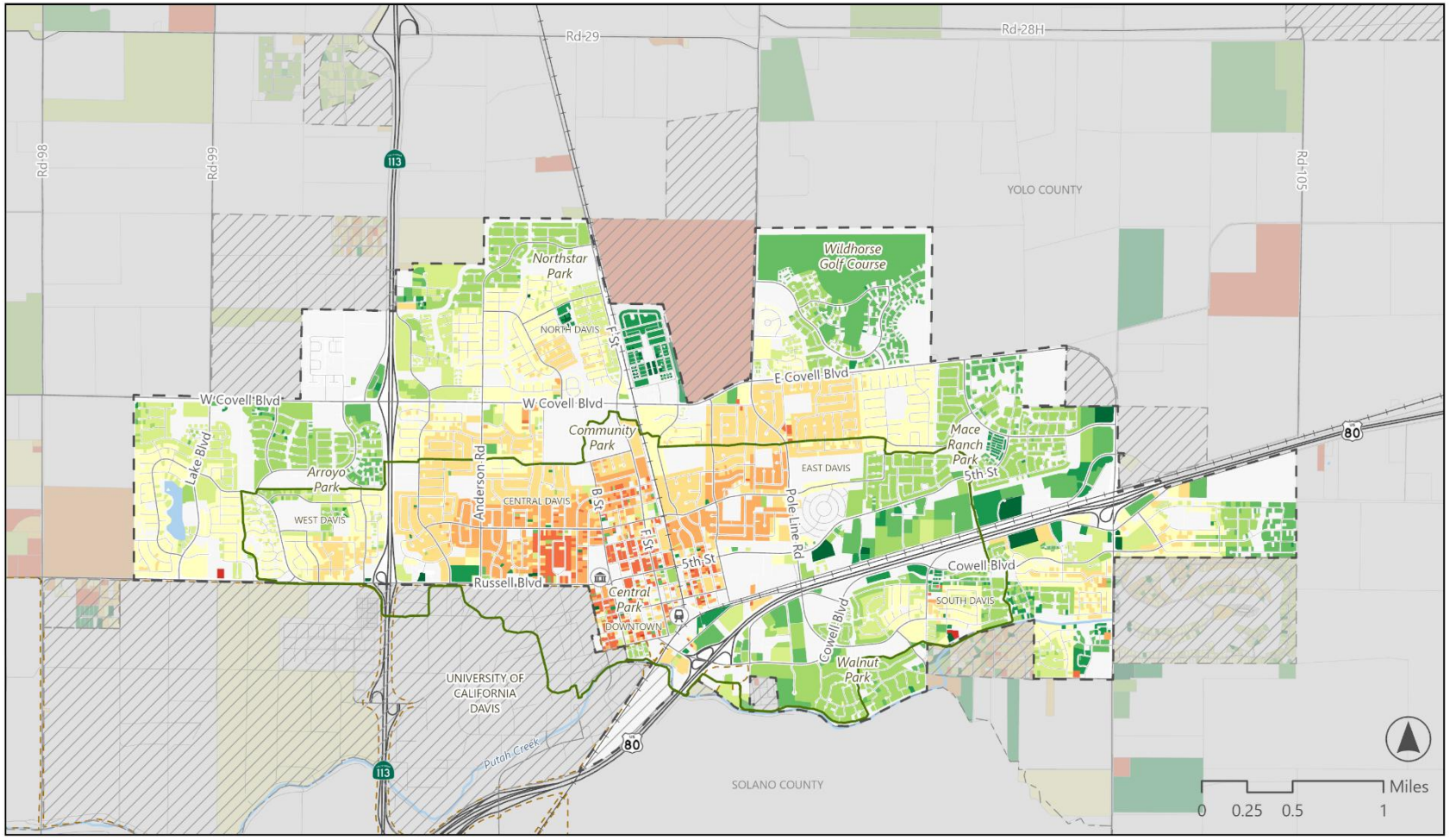
Cultural Resources in the Davis Planning Area

Architectural Resources

The variety of architectural resource types within Davis mirrors the different land uses that are typically found in towns and cities across the United States. The mix of residential, commercial, and industrial buildings speaks to the steady prosperity and relative success of Davis as a thriving community since its beginning in the late 1860s. Outside of the City limits, the diversity

[75] EDAW (EDAW, Inc.). 2008. *Solano County 2008 Draft General Plan Environmental Impact Report, 4.10-7.* Prepared for County of Solano Resource Management Department.
[76] EDAW (EDAW, Inc.). 2008. *Solano County 2008 Draft General Plan Environmental Impact Report, 4.10-7.* Prepared for County of Solano Resource Management Department.
[77] EDD (California Employment Development Department). 2025. Major Employers in Solano County [webpage]. Available: https://labormarketinfo.edd.ca.gov/majorer/countymajorer.asp?CountyCode=000095. Accessed April 30, 2025.

Figure 10. Date of Construction



City of Davis General Plan Update

Figure 10
Date of Construction

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), ESA (2025).

of architecture is limited primarily to rural residential and agricultural complexes as well as pockets of commercial agricultural development. The following is primarily focused on architectural types found within the City limits but can be extrapolated to the larger plan area to other properties of similar uses, constructed in similar timeframes.

PROPERTY TYPES

Residential

Residential buildings are the most numerous type of architectural resource in Davis. They consist of traditional single-family homes as well numerous duplexes, triplexes, and larger, multi-unit developments. All are generally 1-3 stories in height, set back from the street, and have trees or other landscaping incorporated into the front and back yards. The oldest parts of the city, near downtown, developed individually over time, and have a wide variety of architectural styles that represent the popular tastes of the period in which they were constructed. Outside of the downtown, sections of Davis were developed as unified subdivisions, subdivided and sometimes constructed, by a single developer. These subdivisions often have their own architectural character, including both residential styles and landscape elements (trees, street layout, green space, fountains, etc.)

Residential development in Davis exhibits a variety of architectural styles that were popular in different eras. These include popular late 19th and early 20th century styles such as Stick, Craftsman, and Folk Victorian; pre-World War II revival styles such as Mission Revival, Spanish Revival, and Colonial Revival; early modern styles such as Art Deco, Streamline Moderne, and Prairie styles; as well as post-World War II trends such as Minimal Traditional, Ranch, Contemporary, and Post-and-Beam styles.

Commercial

Commercial development in Davis is primarily from the post-World War II period with relatively few examples from earlier periods. The oldest commercial buildings are concentrated in the downtown area and the surrounding blocks as most of the city outside of downtown was sparsely developed before the mid-20th century population boom. Surviving commercial buildings are typically one story in height with large, glass storefronts and canopies along the sidewalks. Many buildings of this vintage have been significantly altered to reflect the changing popular tastes of commercial design.

Outside of the downtown area there are shopping centers that were constructed as integrated parts of post-World War II residential subdivisions. Larger commercial developments (e.g., car dealerships and corporate headquarters) are situated near the freeway and along major transportation corridors. Several commercial buildings from this period were designed by prominent architects, although a few have been demolished.[78]

[78] Brunzell Historical. 2015. *Davis California: Citywide Survey and Historic Context Update, 40.* Prepared for the City of Davis.

Notable architectural styles for commercial architecture include Art Deco and Streamline Moderne (popular for civic and utility infrastructure), New Formalism (often associated with banks), and Brutalism (often associated with libraries and civic buildings) among others.

Civic

Civic architecture in Davis primarily reflects building and stylistic trends of the mid- to late-20th century. This is because schools were constructed in this period to accommodate the population boom in the post-World War II years. Libraries, community centers, and city offices were added as neighborhoods expanded and the population increased. They represent common trends of their times, with the oldest civic buildings located near the downtown area. Several have been repurposed from their original use, such as the present-day City Hall, which is housed in the former Davis High School building.

Agricultural

In 2025, agricultural properties are located outside of the City limits in areas of unincorporated Yolo and Solano counties.

Archaeological Resources

A search of the cultural resources records within Davis at the Northwest Information Center of the California Historical Resources Information System identified six pre-contact archaeological resources and four historic-era archaeological resources within the City's limits.[79] The Archaeological Determinations of Eligibility (2012), which is maintained by the California Office of Historic Preservation (OHP),[80] has documented four archaeological resources within Yolo county that have been determined eligible for the National Register of Historic Places (National Register) and/or the California Register of Historical Resources (California Register). These numbers only include those resources that have been identified and formally documented. There is the potential for unknown and/or unrecorded archaeological resources to be present in the city and the wider Davis Planning Area and for these resources to be eligible for listing in the National Register and/or California Register.

PRE-CONTACT ARCHAEOLOGICAL SENSITIVITY ASSESSMENT

Pre-contact archaeological resource types that may be present in the city and the wider Davis Planning Area include indigenous habitation and camp sites, bedrock milling features, lithic scatters, human burials, and isolated artifacts. Consultation with California Native American Tribes may also support identification of non-tangible heritage resources or tribal cultural resources that do not have an archaeological component including trails, sacred areas, sites of religious ceremonies, and other areas of importance to Tribes.

[79] NWIC (Northwest Information Center). 2025. Records Search File No. SAC-21-40. On file, ESA. April 17, 2025.
[80] OHP (Office of Historic Preservation). 2012. Archaeological Determinations of Eligibility (ADOE) for Yolo County.

Archaeological resources can be found on or near to the surface as well as buried below naturally deposited landforms and modern and historical development. Meyer and Rosenthal (2008) conducted a geoarchaeological analysis of the northern portion of the Central Valley for Caltrans District 3, including the entirety of Davis.[81] Meyer and Rosental (2008) summarize extensive research conducted to date on soils and archaeological sites in this region and present a buried pre-contact archaeological sensitivity analysis based on the soil age and landform. Using this model, over 90 percent of Davis, particularly in the southern and southeastern portion of the city, has soils that date to the late Holocene (4,000 to 150 calendar years before present [cal BP]) and the latest Holocene (2,000 and 150 years cal BP). Therefore, these soils have a high or very high sensitivity for buried pre-contact archaeological resources. The moderate, low, and very low buried pre-contact archaeological site sensitivity areas date to the Middle Holocene (7,000 to 4,000 years cal BP), Early Holocene (11,500 to 7,000 years cal BP), and Latest Pleistocene (about 22,000 to about 11,500 years cal BP), respectively, and are in the northwestern portion of the City limits. In the wider Davis Planning Area, buried archaeological site sensitivity is generally high to very high in the central and eastern portions and are moderate to very low in the northwestern portion.[82]

HISTORIC-ERA ARCHAEOLOGICAL SENSITIVITY ASSESSMENT

Historic-era archaeological resource types that may be present in the city and the wider Davis Planning Area include privies, trash deposits, building foundations, railroad alignment remains, and older water and utility systems such as ditches, canals, wells, and pipes.

As stated in the Historic-era Setting, Davis developed and expanded as a town at the junction of two routes of the California Pacific Railroad in the late 1800s. At the turn of the 20th century, development in "Davisville" was focused in what is now Downtown Davis and Old East Davis. With the establishment of UC Davis on the west side of the city in the early 1900s, Davis expanded west and northwest to accommodate the rising population to support the university. Over the latter half of the 20th century, Davis continued to expand along the northern side of Putah Creek north, west, and east of the downtown area.

Downtown Davis and East Davis are the oldest parts of the city and are more sensitive for buried historic-era archaeological resources. Areas that have only been developed in the past fifty years are less sensitive for historic-era archaeological resources, although there is the potential for the remains of small historic-era farms that would have supported the city's urban core to be present in these areas.

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[81] Meyer, J., and J.S. Rosenthal. 2008. *A Geoarchaeological Overview and Assessment of Caltrans District 3, Cultural Resources Inventory of Caltrans District 3 Rural Conventional Highways*. Prepared by Far Western Anthropological Research Group. Prepared for Caltrans District 3.

[82] Meyer, J., and J.S. Rosenthal. 2008. *A Geoarchaeological Overview and Assessment of Caltrans District 3, Cultural Resources Inventory of Caltrans District 3 Rural Conventional Highways*. Prepared by Far Western Anthropological Research Group. Prepared for Caltrans District 3.

Engagement with California Native American Tribes

Davis is located on land which is home to the Patwin people. Today, Patwin people who have ancestral ties to the land are part of several Tribes in California. As per the requirements of California Public Resources Code (PRC) Section 21080.3.1, the City has received written request and regularly engages in consultation with the Cachil Dehe Band of Wintun Indians of the Colusa Indian Community, the Kletsel Dehe Band of Wintun Indians, and Yocha Dehe Wintun Nation. Davis has a standard condition of approval that requires builders to reach out to the local tribes if they find any cultural materials.

Tribal Cultural Resources

The location and nature of Tribal Cultural Resources are confidential between the City and the consulting Tribes. Tribal Cultural Resources within the city and the wider Davis Planning Area may include tangible and intangible heritage resources as described in the Pre-contact Archaeological Resources Sensitivity Assessment. The City, or consultants under direction of the City, request a search of the Native American Heritage Commission's Sacred Lands File as part of its tribal consultation and tribal consultation identification as required by the California Environmental Quality Act (CEQA) and other regulations, including PRC Section 21080.3 (Assembly Bill [AB] 52) and Government Code Sections 65352, 65352.3, 65352.4, and 65562.5 (SB 18).

City of Davis Historic Preservation Efforts

Certified Local Government

Davis attained status as a Certified Local Government (CLG) in 1995. The CLG program is administered by the California OHP with the goal to support and encourage direct participation of local governments in the identification and stewardship of their historic resources. It is a partnership between Davis, OHP, and the National Park Service which is responsible for administering the National Historic Preservation Program. CLG participants are eligible for federal grants to support local historic preservation programs related to proactive management of historic resources.

To become a CLG, local jurisdictions make a binding formal commitment to uphold national historic preservation standards through the establishment of local designation programs as well as adoption of specific criteria for the management of historic resources. In Davis, these processes are codified in Municipal Code Article 40.23: Historical Resources Management.

Municipal Code Article 40.23

Municipal Code Article 40.23 establishes the various mechanisms by which the City manages historic resources. It defines the duties of the Planning Commission as it is related to management of historical resources in the City of Davis. As of 2025, the Planning Commission oversees implementation of Article 40.23. This section of the Municipal Code also defines the criteria for listing on the Davis Register of Historical Resources and establishes the designation process. Lastly, this section of the Municipal Code presents the processes that apply to projects affecting historic resources in the city. These projects may include demolition, renovation, or maintenance and repair. Municipal Code Article 40.23 also presents the appeals process for property owners who wish to challenge the decisions made by the City or the Planning Commission.

Municipal Code Article 40.23.060 presents the criteria for designation to the Davis Register of Historical Resources (local register). There are three types of historic resources that comprise the local register: Landmarks; Merit Resources; and Historic Districts. The criteria for designation approximate those required for the National and California registers.

- **Landmarks.** Landmarks include any historic resource listed on or determined eligible for the National Register and/or the California Register. Landmarks also include resources that meet the following criteria:

  (1) Associated with events that have made a significant contribution to the broad patterns in the history of Davis, California, or the nation; or

  (2) Associated with the lives of significant persons in the history of Davis, California, or the nation; or

  (3) Embodies the distinctive characteristics of a type, period, architectural style or method of construction; or that represents the work of a master designer; or that possesses high artistic values; or that represents a significant and distinguishable entity whose components may lack individual distinction; or

  (4) Has yielded or may likely yield archaeological or anthropological information important in the study of history, prehistory, or human culture.

  Additionally, when designating a Landmark, the designation must consider four factors that relate to the historical integrity of the resource:

  (1) A resource moved from its original location may be designated a landmark if it is significant primarily for its architectural value or it is one of the most important surviving structures associated with an important person or historic event.

  (2) A birthplace or grave may be designated a landmark if it is that of a historical figure of outstanding importance within the history of Davis, the state or the nation and there are no other appropriate sites or resources directly associated with his or her life or achievements.

  (3) A reconstructed building may be designated a landmark if the reconstruction is historically accurate and is based on sounds historical documentation, is executed

in a suitable environment, and if no other original structure survives that has the same historical association.

(4) A resource achieving significance within the past fifty years may be designated a landmark if the resource is of exceptional importance within the history of Davis, the state or the nation.

- **Merit Resources.** Merit resources must meet the same criteria as Landmarks but their historical significance would be local in context. This category is meant to capture those historic resources that are significant to the local community but may not rise to the level needed for designation as Landmarks or on the California or National registers.
- **Historic Districts.** Historic districts on the local register are comprised of multiple buildings that together as a group meet the criteria for designation as Landmarks. In addition to the criteria for designation, applications for historic districts must consider the following factors that relate to the historical integrity of the district:

  (1) To be designated an historic district a grouping of historical resources must meet one of the above four criteria at the local, state, or national level of significance and the majority of the historic district contributors must retain historic integrity. The collective value of the district contributors may be greater than the individual resources within the historic district;

  (2) An historic district plan shall be developed and reviewed by the historical resources management commission simultaneously with designation. The historic district plan shall provide standards for review within that particular district to ensure that new development, renovation, and rehabilitation are compatible and complementary to the prevalent character-defining features, architectural style, historic context, and design elements within the historic district;

  (3) The historic district contributors are identified in the designation materials and the district plan including buildings, sites, structures, objects, or cultural landscapes that add to the historic architectural qualities, historic associations or patterns for which an historic district is significant and that are located within the district boundaries;

  (4) The historic district non-contributors are identified in the designation materials and the district plan including buildings, sites, structures, objects and landscapes within the district boundaries that do not add to the historic architectural qualities, historic association or patterns for which the historic district is significant;

  (5) The historic district boundaries and period of significance are identified in the designation materials and the district plan.

Davis Historical Resources Designation is made by the City Council on the recommendation of the Planning Commission. Any resident of Davis may initiate designation, and all designations are subject to a public hearing and a review timeline that is established in section 40.23.070: Designation Process.

Cultural Resources Inventory

As required by the CLG program, Davis conducts ongoing identification efforts to record historic resources in the city. The Cultural Resources Inventory includes citywide, neighborhood-wide, and individual property surveys conducted from 1980 to the present. Significant survey efforts were undertaken in 1980, 1996, 2003, 2006, and 2015. The 2015 effort also included development of the *Davis, California: Citywide Survey and Historic Context Update* to facilitate evaluations throughout the entire city. This context statement update includes prior context statements from the 1980, 1996, and 2003 surveys and served the basis for subsequent survey and evaluation efforts undertaken in the Downtown area in 2019, 2022, 2023, and 2024.

Historic Resources in Davis

NATIONAL REGISTER PROPERTIES

A property is eligible for listing in the National Register if it meets the National Register listing criteria at 36 CFR 60.4, as stated below:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that:

A) Are associated with events that have made a significant contribution to the broad patterns of our history, or

B) Are associated with the lives of persons significant in our past, or

C) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or

D) Have yielded, or may be likely to yield, information important in prehistory or history

There are 67 properties in Davis that are listed or determined eligible for listing in the National Register, or that contribute to a listed or eligible National Register historic district.[83]

[83] OHP. 2025. Built Environment Resource Directory (BERD) for Yolo County. Available: https://ohp.parks.ca.gov/?page_id=30338. Accessed April 7, 2025.

CALIFORNIA REGISTER RESOURCES

To be eligible for the California Register a historical resource must be significant under one or more of the following criteria:

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

All historic properties listed in or determined eligible for listing in the National Register are automatically listed in the California Register. As of April 2025, the Built Environment Resource Directory for Yolo county, which is maintained by the California OHP, did not list any resource that was listed in or determined eligible for listing in only the California Register.[84]

DAVIS REGISTER OF HISTORICAL RESOURCES

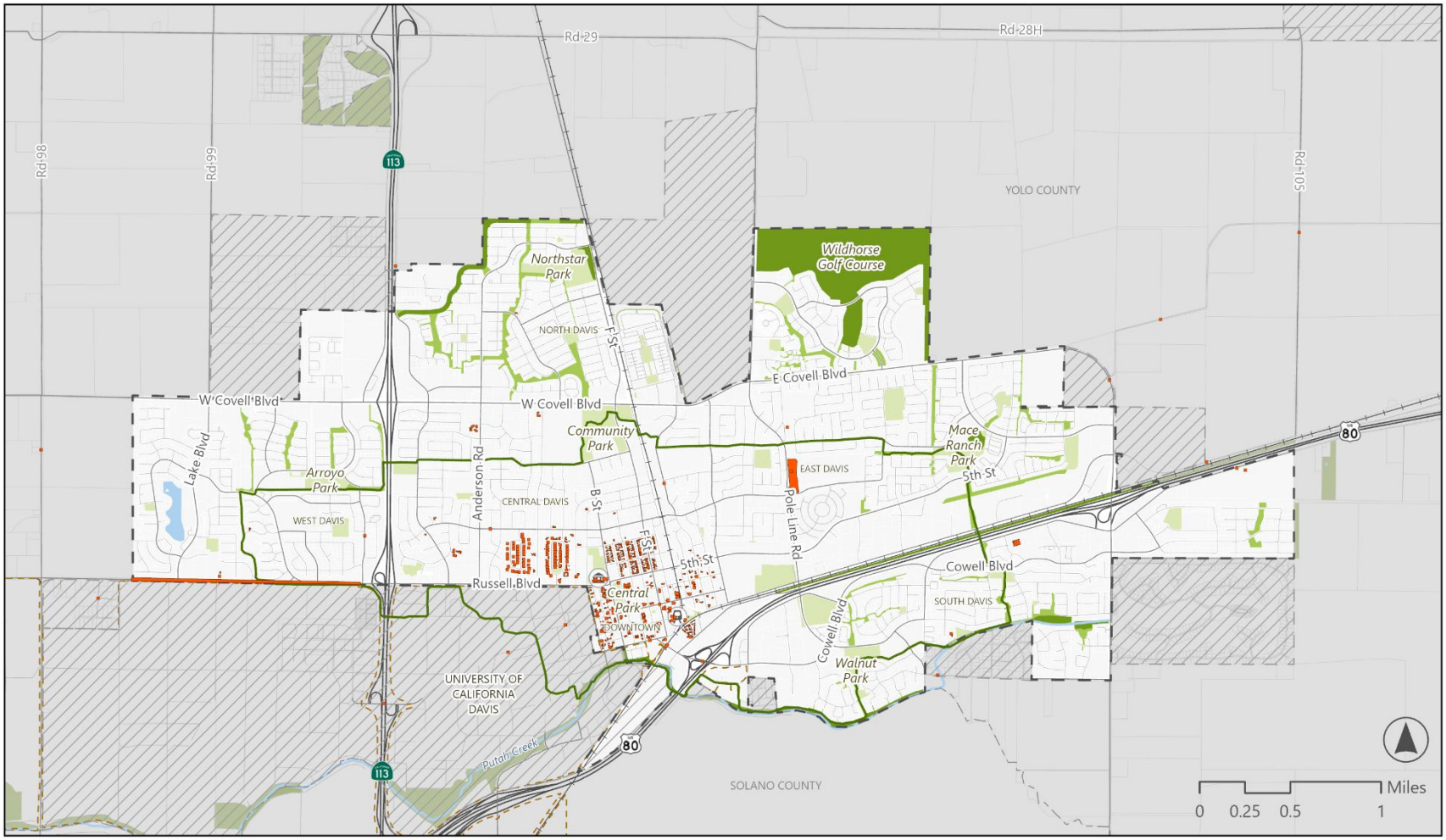
The Cultural Resources Inventory was last updated in March 2023. At that time, there were 19 Landmarks, 24 Merit Resources, and one Historic District included on the Davis Register of Historical Resources.[85]

Figure 11, *Previously Identified Historic Resources*, shows the distribution of known historic resources throughout Davis and the surrounding area. This figure includes resources listed in, or determined eligible for listing in the National Register, the California Register, and/or as City of Davis Landmarks or Structures of Merit.

[84] OHP. 2022. Built Environment Resources Directory (BERD) for Yolo County.

[85] City of Davis. 2025a. Historic Preservation [webpage]. Available: www.cityofdavis.org/city-hall/community-development-and-sustainability/historic-preservation. Accessed April 30, 2025.

Figure 11. Previously Identified Historic Resources



City of Davis
Sphere of Influence
UC Davis Campus
County Boundary
Lakes
Amtrak Station
City Hall
Highways
Major Roads
Local Roads
Rail Lines
Bike Loop
Rivers/Creeks
Historic Resources

City of Davis General Plan Update

Figure 11
Previously Identified Historic Resources

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), California Office of Historic Preservation (2025), ESA (2025).

ENERGY

Introduction

This section provides an overview of existing and planned energy resources, infrastructure, and sustainability initiatives within Davis. It describes the sources of electricity and natural gas serving the community, including details about local utilities and energy providers. The section highlights Davis's robust sustainability program and ongoing efforts to improve energy efficiency, local generation, and resilience. It summarizes energy conservation initiatives, adopted plans and actions, renewable procurement and infrastructure, and outlines relevant policies, regulatory frameworks, and community partnerships. Additionally, the section discusses the City's renewable energy targets and strategies, including the Climate Action & Adaptation Plan, Housing Element programs, reach codes, and other achievements aimed at reducing greenhouse gas emissions and supporting the transition to clean energy.

Existing and Planned Energy Resources

Pacific Gas & Electric

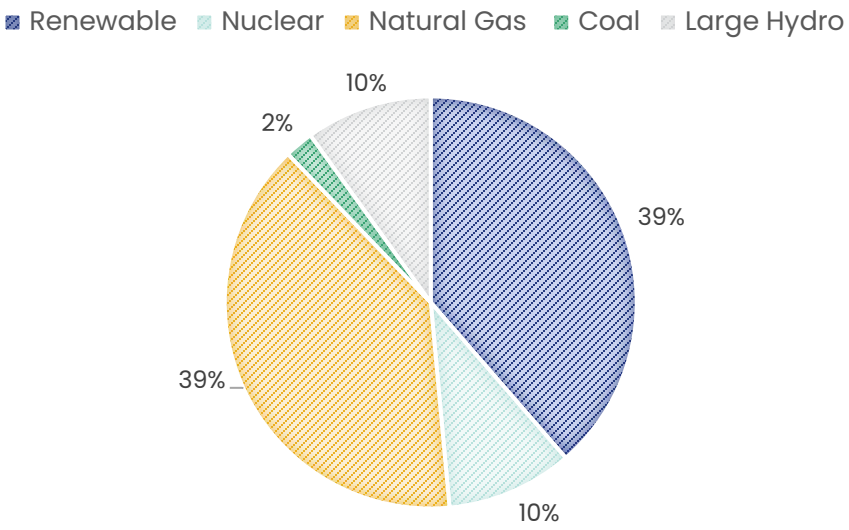
Pacific Gas & Electric Company (PG&E) is an investor-owned utility (IOU) and operates across the western United States. PG&E is responsible for generating electricity and providing it to Davis and its residents. As depicted in **Figure 12**, *2022 PG&E Power Content* for California, PG&E obtains its energy through a mix of sources, including 39 percent from renewable,[86] 36 percent from natural gas, 10 percent from large hydroelectric, 9 percent from nuclear, and 2 percent from coal.[87]

With 16 million customers across California, PG&E supplies more people than any other utility in the country. Its climate goals are among the most ambitious laid out by major investor-owned utilities. PG&E plans to achieve net-zero emissions by 2040 without eliminating natural gas usage, as shown in **Figure 13**, *PG&E Climate Goals*. To reach this ambitious goal, PG&E aims to reduce Scope 1 and 2 emissions by 50 percent from 2015 levels, Scope 3 emissions by 25 percent from 2015 levels, and tackle "Scope 4" by enabling customer emission reductions. This goal precedes California's carbon neutrality target by five years.

[86] PG&E renewable sources include biomass and waste, geothermal, small hydroelectric, solar, and wind.

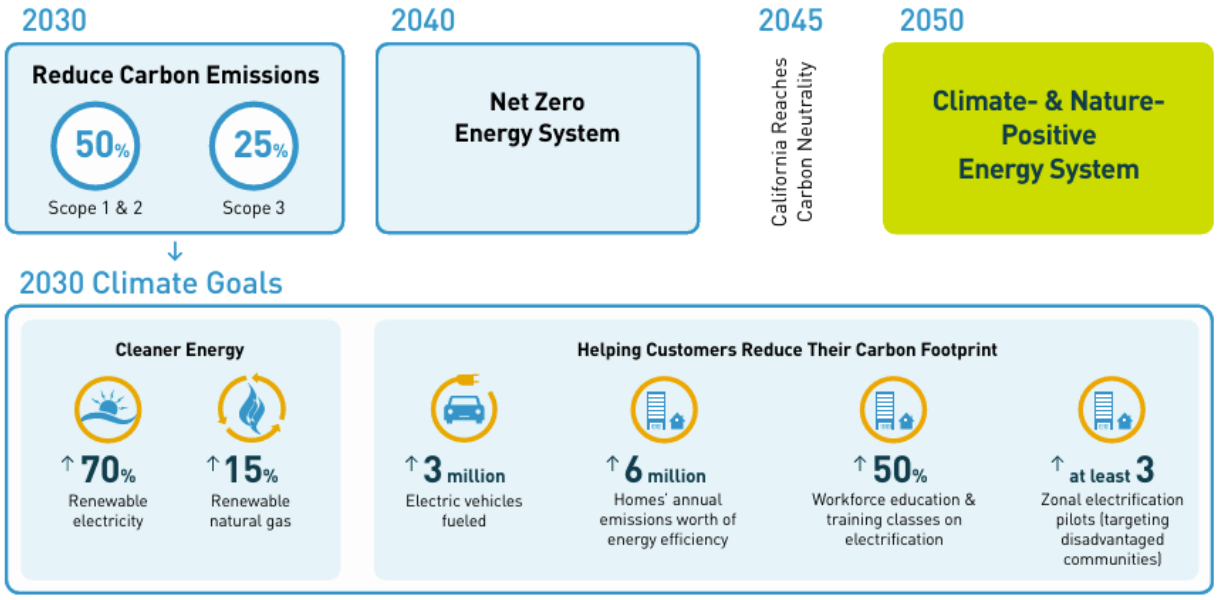
[87] PG&E. 2023. 2022 Power Content Label. Available: https://www.pge.com/content/dam/pge/docs/account/billing-and-assistance/power-content-label.pdf. Accessed April 20, 2025.

Figure 12. 2022 PG&E Power Content for California



Source: PG&E 2023

Figure 13. PG&E Climate Goals



Notes:
Scope 1: Direct emissions from PG&E operations.
Scope 2: Indirect emissions from facility electricity use and electric line losses.
Scope 3: Emissions resulting from value chain activities not owned or controlled by PG&E but that can be indirectly impacted by PG&E actions.
"Scope 4": An emerging term for categorizing emission reductions enabled by a company. PG&E can make a contribution by enabling these emission reductions in its service area.

Source: PG&E (Pacific Gas & Electric Company). 2022a. PG&E Climate Strategy Report. June 2022.

PG&E has committed to cleaning and diversifying its energy mix, especially in California.[88] To reach the 2030 interim goal of Scope 3 and "Scope 4" emissions, the company aims to deliver 70 percent Renewables Portfolio Standard (RPS) clean electricity.[89] Through this, the company will manage energy demand as a reliable, cost-effective alternative to traditional power generation solutions.

PG&E's infrastructure in Davis consists of electric transmission lines, substations, and natural gas pipelines. PG&E also has a 27-acre Corporation Yard within the City limits that provides maintenance for the statewide vehicle fleet. There are several natural gas pipelines running adjacent to I-80, through the center of the city, and into the University of California Davis area.[90] As shown in **Figure 14**, *PG&E Infrastructure*, there are several transmission lines owned and operated by PG&E within the City limits, as well as one 33kV to 92kV substation.[91]

Valley Clean Energy

Valley Clean Energy (VCE) is a Community Choice Aggregation (CCA)[92] and the official electricity provider for residential and commercial customers within Davis. VCE offers three levels of electricity service: a Standard Green package, an UltraGreen package, and a Base Green rate. As displayed in **Figure 15**, *VCE Power Content*, in 2023, VCA procured electricity from 39 percent from renewable,[93] 39 percent from natural gas, 10 percent from large hydroelectric, 10 percent from nuclear, and 2 percent from coal.[94]

While VCE owns and generates its own power, VCE does not operate the distribution or delivery infrastructure. Rather, the infrastructure is owned and operated by PG&E, as described above. Customers, including residential, commercial, agricultural, and industrial, are automatically enrolled in VCE, but have the ability to opt out and return to PG&E. VCE is exploring options to potentially establish itself as a municipal utility, which would allow it to provide and sell electricity to local consumers.[95]

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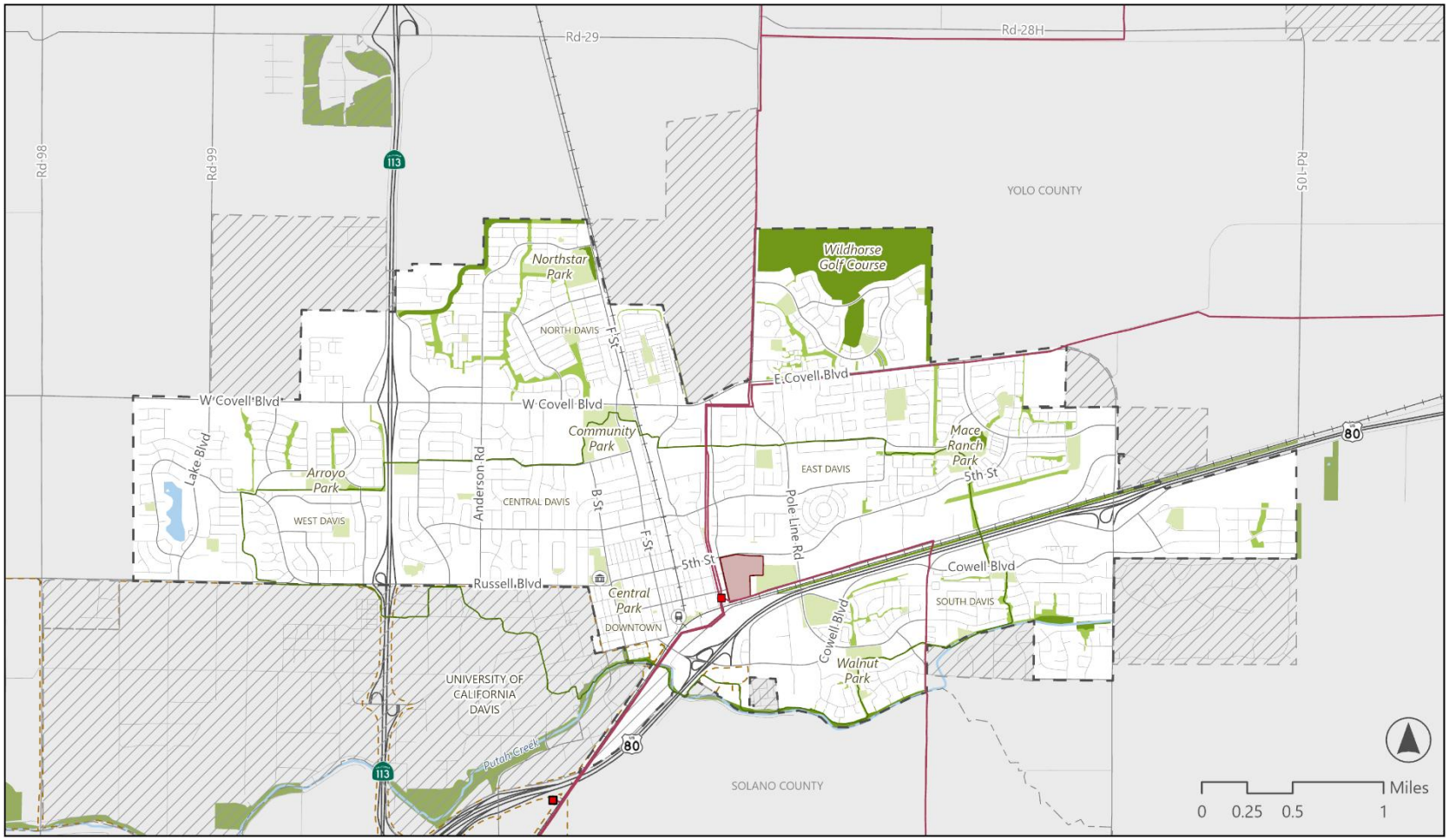
[88] PG&E (Pacific Gas & Electric Company). 2022a. *PG&E Climate Strategy Report*. June 2022.
[89] This is above the RPS compliance obligation of 60 percent.
[90] PG&E. 2025. Gas Systems [online database]. Search term: "Davis." Available: https://www.pge.com/en/about/pge-systems/gas-systems.html#tabs-fc6b80548f-item-727cbee02b-tab. Accessed April 22, 2025.
[91] Esri. 2025. City of Davis; Utility Network WFL1 layer [interactive mapping tool]. Available: https://www.arcgis.com/apps/mapviewer/index.html?panel=gallery&suggestField=true&layers=18aea2e1d4204ef7aac66f335106ede7. Accessed April 22, 2025.
[92] CCA is a program available within the service area of investor-owned utilities (IOUs), which allows cities and counties to purchase and/or generate electricity for residents and businesses in the territories that they serve.
[93] PG&E renewable sources include biomass and waste, geothermal, small hydroelectric, solar, and wind.
[94] VCE. 2024. 2023 Power Content Labels [webpage]. Available: https://valleycleanenergy.org/power-content-labels/. Accessed April 22, 2025.
[95] City of Davis. 2025. Kelly Stachowicz, Interim City Manager, presentation to City Council on municipal energy. May 13, 2025.

Figure 14. PG&E Infrastructure

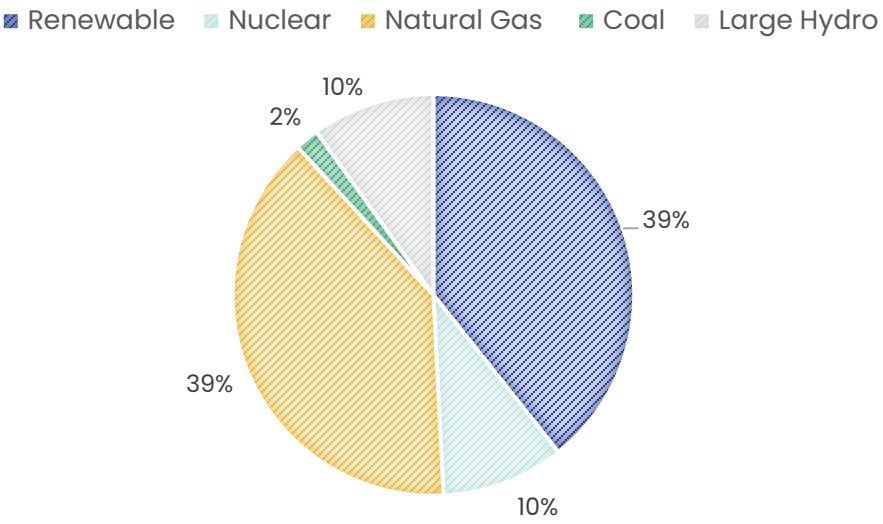


City of Davis General Plan Update

Figure 14
PG&E Infrastructure

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), Pacific Gas & Electric (2025), ESA (2025).

Figure 15. VCE Power Content



Source: VCE 2024

One of VCE's core goals is to manage power supply resources to consistently exceed California's RPS target while working toward a resource portfolio that is 100 percent carbon neutral by 2030. This ambitious 2030 goal can be achieved by continuing to identify and pursue cost-effective local renewable energy resources, including local distributed energy (e.g., behind-the-meter rooftop solar and storage) to further improve reliability.[96]

Energy Plans, Goals, and Strategies

City of Davis

Davis has a long history of climate action and energy efficiency implementation. For example, it has one of the highest solar photovoltaic adoption rates per capita. As of January 1, 2018, with a population of 68,704, Davis reached 735 watts per capita, making Davis a leader amongst U.S. cities.[97] The City's energy efficiency and generation goals and achievements can be showcased through various programs, as described below.

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[96] VCE (Valley Clean Energy). 2020. Valley Clean Energy Strategic Plan. Approved October 8, 2020. Available: https://valleycleanenergy.org/wp-content/uploads/VCE-Strategic-Plan-Final.pdf. Accessed April 22, 2025.

[97] City of Davis. 2025. Climate Action in Davis [webpage]. Available: https://www.cityofdavis.org/city-hall/economic-development-sustainability/sustainability/2020-climate-action-and-adaptation-plan-caap/climate-actions. Accessed April 19, 2025.

2020-2040 CLIMATE ACTION & ADAPTATION PLAN

Davis adopted its Climate Action and Adaptation Plan (CAAP) in April 2023, which aims to guide Davis to reach its carbon neutrality goal by the year 2040. The CAAP sets goals and targets to reduce greenhouse gas (GHG) emissions, address climate adaptation, and incorporate environmental justice into plan implementation. The CAAP demonstrates compliance with AB 32 and SB 375. It includes new emission reduction targets for 2030 that align with SB 32 and emission reduction targets through 2040 to align with Executive Order B-55-18. The CAAP also includes a GHG emissions inventory with a baseline year of 2016.

The CAAP goals fall into five sectors: building energy and design; transportation and land use; water conservation and waste reduction; climate adaptation; and carbon removal. Relevant to the energy landscape, the building energy and design goals expand local renewable energy development and storage. Action BE.8 under this goal seeks to create community microgrids and resiliency hubs. Community microgrids, community battery "co-ops," and the networking of local energy sources support energy resilience by creating alternate localized energy infrastructure. In the event of power grid outages or public safety power shutoffs (PSPS), localized resiliency hubs could remain in operation and allow the community to remain connected to power. This action directs the City to incentivize microgrids and resiliency hubs to boost both energy and community resilience.[98]

The CAAP also aspires to expand local renewable energy and storage. Through the implementing action, "BE.8 Create community microgrids and resiliency hubs," Davis seeks to improve the resiliency of the local grid and community.[99] While this action has not been quantified in terms of GHG reduction capacity, it encourages the reliance on local energy sources which in turn could lead to a lesser reliance on fossil fuels.

2021-2029 HOUSING ELEMENT PROGRAMS

Davis prepared the 2021 – 2029 Housing Element to evaluate current and future housing conditions and identify housing sites to meet the community's needs and remove barriers to affordability. While the Housing Element focuses on the provision of adequate, safe housing for Davis residents, it does promote building electrification, the provision of on-site renewable energy, and energy conservation through programs under Goal 6, *Energy Conservation*. Program implementation will assist the City in meeting its renewable energy and GHG reduction goals.

[98] City of Davis. 2023b. *City Manager's Office Staff Report to the Natural Resources Commission Regarding the Energy Reach Code Update*. November 27, 2023.

[99] City of Davis. 2023a. *2020-2040 Climate Action and Adaptation Plan*. Final. April 18, 2023.

DAVIS ENERGY REACH CODE

Davis adopted its Residential Energy Reach Code in 2019 to incentivize all-electric homes by requiring mixed fuel home building (gas and electric) to have additional energy efficiency requirements, increased photo-voltaic use and battery storage. The adopted Reach code also requires items such as the inclusion of electric vehicle charging stations in multifamily residential projects. The City is currently considering updates to better align with the California Energy Code and the US 9th Circuit Court of Appeals decision regarding electrification readiness. If adopted, this could eliminate natural gas in new construction and eliminate the mixed-fuel building category under the currently adopted reach code. The updated reach code would apply to all new single-family, accessory dwelling unit, and low-rise multifamily construction. It is anticipated this would lead, conservatively, to an estimated GHG reduction of 20-30 percent.[100]

PG&E Energy Efficiency Plan 2024-2031

PG&E's 2024–2031 Energy Efficiency Plan, submitted to the California Public Utilities Commission, proposes to deliver $2.1 billion worth of electric and gas system benefits to customers. The primary goals of the plan are to keep energy bills affordable, reduce energy demand on the grid, build customer resiliency to climate change, and advance building decarbonization.[101]

Yolo Energy Partnership

The Yolo Energy Partnership (YEP) is a County-led program designed to help residents in unincorporated Yolo county reduce energy costs, improve home comfort, and access energy efficiency resources. This community-facing program allows homeowners and renters to apply for various programs. The current programs include the Home Energy Score (HES) Pilot Program to assess improvements and recommend personalized energy efficiency upgrades, the Weatherization Program which provide free energy-saving kits to lower energy bills and improve home comfort, the Electric Advisors by VCE which streamlines information on rebates and incentives for electrification, and the Owner Occupied Housing Rehab Program which is an income based program that can assist financially with home energy systems.[102] These programs included in the YEP indirectly lead to changes in the City's energy portfolio by encouraging energy efficiency and electrification.

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[100] City of Davis. 2023b. *City Manager's Office Staff Report to the Natural Resources Commission Regarding the Energy Reach Code Update*. November 27, 2023.

[101] PG&E. 2022b. *PG&E Energy Efficiency 2024-2031 Strategic Business Plan*. February 15, 2022. Available: https://docs.cpuc.ca.gov/PublishedDocs/SupDoc/A2202005/4532/452751515.pdf?WT.mc_id=Vanity_eeplan2024-2031. Accessed April 22, 2025.

[102] County of Yolo. 2025. Yolo Energy Partnership [webpage]. Available: https://www.yolocounty.gov/government/general-government-departments/community-services/climate-action-sustainability/yolo-energy-partnership. Accessed April 24, 2025.

Cool Davis

Cool Davis is a non-profit organization based in Davis with the goal of promoting sustainable living and reducing GHG emissions within the immediate community. Previously, Cool Davis was established in 2010 as part of the City's Climate Action Plan, with the intention of achieving carbon neutrality by 2050. One of the primary strategies employed to meet this target was community engagement. As such, they offer residents actionable steps to reduce their carbon footprint, including adopting energy-efficient home systems, transitioning to electric vehicles, and utilizing available tax credits and rebates. They collaborate with community members to identify and address neighborhood vulnerabilities related to climate resilience, promoting actions like enhancing tree canopies, implementing drought-tolerant landscaping, and improving home energy efficiency. The organization also hosts events such as fairs, workshops, and festivals to educate and involve residents in sustainability efforts.[103]

[103] Cool Davis. 2025. Cool Solutions [webpage]. Available: https://www.cooldavis.org/. Accessed April 22, 2025.

PALEONTOLOGICAL RESOURCES

Introduction

This section provides an overview of paleontological resources within Davis and its Planning Area, including descriptions of the types of fossils and geologic formations present in the region. It summarizes the scientific significance of local fossil discoveries, outlines the geologic history and stratigraphy relevant to fossil preservation, and identifies areas with high or low potential for encountering significant paleontological materials. The section also discusses regulatory guidelines and best practices for the assessment and protection of paleontological resources during development, ensuring that important scientific information is preserved for future study.

Background

Paleontological resources are the fossilized remains of plants and animals: vertebrates (animals with backbones; e.g., mammals, birds, fish), invertebrates (animals without backbones; e.g., starfish, clams, coral), and microscopic plants and animals (microfossils). Paleontological resources can include mineralized body parts, body impressions, or footprints and burrows. They are valuable, non-renewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived. Fossils can be used to determine the relative ages of the depositional layers in which they occur and of the geologic events that created those deposits. The age, abundance, and distribution of fossils depend on the geologic formation in which they occur and the topography of the area in which they are exposed. The geologic environments within which plants or animals became fossilized usually were quite different from the present environments in which the geologic formations exist.

The Society of Vertebrate Paleontology (SVP) established guidelines for the identification, assessment, and mitigation of adverse impacts on non-renewable paleontological resources.[104] Most practicing paleontologists in the United States adhere closely to the SVP's assessment, mitigation, and monitoring requirements as outlined in these guidelines, which were approved through a consensus of professional paleontologists. Many federal, State, county, and city agencies have either formally or informally adopted the SVP's standard guidelines for the mitigation of adverse construction-related impacts on paleontological resources. The SVP has helped define the value of paleontological resources. In particular, the SVP indicates that geologic units of high paleontological potential are those from which

[104] SVP (Society of Vertebrate Paleontology). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Prepared by SVP Impact Mitigation Guidelines Revision Committee.

vertebrate or significant invertebrate or plant fossils have been recovered in the past (i.e., are represented in institutional collections). Geologic units of low paleontological potential are those that are not known to have produced a substantial body of significant paleontological material. As such, the sensitivity of an area with respect to paleontological resources hinges on its geologic setting and whether significant fossils have been discovered in the area or in similar geologic units.

Paleontological sensitivity is defined as the potential for a geologic formation to produce scientifically important fossils. This is determined by the rock type, the past history of the geologic unit in producing significant fossils, and the fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. In its *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*, the SVP defines four categories of paleontological sensitivity for rock units, reflecting their potential for containing additional significant paleontological resources:[105]

1. *High Potential*: Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered;
2. *Low Potential*: Rock units that are poorly represented by fossil specimens in institutional collections, or that based on general scientific consensus only preserve fossils in rare circumstances, with the presence of fossils being the exception, not the rule;
3. *Undetermined Potential*: Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment; and
4. *No Potential*: Rock units such as high-grade metamorphic rocks (e.g., gneisses and schists) and plutonic igneous rocks (e.g., granites and diorites) that will not preserve fossil resources.

The SVP guidance also states that significant paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 years).

Geologic Units

The Yolo Subbasin Groundwater Agency's 2022 Groundwater Sustainability Plan for Yolo County, California, includes detailed information on various geologic units and their characteristics.[106]

[105] SVP (Society of Vertebrate Paleontology). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Prepared by SVP Impact Mitigation Guidelines Revision Committee.

[106] YSGA (Yolo Subbasin Groundwater Agency). 2022. *Yolo Subbasin Groundwater Agency, 2022 Groundwater Sustainability Plan, Yolo County, CA*. January 24, 2022.

The geologic units under Davis are shown on **Figure 16**, *Geologic Cross Section*, and are summarized below from shallow to deep.

- **Fill and disturbed native material –** Given that the city is almost entirely developed, surface deposits are largely disturbed and likely include imported fill from undocumented sources. The thickness of the surface materials is on the order inches to a few feet.
- **Alluvium -** The Quaternary[107] alluvium consists of complexly stratified sequences of unconsolidated sands, gravels, silts, and clay beds, typically found adjacent to major stream channels. Below the city, this unit ranges from 100 to 200 feet thick. These materials would be relatively young, on the order of less than 5,000 years old.
- **Tehama Formation -** The Pliocene-Pleistocene[108] Tehama Formation is divided into upper and lower units, with the upper unit containing layers of sand deposits and the lower unit containing fluvial sand sequences. The Tehama Formation could be encountered as shallow as about 100 feet. The thickness of this unit ranges from 2,500 to 2,800 feet.
- **Marine Deposits -** Mesozoic[109] marine rocks consist of well-consolidated sandstone and shales over 15,000 feet thick, containing saline water from their original marine deposition. This unit would be too deep for development to encounter.

As shown on the geologic cross section, the Tehama Formation is exposed at the surface to the west of the city, as well as extending beneath the city. This suggests that some of the materials in the alluvium may be derived from erosion of the Tehama Formation.

Paleontological Resources

The University of California Museum of Paleontology (UCMP) paleontological resources records were queried for fossils discovered within Yolo county. The search lists the general location, the period and epoch (age) of the fossil, the formation name, fossil type (vertebrate, invertebrate, or plant), and species, if identified. Precise locations are not provided to prevent unauthorized digging, since these records are publicly available. The completeness of the records varies and most records do not identify the fossil beyond the fossil type (e.g., vertebrate, invertebrate, mammal, plant) and age.

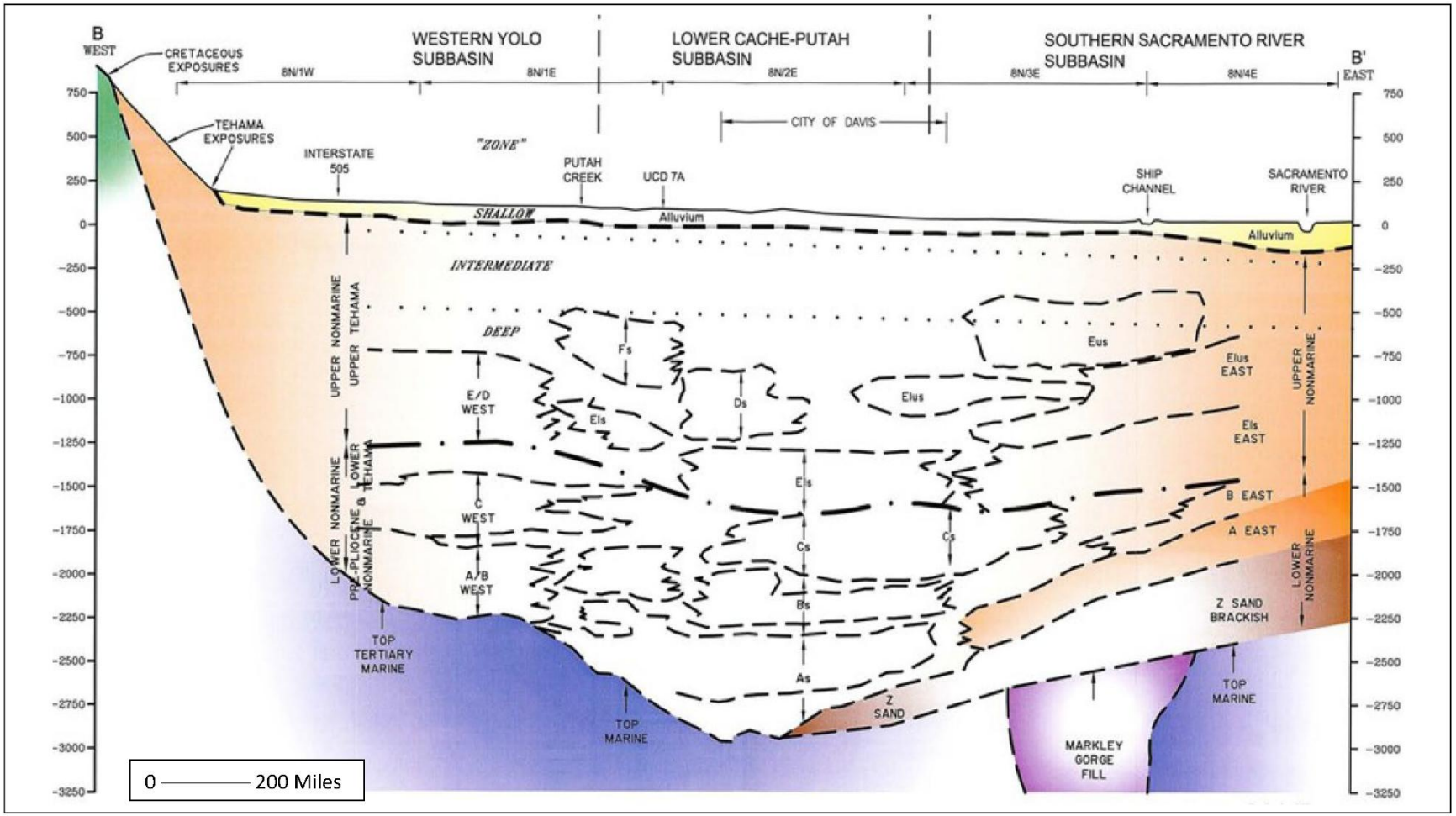
A total of 136 fossils were listed in the search within Yolo county. However, most of the listings are for older geologic formations too deep to be accessible to development in Davis. Of these, 19 of the fossil listings have information indicating the potential for occurrence within the City limits. These listings are summarized in **Table 6**, *Summary of Relevant Paleontological Resources Listings*, and discussed below.

[107] Quaternary time is from the present to 2.6 million years ago.

[108] Pliocene-Pleistocene time is from 5.3 million to 1.5 million years ago.

[109] Mesozoic time is from 66 million to 252 million years ago.

Figure 16. Geologic Cross Section



SOURCE: Yolo Subbasin Groundwater Agency 2022

City of Davis General Plan Update 202300092

Table 6. Summary of Relevant Paleontological Resources Listings

General Location (if identified)	Period	Epoch	Geologic Formation	Marine	Storage Age	Type
Listings with relevant location and formation timing						
UC Davis Arboretum						Plant
Putah Creek 1	Quaternary	Pleistocene			Rancholabrean	Vertebrate
Putah Creek 3	Quaternary	Pleistocene	Montezuma		Rancholabrean	Vertebrate
Putah Creek Nursery	Quaternary	Pleistocene	Montezuma		Rancholabrean	Vertebrate
Corcoran Ranch 1	Tertiary	Pliocene	Tehama	Marine	Blancan	Vertebrate
Gallup Ranch	Tertiary	Pliocene	Tehama	Marine	Blancan	Vertebrate
	Quaternary	Pleistocene				Invertebrate
Listings with Putah Creek but older formation timing						
Putah Creek	Paleogene	Eocene	Vacaville Shale	Marine		Invertebrate
Putah Creek	Paleogene	Eocene	Capay	Marine		Invertebrate
Putah Creek	Cretaceous		Chico	Marine		Invertebrate
Putah Creek	Cretaceous		Funks Shale	Marine		Invertebrate
Putah Creek	Cretaceous	Late Cretaceous	Venado			Mammal
Putah Creek	Cretaceous	Late Cretaceous	Venado			Mammal
Putah Creek	Cretaceous	Late Cretaceous	Forbes			Mammal
Putah Creek	Cretaceous	Late Cretaceous				Mammal

General Location (if identified)	Period	Epoch	Geologic Formation	Marine	Storage Age	Type
Putah Creek	Cretaceous	Late Cretaceous	Funks			Mammal
Putah Creek	Cretaceous	Late Cretaceous	Funks			Mammal
Putah Creek	Cretaceous	Late Cretaceous	Forbes			Mammal
Putah Creek	Cretaceous	Late Cretaceous	Forbes			Mammal

Source: UCMP 2025

Seven listings were identified that are within the City limits, within the local geologic formation (i.e., Tehama Formation), and older than 5,000 years. The listings include five vertebrates, one invertebrate, and one plant. Further research into the types of vertebrate fossils (Storage Age) indicated that the Brancan-stage[110] fossils may include mammals such as short-faced bears, sloths, various types of dogs, saber-toothed cats, rabbits, and horses. Rancholabrean-stage[111] fossils may include a wide range of mammals including Columbian mammoths, dire wolves, short-faced bears, American lions, ground sloths, and saber-toothed cats. In addition, there are 12 listings for older fossils found in locations in or adjacent to Putah Creek, which flows through the city, that could have been washed down the creek from upstream locations.

In summary, most development implemented under the General Plan would occur in surface to shallow materials (i.e., fill or shallow alluvium) that have no potential to encounter paleontological resources. Only projects implemented to depths of 100 feet or in or adjacent to Putah Creek have the potential to encounter significant paleontological resources.

[110] Brancan time is from 4.3 million to 4.9 million years ago.

[111] Rancholabrean time is from about 1.3 million to 11,700 years ago.

MINERAL RESOURCES

Introduction

This section provides an overview of mineral resources within Davis and its Planning Area, including information on the presence and status of energy resources such as crude oil, natural gas, and geothermal resources, as well as non-fuel mineral resources like gold, copper, gemstones, ornamental stone, and aggregate materials such as sand and gravel. It summarizes the regulatory context for mineral extraction, reviews available data on active, idle, and plugged wells, and discusses the geologic conditions relevant to mineral resource potential. The section also addresses the absence or presence of commercially viable mineral deposits and aggregate production zones and outlines relevant State and local policies that guide the management and protection of mineral resources in the region.

Oil and Natural Gas

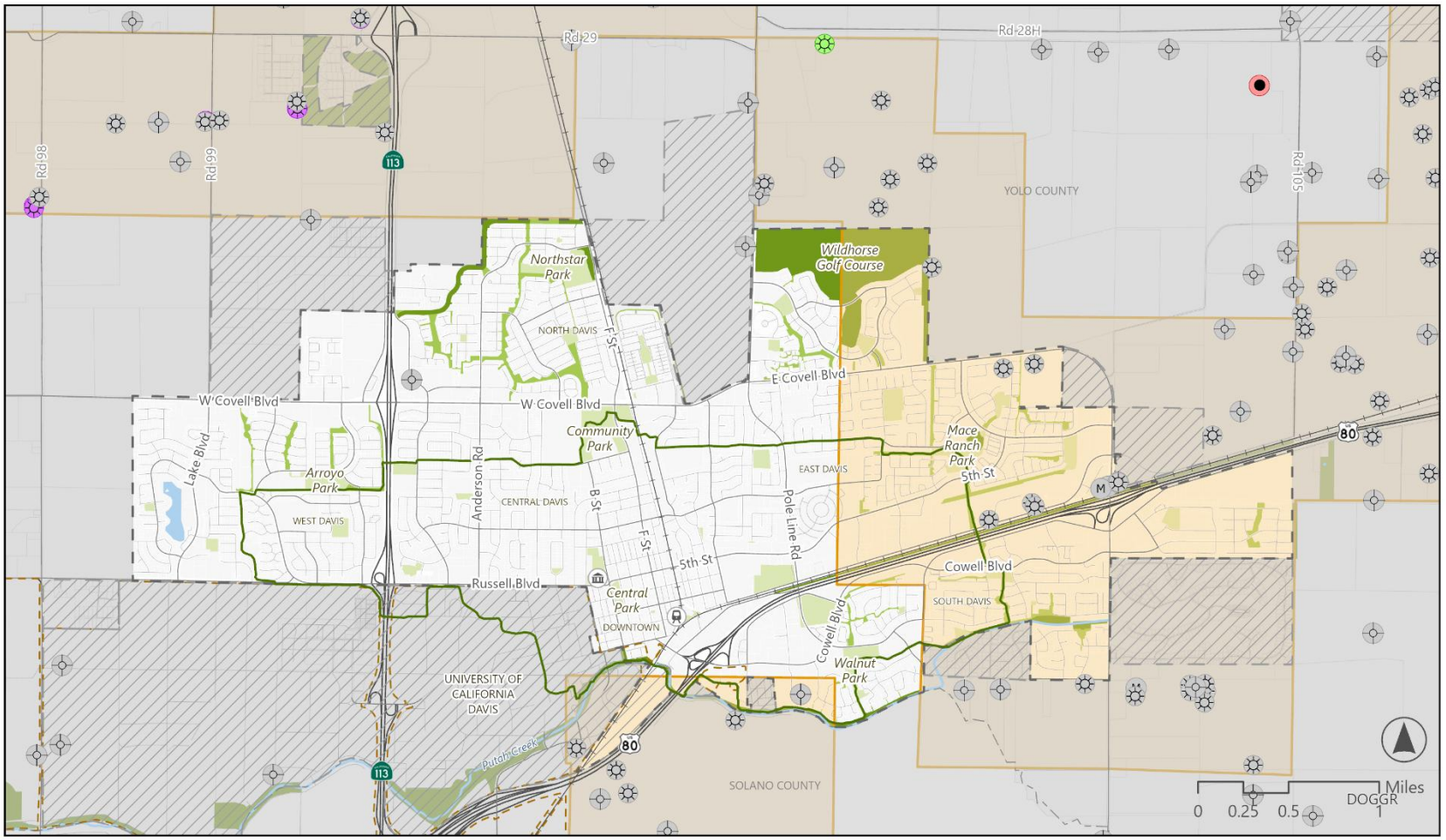
The California Geologic Energy Management Division (CalGEM) oversees the drilling, operation, maintenance, and plugging and abandonment of petroleum oil, natural gas, and geothermal energy wells. CalGEM maintains the website WellFinder, which provides information on the location, production history (if any), and status of active, idle, and plugged wells. The WellFinder website indicates that there are no active or idle wells within the City limits. As shown on **Figure 17**, *Oil and Gas Districts and Wells*, there are eight plugged wells within the City limits and four plugged wells within 100 feet of the City limits. The eastern portion of the city is located within the Todhunters Lake Gas Zone, an area designated by CalGEM has having geologic conditions favorable for the presence of natural gas.

The plugging of wells requires that the production zones of a well are grouted, along with the top 50 feet of the well casing to the ground surface. Typically, the top five or more feet of the well casing is then cut off, meaning that the former well location is not visible at the ground surface.

The local planning agency or building department issues permits and oversees construction for developments, including determining whether or not to allow construction over or near wells.[112] CalGEM recommends that structures not be placed over wells, including wells that have been plugged to the most stringent standards. CalGEM also recommends that construction not impede access to plugged wells, including to wells located outside of a given property being developed. While CalGEM recognizes that wells plugged to current requirements are less likely to experience leakage, there is no guarantee any plugged well will not leak in the future.

[112] CalGEM (California Geologic Energy Management Division). 2025. Property Development in an Oil Field.

Figure 17. Oil and Gas Districts and Wells



City of Davis General Plan Update

Figure 17
Oil and Gas Districts and Wells

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), California Geologic Energy Management Division (2025), ESA (2025).

Although CalGEM does not normally prevent construction that might limit access to wells, if construction does impede or prevent access to any well, or the recommendations of CalGEM are not followed, State law dictates that the developer, property owner, and/or local jurisdiction will incur the liability necessary to access the well, which may include removal of permanent structures, and perform necessary well repairs including plugging well(s) to current standards.

Non-Fuel Mineral Resources

The U.S. Geological Survey (USGS) operates the Mineral Resources Data System (MRDS), a digital system with records that describe metallic and industrial commodity deposits, mines, prospects, and occurrences in the United States.[113] These records have been created over the years by USGS commodity specialists and through cooperative agreements with geological surveys of U.S. states and other countries. A review of the records for Davis indicated that there are no listed current or past producing mines in or near the city.

Aggregate

The Surface Mining and Reclamation Act of 1975 (SMARA, PRC Sections 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. In addition, SMARA also encourages the production, conservation, and protection of the State's mineral resources. PRC Section 2207 provides annual reporting requirements for all mines in the State, under which the State Mining and Geology Board (SMGB) is also granted authority and obligations. The California Geological Survey and the SMGB regulate the operation of aggregate sources within the State of California. As part of the requirements, the State is required to conduct Mineral Land Classification studies to identify aggregate production zones. Davis is located within the Greater Sacramento Area Production-Consumption Region.[114] As stated in Special Report 245, Davis is not located within a Mineral Resource Zone (MRZ)-2 zone and does not have any active aggregate quarries. An MRZ-2 zone is defined as "areas where available geologic information indicates that significant measured or indicated resources are present or where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists." This is due to Davis being an almost entirely developed urban area. Therefore, there are no designated aggregate sources within the City limits.

[113] USGS (U.S. Geological Survey). 1996. Mineral Resources Data System (MRDS). July 6, 2024. Available: https://www.usgs.gov/publications/mineral-resources-data-system-mrds. Accessed on March 14, 2025.
[114] CGS (California Geological Survey). 2018. *Mineral Land Classification: Concrete Aggregate in the Greater Sacramento Area Production Consumption Region*. Special Report 245.

WATER RESOURCES AND QUALITY

Introduction

This section provides an in-depth assessment of the water systems, supply sources, and water quality conditions within Davis and its Planning Area. This section describes the regional hydrologic setting, including major watersheds and groundwater basins, and outlines the City's reliance on both surface water and groundwater to meet municipal and agricultural needs. It summarizes the regulatory frameworks, management strategies, and conservation efforts that ensure sustainable water use and protect water quality. Additionally, the section reviews current and projected water demand, infrastructure, and ongoing initiatives to address challenges such as drought, contaminants, and climate change, highlighting the importance of integrated water resource management for the long-term resilience of the community. Finally, the section also discusses the City's stormwater drainage system, including its infrastructure, regulatory requirements, and water quality management measures designed to prevent flooding and reduce pollution from urban runoff.

Setting

Sacramento River Hydrologic Region

Davis is in the Sacramento River Hydrologic Region, which stretches from Modoc county to Solano county, where the Sacramento River flows into San Francisco Bay. This hydrologic region covers approximately 27,200 square miles. In 2020, population within the region was estimated at nearly 3.3 million people. Climates in the hydrologic region range from high desert with annual precipitation of 10 to 20 inches to the valley, where precipitation varies from about 35 inches annually in Redding to 18 inches in Sacramento. The region supports nearly two million acres of irrigated farmland. Resource management efforts in the Sacramento River Hydrologic Region include supporting the migratory route of the Pacific Flyway, the restoration of spawning and rearing habitats for the recovery of listed fish species, and other restoration/recovery projects like the Ecosystem Restoration Program. Surface water supplies are managed through a complex system of water rights. Many who receive water in this region do not directly hold a water right to divert from a stream but receive water as a contractor from a water district, the State Water Project (SWP) or the Central Valley Project (CVP), which are covered by water rights held by the State and federal government for the benefit of their contractors.[115] The principal streams are the Sacramento

[115] DWR (California Department of Water Resources). 2023. *California Water Plan Update 2023*. Available: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2023/Final/California-Water-Plan-Update-2023.pdf. Accessed April 15, 2025.

River and its larger tributaries: the Pit, Feather, Yuba, Bear, and American Rivers to the east; and Cottonwood, Stony, Cache, and Putah Creeks to the west. Major reservoirs and lakes include Shasta, Oroville, Folsom, Clear Lake, and Lake Berryessa.[116] A map of watersheds in the region are depicted in **Figure 18**, *Regional Watersheds*. As shown, Davis and its Planning Area are in the Putah Creek and Willow Slough Bypass watersheds. A description of each watershed is provided below.

PUTAH CREEK WATERSHED

Putah Creek is 70 miles long and its headwaters are in the Mayacamas Mountains, a part of the Coast Range. The Putah Creek Watershed typically is divided into the upper watershed, which encompasses the 576–square mile area upstream of Monticello Dam, and the lower watershed, which consists of a considerably smaller but less precisely defined area between Monticello Dam and the Yolo Bypass. Approximately 90 percent of the total annual flow of Putah Creek measured at the confluence of Putah Creek and the Yolo Bypass originates from the upper watershed. As a result of historical mining, water quality in Putah Creek has been listed on the State's 303(d)[117] list as impaired for excessive mercury bioaccumulation in edible fish. Invasive weed and New Zealand mudsnail infestations are also an issue in the watershed. Major land uses around Putah Creek include rangeland and recreation.[118]

WILLOW SLOUGH BYPASS WATERSHED

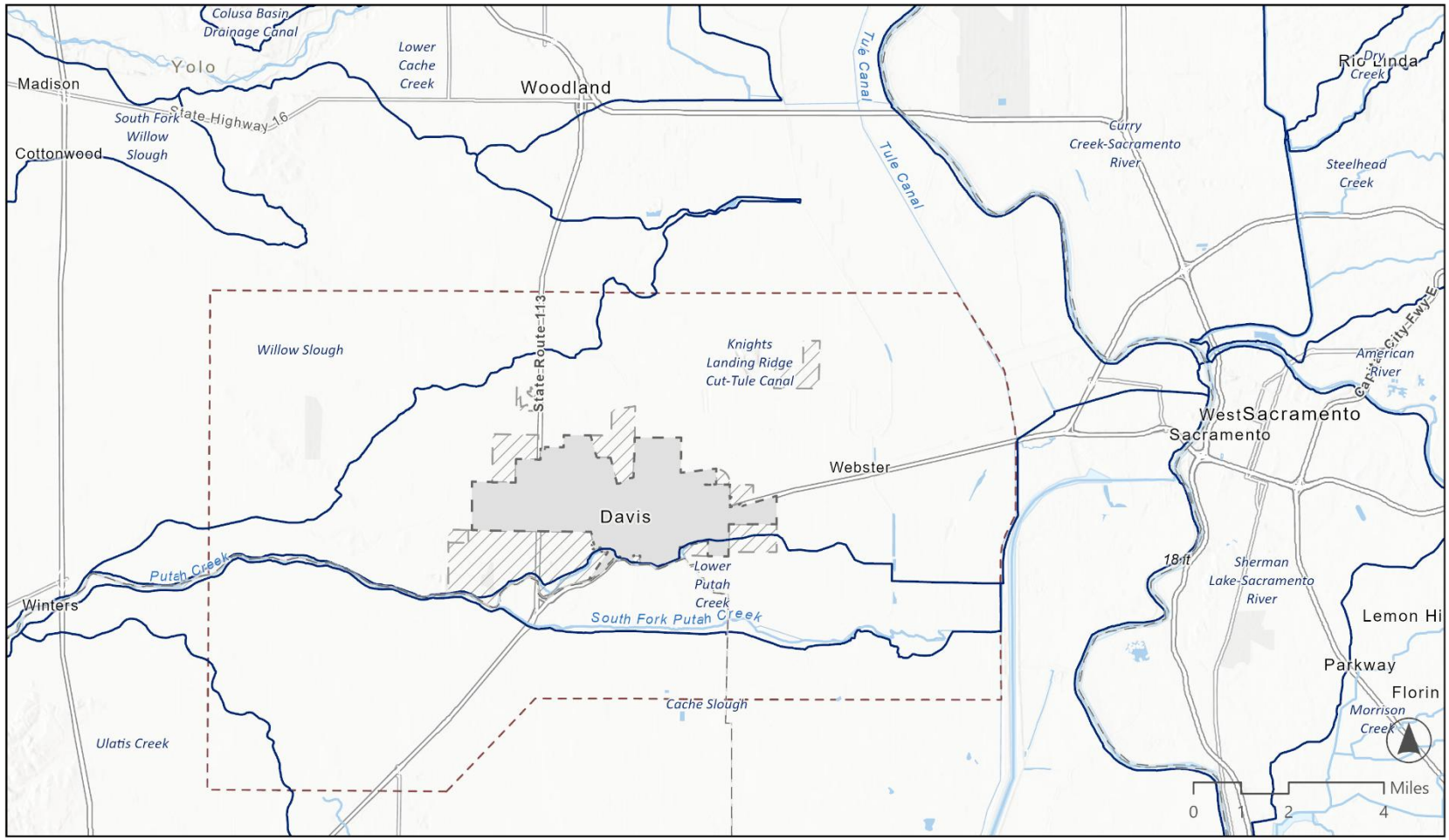
The Willow Slough Bypass Watershed includes the steep eastern slope and low-lying foothills of the Inner Coast Range and the relatively flat alluvial plain of the southern Sacramento Valley in Yolo county. The watershed includes all land that drains to Willow Slough between Cache Creek in the north and Putah Creek in the south. In the valley floor part of the watershed, the drainage divides between Willow Slough and Putah and Cache Creeks are generally within 1-2 miles of those creeks. The western boundary of the watershed is Rocky Ridge, which is the drainage divide between the Willow Slough watershed and the Putah Creek watershed. Rocky Ridge is also the boundary between Yolo and Napa Counties. To the east, the watershed extends to the Yolo Bypass near the Sacramento River. The total area of the watershed is

[116] Central Valley Regional Water Quality Control Board. 2019. *The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region – The Sacramento River Basin and The San Joaquin River Basin*. Fifth Edition. Revised February 2019. Available: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201902.pdf. Accessed April 15, 2025.

[117] Under Section 303(d) of the Act, states are required to evaluate all available water quality-related data and information to develop a list of waters that do not meet established water quality standards (WQS) (impaired) and those that currently meet WQS, but may exceed it in the next reporting cycle (threatened).

[118] Sacramento River Watershed Program. 2025. Putah Creek Watershed [webpage]. Available: https://sacriver.org/explore-watersheds/westside-subregion/putah-creek-watershed/. Accessed April 16, 2025.

Figure 18. Regional Watersheds



City of Davis
Sphere of Influence
Planning Area Boundary
County Boundary
Watersheds
Rivers/Creeks

City of Davis General Plan Update

Figure 18
Regional Watersheds

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), California Department of Conservation (2025), ESA (2025).

approximately 191 square miles, of which approximately 164 square miles are upstream of Highway 113. Land elevation in the watershed ranges from about 50 feet at Highway 113 to about 2,500 feet along the crest of Rocky Ridge. An Integrated Resource Management Plan for the Willow Slough Watershed was developed in 1996 to manage and enhance the natural resources in the watershed.[119]

Groundwater Resources, Supplies and Management

YOLO SUBBASIN

The Yolo Subbasin (5-021.67), which is part of the larger Sacramento Valley Groundwater Basin, underlies Davis. The Yolo Subbasin is about 27 miles wide from west to east and up to 45 miles long from north to south. The Yolo Subbasin boundaries are the result of the consolidation of portions of the Capay Valley, Colusa, and Solano subbasins via two applications for jurisdictional modifications of the Subbasin's boundary.

The Yolo Subbasin Groundwater Agency (YSGA) is a joint powers authority responsible for overall management of the subbasin including implementation of the Sustainable Groundwater Management Act (SGMA) and YSGA's Groundwater Sustainability Plan (GSP). The projected sustainable yield for the Yolo Subbasin of 346,000 acre-feet per year (AFY) is expected to be met in the future by collaboration of all YSGA entities through management actions to ensure beneficial use is protected.[120]

GROUNDWATER MANAGEMENT

Yolo Subbasin Groundwater Agency

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package, composed of AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley) collectively known as the SGMA. This legislation provides for the local control of groundwater while requiring the sustainable management of the groundwater resource. One of the first requirements under SGMA was to establish a local governance body, a Groundwater Sustainability Agency (GSA), with the local authority to develop, adopt, and implement a GSP. Further, under SGMA law,

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[119] Yolo County Resource Conservation District. 1996. *Willow Slough Watershed Integrated Resources Management Plan*. May 3, 1996. Available: https://yolorcd.org/wp-content/uploads/willow_slough_watershed_irmp.pdf. Accessed April 18, 2025.

[120] City of Davis. 2024a. *2023 Water System Optimization Plan*. Final. February 28, 2024. Available: https://www.cityofdavis.org/home/showpublisheddocument/19374/638512986522970000. Accessed May 5, 2025.

groundwater basins throughout California were classified as "high", "medium" or "low" priority by the California Department of Water Resources.

Under SGMA, the Yolo Subbasin is classified as a "high" priority basin, which required the YSGA to prepare, adopt, and submit a GSP by January 31, 2022. GSPs must document conditions and establish management criteria to avoid undesirable results and identify potential actions that will maintain and/or achieve sustainable groundwater management 20 years from the date of the adoption of the GSP. Through a Joint Powers Agreement, the YSGA is the recognized GSA for the entire Yolo Subbasin and is responsible for developing and implementing a GSP. There are 20 member agencies and six affiliated parties for a total of 26 YSGA members. The YSGA covers approximately 540,700 acres, spanning nearly 845 square miles.[121]

Yolo Subbasin Groundwater Sustainability Plan

As required by SGMA, the YSGA adopted the Yolo Subbasin GSP on January 24, 2022. Annual reports are released each water year in compliance with SGMA. The GSP includes a list of existing and ongoing projects and management actions that can contribute to sustainability in the Yolo Subbasin, as well as the historic and existing condition of the Yolo Subbasin, including the hydrogeology of the basin, the groundwater supply (sustainable yield) and the groundwater quality. Projects and management actions included in the Yolo Subbasin GSP include new monitoring wells planned in the fringe areas of the Yolo Subbasin (on the west side of the county along the Coast Range, along the Dunnigan Hills, and around the Plainfield Ridge) to provide the YSGA with baseline data to observe and monitor the impacts of expanding development and increased groundwater demand.

The YSGA intends to promote immediate and long-term strategies for water conservation and to optimize infiltration and retention of rainfall during storm events. The Yolo Subbasin GSP is intended to be a living document that, through annual reporting and additional groundwater sustainability studies, will provide an opportunity to evaluate and incorporate additional projects that are not included in the first version of the GSP.[122]

Water Quality

Per the City's most recent Annual Water Quality Report (2024), also referred to as the Consumer Confidence Report, the City's water is compliant with all State and federal drinking water standards. As discussed in further detail below, Davis uses a combination of surface water and groundwater as its source of drinking water supply with surface water being its primary

[121] YSGA (Yolo Subbasin Groundwater Agency). 2022. *Yolo Subbasin Groundwater Agency 2022 Groundwater Sustainability Plan*. Adopted on January 24, 2022. Available: https://www.yologroundwater.org/files/acff83c75/YoloGSP_Adopted.pdf. Accessed April 18, 2025.
[122] YSGA (Yolo Subbasin Groundwater Agency). 2022. *Yolo Subbasin Groundwater Agency 2022 Groundwater Sustainability Plan*. Adopted on January 24, 2022. Available: https://www.yologroundwater.org/files/acff83c75/YoloGSP_Adopted.pdf. Accessed April 18, 2025.

source. Surface water is treated at the Regional Water Treatment Facility (RWTF) owned and operated by the WDCWA, a joint powers authority, while groundwater is treated at each well head owned and operated by the City.[123]

The City conducts a monitoring program that consists of sampling certain constituents on a weekly, monthly, quarterly or annual basis. Water samples are collected at sampling stations within the distribution system, at groundwater wells and at the point of entry of surface water entering the City's water system. Surface water quality and groundwater quality are discussed in more detail below.

Surface Water Quality

For surface water treatment, raw water from the Sacramento River is treated at the WDCWA RWTF by the treatment processes of flash mixing, clarification, ozonation, granular media filtration, chlorination, and ortho-phosphate (corrosion control).[124] In 2023, WDCWA started sampling quarterly for 25 types of PFAS, or per- and polyfluoroalkyl substances, also known as "forever chemicals," from the raw surface water entering the treatment plant. The results showed that all samples were below the minimum reporting level for PFAS. The City completed sampling for PFAS within the distribution system in 2024 (as part of the U.S. Environmental Protection Agency Unregulated Contaminant Monitoring Rule, UCMR5); PFAS sampling results have been released to the public as of May 2025 on the US EPA website. All sample results have been below the minimum reporting levels for PFAS.[125]

Groundwater Quality

The City's groundwater production zones for water supply are the "intermediate aquifer" and "deep aquifer". The distinction is based on water chemistry, even though both are geologically part of the larger Tehama Formation. Groundwater in the "deep aquifer" is more desirable for household use having low concentrations of nitrate and selenium and only moderate hardness. The groundwater from the "intermediate aquifer" is more suitable for irrigation water use.[126]

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[123] City of Davis. 2024a. *2023 Water System Optimization Plan*. Final. February 28, 2024. Available: https://www.cityofdavis.org/home/showpublisheddocument/19374/638512986522970000. Accessed May 5, 2025.

[124] City of Davis. 2024a. *2023 Water System Optimization Plan*. Final. February 28, 2024. Available: https://www.cityofdavis.org/home/showpublisheddocument/19374/638512986522970000. Accessed May 5, 2025.

[125] United States Environmental Protection Agency. 2025. Fifth Unregulated Contaminant Monitoring Rule Data Finder. Available: https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule-data-finder#data-finder.

[126] City of Davis. 2021. *Urban Water Management Plan*. June 15, 2021. Available: https://documents.cityofdavis.org/Media/CityCouncil/Documents/PDF/PW/Water/Documents/Davis%202020%20UWMP_Final.pdf. Accessed April 18, 2025.

The City's groundwater sources are most vulnerable to historic and present-day land use activities, including agricultural and light industrial use. Additionally, the water source is vulnerable to naturally occurring contaminants such as selenium and chromium.[127]

The YSGA has identified a list of water quality constituents of concern, including those constituents whose presence, distribution, or concentration can be influenced by groundwater management activities. Boron, hexavalent chromium, nitrate, and salinity are the primary constituents of concern for the City. To combat these constituents of concern, the City has implemented various monitoring programs. In 2024, the drinking water was tested for over 175 regulated and unregulated constituents. Samples are analyzed externally by certified contract laboratories and results of all samples required by regulations are submitted to the State Water Resources Control Board (SWRCB) to ensure compliance.[128]

Furthermore, groundwater is treated at each well head with chlorine for disinfection. In addition, one well has a manganese treatment facility to remove manganese from the source water before entering the distribution system.[129] The following contaminant exceedances were documented in 2024:

- One municipal well, Well 24, had concentrations of carbon tetrachloride as high as 500 parts per trillion (ppt) in one sample collected in 2024. However, Well 24 has not provided drinking water to the system since 2021.

In August 2024, the City sampled for hexavalent chromium in the source water (well water and surface water). After sampling, the Maximum Containment Level (MCL) of 10 parts per billion (ppb) went into effect on October 1, 2024. Chromium (hexavalent) was detected at levels that exceed the chromium (hexavalent) MCL. While a water system the size of Davis' is not considered in violation of the chromium (hexavalent) MCL until after October 1, 2026, the City is working to address this exceedance and comply with the MCL. Consequently, the City is no longer using any water from the wells that exceeded the MCL and these wells are being permanently removed from the City's water system.

[127] City of Davis. 2021. *Urban Water Management Plan*. June 15, 2021. Available: https://documents.cityofdavis.org/Media/CityCouncil/Documents/PDF/PW/Water/Documents/Davis%202020%20UWMP_Final.pdf. Accessed April 18, 2025.

[128] City of Davis. 2024b. 2024 Water Quality Report. Consumer Confidence Report PWS #5710001. Available: https://www.cityofdavis.org/home/showpublisheddocument/20380/638875608044670000. Accessed April 18, 2025.

[129] City of Davis. 2024a. *2023 Water System Optimization Plan*. Final. February 28, 2024. Available: https://www.cityofdavis.org/home/showpublisheddocument/19374/638512986522970000. Accessed May 5, 2025.

Water Supply

As discussed above, Davis uses a combination of surface water and groundwater as its source of drinking water supply with surface water being its primary water source. Treated surface water is provided by the WDCWA via its RWTF while local wells within the City limits provide groundwater.[130] There is also planned use of recycled water and stormwater as a source of non-potable water supply, discussed below.[131]

Surface Water

WDCWA holds two distinct surface water rights: 1) Permit 20281, issued by the SWRCB, allows the WDCWA to divert up to 45,000 AFY from the Sacramento River; and 2) supplemental surface water rights, purchased from the Conaway Preservation Group (CPG), that allow the WDCWA to divert up to 10,000 AFY from the Sacramento River during peak demand periods.[132] However, both surface water rights have conditions that can limit WDCWA's ability to divert water. Permit 20281 is subject to the SWRCB's Term 91, which requires users stop diverting water when stored surface water from the SWP and CVP is being released to meet to water quality and flow standards in the Sacramento-San Joaquin Delta, while the CPG water right is tied to natural flow availability and is subject to limitations based on Lake Shasta water levels.[133] The City is entitled to deliveries of 10.2 million gallons per day (mgd) from the WDCWA RWTF, or up to 11,425 AFY.

Groundwater

As discussed above, surface water is the City's primary water source. If Term 91 curtailments are in effect, the City may receive less surface water deliveries, depending on the length of the curtailment. During these curtailments, the City pumps groundwater, primarily from the "deep aquifer". Intermediate aquifer wells are only used to meet peak water demands. The City currently has seven (7) active wells, consisting of five (5) deep aquifer wells and two (2) intermediate wells. The majority of groundwater delivered is from the deep aquifer wells while the intermediate aquifer wells are typically only operated to meet peak demand or to

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[130] City of Davis. 2021. *Urban Water Management Plan*. June 15, 2021. Available: https://documents.cityofdavis.org/Media/CityCouncil/Documents/PDF/PW/Water/Documents/Davis%202020%20UWMP_Final.pdf. Accessed April 18, 2025.

[131] City of Davis. 2023a. *Integrated Water Resources Study Update*. September 25, 2023. Available: https://www.cityofdavis.org/home/showpublisheddocument/19372/638512965923100000. Accessed April 18, 2025.

[132] WDCWA (Woodland-Davis Clean Water Agency). 2025. Water Treatment [webpage]. Available: https://www.wdcwa.com/operations/water-treatment. Accessed May 5, 2025.

[133] City of Davis. 2021. *Urban Water Management Plan*. June 15, 2021. Available: https://documents.cityofdavis.org/Media/CityCouncil/Documents/PDF/PW/Water/Documents/Davis%202020%20UWMP_Final.pdf. Accessed April 18, 2025.

ensure they are exercised properly, as required for water quality testing. In 2023, 0.1 percent of the drinking water (groundwater) provided was from the intermediate aquifer wells with the remainder from the deep aquifer wells.[134] A map of wells in the City's service area is depicted in **Figure 19**, *City of Davis Groundwater Wells*.

The City's continuous pumping capacity of groundwater is 28,309 AFY, which consists of pumping from both deep and intermediate wells. Approximately 70 percent of the City's deep well capacity (approximately 12,800 AFY) is usable on an annual basis.[135] The City tracks groundwater levels in the intermediate and deep wells, which generally decline during dry conditions due to continued reliance on groundwater for agricultural and municipal demands. However, groundwater levels substantially recover during wet years, identified during wet seasons from 2021 through 2023.[136]

Water Demand

Water service is provided to all residential (single and multi-family), commercial, industrial, and irrigation customers, and for open space and fire protection uses within the service area. The City's water system serves customers within the City limits and the El Macero and Willowbank county service areas (CSA) and the Davis Creek Mobile Home Park. The City has one automated intertie at the WDCWA RWTP and one additional emergency intertie with the UC Davis, located just south of the City limits. There is an additional CSA (also known as North Davis Meadows) located north of the city that is not currently connected to the City's water system. The City is currently in the process of connecting North Davis Meadows (NDM) to its existing water system in 2025.[137,138]

[134] City of Davis. 2024b. 2023 Water Quality Report. Consumer Confidence Report PWS #5710001. Available: https://www.cityofdavis.org/home/showpublisheddocument/19398/638530012776200000. Accessed April 18, 2025.

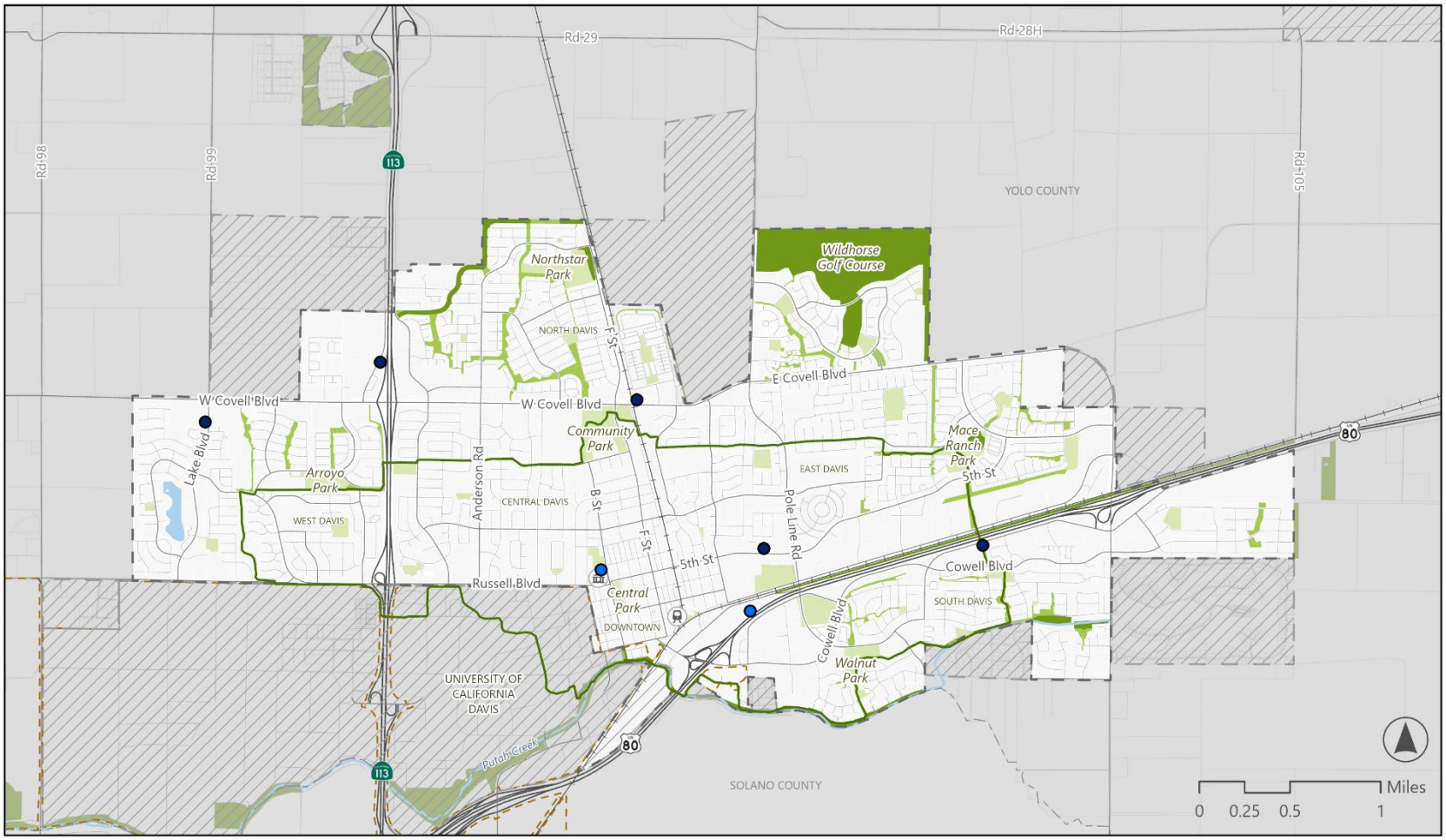
[135] City of Davis. 2021. *Urban Water Management Plan*. June 15, 2021. Available: https://documents.cityofdavis.org/Media/CityCouncil/Documents/PDF/PW/Water/Documents/Davis%202020%20UWMP_Final.pdf. Accessed April 18, 2025.

[136] City of Davis. 2025b. City Water Infrastructure [webpage]. Available: https://www.cityofdavis.org/city-hall/public-works-utilities-and-operations/water/city-water-infrastructure. Accessed May 6, 2025.

[137] City of Davis. 2024a. *2023 Water System Optimization Plan*. Final. February 28, 2024. Available: https://www.cityofdavis.org/home/showpublisheddocument/19374/638512986522970000. Accessed May 5, 2025.

[138] County of Yolo. 2025. North Davis Meadows Water Consolidation Project [webpage]. Available: https://www.yolocounty.gov/government/general-government-departments/county-administrator/county-service-areas-csa/north-davis-meadows-csa/ndm-water-quality-information. Accessed May 2025.

Figure 19. City of Davis Groundwater Wells



City of Davis
Sphere of Influence
UC Davis Campus
County Boundary
Lakes

Amtrak Station
City Hall
Highways
Major Roads
Local Roads
Rail Lines
Bike Loop
Rivers/Creeks

Well Depth
Deep
Intermediate

City of Davis General Plan Update

Figure 19
City of Davis Groundwater Wells

Source: City of Davis (2025), UC Davis (2025), Yolo County (2025), CalTrans (2025), California Department of Fish and Wildlife (2025), California Department of Conservation (2025), ESA (2025).

According to the 2023 Water System Optimization Plan, the City (including the customers within the City limits, El Macero and Willowbank CSAs, and the Davis Creek Mobile Home Park) had a population of 68,886 and 17,241 connections. The City is projected to have a population of 72,884 and a total of 18,383 connections at buildout of the current general plan. The Water System Optimization Plan developed buildout unit water demand factors by reviewing the City's historical water demand by customer category in comparison to the land area served and the number of connections by category. The projected buildout per capita water use outlined in the 2023 Water System Optimization Plan is 126 gallons per capita per day (gpcd). Therefore, the City's buildout water demand is projected to be 10,291 AFY in 2045.[139]

Davis's water distribution system includes three storage tanks—the Elevated Tank, West Area Tank, and East Area Tank—with a combined capacity of 8.2 million gallons. The West Area Tank has a booster pumping design capacity of 3,750 gallons per minute (gpm), while the East Area Tank is designed to pump 6,000 gpm. These tanks fill during off-peak hours and supply water during high-demand periods.

The City's water delivery pipeline system spans 199 miles, with most pipes ranging from 6 to 12 inches in diameter. Originally designed for localized groundwater wells, the system has been upgraded to distribute treated surface water from the WDCWA RWTF via a six-mile, 30-inch pipeline along Pole Line Road. Additional 10- and 12-inch pipelines serve areas along East Covell Boulevard and Pole Line Road.[140]

During normal years, the City would be able to utilize the full allocation of surface water supplies (10.2 mgd or 11,425 AFY). As shown in **Table 7**, *Normal Year Supply and Demand Comparison AFY*, the City would be able to meet water demand in a normal year through 2045. Table 7 depicts current water supply and demand information (2023) through 2045. This analysis assumes that the City would be able to continue receiving water from WDCWA through the planning horizon. This analysis also assumes a maximum of 900 AFY of surface water will be lost due to climate change, as discussed in the 2023 Water System Optimization Plan.

Based on the 2023 Water System Optimization Plan, water supply shortages are not projected because the groundwater supply can meet demands during the dry years when minimal surface water is available. During a dry year, the City's surface water supplies could be reduced from 10.2 mgd (normal year) to 3 mgd (dry year) as a conservative estimate, see **Table 8**, *Dry Year Supply and Demand Comparison AFY*. However, the use of groundwater supplies from the deep aquifer would be increased to help meet demands. It is estimated that the City will have sufficient supply (in both normal and dry years) to meet its projected demands in 2045 in coordination with existing and projected water conservation efforts, discussed below.

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[139] City of Davis. 2024a. *2023 Water System Optimization Plan*. Final. February 28, 2024. Available: https://www.cityofdavis.org/home/showpublisheddocument/19374/638512986522970000. Accessed May 5, 2025.

[140] City of Davis. 2025b. City Water Infrastructure [webpage]. Available: https://www.cityofdavis.org/city-hall/public-works-utilities-and-operations/water/city-water-infrastructure. Accessed May 6, 2025.

Table 7. Normal Year Supply and Demand Comparison (AFY)

	2023	2028	2045
Surface Water	11,425	11,425	11,425
Groundwater	12,800	12,800	12,800
Supply Totals	24,225	24,225	24,225
Potential future climate change reductions in surface water supply	900	900	900
Demand Totals	9,789	10,230	10,291
Difference	13,536	13,095	13,034
Note: AFY = acre-feet per year			

SOURCE: City of Davis. 2024a. 2023 Water System Optimization Plan. Final. February 28, 2024. Available: https://www.cityofdavis.org/home/showpublisheddocument/19374/638512986522970000. Accessed May 5, 2025.

Table 8. Dry Year Supply and Demand Comparison (AFY)

	2023	2028	2045
Surface Water	3,360	3,360	3,360
Groundwater	12,800	12,800	12,800
Supply Totals	16,160	16,160	16,160
Potential future climate change reductions in surface water supply	900	900	900
Demand Totals	9,789	10,230	10,291
Difference	5,471	5,030	4,969
Note: AFY = acre-feet per year			

SOURCE: City of Davis. 2024a. 2023 Water System Optimization Plan. Final. February 28, 2024. Available: https://www.cityofdavis.org/home/showpublisheddocument/19374/638512986522970000. Accessed May 5, 2025.

Water Management Strategies

A description of the City's existing and potential water management strategies are provided below. In 2023, the Integrated Water Resources Study was updated to include current and future water management actions that are or could be implemented by the City.[141] **Table 9**, *Existing and Potential Water Management Strategies*, lists the existing and potential water management strategies.

Table 9. Existing and Potential Water Management Strategies

Potential Water Management Strategy	Description	Projected Water Savings by 2045 (AFY)
Well Conversion/ Irrigation	Demands on the potable water system would be reduced with the conversion of existing potable system intermediate depth wells to irrigation-only wells and the construction of new irrigation wells to serve non-potable demands at several parks, greenbelts, and other large, landscaped areas. Three existing potable system intermediate depth wells would be converted to irrigation-only wells and three new irrigation wells would be constructed.	369
Aquifer Storage and Recovery	Aquifer Storage and Recovery (ASR) is the storage of water in the aquifer during times when water is available and the recovery of the stored water when needed later. This ASR water management option involves the use of some of the existing intermediate depth municipal wells to inject surface water into the aquifer during times when the City's surface water supplies and conveyance capacity exceed municipal demands, generally during the months of November to April in a typical year. Injected surface water is extracted using the same municipal wells during times when Term 91 surface water supplies are not sufficient to meet municipal demands, likely in the months of May through October.	4,000

[141] City of Davis. 2023a. *Integrated Water Resources Study Update*. September 25, 2023. Available: https://www.cityofdavis.org/home/showpublisheddocument/19372/638512965923100000. Accessed April 18, 2025.

Potential Water Management Strategy	Description	Projected Water Savings by 2045 (AFY)
Recycled Water to Offset Groundwater Use	Using recycled water to offset groundwater use is in-lieu recharge. This water management option is the use of recycled water as an alternative non-groundwater supply source to offset groundwater pumping for uses that would otherwise consume groundwater in or near the city, in the same groundwater subbasin as the city. Current demands for recycled water in the city include open space irrigation of the overland flow site adjacent to the Yolo County Central Landfill and dust control practices at the landfill.	2,016
Recycled Water Distribution System	This water management option consists of the construction of a new recycled water distribution system (purple pipe) to distribute recycled water supply to future users within the City limits. The recycled water distribution system would supply recycled water from the City's Wastewater Treatment Plant (WWTP) for the irrigation of parks, schoolyards, street medians, cemeteries, commercial sites, and golf courses.	967
On-Site Water Reuse	This water management option consists of rainwater catchment, graywater reuse, and stormwater capture on-site.	24
De-facto Reuse	This water management option would consist of discharging a certain amount of recycled water from the WWTP to the Sacramento River in exchange for an increased intake (by an equivalent amount) at the WDCWA RWTP. The wastewater treated from WWTP could be discharged to the Sacramento River via an existing stream, canal, or waterway or a newly constructed pipeline. The increased intake of this equivalent amount for the WDCWA RWTP would not require any additional infrastructure since it would take place at the existing WDCWA RWTP facility intake.	2,016

Notes:

a. In-lieu recharge means accomplishing increased storage of groundwater by providing an alternative non-groundwater supply source to a water user who typically relies on groundwater as its primary supply source, to accomplish groundwater storage through the direct use of that alternative non-groundwater supply source in lieu of groundwater pumping.

SOURCE: City of Davis. 2023. Integrated Water Resources Study Update.

Water Conservation Efforts

As required by State law, the most current Urban Water Management Plan (UWMP) was completed in June 2021 to guide efficient water use in the city based on future development growth both within the City limits and outside the service area. The projected water demands also consider the City's ongoing water conservation program as well as future reductions in water use due to changing building codes and water efficient policies, and as the use of more water efficient landscape and structures. It is estimated that the per capita water use in the future will not reach pre-drought levels. The City met its 2020 per capita water use target of 132 gpcd that was updated in the 2015 UWMP.[142]

Other conservation efforts are documented in the Yolo Subbasin GSP and State and City codes.

Water Efficiency Targets

Water use efficiency targets have been set by the State, to ensure that each water supplier is using water sustainably and efficiently to support all of the key functions of daily life that depend on a reliable and safe water supply. Water suppliers are required to stay within annual water budgets, based on these targets, for their service areas. California has water use efficiency targets to ensure that water (regardless of source) is being used sustainably and that community water supplies can withstand changing climate conditions and drought. California is the first state in the US to adopt urban water use efficiency targets.

In total, three water use standards (indoor residential, outdoor residential, and outdoor commercial), industrial and institutional (CII-DIM), one water loss standard, and a variety of adjustments (credits or exceptions) are used to calculate each urban water supplier's overall budget. The sum of these is known as an Urban Water Use Objective (UWUO). In addition to the UWUO, every urban supplier will need to comply with a set of CII performance measures. These performance measures are intended to enable water-usage benchmarking per CII classification category as well as establish best management practices (BMPs) for indoor and outdoor CII water use. Even if an agency meets its UWUO, it will still need comply with the CII Performance Measures[143]

[142] City of Davis. 2021. *Urban Water Management Plan*. June 15, 2021. Available: https://documents.cityofdavis.org/Media/CityCouncil/Documents/PDF/PW/Water/Documents/Davis%202020%20UWMP_Final.pdf. Accessed April 18, 2025.

[143] California Department of Water Resources. 2025. Urban Water Use Efficiency Standards, Variances and Performance Measures [webpage]. Available: https://water.ca.gov/Programs/Water-Use-And-Efficiency/2018-Water-Conservation-Legislation/Urban-Water-Use-Efficiency-Standards-Variances-and-Performance-Measures. Accessed September 16, 2025.

Water Savings

Future water savings are estimated in terms of active conservation activities and outreach as well as reductions in water loss. Water savings from codes, standards, ordinances, or transportation and land use plans are referred to as passive savings. Such programs include water waste prevention ordinances (such as the Model Water Efficient Landscape Ordinance [MWELO]), adherence to California Energy Commission Title 20 appliance standards, CALGreen Building Code water efficiency measures conservation pricing, and additional California legislation such as AB 1572.[144]

Typical building permits that would trigger MWELO requirements include a building permit for sprinkler installation, a design review application for a building addition, or a building permit to construct a swimming pool.[145] The City has a water waste prevention ordinance in place. According to Section 39.02.040 of the City's Municipal Code, "Certain acts causing waste of water are prohibited." The water waste ordinance further states, "No person shall use or cause to be used any city water for the purpose of sprinkling streets or alleys, except such person as may be authorized by the director of public works, nor allow any water to run to waste in any gutter or otherwise, nor shall any city water be used for irrigation except as provided in this chapter." Additional prohibitions on water waste were incorporated into the City's Municipal Code (Section 39.02.045) during the recent multi-year drought and have remained in effect. These prohibitions include restrictions on outdoor watering between 9:00 a.m. and 6:00 p.m., watering outdoor landscapes with potable water during and within forty-eight hours after measurable rainfall, and water run-off.[146] The City plans on incorporating any and all applicable water savings legislation, such as AB 1572, which prohibits the use of potable water to irrigate non-functional turn on commercial, municipal, institutional, and multifamily residential properties.[147]

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[142] City of Davis. 2021. *Urban Water Management Plan*. June 15, 2021. Available: https://documents.cityofdavis.org/Media/CityCouncil/Documents/PDF/PW/Water/Documents/Davis%202020%20UWMP_Final.pdf. Accessed April 18, 2025.

[145] City of Davis. 2025a. Model Water Efficient Landscape Ordinance [webpage]. Available: https://www.cityofdavis.org/city-hall/public-works-utilities-and-operations/water/water-conservation/model-water-efficient-landscape-ordinance. Accessed May 6, 2025.

[146] City of Davis. 2021. *Urban Water Management Plan*. June 15, 2021. Available: https://documents.cityofdavis.org/Media/CityCouncil/Documents/PDF/PW/Water/Documents/Davis%202020%20UWMP_Final.pdf. Accessed April 18, 2025.

[147] Potable water: nonfunctional turf, A.B. 1572, 2023-2024, (Cal. 2023) (enacted). Available: https://calmatters.digitaldemocracy.org/bills/ca_202320240ab1572.

Stormwater Drainage

The City's Stormwater Utility is part of Davis Public Works Department. There are 11 tributary basins located within the city.[148] The City's storm drain system is composed of on street and public parking area storm drain inlets; underground stormwater pipes; stormwater detention ponds; drainage channels; and stormwater lift stations. These facilities are all designed to convey stormwater and prevent flooding as they move stormwater away from properties and streets.

The City stormwater conveyance system is composed of approximately 92 miles of storm drain pipe, 0.5 miles of force main, 33 miles of storm drain laterals, 1,850 maintenance holes, 160 drainage inlets, and 8 siphon structures. Stormwater flows by gravity into four City detention ponds (West Area Detention Pond, North Area Detention Pond, Core Area Detention Pond, and Evergreen Detention Pond), one detention basin (Sutter Detention Basin), and one drainage pond (Cannery Drainage Pond). Nine stormwater drainage pumpstations pump the stormwater from the ponds or basins into the main drainage channels, which are tributaries to the Willow Slough Bypass or the Davis Wetlands, before eventually reaching the Yolo Bypass before flowing into the Sacramento River.

Stormwater is regulated under the Federal Clean Water Act and under multiple State regulations. The SWRCB is responsible for enforcement of stormwater quality requirements in California. The City is required by the Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit to monitor all activities that discharge to the storm drain system and to report annually on permit compliance. Under the Phase II MS4 General Permit, the City is required to regulate all projects that would create or replace 5,000 square feet or more of impervious surface. Such projects are required to Implement site design, source control, runoff reduction, storm water treatment, and baseline hydromodification management measures. Each of these projects would be required to implement low impact development (LID) standards to implement the above listed measures. Design specifications are detailed in the Phase II Small MS4 General Permit, approved in 2013 and most recently amended in 2019.[149] The permit also requires the City to monitor construction activities by conducting plan

[148] West Yost Associates. 2017. Stormwater Evaluation Report. Available online: https://documents.cityofdavis.org/Media/Default/Documents/PDF/CityCouncil/Utilities-Commission/20200617/Item-6A-Stormwater-COS-FinancialPlan-ATT-4-Stormwater-Evaluation-Report.pdf. Accessed September 16, 2025.

[149] California State Water Resources Control Board. 2019. National Pollutant Discharge Elimination System (NPDES) General Permit for Waste Discharge Requirements (WDRs) For Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/phase_ii_municipal/conformed-order-wq-2013-0001-DWQ.pdf. Accessed September 16, 2025.

reviews and inspecting all construction activities, ensuring that the construction is complying with BMPs to keep material out of storm drains.[150]

All Small MS4 permittees, including the City, and construction National Pollutant Discharge Elimination System (NPDES) permittees are additionally required to implement trash control implementation requirements in accordance with the Statewide Trash Amendments to the NPDES II MS4 General Permit, issued under Water Code 13383 in 2015.[151] These amendments require the full capture of all litter down to 5 millimeters in diameter (the size of a cigarette butt) from specific land uses in regulated stormwater systems. These rules are required to be fully implemented by 2030, using new and enhanced management actions and capture devices aimed at achieving the requirement of capturing 100 percent of litter in stormwater. The City has implemented a number of pollution prevention programs in the City, such as public outreach through Greener Davis, which is part of the City's Environmental Resource Division.[152]

[150] City of Davis. 2023b. Stormwater Utility 101. January 2023. Available: https://www.cityofdavis.org/home/showpublisheddocument/18159/638774793393130000. Accessed April 18, 2025.

[151] California State Water Resources Control Board. 2025. Storm Water Program- Trash Implementation Program. Available: https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html. Accessed September 16, 2025.

[152] City of Davis. 2025d. Greener Davis. Available: https://www.cityofdavis.org/city-hall/public-works-utilities-and-operations/environmental-resources. Accessed September 16, 2025.

MATERIALS, SOLID WASTE, AND RECYCLING

Introduction

This section provides an overview of how materials, solid waste, and recyclables are managed within Davis and its Planning Area. It describes the local systems for solid waste collection, recycling, and organics diversion, including the roles of franchise haulers and the types of services available to residents, businesses, and institutions. The section outlines relevant State and local regulations governing waste reduction, recycling, and organic waste diversion, and summarizes the City's programs and initiatives aimed at minimizing landfill disposal and promoting sustainability. Additionally, it discusses the capacity and operations of local landfill facilities, compliance with State mandates such as SB 1383, and ongoing efforts to improve waste diversion rates and support environmental goals.

Background

Solid waste includes construction and demolition waste; domestic trash, recyclables, and organics; and all forms of non-liquid waste. City staff review all development plans for compliance with the City's General Plan, Municipal Code, and applicable regulations related to solid waste before plans are approved. For construction and demolition waste, the City has adopted Tier 1 California Green Building Standards Code (CALGreen) requirements intended to conserve resources and reduce GHG emissions. Through CALGreen, the City requires construction and demolition projects to divert 100 percent of their land-clearing debris (e.g., soil, dirt, rock, concrete, yard materials, trees) and at least 65 percent of all other waste debris (e.g., metals, gypsum, wallboard, lumber) for recycling or reuse. For buildings and development, the City requires that the proposal has sufficient space set aside for recycling and organics bins (separate from trash) to divert at least 75 percent of its waste.[153]

Solid Waste Collection and Recycling

Solid waste collection and disposal in Davis is provided by a franchise hauler, currently Recology Davis. Recology Davis has a buy-back center and provides residential curbside, apartment, and business collection services. In addition to the weekly garbage service,

[153] City of Davis, 2024. Solid Waste Utility 101. September 2024. Public Works Utilities and Operations. Available: https://www.cityofdavis.org/home/showpublisheddocument/18099/638774814804470000. Accessed May 1, 2025

Recology Davis provides green waste and recycling pickup and street sweeping service. Metal, cardboard, along with bottles and cans recycling are collected 24 hours a day 7 days a week at their Materials Recovery Facility (MRF).

Solid Waste Collection Services

The City's single-family solid waste collection service includes curbside collection that occurs once a week and includes trash cart, split-recycling cart, organic waste cart, and loose cardboard pick-up. Apartments, condominiums, and other multi-family properties receive communal waste collection service. Along with other commercial customers, they have at least one organics cart and two different kinds of recycling carts: one for mixed paper and one for plastic, glass, and metal containers.

Recycling Services

Davis has a dual-stream recycling system: paper is collected separately from "comingled" recyclables (glass, metals, and plastic). This preserves the quality of the paper, as it does not get dirty from liquids often found in used containers. Recology's recycling trucks are all divided, so paper goes into one compartment of the truck, while the comingled recyclables go into a different compartment. The Recology Davis administration office, MRF, and recycling center is located at 2727 2nd Street in Davis. All recyclables collected by Recology Davis are hand sorted at the MRF by material type, then baled for sale to recycling brokers.

The City's recycling services program is designed to meet or exceed several State mandates aimed at reducing landfill waste and greenhouse gas emissions, including SB 1383, which requires a 75 percent reduction in organic waste sent to landfills by 2025; AB 341, which mandates recycling for businesses and multi-family residential dwellings that meet a certain waste threshold; AB 1826, which requires commercial entities to arrange for organic waste recycling services if they meet specific waste generation thresholds; and CALGreen Tier 1 standards, which require new construction and demolition projects to divert at least 70 per of debris from landfills. In addition, the Davis City Council passed a resolution in 2019 to support statewide efforts to address single-use plastics and the lack of recycling markets.

Street Sweeping Services

Recology performs street sweeping once a month in most areas of town (the downtown area bordered by 5th Street, B Street, 1st Street and the railroad tracks, is swept every Friday).

Organics Program

SB 1383 regulations went into effect on January 1, 2022, and establish targets to achieve a 75 percent statewide reduction in the disposal of organic waste to landfills by 2025. It also establishes an additional target that (at minimum) 20 percent of currently disposed edible

food be recovered for human consumption by 2025. While ahead of the game in establishing a mandatory organics collection program in 2016, in December 2021, the Davis City Council approved an SB 1383 implementation plan along with updates to the City's Municipal Code to ensure compliance with the regulations. Staff continue to work on various program updates as outlined in the Implementation Plan. All residents and businesses within the City limits have access to organic waste collection service as part of their regular trash collection service through Recology Davis. Per State law, organic waste collection service is mandatory unless a waiver is submitted.[154]

Solid Waste Disposal

All non-recyclable, non-organic waste generated in Davis is disposed of at the 770-acre Yolo County Central Landfill, which is located off County Road (CR) 28H, near its intersection with CR 104. The landfill is owned and operated by the Yolo County Department of Community Services.

The Yolo County Central Landfill has a permitted daily capacity of 3,000 tons and a maximum permitted capacity of 49,035,200 tons. As of 2022, 33,140,373 tons or 68 percent of permitted capacity remained. Based on remaining capacity, the facility has an expected closure date of February 2124.[155] In 2024, the Yolo County Central Landfill received 178,268 tons of solid waste, or approximately 710 tons of solid waste per day.[156] Over the same time frame, 31, 284 tons of solid waste, or about 125 tons of solid waste per day,[157] was collected in Davis and disposed of at the Yolo County Central landfill, representing 17 percent of all waste received at the facility.[158]

The landfill also includes a recycling drop-off facility, a wood-processing facility, and a methane gas collection facility, and accepts drop-offs of household hazardous waste free to residents of the County on designated Saturdays. The Big Blue Barn, located at the landfill, is a thrift store that accepts donations.

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[154] City of Davis. 2024. Solid Waste Utility 101. September 2024. Public Works Utilities and Operations. Available: https://www.cityofdavis.org/home/showpublisheddocument/18099/638774814804470000. Accessed May 1, 2025.

[155] CalRecycle (Department of Resources Recycling and Recovery). 2025a. Solid Waste Information System (SWIS) Facility/Site Activity Details: Yolo County Central Landfill (57-AA-0001) [online database]. Available: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/4033. Accessed May 2, 2025.

[156] Based on 251 workdays; excludes weekends and federal holidays.

[157] Based on 251 workdays; excludes weekends and federal holidays.

[158] CalRecycle. 2025b. Recycling and Disposal Reporting: Reports List [webpage]. Available: https://www2.calrecycle.ca.gov/RecyclingDisposalReporting/Reports. Accessed May 2, 2025.