



Environmental Justice Policy Paper

CITY OF FOWLER
GENERAL PLAN UPDATE
APRIL 2020



CITY OF **FOWLER**
California

ENVIRONMENTAL JUSTICE POLICY PAPER GENERAL PLAN UPDATE

APRIL 2020

Prepared For:

CITY OF FOWLER PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT
128 S. 5TH STREET
FOWLER, CA 93625

Prepared By:

PROVOST & PRITCHARD CONSULTING GROUP
286 W. CROMWELL AVENUE
FRESNO, CA 93711



TABLE OF CONTENTS

Introduction	1
Purpose	1
Report Organization	1
About Environmental Justice	1
Existing City Demographics	3
Disadvantaged Communities in Fowler	6
Environmental Justice Issues Analysis	9
Pollution Exposure	9
Public Facilities	17
Food Access	28
Safe and Sanitary Homes	31
Physical Activity	34
Civil Engagement	38
Bibliography	39

LIST OF FIGURES

Figure 1: Fowler Household Income	5
Figure 2: Fowler's Workforce	6
Figure 3: CalEnviroScreen 3.0 Indicators	7
Figure 4: CalEnviroScreen 3.0 Rankings Map	8
Figure 5: Pollution Emitting Sources in Fowler	12
Figure 6: Sensitive Land Uses with Disproportionate Exposure to Pollution	13
Figure 7: Hazardous Sites Inventory Map	16
Figure 8: Community Facilities Inventory Map	18
Figure 9: Public Improvements Inventory Map	19
Figure 10: Public Services Inventory Map	20
Figure 11: Fresno County Rural Transit Agency Services Map	24
Figure 12: Healthcare Access Map	25
Figure 13: Hospital Access Map	26
Figure 14: Food Access Map	30
Figure 15: Physical Activity Accessibility Map	37

LIST OF TABLES

Table 1: Fowler Racial & Ethnic Population	4
Table 2: Overcrowding in the City of Fowler	33
Table 3: Housing Affordability in Fowler	33

INTRODUCTION

PURPOSE

The purpose of this policy paper is to provide an overview of Environmental Justice as it relates to land use planning, best planning practices, and statutory requirements for the City of Fowler's General Plan update. This policy paper will also provide analyses of the environmental justice issues currently facing the City of Fowler and identify potential challenges to be addressed as part of the General Plan update moving forward. Information provided in the recently completed Fowler Community Report supplements the data used in the analyses that follow.

REPORT ORGANIZATION

This policy paper is organized around key concepts in environmental justice planning, allowing the reader to focus on both the ideological concepts and practical methods for assessing conditions in environmental justice communities, as required by law. The sections of this paper include:

Introduction. Provides background on environmental justice, legislative requirements, the relationship between land use planning and environmental justice, and demographics that may play a role in environmental justice issues.

Environmental Justice Issues Analysis. Determines key challenges and potential obstacles and identifies a set of recommendations organized around the following topics:

- Pollution exposure and air quality,
- Access to public facilities,
- Food access,
- Safe and sanitary homes,
- Physical activity, and
- Civil engagement.

Discussions include an overview of the environmental justice framework for each topic, an explanation of methodologies used in gathering and analyzing the available data, a summary of each analysis, and policy recommendations for consideration in the General Plan update.

ABOUT ENVIRONMENTAL JUSTICE

Throughout the country and the State of California, it has been documented that certain communities experience a disproportionate burden of environmental health hazards.¹ Often, these communities are made up of low-income residents, communities of color, indigenous peoples, or immigrant communities,

¹ (California Environmental Justice Alliance, Placeworks 2018)

leading to intersecting structural inequalities, or converging disadvantages, that further marginalize already under-served populations.

These burdens are often exacerbated by a range of factors which critically inform the way we plan and use land. Some of these factors include zoning, land use planning, discriminatory housing policies, limited community involvement in land use planning, and development patterns that tend to concentrate environmental hazards in certain communities while simultaneously placing economically or environmentally advantageous uses in others. The impacts of these factors leave certain communities, known as disadvantaged communities (DACs), facing significant barriers to their overall health, livelihood, and sustainability.² Evaluating the presence of DACs within a local jurisdiction, as well as the circumstances that contribute to the classification of a DAC, is an important step in establishing land use plans and policies which meet the needs of the most marginalized, vulnerable, and under-served populations in a community.

DISADVANTAGED COMMUNITIES

Disadvantaged Communities is a term defined in SB 1000 as “an area identified by the California Environmental Protection Agency pursuant to Section 39711 of the Health and Safety Code or a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation.”

It may also be helpful to note that recent movements in social and environmental justice may utilize the terms “disadvantaged community” and “environmental justice community” interchangeably. While environmental justice communities and disadvantaged communities often share common issues and may be analyzed in similar ways, this analysis will only refer to DACs in order to maintain consistency with the terms identified in SB 1000, which refers exclusively to Disadvantaged Communities.

Senate Bill 1000

In order to recognize and address environmental justice issues, the State of California passed legislation requiring cities and counties to incorporate environmental justice policies and programs into their land use planning processes. Senate Bill (SB) 1000, also known as the *Planning for Healthy Communities Act*, was signed into law on September 24th, 2016. The purpose of this law is to create healthier cities and counties by protecting sensitive land uses and prioritizing the needs of DACs. This law defines DACs as “an area identified by the California Environmental Protection Agency (CalEPA) pursuant to Section 39711 of the Health and Safety Code or an area that is a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation.”

As a result of this law, cities and counties must now determine the presence of DACs in their communities and, if present, adopt an environmental justice element or integrate environmental justice goals, objectives, and policies into their general plans. These policies must work to reduce unique or compounded health risks in DACs by addressing the following:

- Pollution exposure and air quality,
- Access to public facilities,

² (California Environmental Justice Alliance, Placeworks 2018)

- Access to healthy food,
- Access to safe and sanitary homes,
- Access to spaces for physical activity,
- Community engagement, and
- Program improvements to identify and reverse systemic funding inequities for disadvantaged communities.

The primary screening tool used to identify DACs is CalEnviroScreen. CalEnviroScreen is a mapping tool maintained by CalEPA that identifies DACs by U.S. Census Tract. A search of the CalEnviroScreen tool indicates that most of the City and planning area being considered as part of the General Plan update falls within the 91st-100th percentile ranking for disadvantaged community indicators, with the remaining area falling within the 81st-90th percentile. A map of the City of Fowler's CalEnviroScreen rankings can be seen in **Figure 4: CalEnviroScreen 3.0 Rankings Map**. Based on these results, environmental justice will be a required component of the Fowler General Plan update. Additional analysis specific to Fowler's Planning area can be found in the section below titled **Disadvantaged Communities in Fowler**.

Land Use Planning and Environmental Justice

There are three important concepts of environmental justice which are linked to land use planning: distributive justice, procedural justice, and social justice.

- **Distributive justice** refers to the inequitable distribution of harms and public benefits in which certain communities are exposed to pollution or lack access to public improvements.³ Distributive justice is often exhibited through land use planning and local implementation documents, such as zoning codes or Capital Improvement Programs, which establish development requirements and prioritize investments in public improvement projects.
- **Procedural justice** refers to equity in decision-making and can be facilitated by targeted community involvement in the land use planning process.
- **Social justice** refers to the reality that racial, class, economic, and political factors influence the quality of life and the distribution of pollution.⁴

By recognizing these concepts and integrating policies which address environmental justice issues as part of the General Plan update process, we can ensure that every community member is considered when planning future development in the City of Fowler.

EXISTING CITY DEMOGRAPHICS

The City of Fowler was incorporated in 1908, having been built around a railroad switch yard that opened in 1872. The City is now home to approximately 6,200 residents according to the 2017 American Community Survey.⁵ While the California Department of Finance provides a more recent population estimate of 6,605 as of January 1, 2019, they do not provide more specific demographic data.⁶

³ (California Environmental Justice Alliance, Placeworks 2018)

⁴ (California Environmental Justice Alliance, Placeworks 2018, 5)

⁵ (United States Census Bureau 2017)

⁶ (State of California, Department of Finance 2019)

Racial and Ethnic Composition

Fowler is primarily Hispanic, with Hispanics and Latinos representing 68.7 percent of the total population. White and Asian people comprise the next largest ethnic groups, representing 17.4 percent and 9.7 percent of Fowler’s population, respectively. A more detailed breakdown is provided in **Table 1: Fowler Racial & Ethnic Population**.

Table 1: Fowler Racial & Ethnic Population⁷

	Number	Percent
White	1,079	17.4%
Black or African American	11	0.2%
Asian ¹	605	9.7%
American Indian/Alaska Native	14	0.2%
Hawaiian and Pacific Islander	0	0.0%
Some Other Race	0	0.0%
Two or More Races	234	3.8%
Hispanic or Latino (of any race)	4,257	68.7%
TOTAL:	6,200	100.0%

¹ Including South Asian populations

Household and Income Information

The City of Fowler has 1,828 households, according to the United States Census Bureau.⁸ A household includes all people living together in a housing unit, which may include one or more families living together, a person living alone, or a group of related or unrelated people. Fowler’s households have an average of 3.37 people.⁹ This is slightly higher than the averages for Fresno County and California, which are 3.16 and 2.96 respectively.¹⁰

Fowler’s estimated median household income as of 2017 was \$56,375, which increased from \$35,280 in the year 2000.¹¹ The distribution of income is represented in more detail in **Figure 1: Fowler Household Income**. The City median income is slightly low compared to Fresno County as well as the State of California overall, which were reported as \$65,300 and \$67,739, respectively. Fowler’s per capita income is \$20,903, while Fresno County’s is \$22,234 and the State of California’s is \$33,128.¹² Fowler’s average home price is among the highest in Fresno County at \$228,000 and has increased by 27 percent since 2010.¹³

⁷ (United States Census Bureau 2017)

⁸ (United States Census Bureau 2018)

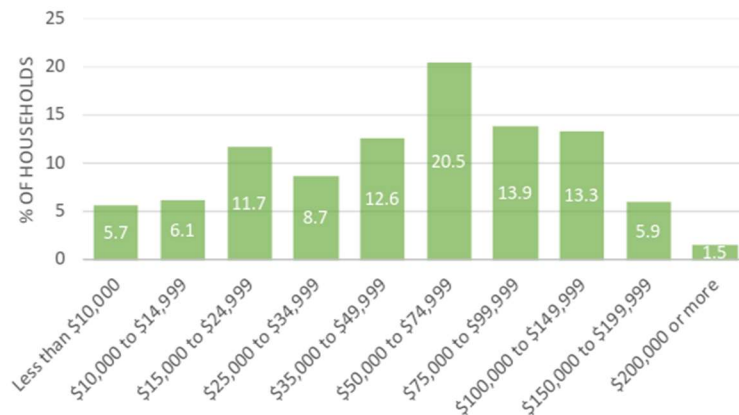
⁹ (United States Census Bureau 2018)

¹⁰ (United States Census Bureau 2018)

¹¹ (City of Fowler 2019)

¹² (United States Census Bureau 2018)

¹³ (Fresno County Economic Development Corporation 2016)

Figure 1: Fowler Household Income

19.5 percent of individuals in the City of Fowler live below the poverty level, where poverty status is determined based on household income and thresholds according to size and composition. The poverty rate for the State of California in 2018 was 12.8 percent, while the rate for Fresno County was 21.3 percent.¹⁴

Employment and Workforce Information

The economic health of an area largely depends on the composition of its labor force. In part, major employers decide where to locate based on the availability of the workers that can meet their needs. United States Census data identifies a labor force of 2,829 individuals over the age of 16 in Fowler, with 61.2 percent of the labor force actively working.¹⁵ The California unemployment rate was 7.5 percent in 2014 according to the California Employment Development Department. Fresno County had an unemployment rate of 11.6 percent while Fowler's rate was 9.6 percent.¹⁶ Fowler's unemployment rate did not change significantly at the time of the 2017 American Community Survey.



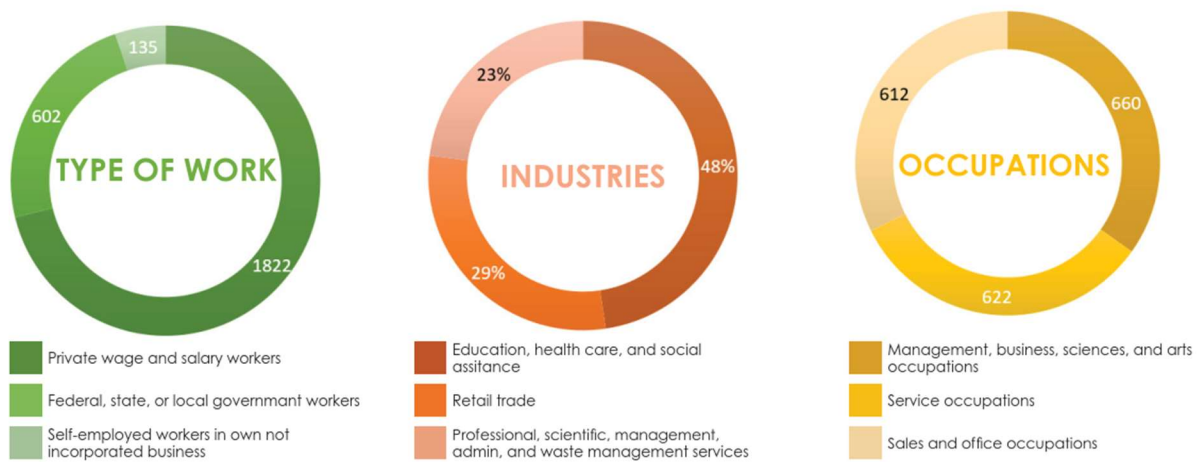
Private wage and salary workers make up the bulk of employed residents within the City at approximately 1,822 workers. Self-employment accounted for 135 workers with federal, state, or local government workers amounting to 602 workers. Fowler's top three types of work, industries, and occupations are represented in **Figure 2: Fowler's Workforce**.

¹⁴ (United States Census Bureau 2018)

¹⁵ (United States Census Bureau 2018)

¹⁶ (Fresno Council of Governments 2015)

Figure 2: Fowler's Workforce



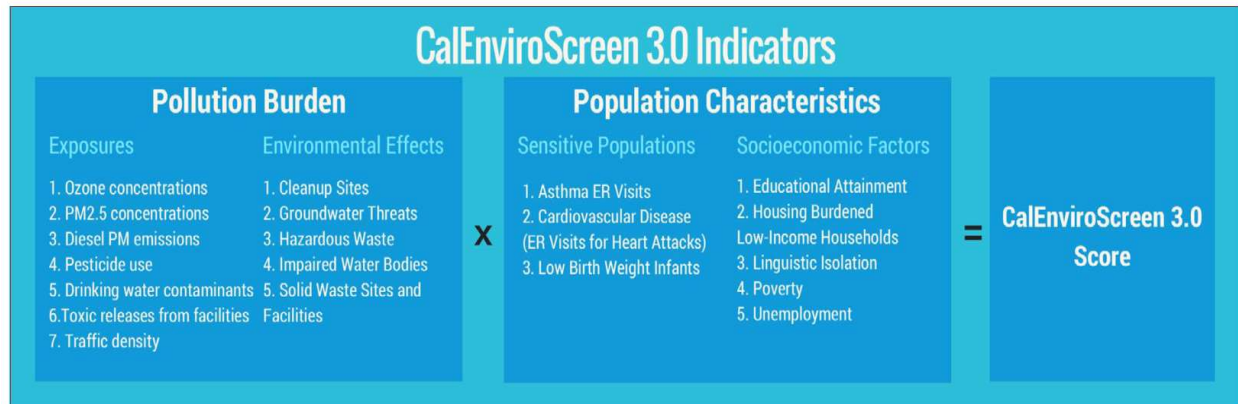
DISADVANTAGED COMMUNITIES IN FOWLER

The first step in planning for environmental justice is identifying the communities in a jurisdiction that are considered disadvantaged as defined in SB 1000. The primary screening tool used to identify DACs is CalEnviroScreen, a mapping tool maintained by CalEPA that identifies DACs by census tract. Scores are assigned to each census tract based on 20 different statewide indicators shown to significantly impact health or influence vulnerability to disease, including pollution exposures, other environmental effects, sensitive populations, and socioeconomic factors.¹⁷ A comprehensive list of the indicators analyzed in the CalEnviroScreen rankings can be seen in **Figure 3: CalEnviroScreen 3.0 Indicators**.

Using the scores calculated through the CalEnviroScreen tool, all census tracts are ordered from highest to lowest and assigned a percentile rank. The ranking for each census tract demonstrates the tract's degree of burden relative to the rest of the state's census tracts. Areas with higher scores experience a higher pollution burden than areas with lower scores. A search of the CalEnviroScreen tool indicates that most of the City limits and planning area falls within the 91st-100th percentile with the remaining area falling within the 81st-90th percentile. A map of the City of Fowler's CalEnviroScreen rankings can be seen in **Figure 4: CalEnviroScreen 3.0 Rankings Map**.

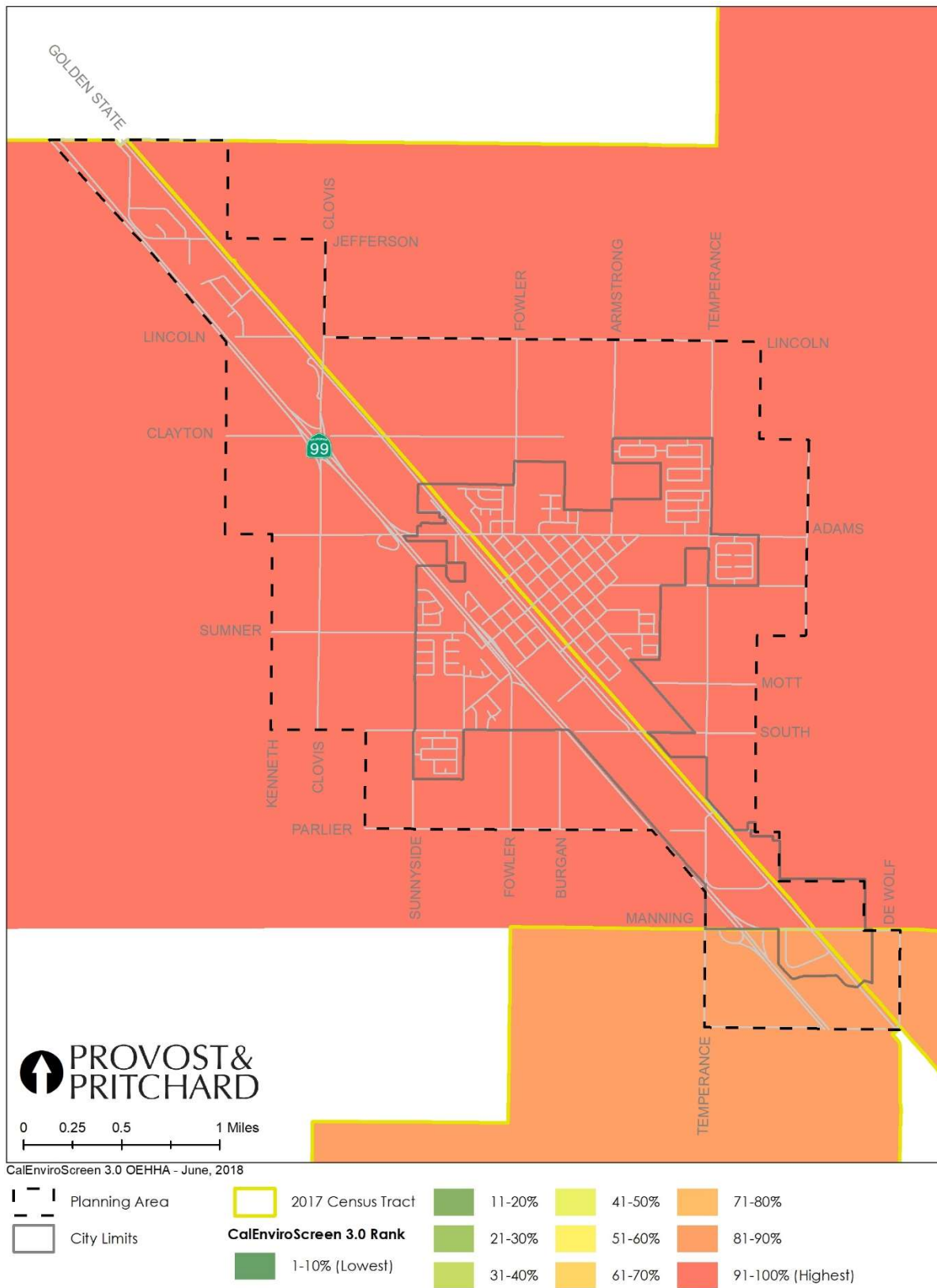
¹⁷ (California Environmental Justice Alliance 2018)

Figure 3: CalEnviroScreen 3.0 Indicators



(California Environmental Justice Alliance, Placeworks 2018)

Figure 4: CalEnviroScreen 3.0 Rankings Map



ENVIRONMENTAL JUSTICE ISSUES ANALYSIS

In order to comply with the requirements of Senate Bill 1000, the environmental justice (EJ) element or EJ policies integrated across the elements of a general plan must address the unique and compounded health risks present in DACs by addressing at a minimum the following topics:

UNIQUE AND COMPOUNDED HEALTH RISKS

Unique and compounded health risks refer to hazards or health risks caused by hazards that may not be harmful to health in isolation but are harmful when considered with other health risks or stressors associated with negative health outcomes. These are also referred to as cumulative risks.

- Pollution Exposure and Air Quality
- Public Facilities
- Food Access
- Safe and Sanitary Homes
- Physical Activity
- Community Engagement
- Improvements and Programs that Address the Needs of Disadvantaged Communities

While CalEnviroScreen is a useful tool for establishing a community's level of environmental burden in relation to other communities throughout California, there are some limitations to the tool. Since data is collected and analyzed at the census tract level, it may not fully represent the nuanced issues faced by small or rural communities. To provide a more comprehensive, customized, and local analysis of environmental justice issues facing the City of Fowler, the analyses outlined below will consider additional indicators of equity, such as access to parks and open space as well as access to health care facilities. Two types of maps have been produced for this effort: inventory and analysis maps. Inventory maps demonstrate the presence and location of important features. Analysis maps relate those features to existing residential land uses and determine level of access. These additional analyses and corresponding maps can be seen in **Figures 5-14** in the sections that follow.

POLLUTION EXPOSURE

Pollution exposure occurs daily in all communities where people encounter air, water, and soil contaminants present in the built environment. A key concept in environmental justice is that some communities are exposed to multiple sources of pollution that make them more vulnerable, or disproportionately burdened by, pollution compared to other communities.

SB 1000 requires environmental justice elements to "reduce pollution exposure and improve air quality." Although air pollution is a type of pollution exposure, it is addressed separately by SB 1000 and is geared toward reducing specific air contaminants. Other types of pollution that should be addressed include water contamination and exposure to hazardous materials. Addressing these pollution exposures is critical to achieving environmental justice. This portion of the environmental justice analysis will focus on identifying the sources, types, and quantities of pollution to which the community in Fowler is exposed.

Air Quality

Methodology

Healthy air quality is defined as the degree to which ambient air is pollution free.¹⁸ DACs can be disproportionately exposed to air pollution due to the proximity of pollution-emitting sources. Air pollutants are split into three categories: greenhouse gases (GHGs), criteria air pollutants, and toxic air contaminants (TACs).

GHGs trap heat in the atmosphere to make the planet warmer. This is known as the greenhouse effect and is the primary cause of global climate change. GHGs are primarily made up of carbon dioxide, methane, nitrous oxide, water vapor, ozone, and fluorinated gases. GHGs enter the atmosphere through the burning of fossil fuels; the production and transport of coal, natural gas, and oil; industrial activities, and agricultural practices.

Criteria air pollutants are made up of six common pollutants (carbon monoxide, lead, sulfur dioxide, nitrogen dioxide, particulate matter, and lead) that cause smog, acid rain, and other health hazards. Typically, these pollutants are the products of the combustion of fossil fuels and industrial processes. The US EPA and the State of California have set acceptable concentration levels for criteria pollutants. Areas that exceed these concentrations are considered in nonattainment status.

Toxic air contaminants (TACs) are pollutants that cause serious health issues even with low levels of exposure. TACs include benzenes, asbestos, arsenic, chloroform, and particulate matter from diesel-fueled engines, among many others.

GHGs, criteria air pollutants, and TACs are generally emitted by three types of sources:

- **Stationary sources**, such as power plants, refineries, and manufacturing facilities.
- **Area-wide sources** which spread pollution over a large geographic area. These include fugitive dust and farming operations.
- **Mobile sources**, which include automobiles, boats, and airplanes, among others.

The California Air Resources Control Board (CARB) has created an *Air Quality and Land Use Handbook* (Handbook) which provides a method for assessing air pollution exposure. The Handbook outlines a three-step process to assess pollution exposure near sensitive land uses:

1. Locate mobile and stationary sources of air pollution, including freeways, high volume roads, distribution centers, rail yards, gasoline dispensing facilities and others listed above.
2. Establish what areas are at risk of exposure by applying CARB's recommended buffers around pollution sources.
3. Identify sensitive land uses existing within those buffers.

¹⁸ (California Environmental Justice Alliance, Placeworks 2018)

Analysis

The San Joaquin Valley's air quality is impacted by its topography, climate, and geography. The mountains surrounding the Valley cause pollution to collect in high concentrations with limited ability to disperse. Additionally, the presence of major transportation corridors through the San Joaquin Valley connecting northern and southern California exacerbate the problem.¹⁹ There are several state and federal air quality standards not being met in the San Joaquin Valley. Specifically, the region is in nonattainment status for concentrations of ozone and particulate matter.²⁰

In order to determine the extent to which sensitive land uses in Fowler are disproportionately exposed to air pollution, it is necessary to locate pollution sources and establish acceptable proximity of pollution sources to sensitive land uses. Sensitive land uses are places where individuals who are most susceptible to poor air quality, such as children, older adults, pregnant women, and those with health problems, are most likely to spend their time. These land uses can include schools, parks, playgrounds, daycare facilities, nursing homes, hospitals, and residential communities.²¹

SENSITIVE LAND USES

Sensitive land uses include homes, schools, day care centers, playgrounds, and medical facilities.

The populations within DACs are more likely to have their homes, schools, parks, and daycare facilities near pollution emitting sources and are therefore disproportionately exposed to such hazards.

CARB provides siting recommendations for sensitive land uses around specific sources of air pollution, including high traffic freeways and roads, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and large gas dispensing facilities. Using these siting recommendations, it is possible to map the locations of sensitive uses in closer proximity to pollution sources than is recommended by CARB.

An inventory of Fowler's pollution emitting sources and sensitive land uses are shown in **Figure 5: Pollution Emitting Sources in Fowler**. As seen in this figure, the primary air pollution sources in Fowler come from mobile source emissions along State Route 99 and gas stations situated along the freeway. After applying CARB's recommended buffers, it is clear that most sensitive existing land uses in Fowler are well-situated in relation to these emissions sources. However, there are some residential parcels bordering State Route 99 that are either partially or entirely in closer proximity than is recommended. These residential uses with disproportionate exposure to air pollution from the freeway can be seen in **Figure 6: Sensitive Land Uses with Disproportionate Exposure to Pollution**.

¹⁹ (San Joaquin Valley Air Pollution Control District 2019)

²⁰ (City of Fowler 2019); (United States Environmental Protection Agency 2018)

²¹ (California Environmental Protection Agency, California Air Resources Control Board 2005)

Figure 5: Pollution Emitting Sources in Fowler

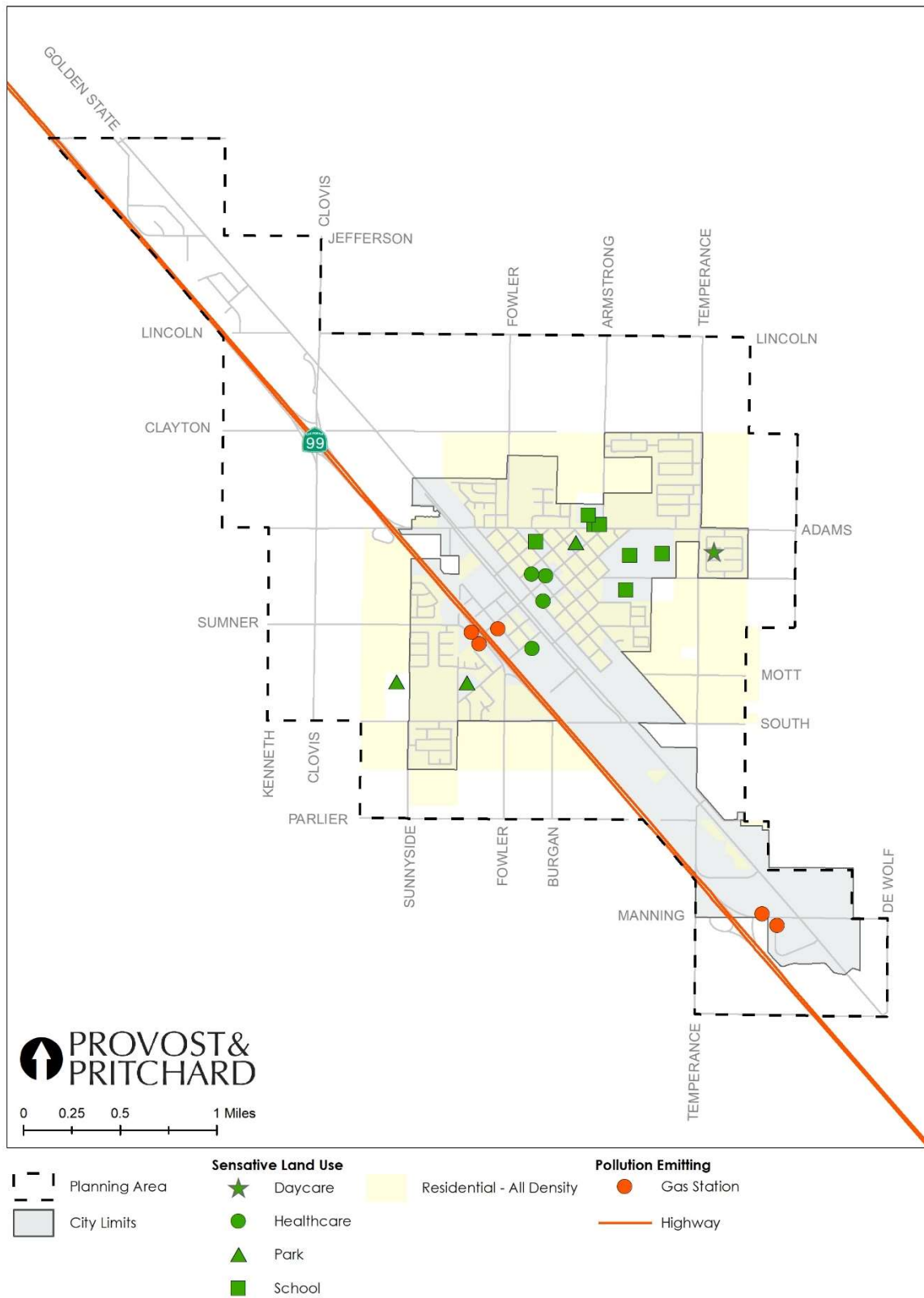


Figure 6: Sensitive Land Uses with Disproportionate Exposure to Pollution²²

²² (California Air Resources Control Board, California Environmental Protection Agency 2005)

Water Contamination

Methodology

The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards are regulatory agencies in charge of water quality. SWRCB tracks surface water conditions throughout California as well as water bodies with contaminants exceeding water quality standards.

Groundwater quality is often assessed through resources provided through SWRCB, including the Groundwater Ambient Monitoring and Assessment program, the online database called GeoTracker, as well as the Sustainable Groundwater Management (SGMA) program. In addition to these sources, the City of Fowler provides an annual water quality report which informs the public of the quality of their groundwater.

Analysis

Surface Water

The City of Fowler receives a surface water allocation from Consolidated Irrigation District (CID). The 1,000 ac/ft per year allocation from CID is used for groundwater recharge. There are no other surface water sources in Fowler used for consumption or recreation.

Groundwater Contamination

The City of Fowler relies on groundwater for its drinking water supply, sourced from six local wells. Water throughout the city is sourced from each well depending on demand. In accordance with state and federal standards, municipal water is tested monthly to ensure quality. According to the Annual Water Quality Report published by the City of Fowler in 2019 for the 2018 reporting year, Fowler's existing wells produce drinking water of good quality. However, in August of 2018 the City was notified that levels of 1,2,3-trichloropropane (TCP) levels exceeded the maximum contaminant limit in one City well. Consumption of water exceeding the maximum contaminant limit over long periods of time can lead to increased cancer risk.

The City is continuing to monitor water quality monthly and has initiated litigation against the manufacturer of the fumigants causing the issue to ensure they share in the cost of solving the issue. While only one well is affected, treatment would apply to all wells City-wide.

Hazardous Materials and Toxins

Methodology

Sources of hazardous materials and toxic substances that may lead to exposure include industrial facilities, brownfields, hazardous waste cleanup sites, superfund sites, abandoned mines, or housing built on previous industrial land that has not been properly cleaned up.

In order to identify hazardous sites, locals can access EnviroStor, an online database maintained by CalEPA, to identify hazardous sites in communities throughout California that may ultimately need to be addressed through EJ policies.

Analysis

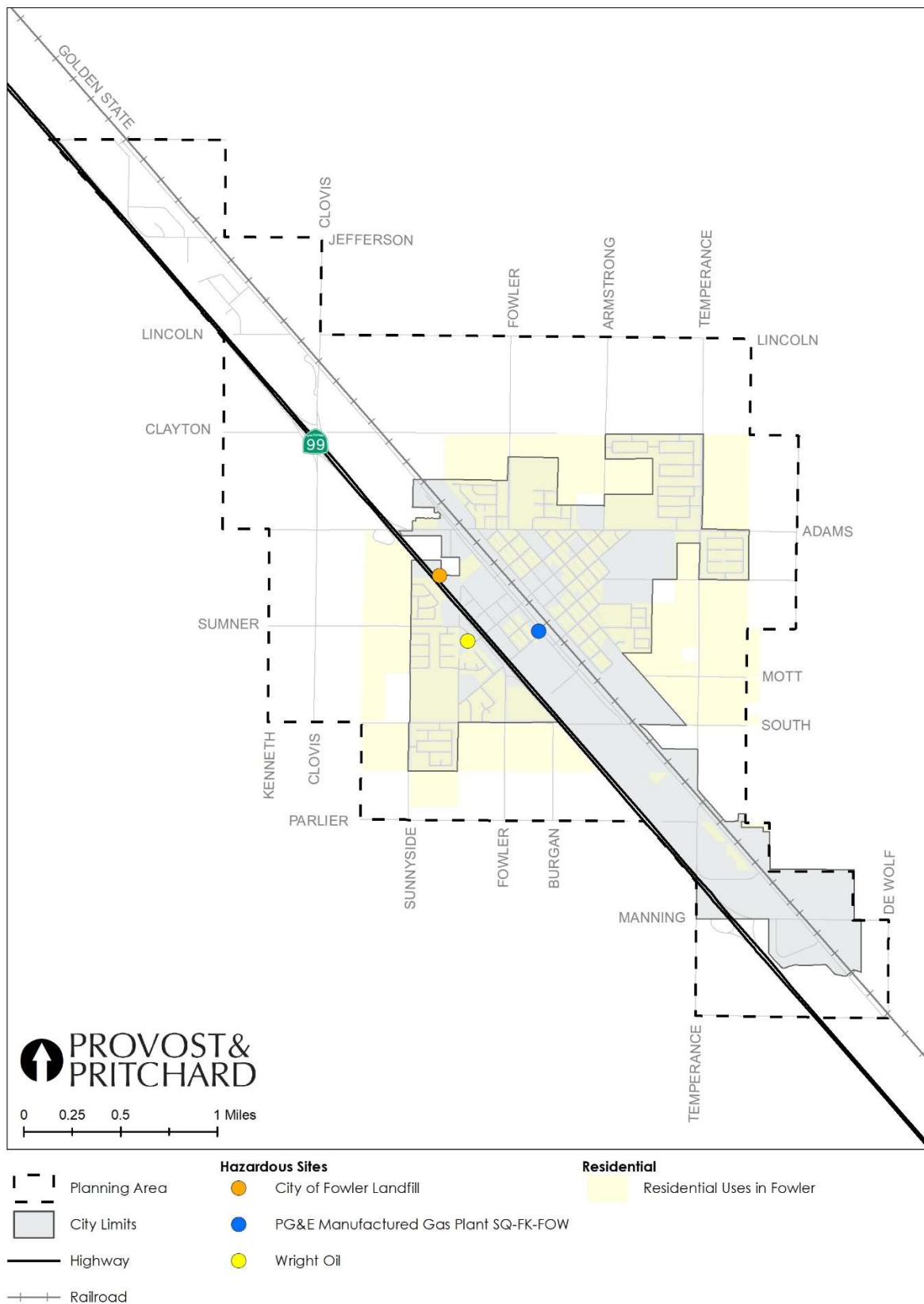
Fowler has three open status cleanup sites on the Hazardous Waste and Substances Sites (Cortese) List, as shown in **Figure 7: Hazardous Sites Inventory Map**:

- **PG&E Manufactured Gas Plant SQ-FK-FOW (10490099)**. This site operated as a manufactured gas plant by PG&E from 1914 to 1930 and has potential contaminants of concern, including polynuclear aromatic hydrocarbons (PAHS). This site is inactive and has been in need of evaluation since June 30, 1995.
- **Wright Oil (T10000011242)**. During a site assessment related to a former leaky underground storage tank (UST), analytical results indicated that total petroleum hydrocarbons as diesel (TPHd) from additional leaking aboveground storage tanks (ASTs) was present from the surface of the ground to a depth of at least 40 feet. California State Water Resources Control Board (SWRCB) has been requesting an investigation of the soil and groundwater beneath the affected property and subsequent cleanup since the contamination was discovered in 2014. According to the Geotracker, a site assessment was initiated in 2018. The lateral extent of the TPHd has not been delineated and groundwater conditions have not been evaluated.
- **Fowler City Landfill (L10004199996)**. This site was historically used for waste disposal prior to the regulations set forth in Title 27 of the California Code of Regulations. The cleanup status of this site is listed as open as of January 1, 1965.

Summary and Recommendations

1. Some residential uses in Fowler are disproportionately exposed to air pollution due to their proximity to the freeway. **Moving forward, residential land uses should not be planned within 500 feet of State Route 99.**
2. As part of ongoing planning processes, **new land use plans and project approvals should follow CARB's siting recommendations, as outlined in the *Air Quality and Land Use Handbook*.**

Figure 7: Hazardous Sites Inventory Map



PUBLIC FACILITIES

SB 1000 refers to public facilities as “public improvements, public services, and community amenities” in accordance with Government Code Section 66000. SB 1000 seeks to ensure that DACs have access to safe, clean public facilities. The equitable distribution of public facilities is an important part of environmental justice. Many DACs do not have adequate access to necessary public facilities. Even basic infrastructure such as sidewalks and streetlights can be inequitably distributed around a community. This can create a range of health risks and quality of life issues including poor physical and mental health, increased exposure to safety hazards, and stifled community growth.

Methodology

Analyzing the conditions of public facilities requires three steps: inventorying existing facilities; assessing access, demand, and compliance; and identifying future opportunities. This analysis should consider:²³

- **Distribution.** Is the distribution of facilities equitable? Are there future facilities planned that may make it more equitable? Are there any barriers to achieving equitable distribution of facilities?
- **Access.** Is there vehicular, pedestrian, biking, or transit-served access to the facility?
- **Conditions and Regulatory Compliance.** Do facilities meet regulatory and safety standards? Are facilities in good working condition?
- **Environmental Impacts.** Are facilities contributing to pollution burdens, or are facilities minimizing their impacts on the environment?
- **Operational Sustainability and Interagency Coordination.** Is there sustained funding for the facility? Is there long-term maintenance infrastructure for the facility? Are applicable agencies aware of DAC needs?
- **Future Demand.** Are facilities planned to meet the needs of DACs?

Analysis

Generally, public facilities in Fowler are equally distributed. However, access is impeded by dominant physical barriers as well as lack of public transit and pedestrian facilities. While most facilities are located on the east side of SR 99, residents on the west side can only access the east via pedestrian infrastructure at the Merced Street underpass. There are a few residential uses in the southern general commercial zone. These residents face the most serious access issues as they are located farthest from services, have no pedestrian facilities by which to reach services, and would need to traverse Golden State Boulevard, a busy, high-speed road with no pedestrian infrastructure, to access downtown Fowler. **Figures 8-10** provide an overview of the City of Fowler’s distribution of community facilities, public improvements, and public services.

²³ (California Environmental Justice Alliance, Placeworks 2018)

Figure 8: Community Facilities Inventory Map

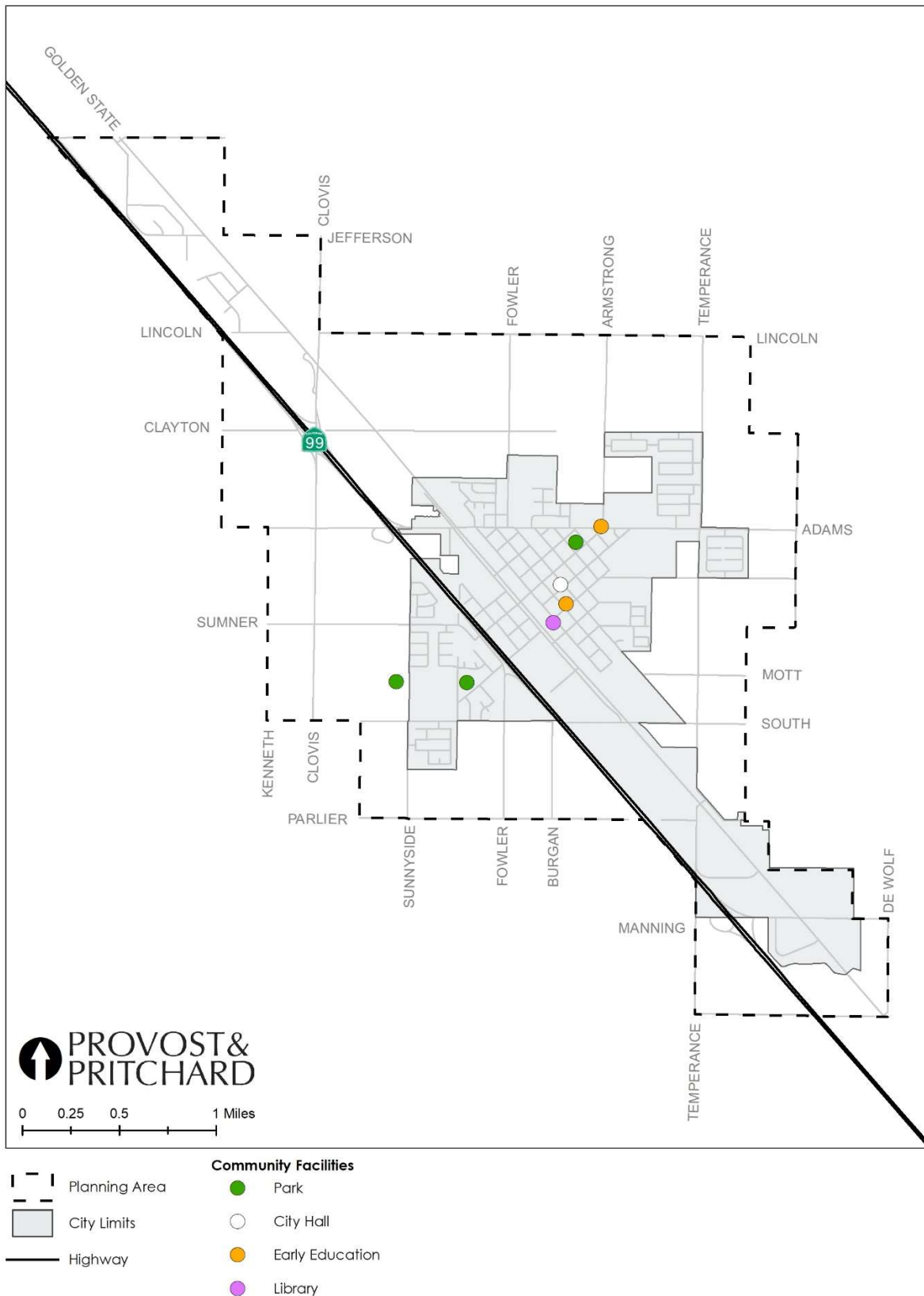


Figure 9: Public Improvements Inventory Map

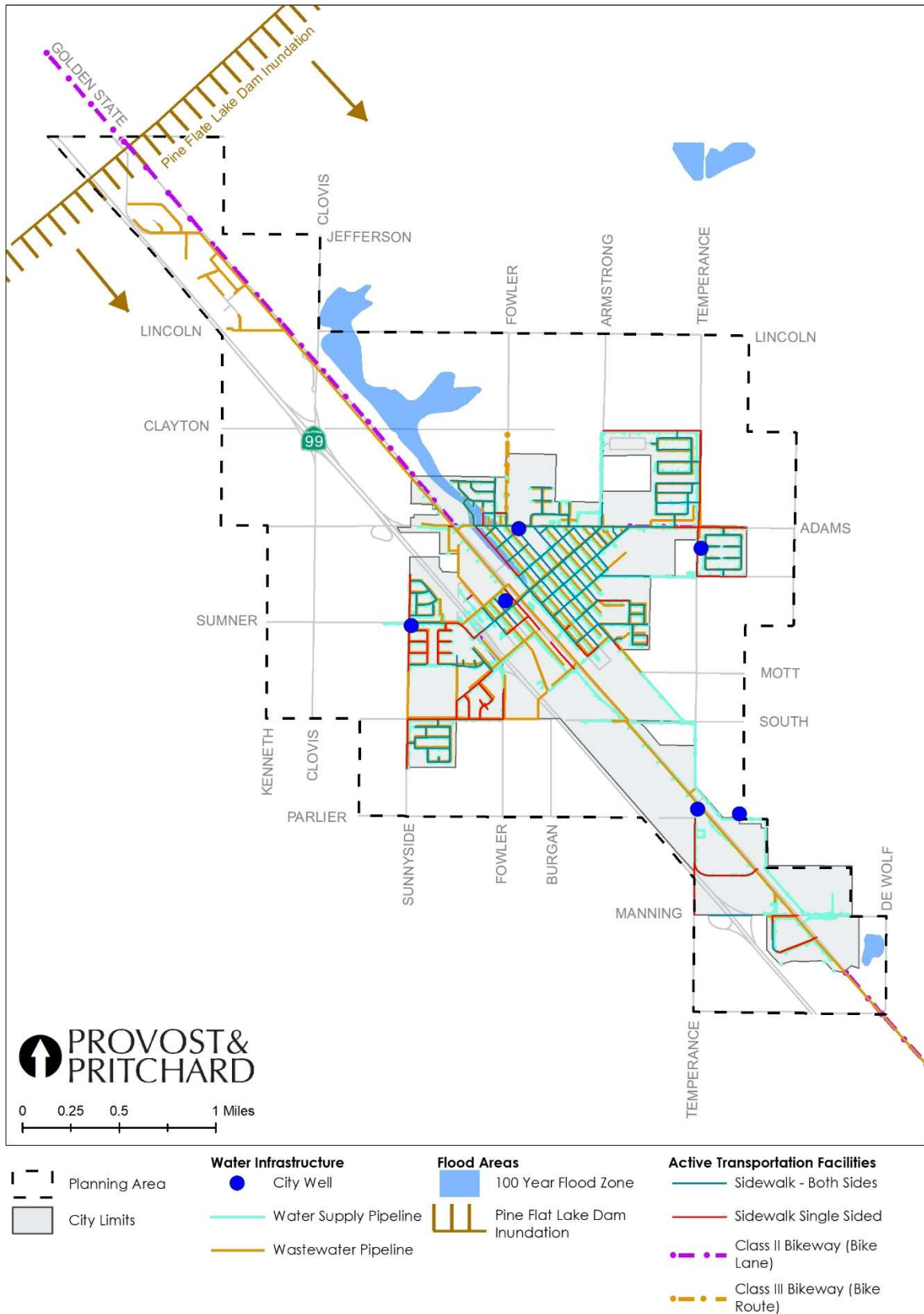
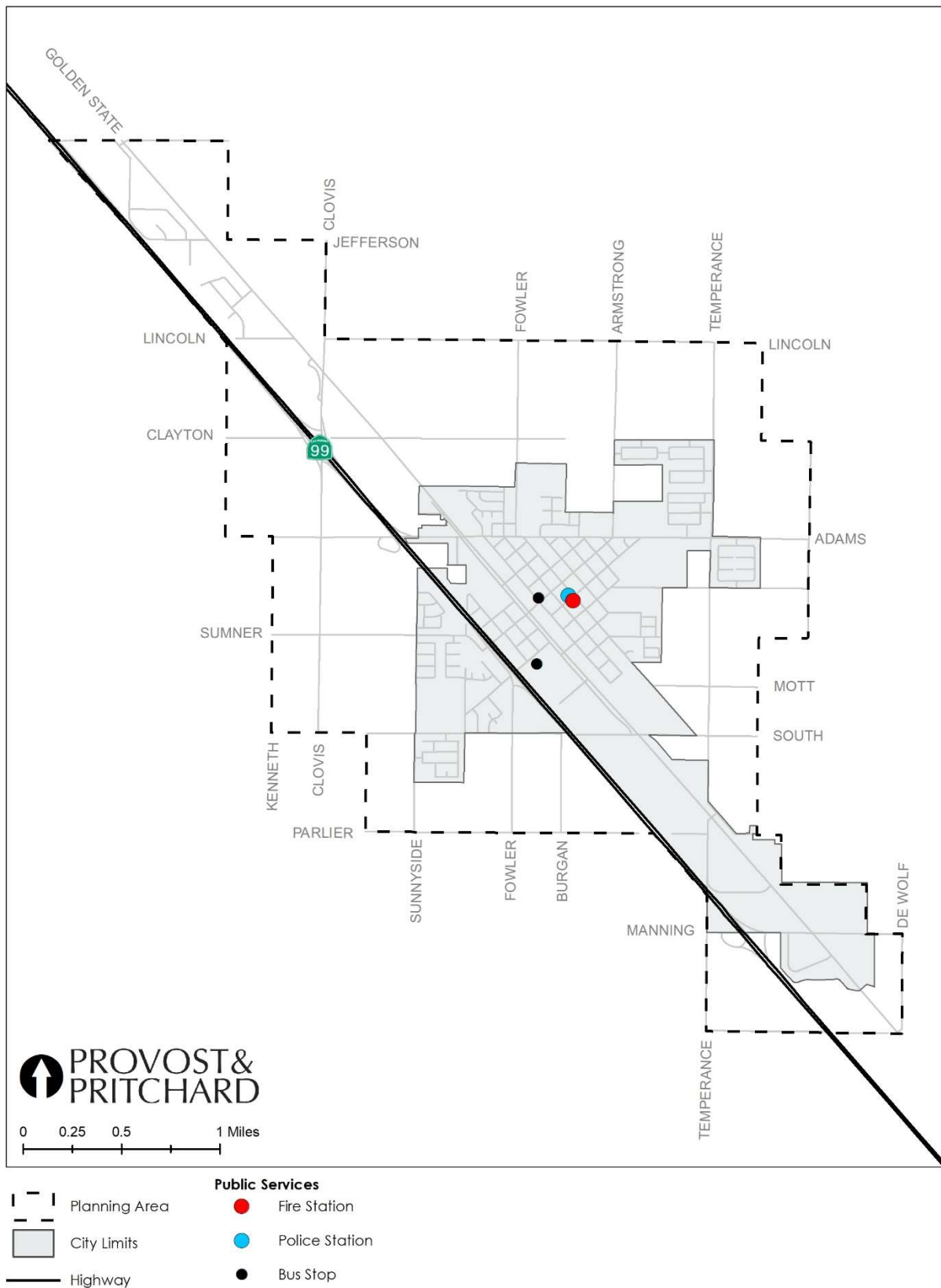


Figure 10: Public Services Inventory Map



Water, Wastewater, and Flood Control

The City of Fowler's domestic and fire flow water demand is generally well-served by its six local wells. Fowler is currently conducting a water supply model to determine if supply is sufficient to meet future demand. Throughout the San Joaquin Valley groundwater overdraft and contamination from agricultural chemicals have presented groundwater quantity and quality challenges. Distribution is provided by the City's Public Works Department and their system of pumps, mains, pipelines, and laterals. The department is responsible for repairs and replacement of equipment. At present, the City is not aware of any areas facing water supply issues. However, the City anticipates that with future growth, especially on the west side of SR 99, supply issues may occur. Additional studies are underway which evaluate the capacity of the water system. The City has identified several improvement projects required to meet additional water demands and maintain the aging system. While there is not currently a Capital Improvement Program that would ensure adequate funding for these improvements, one is in the process of being drafted and is anticipated to be completed by July 1, 2020.

Fowler is part of the Selma-Kingsburg-Fowler County Sanitation District (District). The District provides sewer service and wastewater treatment to its member cities through a mutual agreement. The cities served by the regional wastewater treatment plant, located just west of Kingsburg, are unified through the fiscal responsibility to fund its long-term operation and administration. Each city owns the portion of the wastewater system within their respective city limits while the District owns the wastewater treatment plant and the sewer lines outside of city limits. The District is also responsible for the maintenance of all sewer lines. The District monitors the capacity of the wastewater system and anticipates its growth to be consistent with the growth of the member cities.²⁴ All of Fowler is adequately served by the District.

The City currently has a storm drain system in place but does not currently have a storm drainage master plan, so system capacity is reviewed on a case-by-case basis as new development projects are submitted. Trunk lines lead to various basins throughout the City, though some projects retain stormwater on-site through the incorporation of a new basin depending on their proximity to current infrastructure.

The Federal Emergency Management Agency (FEMA) publishes maps showing regulated flood hazard zones for floods of varying severity. If an area has a greater than one percent chance of experiencing a 100-year flood,²⁵ flood insurance is mandatory. A small portion of the north side of Fowler is located within this flood zone. This area is made up of 53 parcels and includes a total of 57 buildings, 52 of which are residential.²⁶ Because Fowler and the surrounding lands are not likely to be impacted by floods and only a small portion is located within the 100-year, 200-year, or 500-year floodplains, it is not part of the Regional Flood Management Plans established for the San Joaquin Valley and prepared by the California Department of Water Resources. The City has identified two areas that, after periods of heavy rain, experience flooding. The first, located at the intersection of Tulare and 7th, has only slight backups. The intersection of Adams

²⁴ (Municipal Service Review and Sphere Of Influence Update Report 2017)

²⁵ A 100-year flood is a flood event with a 1 in 100 chance of occurring in a given year. In other words, the probability of a flood of this magnitude or greater in any year is 1%.

²⁶ (Fresno County Multi-Jurisdictional Hazard Mitigation Plan 2018)

and 7th, located in the 100-year floodplain, can experience flooding that necessitates a road closure after extreme precipitation.

The main risk of flooding for the City of Fowler comes from Pine Flat dam, located approximately 23 miles northeast of the planning area. This dam forms a one-million-acre-foot reservoir on the Kings River. Should the dam fail, a large portion of Fresno County, including nearly all of Fowler and its planning area, would be inundated with water. The Fresno County Multi-Jurisdictional Hazard Mitigation Plan named the Pine Flat Dam a high hazard dam but recognized that failures are more likely to occur with smaller dams.²⁷ Though there is a potential for dam failure, no major dams located in Fresno County have failed and the likelihood of a failure is low.²⁸

Solid Waste, Recycling, and Composting Facilities

Solid waste collection in the City of Fowler is provided by Waste Management, Inc. The City's solid waste program includes waste disposal collection, a regular recyclables pickup program, and a green waste pickup program. Following the removal of recyclable materials, the solid waste is transferred to the Kettleman Hills Nonhazardous Co-disposal Site. The landfill is at approximately 44 percent capacity and has no scheduled closure date. There are no waste disposal facilities within the City's planning area, though there is an industrial recycling center located in the southern portion of the city. A few residences are located immediately adjacent to the center. All households in Fowler are served adequately by and have equal access to this system.

Streets and Roads

The roadway system within the Fowler planning area consists of State Route (SR) 99 and numerous City and County routes. SR 99 is the major regional transportation route into and out of the City, with access provided by the Merced Street, Adams Avenue and Manning Avenue exits. Other entrances into Fowler from surrounding County areas include:

- North Fowler Avenue,
- South Fowler Avenue,
- South Temperance Avenue,
- Golden State Boulevard, and
- East South Avenue.

Most of Fowler's land area lies on the east side of SR 99, but the west side also has substantial residential uses. Retail and industrial uses are generally clustered along SR 99 to the east of the highway. Only Merced Street, Adams Avenue, and Manning Avenue provide access across the highway, limiting the flow of both automobile and pedestrian traffic.

Fowler currently owns and maintains 37.5 miles of road. The average pavement condition for the City can be considered "fair".²⁹ The City currently budgets \$250,000 for pavement repair and maintenance each year. With this level of annual spending, the amount of deferred maintenance would reduce the City's

²⁷ (Fresno County Multi-Jurisdictional Hazard Mitigation Plan 2018)

²⁸ (Fresno County Multi-Jurisdictional Hazard Mitigation Plan 2018)

²⁹ (Pavement Management System Implementation 2019)

average road conditions to “poor” by 2028, with the worst conditions being concentrated on the east side of SR 99. These roads will be reaching the end of their service life and may contribute to mobility issues throughout the City. Currently, there is no Capital Improvement Program which identifies maintenance priorities or funding mechanisms, though one is being drafted.

Public Utilities

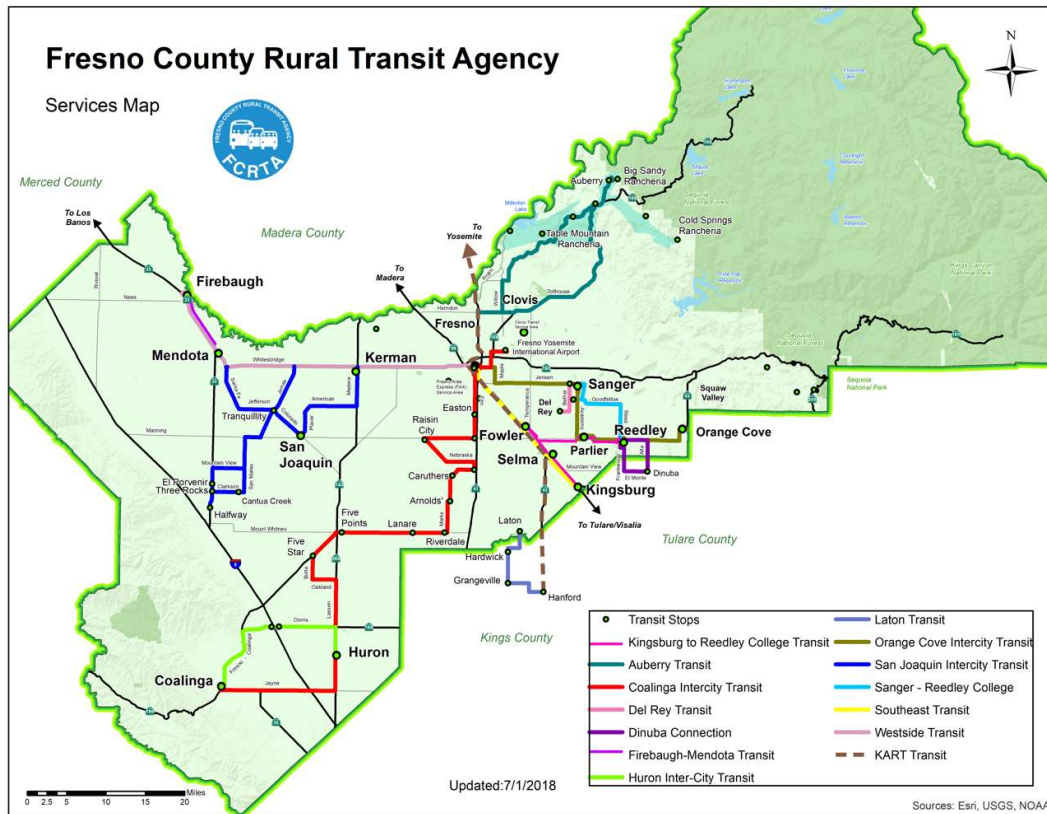
Electricity and natural gas are provided by Pacific Gas & Electric which plans to meet growth in the City of Fowler. There are a variety of communications companies that provide service in the City of Fowler. There are no known areas without access to these services.

Transit services

The Fresno Rural Transit Agency (FCRTA) operates fixed-route and on-demand bussing in the City of Fowler. The fixed-route service offers one line that links Fowler with the cities of Fresno, Selma, and Kingsburg as part of the Southeast Transit line. Three round trips are provided each day, Monday through Friday. Bus shelters are located at the intersection of E. Merced and N. 7th Street and in front of Fowler Medical Plaza. Both stops are on the east side of SR 99, which can make access difficult for those living on the west side of Fowler. Fares for the Southeast line range from \$0.75 to \$2.50 one way and from \$1.25 to \$4.75 round trip for the general public, with discounted fare for older adults, persons with disabilities, and children traveling with adults.³⁰ There are also shared-ride car and vanpool services, social service dial-a-ride, and specialized services for seniors and persons with disabilities. The service routes can be seen in **Figure 11: Fresno County Rural Transit Agency Services Map** below.

³⁰ (Southeast Transit Schedule 2018)

Figure 11: Fresno County Rural Transit Agency Services Map



(Fresno County Rural Transit Agency n.d.)

Hospitals, Emergency Rooms, and Trauma Centers

The City of Fowler has a contract with the City of Selma for emergency medical services provided by American Ambulance. Response times to emergencies average eight minutes. There are also a few medical offices in Fowler, including Adventist Health Medical Office, Fowler Medical Center, and United Health Centers. These primary care and family practice offices are concentrated in downtown Fowler, on the east side of SR 99. Residents on the west side of SR 99, who must cross the highway at the Merced Street underpass, and the residents in the southern general commercial zone have the farthest to travel to access primary care, with no offices within walking distance. The residential uses outside of walking distance from primary care are represented in **Figure 12: Healthcare Access Map**.

The closest all-hours hospital is Adventist Health Selma, is an approximately 8-mile vehicle trip from downtown Fowler. There is also an Urgent Care office in Selma. Additionally, there are several hospitals and emergency rooms located in Fresno. Community Regional Medical Center is the closest Fresno hospital, an approximately 12-mile vehicle trip north from downtown Fowler on SR 99. The locations of these hospitals are represented in **Figure 13: Hospital Access Map**. While both Adventist Health Selma and Community Regional Medical Center offer all-hours care, the Fresno hospital is larger and offers more services. The primary health access concern is the lack of all-hours facilities in Fowler, combined with the lack of public transportation in the evening. Should a medical emergency occur outside of regular business hours, residents would need to rely on a personal vehicle, ride-hailing service, or an ambulance.

Figure 12: Healthcare Access Map

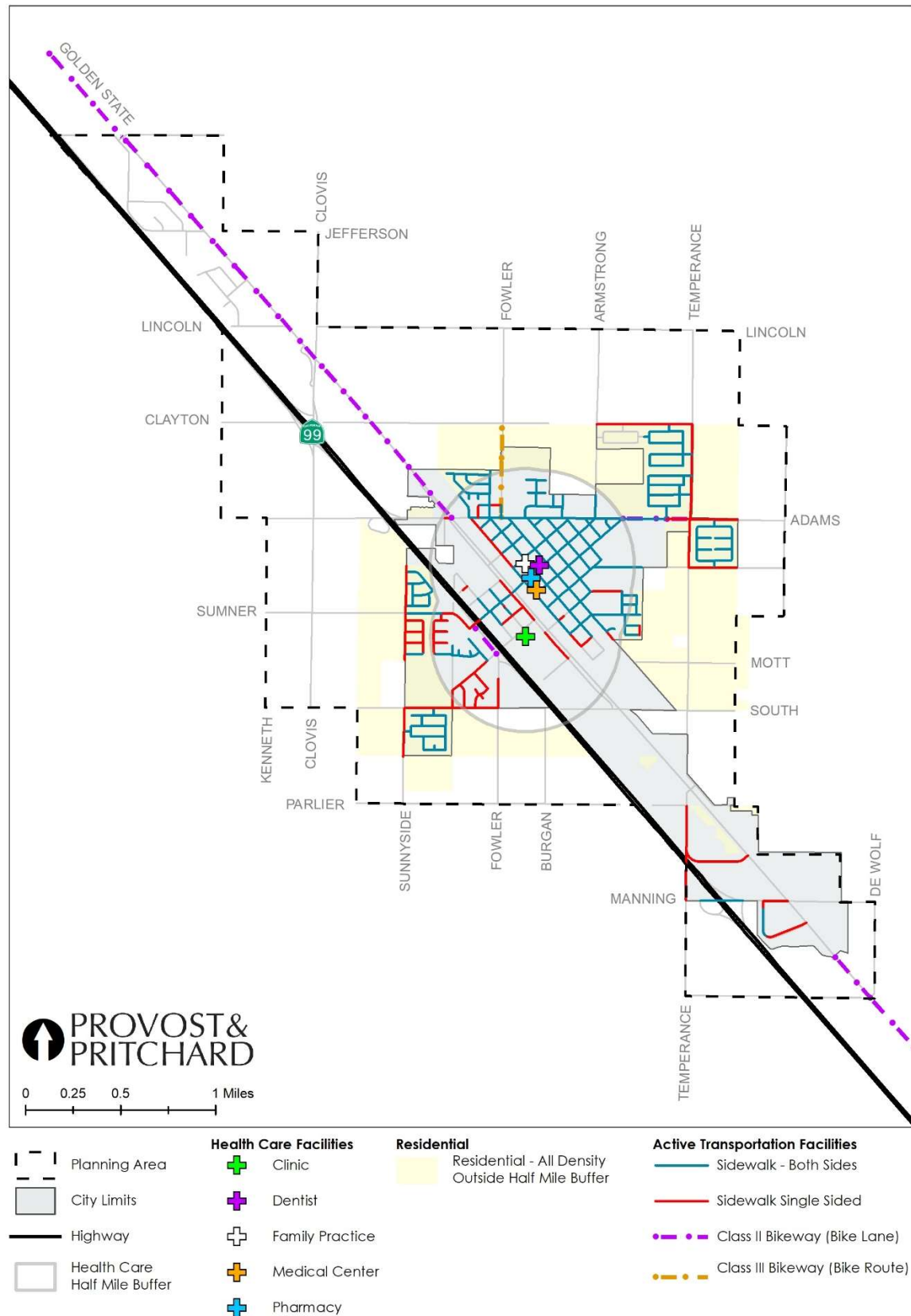
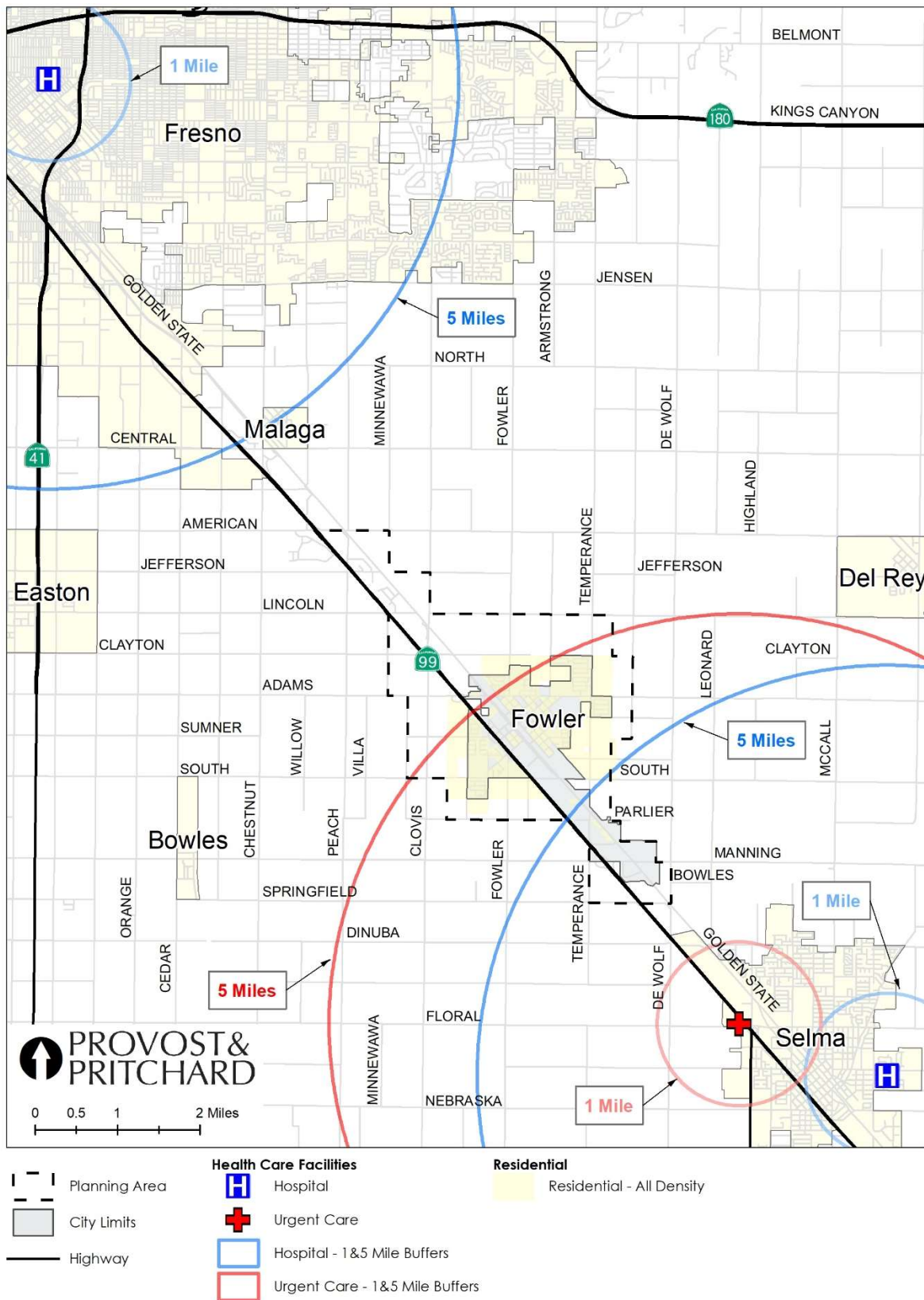


Figure 13: Hospital Access Map



Emergency Services and Public Safety

The Fowler City Police Department provides law enforcement services within the City limits. The entire City is served from the headquarters office at City Hall, using the detention facilities at the Fresno County Jail in downtown Fresno. The current³¹ staffing ratio is approximately 1.5 full-time officers per 1,000 residents with a goal of 1 full-time officer per 500 residents. Unincorporated portions of the planning area are served by the Area 3 substation of the Fresno County Sheriff's Department. Based on the size of the City, Fowler is adequately served by its current police force.

The City of Fowler Fire Department provides service within City limits and is staffed by 12 volunteer firefighters, with approval for up to 14 firefighters. Emergency response times are six minutes during the day and eight to ten minutes at night. Construction on a new fire station across from City Hall is scheduled to be completed and staffed in early 2020. Unincorporated portions of the planning area are within the jurisdiction of the Fresno County Fire Protection District (District). The District also responds to some emergencies within City limits, such as vehicle accidents and structural fires. Both the City of Fowler Fire Department and Fresno County Fire services provide emergency medical services as well. The City has entered into a transition agreement with the District to provide property tax revenue as areas annex to the City, in order to reduce fiscal impacts on the District.

City and Government Buildings

Fowler is expected to complete construction on a new fire station in early 2020. City Hall, while functional, does have areas that are in slight disrepair. Specifically, a mobile trailer that houses the Planning, Building, and Code Enforcement Department is in poor shape. The City is considering renovating City Hall following the completion of construction on the fire station.

The City owns and operates a community center, which is used for senior programming and other community events, including a cooling center during extreme heat. The building is also starting to experience some effects from poor maintenance, such as a leaking roof. These buildings are all located on the east side of SR 99, meaning access for residents on the west side is often impeded by the highway.

Daycare Centers

8 acres of land within City limits and an additional 5.2 acres of land in the sphere of influence are used as day care facilities.³² Additionally, there are both large and small day care homes on both sides of SR 99, providing equitable access to childcare.

Libraries

Fresno County Public Library operates a Fowler branch, which relocated to its current location at 306 S. 7th Street in 2008. The 8,660 square-foot branch offers accessible and inclusive programs year-round for Fowler residents of all ages. In addition to lending materials, the branch also provides 20 internet stations for public use, printing and photocopying for a small fee, and a meeting room space.

³¹ As of August 20th, 2019

³² (Community Report 2019)

Summary and Recommendations

	Distribution	Access	Conditions	Operational Sustainability	Future Capacity	Recommendation
Public Improvements						
Water Distribution	Equitable	Equitable	Adequate	Unknown	Unknown	Capital Improvement Program Needed
Wastewater Treatment	Equitable	Equitable	Adequate	Adequate	Adequate	NO ACTION REQUIRED
Flood Control & Drainage	Equitable	Equitable	Adequate	Adequate	Adequate	NO ACTION REQUIRED
Solid Waste	Equitable	Equitable	Adequate	Adequate	Adequate	NO ACTION REQUIRED
Streets & Roads	Equitable	Equitable	Adequate	Unknown	Unknown	Capital Improvement Program Needed
Utilities	Equitable	Equitable	Adequate	Adequate	Adequate	NO ACTION REQUIRED
Public Services						
Transit	Inequitable	Inequitable	Fair	Adequate	Adequate	Recommend bus shelter on west side of SR 99 in coordination with FCRTA
Healthcare	Equitable	Inequitable	Good	Good	Adequate	Consider programs to improve access for those outside walking distance
Emergency Services	Equitable	Equitable	Adequate	Adequate	Adequate	NONE
Community Facilities						
Government Buildings	Equitable	Inequitable	Fair	Adequate	Adequate	Consider additional and/or alternative locations for community meetings and cooling centers
Daycare Centers	Equitable	Equitable	Fair	n/a ¹	n/a	NO ACTION REQUIRED
Libraries	Equitable	Inequitable	Good	Adequate	Adequate	None
1. The City is not responsible for the operations or maintenance of private facilities.						

FOOD ACCESS

Food access is a concept that includes several related topics, including the availability of nutritionally adequate and affordable food, having enough income to purchase food, as well as proximity and the ability to travel to a food source that offers affordable, nutritionally adequate food.³³ People in DACs, especially those with low income, may face greater barriers to accessing healthy and affordable food retailers.³⁴ Research shows that people cope with food insecurity by consuming nutrient-poor but calorie rich foods, going hungry, or both, which leads to health issues ranging from micronutrient malnutrition to obesity.³⁵

³³ (California Environmental Justice Alliance, Placeworks 2018)

³⁴ (United States Department of Agriculture Economic Research Service 2019)

³⁵ (California Environmental Justice Alliance, Placeworks 2018)

Methodology

Community food access conditions may be evaluated using the following techniques and indicators.

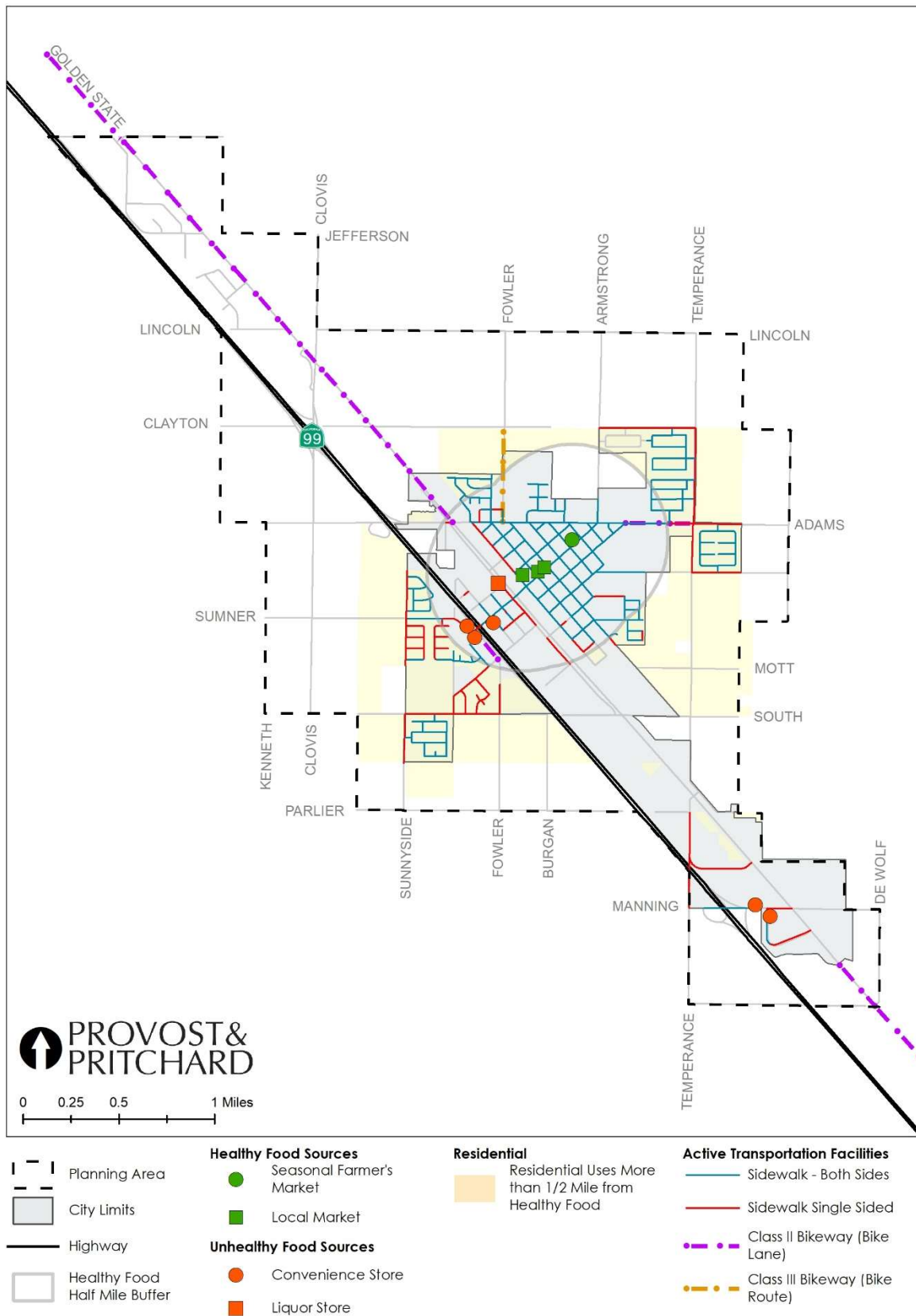
- **Identify and map existing food outlets**, including supermarkets, according to location, type, and cost of foods and produce.
- **Identify means of access to food sources**, whether by car, transit, or other.
- **Identify barriers to shopping**, such as situations where people have to carry groceries home.
- **Measure percentage of local residents lacking cars**, including special populations such as home-bound seniors. Evaluate level to which transit service meets community food shopping needs.

Analysis

The United States Department of Agriculture (USDA) Economic Research Service provides the Food Access Research Atlas, a visual mapping tool, which utilizes data on vehicle availability and supermarket access to create maps showing food access indicators by census tract. Using the Food Access Research Atlas, it was found that the City of Fowler's east and west census tracts have a 4.1 and 1.4 percentage rate, respectively, of households without vehicles that are more than one-half mile from a supermarket. While these percentage rates are relatively low, it does indicate that there are households in Fowler which have barriers to accessing healthy food and highlights the necessity of having a car in order to access healthy food retailers.

Figure 14: Food Access Map offers a more refined, local snapshot of the location of Fowler's food retailers. Based on this mapping exercise, Fowler lacks healthy food resources like grocery stores and supermarkets. There is an abundance of convenience stores and fast food restaurants for the size of the City, while healthy food retailers, like grocery stores and supermarkets are not found in the planning area at all. There are some local markets which sell meat and produce. However, these locations offer limited food supplies. In addition, the food supplies sold at these locations are expensive compared to grocery stores or supermarkets. For this reason, these locations have been identified as local markets instead of grocery stores or supermarkets that would offer a wider variety of general food supplies and household products. There is also a local variety store which sells some canned foods in addition to party supplies and other non-food household products.

Figure 14: Food Access Map



Summary and Recommendations

1. There are no policies regarding healthy food sources in the current General Plan or Zoning Code. **Update planning and regulatory documents to facilitate grocery stores to locate within the planning area.**
2. There is an abundance of unhealthy food sources in Fowler compared to healthy ones. **Prioritize/encourage the development of healthy food outlets.**
3. Once healthy food establishments, such as grocery stores or supermarkets are built, distribution of and access to those resources should also be evaluated. This can be accomplished as part of the visual assessment survey recommended in the **Physical Activity** section of this report.

SAFE AND SANITARY HOMES

Safe and sanitary housing considers three dimensions: housing conditions, housing affordability, and land-use compatibility. Toxic building materials, extreme temperature variation, poor air quality, moisture intrusion, and overcrowding are all aspects of housing condition that can impact residents' health. Residents of DACs tend to live in older housing stock which is more susceptible to these issues. Cost-burdened households have reduced resources available for other necessities such as health care or food. Finally, housing next to incompatible land uses can compound issues related to unsafe housing conditions. While housing condition and affordability are discussed in this section, incompatible land uses are considered in **Pollution Exposure** and **Public Facilities**.

Methodology

To analyze access to safe and sanitary housing, jurisdictions must assess indoor conditions and housing affordability. Age of housing stock is an important indicator for toxic substances, as regulation that reduces the use of those substances has increased over time. Additionally, census data on issues such as overcrowding can indicate indoor housing condition. Housing affordability is traditionally measured according to percentage of income spent on housing. Cost-burdened households spend more than 30% of their income on housing. However, recent studies have indicated that a more holistic approach that considers the affordability of other household expenditures beyond the cost of housing alone is more accurate. Tools such as the Family Budget Calculator, prepared by the Economic Policy Institute, can be used to determine affordability.

Analysis

Toxic Substances

There are known risks associated with substances such as lead, asbestos, mold, and other contaminants that are often present in older homes. In 1978, the United States banned the consumer use of lead-based paint.³⁶ Structures built prior to the passing of that legislation tend to contain higher levels of lead than newer buildings. When lead-based paint begins to chip, exposure to the substance increases and presents a hazard. Additionally, these homes may contain plumbing components made from lead which can infuse drinking water with the substance. Children are especially at-risk for lead poisoning, although people of all

³⁶ (Protect Your Family from Exposures to Lead 2019)

ages may face serious health problems when exposed to lead. Of the 1,636 housing units identified in Fowler as part of the 2016 Fresno County Multi-Jurisdictional Housing Element, 965 units were built prior to 1980 meaning that more than half (59%) of the housing units are likely at-risk for containing lead-based paint.

Asbestos is a fiber that occurs in rock and soil and has been used in a wide range of building construction materials and manufactured goods, including products like shingles, floor tiles, heat-resistant fabrics, and automobile parts.³⁷ Primarily, exposure occurs only after disturbance or damage releases the asbestos fibers into the air. While asbestos is not banned, legislation has granted the EPA greater oversight of products that contain the fiber and partially ban asbestos in certain products.³⁸ Asbestos causes three major health effects: lung cancer; mesothelioma; and asbestosis, a long-term, non-cancer lung disease.³⁹ Homes in a state of disrepair can put residents at greater risk for asbestos exposure. This is especially true for older homes, as regulation of asbestos has increased over time.

While mold is not usually a problem indoors, excessive moisture combined with poor ventilation can increase the possibility of mold in homes. Molds can produce allergens and irritants that can cause health problems, especially for more sensitive populations such as those with mold allergies or asthma. Mold can also cause allergy symptoms for people who are not allergic.⁴⁰ Older housing stock with poor ventilation tends to experience excessive moisture build-up and conditions conducive to mold growth.

Rodents and Pests

Rodents and other pests, aside from being a nuisance, can also contribute to unsafe housing conditions. While rodents may carry viruses or bacteria that cause diseases in humans, other pests like insects and cockroaches can carry allergens and trigger asthma attacks. Pest invasion is more likely to occur in older or run-down homes that are more susceptible to such an invasion. There were no problem areas for pests identified in Fowler.

Overcrowding

Overcrowded housing units increase health and safety concerns for the community. Additionally, highly overcrowded areas put increased stress on the condition of housing stock and infrastructure. The California Department of Housing and Community Development defines overcrowding as a unit occupied by more than 1.01 persons per room, not limited to bedrooms but excluding bathrooms and kitchens. Severely overcrowded units are occupied by more than 1.5 persons per room.⁴¹ Overcrowding tends to result from a lack of affordable housing or units of adequate size and can impact both owners and renters, though renters tend to be impacted more significantly.⁴² The incidence of overcrowded units in Fowler is broken down in **Table 2: Overcrowding in the City of Fowler**.

³⁷ (Learn About Asbestos 2018)

³⁸ (EPA Actions to Protect the Public from Exposure to Asbestos 2019)

³⁹ (Learn About Asbestos 2018)

⁴⁰ (Mold and Health 2018)

⁴¹ (Fresno Multi-Jurisdictional 2015-2023 Housing Element 2015)

⁴² (Fresno Multi-Jurisdictional 2015-2023 Housing Element 2015)

Table 2: Overcrowding in the City of Fowler⁴³

	Owner-Occupied Units		Renter-Occupied Units		Total	
	Overcrowded	Severely Overcrowded	Overcrowded	Severely Overcrowded	Overcrowded	Severely Overcrowded
Units	91	36	111	8	202	44
Percent	10.3%	4.1%	15.0%	1.1%	12.4%	2.7%

Housing Affordability

When households are cost-burdened they have fewer resources to put towards other living expenses such as healthcare or healthy food. Additionally, a restricted budget also restricts housing choice, meaning cost-burdened households are also more likely to be subjected to unsafe housing conditions and overcrowding. Housing farther from commercial and employment centers that is more affordable may also increase transportation costs. Lower-income households and renters tend to be more affected by high housing costs. There are two affordable housing complexes in Fowler: Magill Terrace and Ruby Court Apartments. Fresno County also operates programs designed to help rehabilitate single- and multi-family residences, connect residences to utilities, and assist in first-time home-buying. Housing affordability is broken down by income and tenure in **Table 3: Housing Affordability in Fowler**.

Table 3: Housing Affordability in Fowler⁴⁴

Income Group	Owner Households			Renter Households			Total Households		
	Households	Overpaying ²	Percent	Households	Overpaying	Percent	Households	Overpaying	Percent
Lower Income¹	248	121	48.9%	464	334	72.0%	712	455	63.9%
Total	823	259	31.5%	678	344	50.7%	1,501	603	40.2%

1. Where Lower Income applies to households earning 80% or less of the median household income for the County.
2. Where paying more than 30% of household income is considered overpaying.

The Housing and Transportation Affordability Index determines the percent of income spent on both housing and transportation. According to the Housing and Transportation Affordability Index, Fowler residents spend more than half their income on housing and transportation. Specifically, a regional-typical household of 3.17 people with an income of \$45,233 annually spends 56 percent of its income on housing and transportation: approximately 25 percent on housing and 32 percent on transportation.⁴⁵ A more moderate income assumption of \$36,186 annually means households spend 65 percent of their income on housing and transportation: approximately 31 percent on housing and 35 percent on transportation.⁴⁶ 32.5 percent of households in Fowler earn less than \$36,000 annually, suggesting that 32.5 percent of households are cost-burdened when using the typical standard of spending at least 30 percent of income on housing as a threshold.⁴⁷

⁴³ (Fresno Council of Governments 2015)

⁴⁴ (Fresno Council of Governments 2015)

⁴⁵ (Center for Neighborhood Technology 2019)

⁴⁶ (Center for Neighborhood Technology 2019)

⁴⁷ (City of Fowler 2019)

Summary and Recommendations

Factor	Summary	Recommendation
Toxic Substances	There is likely some occurrence of toxic substances, including lead, asbestos, and mold in Fowler's housing stock, based on its age. When these homes are in a state of disrepair, exposure to these toxic substances tends to increase, also increasing the associated health risks.	Increase awareness of warning signs for presence of toxic substances.
Rodents and Pests	There is no known problem with rodents or pests in the City of Fowler.	No action required.
Overcrowding	There is some occurrence of overcrowding in Fowler, especially among low-income and renting households.	Encourage construction of affordable housing units and housing that can accommodate larger and multi-generational households.
Affordability	Approximately 32.5% of households in Fowler are cost-burdened and spending more than 30% of their income on housing.	Increase awareness of and participation in affordable housing programs and programs that assist in off-setting other living costs such as food and transportation. Encourage construction of affordable housing units.

PHYSICAL ACTIVITY

The way we plan our cities impacts a community's ability to engage in physical activity. A city's open space and transportation network shapes its access to formal and informal recreation opportunities, which in turn impacts public health. In addition, because low income communities are more likely to depend on transit, walking, and bicycling for their transportation methods, promoting physical activity through active transportation policies not only provides health benefits but contributes to social equity as well. Therefore, an environmental justice framework on physical activity analyzes both the reach of active transportation networks and the distribution of parks and open space.⁴⁸

ACTIVE TRANSPORTATION

Active transportation refers to forms of transportation that are non-motorized, thus promoting physical activity.

Methodology

In order to evaluate Fowler's level of access to physical activity, it is necessary to establish the location of park and recreation facilities and the quality of its active transportation system. Best practices for environmental justice planning suggest utilizing several indicators to assess active transportation facilities and access to parks and open space:⁴⁹

Indicators to assess pedestrian networks and bicycle facilities within a community:

- Accessibility per Americans with Disabilities Act (ADA) Standards and sidewalk hazards—path of travel, crosswalks, and curb ramps
- Bicycle and pedestrian collision locations and other traffic hazards

⁴⁸ (California Environmental Justice Alliance, Placeworks 2018)

⁴⁹ (California Environmental Justice Alliance, Placeworks 2018)

- Public realm amenities—trash receptacles, benches, shade/shade structures, and lighting
- Landscaping—trees, landscaping, and shading along pedestrian routes
- Bicycle and pedestrian routes, facilities, infrastructure and connectivity
- Playing fields and spaces allowing for activities that are reflective of local community preferences

These indicators require an in-depth visual assessment, which is not part of the scope of this policy paper. A separate assessment effort is recommended as a next step in the General Plan update effort.

Indicators to assess the distribution of facilities conducive to physical activity:

- Accessibility to parks, open space, and/or recreation facilities by walking within half-mile distance, bicycling, driving, and transit
- Available amenities at each existing park, open space, and recreation facility
- Park acres per 1,000 residents

Analysis

Recreation Facilities, Parks, Open Space, and Trails

There are currently four City parks in Fowler, all of which are managed by the Department of Parks and Recreation. Of these four parks, two are facilities conducive to physical activity, mainly due to size. Panzak Park is approximately 2.5 acres and includes a covered picnic area, large shade trees, playground equipment, and tennis courts. The recently developed Donny Wright Park covers an area of approximately six acres and includes an expanse of irrigated lawn and trails for recreation. Margaret Cowings Park is an approximately 0.05-acre pocket park with an irrigated lawn and shade trees located on N. 9th Street between Merced and Tuolumne. Due to its size, Margaret Cowings Park is not considered a facility conducive to physical activity. Also considered a City park but not conducive to physical activity, the Fowler Veteran's Monument covers an area of approximately 0.1 acres and includes benches on paved surfaces, a fountain, several flag poles, ornamental hedges, and rose gardens. While not yet constructed, an eight-acre sports park west of SR 99 is in the planning and development stage. There are no State or regional parks located in the planning area. The City currently has a policy to develop 3.0 acres of park space for every 1,000 residents. While there can be many factors when calculating this ratio, for the purposes of this report, park space per 1,000 residents was calculated by totaling the acres of parks conducive to physical activity and dividing it by total residents, expressed per thousand. Based on California Department of Finance estimates, as of January 1, 2019 Fowler's population is 6,605. The two existing parks conducive to physical activity total 7.83 acres, for a ratio of 1.20 acres of park space per 1,000 residents. Once the eight-acre sports park is constructed west of SR 99, there will be a total ratio of 2.44 acres per 1,000 residents.

The City also has a memorandum of understanding in place with the Fowler Unified School District for the use of school facilities after hours for youth sports and community recreation. The City provides the School District funds from its utility users account intended for supplementary maintenance to school facilities related to the added usage.

Transit and Active Transportation Facilities

As shown in **Figure 15: Physical Activity Accessibility Map**, the City of Fowler is bisected by State Route (SR) 99, which is the major north/south transportation and goods movement route through the San Joaquin Valley. While SR 99 provides three entry/exits points for the City, it acts as a dominant physical barrier, separating the east and west sides of the City. Most land area within the Fowler City limits lies on the east side of the freeway; however, substantial residential land uses exist west of SR 99. Only Merced Street, Adams Avenue, and Manning Avenue provide access across the highway, limiting the flow of automobile, bicycle, and pedestrian traffic between the east and west sides of Fowler.

While there have been some recent additions to bicycle and pedestrian facilities, the City does not have an extensive system of bike lanes, bike paths, or walking trails. The ease of bicycling, walking and driving in Fowler varies depending on the area. The downtown area is more walkable due to its short blocks, moderate density, occurrence of mature trees for shading, and the proximity of a variety of destinations. In addition, there is a class II bicycle lane along Adams Avenue from Vista to Temperance and Golden State Boulevard. The disconnected nature of bicycle and pedestrian infrastructure in Fowler discourages its use as a form of active transportation.

BIKE LANE CLASSIFICATIONS

Class I: Completely separated right of way for exclusive use of cyclists and pedestrians.

Class II: On-Street striped lane for one-way bike travel.

Class III: Shared on-street facility, commonly identified by pavement markings or signage.

Class IV Separated Bikeway: Physically separated bicycle facilities that are distinct from the sidewalk and designed for exclusive use by bicyclists. Also commonly known as cycle tracks.

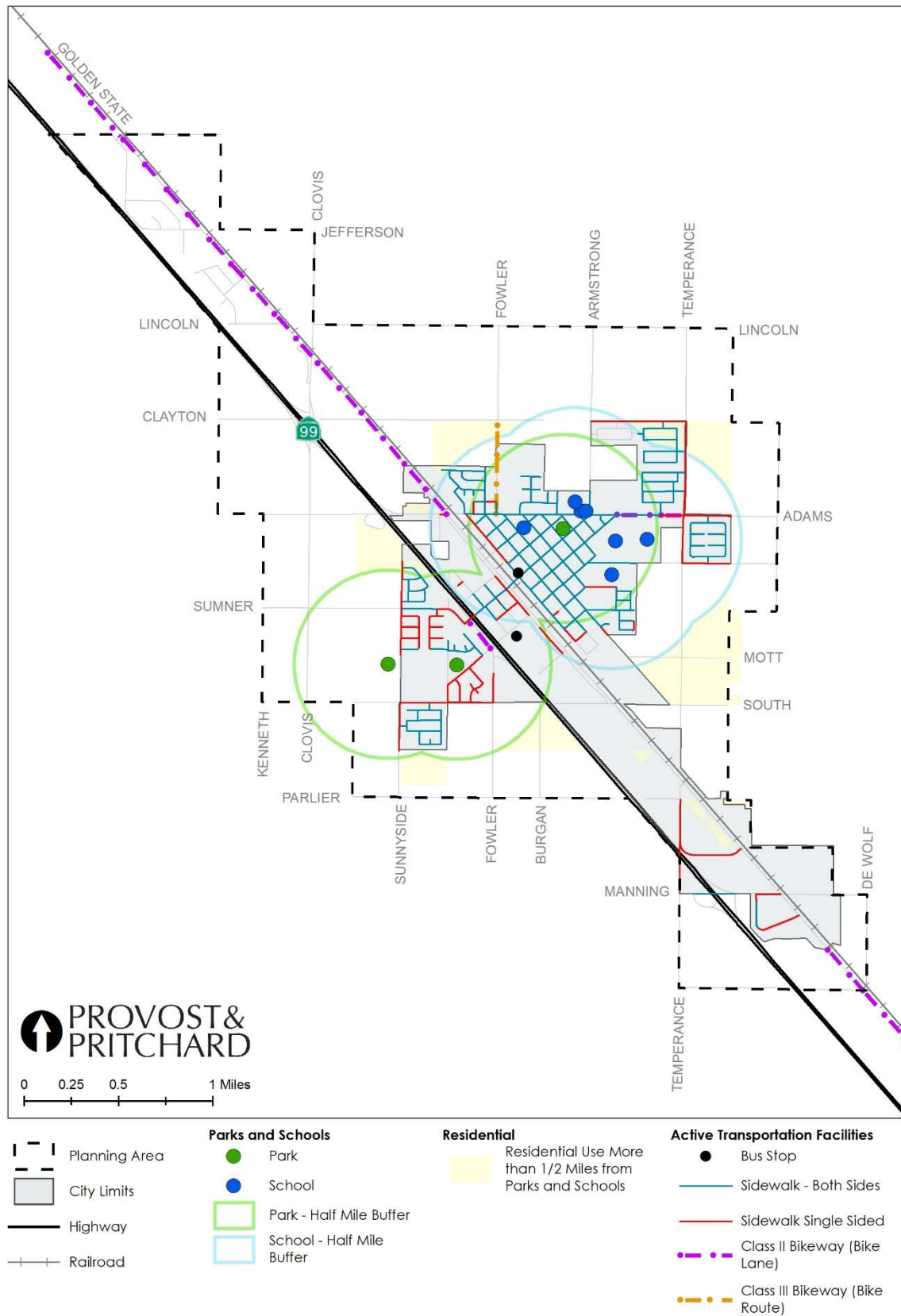
The Fresno Regional Active Transportation Plan (ATP), adopted by the Fresno COG Policy Board on February 22, 2018, identifies the following challenges which impact the safety and comfort of biking and walking in Fowler:

- Irregular intersections where the railroad grid creates challenges for bicyclists and pedestrians;
- Sidewalk gaps, high curbs, lack of curb ramps, and angled intersections on Adams Avenue; and
- Challenges crossing Merced Street at 10th Street due to proximity to SR 99 interchange ramps.

Public transit services are also limited. Transit service in Fowler is provided by The Fresno County Rural Transit Agency (FCRTA). FCRTA services, amenities, and routes are summarized in the above section titled Public Facilities.

The limited nature of transit service in the planning area reduces the likelihood that residents will use transit and other forms of active transportation as a viable means of travel. Increasing availability of transit services and establishing bike and pedestrian infrastructure leading to and from transit stops will increase social equity and expand opportunities for physical activity in Fowler. **Figure 15: Physical Activity Accessibility Map** provides an overview of the City of Fowler's distribution of and access to facilities conducive to physical activity, including parks, open space, and recreation facilities as well as its active transportation network. In order to establish whether residents have access to these locations by foot, ½-mile buffers were established around each park or school. Residential land uses shown on this map are those residences which fall outside of that ½ mile buffer. By isolating these residential uses, it is possible to see which homes are located outside of a walkable distance as well as which of those residences have access to pedestrian infrastructure.

Figure 15: Physical Activity Accessibility Map



Summary and Recommendations

1. There are substantial residential land uses on the west side of SR99, while most schools, destinations, and City amenities are located east of SR99. **Prioritize pedestrian-friendly infrastructure linking the east and west sides of the city.**
2. Bicycle and pedestrian friendly infrastructure is limited within the planning area. **Prioritize the construction of this infrastructure in locations that will close key gaps and link residential uses with schools, shopping, entertainment, recreational and employment centers within the planning area.**
3. Transit services are limited within the planning area. **Facilitate additional transit stops and prioritize active transportation infrastructure leading to and from transit stops.**
4. While the physical activity mapping effort identified the location of bicycle and pedestrian infrastructure, it does not reflect quality assessments or identify whether these facilities incorporate design elements which make walking or biking a comfortable or viable mode of travel, nor does it assess adherence to current ADA standards. **In order to determine the efficacy of existing active transportation improvements, a visual quality assessment of bike and pedestrian facilities should be conducted.** This survey should also evaluate access to healthy food outlets, as recommended in the **Food Access** section of this report.

CIVIL ENGAGEMENT

A core part of environmental justice is listening to the people who are most impacted. The most effective community engagement strategies represent all stakeholders, including those who are directly impacted and the public at large.

The current procedures employed in public engagement in the City of Fowler present some challenges to participation, especially for DACs. Nearly all public meetings are held in the City Council chambers. This is in part due to the fact that there are only a few large public meeting spaces available in Fowler. City Hall may be inaccessible for those without a personal vehicle living on the edges of town. Meetings are often held at 4 P.M., which is not conducive to many work schedules. It is also difficult for many people to find information about meeting dates and times, as the information is primarily posted on the City website. People without consistent access to the internet or knowledge about where to find meeting schedules are likely to be unaware of important public engagement events. Finally, the City rarely offers childcare and bilingual services, which may exclude parents of young children and individuals with limited English skills from participating.

Summary and Recommendations

1. Meeting times and locations may not be conducive to public participation. **Reassess meeting times and locations to ensure the majority of stakeholders are able to attend.**
2. Language barriers and childcare needs may prevent residents from participating in public meetings. **Provide childcare and bilingual services at meetings so parents and individuals with limited English skills are able to participate.**

BIBLIOGRAPHY

- California Air Resources Control Board, California Environmental Protection Agency. 2005. "Air Quality and Land Use Handbook: A Community Health Perspective."
- California Environmental Justice Alliance. 2018. "CalEnviroScreen: A Critical Tool for Achieving Environmental Justice in California."
- California Environmental Justice Alliance, Placeworks. 2018. "SB 1000 Implementation Toolkit."
- California Environmental Protection Agency, California Air Resources Control Board. 2005. "Air Quality and Land Use Handbook." *California Air Resources Board*. April. Accessed December 16, 2019. <https://ww3.arb.ca.gov/ch/handbook.pdf>.
- Center for Neighborhood Technology. 2019. *Housing and Transportation Index*. Accessed December 16, 2019. <https://htaindex.cnt.org>.
- City of Fowler. 2019. "Community Report."
- Fresno Council of Governments. 2015. "Fresno Multi-Jurisdictional 2015-2023 Housing Element." Housing Element.
- Fresno County Economic Development Corporation. 2016. "Fresno County Comprehensive Economic Development Strategy."
- Fresno County Rural Transit Agency. n.d. "RuralTransit.org." Accessed December 11, 2019. https://www.ruraltransit.org/wp-content/uploads/2018/10/FCRTA_20180701.jpg.
- . 2018. "Southeast Transit Schedule." *Fresno County Rural Transit Agency*. September 10. Accessed December 12, 2019. <https://www.ruraltransit.org/wp-content/uploads/2019/07/Southeast-Transit-Schedule-New-Stop3.pdf>.
- Fresno County, Amec Foster Wheeler. 2018. "Fresno County Multi-Jurisdictional Hazard Mitigation Plan." NCE. 2019. "Pavement Management System Implementation." Final Report, Fowler.
- San Joaquin Valley Air Pollution Control District. 2019. "2018-19 Annual Report to the Community."
- Selma-Kingsburg-Fowler County Sanitation District. 2017. "Municipal Service Review and Sphere Of Influence Update Report."
- State of California, Department of Finance. 2019. "E-5 Population and Housing Estimates for Cities, Counties and the State - January 1, 2011-2019." Sacramento.
- State Water Resources Control Board. 2015. *GeoTracker*. Accessed January 22, 2020. <https://geotracker.waterboards.ca.gov/>.
- United States Census Bureau. 2017. *American FactFinder Fowler California Hispanic or Latino and Race*. Accessed December 9, 2019. <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>.
- . 2018. *QuickFacts*. Accessed December 9, 2019. <https://www.census.gov/quickfacts/fact/table/fowlercitycalifornia,fresnocountycalifornia,CA/PST045218>.
- United States Department of Agriculture Economic Research Service. 2019. *Food Access*. August 20. Accessed December 12, 2019. <https://www.ers.usda.gov/topics/food-choices-health/food-access/>.

- United States Environmental Protection Agency. 2019. *EPA Actions to Protect the Public from Exposure to Asbestos*. April 26. Accessed December 11, 2019. <https://www.epa.gov/asbestos/epa-actions-protect-public-exposure-asbestos>.
- United States Environmental Protection Agency. 2018. *Learn About Asbestos*. September 17. Accessed December 11, 2019. <https://www.epa.gov/asbestos/learn-about-asbestos#asbestos>.
- United States Environmental Protection Agency. 2018. *Mold and Health*. October 24. Accessed December 13, 2019. <https://www.epa.gov/mold/mold-and-health>.
- United States Environmental Protection Agency. 2018. *Particulate Matter Basics*. November 14. Accessed December 10, 2019. <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>.
- United States Environmental Protection Agency. 2019. *Protect Your Family from Exposures to Lead*. March 26. Accessed December 9, 2019. <https://www.epa.gov/lead/protect-your-family-exposures-lead>.