SDC SPECIFIC PLAN
OUR VALLEY OUR FUTURE

# PROFILE & BACKGROUND REPORT

September 2020

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*September 2020*

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# Introduction

*Chapter One*

## 1.1 Background

Established in 1891 in the heart of the Sonoma Valley, the Sonoma Developmental Center (SDC) site consists of a developed campus covering approximately 180 acres and approximately 750 acres of ecologically valuable natural areas adjacent to the Sonoma Valley Regional Park and the Jack London State Historic Park. Embedded in the natural areas is an existing extensive system of trails and access roads and a water system consisting of two reservoirs, aqueducts, spring head, storage tanks, treatment plant, pipelines and a water intake in Sonoma Creek.

SDC is the oldest facility in California created specifically to serve the needs of individuals with disabilities and was sited at its current location for its picturesque, therapeutic setting, gaining national renown as a place of healing and community. In 2018, the State of California officially closed the facility, and relocated clients to smaller, community-based care facilities. SDC was also the valley's largest employer until its closure, with ties to adjacent communities of Glen Ellen and Eldridge.

### State-County Partnership

Through an agreement signed in 2019, the State and Sonoma County forged a unique partnership that allows the County, together with the community, to chart the future role of the State-owned property through preparation by the County of a Specific Plan, focused on transition and overall vision and related environmental review. While the Specific Plan is being prepared, the State will continue to control and operate the property. That includes all funding needs encompassing on-going maintenance, security, firefighting, landscaping, and fire prevention.

### State Law Requirements for the SDC Specific Plan

The State of California enacted Government Code Section 14670.10.5 that outlines the State's goals and objectives for the SDC Specific Plan. In light of the statewide affordable housing crisis, State law stipulates that the SDC Specific Plan prioritize housing, especially affordable housing and housing for individuals with developmental disabilities. The legislation also acknowledges the importance of the

significant open space areas of the SDC site and requires permanent protection of the SDC site's open space and natural resources to the greatest extent feasible. Other required components of the planning process include involvement of the community in order to reduce uncertainty, increasing land values, expediting marketing, and maximizing interest of potential purchasers. The legislation contemplates that these efforts will require environmental review and amendments to the County's General Plan and zoning ordinances, while addressing the economic feasibility of future development.[1]

Under Section 14670.10.5, "specific plan" means a comprehensive planning and zoning document for a defined geographic region of County of Sonoma. Under California law, specific plans create a framework for development in a given area and establish a link between implementing policies of the general plan and the individual development proposals in a defined area. All specific plans must be consistent with the adopted general plan of the jurisdiction within which it is located, pursuant to Government Codes Sections 65450 to 65457. All subsequent public works projects, zoning regulations, subdivision and development must in turn be consistent with the specific plan.[2]

The California Environmental Quality Act (CEQA) provides opportunities for environmental "tiering," and provides an exemption from subsequent environmental review for certain projects, including housing developments, that are consistent with a

1. State of California, Government Code Section 14670.10.5 (https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&sectionNum=14670.10.5.).

2. California Governor's Office of Planning and Research, *Planner's Guide to Specific Plans* (4).

specific plan for which an environmental impact report has been prepared.[3]

## 1.2 Project Location and Description

The SDC site is located in the heart of the Sonoma Valley region of southern Sonoma County, about six miles north of the City of Sonoma and about 15 miles south of Santa Rosa, between the unincorporated communities of Glen Ellen and Eldridge.

The lush Sonoma Valley lies nestled between two mountain ranges along Sonoma County's eastern edge. The valley offers visitors a delightful mix of extensive and ecologically significant natural areas, beautiful vistas, vineyards and wineries, wine tasting, farm-fresh cuisine, California history, art, shopping, and outdoor recreation.

Known as the birthplace of wine in California, the 17-mile long Sonoma Valley includes an amazing variety of landscapes and microclimates, from flat meadows and valleys to rolling hills, and from cool wind and fog to hot sunshine—sometimes all in the same day.[4]

The Planning Area includes all of the SDC property, encompassing an area of 945 acres (about 1.5 square miles), with former agricultural land, oak woodlands, native grasslands, wetlands, forests, large riparian woodlands along Sonoma Creek and other tributaries, a major wildlife corridor, a cemetery, and two reservoirs surrounding the historical 180-acre built area. Arnold Drive bisects the property. Sonoma Valley Regional Park is directly

3. CEQA Guidelines, Section 15183. (https://govt.westlaw.com/calregs/Document/I7E4CF70F329D402C9A4D0A132161859F?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default))

4. Sonoma County Tourism, Guide To the Sonoma Valley (https://www.sonomacounty.com/articles/guide-sonoma-valley). Accessed June 8, 2020.

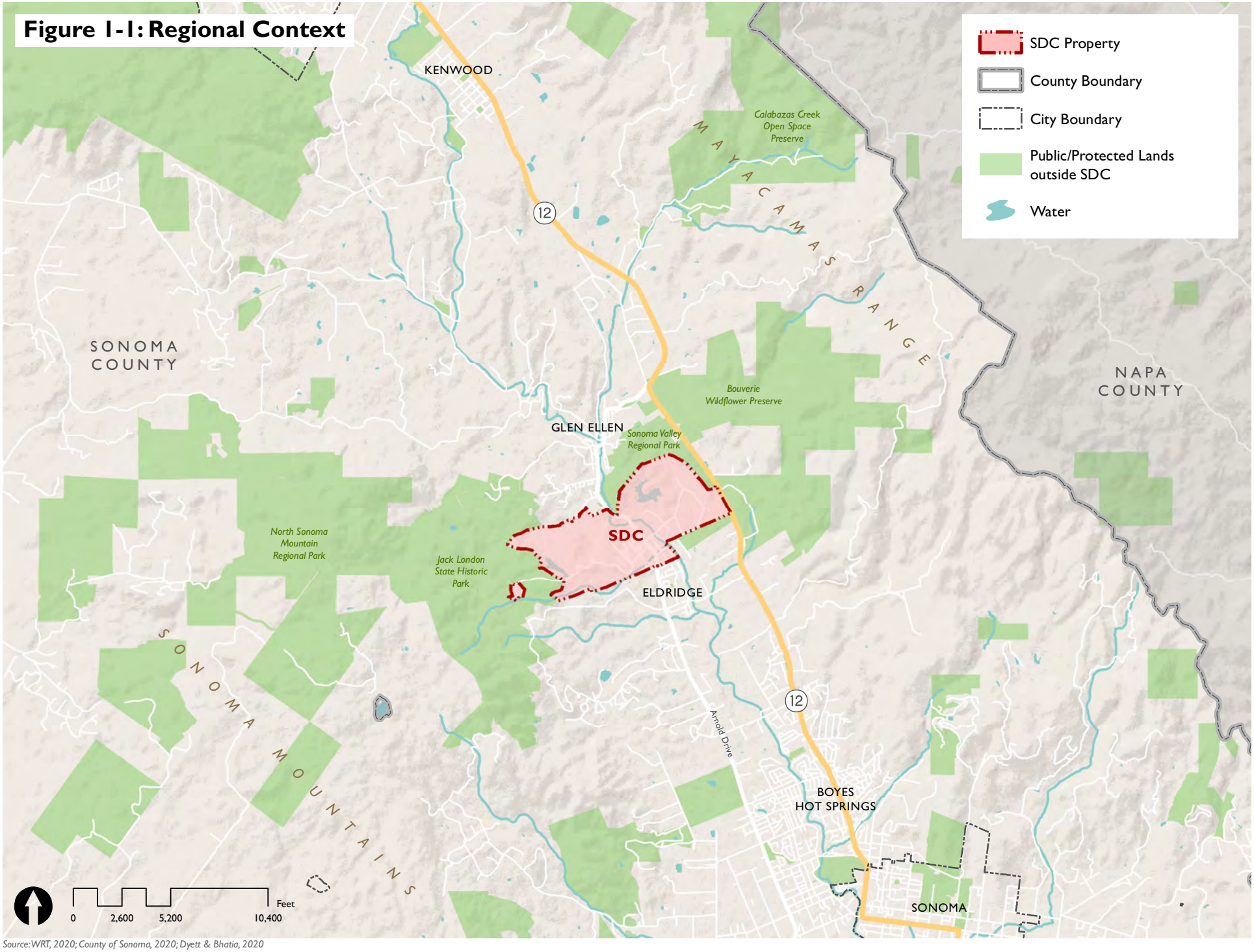
to the north; portions of Sonoma Valley Regional Park, Martin Street, and Mill Creek to the south; Jack London State Historic Park to the west; and Sonoma Valley Regional Park and Highway 12 to the east. The SDC Specific Plan area also includes the approximately 11-acre non-contiguous Camp Via grounds within Jack London State Historic Park. The developed campus area west of Arnold Drive is part of the Sonoma State Home Historic District and includes two individually contributing historic resources—the Sonoma House and the Main Building, which is a National Historic Landmark. See Figure 1-1 for a map of the sub-regional context and Figure 1-2 for a map of the Planning Area boundaries.

The SDC site has unique opportunities for both conservation and economic development that can benefit Sonoma Valley and the entire county, while supporting the State's housing, conservation, and other objectives. Historically, the center contributed to the economic strength of the county as the valley's largest employer, at its height employing approximately 1,300 nursing, professional, and administrative staff and providing decades of essential patient care services to the developmentally disabled.[5]

Now, the County of Sonoma is undertaking the Sonoma Developmental Center Specific Plan to guide future development of the closed site and achieve an attractive and ecologically sustainable vision, including viable mixed uses and economic development, affordable housing opportunities, natural area conservation, restoration and management, passive recreation, and cultural and historical preservation. The project includes the following priorities to shape future use of the property:

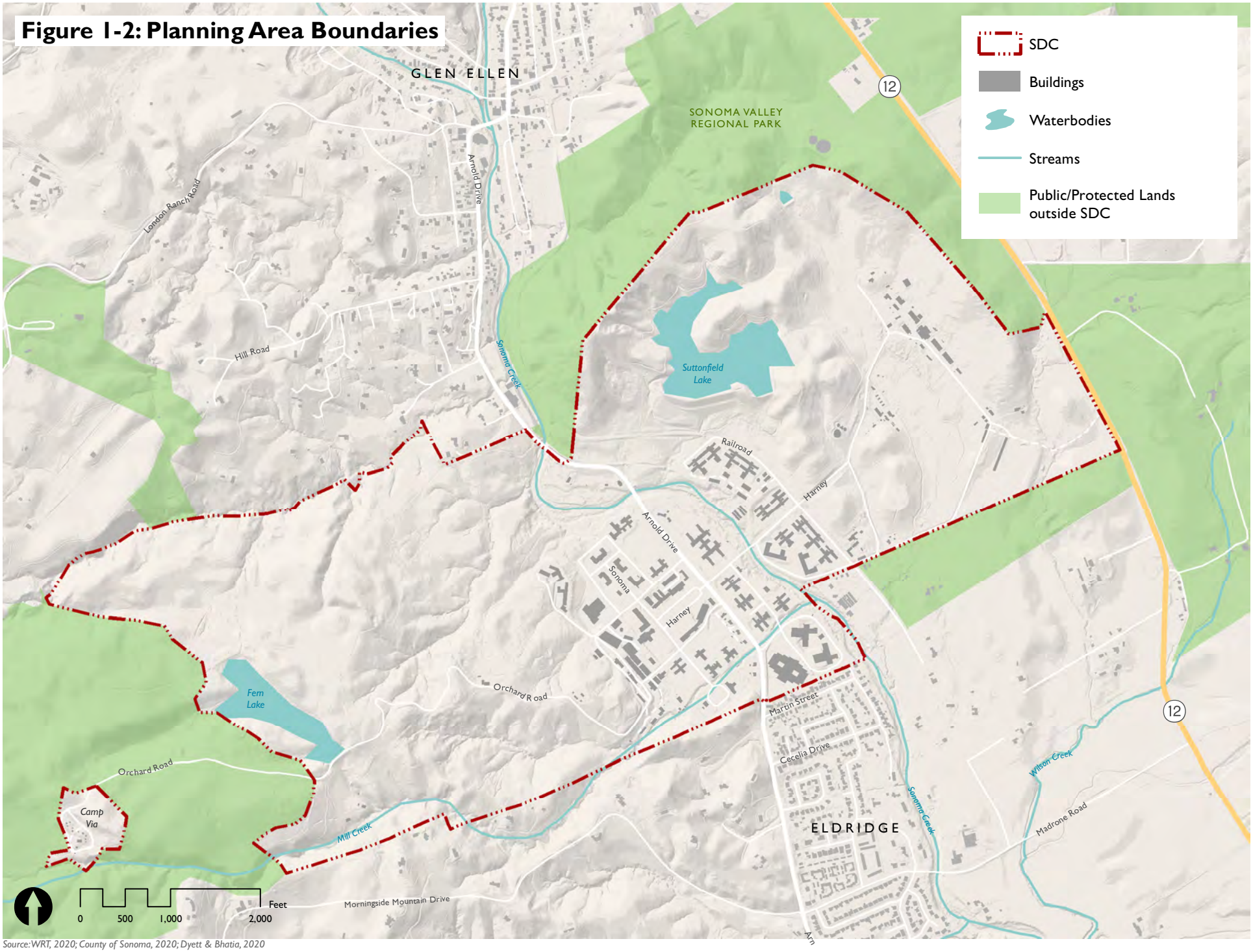
- Create a framework for future land use with extensive community involvement;

5. Permit Sonoma, County of Sonoma, *Request for Proposals: Sonoma Developmental Center Site* (https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/Sonoma-Developmental-Center/Sonoma-Developmental-Center-RFP/).




Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

# Figure 1-2: Planning Area Boundaries




Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

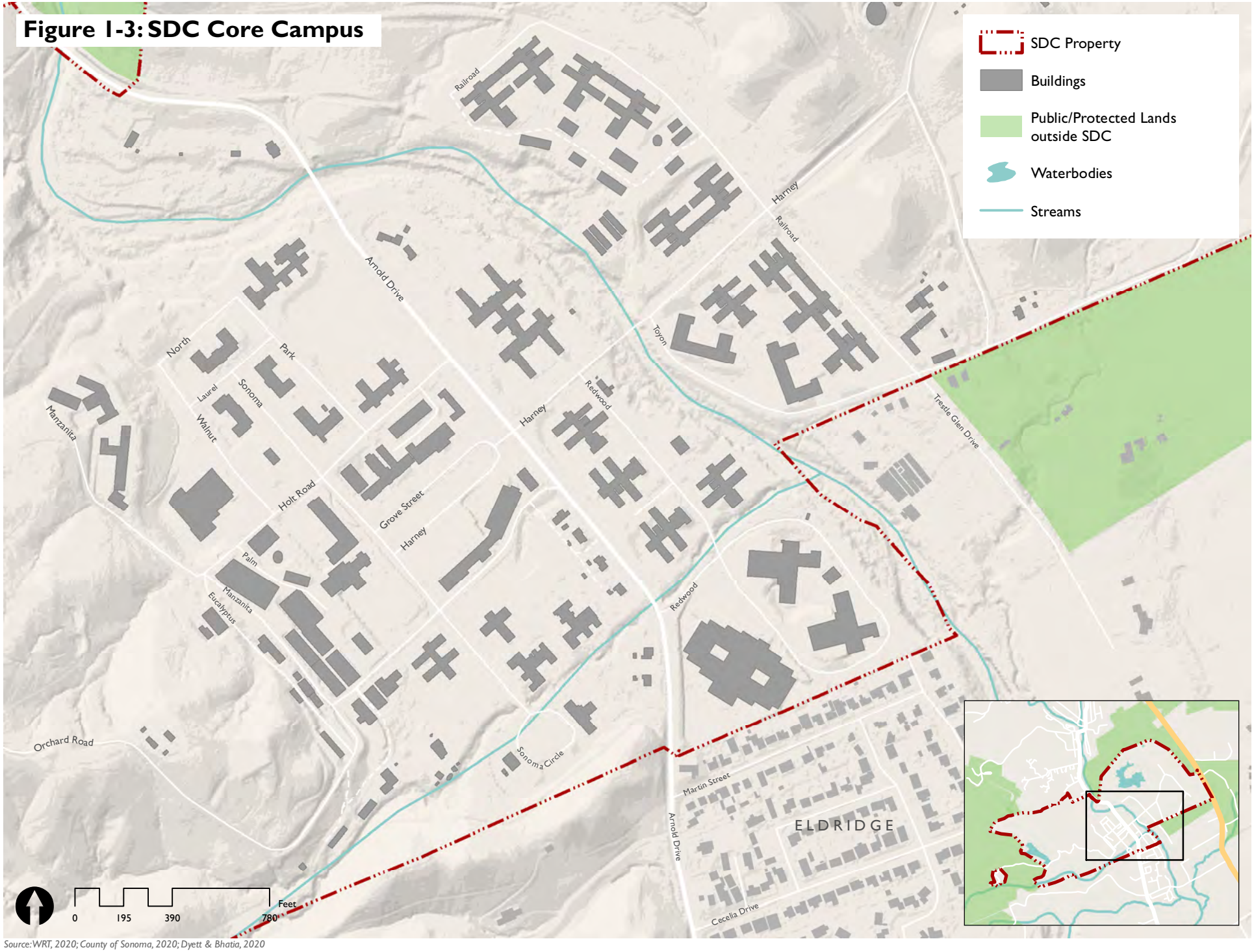
- Realize the property's potential for positive county-wide economic and environmental benefits;
- Preserve, restore and manage natural areas while providing passive recreational uses;
- Provide affordable housing opportunities;
- Assess and address infrastructure and service needs on the property to respond to future land uses identified for the site; and
- Demonstrate methods to build a sustainable community that provides a housing/jobs balance, sustainably manages and uses ground and surface-water, manages stormwater using green infrastructure and low-impact development, provides renewable energy, and substantially reduces carbon.[6]

## 1.3 Natural Areas (Open Space) and Preservation Efforts

The agreement between the County and the State pursuant to Government Code Section 14670.10.5 recognizes the exceptional natural areas (open space), natural resources, and wildlife habitat of the SDC and explicitly states the intent to preserve lands outside the approximately 180-acre core developed campus and its related infrastructure as natural areas, public parkland, and open space. The precise boundaries of the core campus will be determined through the open space preservation process undertaken by the County. This surrounding area also contains water and other infrastructure, which will need to be maintained. See Figure 1-3 for a map of the approximate extent of the core campus.

6. Permit Sonoma, County of Sonoma, *Sonoma Developmental Center: Background and Description* (https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/Sonoma-Developmental-Center/Background-and-Description/).

# Figure 1-3: SDC Core Campus




*Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020*

Furthermore, the Department of General Services is authorized by Section 14670.10.5 to petition the State Water Resources Control Board to change types of uses of the property to recognize need for conservation of water resources in order to preserve or enhance habitat, fish and wildlife resources, groundwater resources, and recreation. As a result, thorough open space preservation efforts will apply to approximately 750 acres of the undeveloped portions of the SDC site.

## 1.4 Specific Plan Preparation Process

The Specific Plan planning process began in early 2020, and includes the following four phases, with robust and diverse methods of community engagement that will build upon themes and findings from previous studies and community outreach efforts throughout all of the phases:

1. **Identification of Issues and Opportunities.** An intensive "deep-dive" to identify and understand stakeholder priorities and concerns, and to establish a coordinated and realistic direction for the future of the planning founded on community vision.

2. **Alternatives Exploration.** Based on the results of the visioning exercises and background research, the planning team will prepare and analyze a series of alternative design concepts. After additional public outreach and decision-maker input, the options will be narrowed to a single “Preferred Alternative.”

3. **Draft Specific Plan and Environmental Review.** Based on the Preferred Alternative, a public review draft of the Specific Plan will be prepared—including policies, designated land uses and densities, and design guidelines for future development of the SDC site—along with an Environmental Impact Report (EIR) that analyzes the potential effects of implementation of Specific Plan policies and development on the environment as well as several alternatives.

4. **Adoption.** Following a public review period, a revised Specific Plan will be presented to the Planning Commission and the County Board of Supervisors for adoption at public hearings.

The planning process is being assisted by a 15-member Planning Advisory Team (PAT), appointed by the County Board of Supervisors. The PAT consists of community members, local experts in a variety of fields, and others whose role is to advise County staff, review Specific Plan materials as appropriate, and serve as ambassadors to the public, playing an important role in ensuring community engagement in the Specific Plan preparation process.

Throughout the Specific Plan process, a variety of community engagement activities are planned to seek input from community members and local organizations to ensure that the Specific Plan reflects community needs and goals. Prior community outreach done by Transform SDC and the Glen Ellen Forum (see Section 1.6 for more details) will be further supplemented with community conversations, workshops, and online engagement throughout the various stages of the planning process that will inform the Specific Plan. Due to the evolving State and County directives regarding COVID-19 social distancing and restrictions on gatherings, the outreach strategy will need to remain responsive to developing conditions. It is likely that all early outreach will be done online; community engagement may be able to transition to in-person meetings later in the project timeline if it becomes safe to do so.

Community conversations are interviews and small group discussions that take place at community events and gathering places or as virtual small-group discussions, as well as at scheduled meetings or focus groups arranged through referrals from local organizations and the Planning Advisory Team, organized around a set of aspirational questions developed to elicit community input on different phases of the project. (Community conversations will likely be done all-online in the early phase, but may be done in-person later in the Specific Plan process as evolving COVID-19 directives allow.) The initial phase will ask residents about what they value about their community and how they envision the future of the community. Follow-up community conversations will build on what is learned from the first phase to engage community members in concerns, preferences, and recommendations for alternative site development plans and a preferred

project alternative. 15 Key Informant Interviews will also gather insight at the outset of the project from property owners, developers business owners, public agency staff, elected officials, or others on planning issues and give the project team a broad sense of the community, major issues of concern, desirables, deal breakers, and political factors that may come into play.

There will be five community workshops. The first workshop will focus on identifying goals, principles, issues, and opportunities; the second and third workshops will focus on evaluating land use, circulation, and design alternatives; and the fourth and fifth workshops will focus on building a Preferred Plan around which to craft the Public Review Draft. There will also be an open house held during the public review period for the Draft Plan and Environmental Impact Report (EIR). Many of these workshops, initially envisioned to take place at the SDC site as community meetings, will take place virtually in response to COVID-19 restrictions. As the situation changes, the project should remain flexible and responsive to community needs in light of the coronavirus pandemic, perhaps transitioning to some in-person meetings complemented by online engagement, as it becomes safe to do so.

## 1.5 Previous Existing Conditions Assessment and Outreach by the State

The Sonoma Developmental Center: Existing Conditions Assessment is a State-commissioned study by Wallace Roberts & Todd (WRT) completed in 2018. This assessment forms the springboard for additional analysis conducted as part of this Specific Plan process.

Chapter 3 of the report discusses Community Voice and summarizes outreach that was performed, including stakeholder interviews, Community Advisory Committee (CAC) meetings, and a community workshop.

Stakeholder interviews were conducted in 2017 and culminated in five Foundational Themes based on stakeholders' interests and values concerning the SDC site and its surroundings:

- Protection of SDC Land and Water;
- Preservation of a "Legacy of Care";
- Community Character and Historic Preservation;
- Contribution to Economic Diversity of Sonoma Valley; and
- Local Community Benefits.

The report also found that stakeholders support a diversity of uses for the core campus and a historic district west of Arnold Drive, given that future development would be limited to the current developed area without encroaching into open space. Some proposed uses for this area included:

- Educational and research opportunities;
- Health and human services, including mental health and developmentally disabled services;
- Agriculture and food production;
- Business incubator and innovation hub;
- Housing;
- Performing arts spaces and artists' studios;
- Non-profit hub;
- Historical preservation and interpretation; and
- Diversified, appropriately scaled tourism.

Issues and concerns that surfaced included ones affecting Sonoma Valley as well as those related to the future of the SDC site. Regionally speaking, stakeholders voiced a lack of affordable/workforce family housing, middle-class and professional jobs, and higher educational opportunities. There were also concerns about groundwater depletion, traffic (particularly on weekends), and an excess of vacation rentals, second home ownership and luxury tourism.

Concerns about the SDC site included fear that the State would "surplus" all or portions of the property; excessive development density and its potential impacts on wildlife, traffic, and scenic values; development of exclusive estate housing; encroachment on open space; impacts of recreational use on sensitive ecological areas; expansion of luxury-oriented tourism; allowance of water resources to be used off-site; and closure of the mental health Crisis Center (Northern Star) and all developmentally disabled services at the SDC.

There were also two Community Advisory Committee (CAC) meetings that were organized around the critical components of the report to gather feedback on findings from the stakeholder conversations, site assessments, economic context and considerations, and preliminary analysis of opportunities and constraints. Themes that emerged from the CAC meetings were similar to those from stakeholder interviews, generally touching on conservation, recreation, reuse and infrastructure, and disposition and governance. CAC members also were interested in exploring different processes and outcomes for different parts of the campus, a mix of new residential and adaptively reused buildings, balancing agriculture and wildlife, protecting historical resources of the SDC site, preserving Glen Ellen's character, and maintaining a prominent role for the community.

A community workshop was held in June 2018 to share findings of the Existing Conditions Assessment and receive input from the public. Similarly to stakeholders and the CAC, workshop participants expressed concern about the ecological and cultural importance of protecting open space, water resources, and recreation at the SDC site; desire to preserve history and community character; questions about economic costs of rehabilitation of the site; and support for institutional or public uses that benefit the community such as food production and affordable housing. More specific comments included concerns about traffic impacts associated with different reuse scenarios on the community and environment as well as need to emphasize conditions of existing infrastructure as a major factor affecting reuse.

## 1.6 Previous Community-Driven Outreach

In addition to meetings conducted as part of State-sponsored existing conditions assessment in 2018, community members and organizations have also been active in ensuring that their voices are heard. In particular, Transform SDC and the Glen Ellen Forum have been very active; the collaborative efforts of these two organizations are summarized below.

## Transform SDC Workshop (May 2015)

Transform SDC is a project led by the SDC Coalition, a partnership between the County of Sonoma, the Parent Hospital Association, Sonoma Land Trust, and the Sonoma Ecology Center, to work with local groups and the community to explore options for the future of the site. A series of community workshops were held to develop a vision to Dream, Create, Transform SDC.

The first workshop was held by Transform SDC in May 2015 with more than 200 people who helped define initial elements of a community vision, explore possible reuse options, and identify areas for further inquiry and investigation. The community vision follows six key points that represent guiding principles for a community-based Transformation Plan:

- Create a public-private partnership driven by community ideas and values that showcases the site's history, maintains critical services for the developmentally disabled, and preserves the natural resources and open space of the site;
- Maintain health care and residential services for special needs patients in order to sustain the greater autonomy and safety of this vulnerable community;
- Broaden the impact of the SDC's expert staff, customized therapies, and mobility devices to continue to be a specialized facility and critical statewide hub that addresses the needs of developmentally disabled patients;
- Ensure that future uses of the SDC site preserve the distinctive character of the rural, quiet community of Sonoma Valley and preserve the historical and architectural integrity of the SDC;
- Preserve the SDC site's open space, valuable natural resources, and scenic value to support wildlife corridor habitat and for future generations to enjoy; and

- Promote SDC site uses that diversify and enhance the economy of Sonoma Valley and establish a model for self-sufficiency.[7]

The workshop also brainstormed potential reuse ideas for the site, including for health services and wellness; open space, recreation, and scenic values; education, training and research; housing; and food and farming. Many participants supported an integrative vision for a combination of multiple uses as well. Finally, participants discussed possible funding or financing options, favoring a public-private partnership or public trust model that would optimize economic feasibility of reuse and redevelopment on the site and maintain the role of the community in decision-making processes.

## Glen Ellen Forum Workshop (April 2018)

The Glen Ellen Forum is a non-profit organization representing the interests of Glen Ellen residents. As the community that grew in parallel with its neighboring institution, Glen Ellen is deeply intertwined with the future of the SDC site.

The SDC/Eldridge Subcommittee is a 14-member committee of Glen Ellen community members monitoring the developments surrounding the closure of the SDC and working with other stakeholders to ensure community interests are at the foremost in its transition. In April 2018, the committee led a workshop in collaboration with the Forum SDC/Eldridge Committee, the Glen Ellen Historical Society, Sonoma Land Trust, Sonoma Ecology Center, and County Supervisor Susan Gorin. More than 250 people attended the workshop and had the opportunity to ask questions, provide comments, and participate in breakout sessions.

Comments generally aligned with the following key themes: importance of the SDC property as a buffer and a major contributor to Glen Ellen's semirural character; preservation of all the existing open space, including open areas within the campus; continued access to existing recreational facilities

7. Transform SDC, Community Workshop #1 Synthesis Report, May 2, 2015.

(ball fields, trails, etc.) and creation of new recreational opportunities for the community; opposition to large-scale development that would impact infrastructure and adversely affect the qualities of the site and surrounding community; community involvement in development of a Master Land Use Plan; transparency in the process of developing a trust and planning future land uses; concerns about the scale and impacts of housing on traffic and community character; limitation of re-development to the existing building footprints in the campus area; land use compatibility of future development that protect Glen Ellen's semi-rural qualities; and preservation and protection of onsite historic resources and structures.

The key topics of these comments align with the goals developed by the SDC/Eldridge Subcommittee of the Glen Ellen Forum that were based on a community visioning process held in 2015. These goals serve as guiding principles for future redevelopment of the SDC site and include:

- Protect existing open space and wildlife corridors;
- Foster development and uses that promote and benefit the Glen Ellen community and residents, with an emphasis on community rather than tourism;
- Promote development of a viable economic engine;
- Preserve the site's historic character;
- Preserve the site's healthcare legacy;
- Preserve the semirural character of Glen Ellen;
- Minimize the overburdening of limited resources, including roads, water, sewer, and energy infrastructures;
- Maintain existing circulation arteries and levels of service;
- Encourage re-use of existing structures and stay within the existing building footprints, to the extent possible; and

- Ensure that Glen Ellen is included in a community-driven process to develop a master plan for future Eldridge redevelopment. [8]

Responses to breakout session questionnaires were also very similar to comment themes and goals. The answers showed that a majority of participants supported the goals, especially regarding preservation of open space to maintain Glen Ellen's semi-rural character and continue to provide recreational opportunities. Other questions explored the idea of a trust governance system for the SDC site, which resulted in a mix of responses, but were generally open to the idea given that a Glen Ellen resident were a board member. Participants also tended to support "thoughtful" residential land use, an education or campus use, and arts or a museum on the site. There was less consensus among other critical issues regarding the site, but these included concerns about low-income housing, appropriately scaled economic development, and funding.

## Eldridge Vision Workshop (June 2019)

The third community workshop, the Eldridge[9] Vision Workshop, was held in June 2019 to share a draft of the Eldridge Vision Statement and Guiding Principles prepared by a committee of the SDC Coalition based on input from the two previous workshops, build support for cohesive community engagement, and learn more about the planning framework for the specific plan. Approximately 170 people provided feedback and voiced primary areas of concern or focus regarding the vision statement and guiding principles or redevelopment of the SDC site in general. The proposed vision statement was: "Eldridge is a place where people of diverse backgrounds and interest live and work together where natural resources are conserved and

[8] SDC/Eldridge Committee, Glen Ellen Forum, Summary of Community Input, Glen Ellen Forum SDC/Eldridge Workshop, April 16, 2018.

[9] Use of the name "Eldridge" in this workshop refers to the SDC site and not to the entire surrounding community.

enhanced, concepts of sustainability and resiliency are put into practice, cultural legacies are honored, and compatibility with surrounding communities is preserved." [10]

Overall, participants sought to strengthen key themes in this statement such as preserving the open spaces surrounding the campus, addressing concerns revolving around density of housing on campus, preserving the SDC's legacy of care, ensuring redevelopment is environmentally responsible, and exploring the idea of a public-private trust form of governance. The proposed guiding principles are as follows:

- Open space and wildlife corridor lands will be permanently protected and managed to ensure environmental stewardship and continued public recreational use.
- Planners and decision-makers will use recognized principles of land use planning sustainability to gauge how well proposed land uses protect public trust resources and fit the character and values of the site and surrounding area, as well as benefit local communities and residents. The density, scale, and design for new development or redevelopment at Eldridge must be compatible with surrounding communities and Sonoma Valley's constrained water resources and transportation system, and all development must be supported by sound infrastructure and appropriate public services.
- Stakeholders will create a specific plan for the Eldridge site that factors in the needs and land use priorities of the surrounding communities of Glen Ellen and Sonoma to ensure that future development will be compatible with existing land uses in Sonoma Valley. The planning process will have financial support from the state, and Sonoma County will exercise oversight and management in coordination with a Technical Advisory Committee and a Citizens Advisory Committee.

10. Transform SDC, Eldridge Vision Workshop Summary Report (2019).

- Sonoma County faces an acute housing crisis and the SDC site presents an opportunity to accommodate reasonable housing solutions for the area. An appropriate housing footprint on the Eldridge property should be a priority for the specific plan. Housing should be based on the needs of Sonoma Valley with a workforce housing emphasis, inclusion of an affordable housing component (very low, low, and moderate income), and housing for vulnerable populations.
- Redevelopment will include replacement of economic and social benefits lost with the closure of the Sonoma Developmental Center. New institutional partners may include universities, colleges, government agencies, tribal entities, and nonprofit organizations, with the goal of expanding educational options, providing job training, and creating economic opportunities close to home. Important themes include providing green jobs and honoring the SDC's legacy as an institution caring for people with developmental disabilities and other vulnerable populations.
- The site's numerous historic, cultural, and Native American resources will be protected following state and local historic preservation guidelines.
- A governance entity will be considered for implementing the community's vision for Eldridge, embracing the concepts of environmental and economic sustainability and designed to represent state and local interests for the redevelopment process and ongoing operations.

## 1.7 Purpose and Organization of This Report

This Background Report describes the Planning Area's existing land use patterns, regulatory framework, urban form, socioeconomic data, transportation and infrastructure networks, environmental hazards, historic resources, and market demand analysis. It seeks to identify issues and opportunities within the Sonoma Developmental Center site and surrounding area, so that the community may better envision potential for future development.

Notably, it expands on the work of previous studies and outreach efforts, including WRT's Existing Conditions Assessment, Potrero Group's Site Transformation Study, and various community forums, and provides additional information on existing conditions, opportunities, and challenges in the Planning Area to inform the Sonoma Developmental Center Specific Plan. The purpose of this report is not to repeat work previously done, but to synthesize existing materials and close gaps between the separate studies that have been done thus far. Content included in this report represents the best data available to the project team at the time of publication; as the project progresses, it is expected that new information will emerge that may enhance or correct existing data.

Chapters in the report are organized by topic as follows:

- **Chapter 1: Introduction** presents the background and regulatory context, describes the planning area and its regional setting, outlines the objectives of the Specific Plan and the planning process, summarizes previous community outreach, and provides an overview of the report's organization.
- **Chapter 2: Land Use** discusses existing land uses in the planning area and surrounding communities, planned land use and major development projects in the vicinity, and related plans and regulations.
- **Chapter 3: Nearby Public Services** examines key public services, including schools, civic facilities and libraries, parks and recreation, public safety services, health facilities, and human services.
- **Chapter 4: Socioeconomic Profile** describes the demographic, industry, and employment trends in Sonoma County, Lower Sonoma Valley, and communities near the planning area.
- **Chapter 5: Transportation** provides an overview of access to employment, services, schools, and commercial uses; automobile circulation; the pedestrian network; bicycle connectivity; transit access; transportation infrastructure within the planning area; and parking.

- **Chapter 6: Infrastructure** describes the Planning Area's water supply, wastewater, stormwater, and gas and electricity utilities infrastructure.
- **Chapter 7: Natural Areas and Open Space** discusses opportunities and constraints relating to the extensive intact natural areas at the SDC site including sensitive species and sensitive natural communities, wildlife corridors, surface water and ground water resources, riparian corridors and public access and recreational use of these natural areas and open spaces in and around the planning area.
- **Chapter 8: Natural and Man-Made Hazards** reviews the hazardous materials, wildfire, flooding and dam inundation, and other hazards that affect the planning area.
- **Chapter 9: Market Demand Analysis** evaluates residential, commercial, mixed use, institutional, and open space and recreational development market demand, and includes an evaluation of market potential for reuse of existing buildings and infrastructure.

Analysis in each chapter is communicated through text, tables, photographs, diagrams, and maps. In addition, each chapter begins with a summary of previous work and overview of new or revised work and concludes with a brief summary of key planning issues and implications, which will serve as a bridge to the next phase of the planning effort—development and analysis of alternative concepts.

# Land Use

*Chapter Two*

## 2.1 Summary of Previous Work and Overview of New or Revised Work

Wallace, Roberts, & Todd (WRT)'s Existing Conditions Assessment of the Sonoma Developmental Center (SDC) (2018) contains a chapter addressing economy and land use. The chapter focuses primarily on conditions for reuse, discusses opportunities and constraints for future development, and describes applicable land use regulations at the SDC site, including General Plan land use designations and zoning. The WRT report was written before State legislation required the permanent protection of the campus open space, and cites the political barriers around the desire to conserve habitat and preserve the wildlife corridor. The report also describes the site's landscape qualities, historic fabric, and desirable regional setting as providing potential for future land uses that capitalize on the unique existing resources.

This Background Report gives more context for existing land uses around the SDC site, including in Glen Ellen and surrounding communities; describes General Plan land use designations and zoning for nearby areas; discusses planned projects near the SDC site that may impact development; and summarizes the regulatory context and key planning issues for future land use on the SDC site. Please see Chapter 3 of this report for more information about nearby public services and Chapter 9 of this report for more information about market conditions and demographics.

## 2.2 Existing Land Use at SDC

The State of California purchased the SDC site in 1889 as a 1,670-acre stretch of prime land and natural resources to expand the small existing institution. Medical facilities, residential buildings, classroom facilities, and administrative buildings were built on the campus over several decades, designed in a relatively compact footprint within the expansive grounds to maximize the benefits of the tranquility and peacefulness of the site. SDC operations made use of the significant open space for recreation and agriculture, with programs that made use of the land to support the clients. Institutional decline in the 1970s and 1980s led to the eventual transfer of several hundred acres of what was identified as surplus land to the county and state park system, including approximately 600 acres that were transferred to the adjacent Jack London State Historic Park in 2002. With its remaining 945 acres, the SDC continued to operate

agriculture and recreation programs on the property, and kept much of the land in active use until the State announced closure of developmental centers in 2015 and closed the SDC in late 2018.

Figure 2-1 shows the existing land uses at the SDC campus prior to its closure. The core campus consists primarily of residential buildings, with medical, educational, recreational, and administrative uses interspersed. A cluster of industrial and support buildings sits at the western edge of the core campus. On the eastern portion of the site, historic agriculture uses, including the former Sunrise Industries farm, had several support buildings, many of which were burned in the 2017 Sonoma Complex fires.

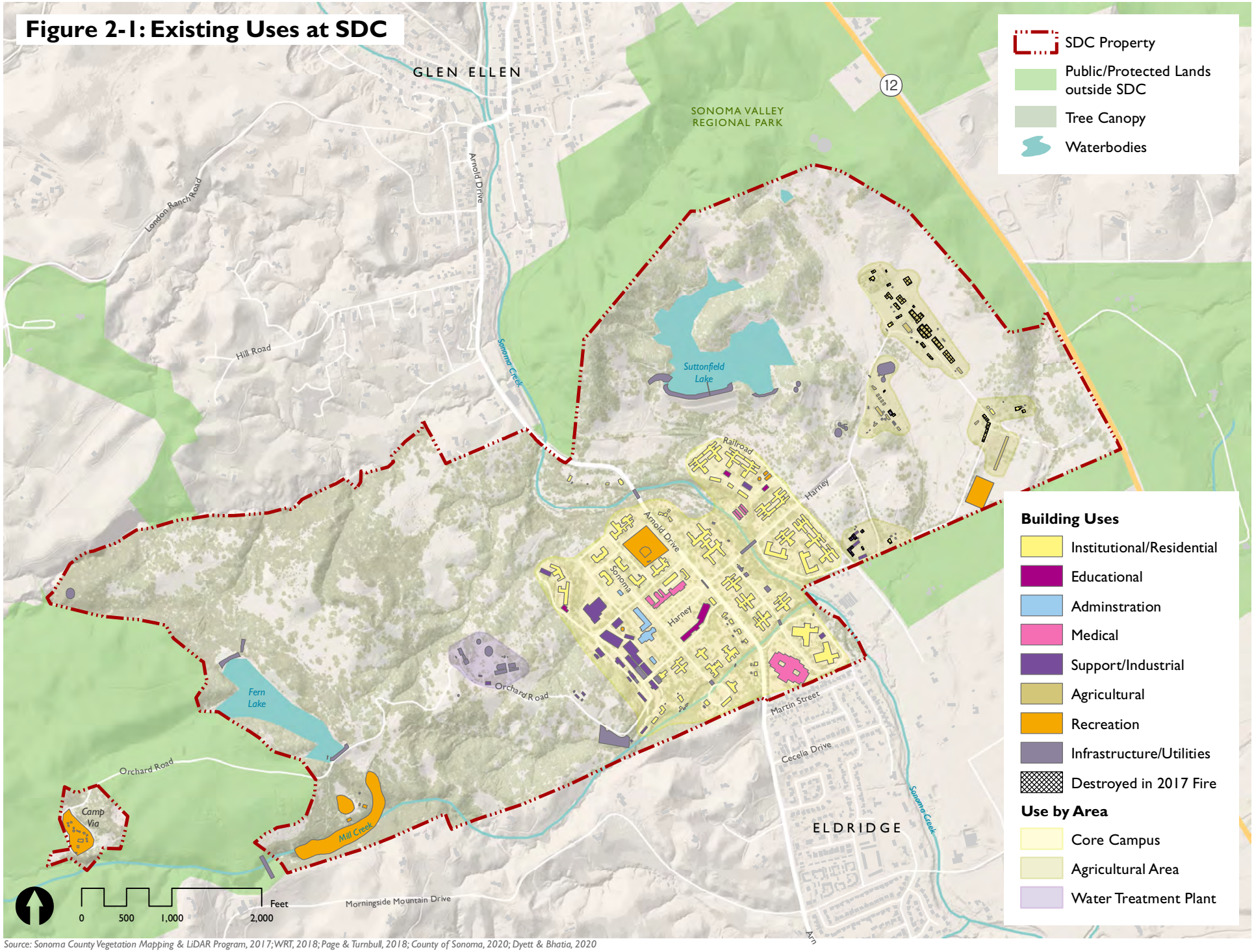
Today, most of the buildings on the SDC property are vacant. The Sonoma Ecology Center continues to operate on the eastern side of the core campus, as do some of the recreational uses in the Planning Area. (Please see Chapter 7 for more detail about existing recreational land uses).

## 2.3 Surrounding Land Uses

The SDC site is bordered to the east and west by public and protected lands. Jack London State Historic Park, Sonoma Valley Regional Park, Bouverie Wildflower Preserve, and North Sonoma Mountain Regional Park create an extensive area of protected open space around the SDC site.

The small unincorporated residential communities of Glen Ellen and Eldridge lie to the north and south of the SDC site; characterized by primarily low and medium density residential development, the communities have mainly single-unit detached homes with some multifamily units along main roads. Small grocery stores and local-serving businesses, a few hotels, small restaurants and cafés, some tasting rooms, and a few service, professional, and auto-repair shops are located along or near Arnold Drive.

# Figure 2-1: Existing Uses at SDC




*Source: Sonoma County Vegetation Mapping & LiDAR Program, 2017; WRT, 2018; Page & Turnbull, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020*

Further to the south is unincorporated Boyes Hot Springs, a somewhat larger community characterized by comparatively denser housing and a greater number of multifamily apartment buildings. Many of the businesses in Boyes Hot Springs are located in low-rise, detached buildings along Highway 12. The City of Sonoma, about six miles south of the SDC site, is the largest nearby community, with a population of around 11,000 people, and has larger, regional-serving businesses, large neighborhoods with a mix of low and medium density single-unit detached homes, multifamily homes, and some mobile home parks.

Much of the agricultural land around the SDC site is in active cultivation as vineyards, and several wineries are located in the site's immediate vicinity, each with a parking area and tasting room.

## 2.4 Sonoma County Plans and Programs

Existing regulatory and physical conditions will influence site reuse and redevelopment. The relevant Sonoma County General Plan guidance, zoning code, and the voter-approved Community Separator will be applicable to the SDC site.

### General Plan

The Sonoma County General Plan is the broad policy document that guides conservation, development, and public facilities and services in the County. It was last updated in 2008. The two elements that most pertain to the SDC site are the Land Use Element and the Open Space and Resource Conservation Element; the site is located within the Sonoma Valley Planning Area (Planning Area 9). The Land Use Element of the County's General Plan includes goals and policies that seek to concentrate future growth in existing urban areas to maintain separation with open space, support both rural and urban residential environments, use environmental suitability criteria to guide location of development, and protect scenic and natural resources and agricultural lands. Identified land use issues in this Planning Area include growth and traffic congestion, upgrading public services and infrastructure, protection of agricultural landscapes and resources, impacts of tourism, and water resources. The Open Space and Resource Conservation Element provides a policy framework to protect and enhance scenic resources, landscapes and corridors; preserve "biotic" resources such as sensitive habitat areas and riparian corridors; conserve agricultural soil and lands; explore energy conservation and renewable energy production;

expand outdoor recreation opportunities such as bikeways and trails; and protect archaeological, cultural, and historic resources.

As seen in Figure 2-2, the SDC site lies within a context of primarily rural residential and land intensive agriculture land use, designated by the Sonoma County General Plan. The adjacent communities of Glen Ellen and Eldridge consist of urban residential and commercial land use designations along Arnold Drive on the north and south sides of the SDC property.

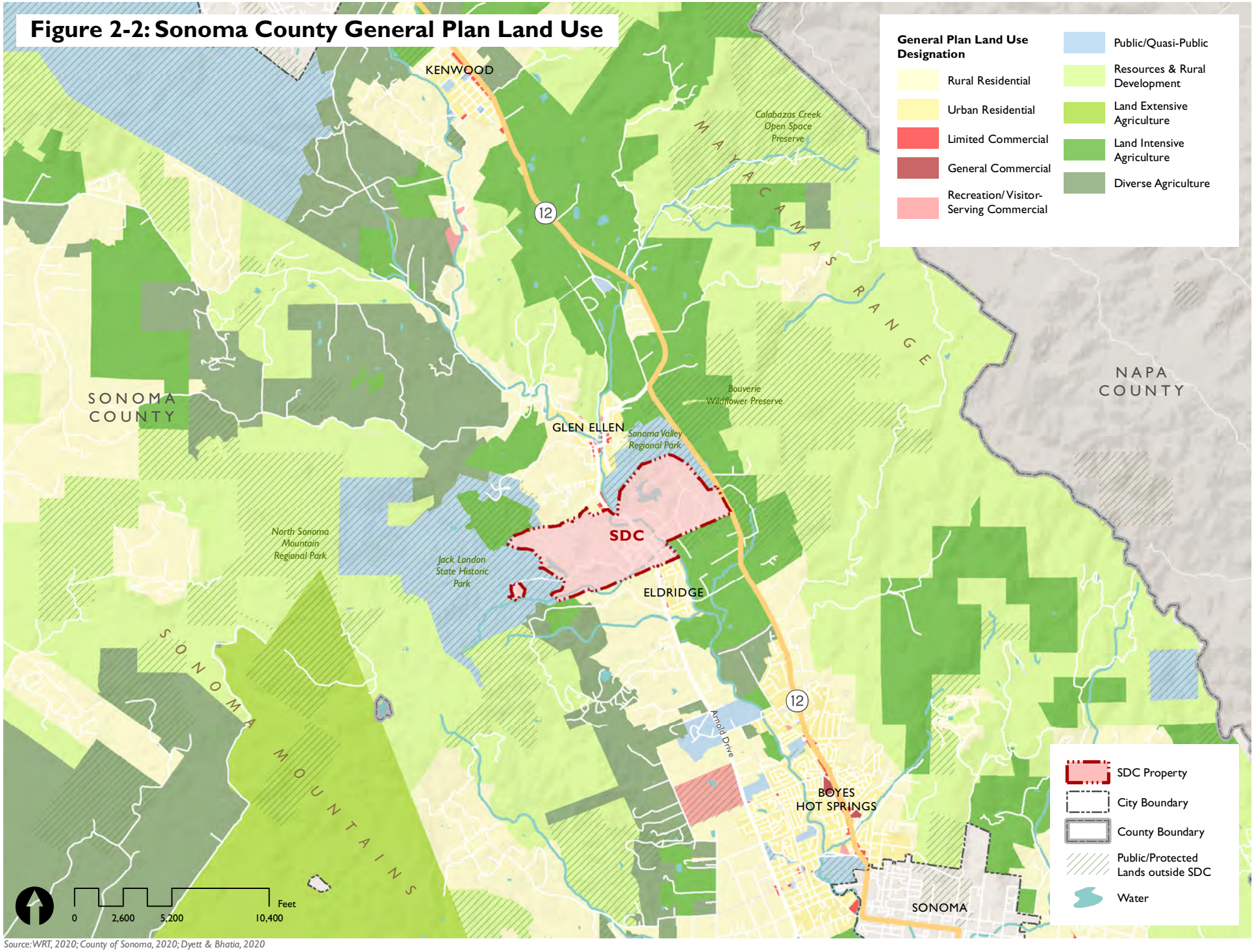
The remaining public/quasi-public space represent portions of Sonoma Valley Regional Park and Jack London State Historic Park, which border the site.

## Zoning

Sonoma County zoning regulations currently designate the SDC campus with a base zoning as a Public Facility (PF), which is used to identify sites that serve the public or community needs. Sonoma County also applies seven overlay districts to the SDC property, each of which has its own specific regulations:

- B7 Combining District, which restricts subdivision of lots;
- Historic Combining District (HD), which requires County Landmarks Commission approvals for any alterations or demolition of buildings within the boundaries of a historic district;
- Floodplain Combining District (F2), applied to properties which lie within the one hundred-year flood hazard area, specifies development standards and flood protection regulations;

# Figure 2-2: Sonoma County General Plan Land Use



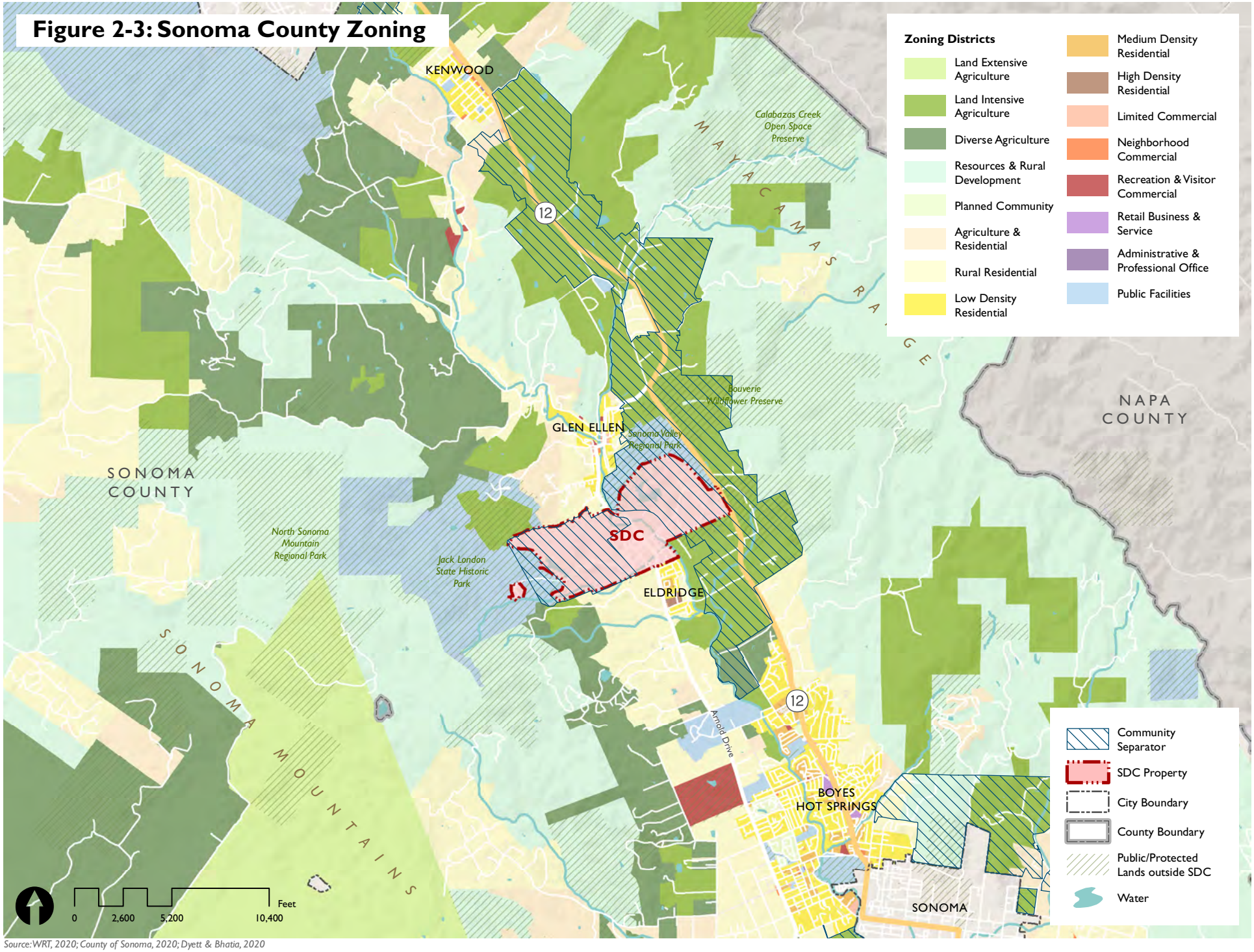

Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

- Riparian Corridor Combining Zone (RC), which seeks to protect critical habitat area along riparian corridors and prohibits grading, vegetation removal, agricultural cultivation, structures, roads, utility lines, and parking lots within any stream channel or conservation area;
- Scenic Resources Combining District (SR), applied to land within community separators and scenic landscape units, specifies that structures should be sited below ridgelines, be screened by vegetation, and that development should be clustered;
- Valley Oak Habitat Combining District (VOH), which requires protection of valley oak trees and replacement of any large trees removed;
- Local Area Development Guidelines for Taylor/ Sonoma/Mayacamas Mountains (LG/MTN), which are intended to reduce visual impacts of residential development, and contains standards for siting, screening, grading, landscaping, and architectural design of residential structures.

As shown in Figure 2-3, the communities near the SDC site to the north and south are part of unincorporated Sonoma County; the urbanized areas of Kenwood, Glen Ellen, Eldridge, and Boyes Hot Springs are primarily zoned as a mix of Rural Residential, Low Density Residential, and Medium Density Residential, with maximum densities of one dwelling unit per acre, six dwelling units per acre, and 12 dwelling units per acre, respectively. There is one High Density Residential District in Eldridge, which allows up to 20 dwelling units per acre. These areas have some small areas of Neighborhood Commercial, Limited Commercial, Recreation and Visitor Commercial, Retail Business and Service, and Administrative and Professional Office zones.

These communities are surrounded by agricultural and open space zones, primarily Land Intensive Agriculture, Diverse Agriculture, and Resources and Rural Development.

# Figure 2-3: Sonoma County Zoning




Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

Land Intensive Agriculture permits generally high-production agriculture, including animal husbandry and cannabis production, and allows for very low residential development, with a density of between 20 and 100 acres per dwelling unit, and some seasonal farmworker housing or temporary camps allowed. Diverse Agriculture is applied to areas where small acreage intensive farming and part-time farming activities are predominant, but where farming may not be the principal occupation of the farmer. It allows for many of the same uses as Land Intensive Agriculture, but allows somewhat more residential density, at between 10 and 60 acres per dwelling unit. Resources and Rural Development protects lands for resource production, watershed, habitat, and some agricultural production. It allows for very low residential development of between 20 and 320 acres per dwelling unit.

## Community Separator

Except for most of the core campus area, the SDC site is located within a local voter-approved Community Separator overlay that preserves lands with very low densities between communities. The Community Separators help to achieve the County's General Plan Land Use Element goal to maintain natural character and low intensities of development in open spaces between cities and communities (see Figure 2-3). First passed in 1996 and renewed and expanded for another 20 years in 2016 with over 80% of voter support, a County-wide vote is required before the boundary of a community separator or existing land use designations and densities of land within a Community Separator may be changed, except in limited circumstances.

## Other Plans and Programs

Some areas within SDC are designated as Scenic Landscape Units or Corridors. The westernmost portion of the SDC site nearest to the Sonoma Mountains is designated as a Scenic Landscape Unit and is limited to agricultural or resource land use categories. Arnold Drive, which runs through the center of the SDC property, and Highway 12, at the eastern edge of the site, are Scenic Corridors that provide experiences of rural environments the General Plan seeks to preserve. Up to 200 feet on either side of these roads are subject to development restrictions and design criteria. Riparian corridors are ecologically beneficial and provide important habitats for wildlife. Sonoma, Asbury, and Hill creeks on the SDC site are Riparian Corridors and require 50 feet of conservation on either side of the creeks. Two historically designated buildings within the historic district, heritage and landmark trees, and Native American cultural resources on

the SDC site are all assets that the Open Space and Resource Conservation Element strives to preserve as Archaeological, Cultural and Historical Resources. Development impact of these resources is subject to review by the County Landmarks Commission and may require mitigation measures.

Recent projects in the communities surrounding the SDC site may have an impact on planned land uses to ensure compatibility with the existing context. The Rustic Shops and Apartments project in Glen Ellen is a proposed development of commercial space and multi-family housing located at Carquinez Avenue and Arnold Drive. This project would replace the existing triplex and single-family dwelling and extend the existing commercial building as well as add three new residential buildings with a total of 15 residential units and approximately 2,300 square feet of commercial/ office space. This style of higher density development and mixed use is new for the community of Glen Ellen but helps address the regional need for additional market rate and affordable housing.[1]

The Springs Specific Plan (SSP), currently being drafted, will also affect nearby unincorporated communities including Agua Caliente, Fetters Hot Springs, and Boyes Hot Springs. The plan area covers 178 acres along Highway 12 between Agua Caliente Road to the north and Verano Avenue to the south that have been designated as a Priority Development Area by the Association of Bay Area Governments (ABAG). The SSP envisions improved transportation and housing opportunities as well as new public gathering spaces for the community. The current Sonoma County General Plan designated land use is largely Urban Residential, and the area has existing infrastructure within the urban service area to allow for residential development. The area is also adjacent to the Montini Open Space Preserve to the east and surrounded by rural and resource lands to the north that buffer the residential development located near the edge of the city of Sonoma. Project descriptions have stipulated that higher density development in the form of infill housing may be included in the plan, in addition to the smart growth principles such as integrated range of housing types, local retail, and cultural

1. County of Sonoma, "Housing: Rustic Shops and Apartments." Accessed May 26, 2020, http://sonomacounty.ca.gov/PRMD/Regulations/Housing/Projects/Rustic-Shops-and-Apartments.

and civic activities. Promotion of these elements may lead to a greater diversity of land uses in the area and greater context surrounding SDC.[2]

## 2.5 State Land Use Requirements

State of California Government Code Section 14670.10.5, which authorized the agreement between the State of California and Sonoma County to implement a disposition and land use planning process for the SDC site, contains certain requirements for future land uses. Section 14670.10.5 requires:

- Permanent protection of the open space and natural resources as a public resource to the greatest extent feasible;
- That housing be a priority in the planning process, particularly including affordable housing, with priority given to projects that include deed-restricted housing for individuals with developmental disabilities; and
- That options for appropriate protection of the Eldridge Cemetery on the SDC site be considered.

Further, Section 14670.10.5 acknowledges that the County's general plan and zoning code will need to be amended to reflect the planned land uses, and notes the intent of the planning process to increase land values, reduce uncertainty, and address the economic feasibility of future development, ensuring that the transfer, sale, or final disposition of the SDC property is in the best interests of the State of California.

## 2.6 Key Issues and Planning Implications

### Future Land Uses

- **Provision of housing, especially affordable housing, is a regional priority and is required by the State of California,** with special emphasis on affordable housing and housing for individuals with developmental disabilities. Infill redevelopment and reuse of existing

2. County of Sonoma, "Springs Specific Plan: Background and Description." Accessed May 26, 2020, http://sonomacounty.ca.gov/PRMD/Long-Range-Plans/Springs-Specific-Plan/Background-and-Description.

campus structures presents an opportunity to bring a wider range of urgently-needed housing products to the lower Sonoma Valley. Prior community outreach undertaken by the Transform SDC group, the Glen Ellen Forum, and the State of California identified that local stakeholders are open to a mix of housing types on the SDC site, but many participants did cite concerns about density or increased traffic. As the SDC site historically had thousands of residents and employees, future residential development would likely not represent a major shift for the site in terms of use intensity, however, there may need to be compromises made to achieve the financial feasibility and residential housing goals of the State of California.

- **Sonoma Valley is renowned for its strong tourism sector** and, in conjunction with the plethora of historical resources surrounding the SDC site, there exists a major opportunity to promote economic development through visitor-serving commercial or hotel/lodging commercial uses.

- **Government Code Section 14670.10.5 states that the planning process should reduce uncertainty, increase land values, expedite marketing, and maximize interested third-party potential purchasers while also considering land uses that could help support necessary investments in infrastructure.** Please see Chapter 9: Market Demand Analysis for more information on projected financial feasibility of possible future land uses at the SDC site.

## Future Development Footprint and Open Space Conservation

- **Government Code Section 14670.10.5 requires that the open space on the SDC site be preserved to the fullest extent possible.** Some key considerations for the conservation include:

  Careful consideration of how to define "open space," and whether the definition should include active uses like playfields and agriculture;

The definition of the boundaries of the core campus, and any implications for future site ownership if the property is divided for the purposes of conservation. The plan will concentrate development within the core campus footprint to limit impact on these natural areas, however, the precise boundaries need to be defined;

How the water supply infrastructure, located outside of the core campus, will continue to supply water to the SDC site given the constraints on ownership and operations.

- **Community access to surrounding open space.** Access to trails and open space, an asset of the SDC site highly valued by the community, will need to be considered for integration with open space, parking needs, and directional signage.

- **Integration and synergies with agricultural uses.** Significant areas of the SDC site were historically used for agriculture, including animal husbandry, orchards, vineyards, and crop production. The presence of rich soils and the mandate to preserve open space on the SDC site suggests that agricultural uses could again become an important land use on the SDC site. Building on existing agricultural production and interest in locally-grown crops, wines, and fruit in the lower Sonoma Valley could add value to the future mix of land uses on the SDC site.

# Public Services

*Chapter Three*

# 3.1 Summary of Previous Work and Overview of New or Revised Work

## Previously Completed Work

### *Recreational Resources at the SDC site*

Existing Conditions Assessment: Natural and Recreational Resources prepared by Prunuske Chatham (December 2017), outlines ecological and recreational resources at the SDC site. The recreational resources are also summarized in Chapter 5 of the Existing Conditions Assessment prepared by WRT.

The WRT report found that there are 16 miles of trails and quiet roads on the SDC property and six access points to these paths. These trails historically served as therapy and recreation for clients of the SDC; since the SDC's closure, however, public recreational use has neither been formally encouraged nor facilitated with trail maps or trailheads. Rather, community knowledge about these trails is generally word of mouth or through informal trail blogs online. Access to these trails are generally from the adjacent Jack London State Historic Park to the west or Sonoma Valley Regional Park to the east of the site. Other recreational resources on the SDC property include a baseball diamond, Oak Valley School gym, Butler Pool and Bathhouse, and an historic carousel within the campus core, in addition to equestrian facilities and John Mesa Park in the eastern agricultural area and a privately operated ropes course on the way to Camp Via to the west of the main campus. While swimming, fishing, and other aquatic activities are prohibited in Suttonfield and Fern lakes, these features also serve as recreational destinations valued for their scenic views enjoyed by hikers and equestrians along the trails and unpaved roads encircling the lakes.

Figure 3-1 shows existing recreational resources on the SDC site. (See Chapter 7: Natural Areas and Open Space for more information on the trail system.)

The conditions of these resources range from good to in disrepair. The baseball diamond on the northern edge of the main campus adjacent to Arnold Drive is a lit, well-maintained athletic field used by local organizations and clubs as well as informally by the local community for softball and soccer. Other facilities in good to fair condition include the Oak Valley School Gym that houses an indoor basketball court and the historic carousel on Palm Street, which was renovated sometime around 2008. Two unmaintained former soccer fields (otherwise known as John Mesa Park) total approximately 2.4 acres at the southeast

corner of the property and have also historically served as recreation for more able-bodied clients at the SDC. This area has more recently been used for informal soccer play by the community but was closed after the 2017 Nuns Fire. These recreational resources present opportunities for reuse.

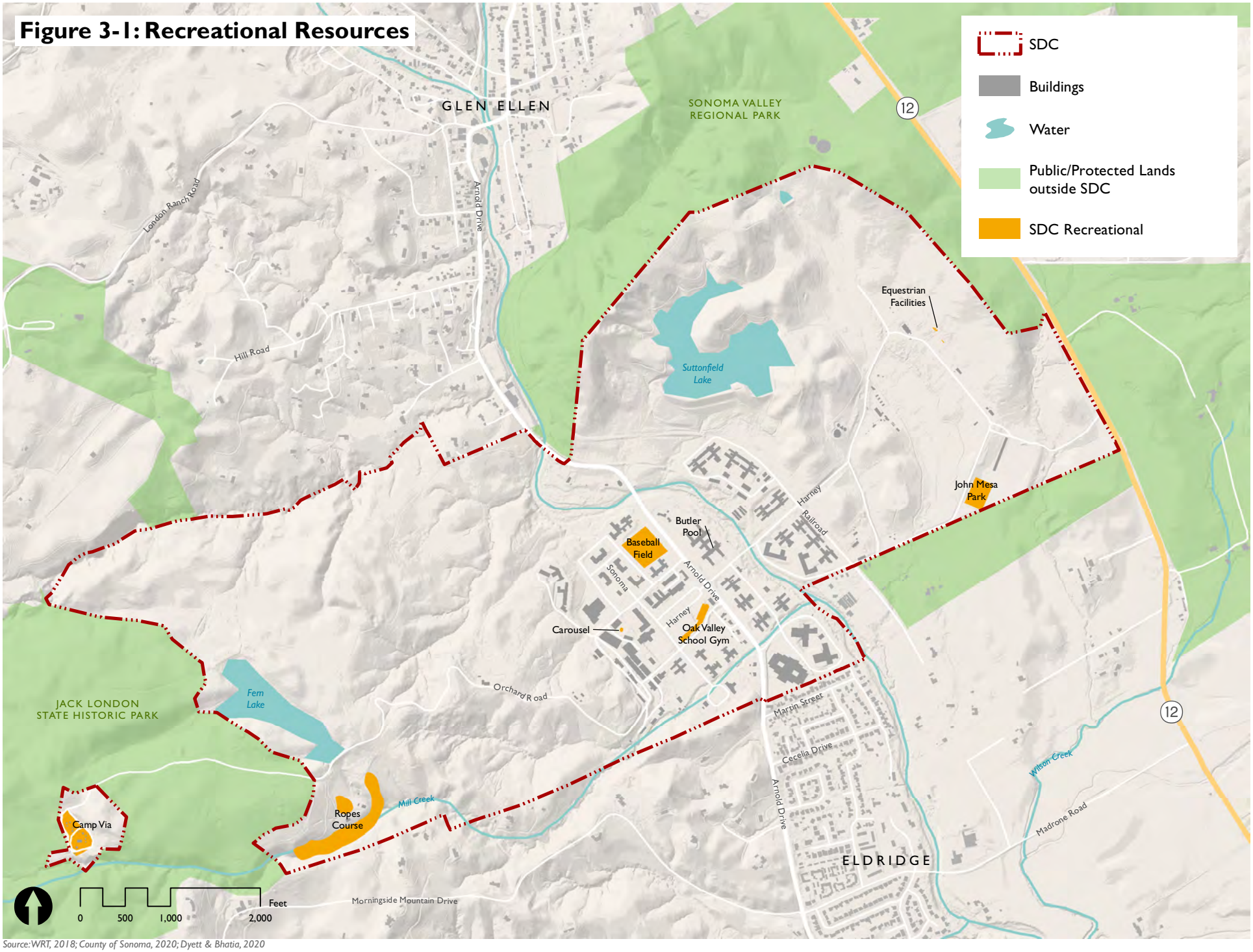
The privately-operated Challenge Sonoma Adventure Ropes Course is also operated on the SDC grounds off of Orchard Road, and the former employee picnic area is currently used as a staging area. The non-profit group has maintained and operated the course since 1984 to support school children and youth-at-risk in the Sonoma Valley. The ropes course facility provides experiential training, challenge courses, teambuilding, corporate events and wilderness adventure to a variety of groups. This particular type of recreation opportunity is unique in the Sonoma Valley. However, the impact of the platforms, bolts, and cables on the health of the redwood forest, and disturbances in the riparian areas for the ropes course, should be further studied before any long-term commitments are made here.

Other facilities, such as the cabins, barbeque pits, amphitheater, wheelchair swing, and wading pool at Camp Via are in disrepair.. Butler Pool and Bathhouse, located on Railroad Drive, has been identified as a health and safety hazard and is being removed. The 2017 Nuns Fire (part of the Sonoma Complex fires) also destroyed or damaged many of the equestrian facilities and buildings on the east side of the SDC property.

## *Work Completed as Part of this Report*

Prior assessments focused only on conditions within the SDC campus and covered only park and recreational facilities. Access to and provision of services including schools, civic facilities, and fire and police services were not discussed. This chapter fills in gaps in the existing analysis by providing a summary of nearby services including parks and recreation in addition to an assessment of public services in and near the Planning Area including schools, community facilities, civic facilities and libraries, public safety services, and health and human services.

# Figure 3-1: Recreational Resources




Source: WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020

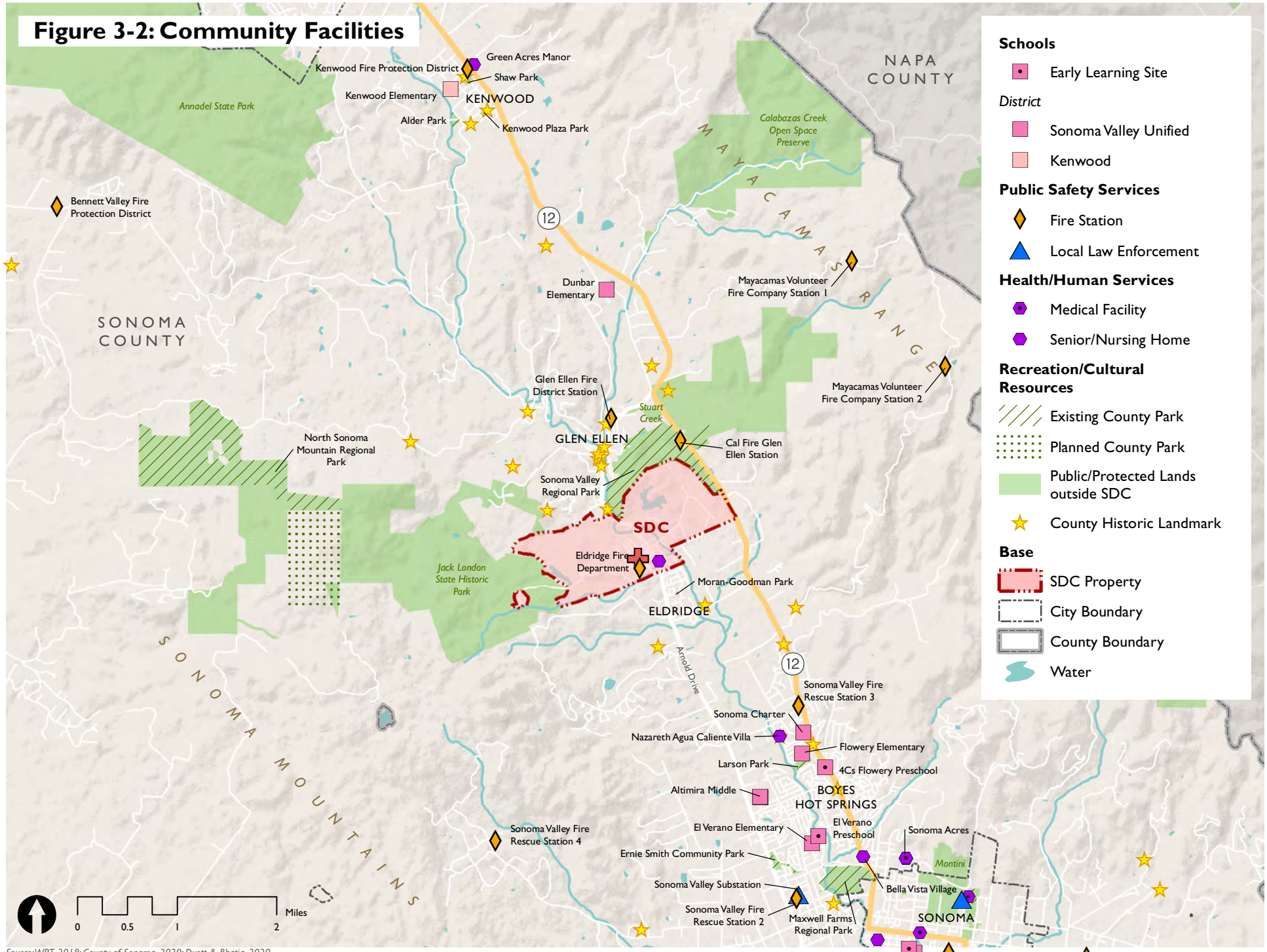
## 3.2 Schools

The SDC site and surrounding communities, including Glen Ellen and Eldridge, fall within the Sonoma Valley Unified School District (SVUSD), which consists of 11 public schools serving grades kindergarten through 12th: five elementary schools, two middle schools, two high schools, and two charter schools (Table 3-1). District enrollment for the 2019-2020 school year was 4,173 students, with 276 certificated staff members employed as of 2018, translating to approximately 15 students per staff. There are also 46 preschools/early learning facilities in Sonoma County provided through a combination of center-based childcare and state programs; three of these early learning sites are in the local area.

The SDC site is located within the Dunbar Elementary school boundary of SVUSD. Dunbar Elementary school is 3.4 miles away from the SDC campus, and the next nearest elementary school is Flowery Elementary (3.5 miles away), as seen in Figure 3-2. The nearest middle school is Altimira Middle (2.9 miles away), the nearest high school is Sonoma Valley High (8.0 miles away), and the nearest preschool is 4Cs Flowery Preschool (3.5 miles away). El Verano and Flowery elementary school boundaries are roughly the same distance from the SDC site, and both begin immediately south of West Agua Caliente Road.

Some of the local school campuses include facilities that date back to the 1950s, though they have undergone various modernizations and renovations throughout the years. As a result, the condition of facilities of SVUSD schools range from good to in need of improvement. SVUSD has a Facilities Master Plan that guides funding for improvement projects to ensure that school facilities are up-to-date and provide engaging environments for students to learn in. Started in 2011 and last updated in 2017, the current Facilities Master Plan consists of 33 projects, including new classrooms, multi-purpose room and library modernizations, and new athletic facilities, that are scoped for six to eight years from 2017 as bond sales for the 2010 voter-approved general obligation bond Measure H occur.

# Figure 3-2: Community Facilities




Source: WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020

*Table 3-1: Sonoma Valley Unified School District Schools.*

| *School Name* | *Grades Served* | *Enrollment, 2019-20* |
|---|---|---|
| Adele Harrison Middle | 6-8 | 384 |
| Altimira Middle | 6-8 | 458 |
| Creekside High | 10-12 (Continuation) | 67 |
| Dunbar Elementary | K-5 | 183 |
| El Verano Elementary | K-5 | 341 |
| Flowery Elementary | K-5 | 343 |
| Prestwood Elementary | K-5 | 373 |
| Sassarini Elementary | K-5 | 303 |
| Sonoma Charter | K-8 | 199 |
| Sonoma Valley High | 9-12 | 1,264 |
| Woodland Star Charter | K-8 | 258 |
| **Total** | | **4,173** |

Note: Calculated total enrollment includes only public schools in the district and does not include private or sectarian schools.

*California Department of Education, 2020.*

Three of these projects—Sonoma Valley High School library renovations, improvements to the Dunbar Elementary Multi-Purpose room, and Flowery kindergarten playground improvements—are complete, and eight projects were in the pre-construction stage as of early 2019.

Planned school expansions include a new learning center at Creekside High, a new multi-use building at Dunbar Elementary, a new multi-use building at Prestwood Elementary, and a new administration/classroom building at Sonoma Valley High. Modernization and renovation projects will also supply new furniture and technology for classrooms and other facilities at schools throughout the district. In light of these expansions and improvement projects, SVUSD does not currently anticipate the need for additional schools. However, this does not preclude future potential enrollment issues with the Specific Plan.

SVUSD also offers a variety of programs and resources for its students and their families such as garden education, specialized academic programs, mentoring, after school intervention classes, family resources, Exploratorium Science, Spanish Dual Immersion, music programs including an orchestra, and Career Technical Education. The district partners with local organizations to provide programs, such as visual arts programs, supported by the Sonoma Plein Air Foundation and Sonoma Valley Museum of Art, as well as a Boys and Girls club and YMCA childcare program. Future residents of the SDC site would be within this district and would have access to these programs.

## 3.3 Civic Facilities and Libraries

Given that the SDC site is under State jurisdiction and was originally designed as a primarily self-enclosed campus, access to civic facilities was not previously assessed or established, and as a result, are not common in the area. Most of the County administrative offices where residents of unincorporated Sonoma County receive local services are located in the City of Santa Rosa, which is the county seat. The nearest public community facility is the Sonoma Community Center, approximately 6.3 miles away in the City of Sonoma.

Beginning in 1975 with the signing of a Joint Powers Agreement, the Sonoma County Library has served as the county-wide public library system for cities, towns, and communities in Sonoma County including Cloverdale, Cotati, Guerneville, Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, Sonoma and Windsor. Library services and programs are offered at 14 branch locations as well as online and via a bookmobile that together represent

community hubs for learning, arts, technology, and gathering. The closest library to the SDC site is the Sonoma Valley Regional Library in the City of Sonoma, approximately 5.3 miles south of the site.

The SDC property is part of the Sonoma State Home Historic District listed on the National Register of Historic Places, whichincludes two individual resources, the Main Building and the Sonoma House. (For more about historic resources at the SDC site, please see Chapter 10.) Other nearby Sonoma County Historic landmarks designated by the Landmarks Commission based on local, state, and federal criteria include Jack London Barn in the Jack London State Historic Park, Valley of the Moon Winery in Eldridge, and Sobre Vista Overview Farms just south of Eldridge. The City of Sonoma also hosts California's northernmost Mission, adjacent to the historic Sonoma Plaza. These resources further contribute to the historic fabric of the SDC site and are important cultural assets to surrounding communities.

## 3.4 Parks and Recreation

Parks and recreational facilities are an important component of livable communities and play a significant role in public health and the economy. Amenities for active and passive recreation can support healthy lifestyles and create opportunities for the community to engage and connect with each other and the environment. This section describes parks near the SDC site, with emphasis on accessibility and adequate provision for current and future populations.

The Sonoma County Regional Parks Department provides 54 parks throughout the county that offer wild landscapes and miles of trails in addition to amenities such as sports fields, playgrounds, and campgrounds. Of these parks, six are located within five miles of the SDC site: Ernie Smith Community Park, Larson Park, Maxwell Farms Regional Park, Moran Goodman Park, North Sonoma Mountain Regional Park, and Sonoma Valley Regional Park. These parks are mapped in Figure 3-2. Each of these parks is shaped by a master plan that guides development and maintenance of the park.

While Ernie Smith and Larson community parks are larger facilities and offer more amenities such as sports fields that provide recreational opportunities for many residents, limited accessibility and range of use of more localized parks such as Moran Goodman may not meet the demands of the future SDC site's population. Instead, future needs may rely on more extensive use of regional parks including Maxwell Farms, North Sonoma Mountain, and Sonoma Valley. Furthermore, lack of open space and water-based recreation

in the very densely populated Sonoma Springs area has contributed to unauthorized use of Lake Suttonfield for fishing, swimming, and damming of Sonoma Creek for recreational play, indicating an existing community desire for more recreational opportunities.

A variety of state parks and conservation areas owned by public, private, and non-profit organizations supplement the County's park inventory, primarily providing additional hiking or multi-use trails and picnic areas from which to enjoy the rich natural landscape of Sonoma Valley (see Table 3-2). Please see Chapter 7 for more information about open space and trails.

*Table 3-2: Public Parks and Open Space Near the SDC Site.*

| *Name* | *Type* | *Acres* | *Amenities* |
|---|---|---|---|
| Ernie Smith Community Park | Community Park | 10 | Ball field, basketball court, dog park, playground, picnic area, walking trail |
| Larson Park | Community Park | 8 | Ball field, basketball court, playground, picnic area, soccer/multi-use field, tennis courts |
| Maxwell Farms Regional Park | Regional Park | 40 | Ball field, picnic area, playground, skateboard park, soccer field, tennis court, walking trail, volleyball court |
| Moran Goodman Park | Neighborhood Park | 1 | Barbecue, picnic area, playground |
| North Sonoma Mountain Regional Park and Open Space Preserve | Regional Park | 820 | Equestrian/hiking/multi-use trails, picnic areas |
| Sonoma Valley Regional Park | Regional Park | 237 | Dog park, multi-use trails, picnic areas |
| Calabazas Creek Open Space Preserve | Future Regional Park | 1,285 | Multi-use trail (planned) |
| Jack London State Historic Park | State Historic/Cultural Area | 1,470 | Environmental learning/visitor center, equestrian/hiking trails, museums, picnic areas |
| Stuart Creek Run/Hill | Private Conservation | 18 | Picnic area, walking trail (open to public) |

Note: This table includes publicly accessible parks and private open space as seen in Figure 3-2.

*County of Sonoma, 2020.*

# 3.5 Public Safety Services

## Fire Services

*For wildland fires, see Section 8.3 of Chapter 8: Natural and Man-Made Hazards.*

### *Eldridge Fire Department*

The SDC property constitutes its own fire district served by the Eldridge Fire Department, which operates out of the station located directly on the main campus. The Eldridge Fire Department is a State agency that coordinates with the County as an all-risk department, responding to all emergencies within the district. Due to uncertainty whether the department would continue operation after closure of the developmental center, the fire department lost many of its staff members and is currently understaffed. However, the Eldridge Fire Department was extended to continue full operation and currently covers two of three shifts, supplemented by staff from the neighboring fire protection district Sonoma Valley Fire and Rescue Authority (SVFRA) for the remaining shift, following a 2/4 schedule (two days on, 4 days off).

The department maintains a two-minute getaway service standard from the time they receive a service call, which are responded to through a mobile data transmitter (MDT) system.

Equipment operated by the department includes a Type 1 fire engine and a Type 3 brush rig. An ambulance is also available through partnership with SVFRA, but it is not used for service calls. The Eldridge Fire Department does not have an ISO (Insurance Services Office) rating but run under SVFRA's Class 1 rating standard.

The department will continue to operate independently as the SDC site transitions to the County, though it is anticipated that services will still be provided in coordination with neighboring Sonoma County fire districts including SVFRA, Mayacamas Volunteer Fire Department, and Kenwood Fire Protection District, with which the Eldridge Fire Department has automatic aid agreements.

### *County Fire Services*

The Sonoma County Fire Prevention Division is responsible for programs, procedures, and projects for preventing outbreak of fires and to regulate storage, handling, and processing of hazardous materials in the county. Sonoma County has 25 fire departments that cover the 44 public fire districts in the county, with additional support from

Cooperative Fire Protection Agreements with the State Department of Forestry and Fire Prevention (CAL FIRE).

The Sonoma Valley Fire and Rescue Authority (SVFRA), previously known as the Valley of the Moon Fire Protection District, provides all-risk fire, rescue, and emergency medical services to 58.5 square miles comprised of the communities of Agua Caliente, Boyes Hot Springs, Diamond-A, El Verano, Fetters Hot Springs, Temelec, Seven Flags, and contract services to the City of Sonoma and Glen Ellen. As of 2017, there are four career fire stations and two volunteer-staffed stations organized into six companies—four paramedic engine companies and two ALS ambulances—in addition to 41 dedicated volunteer firefighters who help operate specialized equipment including a ladder truck, two rescues, two water tenders, four wildland fire engines, and an Office of Emergency Services (OES) fire engine. Station 5, the Glen Ellen Station, is also staffed by SVFRA employees.

SVFRA maintains standards of response coverage benchmarks of six minutes until the first unit arrives on the scene for urban areas, seven minutes for suburban areas, and 12 minutes for rural areas, with a goal of meeting these standards for 90 percent of all calls for service. In 2017, there were approximately 5,300 calls for service, most of which were for emergency medical services (68 percent), and with the addition of the Glen Ellen Fire Department, the District has achieved a one minute and 56 second average improvement in response times.

Other nearby fire stations include the Mayacamas Volunteer Fire Department in the Mayacamas Range west of the SDC site and the CAL FIRE Glen Ellen Station located within the Sonoma County Regional Park.

Redevelopment of the SDC campus may increase the number of residents and thereby increase need for fire service as well as upgrades to existing fire infrastructure and water supply. (Please see Chapter 6 for more information about infrastructure on the SDC site.) However, SVFRA anticipates continued partnership with the Glen Ellen Fire Department, and with four SVFRA stations in addition to the Eldridge Fire Department within four miles of the SDC site, fire service is well-established in the area.

## Police Services

The SDC site is served by the Sonoma County Sheriff's Office and is part of the Valley Zone (Zone 6), staffed from the Sonoma Valley substation located approximately four miles to the south of SDC and just west of the City of Sonoma, as shown in Figure 3-2. Surrounding communities

including Glen Ellen and Eldridge are also within this zone boundary.

The Sheriff's Office provides law enforcement, coroner, court security, and detention services for the entire county. As of 2019, there are 634 total allocated staff: 222 sworn deputy sheriff staff, six sworn correctional staff, and 69 civilian staff in Law Enforcement; one sworn deputy sheriff staff, 203 sworn correctional staff, and 81 civilian staff in Detention; five civilian staff in Telecommunications; and 10 sworn deputy sheriff staff, two sworn correctional staff, and 35 civilian staff in Sheriff's Administration.

The Sheriff's Office released its first Strategic Plan in July 2019. This document outlines the goals that guide activities and priorities through 2022 including increasing staffing levels; strengthening community relationships; identifying and working toward long-term facility needs of the Sheriff's Office; and protecting and supporting the community during disasters, large-scale emergencies, and recovery efforts.

Future development at the SDC site would be included in the Valley Zone. The County Sheriff's Office has not established service ratios or response time goals at this time. Development on the SDC campus, however, may bring in new residents that correspond to increased needs and lower ratios and may require regular assessment to maintain an adequate level of service.

## 3.6 Health Facilities

The Sonoma Developmental Center has a deep legacy of health care and a long-standing role in providing intermediate care and nursing facility services for special needs patients at the now-closed SDC Hospital and Nursing Facility. There are nine hospitals in the county, the nearest of which is Sonoma Valley Hospital in the City of Sonoma, six miles south of the SDC site. Other nearby health facilities and medical clinics include Sonoma Acres and Sonoma Valley Community Health Center, also to the south of the site.

The Sonoma County Health Services Department provides a range of programs and resources for residents such as mental-health services, child health and disability prevention, a Community Intervention Program, and the Healthy Homes Program. There are also programs for people experiencing homelessness in the County that provide food resources and shower locations, winter shelters, and housing rehabilitation programs. Many of these County services are provided out of offices located in the City of Santa Rosa and are generally not accessible by transit from the SDC site. Other services, such

as mental health resources, are available online or by phone as well as through referral.

## 3.7 Human Services

Sonoma County departments and agencies provide human services for county residents, including food, healthcare, and welfare; employment and job training; fostering or adopting a local child; protection from abuse and neglect; services for adults and seniors; services for individuals with disabilities; and the Upstream Investments Program. These services are provided at various locations throughout the county, with the majority of services offered in the City of Santa Rosa. The closest service provider to SDC is the County Division of Economic Assistance in the City of Santa Rosa, approximately 17.6 miles northwest of the site. These offices are generally not transit-accessible from the SDC site.

There are two senior homes/assisted living facilities in the vicinity of the SDC site and surrounding communities, the closest of which is Nazareth Agua Caliente Villa, approximately three miles south. Other nearby facilities include Bella Vista Village and Sonoma Acres, located just north of the City of Sonoma.

The County Department of Emergency Management oversees emergency response and services, including the Emergency Operations Center (EOC). Previous to closure, the SDC Hospital functioned as an EOC shelter refuge during declared emergencies. Currently, the nearest EOC shelter is the Mayflower Hall/Glen Ellen Community Church, just 1.4 miles north of the SDC site. Community preparedness is also encouraged through formation of neighborhood- or community-based organizations such as Citizens Organized to Prepare for Emergencies (COPE), the Spanish-speaking outreach program Listos, Fire Safe Council, Community Emergency Response Teams (CERT), and neighborhood groups and block captains.

## 3.8 Key Issues and Planning Implications

- **Safety Services.** Provision of high-quality public safety services is a priority in the county, especially following the 2017 Nuns Fire (part of Sonoma Complex fires) that affected many of the communities in the area. Fire services provided by the Sonoma Valley Fire and Rescue Authority, in contracted partnership with the Glen Ellen Fire Protection District, are well-distributed throughout the area. However, local law enforcement by the County

Sheriff's Office from the Sonoma Valley Substation may benefit from additional resources to match increasing service needs.

- **Parks and Recreation Facilities.** There are approximately 60 acres of local parks within five miles of the SDC site that provide amenities including playgrounds, dog parks, and sports facilities for the community. The SDC site is also surrounded by ample open space for hiking, bicycling, and nature-viewing opportunities well-loved by both local residents and visitors. There are opportunities to connect or expand existing recreational resources such as hiking/pedestrian trails and bikeways, and an increase in demand due to new populations and the general lack of transit accessibility from the SDC site to existing local parks may result in a need for new active parks and playfields on the SDC site.
- **Access to Schools.** The area has an adequate number of public schools that do not anticipate enrollment capacity concerns, especially in light of ongoing modernization and improvement efforts by Sonoma Valley Unified School District. However, given the distance from the SDC property to these schools, the Plan should consider accessibility via transit and alternative modes of transportation to support safe and efficient access to school facilities and programs.
- **Community Center and Gathering Spaces.** There is a need for a community center to serve as a gathering place for Glen Ellen, Eldridge, and the future community of the SDC site. Currently, most nearby community facilities are concentrated in the cities of Sonoma and Santa Rosa, but these centers may be not be accessible or socially representative of the unincorporated communities near the Planning Area. The central location of a community center on the SDC site may be a good way to integrate the redeveloped site into a cohesive community.
- **Recognition of the SDC's Legacy of Care.** Given the SDC's legacy of care, some community members are interested in re-establishing the SDC site's role in providing these services to the community. Since closure of the SDC Hospital and related services, residents of surrounding communities have had to rely on farther facilities such as those in the City of Sonoma. Utilizing existing infrastructure and buildings on the SDC site that have been used for similar purposes could present opportunity for reuse that can be explored, although the economic viability of stand-alone health services is unlikely.

# Socioeconomic Profile

*Chapter Four*

# 4.1 Chapter Overview

Prior work on Plan Area socioeconomic conditions, summarized in the Regional Economic Context and Trends section of the *Existing Conditions Assessment,* identifies a number of socioeconomic trends that may affect development potential in the Plan Area. These trends include relatively slow historical growth in Sonoma County and the Lower Sonoma Valley, in particular; employment concentration in healthcare, education, trade, and hospitality; and a widening gap between job and housing growth in the county.

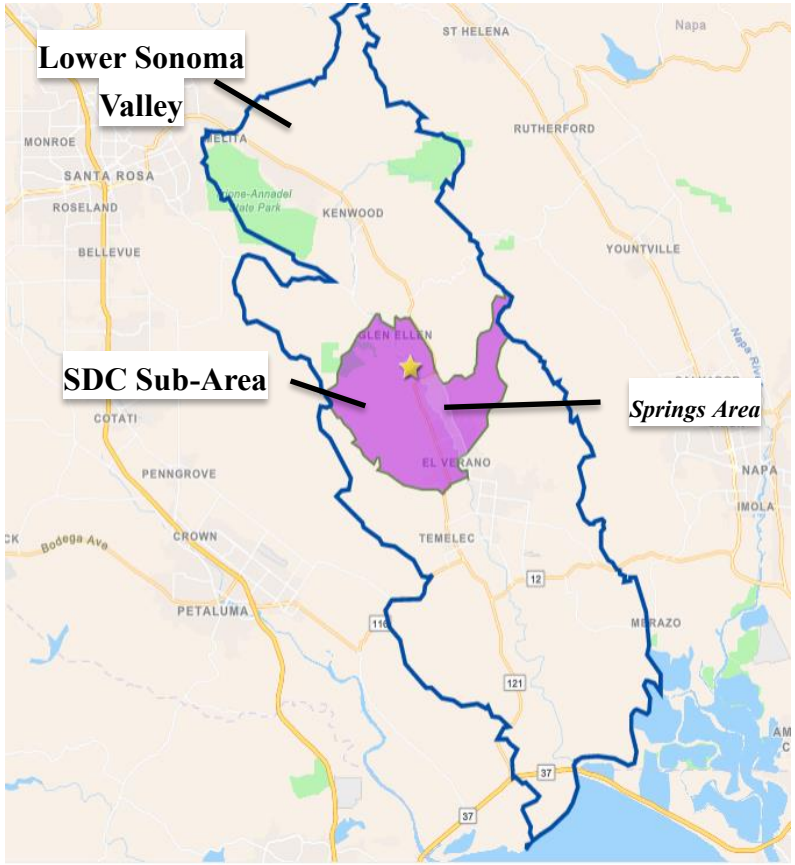
The following Socioeconomic Profile updates and expands upon prior analysis of socioeconomic trends using the most recent data available for Sonoma County, the Lower Sonoma Valley, and communities nearest the site. The profile considers local demographic characteristics, countywide housing needs, and the most recent forecasts of job and population growth. Growth forecasts reviewed in this chapter inform the projections of market demand for potential land uses in the Plan Area, presented in Chapter 9.

While most previously identified trends continue to hold true, important socioeconomic changes have occurred following the October 2017 North Bay fires that destroyed more than 5,200 homes in the county. After the fires, the county population declined by 4,700 residents over two years, while local employment continued to grow, led by new construction jobs that have aided in the recovery. Although it is likely the county will regain population as rebuilt housing units are occupied, several economic forecasters have downgraded their projections of county growth since the prior socioeconomic profile was prepared.

## Geographic Boundaries

As with prior work, local demographic characteristics are evaluated at three geographic scales: 1) Sonoma County, 2) the Lower Sonoma Valley as a whole, and 2) a subset of communities nearest the site, referred to as the SDC Subarea. The boundaries of the Lower Sonoma Valley and the SDC Subarea are shown in Figure 4-1.

*Figure 4-1: Study Area Boundaries*




Lower Sonoma Valley extends from southeast Santa Rosa to Sears Point south of the City of Sonoma, while the SDC Subarea covers the Highway 12 corridor from Glen Ellen to El Verano. Boundaries have been adjusted slightly from prior work to align with spatial data from the US Census Bureau.

## 4.2 Demographic Trends

### Population and Household Characteristics

Approximately six percent of residents in the nine-county Bay Area live in Sonoma County, and 10 percent of Sonoma County residents live in the Lower Sonoma Valley. The Lower Sonoma Valley's population is generally older than the county overall, as indicated by the area's median age and share of residents over the age of 65. Median age is lower in the SDC Subarea due in large part to the age composition of the Springs area, south of the site, where most residents are under the age of 35. In Glen Ellen, north of the site, the median age is comparable to the broader Sonoma Valley. Hispanics and Latinos comprise a significant and growing share of the Lower Sonoma Valley population, particularly in the Springs area. Table 4-1 compares population characteristics in the Bay Area, the County, the Lower Sonoma Valley, and the SDC Subarea.

As noted in the *Existing Conditions Assessment,* the Lower Sonoma Valley was historically a less affluent community than the county overall. Today, however, the median income of Lower Sonoma Valley households exceeds the county median. The median income is less for households living in

the SDC Subarea, including Glen Ellen (median income of $67,000) and the Springs area (median income of $57,000). The Springs area was recently designated as an Opportunity Zone as part of a federal program that provides tax incentives for real estate and business investments in economically-distressed communities.[1]

Table 4-2 compares household characteristics in the Bay Area, the County, the Lower Sonoma Valley, and the SDC Subarea.

Homeownership rates are higher in Sonoma County than the Bay Area overall. In Sonoma County, homeowners make up half of households with incomes below $100,000 and nearly 80 percent of households with incomes above $100,000. The percentage of households spending more than 30 percent of their income on housing is higher for renter households than for owner households, most of whom purchased their homes more than 10 years ago. Three quarters of renter households with incomes at or below $75,000 spend more than 30 percent of their income on housing, indicating a significant need for affordable housing targeted toward households with incomes below the county median. Table 4-3 compares the share of households who spend more than 30 percent of their income on housing by tenure and income group in Sonoma County.

## Historical Population and Household Change

As the *Existing Conditions Assessment* documented, Sonoma County has grown relatively slowly since 2000, with average annual population growth of 0.41 percent countywide and below 0.20 percent in the Lower Sonoma Valley. Table 4-4 shows the historical rate of population and household growth in the Bay Area, Sonoma County, the Lower Sonoma Valley, and the SDC Subarea.

In 2018 and 2019, Sonoma County lost population following the October 2017 fires that destroyed more than 5,200 residential units. From mid-2017 to mid-2019, the California Department of Finance (DOF) estimates that Sonoma County lost more than 4,700 residents, or nearly 1 percent of the population, through outmigration.

1 State of California, California Opportunity Zones, "FAQs," Accessed 28 July 2020, https://opzones.ca.gov/faqs/.

Migration outflows from Sonoma County to areas outside the Bay Area began to exceed inflows starting in 2015 and accelerated in 2017 and 2018. Migration inflows to Sonoma County from elsewhere in the Bay Area remained positive in 2017 to 2018, but were insufficient to offset outflows to other regions. Table 4-5 shows net migration between Sonoma County and other geographies based on address change data reported on tax returns. A positive value indicates that more tax filers have migrated to the county than have moved away; a negative value indicates the opposite.

Sonoma County may regain population as housing units destroyed in the October 2017 fires are rebuilt and occupied. As of April 2020, 1,520 housing units have been rebuilt and 2,340 units are under construction, permitted, or under review. Another 1,500 parcels with destroyed residential structures have yet to begin the permitting process. The population potentially supported by units under construction exceeds the county's cumulative population loss over the past two years, assuming a conservative household size of 2.6 residents per unit consistent with the county average. Table 4-6 summarizes residential rebuilding activity reported by the City of Santa Rosa and Sonoma County.

## *Table 4-1: Current Population Characteristics (2018-2019)*

| - | *Bay Area* | *Sonoma County* | *Lower Valley* | *SDC Subarea* |
|---|---|---|---|---|
| Population | 7,708,655 | 495,319 | 48,517 | 20,040 |
| Median Age | 39 | 41 | 53 | 40 |
| % Over Age 65 | 16% | 19% | 32% | 16% |
| Hispanic/ Latino % | 24% | 27% | 22% | 39% |

*ESRI Business Analyst (2019) and American Community Survey (2014-2018)*

## *Table 4-2: Current Household Characteristics (2018-2019)*

| - | *Bay Area* | *Sonoma County* | *Lower Valley* | *SDC Subarea* |
|---|---|---|---|---|
| Households (HH) | 2,788,340 | 188,317 | 20,955 | 7,003 |
| Average HH Size | 2.7 | 2.6 | 2.3 | 2.8 |
| Median HH Income | $104,800 | $81,500 | $83,000 | $78,900 |
| Homeownership Rate | 56% | 62% | 67% | 62% |

*ESRI Business Analyst (2019) and American Community Survey (2014-2018)*

*Table 4-3: Share of Sonoma County Households Spending More Than 30 Percent of Income on Housing by Tenure and Income (2018-2019)*

| *Demographic* | *$0-$50K* | *$50K-$75K* | *$75K-$100K* | *Above $100K* | *All HHs* |
|---|---|---|---|---|---|
| Share of Total Households | 29% | 16% | 15% | 40% | 100% |
| Renter % of Income Group | 56% | 48% | 38% | 21% | 38% |
| Owner % of Income Group | 44% | 52% | 62% | 79% | 62% |
| Cost-Burdened[1] % of Renters | 87% | 57% | 27% | 6% | 55% |
| Cost-Burdened[1] % of Owners | 64% | 45% | 36% | 11% | 31% |
| Cost-Burdened[1] % of Income Group | 77% | 51% | 32% | 10% | 41% |

[1] Households spending more than 30% of their income on housing costs.

*Source: ESRI Business Analyst (2010) and American Community Survey (2014-2018)*

*Table 4-4: Annual Percentage Change in Population and Households (2000-2019)[1]*

| - | *Bay Area* | *Sonoma County* | *Lower Valley* | *SDC Subarea* |
|---|---|---|---|---|
| Population: Annual Change | 0.67% | 0.41% | 0.18% | 0.29% |
| Households: Annual Change | 0.65% | 0.47% | 0.26% | 0.36% |

[1] Includes population decrease since October 2017 fires.

*ESRI Business Analyst (2019)*

*Table 4-5: Net Tax Filer[1] Migration to Sonoma County from Other Regions*

| *Move Year* | *Elsewhere Bay Area* | *Outside Bay Area* | *Total Net Migration* |
|---|---|---|---|
| Average 2012-14 | 936 | 428 | 1,364 |
| 2015 | 506 | (322) | 184 |
| 2016 | 1,154 | (621) | 533 |
| 2017 | 1,393 | (2,476) | (1,083) |
| 2018 | 518 | (2,940) | (2,422) |

[1] Households may include more than one tax filer.

*Source: Internal Revenue Service*

## Projected Population Change

Forecasts of population growth in Sonoma County vary widely by source. The California Department of Finance (DOF) projects Sonoma County's population to decline by 0.1 percent per year over the next 20 years, while the Association of Bay Area Governments (ABAG) projects the county's population to grow by 0.9 percent per year. Forecasts by Caltrans and private data providers such as Woods & Poole are positive but more conservative than ABAG, ranging from 0.3 percent to 0.5 percent annual growth. Table 4-7 compares near- and long-term forecasts of population growth in Sonoma County. The negative DOF forecast is likely influenced by the population decline that occurred in the county following the October 2017 fires. Prior to the October 2017 fires, DOF had projected the county's population would grow by 0.6 percent per year.

*Table 4-6: Residential Rebuilding Activity Since October 2017 North Bay Fires*

| *Status* | *Santa Rosa* | *Unincorporated County*[1] | *Total* |
|---|---|---|---|
| Completed Units | 1,059 | 461 | 1,520 |
| Under Construction | 1,039 | 838 | 1,877 |
| Permitted/ Under Review | 231 | 232 | 463 |
| Total Units | 2,329 | 1,531 | 3,860 |

*City of Santa Rosa and Sonoma County*

[1] Lower Sonoma Valley communities represent approximately 15% of the rebuilding activity in unincorporated areas (234 units).

*Table 4-7: Projected Annual Percentage Change in Total Population in Sonoma County*

| *Projection Source* | *5 Years 2025* | *10 Years 2030* | *20 Years 2040* |
|---|---|---|---|
| DOF (2020) | -0.1% | 0.0% | -0.1% |
| ABAG (2017) | 1.0% | 1.1% | 0.9% |
| Caltrans (2019) | 0.4% | 0.4% | 0.3% |
| Woods & Poole (2019) | 0.6% | 0.6% | 0.5% |
| Moody's (2019) | 0.2% | - | - |
| ESRI (2019) | 0.3% | - | - |

*California Department of Finance (DOF), Association of Bay Area Governments (ABAG), Caltrans, Moody's, Woods & Poole, ESRI*

While forecasts differ on the county's overall growth outlook, forecasts consistently project the population ages 65 and over to grow faster than younger age brackets, primarily due to natural aging of the existing population. Long-term annualized growth in the 65-and-over age bracket is projected to range from 1.3 percent to 3.2 percent per year.

Residents in this age bracket are projected to make up 24 to 30 percent of the county population by 2040, compared to the current share of 19 percent. Table 4-8 shows projected annual growth in Sonoma County's population ages 65 and over.

*Table 4-8: Projected Annual Percentage Change in Population Ages 65 and above in Sonoma County*

| *Projection Source* | *5 Years 2025* | *10 Years 2030* | *20 Years 2040* |
|---|---|---|---|
| DOF (2020) | 3.1% | 2.6% | 1.6% |
| ABAG (2017) | 3.5% | 3.5% | 3.2% |
| Woods & Poole (2019) | 3.0% | 2.4% | 1.3% |
| ESRI (2019) | 2.8% | - | - |

*California Department of Finance (DOF), Association of Bay Area Governments (ABAG), Woods & Poole, ESRI*

# 4.3 Employment Trends

## Employment Composition by Sector

Education, health care, trade, and accommodation services remain the largest sectors in Sonoma County based on employment, as previously documented in the *Existing Conditions Assessment.* In 2018, these sectors comprised 41 percent of jobs in the county versus 36 percent across the Bay Area. In contrast, major office-using sectors such as finance, insurance, and real estate, professional, scientific, and technical services, and information are underrepresented in the county compared to the Bay Area. Total employment in these sectors remained below 2008 levels ten years later. In the Lower Sonoma Valley, education, healthcare, and accommodation services are the leading sectors, similar to the county overall.

Manufacturing represents a larger share of local employment than trade, driven by industrial employers located south of the City of Sonoma. The percentage of jobs in office-using sectors is less than the share for the county overall. Table 4-9 shows the distribution of 2018 employment by sector in Sonoma County, the Lower Sonoma Valley, and the Bay Area.

## Historical Employment Change

Job growth has been strong in Sonoma County since the 2008-2009 recession, although not as robust as the broader Bay Area. Table 4-10 compares the historical job growth rate in Sonoma County and the Bay Area. Since 2001, job growth in Sonoma County has averaged 0.8 percent per year versus the Bay Area average of 1.2 percent. While Sonoma County's population declined in 2018 after the October 2017 fires, employment growth continued, led by new construction jobs that have aided in the recovery. Preliminary data from the Bureau of Labor Statistics

suggests that employment levels held steady in the county in 2019.

## Projected Employment Change

Projections of annual employment growth in Sonoma County range from 0.3 percent to 1.2 percent per year in the near term and 0.4 percent to 0.9 percent per year in the long term. Table 4-11 compares near- and long-term employment growth rates forecasted by public and private data sources. Forecasts do not reflect the economic fallout from the COVID-19 global pandemic, which is rapidly evolving and unpredictable as to its longer-term effects.

*Table 4-9: Employment Composition by Sector in Bay Area versus Sonoma County and the Lower Valley (2017 / 2018)[1]*

| *Sector* | *Bay Area* | *Sonoma County* | *Lower Valley[1]* | *County vs. Bay Area[2]* | *Lower Valley vs. Bay Area[2]* |
|---|---|---|---|---|---|
| Healthcare & Education | 13.4% | 14.1% | 22.7% | 1.0 | 1.7 |
| Accommodations & Other Services | 12.5% | 13.9% | 16.5% | 1.1 | 1.3 |
| Trade | 10.4% | 13.0% | 12.4% | 1.3 | 1.2 |
| Government | 9.1% | 9.6% | 1.1% | 1.1 | 0.1 |
| Finance, Insurance, & Real Estate | 9.5% | 8.6% | 5.5% | 0.9 | 0.6 |
| Manufacturing | 7.0% | 8.5% | 13.7% | 1.2 | 2.0 |
| Professional Services | 13.0% | 7.5% | 6.4% | 0.6 | 0.5 |
| Construction | 4.9% | 7.2% | 5.5% | 1.5 | 1.1 |
| Information Technology | 4.3% | 1.3% | 0.5% | 0.3 | 0.1 |
| All Other Sectors | 15.7% | 16.3% | 15.6% | 1.0 | 1.0 |
| Total | 100.0% | 100.0% | 100.0% | - | - |

[1] Bay Area and County distribution reflects 2018 data from the Bureau of Economic Analysis. The Lower Valley employment composition reflects 2017 data published by the Longitudinal Household Dynamics program.

[2] Sector's share of county or local employment divided by sector's share of regional employment. A quotient above 1.0 indicates sector is more concentrated in the county than the region.

*Source: Bureau of Economic Analysis (BEA), Longitudinal Household Dynamics program*

*Table 4-10: Annual Percentage Change in Employment in San Francisco Bay Area and Sonoma County*

| *Date Range* | *Bay Area* | *Sonoma County* |
|---|---|---|
| 2001 to 2018 | 1.2% | 0.8% |
| 2010 to 2018 | 3.2% | 2.3% |

*Bureau of Economic Analysis (BEA)*

*Table 4-11: Projected Annual Percentage Change in Employment in Sonoma County*

| *Projection Source* | *5 Years* | *10 Years* | *20 Years* |
|---|---|---|---|
| ABAG (2017) | 0.5% | 0.5% | 0.5% |
| Caltrans (2019) | 0.3% | 0.5% | 0.4% |
| Woods and Poole (2019) | 1.0% | 1.0% | 0.9% |
| Moody's (2018/2019) | 0.4% | - | - |
| California EDD (2016) | 1.2% | - | - |

*Association of Bay Area Governments (ABAG), Caltrans, Woods & Poole, Moody's, California Employment Development Department (EDD)*

## 4.4 Key Opportunities and Constraints

The preceding socioeconomic profile has identified key opportunities and constraints that will influence market demand for land uses within the plan area. These opportunities and constraints inform the market demand analysis in Chapter 9.

### Opportunities

- **Strong Regional Housing Demand** – Reuse of the site presents an opportunity to address unmet regional housing demand at a range of income levels. Over the past decade, job growth has outpaced housing growth in Sonoma County. The destruction of 5,200 homes by the October 2017 fires further exacerbated the imbalance between jobs and housing units in the county. The need for affordable housing is particularly acute. Three quarters of renter households with incomes at or below $75,000 spend more than 30 percent of their income on housing.

- **Aging Population** – The 65+ population is the county's fastest-growing age bracket. Residents in this age bracket are projected to make up 24 to 30 percent of the county population by 2040, compared to the current share of 19 percent. Reuse of the site presents an opportunity to anticipate these demographic changes and tailor land uses to meet emerging demand for senior-oriented housing and services, while also exploring ways to attract younger generations to the site.

- **Employment Concentration in Health, Education, and Accommodation Services** – As noted, health, education, and accommodation services are among the largest employment sectors in the county. The concentration of employment in accommodation services indicates a potential development opportunity for hospitality uses on the site. There might also be opportunities to attract a health- or education-related institutional user, as described further in Chapter 9.

## Constraints

- **Modest Growth Outlook** – Long-term growth forecasts project relatively modest population and employment growth in Sonoma County over the next several decades. The Lower Sonoma Valley has tended to grow at a slower pace compared to the county overall. The modest growth outlook in the county and the Lower Sonoma Valley may limit the pace of development on the site.

- **Relatively Limited Office Employment Base** – Major office-using sectors such as finance, insurance, and real estate, professional, scientific, and technical services, and information are underrepresented in the county compared to the Bay Area and remain below 2008 levels ten years later. The county's relatively limited office employment base poses a constraint to major commercial development on the site, particularly given the site's distance from regional transportation corridors.

# Transportation

*Chapter Five*

## 5.1 Overview of Work Previously Completed and Overview of New or Revised Work

The Sonoma Developmental Center (SDC) has a long history, having provided care to patients for more than 120 years. Until very recently, the project site included a full-fledged medical campus and served as the largest employer in the area, reaching a daily traffic volume between Glen Ellen and Highway 12 of approximately 4,600 vehicles at its peak in 1998.[1] The majority of infrastructure and facilities located on the SDC campus core have remained the same for the past 20 years or more.

While the transportation infrastructure on the SDC site has not undergone any assessment in recent years, the site has been included in several regional planning documents, including general plans, environmental impact reports, and traffic studies. Previous studies have provided detailed regional commute patterns, vehicle miles traveled, parking inventories, as well as reviews of the existing pedestrian, transit, and bicycle facilities. Much of this information that has been detailed in previously completed studies can be applied to future studies and built upon.

This chapter provides greater detail on the SDC site's transportation context and infrastructure, including an updated record of pedestrian, bicycle, and transit facilities. Additionally, this chapter includes an assessment of the existing employment- and residential-based Vehicle Miles Traveled (VMT) compared to the regional average, under guidance provided by the Governor's Office Planning and Research in conjunction with recently updated data from the regional travel demand model maintained by the Sonoma County Transportation Authority (SCTA). Lastly, this chapter compares existing and

[1] State Route 116/121 Intersection Improvements Project, California Department of Transportation and Sonoma County Transportation Authority, 2016

expected congestion levels at buildout of the Sonoma County General Plan.[2]

## 5.2 General Access

Access to land uses such as employment, schools, retail and commercial uses is primarily provided by Arnold Drive and Highway 12. Arnold Drive runs in a north-south orientation and provides access to the adjacent communities of Glen Ellen, Eldridge, El Verano, and Temelec. Although generally an east-west route, Highway 12 also spans from north to south through Sonoma Valley and is located approximately a mile east of Arnold Drive. Highway 12 provides access to Sebastopol, Santa Rosa, Kenwood, and Boyes Hot Springs to the west, and to Sonoma and Napa to the east.

## 5.3 Automobile Circulation

As stated previously, the SDC was historically the largest employer in the area. At the height of its operation, the facility included client residences, staff housing, medical and educational buildings, as well as administrative and maintenance facilities. As such, the number of vehicles traveling to and from the SDC was significantly higher than today. The SDC property no longer operates a medical facility and currently includes little to no day-to-day operations that would generate significant amounts of traffic. Further, the 2017 Nuns Fire (part of the Sonoma Complex fires) that began in Glen Ellen burned approximately 56,600 acres, destroyed roughly 1,500 structures, and damaged many other structures in the vicinity of the SDC site.[3] Given that the campus no longer consists of an operational medical facility and that certain uses were eliminated in the 2017 Nuns Fire, traffic generated

2. Sonoma County General Plan 2020, County of Sonoma, 2013

3. Nuns Fire Report, Cal Fire 2017

by uses located within the SDC property as well as in its vicinity is considered to be at a historic low point.

Due to the lack of active on-site uses, historical traffic counts are likely to be more accurate when establishing a reasonable baseline for the amount of traffic that could be generated by the now defunct project site. Given the combination of the COVID-19 pandemic, the minimal daily operations occurring on-site, and the 2017 Nuns Fire, historical traffic counts were deemed to be the most accurate reflection of conditions associated with the SDC property. It should be noted that additional intersections will be analyzed during the assessment of land use alternatives for the SDC site once it is possible to obtain non-pandemic influenced volumes.

The County of Sonoma Transportation and Public Works Department collects daily traffic volume data on arterial roadways throughout the county, with volumes in any given location typically collected every few years. Based on historical volumes surveyed by the County, the peak daily traffic volume between Glen Ellen and Highway 12 was recorded in 1998, reflecting approximately 4,600 vehicles. Historical daily traffic volumes on Arnold Drive reflect a peak of approximately 7,600 vehicles during 2002 between the SDC site and Glen Ellen. In 2014, the peak average daily traffic volume between Madrone Road and the SDC was approximately 8,000 vehicles. Figure 5-1 shows historical weekday daily traffic volumes on Arnold Drive.

## Vehicle Miles Traveled (VMT) Update

Senate Bill (SB) 743 established a change in the metrics used to determine transportation-related environmental impacts including those associated with development projects.[4] A Vehicle Miles Traveled (VMT) assessment is now used as the basis for determining California Environmental Quality

4. Senate Bill 743 (§ 15064.3), California State Senate (Steinberg), 2013

Act (CEQA) impacts with respect to transportation and traffic. Vehicle delay, typically measured by a Level of Service analysis, is no longer considered an environmental impact under CEQA.

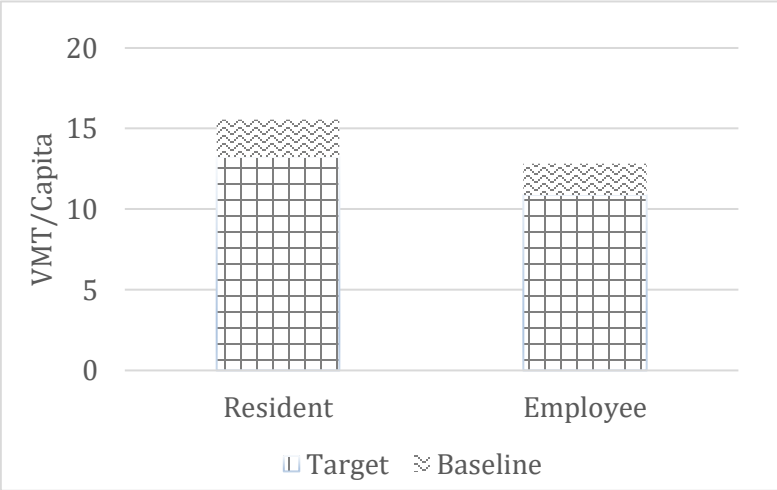
Guidance on the application of VMT, as well as VMT significance thresholds, are provided in the California Office of Planning and Research (OPR) publication Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018.[5] VMT significance thresholds for residential and employment-based projects are typically based on performance metrics; a proposed project greater than 15 percent below the existing Countywide VMT per capita or VMT per employee may indicate a significant transportation impact that would be inconsistent with the State's climate and greenhouse gas reduction goals. Retail uses are typically analyzed by examining total VMT. Projects containing local-serving retail typically have a beneficial impact on regional VMT and may be presumed to have a less-than-significant impact.

Based on output obtained from the SCTM/15 regional travel demand model maintained by SCTA, the County of Sonoma currently has an average baseline residential VMT per capita of 15.56 miles per resident. The baseline employment VMT per employee averages 12.82 miles per employee. Applying OPR's suggested threshold (15 percent below these values) to establish levels of significance, residential projects should generate VMT of no greater than 13.23 miles per resident while employment projects should generate VMT of no greater than 10.90 miles per employee.

Figure 5-1 shows existing (2020) residential VMT per capita and employee VMT per worker for the County of Sonoma. Residential VMT is marginally higher than employee VMT and is consistent with expectations that residents here typically need to travel longer distances (miles) to employment, retail, and services compared to residents living in more urbanized areas.

5. Governor's Office Planning and Research, CEQA Guidelines Update and Technical Advisory, 2018

*Figure 5-1: Residential and Employee Vehicle Miles Traveled per Capita*




*This image shows Residential and Employee Vehicle Miles Traveled per Capita.*

With respect to potential "takeaways" from the VMT data, it is clear that both residential- and employment-based VMT associated with future uses at the SDC site have the potential to result in significant levels of VMT, unless travel can be captured within the campus itself through a balance of jobs, housing, and services that reduce reliance on longer-distance commutes.

## Existing Intersection Level of Service

Although traffic congestion and delay (traditionally measured by a Level of Service (LOS) assessment) is no longer an environmental impact under CEQA, the Existing Conditions scenario provides an evaluation of intersection operation based on traffic volumes during the weekday morning and evening peak periods. LOS analysis is also required for General Plan consistency. This condition does not include project-generated traffic volumes. Counts were obtained at the study intersections in August 2017 and and January 2019.[6] It is noted that the counts collected in August 2017 were conducted while local schools were not in session.

6. State Route 116/121 Intersection Improvements Project, California Department of Transportation and Sonoma County Transportation Authority, 2016

To adjust for this, the a.m. peak hour counts were conservatively increased by a factor of 7 percent based on a comparison of a.m. peak hour volumes obtained on Arnold Drive in Glen Ellen with school traffic and without it.

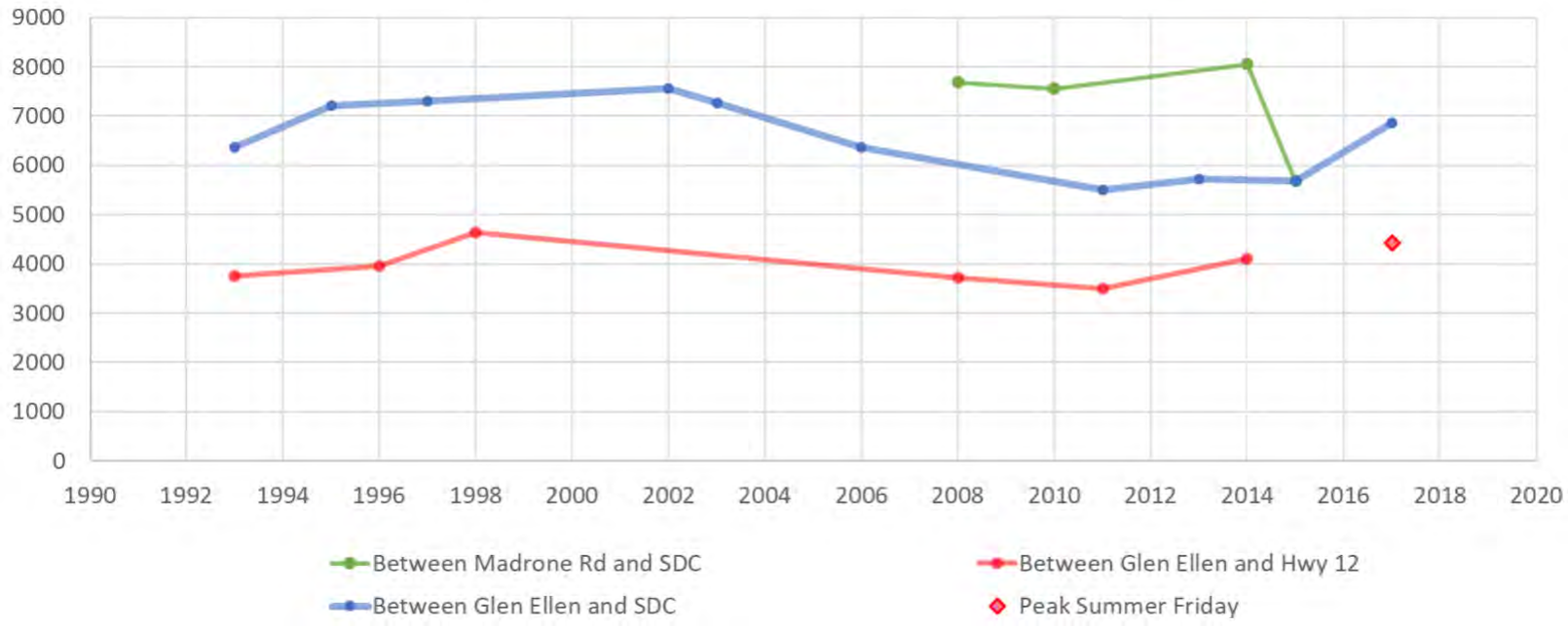
The study intersections were analyzed using methodologies published in the Highway Capacity Manual (HCM), Transportation Research Board, 2010.[7] This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

The signalized study intersections of SR 116/Arnold Drive and SR 121/ Highway 12 were evaluated using the signalized methodology from the HCM. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether or not the signals are coordinated, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. For purposes of this study, delays were calculated using actual signal timing provided by Caltrans.

The study intersections operate acceptably at LOS D or better during both peak periods, with the exception of the all-way stop-controlled intersection of SR 116/SR 121-Bonneau Road which operates at LOS E during the a.m. peak hour and LOS F during the p.m. peak hour. The County is currently in the design phase to construct a roundabout at the intersection. A summary of the intersection level of service calculations is contained in Table 5-1 and the study intersections are shown in Figure 5-3.

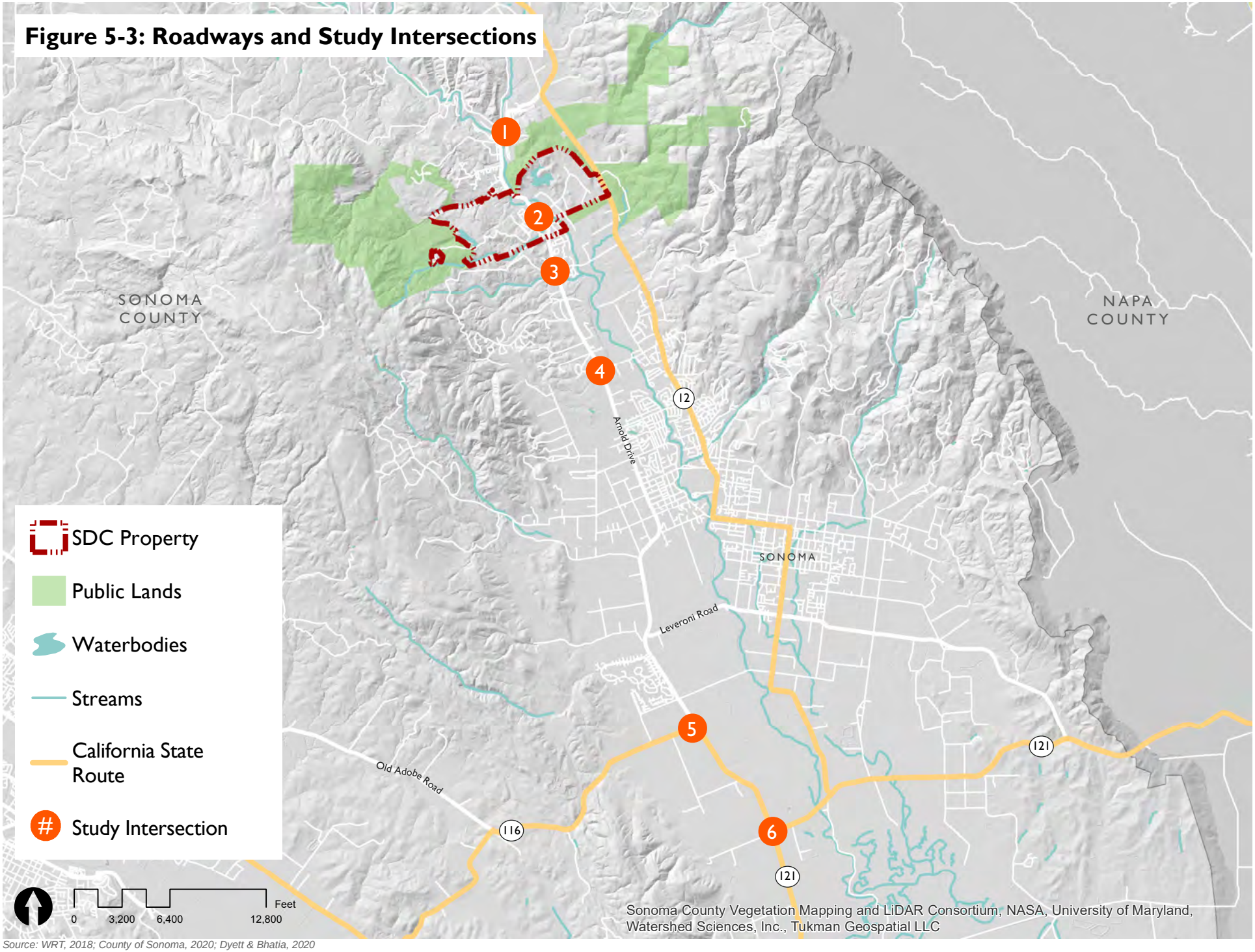
7. Highway Capacity Manual, Transportation Research Board, 2016

*Figure 5-2: Historical Weekday Daily Traffic Volumes on Arnold Drive*




*This photo shows daily traffic volumes on Arnold Drive between 1993 and 2017.*

## Figure 5-3: Roadways and Study Intersections




*Source: WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020*

## *Table 5-1: Existing (2017 - 2019) Peak Hour Intersection Operation.*

| *Intersection* | *Control Type* | *AM Peak Hour Delay/LOS* | *PM Peak Hour Delay/LOS* |
|---|---|---|---|
| 1. Arnold Dr/Warm Spring Rd | AWSC | 9.0/A | 10.5/B |
| 2. Arnold Dr/Harney Dr | AWSC | 9.8/A | 10.3/B |
| 3. Arnold Dr/Madrone Rd | AWSC | 15.2/C | 25.2/D |
| 4. Arnold Dr/Agua Caliente Rd | Roundabout | 8.5/A | 8.5/A |
| 5. Arnold Dr/Stage Gulch Rd | Signal | 25.3/D | 38.3/D |
| 6. SR 116/SR 121-Bonneau Rd | AWSC | **36.7/E** | **50.6/F** |

Notes:

AWSC = All-Way Stop-Control

Delay is measured in average seconds per vehicle

LOS = Level of Service.

*W-Trans, 2020*

## Sonoma Valley Capacity Threshold Study

The Sonoma Valley Capacity Threshold Study, Draft Report, GHD, 2019 (referred to as the "Threshold Study"), presents an extensive data-driven assessment of roadway operations in the Sonoma Valley on weekends when visitor-related traffic influences are most prominent. Congestion during the off-peak season as well as during typical peak season weekends and peak season weekends with industry-wide events was examined. The study provided an analysis of data obtained every weekend over a two-year period.

The Threshold Study indicates that the segments of Arnold Drive and Madrone Road near the SDC site are generally uncongested with reliable travel times, even during peak weekends with regional tourism events occurring simultaneously at multiple wineries. Certain highway and roadway segments in the wider region are, however, very impacted on weekends, particularly in the southern Sonoma Valley. Following are several of the key segments identified in the study as being moderately congested or congested.[8]

### *Moderately Congested:*

- Highway 12 in Kenwood area, peak and off-peak seasons
- Highway 12 in the Springs and City of Sonoma, peak and off-peak seasons
- SR 121 just north of SR 37, peak and off-peak seasons
- SR 121 to the south of the SR 121/SR 116 intersection, peak and off-peak seasons
- SR 116 from Arnold Drive to Watmaugh Road, peak and off-peak seasons

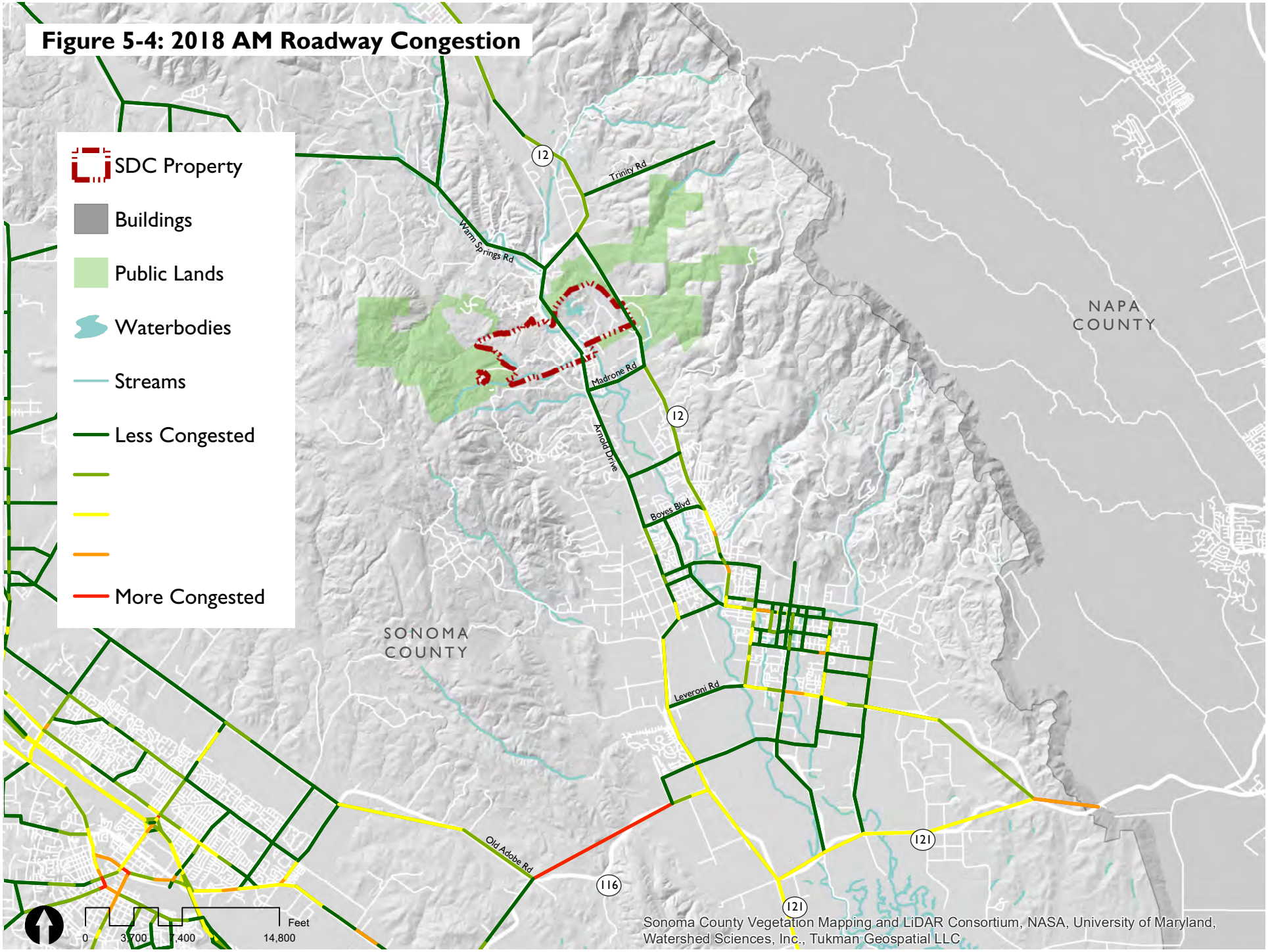
8. Sonoma Valley Capacity Threshold Study, Draft Report, GHD, 2019

- SR 116 from Arnold Drive to Bonness Road, peak season
- SR 37 to the east of SR 121, off-peak seasons (congested during peak season)
- Arnold Drive from SR 116 to Solano Avenue, peak and off-peak seasons
- Arnold Drive from Solano Avenue to Craig Avenue, during peak season with industry-wide event

### *Congested:*

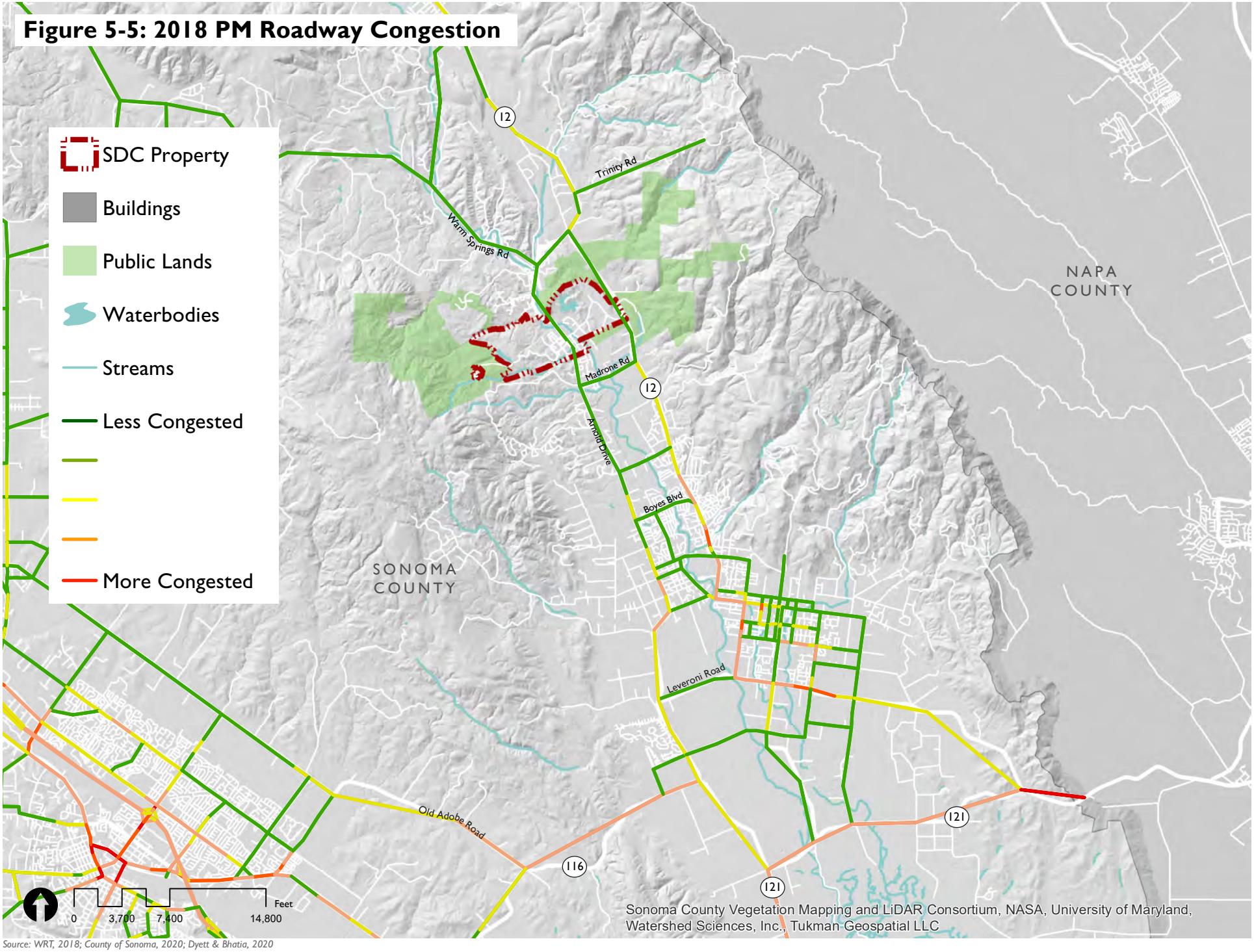
- SR 116, Bonness Road to SR 121, peak and off-peak seasons
- SR 121 between the SR 121/SR 116 intersection and Highway 12 (Broadway), peak and off-peak seasons
- SR 37 to the east of SR 121, peak season

The findings as presented in the Sonoma Valley Capacity Threshold Study are depicted in Figures 5.4 – 5.7. It is noted that various congestion levels are based on roadway volumes and capacity. Further, the colors are based upon the volume-to-capacity ratios, which are either currently present or expected under a given scenario.



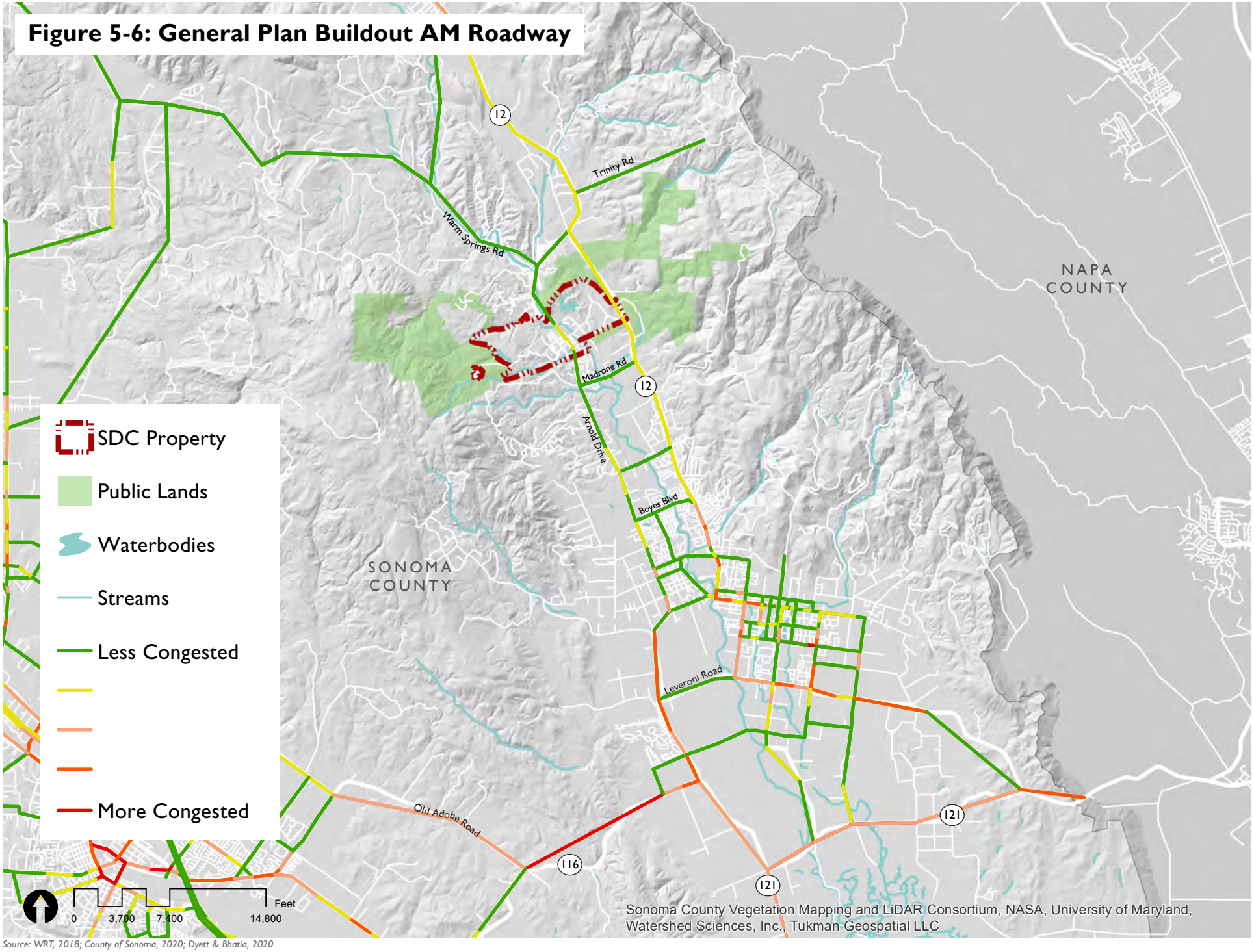

*Source: WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020*

# Figure 5-5: 2018 PM Roadway Congestion

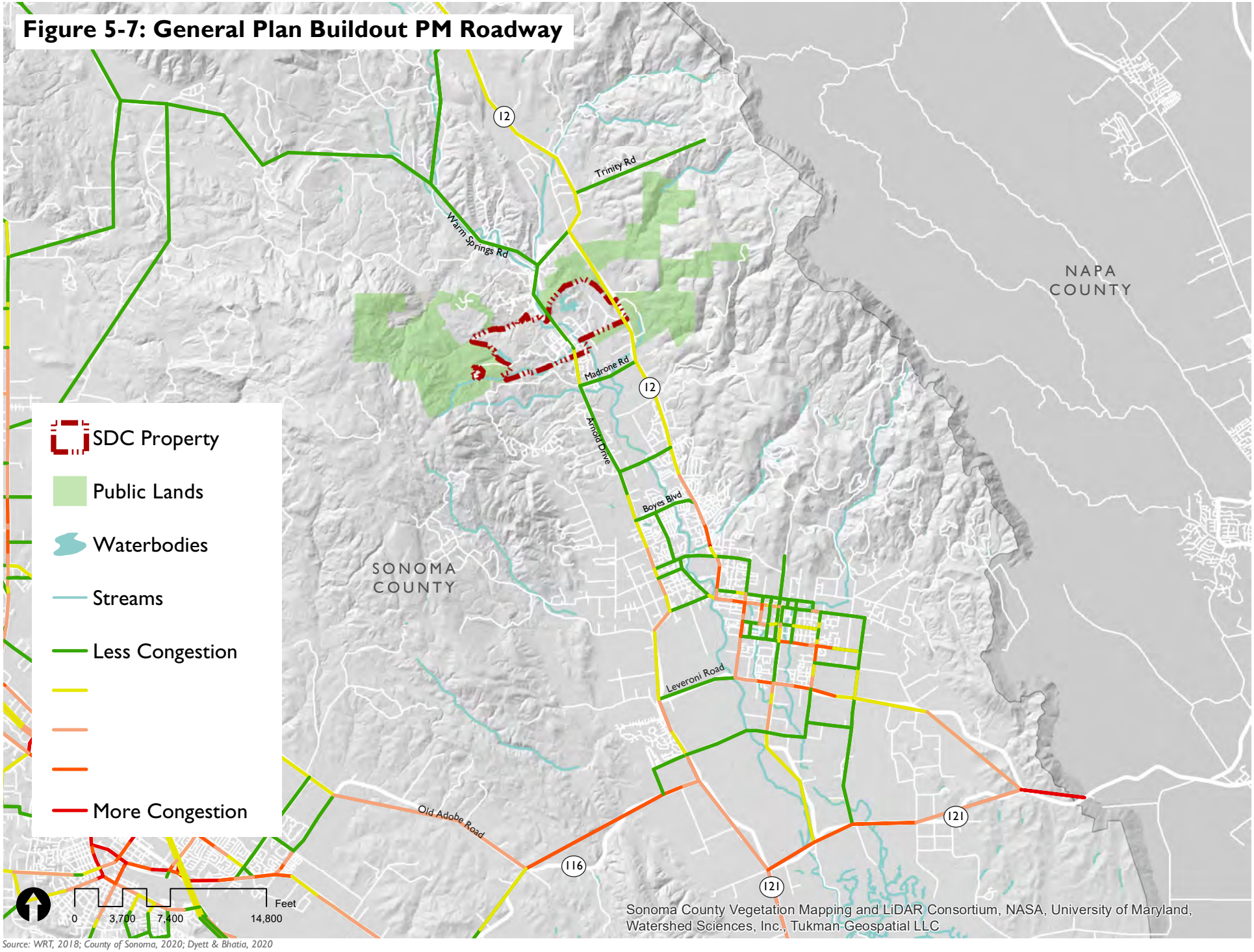



*Source: WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020*

## Figure 5-6: General Plan Buildout AM Roadway




*Source: WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020*




*Source: WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020*

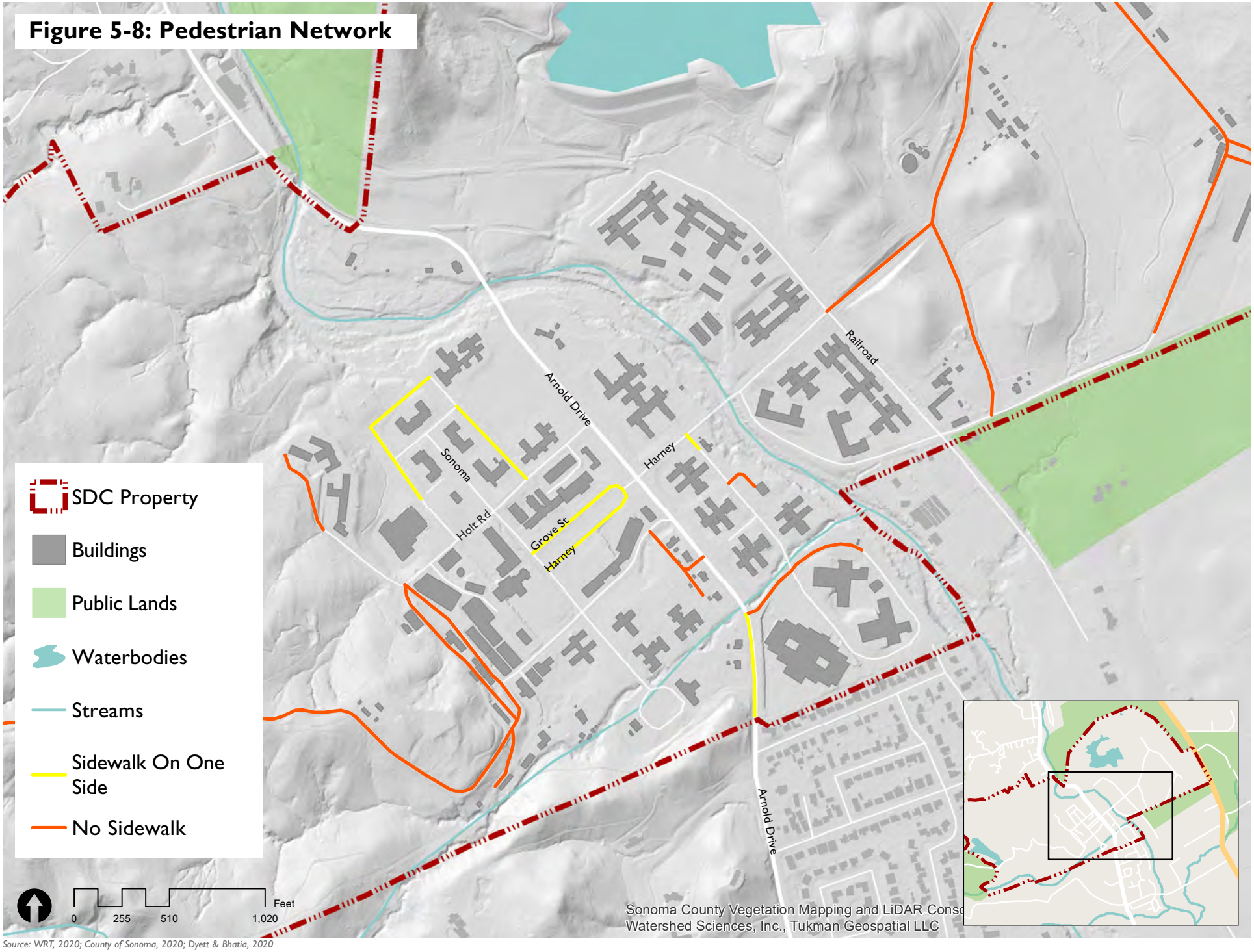
## 5.4 Pedestrian Circulation Network/Sidewalk Gaps

Pedestrian facilities located on the campus generally consist of sidewalks, curb ramps, crosswalks, and pedestrian-scale lighting. The majority of roadways within the campus core include sidewalks on both sides of the street, although some include sidewalks on only one side of the street. These roadways include North, Walnut, Park, Grove, Redwood and Arnold Drive south of Redwood. Further from the campus core, more roadways have rural characteristics, lacking both paving and sidewalks. Roadways without sidewalks include Orchard Road, Eucalyptus, Manzanita, Baker, and Dairy Road. East of the campus core, a painted sidewalk exists along Harney Road between Railroad and Sunrise-Baker, as well as along Sunrise between Baker and John Mesa Dairy. The painted sidewalk is similar in appearance to a Class II bike lane, including two parallel solid white stripes approximately six inches in width and five feet apart. The painted sidewalk spans along the paved roadway at an equal plane, rather than a typical sidewalk, which is raised roughly six inches above the adjacent roadway. The existing sidewalk gaps in the pedestrian circulation network of the SDC campus area are shown in Figure 5-8.

## 5.5 Bicycle Connectivity Impediments/Gaps

The Sonoma Developmental Center does not include bicycle facilities on the property. Within the vicinity of the project area, a Class I shared-use path exists north of the property within Sonoma Valley Regional Park. The Class I path spans from east to west for approximately 1.75 miles. Additionally, Class II bike lanes exist south of the SDC campus on Highway 12 between West Agua Caliente Road and Bernhard Avenue. Class II bike lanes are also present along West Agua Caliente Road between Country Club Drive and Petaluma Avenue.

## Figure 5-8: Pedestrian Network




*Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020*

Although there are no dedicated bicycle facilities on the Sonoma Developmental Center campus, there are several facilities programmed in the Sonoma County *Bicycle and Pedestrian Master Plan*, 2010.[9] The Sonoma Valley Trail is a Class I shared multi-use path between Sonoma and Santa Rosa on Highway 12 ("Sonoma Valley Trail") that is identified as a high priority in the 2010 Bicycle and Pedestrian Master Plan. In 2016, a detailed feasibility study was completed and adopted by the Board of Supervisors identifies the Class I alignment along the eastern edge of SDC. In addition, Class II bike lanes are proposed for the majority of Highway 12 between the cities of Santa Rosa and Sonoma. Similarly, Class II bike lanes are proposed for the entirety of Arnold Drive between Glen Ellen and Sears Point. The Sonoma County Bicycle & Pedestrian Advisory Committee have approved a Class I along Arnold Drive through SDC. This and other proposed amendments to the Bikeways Plan await a General Plan Amendment to be processed by Permit Sonoma.

In addition, a local advocate has recently proposed a "Glen Ellen-Eldridge Bikeway" route to the Glen Ellen Forum that meanders through a variety of side streets and paths. This proposal has not been reviewed by the appropriate jurisdictions in the County (the Sonoma County Bicycle & Pedestrian Advisory Committee, Sonoma County Transporation & Public Works Department, and Sonoma County Regional Parks).

Although there are few to no bicycle facilities present within the core of the campus, most existing roadways include sufficient right-of-way to accommodate a Class II bike lane. Where sufficient right-of-way is not present, the roadway is generally characterized by low vehicle volumes and low travel speed. Further, there are several one-way roadways on campus which could be considered a benefit to

[9] SCTA Countywide Bicycle and Pedestrian Master Plan, 2014 Update, Sonoma County Transportation Authority, 2014

cyclists, as they do not have to navigate oncoming traffic. Finally, a review of the existing bicycle infrastructure revealed a lack of bicycle storage space. While indoor bicycle storage facilities such as bike racks, lockers, etc. may be provided, no storage facilities were observed to be present for public use. The existing and proposed bicycle facilities are shown in Figure 5-9.

## 5.6 Transit Access

Sonoma County Transit (SCT) provides fixed route bus service in Sonoma County. Route 30 provides regional service to the project site and surrounding communities including Santa Rosa, Oakmont Village, Kenwood, Glen Ellen, Agua Caliente, and Sonoma. Route 30 stops on the west and east sides of Arnold Drive at Harney and Redwood; both stops are located on the campus and include signage, shelters, pedestrian-scale lighting, benches and trash receptacles. In addition, there are several stops along Arnold Drive outside the campus boundaries.

Route 30 operates Monday through Friday with approximately 90-minute headways between 5:55 a.m. and 9:30 p.m. Weekend service operates with approximately four-hour headways between 7:25 a.m. and 7:30 p.m.

Route 34 provides regional service to the project site and surrounding communities including Santa Rosa, Kenwood, Glen Ellen, Agua Caliente, Boyes Hot Springs, and Sonoma. Route 34 stops on the west and east sides of SR 12 at Madrone Road. Route 34 operates Monday through Friday, with one run during the morning commute period and one during the evening commute period.

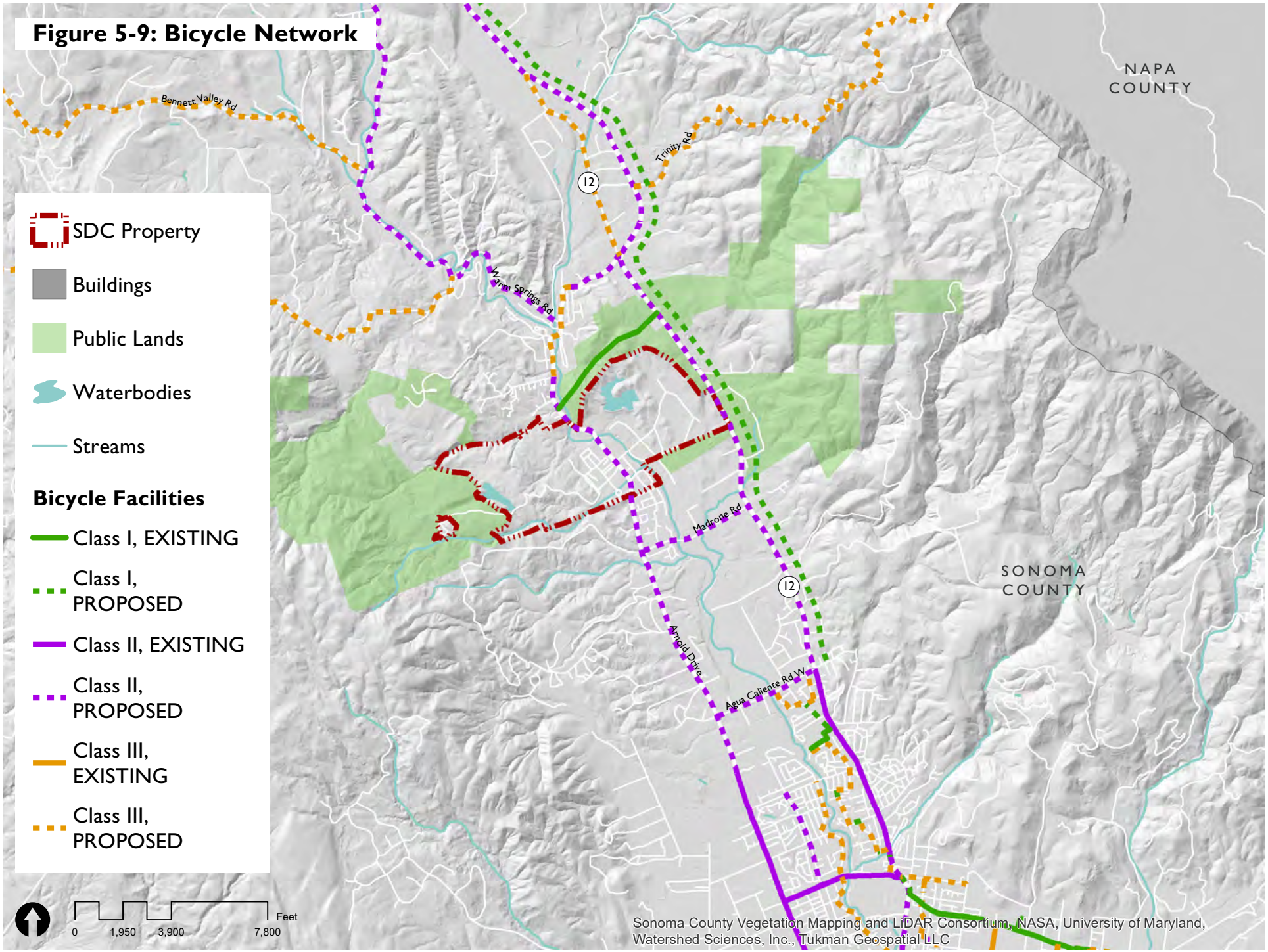
Similarly, Route 38 provides regional service to the project site and surrounding communities including Kenwood, Glen Ellen, Agua Caliente, Boyes Hot Springs, El Verano, Sonoma, and San Rafael. Route 38 operates Monday through Friday and provides one run during the morning commute period and one during the evening commute period. It should be noted that the schedules described above are considered the regularly scheduled service hours. As such, they are schedules unaltered by the interruptions due to the COVID-19 pandemic.

Two bicycles can be carried on most Sonoma County Transit buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on SCT buses at the discretion of the driver.

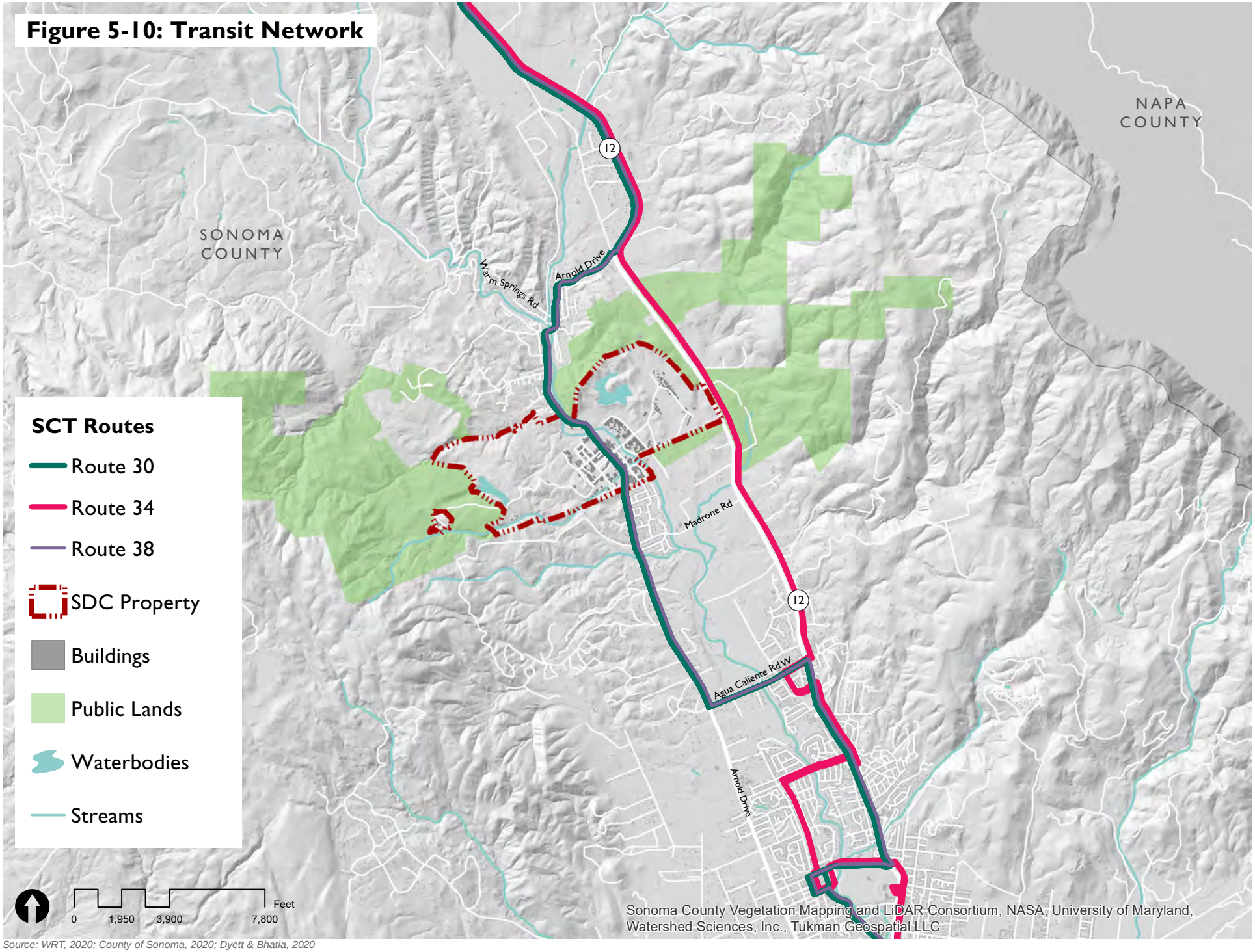
Dial-a-ride, also known as paratransit or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. Sonoma County Paratransit is designed to serve the needs of individuals with disabilities within Sonoma County; eligible individuals can reserve a ride via telephone.[10]

The existing transit network, including routes and bus stop locations, is shown in Figure 5-10.

[10] Sonoma County Transit, http://sctransit.com/




*Source: WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020*




*Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020*

## 5.7 Transportation Infrastructure within the SDC Site

The transportation infrastructure within the SDC campus primarily consists of paved roads for motorists and cyclists in addition to sidewalks and paths for pedestrians. Where striped crosswalks are present, curb ramps are also generally present. Pedestrian-scale lighting is present along streets within the campus core. Many roadways do not have posted speed limits, including Holt Road, Redwood, Harney, Grove Street, Railroad (15 miles per hour) and Arnold Drive (25 mile per hour). Figures 5-11 through 5-19 show typical cross sections of the major roadways within the campus core. Table 5-2 describes roadway widths, number of lanes, parking adjacent to them etc.

## 5.8 Parking Inventory

Parking within the Sonoma Developmental Center campus generally consists of surface parking spaces including both on-street parking spaces and within off-street parking lots. The on-street spaces consist of parallel, angled, and head-in perpendicular parking spaces. In total, there are approximately 1,450 spaces, including 900 on-street spaces and 550 off-street spaces. Most spaces are not governed by time-of-day or day-of-the-week restrictions. Additionally, no fees are currently required to park on the SDC property. There are several accessible stalls located on the property in the 23 off-street lots and on-street parking spaces. Red curbs are generally striped at intersections and allow motorists to better view pedestrians crossing the street. Signs prohibiting parking most notably exist on Sonoma Avenue between Holt Street and Grove Street. Red curb also exists on the north side of Holt Road between Park and Arnold Drive. Figure 5-20 shows the off-street parking lots and on-street parking segments.

*Figure 5-11: Holt Road*

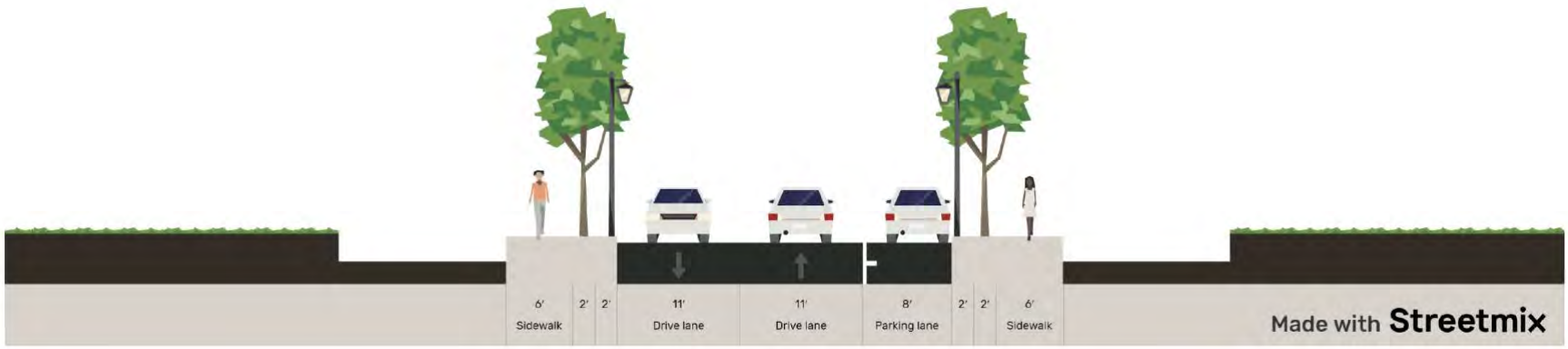



*Figure 5-12: Harney*

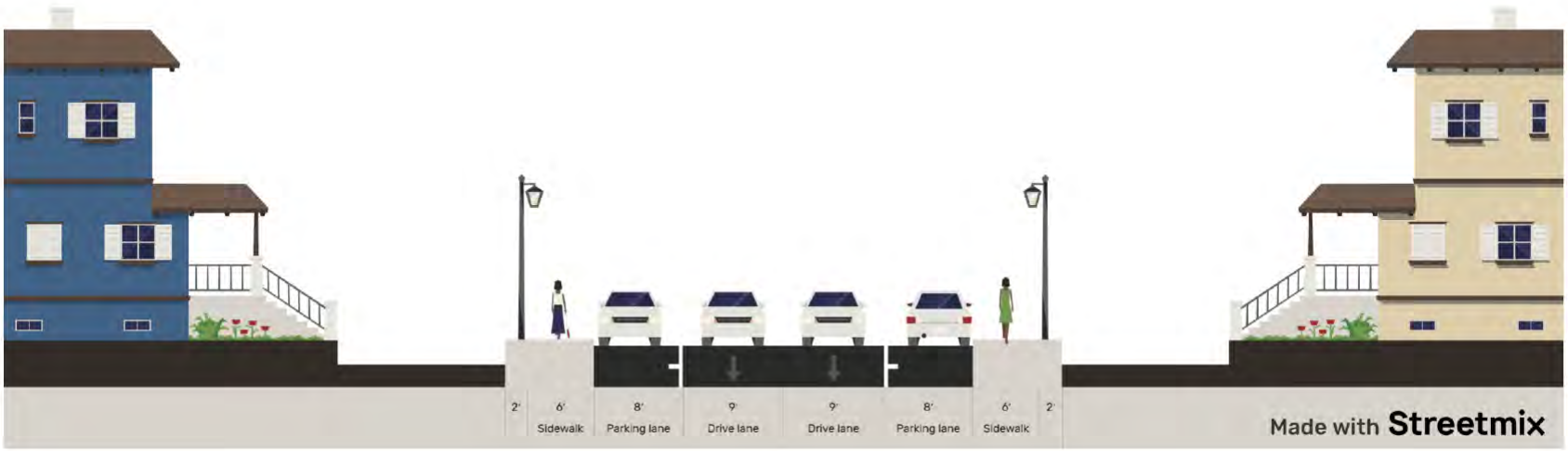


*Figure 5-13: Wilson*

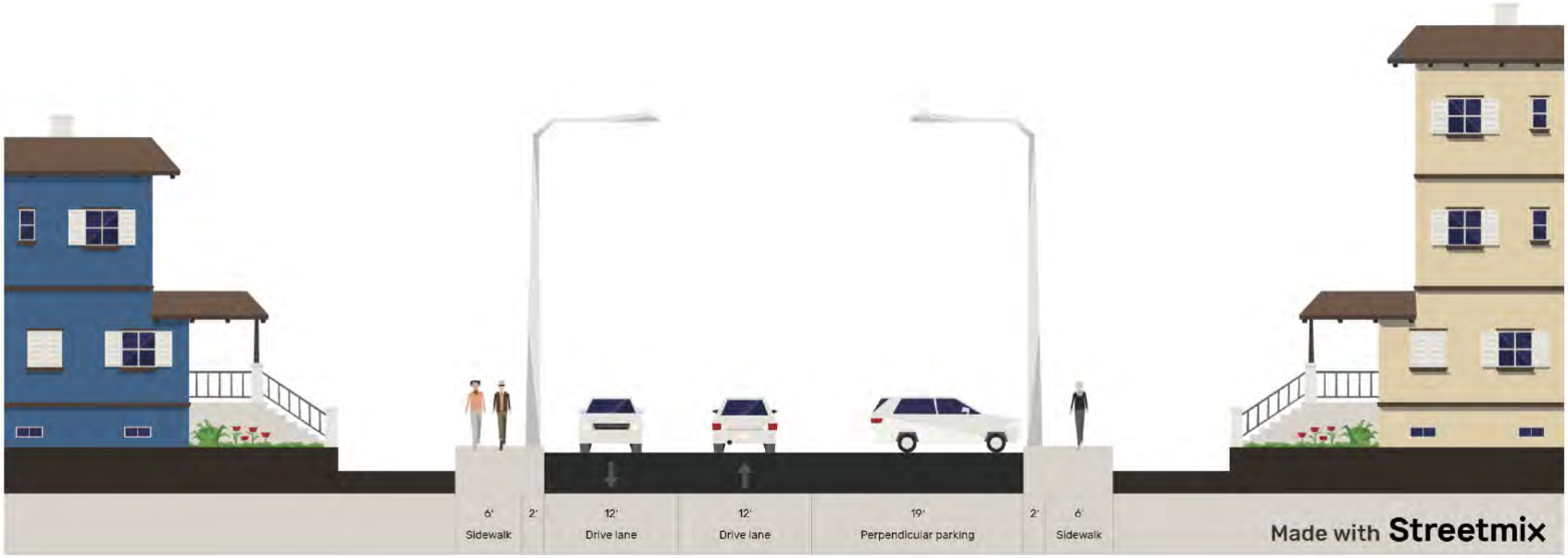



*Figure 5-14: Redwood*

*Figure 5-15: Arnold*

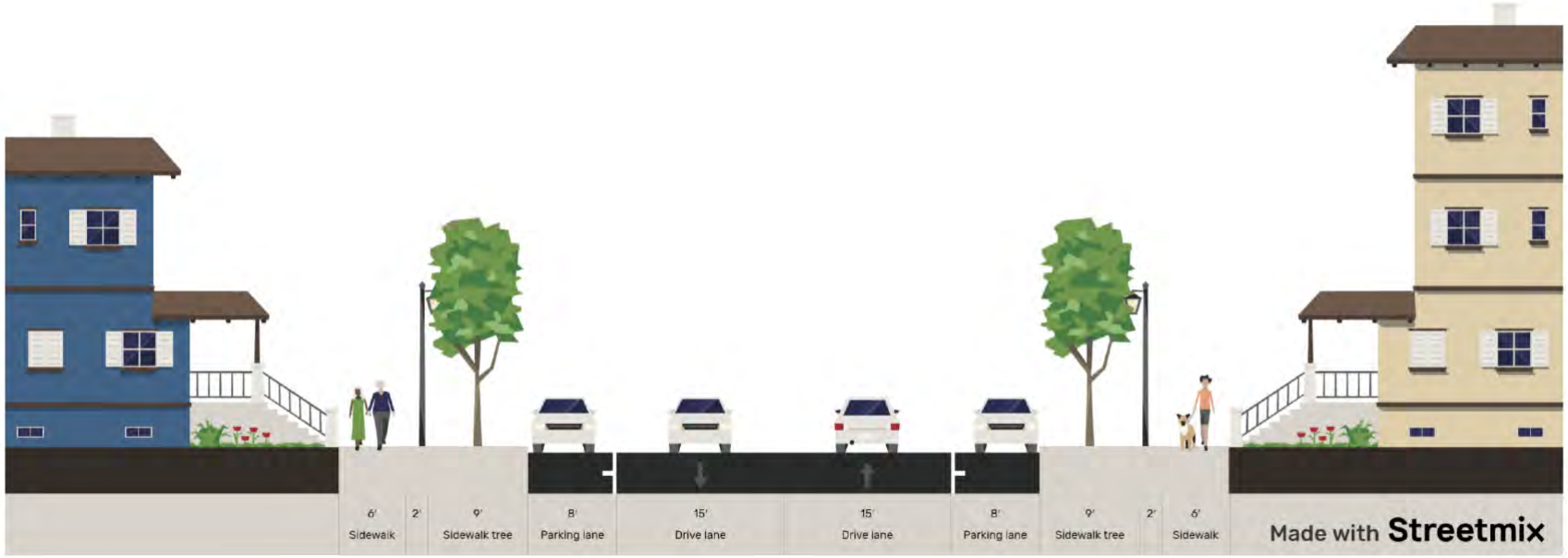



*Figure 5-16: Walnut*

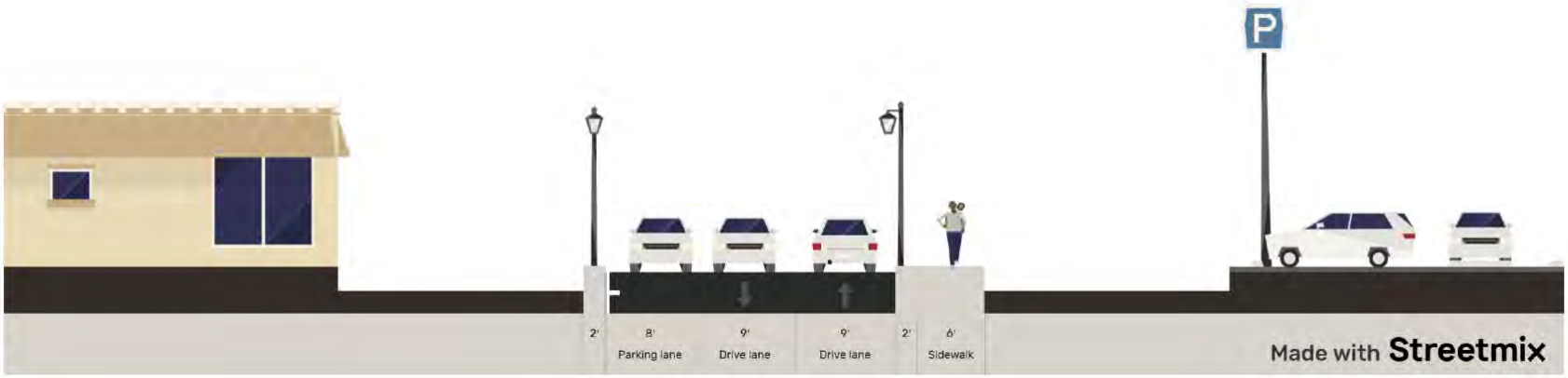


*Figure 5-17: Sonoma*

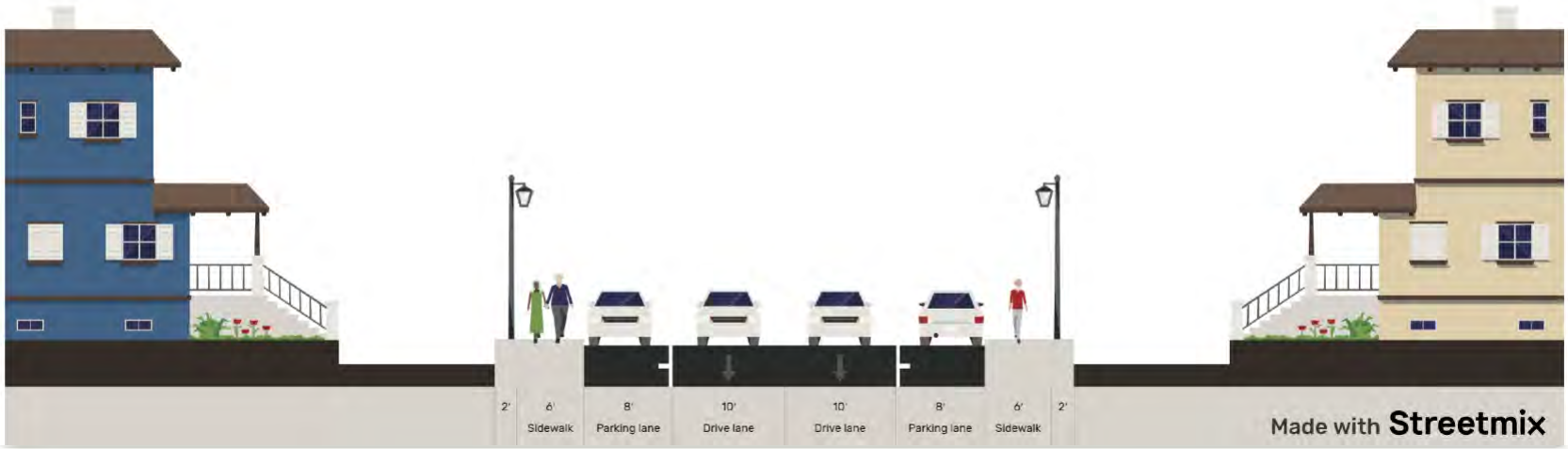



*Figure 5-18: Park*

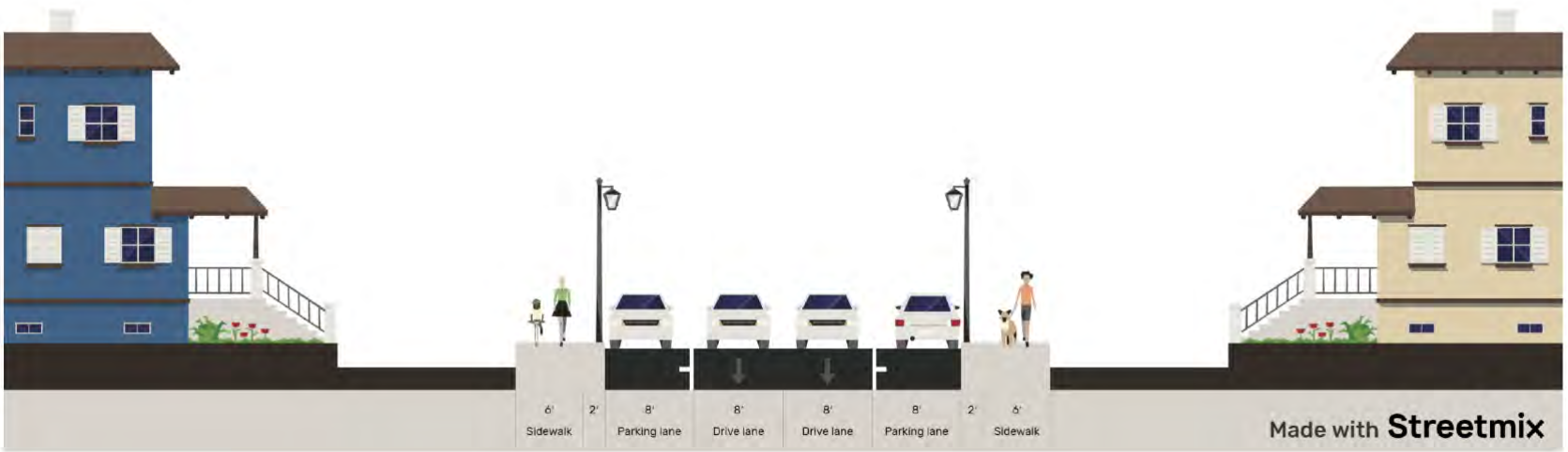
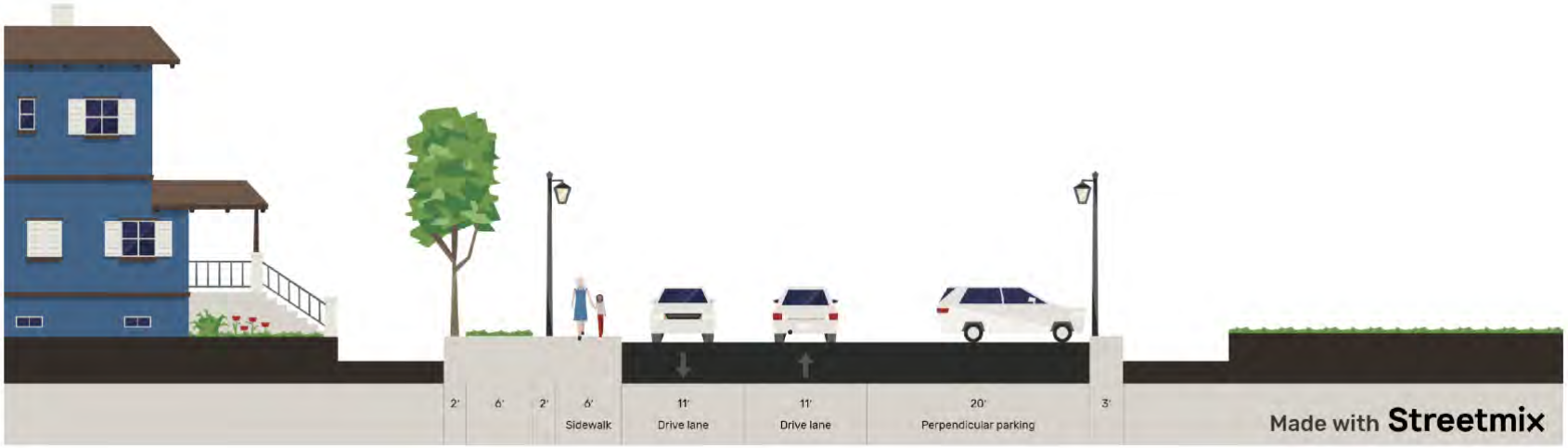
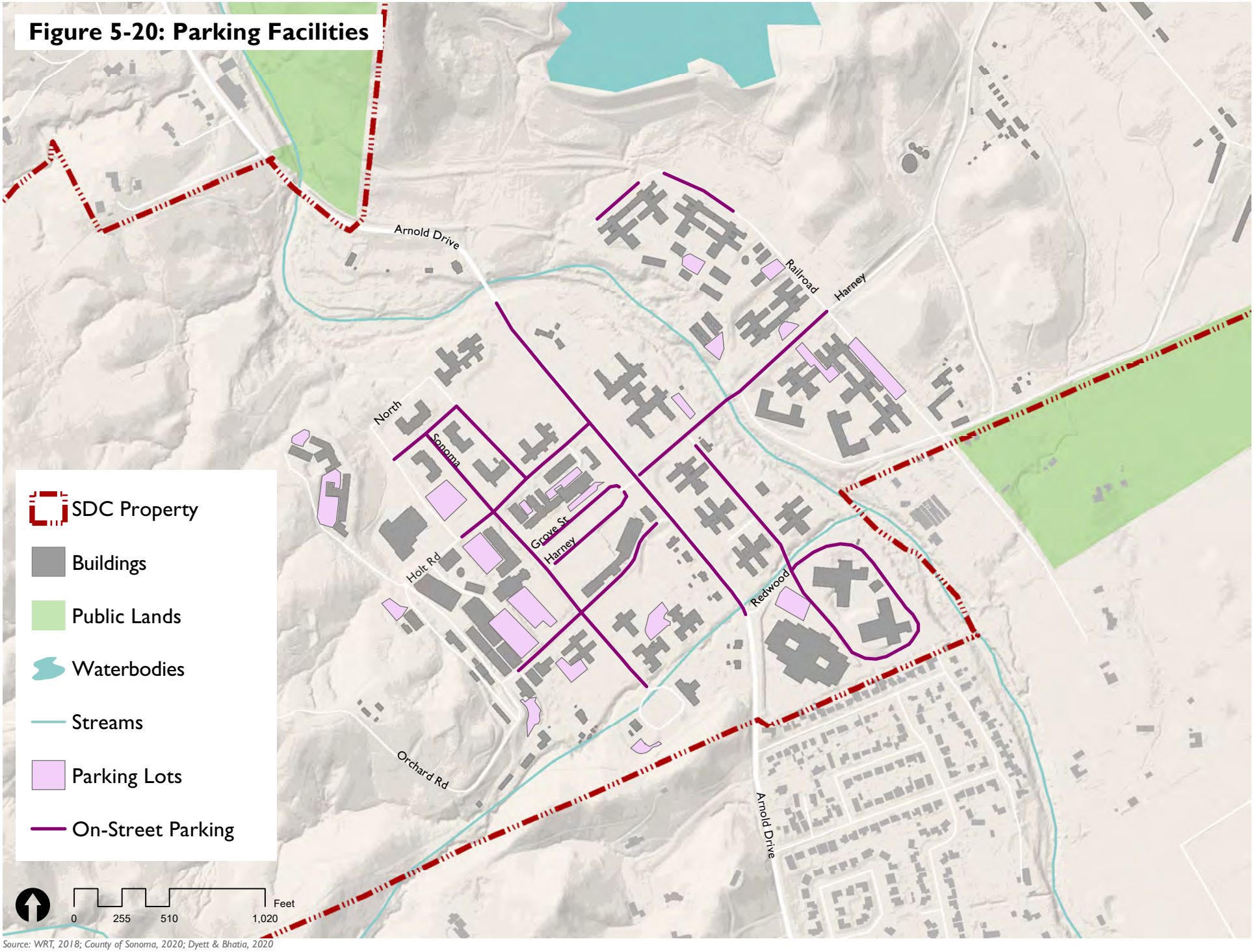


*Figure 5-19: Railroad*



## Figure 5-20: Parking Facilities




*Source: WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020*

## *Table 5-2: Existing Roadway Designs*

| *Roadway* | *Roadway Width* | *Number of Lanes* | *Parking Adjacent* | *Roadway Directionality* |
|---|---|---|---|---|
| 1. Walnut | 25 ft | 2 | No | Two-Way |
| 2. Sonoma | 35 ft | 2 | Yes | Two-Way |
| 3. Park | 50 ft | 2 | Yes | Two-Way |
| 4. Arnold Dr | 45 ft | 2 | Yes | Two-Way |
| 5. Railroad | 25 ft | 2 | Yes | Two-Way |
| 6. Holt Rd | 30 ft | 2 | Yes | Two-Way |
| 7. Harney* | 30 ft | 2 | Yes | Two-Way |
| 8. Wilson* | 35 ft | 2 | Yes | Two-Way |
| 9. Redwood* | 30 ft | 2 | Yes | One-Way |

Notes:

* = Roadway widths, number of lanes, precedence of adjacent parking spaces, and travel directionality may vary.

*W-Trans, 2020*

## 5.9 Key Issues and Planning Implications

- **Available transportation capacity has the potential to be adequate.** Transportation activity within the core of the SDC campus is at a fraction of previous levels. Since the closure of the campus as a full-fledged medical institution, transportation demand has diminished greatly. As a result, the typical thresholds of delay and Level of Service are not currently exceeded, with the exception of the intersection of State Route 116/State Route 121-Bonneau Road. While proposed land uses and densities are yet to be determined for the site, a certain increase in vehicle trips and overall transportation demand generated by the campus would be expected to be accommodated by the underutilized roadway capacity.

- **Pedestrian facilities are generally present on the campus**, given the on-site patient focus of the SDC, with sidewalks along both sides of the street along a majority of the streets. Accessible spaces are present, as well as curb ramps, cross walks, pedestrian-scale lighting and wheelchair ramps. Pedestrian facilities could be enhanced by adding bulb-outs and closing sidewalk gaps. Pedestrian connectivity to the surrounding communities, however, could be improved through extension of on-site facilities.

- **Bicycle infrastructure within the SDC area is virtually non-existent.** There are roadways programmed for bicycle improvements that would connect the SDC core area to several adjacent communities. Both Arnold Drive and Highway 12 appear to include sufficient width for bicycle lanes. Further, no bicycle storage was found to be present on the SDC campus.

- **Transit access to the campus is presently limited.** Currently, only one bus route (Route 30) serves the SDC area with infrequent headways due to reduced service implemented during the COVID-19 pandemic. Under typical conditions, SCT serves the SDC area with two more routes (Route 34 and 38), and these could be restored to service following the pandemic, providing more frequent service and coverage area.

- **Emergency access.** In recent years, several fires have plagued communities within Sonoma County, including the SDC area. It is essential that emergency access be maintained along roadways to and from the SDC area. While there are no planned additional emergency access routes beyond current access via Arnold Drive, future planning should consider adequacy of service. Further, roadways within the SDC campus core should be able to provide adequate access for first responders in the event of an emergency.

# Utility Infrastructure Assessment

*Chapter Six*

## 6.1 Summary Of Previous Evaluations And Overview Of New Or Revised Work

The following assessment is based on the following documents, with no new information:

- Sonoma Developmental Center Existing Conditions Report Hydrology and Site Infrastructure Draft - Sherwood Design Engineers (January 8, 2018)
- Historical Resources Inventory and Evaluation Report (PRC § 5024 AND § 5024.5 Compliance Report) Sonoma Developmental Center - JRP Historical Consulting, LLC

The previous reports gathered information from a variety of sources to summarize the history and existing conditions of the site drainage, creek capacity, and flood elevations; water treatment, storage, and distribution; groundwater availability. Some of these sources include USGS maps, National Weather Service rainfall data, and the Sonoma Valley Groundwater Management Plan.

The information contained herein gathers and summarizes relevant information from the previous reports and summarizes it in a concise organized manner. A variety of possibilities exist for the redevelopment of the SDC, each with limitations beyond the site utility infrastructure. Considerations for infrastructure should be considered on a case by case basis (depending on preferred redevelopment plan), based on the information in this report and the reports mentioned above, including the sources referenced in those reports. With no preferred option presented at this time, no conclusions or recommendations are presented.

## 6.2 Water Supply

### Water System Existing Conditions

The historical Sonoma Developmental Center (SDC) water distribution systems is a complex, self-sustaining system consisting of lakes (1,040 acre/feet), natural springs, wells, a raw water and potable water distribution system, a 1.8-MGD Water Treatment Plant (WTP), and 1.3 million gallon reservoirs that have the capacity to provide drinking water, irrigation and fire suppression to a resident

population in the neighborhood of 6,600 people. Though operation and maintenance of all water treatment facilities have not been active since late 2019, the system requires an operation and maintenance staff of at least three for daily operations similar to a local jurisdiction. While the lakes provide an abundance of natural water, and the WTP is in relatively good condition, the water distribution systems (piping) are described as "beyond useful life" and "obsolete" by previous studies. The existing system provided drinking water, irrigation, and fire protection for the area.

In the event that the on-site system is unavailable (maintenance, upgrades, repairs), SDC has an agreement with Sonoma Valley County Water Agency (SVCWA) to provide water from a six-inch turnout in the Sonoma County Water Agency (SCWA) Aquaduct. As of 2018, this connection was not functioning. Status of the turnout and service to the site should be confirmed with SCWA. Minor upgrades, repair and pipe size increases could make this a permanent solution with an updated agreement.

## Raw Water Collection & Storage

Below is a summary of collection and storage of raw water (collected rain water and groundwater).

### *Fern Lake:*

- Elevation: 590 feet
- Capacity: 240 AF
- Supply: The lake is filled by Ashbury (North) & Hill (South) creeks.
- Dam has slow leak (5 gpm).
- Capacity increase not studied, but unlikely.

### *Suttonfield Lake:*

- Elevation: 291 feet
- Capacity: 600 AF
- Supply: The lake is filled by water pumped from Sonoma Creek during the winter flows and "small, unnamed creek."
- Capacity increase not studied, but unlikely

### *Roulette Springs:*

- Piped directly to WTP

### *Four Wells:*

- Prior to 2019, Camp Via was the only active well. All wells are now inactive.
- The Camp Via well serves only Camp Via.

## Raw and Domestic Water Distribution Systems

SDC water system consists of an aging 10-inch raw (untreated) water line, three 8-inch domestic (potable, irrigation and fire) water lines and two pump stations that move water between lakes, creeks, Roulette Springs and the WTP. The buried water lines are beyond their useful life and should not be considered for reuse in planning future developments.

Below is a summary of raw and domestic water distribution systems.

### *Raw Water Pump Station:*

- Five pumps located in pump station.
- Pumps water from Suttonfield Lake to Fern Lake
- Pumps water from Sonoma Creek to Suttonfield Lake
- Pumps water from Suttonfield Lake and Sonoma Creek to the Water Treatment Plant

### *Minor Pump Station:*

- Transfers water from the 25,000 gallon Break Tank below the WTP to Fern Lake.

### *Raw Water Distribution:*

- 10-inch Water line (mostly Ductile Iron with some PVC).
- Interconnects Suttonfield/Fern/Sonoma Creek and the WTP.
- Conveys water by gravity from Fern Lake to the Pressure Break Tank adjacent to the WTP
- 10 to 15 years left.

### *Domestic Water Distribution:*

- Provides water for domestic, irrigation and fire protection.
- Three 8-inch Water lines
- End of useful life.

- A portion of the 8-inch line was replaced with 12-inch water line in 1989 for fire protection flows (connecting near the intersection of Manzanita and Holt Roads and is presumed to be in good condition).

### *Water Treatment Plant (Elevation 434 feet):*

In the past, SDC was self-sufficient from a water standpoint. It used natural sources of water, like lakes, streams and groundwater for its water supply, similar to larger water agencies. This water was treated on site by a 1.8-MGD treatment plant that has existed (through upgrades and maintenance) since the 1930s. The WTP required a staff (minimum of three, and likely more to support any redevelopment) for operation and was licensed as a small community water system regulated by the State Water Resources Control Board Division of Drinking Water. As of late 2019, due to staffing issues, the existing technology and design, and challenges with meeting the state regulatory requirements, the plant is no longer operated or maintained. Funding for staffing and maintenance would be required to operate the plant again in the future.

- Built in 1930s, updated in 1950s and 1995 System Control and Data Acquisition (SCADA) system and maintained until 2019. It consists of Intake and Pre-Treatment Systems, Flocculation Tank, Sedimentation, Filtration, Backwash System, Chemical and Control Systems.
- Minimum operating capacity: 0.2 MGD
- Maximum operating capacity: 1.8 MGD

## Domestic Storage Reservoirs and Tanks

### *Domestic Storage Reservoirs*

Treated water (domestic) from two domestic tanks (0.3-MG original treatment plant, 1-MG tank added in 1995 with SCADA system. The SCADA system and computer are dated (over 25 years old. It isn't likely to function properly with newer systems), but the SCADA system is regularly serviced, as mentioned above, and is primarily used for its alarm function) at approximately 400 feet.

### *Pressure Break Tank*

A Pressure Break Tank is more of a functional tank than a storage reservoir. It is a partially buried, 25,000-gallon, covered concrete tank that is necessary to relieve the pressure in the system before transmission to the lower part of the property.

### *Domestic Water Balance Tanks*

Two 300,000-gallon Welded-steel treated water tanks are located near Suttonfield Lake (Elevation approximately 370 feet). Like the Pressure Break Tank, these tanks are more functional than storage. These tanks are balance tanks for the gravity-fed potable water distribution system on the main campus. They function not only to store treated water, but also to maintain a constant pressure in the distribution network and to dampen potential fluctuation in the system pressure.

### *Agreement with SVCWA & SCWA*

According to the 2018 Sherwood report, SDC signed an agreement with SCWA in 1964 to supply water to the facility in the event the on-site water system is unable to do so. SDC maintained a 6–inch metered connection to the Sonoma Aqueduct, which runs through the eastern part of the property. The SCWA was able to provide domestic water to the property in the past when the WTP was undergoing upgrades. However, the connection point is fitted with a double check-valve backflow prevention system that SDC staff have identified as having failed. When the valve is opened, water from the SDC flows into the SCWA line (rather than water flowing into the SDC line) because the pressure in the SDC line is greater than in the SCWA line and the backflow preventer doesn't work. Until the backflow preventer is replaced, the only way SCWA can provide emergency water to the SDC is if the SDC system is drained down and valves closed from the balance tanks and the treatment plant. Status of the turnout and backflow system should be verified with SCWA prior to proceeding with redevelopment.

SDC also had an agreement with the Valley of the Moon Water District (VOMWD) to provide water to the VOMWD in times of emergency. The agreement stipulated that any water supplied is a loan and must be repaid in kind. VOMWD maintains a 6–inch metered connection to the SDC treated water line in

Arnold Drive. Transfers into the VOMWD requires a 20-hp portable pump to transfer water at the stipulated maximum rate of 0.5 gpm.

### *Fire Flow*

Existing building configuration, distribution lines, along with a few exceptions meets the 2016 Fire Code. Recent flow testing showed existing flows of 2,182 gallons per minute or higher with 20 residual (per Fire Hydrant Flow tests carried out by JC Chang & Associates). These tests were not available for this report.

With the age, size, material type and configuration of the existing water distribution system, it is likely the existing water distribution system will require significant upgrades or replacement.. Storage would be adequate to support fire flow, but a new water distribution system would be required to support fire flows.

## 6.3 Wastewater

### Sonoma Valley Sewer System Analysis

#### *Overall Summary*

The first common sewer collection and treatment plant system serving the entire Sonoma Development Center property was constructed in the 1920s and 1930s, originally independent of larger sewer districts, with its own waste treatment plant. Underground collection systems were constructed using primarily vitrified clay and cast-iron pipe. The waste treatment plant was abandoned in 1954 and the existing gravity collection system was directed to the Sonoma Valley County Sanitation District (SVCSD) main sewer line via two sewer lift stations.

Without proposed development densities, it cannot be determined if the existing lift stations would be of any benefit if reconstructed along with replacement of existing collection system. Nor is it known if a newly constructed system would have adequate fall to gravity to the SVCSD main line without the use of lift stations. Prior to redevelopment, a more detailed analysis of the redevelopment area, using projected built out population densities and land uses should be completed. Projected flows and gravity flow elevations from the redeveloped area will need to be coordinated through SVCSD to verify available capacity and connection points.

## *Sewer Collection System Description*

The sanitary sewer collection consists of primarily vitrified clay pipe for the sewer mains and cast iron for the laterals. However, the pipe is beyond its useful life and the system has a history of numerous failures and blockages over the years (primarily unabated root intrusion and rust). Repairs on the system have been made as required, normally with PVC replacing damaged pipe sections. Although most of the PVC sections are probably in fairly good condition, because of the patchwork nature of the system, the entire system is considered to be obsolete and in need of replacement.

## *Sewage Lift Stations*

The system operates via gravity flow for all but a small section of the system. The major portion of the site gravity flows to a lift station that pumps the sewage to the SVCSD main line. A smaller portion of the site (southern portion) is collected at a lift station that pumps back to a gravity system that is eventually collected by the larger lift station and pumped to the SVCSD main line. It is unlikely that the current configuration will be adequate to handle significant increases in densities. Redevelopment should be coordinated with SVCSD to determine final disposition of existing lift stations.

The pump stations were either destroyed or sustained structural damage in the 2017 fires and have not been returned to service. The stations would need to be reconstructed if they were going to be used in future developments.

# 6.4 Storm Water Summary

## Existing Topography and Surface Conditions

Sonoma Developmental Center is located in the Sonoma Valley tucked between Sonoma Mountain to the west and the Mayacamas Range to the east. The mountain slopes are mostly undeveloped and wooded with numerous small seepages, springs and creeks. The slopes are moderate, primarily at less than 20% grade. The entire valley drains to Sonoma Creek. Sonoma Creek is large enough to contain the 100-year storm within the limits of the SDC.

The SDC site is a large, substantially undeveloped area that lays across the Sonoma Valley from near Highway 12 to the east, across Sonoma Creek at about 175 ft elevation and well up the slope of the Sonoma Mountains to elevations above 900 ft. The surface breakdown within the core campus is shown in Table 6-1.

## Rainfall Data

SDC receives between 15 and 115 inches, with an average of 47 inches of rain at Fern Lake annually. Higher rainfall levels occur at the higher elevations (the rain gauge at Fern Lake has shown between 15.05 and 116.64 inches of rain during a year). The upper reaches of the watershed receive roughly 40-50% more rainfall than the lower elevations. In the nearby Town of Sonoma, annual rainfall is historically between 11.34 and 63.45 inches, with an average annual rainfall of 29.4 inches.

*Table 6-1: Impervious and Pervious Areas in the Core Campus of the SDC Site*

| *Area Description* | *Impervious Area* | *Pervious Area* | *Percent of Site* |
|---|---|---|---|
| Pervious Area (Landscaped or Natural Vegetation | | 48 Acres | 26% |
| Building Footprint | 26 Acres | | 14% |
| Paved Roads | 84 Acres | | 46% |
| Other Impervious Surfaces (parking/service/ other areas) | 25 Acres | | 14% |
| Total Impervious Area | 135 Acres | | 74% |

## Groundwater Management

In recent years the Sonoma Valley has been experiencing declining groundwater levels. In 2007, Sonoma Valley Water Agency (SVWA) developed a Groundwater Management Plan (GMP) for the Sonoma Valley groundwater basin. This plan developed a set of Basin Management Objectives (BMO) to preserve, protect and manage groundwater resources in the region. Among these BMOs is one to identify, protect and enhance the recharge of groundwater where appropriate.

The following ten BMOs provide the foundation for the Plan:

- Maintain groundwater elevations for the support of beneficial uses of groundwater and to protect against inelastic land subsidence;
- Improve water use efficiency and conservation;
- Identify and protect groundwater recharge areas and enhance the recharge of groundwater where appropriate;
- Manage groundwater in conjunction with other water sources;

- Protect groundwater quality for beneficial uses including minimizing saline intrusion;
- Protect against adverse interactions between groundwater and surface water flows;
- Improve the community's awareness of ground-water planning, water resources, and legal issues;
- Improve the groundwater database and basin understanding through consistent monitoring and additional surveys, and improve basin analytical tools including the groundwater simulation model;
- Manage groundwater with local control; and
- Explore, identify and maximize non-regulatory approaches to manage the groundwater resource.

There are several opportunities to enhance groundwater recharge on this property.

## Stormwater Low Impact Development (LID)

As previously stated, the entire valley drains to Sonoma Creek (see Section 6.4.A for more information on drainage). At a minimum, by order No. R2-2015-0049 (NPDES Permit No CAS612008) new development at the SDC will need to meet current stormwater regulations required by the State Water Resources Control Board (specifically Region 2 – San Francisco Bay Region). This order primarily focuses on water quality and hydromodification for the development. Given the campus context, stormwater management at the SDC should be considered at two complementary scales:

- Future phased redevelopment efforts would most likely be focused on the specific development sites; and
- The overall campus scale.

The following LID best practices should be followed for future development:

- Assess the site's topography, soils, vegetation and natural drainage for integration of LID techniques to minimize the future development footprint;
- Assess native vegetation and soils for placement of LID facilities;
- Assess primary Best Management Practice (BMP) function: water quantity, quality, infiltration, and

conveyance to meet Regional Water Quality Control Board (RWQCB) and county requirements;

- Minimize and manage stormwater at the source to promote treatment and infiltration;
- Minimize areas of impervious surfaces such as parking lots, driveways, courtyards and roof tops, using permeable pavements and green roofs to maximize evapotranspiration and allow infiltration of precipitation into the soils;
- Manage runoff by disconnecting the impervious surfaces from one another, and directing runoff to LID features such as vegetated swales, planters, rain gardens and pervious pavement;
- Preserve existing trees and plant new trees in coordination with development;
- Avoid compaction of soils in areas of the site that will not have structure;
- Minimize surface parking areas through the use of structured parking; and
- Provide micro-detention in landscape areas (self-retaining areas).

There are many opportunities around the site to add additional water quality features that exceed the minimum state requirements. While LID features can take up significant space, add additional drainage infrastructure and annual maintenance costs, and conflict with or restrict landscape design, they could contribute to higher water quality at the SDC site.

## 6.5 Other Utilities

Following is a discussion of utility infrastructure provided by franchise providers, including telephone, cable, and gas and electric services.

Telephone service in the Sonoma Valley is provided by AT&T, which has an extensive network of underground and overhead facilities in the area. Where required, off-site improvements will be performed by AT&T. Cable service in the Sonoma Valley is provided by City contract with Comcast. Comcast has a network of underground and overhead facilities serving most areas of the Sonoma Valley. Sonic has recently began infrastructure upgrades in Sonoma County and may be a likely competitor for Cable and Phone service. If off-site

improvements are necessary, the developer will be responsible for trenching to the closest cable facility.

Gas and electric services in Sonoma Valley are provided by PG&E, which has an extensive network of underground and overhead facilities located on or adjacent to all parcels in the Plan Area. Individual developments will be responsible for upgrades which solely benefit that development, while upgrades to common facilities with multiple customers would be implemented by PG&E. Sonoma Clean Power (SCP) is a new company that could also be considered for electric services, using PG&E infrastructure.

A project on a large scale such as this should consider early conversations with utility providers to get more detailed information on availability in the area, as well as cost, timing and requirements for service.

## 6.6 Key Issues and Planning Implications

The site and its facilities should be assessed for historical significance when considering future development. After a review of the condition of the sewer, water and storm drain facilities, it is likely that 90% of the existing facilities will need to be replaced and/or reconstructed. However, some of the existing infrastructure that could remain would need operational support (staff) and on-going capital improvements to continue to function as it does today.

### Water

The site has an abundance of natural water supply. However, in order for it to be used on-site for domestic/irrigation/fire, the treatment plant and storage tanks would need to be updgraded or replaced, as well as maintained, to meet current standards. The 10-inch transfer line and 8-inch domestic lines will need to be replaced and upsized to support fire flow. Water infrastructure is primarily located outside of the Core Campus, so operations and ownership of the assets will be critical to consider going forward.

### Sewer

The sewer system needs to be analyzed for flow and a new system designed. Once the analysis is

completed, a new agreement with projected flows from redevelopment will need to be made with SVCSD.

## Storm Drain

The storm drain system, outside of the natural channels will need to be replaced. From a planning standpoint, storm water treatment will need to be incorporated to the overall site level as well as the smaller, individual developments and improvements.

## Utility Infrastructure

A variety of utility services are available to provide phone, cable, gas and electric service. Early conversations with service providers regarding services, installation, maintenance and costs, as well as easement agreements should be had once redevelopment options are presented.

# Natural Areas and Open Space

*Chapter Seven*

# 7.1 Summary of Prior Work

Previous discussions of natural ecosystems and open space at the SDC site are found in two reports: Draft Resource Assessment (Prunuske Chatham 2015) and Sonoma Development Center Existing Conditions Assessment (Wallace Roberts & Todd (WRT) 2018). Information from these reports has been utilized in the summary below. Additional references may be found at the end of this section.

## Ecosystem Approach

The ecosystem concept has been one of the most resilient and useful concepts in the field of ecology (MEA 2005).[1] In general terms, an "ecosystem" can be considered an interconnected community of living things, including humans, and the physical environment in which they interact. More technically, the Millennium Ecosystem Assessment Project (MEA 2005) and Convention on Biodiversity (COB 2000)[2] have defined "ecosystem" as "…a dynamic complex of plant, animal, and microorganism communities and the nonliving environment interacting as a functional unit" that can vary enormously in size from a small vernal pool to the Sierra Nevada Mountains, with humans being integral parts of most ecosystems. In contrast, "ecosystem services" are

> …the benefits that people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as regulation of floods, drought, land degradation, and disease; supporting services such as soil formation and nutrient cycling; and cultural services such as recreational, spiritual, religious and other nonmaterial benefits.

(MEA 2005). The concept of an ecosystem then provides a framework for making decisions that reorients the traditional boundaries (e.g. political, disciplinary (wildlife management, forestry, geographic, etc.) for making resource management decisions that consider the entire system and not just some of the component parts. This ecosystem-based

1. MEA. 2005. Ecosystems and Human Well-being: A framework for assessment. Millenium Ecosystem Project. Island Press. 217 pp.

2. COB. 2000. The Ecosystem Approach. Decsion V/6, Nairobi 15-6 May 2000. UNEP/CBD/COP/5/23. Decisions adopted by the conference of the parties to the Convention on Biological Diversity. http://www.cbd.int/convention/cop-5-dec.shtml?m=COP-05&id=7148&lg=0

decision-making framework is called the "ecosystem approach" and is defined as:

> …a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way…[that] is based on the application of appropriate scientific methodologies focused on levels of biological organization, which encompass the essential structure, processes, functions, and interactions among organisms and their environment…Humans, with their cultural diversity, are an integral component of many ecosystems.

Although landscape ecology, conservation biology and restoration ecology have produced a large body of literature, much of this ecological knowledge never gets translated to on-the-ground management decisions (Lindenmayer et al. 2007; Dale et al. 2000).[3] [4] Recent efforts to place the concepts, principles and results from these disciplines into a practical decision-making framework have identified several broad themes that should be considered. The Convention on Biodiversity (COB 2000) proposed operational guidance for implementing an ecosystem approach. First, focus on the *system drivers and functional relationships and processes* with ecosystems (the movement of water, energy, and nutrients as mediated by the living biota) but recognize that ecosystem management *may need to be carried out with insufficient or incomplete understanding of these processes*. Second, maintain and restore the benefits humans derive from the ecosystems in which they live. Third, because of their complexity and variability, ecosystem management must involve a learning process. Management programs should be flexible and designed to adjust to the unexpected. Fourth, management actions should be undertaken at the scale appropriate for the issue being addressed with decentralization to and empowerment of the relevant stakeholders to assume responsibility and take action for the decision. Lindenmayer et al. (2007, p. 8) provide a non-prescriptive "...checklist factors to be considered by people managing landscapes for conservation...[which can be] formulated as a set of hypotheses more specific to a

3 Lidenmayer, D., et al. 2007. A checklist for ecological management of landscapes for conservation. Ecology Letters 10:1-14.

4 Dale, V.H. et al. 2000. Ecological principles and guidelines for managing the use of land. Ecological Applications. 10: 639-670.

particular set of circumstances" (Lindenmayer et al. 2007, pgs. 9-11):

1. *Identify disproportionately important species, processes and landscape elements.* "Some landscape elements may be disproportionately important because of their provision of key resources...or for their spatial context in enhancing connectivity and gene flow. Researchers need to develop approaches to better identify key landscape elements and species and assist with their proactive management."

2. *Integrate aquatic and terrestrial environments.* "Terrestrial and aquatic elements of landscapes are closely interlinked, although management practices and institutional arrangements rarely reflect this interconnectedness...Catchment or watershed-level management will usually be essential to better integrate the conservation of aquatic and terrestrial environments."

3. *Maintain the capability of the landscapes to recover from disturbance*. "It is important to maintain the potential for a landscape to recover from disturbance. This includes maintaining processes and flows and the ability of biota in a landscape to cope with extreme events (e.g. floods and droughts)....An objective should be to quantify differences between natural and human disturbance regimes and, in turn, to find ways of creating human disturbance regimes more similar (rather than identical) to naturally occurring ones."

4. *Manage for change*. "...conservation often aims at stasis and assumes an equilibrium state for natural systems [even though] landscapes are dynamic and may become more so with future climate variability...Failure to acknowledge the dynamic nature of systems will inevitably result in unexpected change and unachieved conservation goals...[land managers] should plan to accommodate successional dynamics, spatial and temporal mosaics, colonization and processes, and likely shifts associated with climate change. Developing this capacity is complicated by the institutional tendency to ignore potential problems until they become critical, only then instigating crisis management. There is there a need to develop a capacity to embrace preventative management."

5. *Manage in an experimental framework*. "Because of contingency, lack of knowledge of biotic responses and complex system dynamics, there is always significant uncertainty associated with landscape management...It is crucial not to do the same thing everywhere so that we

can limit the risk of making the same mistake everywhere. If we treat the variety of management options as adaptive management experiments, we can continuously improve ecosystem understanding. This involves careful consideration of experimental design and the implementation of monitoring programmes to ensure that the power of the results is maximized."

6. *Manage both species and ecosystems*. Single-species and ecosystem conservation are not competing approaches. Rather, a range of conservation strategies will nearly always be required: some focused on individual species, others on suites of species and yet others on entire landscapes or ecosystems..."

7. *Manage at multiple scales*. "...there is no single or 'right' or 'sufficient' scale for conservation and resource management. A single strategy adopted at a single scale will meet only a limited number of goals....Multiple management scales are needed because there are multiple ecological scales, not only for different ecological processes and different species, but also for the same species..."

## Ecosystem Setting

The SDC property is fully embedded in, connected to, and part of the larger mountain-valley landscapes of eastern Sonoma County, and specifically is part of the Sonoma Valley landscape and ecosystem. The spine of this landscape is Sonoma Creek and its tributaries. Sonoma Creek bisects the SDC property from north to south. The SDC property from its high ground on the east of Sonoma Creek to its high ground to the west of Sonoma Creek represents a relatively structurally intact (in terms of hydrology, soils, vegetation) portion of the Sonoma Valley ecosystem from its lower western sides to its lower eastern sides. The forests, woodlands, grasslands and wetlands that make up the property (discussed below) are fully connected to a larger matrix of natural habitats and protected lands and comprise a linchpin connection of a significant wildlife movement corridor (discussed below).

Considering the SDC property as an ecosystem planning unit by itself, it consists of several identifiable landscape elements:

1. Eastern woodlands and grasslands. A mix of oak woodlands, non-native grasslands, and native grasslands predominates on the eastern side of the property. Portions

of this system have been converted to road, reservoir, and agricultural uses.

2. Large headwater wetland complex in former agricultural area. Parallel to complex of agricultural buildings mostly lost to the 2017 fires, a large headwater wetland (Figure 7-1) persists. Although altered and degraded by past land use activities, this wetland is a prime preservation and restoration opportunity.

3. Shallow water supply impoundments (Fern Lake, Suttonfield Lake). As part of the complex water supply collection system, two small reservoirs (lakes) were constructed, one on the west side and one on the east side of the property. These now function as open water habitats with fringing wetlands.

4. Small embedded slope, depressional, and riverine wetlands. Although not inventoried or mapped on Figure 7-2 , numerous small wetlands are embedded in the forest, woodland and grasslands of the property (Mack, personal observation). The most significant unmapped wetland is the large slope (ground water or seepage) wetland associated with the Roulette Springs located to the northwest of Fern Lake on the west side of the property.

5. Western forests, woodlands and grasslands. The natural areas on the western side of the property represent an even more heterogeneous and ecologically intact mix of multiple forest types (redwood, California bay, madrone, Douglas fir), oak woodlands (blue oak, coast live oak, Oregon oak, valley oak), and predominantly native grasslands.

6. Streams and Riparian Corridors. Three perennial stream systems cross the property: Sonoma Creek bisects the middle of the site from north to south and Asbury and Hill Creeks parallel the north property line and south property line, respectively, of the western side of the property. Extensive riparian woodlands are mapped along Sonoma Creek (Figure 7-2 ) but riparian corridors and forest species also exist along Asbury and Hill Creeks (Mack, personal observation). Large areas of riparian corridor along Sonoma Creek as well as the lower stretches of Hill Creek have been converted by development of the SDC campus.

7. Developed campus and facilities. While the developed campus has largely converted natural habitats to mowed lawns, roads and structures, as a landscape element and ecosystem component, a main feature of the SDC campus is the old-style curb and gutter storm water

conveyance system, which collects and moves storm water as quickly as possible and discharges it directly to Sonoma and Hill Creeks without water quality treatment or volume capture. The campus also encroaches to the top of bank of large areas of Sonoma and Hill Creeks. Given that the entire SDC campus, particularly its reach of Sonoma Creek, is an important corridor for wildlife passage, pulling back to reestablish a riparian corridor represents a significant ecological restoration opportunity.

These landscape elements are discussed in more detail below.

## Ecosystem Stressors and Past Disturbances

Humans have been interacting with and managing the landscapes in California for millennia and the lands associated with SDC property are no exception. However, land use changes and development over the past 100 years has caused or has had the potential to cause negative stresses to ecosystem condition and function and the condition or amount of ecosystem services. These include but are not limited to the following:

1. Changes in natural fire frequency and severity.
2. Changes to natural hydrology of streams and wetlands through unmitigated stormwater discharges, alterations (e.g. diversion, extraction impoundment) to natural base flows or water tables, etc.
3. Conversion of natural habitats by development or agricultural activities including farming, grazing, grading, construction, ditching, channelization, culvert installation, dam construction, road/trail construction, removal of riparian vegetation, etc.
4. Stream bank erosion, stream bed entrenchment, stream-floodplain disconnection, stream channel constriction or hardening, etc.
5. Historical disturbances like large scale timber harvesting.

## Protected Lands Around SDC Property

Many of the lands adjacent to the SDC site have protected status and are not open to the public. Different entities manage these lands, including California Department of Parks and Recreation (State Parks), Sonoma County Regional Parks (Regional Parks), Sonoma County Agricultural Preservation and Open Space District (Ag+OS

District), and several non-profit conservation/land trust organizations. This high connectivity of the SDC lands to surrounding natural habitats, protected lands, and the Sonoma Valley ecosystem is a significant component of the overall ecological importance of SDC property.

On the eastern side of the SDC property, the 237-acre Sonoma Valley Regional Park is adjacent to the property's northeastern border, and is located in between Arnold Drive and Highway 12 (see Figure 6-3). Regional Parks acquired 162-acres of the SDC property to create Sonoma Valley Regional Park in 1979. In 2007, an additional 40 acres of the SDC site were acquired by the District to expand the park and are protected by a District easement. In 2014, the 29-acre Curreri parcel, along the park's northern border, was purchased by Sonoma Land Trust (SLT) and the Ag+OS District. This property is protected with an Ag+OS District conservation easement and is managed by Regional Parks as a part of the Sonoma Valley Regional Park. In addition, Regional Parks owns the 23-acre parcel Bouverie Wildflower Preserve immediately east of the SDC property and Sonoma Valley Regional Park, on the east side of Highway 12, on the southern border of Audubon Canyon Ranch's Bouverie Preserve. Bouverie Preserve is a 535-acre preserve of the Audubon Canyon Ranch, a non-profit environmental conservation and education organization. It is located to the north of the SDC property. To the north of the Bouverie Preserve, the Ag+OS District has a conservation easement on the Glen Oaks Ranch (234 acres), and the SLT holds conservation easements for several other large tracts: Secret Pasture (300 acres), Oak Hill Farm (677 acres) and Old Hill Ranch (37 acres).

On the western side of the SDC property, Jack London State Historic Park is adjacent to the site, and is approximately 1,500 acres (Figure 6-1). It extends nearly to the top of Sonoma Mountain, and contains the headwaters of Asbury and Hill Creeks, which are two tributaries of Sonoma Creek with watersheds that drain the SDC property east of Arnold Drive. Winter flow from these streams is diverted into Fern Lake via two aqueducts. The Ag+OS District also maintains conservation easements on multiple privately-owned properties in the vicinity of Sonoma Mountain, including the McCrea (282 acres), Frieberg (203 acres), and the Eliot and Lupine Hill (71 acres) parcels immediately south of Jack London State Historic Park.

## Ecosystem Services

As discussed above, the benefits that people obtain from ecosystems include "provisioning" services (e.g. food, water), "regulating" services (regulation of flood, drought, land degradation, and carbon sequestration), "supporting" services (e.g. supporting biodiversity, soil formation, nutrient cycling), and "cultural" services (e.g. recreational, spiritual, religious, and other nonmaterial benefits).

The SDC property and adjacent lands provide and have provided ecosystem services related to all of these categories. Cultural services have been especially emphasized in public comments including: enjoying aesthetic resources; opportunities for restoring mental and physical health from activities such as walking and hiking; appreciation of gardens and contemplative spaces; and opportunities for environmental education.

The outdoor environments of the SDC Core Campus and undeveloped lands provide various recreation opportunities that positively affect the social, mental, and physical health of the residents and employees as well as nearby community residents.

These benefits have been documented from a survey of family members of SDC residents (Ehret, personal communication, 2020). Survey respondents commented on how extremely important they felt the outdoor experience was for their loved one's health and quality of life. The majority of respondents also stated that spending time walking or sitting outside was a very important part of their visit to the campus. Parents of nonverbal residents of the SDC described positive change in their family members during these outdoor experiences, such as a more relaxed and peaceful demeanor resulting in improved behavior. SDC resident parents also identified various sensory experiences (earth under foot, air on face) that enhanced their family members' experiences and quality of life at the SDC. In addition to these benefits, opportunities for environmental education opportunities on the SDC property could provide significant enrichment opportunities and long-term positive impacts on how people understand and care for their landscape and its resources.

## Recreation and Public Access Elements

### *Trails and Access Roads*

Many of the roads on the SDC property historically served as trails used as recreation and therapy for SDC clients. Over time, informal recreational use of these unfacilitated trails

has grown in popularity, and they are now actively used by hikers, dog walkers, equestrians, and mountain bikers, accessed from local public roads and from trails in adjacent state and regional parks. Figure 7-1 shows the distribution of the informal trails and unpaved roads within the Core Campus area and on the adjacent undeveloped properties. The Sonoma Valley Regional Park is a 237-acre park with a paved trail running the length of the park, in an east-west direction between Highway 12 and Arnold Drive. Several unpaved trails lead from this main trail onto the SDC property.

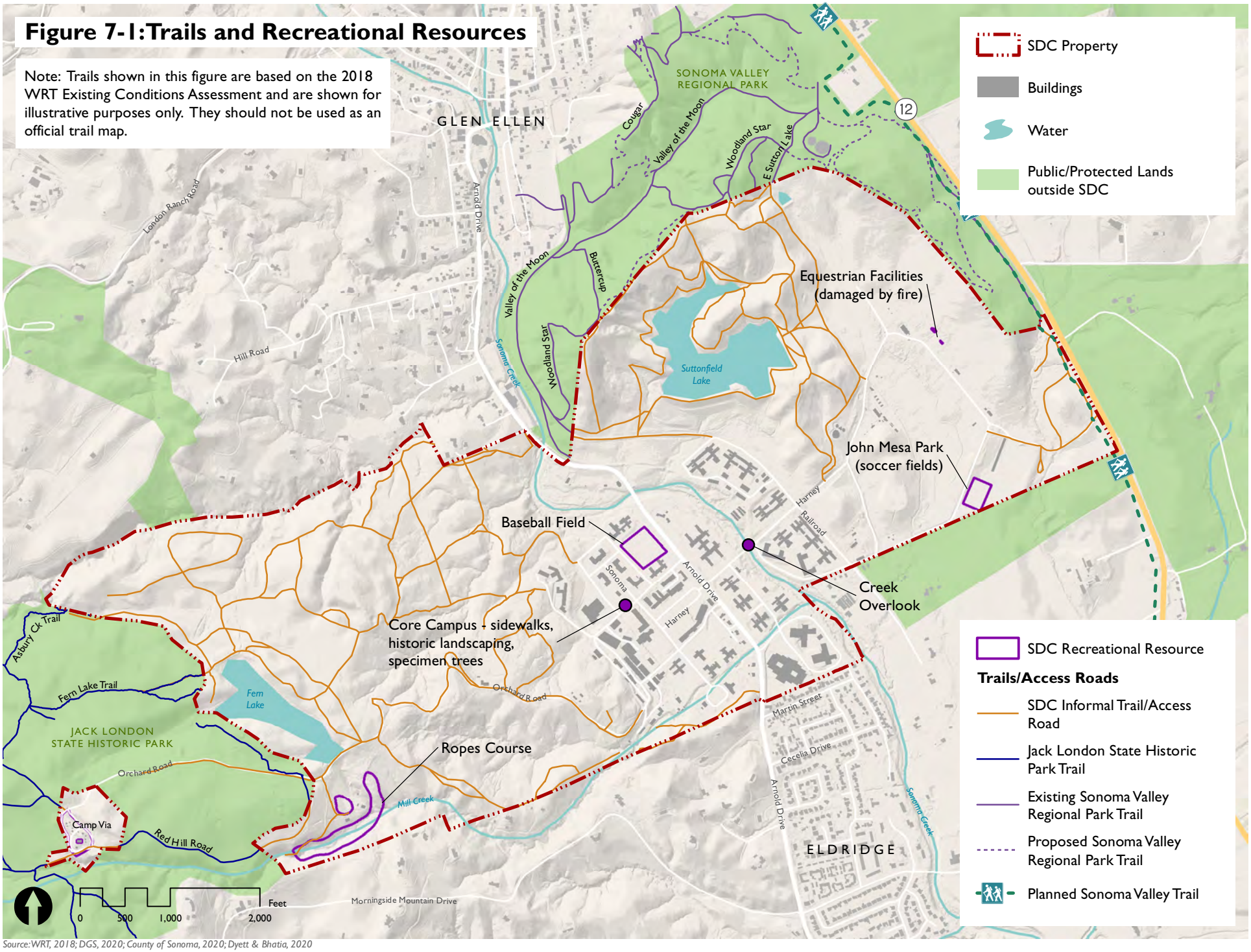
Sidewalks and pathways throughout the property also offer pleasant walkways, with many mature, attractive shade trees and buildings of historical and architectural interest to view.[5]

When both trails and access roads (which are used as trails) are considered, there are approximately 15.7 miles of dirt roads and trails on the approximately 758 acres of undeveloped land on site, or approximately 0.21 miles of trail for each acre. There are 9.3 miles west of Arnold Drive and 6.4 miles east of Arnold Drive. The network includes several routes that duplicate other internal routes or those on immediately adjacent parklands. Jack London State Historic Park connects to the greater network of trails and the historic features in that park, and beyond to the newly opened trails traversing the north and east slopes of Sonoma Mountain.

5. Prunuske Chatham, Inc. 2015. Sonoma Developmental Center Draft Resource Assessment. Available online at: https://sonomalandtrust.org/wp-content/uploads/2019/01/Attachment-B-Draft-SDC-Resources-Assessment-with-all-Exhibits.pdf; Accessed May 2020

# Figure 7-1: Trails and Recreational Resources

Note: Trails shown in this figure are based on the 2018 WRT Existing Conditions Assessment and are shown for illustrative purposes only. They should not be used as an official trail map.




Source: WRT, 2018; DGS, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

Directly east of Arnold Drive and north of the core SDC campus, an unpaved access road leads up a short rise to Lake Suttonfield. From there, the trail contours around Lake Suttonfield, offering sweeping views down the valley. There are approximately six trails that run between the SDC property and the adjacent Sonoma Valley Regional Park.

### *Other Recreational Resources*

Other recreational resources on and around the SDC property include scenic lakes and creeks, including Lake Suttonfield and Fern Lake, as well as athletic fields, the Camp Via campgrounds, a privately operated ropes challenge course, a picnic area, a nearby dog park in Sonoma Valley Regional Park, and amenities in some of the campus buildings. For more discussion about recreational resources, please see Chapter 3.

## Terrestrial and Aquatic Habitats

A summary of terrestrial and aquatic habitats based on existing map-based resources is presented below. Mapping of plant community types should be considered approximate and generally only accurate to the Alliance level. Most plant community Alliances mapped for the SDC property have some or all of their subsidiary plant community Associations considered "sensitive" by CDFW. Similarly, wetland resources have not been thoroughly inventoried, especially small (less than one acre) systems embedded in the predominately terrestrial matrix of the property. A quantitative survey and assessment of the extent and condition of terrestrial and aquatic habitats should be considered an important data gap in developing an integrated approach to natural resource management on the SDC property.

### *Streams*

Sonoma Creek, a perennial stream that courses 0.8 miles onsite, runs approximately north to south through the center of the SDC property. Two additional perennial streams, both tributaries to Sonoma Creek are present. Asbury Creek and its contributing tributaries are located on the northwest part of the property; Asbury Creek flows east until it meets Sonoma Creek, just east of Arnold Drive. Hill Creek and its contributing tributaries are generally located in the southwest portion of the SDC property; Hill Creek flows east until it meets Sonoma Creek, also east of Arnold Drive. An intermittent named stream, Butler Canyon Creek, is located on the eastern side of the SDC property. Several other ephemeral and intermittent streams are located on the property (Figure 7-2).

Sonoma Creek is a known salmonid stream and both Asbury and Hill Creeks were known to contain salmonids historically. All three of these creeks should be considered high quality and sensitive aquatic resources. Major encroachment of buildings, roads and old-style stormwater infrastructure has occurred along Sonoma Creek and the lower reaches of Hill Creek. Judiciously pulling back from top of bank and restoring riparian corridor, as well as redeveloping a modern, green-infrastructure-based storm water management system should be considered major opportunities in any redevelopment of the existing built campus area.

### *Reservoirs*

Intermittent streams have been dammed to form Fern Lake, located on the west side of property, and Lake Suttonfield, on the east side of property. Aqueducts divert winter flows from Hill Creek and Asbury Creek into Fern Lake. The active diversion period is October 1 through May 1 and 1 CFS can be diverted from Asbury Creek provided that at least 0.9 CFS remains in Asbury. Lake Suttonfield is filled via diversion from Sonoma Creek.

### *Ponds*

Two small perennial ponds are located on the SDC property (Figure 6-1). One is located on the eastern side of the property and is about 0.3 acres and is upslope of a large wet meadow. The other pond is less than 0.1 acre, located along Orchard Road.

### *Wells*

Groundwater is commonly used in the region, but the SDC property's water is supplied primarily through surface water, with the exception of Roulette Springs (see below). Three low output groundwater wells are present on the SDC site.

### *Springs and Seeps*

Springs and seeps are abundant along the western ridge near the property boundary. These areas of ground water expression are also typically associated with seepage (slope) wetlands. In particular Roulette Springs is a large, high quality slope wetland complex with an extensive ground water collection system fitted into it. The SDC site has

unrestricted water rights to Roullette Springs and water is collected and diverted through a springbox/ gravity pipe.[6]

## Wetlands

With the exception of the large headwater wetland on eastern side of the SDC property (Figure 7-2), wetlands on the SDC property have not been systematically mapped. The Roulette Springs is a large, slope (ground water driven) wetland located between Fern Lake and Asbury Creek, that also has an extensive ground water collection system fitted into it

Smaller wetlands are found at spring and seep locations as well as in depressions, swales, and along stream drainages embedded in the forest, woodland and grassland terrestrial matrix of the property. There are also some fringing wetlands located on the margins of the ponds and reservoirs. About 35 acres of wetland have been mapped on the SDC property. Wetlands are considered sensitive natural communities by CDFW.

## Riparian Forests

The SDC site has about 25 acres presently mapped riparian forest, primarily along Sonoma Creek. Unmapped riparian forest likely exists along Asbury and Hill Creeks. Riparian forests consist of alder, willow, ash, big leaf maple and cottonwood. Riparian forests are considered sensitive communities by CDFW (Figure 7-3).

## Mixed Evergreen Forests

Mixed evergreen forests are mapped mostly on the western edge of the property (22 acres of redwood forest, 42 acres of California bay forest, two acres of Douglas fir forest and one acre of madrone forest). Redwood and madrone forest Associations are sensitive communities as well as many Douglas fir and California bay Associations (Figure 7-4).

## Oak Woodlands

Oak woodlands are the most common forest type mapped on the SDC property (Figure 7-5): 251 acres of mixed oak woodland, 69 acres of blue oak woodland, 33 acres of Valley oak woodland and 26 acres of Oregon oak woodland.

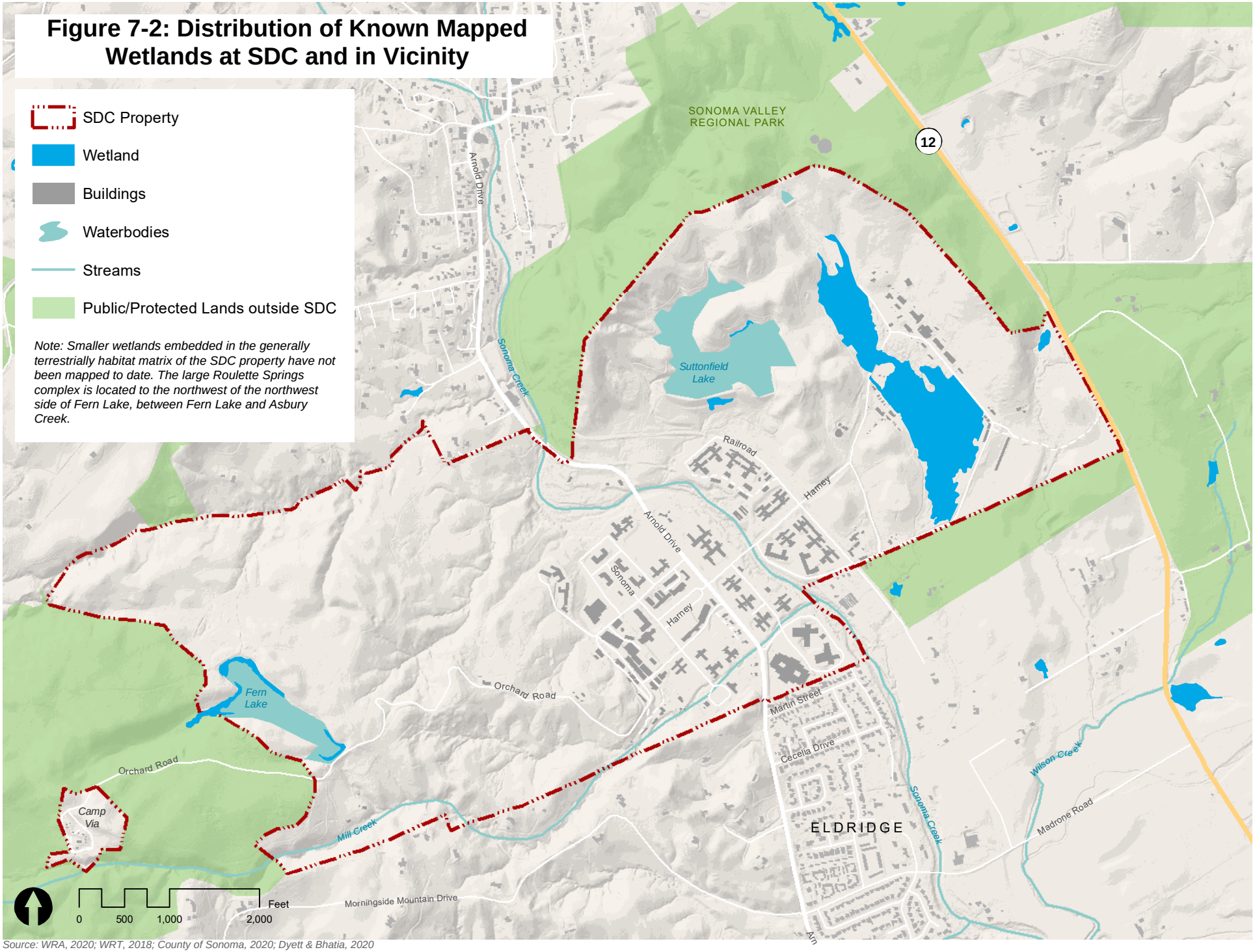
6. [WRT] Wallace Roberts & Todd. 2018. Sonoma Development Center Existing Conditions Assessment.

According to CDFW, Valley oak woodland and Oregon oak woodland associations are sensitive natural communities; some mixed oak and blue oak associations are also considered sensitive.

## *Grasslands*

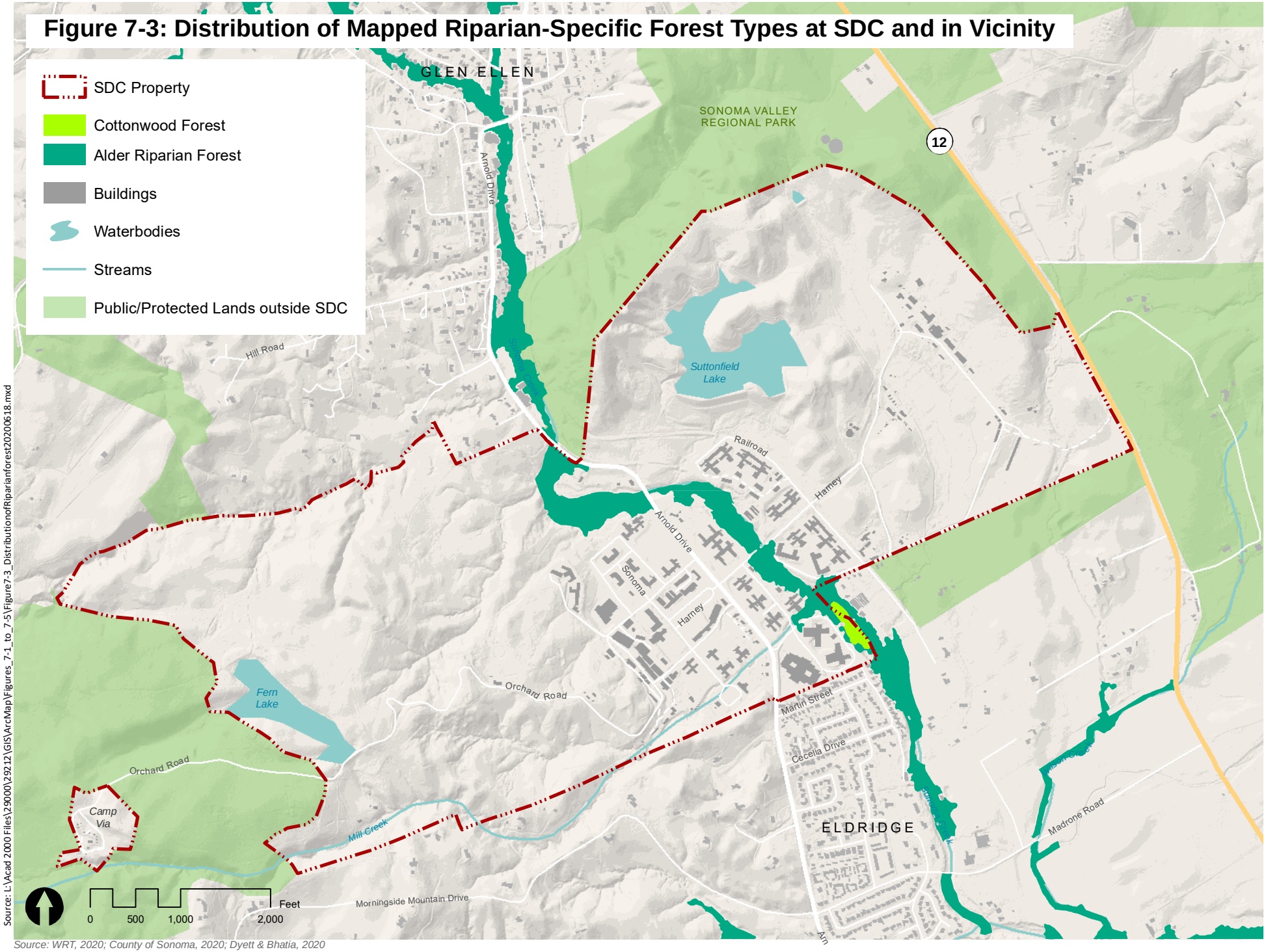
The SDC site has about 213 acres of annual and perennial grassland, mostly located on the eastern portion of the property, however important grasslands are also embedded in the forest and woodland matrix on the western portion of the property (Figure 7-6). Many grassland types are sensitive and a more accurate mapping of grasslands is needed to determine how much sensitive grassland is present. However, the 2015 report prepared by Prunuske Chatham, did indicate that purple needlegrass grassland and California oatgrass prairie, both sensitive natural communities according to CDFW, are present. They also indicated that the grasslands on the site are of relatively high quality.

# Figure 7-2: Distribution of Known Mapped Wetlands at SDC and in Vicinity




Source: WRA, 2020; WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020

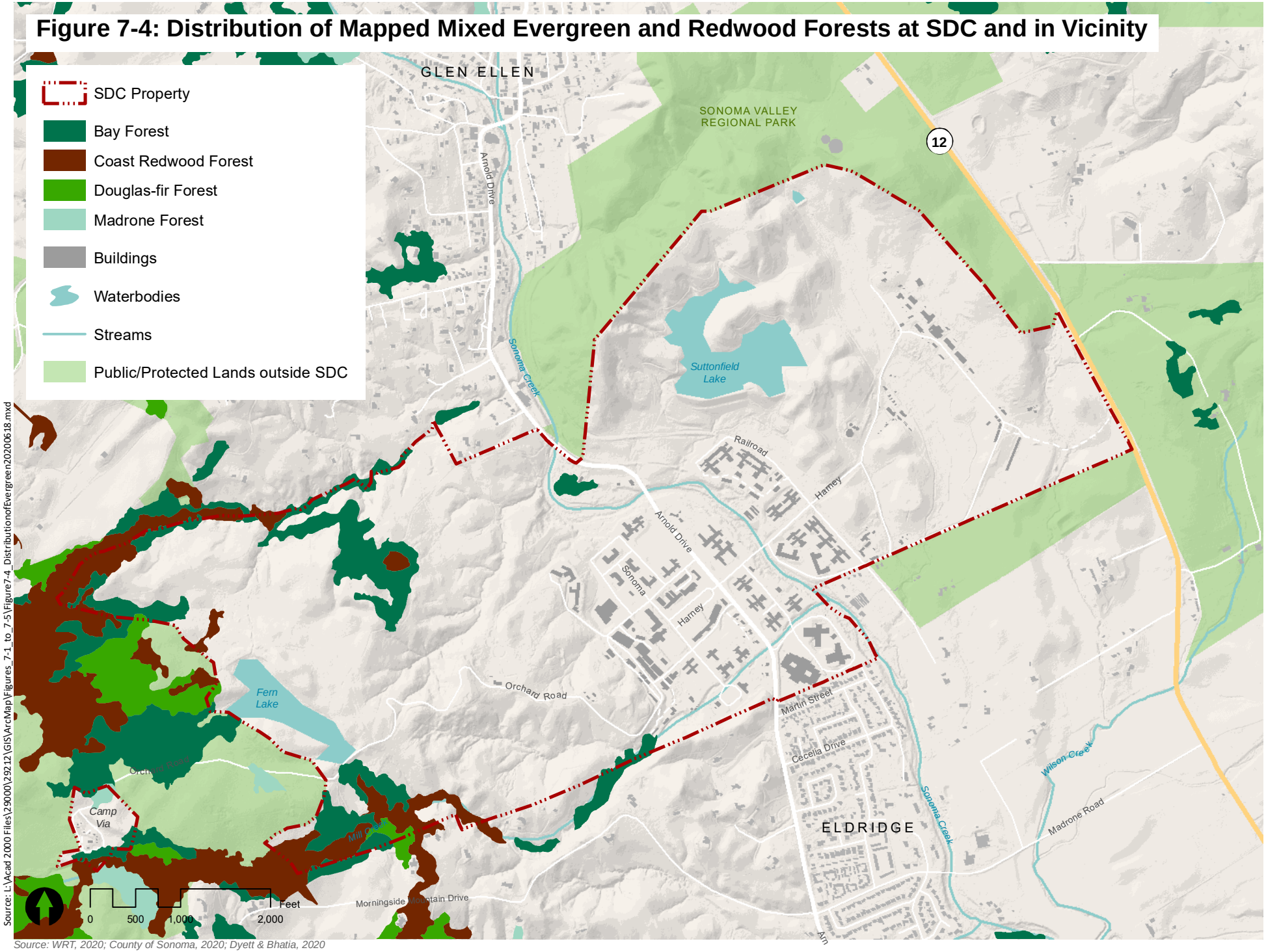
# Figure 7-3: Distribution of Mapped Riparian-Specific Forest Types at SDC and in Vicinity




Source: L:\Acad 2000 Files\29000\29212\GIS\ArcMap\Figures_7-1_to_7-5\Figure7-3_DistributionofRipARianforest20200618.mxd

Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

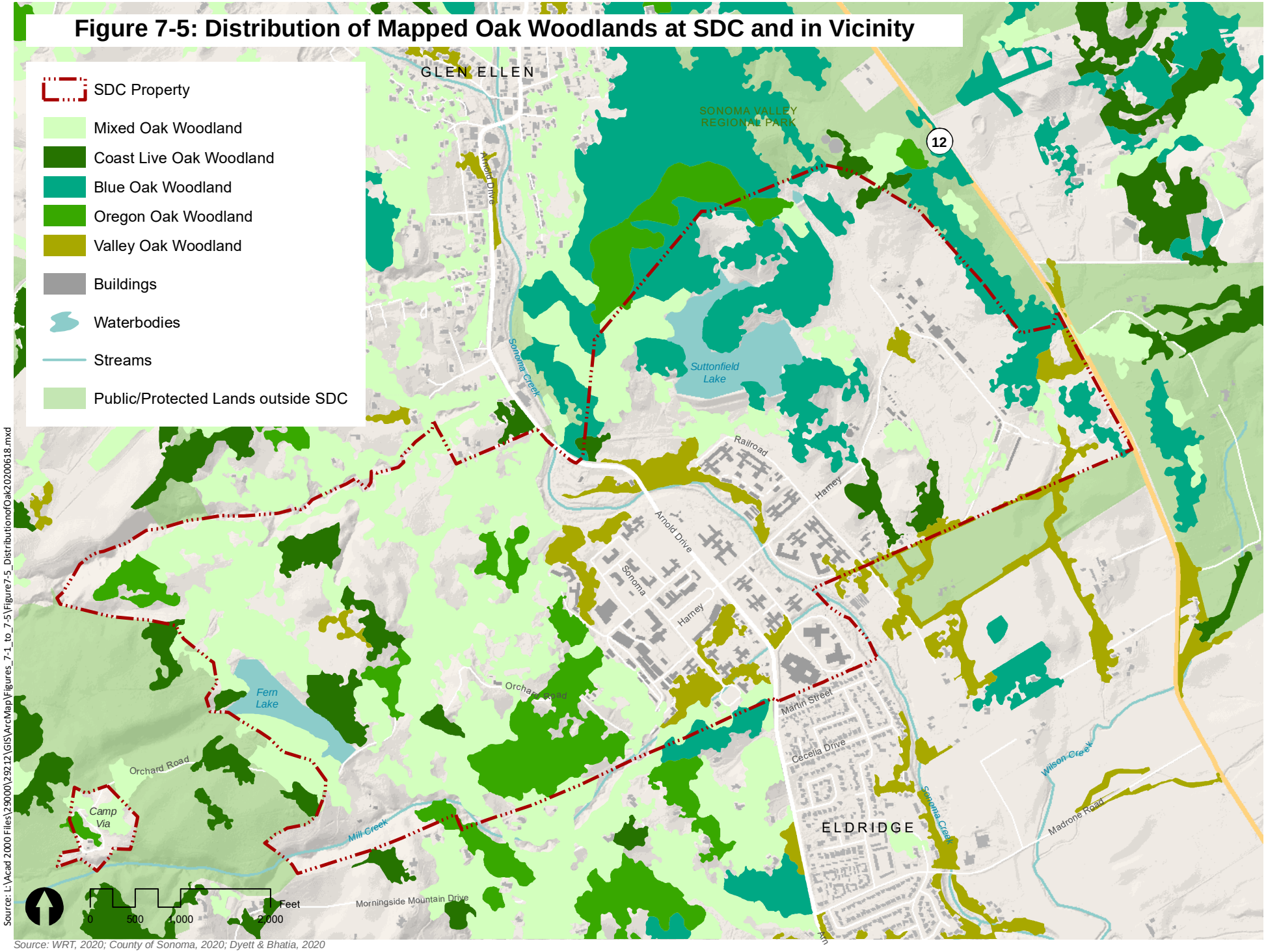
# Figure 7-4: Distribution of Mapped Mixed Evergreen and Redwood Forests at SDC and in Vicinity




Source: L:\Acad 2000 Files\29000\29212\GIS\ArcMap\Figures_7-1_to_7-5\Figure7-4_DistributionofEvergreen20200618.mxd

Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

# Figure 7-5: Distribution of Mapped Oak Woodlands at SDC and in Vicinity




Source: L:\Acad 2000 Files\29000\29212\GIS\ArcMap\Figures_7-1_to_7-5\Figure7-5_DistributionofOak20200618.mxd

Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

### *Other Plant Communities*

In addition to the plant communities noted above, various other natural and ruderal communities are present on the SDC property, including coyote brush scrub, other forest types and non-native annual grasslands and orchards.

## Special-status Species and Habitat Connectivity

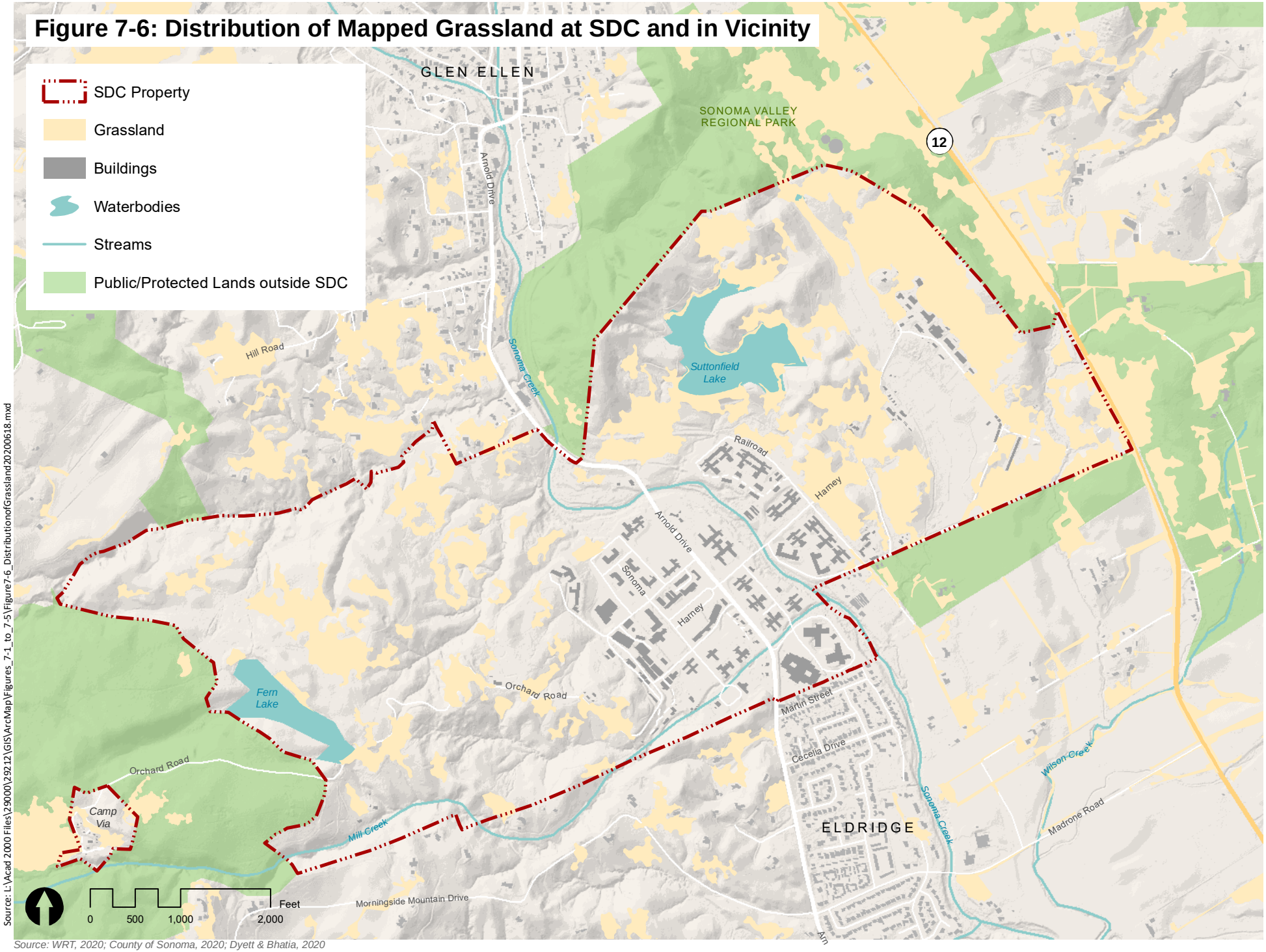
### *Plants*

Systematic floristic surveys have not been conducted, to date, on the SDC property. Numerous rare, listed, or special status species are known from the nearby region and in the types of natural plant communities found on the property. No special-status plant species have been opportunistically documented. However, several species have potential to occur based on the available habitat onsite and nearby documented occurrences in CDFW's California Natural Diversity Database (CNDDB). The lack of detailed floristic surveys should be considered an important data gap in developing an integrated approach to natural resource management on the SDC property.

### *Wildlife*

Special-status wildlife species documented or with a moderate or high potential to occur on the SDC property include Federal-listed California freshwater shrimp, northern spotted owl, steelhead and California red-legged frog. Additionally, several CDFW Species of Special Concern (SSC) have been documented or are likely to be present. These include foothill yellow-legged frog, California giant salamander, and western pond turtle. Additional SSCs may be present and include ringtail, American badger, Townsend's big-eared bat, and pallid bat. Additionally, common bird and bat species are likely to use the site for nesting or maternity roosts. Systematic wildlife surveys have not been conducted, to date, on the SDC property. Numerous rare, listed or special status species are known from the nearby region and in the types of natural plant communities found on the property. The lack of detailed wildlife surveys should be considered an important data gap in developing an integrated approach to natural resource management on the SDC property.

# Figure 7-6: Distribution of Mapped Grassland at SDC and in Vicinity




Source: L:\Acad 2000 Files\29000\29212\GIS\ArcMap\Figures_7-1_to_7-5\Figure7-6_DistributionofGrassland20200618.mxd

Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

- **California freshwater shrimp:** California freshwater shrimp are detritus feeders found in low-elevation and low-gradient streams where banks are structurally diverse, containing undercut banks, exposed roots, overhanging woody debris, or overhanging vegetation. Historically, the shrimp is assumed to have been common in perennial freshwater streams in Marin, Sonoma, and Napa counties.
- **Northern spotted owl:** The northern spotted owl (NSO) is the resident spotted owl subspecies found in cool temperate forests in the coastal portion of California, from Marin County northward. Typical habitats consist of old-growth or otherwise mature coniferous forest and mixed coniferous-hardwood forest; younger (second-growth) forest with stands of large/mature trees may also be occupied. High-quality breeding habitat features a tall, multi-tiered, multi-species canopy dominated by big trees, trees with cavities and/or broken tops, and woody debris and space under the canopy. NSOs forage for nocturnal mammals; dusky-footed woodrats (*Neotoma fuscipes*) are the primary prey in California.
- **Steelhead:** The Central California Coast DPS includes all naturally spawned populations of steelhead (and their progeny) in California streams from the Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), excluding the Sacramento-San Joaquin River Basin. Preferred spawning habitat for steelhead is in perennial streams with cool to cold water temperatures, high dissolved oxygen levels and fast flowing water. Abundant riffle areas (shallow areas with gravel or cobble substrate) for spawning and deeper pools with sufficient riparian cover for rearing are necessary for successful breeding.
- **California red-legged frog:** The California red-legged frog is dependent on suitable aquatic, estivation, and upland habitat. During periods of wet weather, starting with the first rainfall in late fall, red-legged frogs disperse away from their estivation sites to seek suitable breeding habitat. Aquatic and breeding habitat is characterized by dense, shrubby, riparian vegetation and deep, still or slow-moving water. Breeding occurs between late November and late April. California red-legged frogs estivate (period of inactivity) during the dry months in small mammal burrows, moist leaf litter, incised stream channels, and large cracks in the bottom of dried ponds.
- **Foothill yellow-legged frog:** The foothill yellow-legged frog historically occurred in coastal and mountain streams from southern Oregon to Los Angeles County,

but has declined in many parts of this range. This species is strongly associated with rivers and creeks, and prefers shallow, flowing water with a rocky substrate. Individuals do not typically move overland and are rarely observed far from a source of permanent water. Aquatic breeding sites are often near stream confluences, with egg masses typically deposited behind or sometimes under rocks in low-flow areas with cobble and/or gravel.

- **California giant salamander:** The California tiger salamander is restricted to grasslands and low-elevation foothill regions in California (generally under 1,500 feet) where it uses seasonal aquatic habitats for breeding. The salamanders breed in natural ephemeral pools, or ponds that mimic ephemeral pools (stock ponds that go dry), and occupy substantial areas surrounding the breeding pool as adults.
- **Western pond turtle:** The western pond turtle (WPT) is the only native freshwater turtle in California. This turtle is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and Transverse Ranges. WPT inhabits annual and perennial aquatic habitats, such as coastal lagoons, lakes, ponds, marshes, rivers, and streams from sea level to 5,500 feet in elevation. This species requires low-flowing or stagnant freshwater aquatic habitat with suitable basking structures, including rocks, logs, algal mats, mud banks, and sand. Warm, shallow, nutrient-rich waters are ideal as they support prey items, which include aquatic invertebrates and occasionally fish, carrion, and vegetation.
- **Ringtail:** The ringtail (also known as "ring-tailed cat") is an uncommon but widespread resident of California, excluding the Central Valley, south to Mexico. This species is found in remote riparian habitats, rocky canyons, and brush stands of forest and shrub habitats that contain trees, brush, and rock crevices for cover. This species is also usually found within 0.6 mi of water (Zeiner et al. 1990). Hollow trees, snags, rock crevices, and other cavities are used for cover and nesting. Ringtails are primarily carnivorous and mostly nocturnal.
- **American badger:** Badgers occur throughout California in drier open stages of most scrub, forest, and herbaceous habitats, where loose, gravelly soils suitable for burrowing are present, as well as suitable prey populations. Badger prey includes small mammals like ground squirrel, rats, gophers, and mice, which it digs out of the ground using its claws.
- **Townsend's big-eared bat:** This species ranges throughout western North America from British

Columbia to central Mexico. Its local distribution is strongly associated with the presence of caves, but roosting also occurs within man-made structures including mines and buildings. While many bats species wedge themselves into tight cracks and crevices, big-eared bats hang from walls and ceilings in the open. Foraging typically occurs along edge habitats near streams and wooded areas, where moths are the primary prey (WBWG 2015).[7]

- **Pallid bat:** The pallid bat is broadly distributed throughout much of western North America and typically occurs in association with open, rocky areas. Occupied habitats are highly variable and range from deserts to forests in lowland areas, and include higher-elevation forests. Roosting may occur singly or in groups of up to hundreds of individuals. Roosts must offer protection from high temperatures and are typically in rock crevices, mines, caves, or tree hollows; manmade structures are also used, including buildings (both vacant and occupied) and bridges. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight (WBWG 2018)[8].

## *Wildlife Habitat Connectivity*

The SDC property is located in the Sonoma Valley Wildlife Corridor (SVWC). About half the SVWC is protected either through government or NGO ownership, though much of the corridor is in private holdings and may be subject to development in the future. The Bay Area Open Space Council's *Conservation Land Network* identified the SVWC as a key area for protection and identified Sonoma, Hill, and Asbury Creeks as such. The SDC property is included as a crucial wildlife corridor in the Sonoma County General Plan 2020 (2008)[9]. In a Sonoma Land Trust study (Prunuske Chatham, Inc 2015) it was determined that the highest quality land for wildlife movement is located in the northern,

7. [WBWG] Western Bat Working Group. 2015. Species Accounts. Available online at: http://wbwg.org/western-bat-species/; Accessed July 2015.

8. [WBWG] Western Bat Working Group. 2018. Species Accounts. Available online at: http://wbwg.org/western-bat-species/; Accessed July 2018.

9. County of Sonoma. 2008. Sonoma County General Plan 2020. Available online at: https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/General-Plan/; Accessed May 2020.

undeveloped portion of the site. A swath of relatively low permeability cuts north to south through the center of the site associated with where Arnold Drive bisects the site.

## 7.2 Opportunities and Constraints

### Biological Resources and Wildlife Corridors

**Opportunity:** The overarching opportunity at the SDC property is to explicitly connect, protect, manage and restore the already significant natural areas and habitats on the property to the existing natural areas to the southwest and northeast. This includes the following:

- Forest, woodland and grassland management by removing invasive species, re-introducing prescriptive fire, etc.
- Restoration of the large headwater wetland complex on the eastern side of the property.
- Reestablishment of riparian corridor and functional floodplain along Sonoma and Hill Creeks where it has been encroached upon by earlier SDC campus development.
- Expanding and making permanent the existing wildlife corridor that passes from the western to eastern sides of the SDC property across Arnold Drive, especially to the north of the develop campus, but also along the Hill Creek to Sonoma Creek corridor.
- Implement floristic, wildlife, plant community, and wetland surveys and assessments to characterize the baseline amount and condition of resources and monitor for change going forward.

**Opportunity:** Maintain or improve wildlife crossing structures. Culverts should be checked periodically for debris, vegetation overgrowth (e.g. Himalayan blackberry), and other blockages**.** There may also be opportunities to expand wildlife corridor widths of native habitat along creeks.

**Opportunity:** Look for opportunities to improve wildlife permeability along the SDC property's south-central border.

**Constraint: Unknown Permitting Requirements for Core Area Development.** The biological resources that have been identified on the SDC property are nearly all associated with undeveloped areas. Developed areas are not likely to require specific permits, but removal of structures and other construction activity is likely to require preconstruction surveys for bats and birds if work would occur during those

seasons as conditions of an EIR; if any active bird's nests or bat maternity roosts are detected, they would necessarily be avoided until they become inactive. If modification of ditches, streams or other features are necessary and it is determined that the feature is under the jurisdiction of one or more agency, permits from CDFW, California Regional Water Quality Control Board (RWQCB), and the Army Corps of Engineers (Corps) to modify these features may be required.

**Constraint: Maintain Consistency with General Plan Open Space and Resource Conservation (OSRC) Element.** The SDC property supports very significant biotic resources including riparian corridors, wetlands, native grasslands, multiple forest types and sensitive natural communities, and habitat connectivity corridors, and the OSRC Element of the Sonoma County General Plan includes goals and policies designed to protect these resources. The SDC Specific Plan will need to comply with Goal OSRC-8 pertaining to riparian setbacks, and Goal OSRC-7 pertaining to special-status species, marshes and wetlands, and sensitive natural communities. The Specific Plan will also need to comply with OSRC Policies 7k and 7l pertaining to the preservation and protection of native trees and woodlands, including oak woodlands and Policy OSRC-7p pertaining to control of invasive species, native plant regeneration, and control of Sudden Oak Death. In addition to the protection of riparian corridors, wetlands, and wildlife, water resources are protected through water quality, ground water, and conservation and reuse, watershed management policies that will guide the future development of the SDC site (see Sonoma County General Plan Goals WR 1-6).

## Water Resources Opportunities and Constraints

**Opportunity:** Manage invasive plants, restore native vegetation, and improve structural habitat diversity on lower portions of Ashbury, Hill, and Sonoma Creeks.

**Opportunity:** Expand buffers from developed areas and restore native riparian vegetation.

**Opportunity:** Complete focused surveys for foothill yellow-legged frog on Hill and Ashbury Creeks; further evaluate habitat conditions and enhancement needs in those areas.

**Opportunity:** On lower Hill Creek, widen riparian corridor; consider laying back banks to provide floodplain access. Look for opportunities to decommission buildings adjacent to creek.

**Opportunity:** Look for opportunities to reduce fish passage barriers such as removing Asbury Creek Dam.

**Constraint: Need for Official Wetland Delineation.** In order to perform work in wetland areas, the agency that has jurisdiction over certain areas must be determined. This requires that an official wetland delineation according to the Army Corps of Engineers Wetlands Delineation Manual. This delineation will determine if waters are considered Waters of the US under Section 404 of the Clean Water Act. Associated permits allowing work in these wetland areas will be required.

**Opportunity:** The primary opportunity is to replace the existing old-style stormwater system, which is completely lacking in water quality improvement or volume detention features, with modern, green infrastructure to retain and detain stormwater from negatively impacting surface waters. This, in conjunction with re-establishing riparian corridors (see above) presents a significant opportunity for major water quality and habitat improvements on the river system that flows through the campus.

**Constraint: Permitting Requirements for Work in Water.** If work to remove fish passage barriers is undertaken, a Lake and Streambed Alteration Agreement will need to be obtained through the California Department of Fish and Wildlife.

**Constraint: Invasive Plant Control Long Term Maintenance Requirements.** In order to effectively control invasive plant populations, long term plans must be established and adhered to. Frequent monitoring will be required to determine the progress of invasive removal. Additionally, chemical herbicides might be required for plants that resist physical removal efforts. Only herbicides that are approved for use in aquatic environments will be permitted.

## Recreational Uses/Open Space Access Opportunities and Constraints

**Opportunity:** Establish Regional Trail Connections**.** Two local plans call for development of trails, one crossing Sonoma Valley and the other running through the center of it, and support State and local efforts to increase modes of active transportation and reduce greenhouse gas emissions.

**Opportunity:** Formalize Trails and Establish Trailhead/Staging Areas**.** On the western side of the Core Campus area, potential locations for trailhead parking include at the end of North Street, on Manzanita Street, and

at the base of Orchard Road. On the eastern side of the Core Campus area Railroad Drive and Harney Drive area offers an important opportunity for a staging area/trailhead for a formalized trail system. The existing parking on Arnold Drive that currently provides access to trails in Sonoma Valley Regional Park is problematic because it is located near the wildlife corridor pinch point and has safety concerns.

**Opportunity:** Relocate the dog park**.** The location of the dog park, immediately adjacent to Sonoma Valley Regional Park, is not ideal from an environmental preservation perspective. A relocated dog park closer to the SDC Core Campus would establish the dog park as a walkable destination, closer to a large residential population.

**Opportunity:** Provide overnight camping facilities between Arnold Drive and Highway 12. Given that Camp Via is in a state of advanced disrepair, having other overnight camping facilities on undeveloped SDC lands could help meet address unmet demand for overnight camping opportunities in Sonoma Valley to support educational, youth, and other programs.

**Opportunity:** Sustain and improve physical and mental health benefits from accessible trail use. For the community at large, the SDC site has the potential for enduring physical and mental health benefits. The property provides easily accessible hiking as well as beautiful views while biking or driving along Arnold Drive. Many of the larger publicly accessible natural areas in the region are on slopes averaging 7.5 to 10.0 percent. The SDC site's gentler terrain with an average slope of about 5.0 percent could offer recreation opportunities for a wide range of hiking abilities. The site's large land base has extensive opportunities to realign the existing informal trails and access roads to be more accessible, ecologically sustainable, and enjoyable.

**Opportunity:** Establish Interagency Visitor Center. An Interagency Visitor Center could serve multiple purposes of interpreting the SDC site's adjacent publicly accessible land cultural and historic legacy, providing opportunities for environmental education, and serving as a local research center or incubator for other environmentally conscious non-profit organizations.

**Constraint:** Some existing facilities are in varying levels of disrepair (e.g. Camp Via, soccer field) and would require either complete replacement or renovation before being fully functional.

# 7.3 Key Issues and Planning Implications

## Biology and Natural Resources

- **Maintain the integrity of the Sonoma Valley Wildlife Corridor (SVWC)**. The SVWC provides a critical regional linkage between the Mayacamas Mountains and Sonoma Mountain and should be protected or enhanced to the greatest extent feasible. Major opportunities in redevelopment of the existing built campus area include restoring the riparian corridor along Sonoma Creek by pulling back from top of bank and/or redeveloping a green-infrastructure-based storm water management system. The impact of future development on sensitive species known to occur in the campus area should also be considered.
- **Balance instream flow requirements for fish and other species with water needed to support future development**. Potable water for the SDC property comes from several sources: 1) from winter flow diversions to Fern Lake; 2) from ground water collected from Roulette Springs; 3) from precipitation and surface water flow into Fern Lake and Lake Suttonfield; and 4) from a pump in Sonoma Creek with an appropriative water right of 0.55 CFS. This aging system of pipes, inlets, aqueducts, and reservoirs represents significant annual and capital costs. Determining what parts of the system are needed in order to sufficiently support redevelopment of the campus is a critical step in planning for future development. Currently, it is not known if the supply from this source will support future development of the SDC property, or what effect increased diversions would have on aquatic habitat. If there are additional demands for potable water, it will be important to recognize existing instream flows on the multiple creeks that bisect the SDC property and their role in providing habitat for aquatic species.

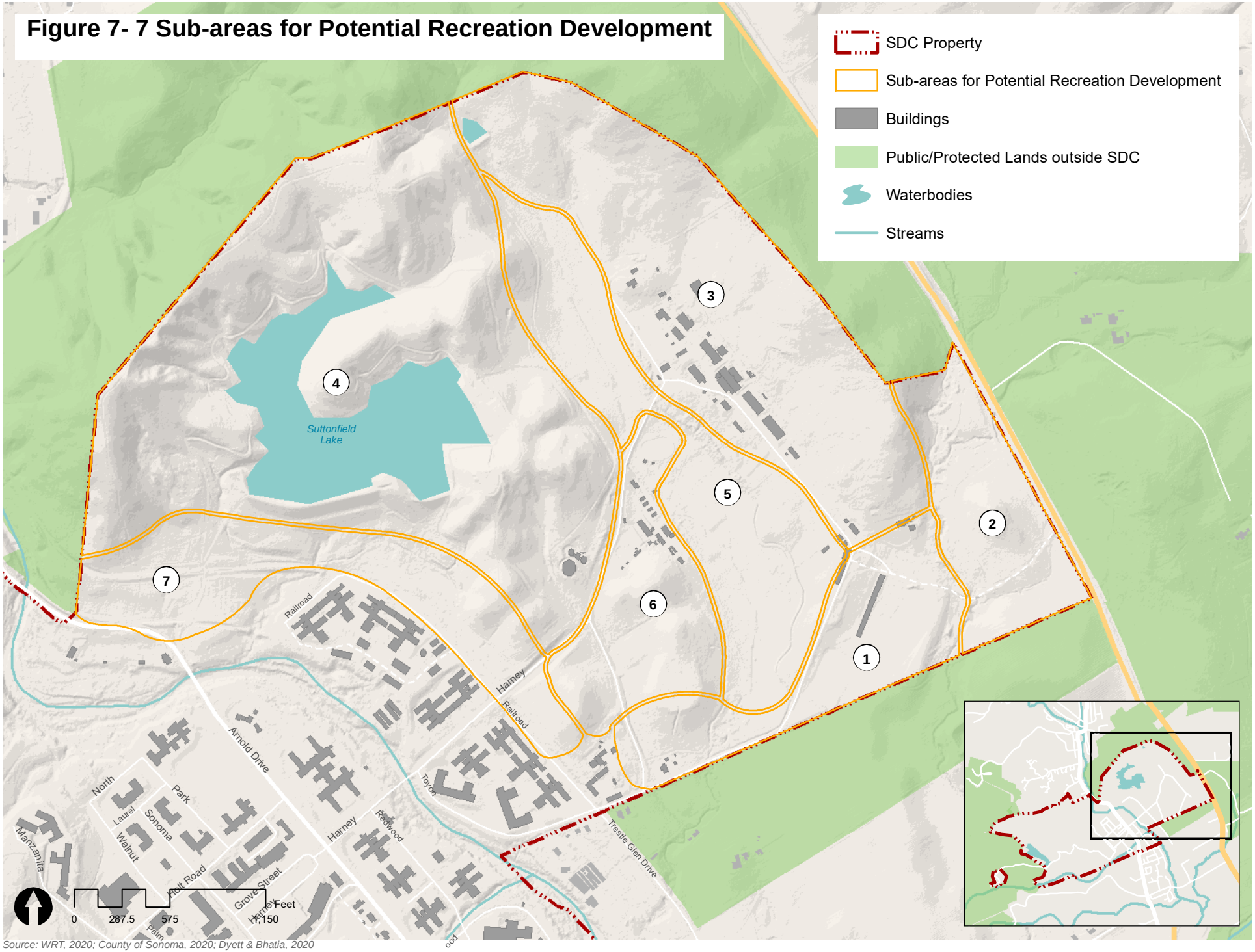
## Open Space Resources

- **Recreational use levels are likely to increase dramatically from the 2020 baseline numbers, if housing increases.** If housing increases on the SDC Core Campus compared to the previous population of the SDC of 3,200, it will be accompanied with increased demand for park, recreation, and open space resources. The SDC population may have used the site's recreational assets differently than how a new, non-hospital-based residential population may use the space. Some of this new demand could possibly be met within the Core

Campus. However, there would likely be significant demand placed on open space lands transferred to Regional Parks, or State Parks, or some other managing entity that goes above the previous use when the on-site population was 3,200.

- **Allowable public uses on the SDC Core Campus trails should consider the policies of adjacent parklands and support their successful implementation.** For instance, dogs are only allowed in one designated area and one designated trail in Jack London State Historic Park to protect wildlife, but dogs are currently allowed in Sonoma Valley Regional Park. Off-leash dogs are not allowed in either park.
- **Trail Management Evaluation.** Prior research indicates there are duplicative trails on the open space portions of the SDC property. Some of the trails were noted to be in poor or fair condition; however, a data-driven trail survey was not conducted by PCI. Regional Parks has conducted a preliminary trail assessment, but more work is needed to determine which trails to maintain in their current condition, which to re-align, and which ones to decommission. As trail use may increase, conducting a data-driven trail survey, along with robust community input, would help determine what management actions are needed to provide enjoyable, safe trails, and manage and minimize environmental impacts. The impact of trails on wildlife and species movement driven by climate change should also be studied.
- **Possible Future Recreation Development within the SDC site.** There are several developed envelopes to the east of the SDC Core Campus that could support future park development. Subarea 2 (Figure 7-7) offers the potential for public access into the main agricultural area. It could also include a farm stand that could complement the Oak Hill Farms farm stand nearby. Subarea 3 includes the Eldridge Equestrian Center (though facilities were damaged in the 2017 Nuns Fire) and is located between the Sonoma Valley Regional Park on the east side of the site and the seasonal wetlands on the west. This area could provide additional staging and public access to the Park, a possible maintenance area for Sonoma Valley Regional Park, and possibly support a supervised camping area. Subarea 7 includes about 20 acres of level ground, intersected by some trails, and is located near Harney Road. It could support additional sports fields. Using these existing developed envelopes for park-related infrastructure and public access could prevent the need to develop additional undisturbed land.

# Figure 7- 7 Sub-areas for Potential Recreation Development




Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

# Natural and Man-Made Hazards

*Chapter Eight*

## 8.1 Summary of Previous Work and Overview of New or Revised Work

The SDC site was studied by WRT as part of an Existing Conditions Report prepared as part of the site assessment of the Planning Area. The WRT study included preparation of various documents which focused on the existing environmental conditions of the site, including hazards.

Hazardous materials were addressed in a Phase I Environmental Site Assessment prepared by URS Corporation (2016), a Limited Phase II Environmental Site Assessment prepared by EBA Engineering (September 2017), and a Hazardous Materials Classification report prepared by VBN, Inc (October 12, 2017). The County of Sonoma has also addressed hazardous materials in the Sonoma County General Plan 2020 Update, Public Safety Element.

The SDC Planning Area is located in an area of known wildland fire hazard. Wildfires in October 2017, primarily the Nuns Fire (part of the Sonoma Complex fires), destroyed many of the structures located east and north of the primary the SDC campus area. The extent of the Sonoma Complex fire, which destroyed many structures in the Planning Area, is shown on Figure 7-16 of the WRT report (WRT, 2017). The potential for wildland fires to affect the SDC site is addressed in maps prepared by the California Department of Forestry and Fire Protection. The County of Sonoma has also addressed fire hazards in the Sonoma County General Plan 2020 Update, Public Safety Element (PSE). The Sonoma County Hazard Mitigation Plan, Wildland Fire Hazards chapter (April 2017) addresses wildfire hazards in Sonoma County. Figure 8-2 shows the Fire Hazards Severity Zones for the Planning Area as presented on the Figure PS-1g of the General Plan Public Safety Element (Sonoma County, 2013).

Flooding and dam inundation were addressed in a Hydrology and Site Infrastructure Existing Conditions Report prepared by Sherwood Design Engineers (January 8, 2018). Two reservoirs are present at the SDC Planning Area that could threaten flooding at the site. The County of Sonoma has also addressed flood and dam inundation hazards in the Sonoma County General Plan 2020 Update (GP), Public Safety Element. The Sonoma County Hazard Mitigation Plan, Flooding chapter (April 2017) addresses flood hazards in Sonoma County. Figure 8-4 shows the Flood Hazard Areas for the SDC Planning Area as presented on Figure PS-1e of the GP Public Safety Element (Sonoma County, 2020). Figure 8-5 shows the Dam Failure Inundation Hazard Areas as

presented on Figure PS-1f of the GP Public Safety Element (Sonoma County, 2020).

Geological Hazards were addressed in a Preliminary Geologic Hazard Report prepared by PJC and Associates (October 5, 2017). Maps addressing geological hazards of the area have been prepared by the United States Geological Survey and by the California Geological Survey (and previously by the California Division of Mines and Geology). The County of Sonoma has also addressed geological hazards in the Sonoma County General Plan 2020 Update, Public Safety Element. The Sonoma County Hazard Mitigation Plan, Seismic Hazards chapter (April 2017) addresses seismic hazards in Sonoma County. The Sonoma County Hazard Mitigation Plan, Landslide Hazards chapter (April 2017) addresses landslide hazards in Sonoma County.

This chapter covers information gathered and produced as part of these studies and reports.

## 8.2 Hazardous Materials

Many man-made and concentrated natural substances can be hazardous to human health and the environment. The Public Safety Element of the Sonoma County 2020 General Plan contains public safety policy provisions for protection from hazardous materials, as well as tighter controls on the production, transport, storage, sale, use and especially disposal of hazardous wastes.

The SDC Planning Area has been the location of many activities that used or generated hazardous materials, including: (1) the medical program; (2) the farm; (3) the vocational program; (4) landscaping and waste management (landfilling and wastewater treatment) among others. In addition, many buildings and site features were identified for further soil investigation for hazardous materials such as: (1) underground storage tanks; (2) historical buildings; (3) incinerator; (4) hazardous materials storage shed; (5) fruit drying facility; (6) farm area and Sunrise Industries (a recycled paper and cloth manufacturer); (6) pesticide storage area; (7) landscape maintenance area; and (8) PCB storage shed.

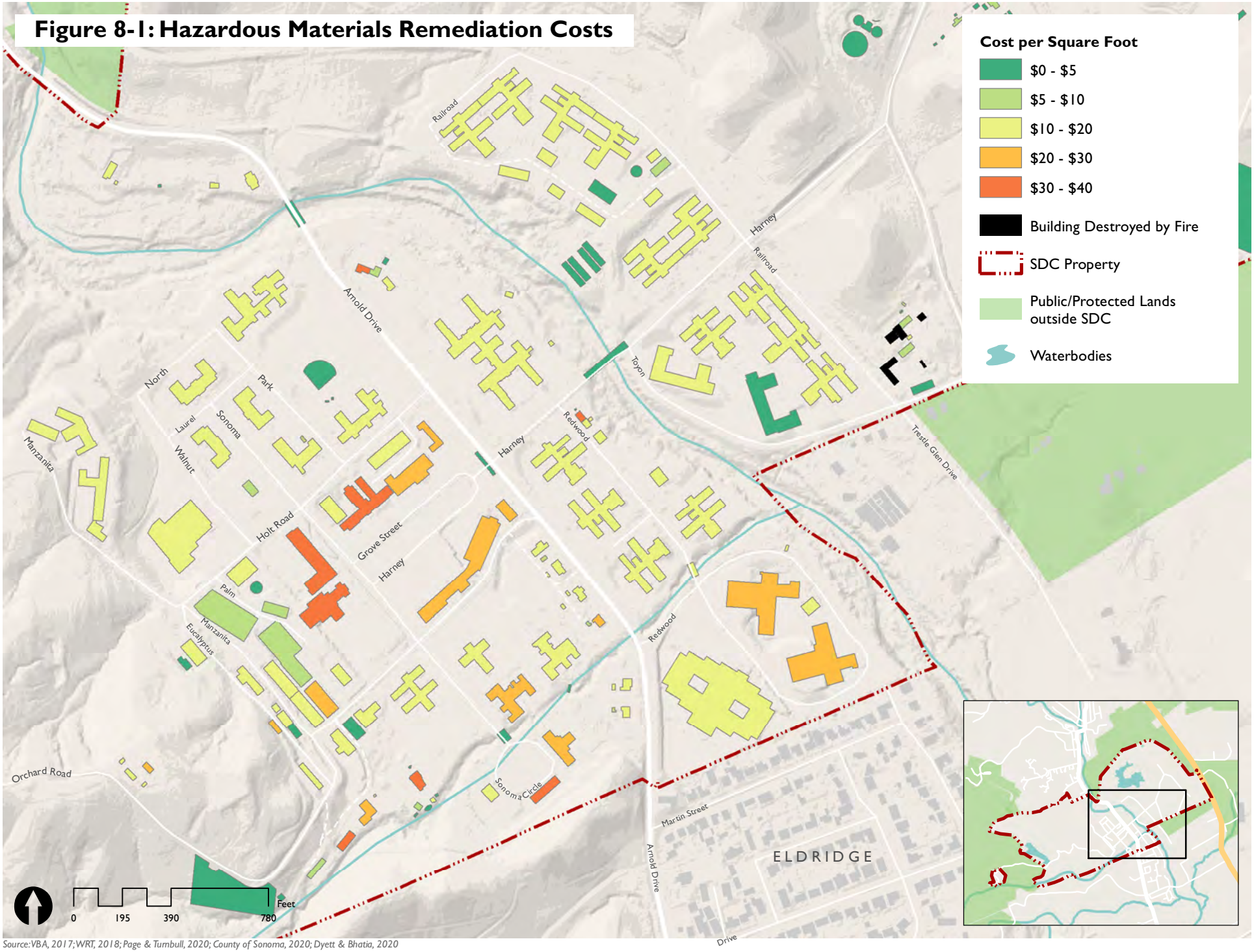
Such recognized environmental conditions (RECs), Historical RECs and Controlled RECs were detailed in the Phase I Environmental Site Assessment (October 2016, URS Corporation). As a result, a Phase II Site Investigation was recommended to sample soils at targeted locations for laboratory analyses. In the Limited Phase II Site Investigation Report (EBA Engineering, 2017), the constituents of potential concern (COPCs) that were identified for soils investigation

included: (1) Arsenic; (2) Organochlorine Pesticides (OCPs); (3) Lead from lead-based paint; (4) polychlorinated biphenyls (PCBs); (5) volatile organic compounds (VOCs); (6) semi-volatile organic compounds (SVOCs); (7) dioxins and furans; (8) CAM 17 (Title 22) Metals; (9) total petroleum hydrocarbons (TPH) – gasoline range organics (GRO), diesel range organics (DRO), heavy range organics (HRO); and (10) nitrate (as Nitrogen).

The Limited Phase II investigation has revealed areas where deeper investigation for COPCs is warranted in order to comprehensively and more precisely delineate where certain hazardous zones are located, and the extent to which they have spread. In particular, lead and arsenic were detected throughout the majority of the Planning Area, with lead concentrations above the residential screening levels (RSLs) detected at eight of the historical buildings (Walnut Building, Chamberlain/CPS Building, Blue Rose, Manzanita/Powerhouse Building and Paxton-Goddard Building) as well as several work activities areas (Hazardous Materials Storage Shed, Fruit Drying Shed, Sunrise Industries, Pesticide Storage Area and Landscape Maintenance Area). Lead concentrations were detected above the Federal Resource Conservation and Recovery Act (RCRA) screening levels at the Sonoma HSC Building and the Fruit Drying Shed, indicating Hazardous Waste levels of lead. Although arsenic occurs in this region at relatively high natural background levels, soils samples from all of the historical buildings exceeded the US EPA Residential Screening Level, and one sample from the vicinity of the Walnut Building exceeded the RSL by one order of magnitude. Some of the arsenic levels may be within background concentrations, but there are also test results for arsenic that exceeds the background concentration for arsenic which can be as high as 8 to 11 mg/kg.

Other COPCs detected in the Limited Phase II ESA that warranted further investigation were organochlorine pesticides, PCBs, volatile organic compounds, semi-volatile organic compounds, total petroleum hydrocarbons and CAM 17 Metals. None of these COPCs were detected above the residential screening levels, however, their detection may warrant a more detailed investigation in areas of future development consideration, in order to determine requirements for future soil reuse or disposal during redevelopment. Potential effects to construction worker safety, future site workers, residential site users, or commercial/industrial site users due to the presence of constituents of potential concern should be considered in planning scenarios.

# Figure 8-1: Hazardous Materials Remediation Costs




Source: VBA, 2017; WRT, 2018; Page & Turnbull, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

A rapid assessment of hazardous materials within the building structures at the SDC Planning Area was performed by Van Brunt Associates (VBA) as presented in a letter report titled Hazardous Materials Clarification (VBA, Inc., October 2017). This guidance document outlines the Federal and State building codes and worker safety codes that are applicable to hazardous materials within the buildings at the site that are regulated in existing buildings, and potential hazardous materials that become regulated when the buildings are disturbed during construction or demolition and disposal. The letter report also summarizes a preliminary-level survey of the condition of the buildings on the site, as well as suitability and additional practical considerations for reuse. The report indicated that most of the buildings in the SDC Planning Area are in good condition, but that water line and sewer line leaks were common in basements and under floor areas. The report identified seven of the SDC buildings of high-level concern due to historical considerations, extreme deterioration or damage, or high remediation costs due to hazardous building materials (such as asbestos-containing building materials). These seven structures included: (1) Activity Center- evidence of current and prolonged roof water leaks; (2) Walnut Building- severe deterioration including mold; (3) Oak Lodge- severe deterioration, bad roofing, and differential settlement issues; (4) Finnerty- ornate exterior features in a state of deterioration; (5) Professional Education Center- severe roofing and water leak intrusion, partially collapsed floors and roof/ceiling systems; (6) Central Steam Plant- large amount of asbestos containing building materials in boilers; and (7) Central Steam System- Significant deterioration of steam system and requires asbestos containing building materials abatement. Figure 8-5 maps the remediation costs estimated by VBA for the abatement of hazardous building materials and shows that most of the buildings in the core campus area are within the 10 to 20 dollar-per-square-foot range. The highest hazardous materials remediation cost is for the Chamberlain/CPS Building, at approximately 38 dollars per square foot. Other buildings with similar high costs include the Professional Education Building, Porter Administration/Post Office, Hatch, Acacia 2, and Sonoma House. The report also stated that while many of the building are still in good condition, the fixtures within them are old and out of date. Extensive replacement and upgrading of building internal infrastructure will be needed to repurpose the buildings in the SDC Planning Area.

## 8.3 Wildfire

Sonoma County is an area with a long history of wildland fires. A wildland fire is a fire in which the primary fuel is natural vegetation and can consume thousands of acres of vegetation, timber and agricultural lands, as well as developed properties located in or adjacent to susceptible areas. Wildfires can be caused by natural events, such as lightening or high winds. Overall, only five percent of wildfires in California are caused by lightning strikes; the majority—95 percent—are caused by human activity. Major causes of wildfires in Sonoma County include lightning strikes, wind-damaged electrical transmission lines, power equipment use, burning of debris, vehicles driven over dry grass or brush, arson, campfires, and others. The combination of highly flammable fuel (dead and dry vegetation), long dry summers and steep slopes create a significant natural hazard of large wildland fires. When strong winds blow periodically in the spring, summer and fall, the hazard is increased greatly. Drought years also increase the hazard by creating more dead vegetation which can act as a fuel source.

Historically, the most common months for wildfires were in August, September and October, but with the effects of climate change and seasonal droughts, wildland fires can occur over a more extensive portion of the year. High temperatures and low humidity from May to October increase the fire hazard, and elevation can also play a major role. Low-lying areas near the coast often experience fog in the summer, but inland areas such as the SDC Planning Area do not have extensive summer fog. However, low-lying areas near year-round creeks such as Sonoma Creek have higher moisture contents reducing fire potential. In upland areas, slopes tend to become drier and more likely to be a wildfire hazard earlier and for more of the year. Fire suppression activities since the 1950s increased the fuel loads in some areas, leading to burns that are harder to contain. Climate change and increasing temperatures have also led to larger and more frequent wildfires.

The Planning Area is located in the Sonoma Creek watershed and includes areas of high to very high fire hazard severity zones (CAL FIRE, 2009) west of Highway 12 (Sonoma Highway), areas of high fire hazard severity in the hills, and areas of moderate fire hazards severity zones in the vicinity of Suttonfield Lake and Fern Lake (Figure 8-2). The Sonoma Complex fires in 2017 burned much of the area that had been included by the California Department of Forestry and Fire Protection (CAL FIRE), in the zone of high to very high hazard severity, including a large portion of the eastern part of the SDC Planning Area east of Railroad Street. The Nuns Fire (part of the Sonoma Complex fires) also burned buildings and

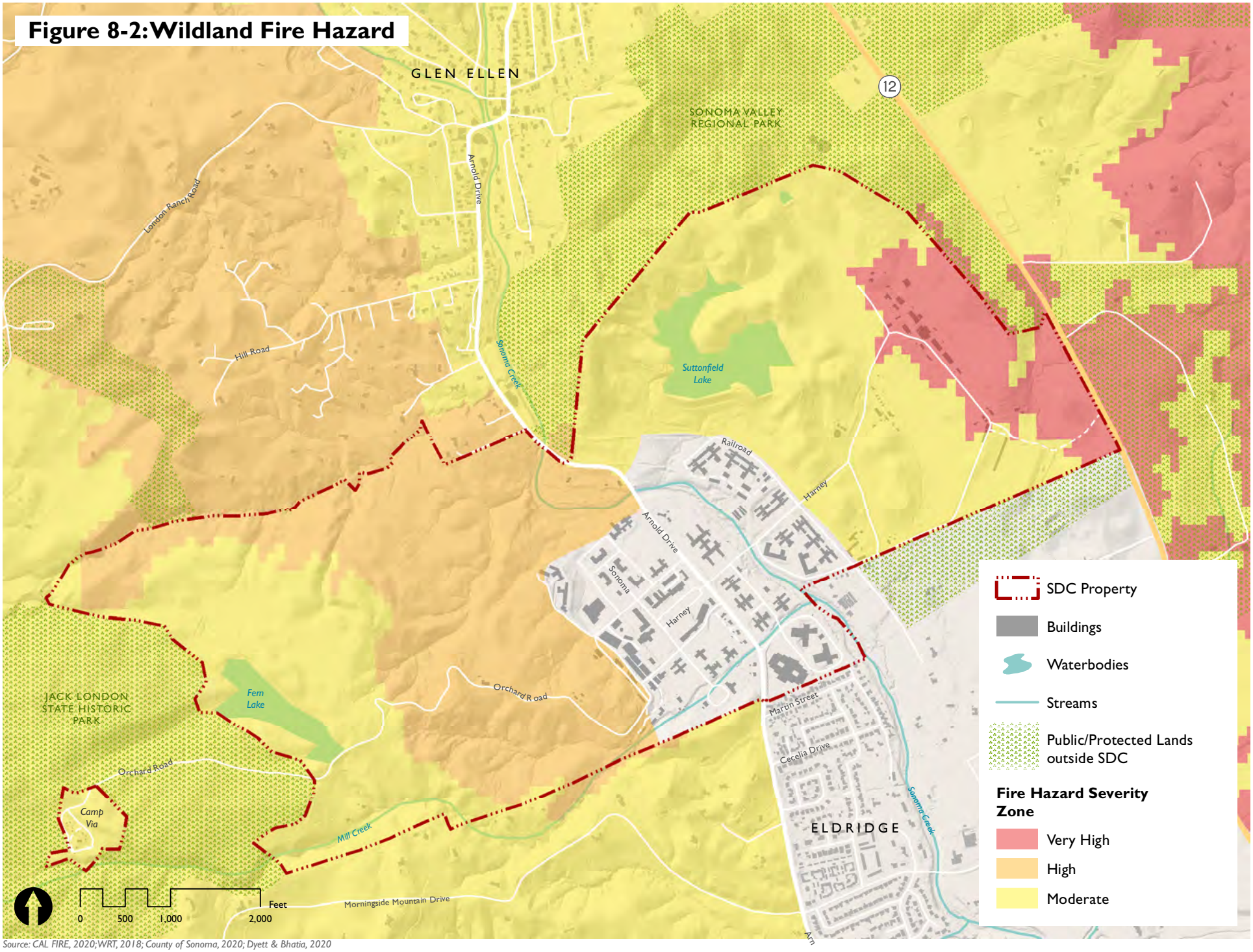
portions of the northwestern part of the Planning Area around Suttonfield Lake that had been indicated to have a moderate fire hazards severity (Figure 7-16, WRT, 2018). A previous fire in Nuns Canyon in 1964 burned 10,400 acres and destroyed 27 structures. The Nuns Fire in 2017 burned 56,566 acres, destroyed 1,355 structures, damaged 172 structures, and killed three people; it has been considered California's 9th most destructive fire in history. The Sonoma County General Plan 2020 shows the Planning Area as an area of moderate fire hazards severity, with a zone of very high fire hazard severity in the southeast portion of the Planning Area (Figure 8-2).

Primary responsibility for preventing and suppressing wildland fires in Sonoma County is divided between local firefighting agencies and the State of California, Department of Forestry and Fire Protection (CAL FIRE, 2017). The SDC Planning Area is currently located in an area identified as a State Responsibility Area (SRA). Fire management in the SDC Planning Area is located in the Sonoma-Lake-Napa Unit SRA.

## 8.4 Flooding and Dam Inundation

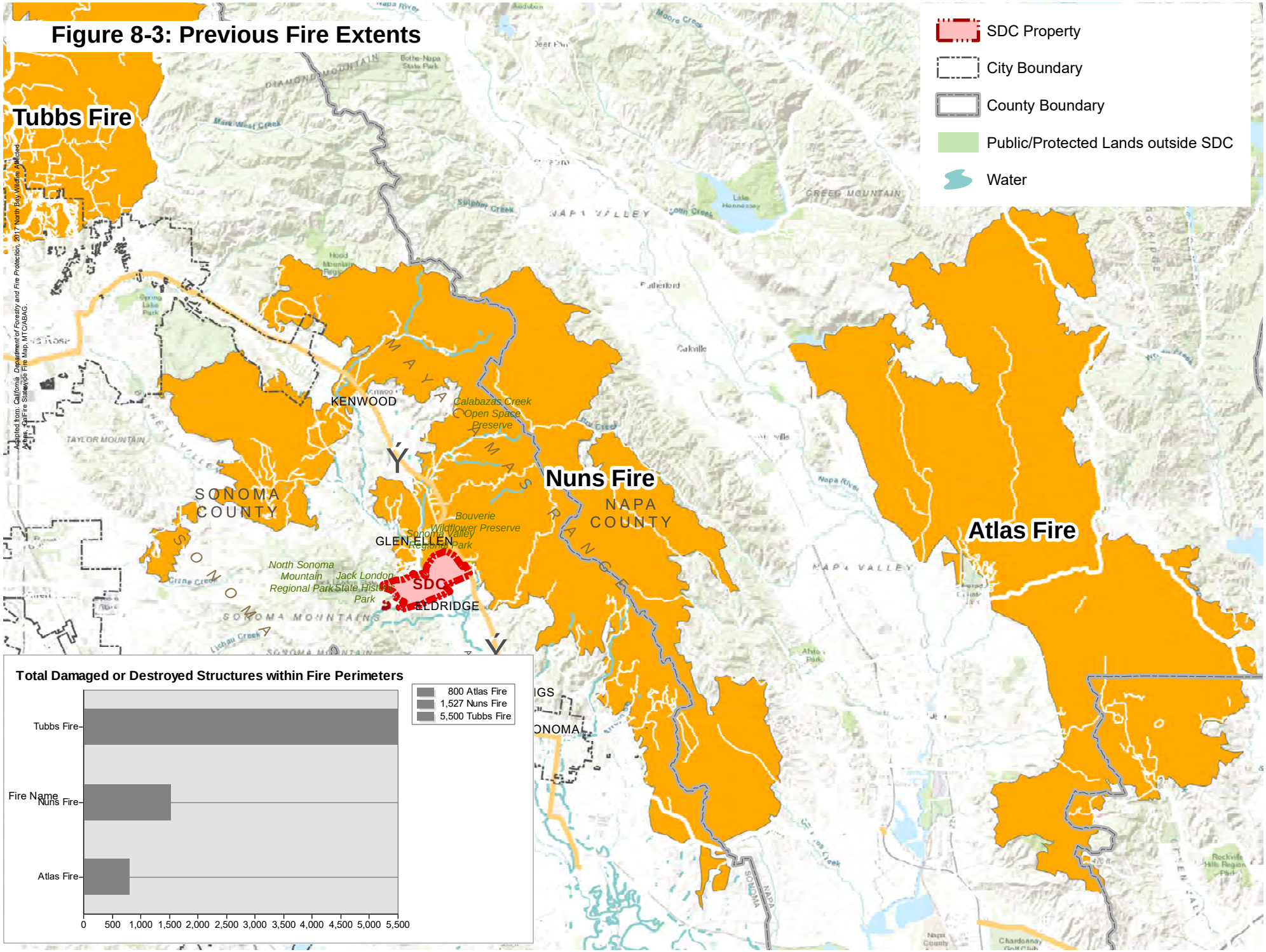
Flooding occurs when water overflows stream and creek banks when runoff from the watershed exceeds the capacity of the stream or creek channel to carry the flows. Floods on smaller creeks can occur suddenly, such as in flash floods, and recede quickly when rainfall ceases. Flooding on larger creeks may not peak for hours or days after the start of a storm or series of storms. Flooding can erode banks leading to bank failure, it can change the course of a creek by cutting new channels in creek sediments, it can also destroy or damage buildings, wash away topsoil, damage crops, and transport objects caught in the flood waters. Flood damage can weaken building materials, increase mildew, dust, bacteria and other diseases. Public facilities, including roads, utilities, retaining walls, and other improvements, can be damaged or destroyed by flooding. Dam inundation can occur when a lake or reservoir overflows or fails and releases excess stream flows of surface water.

# Figure 8-2: Wildland Fire Hazard




*Source: CAL FIRE, 2020; WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020*

# Figure 8-3: Previous Fire Extents




Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

The Sonoma Valley is located between Sonoma Mountain to the west and the Mayacamas Range to the east. The Sonoma Valley drains to Sonoma Creek and is part of the Sonoma Creek Watershed which discharges to San Pablo Bay. Sonoma Creek bisects the Planning Area, and there are numerous other creeks, springs, seeps, unnamed water courses and wells on the SDC site that flow into Sonoma Creek. A 0.8-mile long reach of the creek flows through the center of the Planning Area, and is considered typical of the central portion of the creek that runs from Glen Ellen to Schellville. Within the Planning Area, creek channel widths vary from 500 feet at the widest to 25 feet at the narrowest (Sherwood Design Engineers, 2018). The creek bed is dominated by gravel and cobble deposits with pockets of sand and silt. Gravel bars are common, and large coarse-grained, well-sorted gravel bars occur in the creek bed in the SDC Planning Area. Higher flows can be split between multiple channels that form within the channel bottom creating a complex flow pattern that provides diversified riparian habitat. In the northern portion of the SDC site, the creek banks appear relatively stable with minor erosion and bank instability. In the central portion through the main campus area, the creek banks are highly eroded and threaten facilities. Armoring of the creek banks with riprap, shotcrete, and stacked concrete bag walls has partially protected the banks, but has also altered the creek hydraulics and evolutionary trends leading to more bank instabilities in other locations.

The mean annual rainfall at the SDC site (at Fern Lake) is 47 inches per year, with 40-50 percent more rainfall in the hills than on the valley floor. The topography at the main campus area is mostly flat. The Planning Area slopes up the Sonoma Mountain on the western side. Elevation at the Planning Area ranges from approximately 175 feet in the Sonoma Creek valley to approximately 900 feet on the mountain flank (Sherwood Design Engineers, 2018).

Sonoma Creek, within the SDC Planning Area, is a natural channel that is wide enough to contain the 100-year flood event (Figure 8-4). The 500-year flood event is also expected to be contained mostly within the channel; only small areas outside the channel with no permanent developed structures or features are expected to be inundated by flood waters during the 500-year event. The risk of flooding in the SDC main campus area is considered low (Sherwood Design Engineers, 2018).

Two reservoirs—Suttonfield Lake and Fern Lake—are present in the Planning Area. These are man-made impoundments. Dam inundation (Figure 8-5) could occur in the event of dam failure of Lake Suttonfield, located in the northern part of the Planning Area, or from Fern Lake, located

in the western portion of the Planning Area (Sonoma County General Plan 2020, Public Safety Element). These dams will require evaluation to determine the long-term stability of the dam embankments and effectiveness of overflow measures and spillways associated with the dams. No records of dam design and construction have been found to date, making review of construction not possible. The embankments should be inspected and routinely monitored in accordance with State regulations. Concrete spillways should also be routinely inspected and repaired as needed. A water treatment plant at SDC formerly provided treated potable water from Lake Suttonfield (see Chapter 6: Infrastructure for more information).

In the event of failure of Suttonfield Lake's Dam or Spillway, flooding could occur in the Sonoma Creek watershed (Figure 8-5). Failure of Fern Lake's Dam or Spillway could also cause dam inundation flooding in the Sonoma Creek watershed. Mapping of the potential flooding is presented in the DWR Suttonfield Dam: Dam Failure Emergency Action Plan. The effects of climate change are likely to intensify future storm events, and increase their frequency. The potential impact of the increased precipitation is increased runoff, less groundwater depletion, more soil erosion, and increased sediment transport into creeks and lakes. Overtopping of dams could also occur due to increased precipitation in storm events.

## 8.5 Geological Hazards

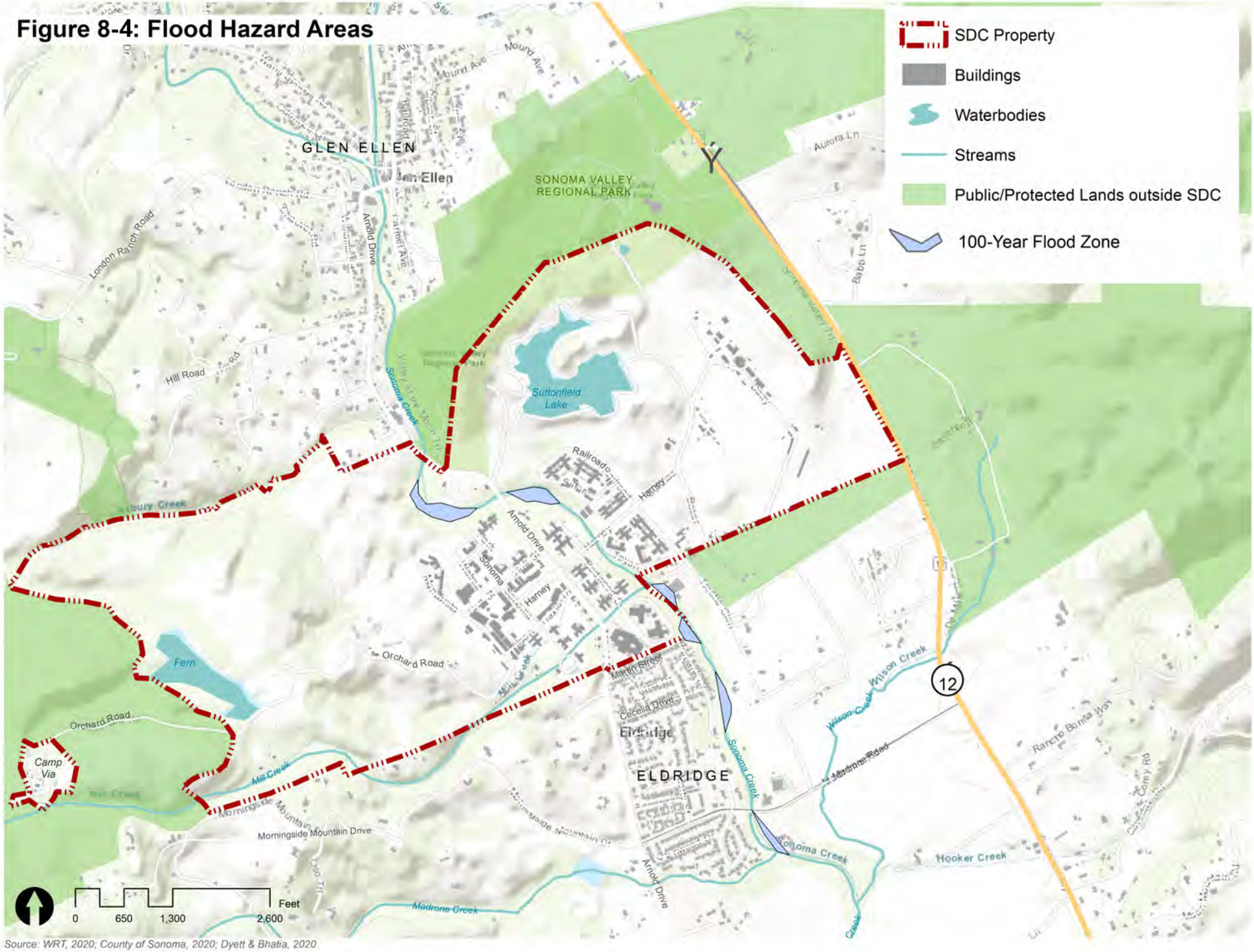
The site lies in the Coast Range Geomorphic Province of Northern California. The morphology of the northeast-southwest trending ridges and valleys of the Coast Ranges are controlled by the active San Andreas Fault System. The San Andreas Fault is the boundary between the Pacific Plate to the southwest and the North American Plate to the northeast. The stresses and strains associated with this plate boundary result in an active seismic environment. Hazards associated with this seismic activity include the primary seismic hazard of surface fault rupture and secondary seismic hazards such as strong seismic ground shaking, liquefaction and dynamic densification of sandy soil deposits, and earthquake induced landsliding. Lateral spreading and lurch cracking are also secondary seismic events associated with liquefaction.

According to the State of California Alquist-Priolo Earthquake Fault Zone Map for the Glen Ellen Quadrangle (State of California, 1983), there are no active earthquake faults in the Planning Area. Seismic shaking hazard is present throughout the SDC Planning Area with earthquake ground shaking expected to be in the strong to very strong range in

response to a major earthquake on the Rodgers Creek fault, Mayacamas fault, San Andreas fault, or West Napa fault. Peak ground acceleration for the Planning Area is expected to be approximately 0.73 g (73% of the acceleration due to gravity) for the maximum credible earthquake (OSHPD, Seismic Design Maps, 2020). Liquefaction hazard is considered low to moderate for most of the Planning Area, with zones of moderate to high liquefaction susceptibility in the stream channels and related stream deposits and along a portion of Arnold Drive.The potential areas of lurch cracking and lateral spreading would be in the areas adjacent to stream banks, especially along portions of Sonoma Creek.

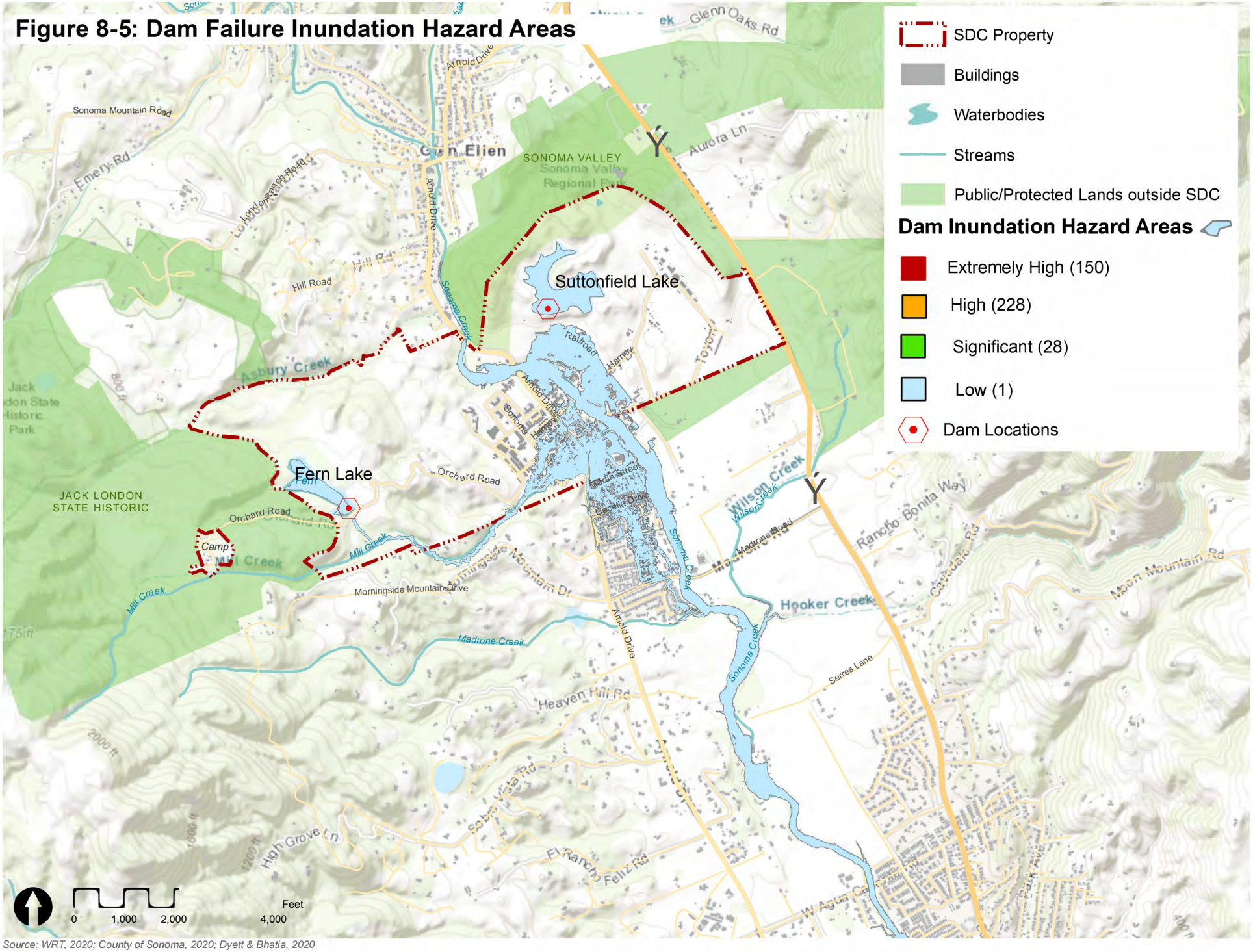
Other geological hazards include landslides, which can occur as several different types of slope instabilities. Landslides can include deep-seated rotational landslides, shallow surficial debris flows, large and small slumps, rock fall, and creek and stream bank failures, among others. Topography of the Planning Area varies from level terrain to steep hillsides. According to a slope stability map of Sonoma County (1980), the majority of hillsides at the Planning Area are considered to be underlain by relatively unstable soil and rock units on slopes greater than 15 percent. Areas mapped in this type of slope stability category generally contain numerous landslides in steeply sloping areas, but relatively few in areas with slopes gentler than 15 percent. The Sonoma Valley is considered relatively stable because of the shallow slope steepness of the area. Creek banks in the Planning Area could be prone to slumps, block failures, flows, and erosion due to bank undercutting and stream meander processes. The 1980 Sonoma County landslide map identified approximately six landslides, most of which are relatively small in area (CDMG, 1980, Geology for Planning in Sonoma County, CDMG Special Report 120). One larger landslide complex is mapped on the southwestern site boundary, and is also considered a potential source of debris flows. However, this landslide is not expected to affect the central portion of the SDC Planning Area. Other small landslides were identified during the site study by PJC & Associates (2017). Uncompacted fill and unsupported cut slopes were observed in the SDC Planning Area. These slopes are inherently unstable and could fail in the future. Erosion is also common along the banks of the creeks in the SDC Planning Area including Sonoma Creek, Mill Creek, and Asbury Creek. Bank erosion can lead to undercutting of creek banks and result in slope failure. Expansive clay soils are present in the SDC Planning Area.

# Figure 8-4: Flood Hazard Areas




Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

# Figure 8-5: Dam Failure Inundation Hazard Areas




Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020

Dam Inundation Data Source: Deparment of Water Resources, 2019, Dam Breach Inundation for Suttenfield and Fern Lake Dams, Dam Breach Inundation Map, Web Publisher, fmds.water.ca.gov/webgis/?appid=dam_prototype_v2.

# 8.6 Key Issues and Planning Implications

## Hazardous Materials

- **Hazardous materials are present in many of the buildings and structures in the Planning Area including lead-based paint, asbestos-containing building materials, and mold.** Low levels of potentially hazardous materials are also present in soils around the buildings, agricultural areas, and storage areas of the site. Some of these contaminants may have migrated away from site facilities.
    - Areas to be redeveloped or newly developed should be evaluated for the presence of hazardous materials to determine if there is a hazard to construction workers, future site users or the environment.
    - Any buildings or structures to be demolished should have a site-specific hazardous materials assessment to determine the hazardous materials that would need to be removed for proper disposal and to prevent mixing of hazardous and non-hazardous waste streams.

## Wildland Fires

- **The potential for Wildland Fire is one of the key issues for the SDC site.** Most of the Planning Area is in an area of Moderate to High fire hazard severity zone (Figure 8-2), but is located adjacent to areas of Very High fire hazard severity zones. In 2017, a large portion of the site was burned in the Sonoma Complex fire, destroying many structures and facilities in the outlying eastern portion of the SDC site.
    - Planning for future site uses should consider wildland fire hazards, including vegetation management and other risk mitigation measures, as well as the needs to be able to fight fires that may migrate onto the SDC Planning Area from adjacent critical fire danger areas.
    - A dependable source of water availability at high pressure is an important aspect of the ability to fight fires around buildings and other structures. The closure of the SDC water treatment plant is of critical importance to the ability to fight fires at the SDC site.
    - Planning for future site uses should consider evacuation routes in the event of Wildland Fires.

## Flooding

- **According to the Flood Zone maps of the area (Figure 8-4), the 100-year flood is contained within the channels of Sonoma Creek and the other creeks in the Planning Area.** However, the 500-year flood is predicted to cause overtopping of the banks locally within the SDC Planning Area.
    - Development or redevelopment of sites within the SDC Planning Area in close proximity to creeks or other potentially flood prone areas should be carefully evaluated for long-term flooding potential.

## Dam Inundation

- **The potential for dam inundation in the Planning Area and downstream of SDC is of significant concern (Figure 8-5).** The Suttonfield Lake and Fern Lake dams and spillways should be evaluated for static stability and seismic stability. Both dams are currently considered potential sources of major dam inundation flood hazard.
    - The dam embankments should be inspected, routinely monitored and repaired as needed.
    - Concrete spillways should also be routinely inspected and repaired as needed.
    - The sizes of the existing spillways should be evaluated for adequacy in regards to the potential increases in storm size and duration that is associated with current design standards.

## Seismic Shaking

- **Strong seismic ground shaking is a significant concern for the reuse of buildings and structures at the site, especially for buildings to be used for human occupancy.** The peak ground acceleration of 0.74 g is significant and most if not all of the existing structures on site were not designed in accordance with modern or current Building Standards and Codes. Existing structures to be used for human occupancy should be evaluated in accordance with retrofit standards of the California Building Code (CBC), current edition (2019).
    - Any new structures should be designed and constructed in accordance with requirements of the CBC, including requirements for a Geotechnical Investigation to provide geo-technical design recommendations.

## Liquefaction Hazard

- **While liquefaction hazard is considered low to moderate in most of the SDC Planning Area,**

**liquefaction hazard is considered high to very high in the active streams and in stream deposits such as old sand and gravel bars that are well sorted and poorly graded.** Due to the historical meandering of the Sonoma Creek channel in the flood plain area, deposits of old sand and gravel bars could be present over much of the low-lying areas near the creeks and streams. Liquefiable sands could be present in lenses and beds underlying the existing developed areas and structures. Liquefaction of sand layers caused by the strong to very violent ground shaking expected to occur at the site in the future could result in liquefaction induced settlements, which can take days to weeks to show ground surface effects after an earthquake induced ground shaking event.

- Stability in the area of structures proposed for reuse for human occupancy should include a Geotechnical Investigation to evaluate the potential for liquefaction induced settlement and to propose mitigation measures if needed.

- Any new structures should be designed and constructed in accordance with requirements of the CBC, including requirements for a Geotechnical Investigation to provide geotechnical design recommendations.

## Landslides

- **Landslides and seismically induced landslides could occur in some of the upland areas within the Planning Area.** However, these areas are not heavily developed. The creek banks on Sonoma Creek and other creeks should be evaluated for stability, especially in areas of existing development where bank failure could affect existing buildings, utilities, roads and bridges. Areas with uncompacted fills and overly steep cut slopes should also be evaluated for stability. Expansive soils are present on the SDC site and could cause damage to structures and improvements due to the effects of heave and settlement in response to changes in seasonal moisture content.

  - Any new structures should be designed and constructed in accordance with requirements of the CBC, including requirements for a Geotechnical Investigation to provide geotechnical design recommendations.

  - Any proposed development or redevelopment in close proximity to creek banks should be evaluated by completing a Geotechnical Investigation to determine the level of hazard and prepare geotechnical recommendations to mitigate the risk.

# Market Demand Analysis

*Chapter Nine*

# 9.1 Chapter Overview

Prior work evaluating market opportunities in the Planning Area is presented in the Economy and Land Use chapter of the 2018 *Existing Conditions Assessment*. The qualitative assessment explores market opportunities across a range of land uses, including residential, hospitality, recreational, and commercial uses. Market rate housing and hospitality are highlighted for their potential to generate economic value, while other uses, such as recreation and affordable housing, generate limited direct economic value but are generally supported by the community and provide other important benefits. The assessment recommends a balanced land use strategy that incorporates enough value-generating uses to fund infrastructure and rehabilitation costs, along with uses that reflect stakeholder priorities, enhance quality of life, and achieve public policy objectives.

The following Market Demand Analysis estimates the magnitude of market demand for land use opportunities identified through prior work. Demand estimates focus on higher-value opportunities in the campus core that demonstrate the greatest potential to fund infrastructure, affordable housing, community amenities, and other stakeholder priorities. Projections address market rate residential, hospitality, commercial, and industrial uses. Factors influencing the development potential of affordable housing and community amenities are addressed qualitatively and will be evaluated further in the Alternatives Analysis.

## Analysis Approach and Limitations

Market demand for each land use within the Planning Area is estimated as a share of average annual countywide demand, projected over the next ten years. Cumulative demand estimates assume a five-year absorption period. The near-term focus of demand estimates is intended to identify uses that would most quickly recover significant upfront infrastructure costs. Supported demand would be greater over a longer development timeline.

Market demand conclusions indicate the maximum supported demand for each use, rather than a recommended land use program. The appropriate balance of land uses, both value-generating and community-serving, will be determined in the Project Alternatives phase of the Specific Plan process. State law requires that the Specific Plan consider the economic feasibility of future development. As part of the development of Project Alternatives, a financial feasibility analysis will compare development costs to

income or sales proceeds to identify which alternatives are likely to attract capital for new development.

Demand estimates rely on population and job forecasts from public and private data sources, which are presented in the Socioeconomic Profile (Chapter 4). As population and employment forecasts vary widely by data source, market demand projections are based on the median growth rate of each set of forecasts (0.4 percent annual population growth and 0.6 percent annual employment growth over ten years). Demand estimates assume a gradual recovery from the COVID-19 pandemic and a return to economic normalization by the time development commences in the Planning Area. A prolonged economic fallout would delay the timing of market opportunities.

## Market Demand Conclusions

Market demand estimates were prepared for market rate housing, hospitality, commercial, and industrial uses. Assuming a five-year absorption period, maximum near-term market demand for these uses in the Planning Area is estimated to comprise 400 market rate housing units (300 single-family and 100 multifamily), a boutique hotel with up to 130 rooms and 15,000 square feet of event space, and up to 35,000 square feet of local-serving retail and office and small-scale industrial uses. The potential to attract a large anchor institution is not reflected in baseline demand estimates. Market rate housing and hospitality represent the highest-value uses with the greatest potential to fund sitewide infrastructure needs. Commercial and industrial uses may support building construction costs but are unlikely to have a significantly positive impact on overall development feasibility.

Affordable housing is required in the Planning Area by State legislation. The unmet need for affordable housing in the county is significant and greater than the estimated demand for market rate housing. As of 2019, there were 26,000 applicants on the waitlist for the Sonoma County Housing Choice Voucher program, which provides rent subsidies to income-qualified households. Maximizing affordable housing in the Planning Area will require subsidies from market rate housing and/or other subsidies or funding, which relates the number of affordable housing units that can be built in the Planning Area to the real estate value created by market rate housing.

The development of single-family housing would require new construction on available sites in the campus core. Other uses might be accommodated, at least in part, by adaptive reuse. Connections to recreational or agricultural uses would

enhance the market appeal of residential and hospitality uses. Table 9-1 summarizes the conclusions of the market demand analysis.

As noted in the preceding section, demand projections reflect the maximum supported market demand and do not advocate a specific land use mix. In particular, while single-family housing may be viable from a market perspective, there is not much vacant land in the core to build new housing and replacement of higher-intensity buildings with lower-intensity single-family development may not represent the most optimal use of the site or yield a significant amount of development. The desired land use mix will be determined through the development of a Preferred Alternative based on a variety of factors such as stakeholder priorities, financial feasibility, and infra-structure capacity.

## Affordable Housing

Unmet demand for affordable housing is widespread in Sonoma County and throughout the state. There is a strong need at all eligible income levels, including very low, low, and moderate income households, as well as middle-income households for whom market rate prices are still unattainable. Responding to the housing crisis, the State Legislature has identified affordable housing as a priority land use for the Planning Area.

While a specific target has not been established, the State's emphasis on affordable housing suggests that the Planning Area will be expected to exceed the State policy for its conventional surplus land process, which requires a minimum of 15 percent affordable units, as well as Sonoma County's Affordable Housing Program requiring 20 percent of ownership units and up to 15 percent of rental units to be affordable.

State and local funding for affordable housing is limited and competitive. Strategies not dependent on competitive public funding are essential to meet affordable housing goals in the Planning Area. Encouraging smaller, more affordable housing types such as cottage housing and smaller multifamily units is one way to bring rents and sales prices into balance with what low- and moderate-income households can afford. Another important strategy is mixed-income housing development that allows the value created by market rate units to subsidize the cost of the affordable units.

The County's existing density bonus programs in unincorporated areas could serve as a model for incentives that grant additional density to mixed-income projects meeting affordability goals. The financial feasibility analysis, to be prepared as part of the Alternatives Analysis, will compare the costs and revenues of land use alternatives to determine the amount of affordable housing that can be feasibly built, while fulfilling other critical needs of the Planning Area.

## Market Rate Housing

Over a five-year absorption period, near-term demand for market rate housing in the Planning Area is estimated to support up to 300 single family units and 100 multifamily units (including age-restricted and conventional housing), based on average annual absorption of 60 single-family units and 20 multifamily units per year. Demand for multifamily housing has the potential to increase over time as the Planning Area becomes more established as a mixed-use community.

*Table 9-1: Estimated Market Demand for Potential Planning Area Land Uses*

| *Land Use* | *Average Annual Demand* | *5-Year Demand* |
|---|---|---|
| Affordable Housing | Significant[1] | Signifcant[1] |
| Market Rate Single Family | ± 60 units | ± 300 units |
| Market Rate Multifamily | ± 20 units | ± 100 units |
| Hotel | - | 100 to 130 rooms |
| Event Center | - | ±15,000 sq. ft. |
| Retail/ Restaurants | ±1,000 sq. ft. | ±5,000 sq. ft. |
| Office | ±2,000 sq. ft. | ± 10,000 sq. ft. |
| Industrial / Maker Space | ±4,000 sq. ft. | ± 20,000 sq. ft. |
| Institutional | Tenant specific[2] | Tenant specific[2] |
| Community Amenities | Based on stakeholder priorities[3] | Based on stakeholder priorities[3] |

1 Affordable housing is a required land use with greater demand than market rate housing. The supported number of affordable units depends in part on the real estate value generated by market rate housing, which will help subsidize the cost of affordable units.

2 Institutional demand will be based on tenant-specific needs and proactive marketing efforts as opposed to baseline market trends.

3 The desired type and amount of community amenities will be determined based on stakeholder priorities and the overall financial capacity of the Planning Area to support these uses.

*Keyser Marston Associates (estimate)*

The Planning Area has the potential to capture additional multifamily housing demand by offering unique recreational opportunities and targeting segments of multifamily housing demand that are underserved by the competitive supply. Near-term multifamily market opportunities include smaller rental units targeted to the workforce commuting to jobs in Lower Sonoma Valley's hospitality and health industries. These market rate units could be developed as a standalone building or as part of a larger mixed-income development that also includes deed-restricted affordable units.

Another promising market opportunity in the Planning Area is senior housing targeted to ages 55 and over, including independent living, assisted living, and memory care. As detailed in the Socioeconomic Profile, age brackets eligible for senior housing are projected to grow much faster than the county population overall. Land values supported by senior housing are comparable to conventional multifamily housing based on a review of land sales since 2016.

Despite strong potential market demand for single-family housing, physically opportunities for new single-family housing at SDC are very limited, given the need to accommodate new development within the campus core and keep the surrounding areas as open space. Higher-density, smaller-lot single housing types, either attached or detached, would achieve the most efficient use of limited development sites in the campus core. Cluster housing development, which groups smaller homes closer together, as well as attached condominium development represent promising opportunities to capture single family market demand while preserving open space.

## Hospitality

A hotel with event space is a near-term development opportunity in the Planning Area. The highest-value hospitality use is estimated to be a boutique hotel with 100 to 130 rooms and up to 15,000 square feet of event space, given that such uses do not compromise the historic fabric of the site. As noted in the 2018 *Existing Conditions Assessment*, some stakeholders might not support hospitality uses in the Planning Area, particularly higher-end hotels. Hospitality uses at a lower price point are also in demand but would generate significantly less income to fund infrastructure and other priorities.

## Commercial and Industrial Uses

The Planning Area is a challenging location for commercial and industrial uses due to the site's distance from major employment centers. However, some commercial use is needed to serve new residents and reduce vehicle miles

traveled (VMT) and greenhouse gas (GHG) emissions. Near-term market demand for commercial and industrial land uses in the Planning Area is estimated to support a maximum of 35,000 square feet over a five-year absorption period, comprised of 5,000 square feet of retail, 10,000 square feet of local-serving office, and 20,000 square feet of small-scale manufacturing and artisan workshops. Annual absorption is estimated to be in the range of 7,000 square feet per year. Retail demand is tied to the buildout of other land uses and would be less if other uses are not developed at their maximum market potential.

## Institutional Uses

Institutional demand for medical, educational, or large corporate uses is tenant-specific and cannot be predicted based solely on market trends. While land use alternatives might explore ways to accommodate a large institutional use, the plan should not depend solely on this possibility.

Higher education and medical campuses generate market demand for complimentary uses such as residential, commercial, and hospitality, in addition to their own facility needs. It is common for developers of large sites to seek an educational or medical institution to anchor the project because of the spinoff benefits that these institutions provide to the residential and commercial components of the development. An example is the planned satellite campus of Sacramento State in Placer County, to be located on 300 acres donated by the developer of an adjoining master-planned community that includes housing and commercial development catered to university students and faculty.

Corporate campuses represent another potential large end user of the site, provided that building requirements do not conflict with the historic fabric of the campus core. There are a few local precedents of corporate campuses in historic districts, such as Lucasfilms' Letterman Digital Arts Center in the Presidio (23 acres), or the Sun Microsystems (now Oracle) campus on the site of the former Agnews Developmental Center in Santa Clara (83 acres).

## Community Amenities

Community amenities (arts, community services, and recreational uses) are essential to a balanced land use plan. Most community amenities generate limited direct economic value but contribute to the quality of life and market appeal of the Planning Area. While such amenities generate limited direct revenues, some have the potential to enhance the value of adjoining market-driven uses such as a hotel or single family residential. As with affordable housing, the level of

community amenities provided must be in balance with the financial capacity of the overall development to support capital and operating costs.

### Additional Income-Generating Opportunities

The focus of this market demand analysis is on real estate development opportunities in the campus core. The broader site's significant open space, habitat, and ecosystem assets may provide additional opportunities, apart from real estate development, to generate income or attract philanthropic support. Examples provided in the *Existing Conditions Assessment* include the sale of water to local service providers and philanthropic support for acquisition and management of conservation easements. Permit and fee revenues from recreational uses such as equestrian or sports fields, as well as agricultural leases, represent another, likely modest income source.

## 9.2 Affordable Housing

The State of California has identified affordable housing—including housing for individuals with developmental disabilities—as a priority use for the Planning Area. While a specific target has not been established, it is expected that the project will exceed both State policy for the conventional surplus land process (a minimum of 15 percent affordable units) as well as the County's Affordable Housing Program for Residential Development, which requires market rate developers to construct a minimum percentage of affordable units (20 percent of ownership units and 10 to 15 percent of rental units) or pay an in-lieu fee that is used to fund affordable units elsewhere in the unincorporated county. Table 9-2 summarizes the referenced State and County policies.

### Affordable Housing Market Trends

The current (2015 – 2023) Regional Housing Needs Allocation (RHNA) for Sonoma County jurisdictions targets the production of 533 affordable units per year, more than the RHNA goal for market rate housing. Actual permitting activity in the county has totaled 342 units per year. Very low- and low-income housing units comprise approximately two-thirds of annual permitting activity. These units are

targeted to households with incomes at or below 80 percent of the area median income (currently $77,800 for a three-person household). Remaining units are affordable to moderate income households with incomes up to 120 percent of the area median (currently $100,750 for a three-person household). Table 9-3 compares recent affordable housing permitting activity in Sonoma County to RHNA targets.

*Table 9-2: Minimum Requirements for Affordable Share of Total Housing Units*

| *Policy* | *Low/ Very Low* | *Moderate* | *Total* |
|---|---|---|---|
| State: Surplus Land Act | 15% | - | 15% |
| County Standard: Rental[1] | 15% | - | 15% |
| County Standard: Ownership[1] | 10% | 10% | 20% |

[1] An in-lieu fee may be paid in place of construction of affordable units on-site.

*Section 54220 of the Government Code, Sonoma County*

*Table 9-3: Affordable Housing Permitting Activity in Sonoma County from 2015 through end of 2018*

| *Income Level* | *RHNA Target Permits / Year* | *Actual Permits / Year[1]* | *% of Total Permits* |
|---|---|---|---|
| Very Low Income | 227 | 96 | 28% |
| Low Income | 137 | 123 | 36% |
| Moderate Income | 169 | 122 | 36% |
| Affordable Total | 533 | 342 | 100% |

[1] Excludes Santa Rosa permitting activity in 2018 (progress report not filed).

*California Department of Housing and Community Development*

As detailed in the Socioeconomic Profile, there is significant unmet demand for affordable housing in Sonoma County. Of the County's approximately 45,000 renter households with incomes below $75,000, three-quarters spend more than 30 percent of their income on rent.

## Planning Area Affordable Housing Strategies

State and local funding for affordable housing is limited and competitive. To maximize affordable housing, the Specific Plan will need to establish a broader set of strategies that do not rely solely on competitive public funding. Potential strategies include encouraging smaller, more affordable housing types and incentivizing market rate units to subsidize affordable units as part of a larger mixed-income development.

### *Efficient Design*

Smaller housing units tend to require lower rents or sales prices to support development costs. Encouraging smaller housing units in the Planning Area would help bring rents and sales prices into balance with what low- and moderate-income households can afford.

Accessory dwelling units, cottage housing, and smaller multifamily units are examples of housing types that can be designed as affordable to moderate income households without the need for a significant public subsidy. Very small units, such as single room occupancy housing (less than 400 square feet), could be designed as affordable to low income households as well.

In accordance with the "Housing First Model" adopted by both the State and Sonoma County and in light of the housing crisis exacerbated by the effects of the 2017 Nuns Fire, the County has recently amended its zoning regulations to reduce physical and financial barriers to creating accessory dwelling units and encourage the development of smaller housing types in unincorporated areas. In certain districts, regulations now permit accessory dwelling units of up to 1,200 square feet and clusters of cottage housing totaling 2,700 square feet per three units. In addition, the County's development standards now treat smaller units in higher-density multifamily projects as less than a full unit for purposes of calculating the allowed density. Adoption of similar policies in the Planning Area would help advance affordable housing goals.

## *Mixed-Income Housing Development*

The joint development of market rate and affordable housing allows the value created by market rate units to subsidize the cost of the affordable units. This concept underpins Sonoma County's Affordable Housing Program for Residential Development, which requires market rate housing developers to provide a minimum percentage of affordable units (20 percent of ownership units and 10 to 15 percent of rental units). Sonoma County's Housing Opportunity Program offers density incentives to projects that exceed baseline affordable housing requirements. Rental housing projects utilizing the program are entitled to build at twice the base density if 40% of units are affordable to low and very low-income households. Small-lot ownership housing projects in lower density zoning districts qualify for a density increase up to 11 units per acre if 20 percent of units are affordable to low-income households and remaining units are affordable to moderate income households.

In the Planning Area, density incentives will be most effective in maximizing affordable housing if the real estate value generated by market rate units under the base residential density is sufficient to fund infrastructure costs. This way, the incremental value created by the density bonus will be available to fund the affordable units. The forthcoming financial feasibility analysis, to be prepared as part of the Alternatives Analysis, will compare the costs and revenues of land use alternatives to understand the amount of affordable housing development that can be supported, while fulfilling other critical needs of the Planning Area.

Successful mixed-income housing development is often aided by partnerships between market rate developers and affordable housing developers or community land trusts. Affordable housing developers bring expertise in accessing specialized funding sources for affordable rental housing (discussed below) and providing services to low-income residents. Community land trusts acquire the land beneath affordable ownership units and take responsibility for identifying income-qualified buyers and ensuring long-term affordability as units are resold.

## *Funding Sources*

Conventional debt and equity sources do not typically cover the full cost of developing affordable housing particularly at deeper levels of affordability. Developers of very low- and low-income affordable housing may qualify for federal tax credits that help cover development costs, as well as other subsidized funding sources. External funding for moderate income units is limited, apart from subsidies provided by

market rate developers to satisfy local affordable housing requirements.

On average, a low-income apartment unit in Sonoma County costs approximately $480,000 to develop, assuming a finished lot with infrastructure improvements in place. Table 9-4 shows the typical composition of low-income housing funding sources, based on eight recent applications to the California Tax Credit Allocation Committee. Conventional debt and equity support only 30 percent of the development cost. Projects that provide at least 40 percent of units at rents affordable to households with incomes at or below 60 percent of the area median are eligible for federal tax credits that support approximately 50 percent of development costs. The remaining 20 percent of project costs ($94,000 per unit) is often funded by loans and grants from public agencies, the deferral of developer fees, and other subsidized sources such as land donations or market rate developer contributions. On average, projects received $36,000 per unit in local agency funding and $18,000 per unit in state funding. State and local funding is limited and competitive, and is often tied to the availability of transit and amenities to accommodate affordable housing. Planning Area strategies to encourage smaller, more efficient housing units and mixed-income development would reduce the need for competitive public funding.

*Table 9-4: Financing Sources of Recent Affordable Housing Projects in Sonoma County*

| *Source* | *Average Per Unit*[1] | *% of Costs* |
|---|---|---|
| Conventional Debt/ Equity | $144,000 | 30% |
| Tax Credit Equity | $243,000 | 51% |
| Deferred Developer Fee | $20,000 | 4% |
| City/ County Subsidy | $36,000 | 7% |
| State Subsidy | $18,000 | 4% |
| Other Subsidies[2] | $20,000 | 4% |
| Total | $481,000 | 100% |

[1] Based on eight recent projects with 543 total units.

[2] Includes land donation, foundation grants, federal grants, and market rate developer contributions.

*California Tax Credit Allocation Committee*

## Housing for People with Developmental Disabilities

State legislation identifies affordable housing for people with developmental disabilities as a priority use within the Planning Area. There are nearly 10,000 people with developmental disabilities living in Sonoma County, Napa County, and Solano County based on the service population of the North Bay Regional Center, which oversees service delivery for people with developmental disabilities in the three-county area. Half of the North Bay Regional Center's consumers are over the age of 21. Most regional center consumers currently live in home settings: 72% live with a parent or guardian, 14% live in independent living or supported living settings, and 2% live in adult family homes or foster homes. The balance of consumers (12%) are housed in licensed community care facilities, intermediate care facilities or other settings.

A statewide survey of people with intellectual and developmental disabilities summarized in the *Statewide Strategic Framework for Expanding Housing Opportunities for People with Intellectual and Developmental Disabilities* (2018) found that most adults with developmental disabilities would prefer to live alone or with roommates in independent living or supported living settings. People with developmental disabilities and their families cited the lack affordable housing as the primary barrier to securing their preferred housing arrangement. Often the rents of low-income affordable units are still out of reach for people with developmental disabilities who are living on a fixed income, and not all affordable housing projects provide adequate support services. The Planning Area has a unique opportunity to build upon the history of the site by addressing a range of housing needs among people with developmental disabilities, including independent living, shared housing, and licensed residential care facilities.

# 9.3 Market Rate Housing

## Market Rate Housing Market Trends

Single family homes comprise the vast majority of the housing stock in Sonoma County cities and unincorporated areas. More than 90 percent of owner-occupied units are single-family detached and attached homes. Single-family homes make up half of renter-occupied units as well, competing in the rental market with multifamily buildings. Table 9-5 compares the composition of owner occupied, renter occupied, and vacant or seasonal units by building type. The percentage of the housing stock classified as vacant or seasonal is greater in Sonoma County than elsewhere in the Bay Area due to the county's larger second home market.

The Planning Area has an opportunity to attract both single family and multifamily housing development. Large contiguous sites for new single-family housing at SDC are limited, given the need to accommodate new development within the campus core and keep the surrounding areas as open space. Multifamily development is better suited to infill development and adaptive reuse opportunities.

### *Single-Family Market Trends*

New construction of single-family homes has gradually increased throughout the Sonoma County cities and unincorporated areas over the last five years, from roughly 400 building permits issued in 2014 to more than 800 permits issued in 2017. In 2018, there were more than 3,000 single-family building permits issued in the county, of which approximately 2,000 were issued to rebuild single-family homes destroyed in the October 2017 fires. The balance of more than 1,000 new single-family permits represents a peak in construction activity not matched since before the 2008-2009 recession. Table 9-6 shows the trend in annual building permits issued for single-family home construction in Sonoma County. Over the last five years, permitting activity, excluding rebuild permits, has averaged 580 units per year. New home construction has been concentrated in Santa Rosa, Rohnert Park, and the Route 101 corridor. Few new units have been built in the Lower Sonoma Valley apart from custom homes on individual lots.

*Table 9-5: Sonoma County Housing Inventory by Tenure and Units in Structure*

| *Unit Type* | *Owner Occupied* | *Renter Occupied* | *Vacant/ Seasonal* | *Total Units* |
|---|---|---|---|---|
| Number of Units | 115,093 | 74,246 | 18,292 | 207,631 |
| Single-family Detached | 84% | 40% | 75% | 68% |
| Single-family Attached | 6% | 12% | 5% | 8% |
| 2 to 9 Units | 2% | 23% | 10% | 10% |
| 10 or More Units | 1% | 22% | 7% | 9% |
| Mobile Home | 7% | 3% | 3% | 5% |
| Total | 100% | 100% | 100% | 100% |

*American Community Survey (2014-2018)*

*Table 9-6: Single-family Building Permits Issued in Sonoma County*

| *Status* | *2014* | *2015* | *2016* | *2017* | *2018*[1] |
|---|---|---|---|---|---|
| Annual Permits | 419 | 431 | 621 | 840 | 3,169 |
| Rebuild Permits[1] | | | | | (2,000) |
| Net Annual | 419 | 431 | 621 | 840 | 1,169 |
| Net Cumulative | 872 | 850 | 1,052 | 1,461 | 3,630 |

1. Estimate of permits issued in 2018 to rebuild single-family homes destroyed in the October 2017 North Bay Fires, based on local permit records.

*US Census Bureau Building Permits Survey, Sonoma County, City of Santa Rosa*

The monthly median price of homes sold in Sonoma County ranged from $630,000 to $670,000 for most of 2019, according to the California Association of Realtors.

The income required to afford a market rate single-family home is in the range of $120,000 to $130,000, assuming a 20 percent down payment. New single-family homes, built predominantly in Santa Rosa and Rohnert Park, are being priced competitively with resales of existing homes, at a median price of $675,000. Most new homes are built on small lots of 5,000 to 7,000 square feet.

The median price of home resales in the Lower Sonoma Valley was slightly above the county median in 2019. Prices varied by sub-area. Homes sold in southeast Santa Rosa (zip code 95409) sold for a median price of $626,000, below the county median. In the balance of the Lower Sonoma Valley, the median home price was $740,000. Lot size is an important factor in the Lower Sonoma Valley housing market. Homes on larger lots of a half-acre or more command a significant price premium relative to small lots but comprise a smaller share of resale activity.

Most recently sold homes in the Lower Sonoma Valley have small lots of approximately 7,000 square feet or less. Table 9-7 shows the median price of homes sold during 2019 in the Lower Sonoma Valley by zip code, while Table 9-8 shows the median price by lot size.

## *Multifamily Market Trends*

Approximately 840 market rate multifamily units have been built in Sonoma County in the last five years. New construction has been concentrated in cities along the Highway 101 corridor. The average asking rent for a one-bedroom unit is $1,635 per unit in Sonoma County and slightly less in the Lower Sonoma Valley. Asking rents in both areas have increased by approximately 4 percent per year over the last five years. Table 9-9 summarizes multifamily housing trends in Sonoma County and the Lower Sonoma Valley.

Newly built multifamily projects generally command a rent premium relative to older buildings. As shown in Table 9-10, monthly asking rents of the newest and highest quality apartment properties range from $2,300 per month to over $2,400 per month for a one-bedroom unit. Two-bedroom asking rents at the same properties range from $2,700 to $3,000 per month, which is comparable to the average for single-family home rentals. The household income required to afford the asking rents of newly built apartments is between $90,000 and $100,000 for one-bedroom units and $110,000 to $120,000 for two-bedroom units, approaching

the income required to afford a single-family home at the county median price.

## Countywide Market Demand

Over the next 10 years, market rate housing demand in Sonoma County is estimated to average 920 units per year, assuming annual household growth of 0.4 percent per year (the median of population forecasts reviewed in the Socioeconomic Profile). Single-family housing is estimated to make up 75 percent of demand and multi-family housing comprises the balance, based on the current tenure mix of households with incomes over $100,000. The demand estimate does not include the need for affordable units, which is addressed in Section 9.2. According the current Regional Housing Needs Allocation (RHNA), affordable housing accounts for a greater share of regional housing needs than market rate housing.

*Table 9-7: Median Price by Zip Code of Homes Sold in Lower Sonoma Valley (2019)*

| *Zip Code* | *2019 Sales* | *Median Lot Size* | *Median Sq. Ft.* | *Median Price* |
|---|---|---|---|---|
| 95409 (Santa Rosa) | 410 | 7,200 | 1,600 | $626,000 |
| 95452 (Kenwood) | 15 | 14,400 | 1,600 | $829,000 |
| 95442 (Glen Ellen) | 32 | 29,400 | 1,600 | $825,000 |
| 95476 (Sonoma) | 411 | 6,900 | 1,500 | $739,000 |
| All Zip Codes | 868 | 7,200 | 1,600 | $680,000 |

*Redfin*

*Table 9-8: Median Price by Lot Size of Homes Sold in Lower Sonoma Valley (2019)*

| *Lot Size* | *2019 Sales* | *Median Lot Size* | *Median Sq. Ft.* | *Median Price* |
|---|---|---|---|---|
| Less Than 0.5 acres | 741 | 6,500 | 1,500 | $649,000 |
| 0.5 to 2.0 acres | 73 | 40,100 | 2,100 | $1,065,000 |
| More Than 2.0 Acres | 54 | 166,000 | 2,700 | $1,812,500 |
| All Lot Sizes | 868 | 7,200 | 1,600 | $680,000 |

*Redfin*

*Table 9-9: Market Rate Multifamily Housing Trends*

| *Metric* | *Sonoma County* | *Lower Valley* | *% of County* |
|---|---|---|---|
| 2019 Inventory (Units) | 25,120 | 1,150 | 5% |
| 5-Year Net Inventory Change | 830 | -10 | |
| 5-Year Gross Construction | 840 | 0 | 0% |
| 2019 Asking Rent Per Unit (1BR) | $1,635 | $1,580 | |
| 1BR Average Sq. Ft. (1BR) | 643 sf | 701 sf | |
| 2019 Asking Rent Per Sq. Ft. (1BR) | $2.52 | $2.05 | |
| 2019 Vacancy | 5% | 6% | - |

*Costar*

*Table 9-10: Asking Rents of One-Bedroom Units in Recently Built Apartment Projects in Sonoma County (2019)*

| *Property* | *Avg. 1BR Unit Size* | *Rent Per 1BR Unit* | *Rent Per Sq. Ft.* |
|---|---|---|---|
| Altura Apartments (Petaluma) | 806 | $2,440 | $3.03 |
| Sonoma Ranch (Santa Rosa) | 720 | $2,400 | $3.33 |
| Canyon Oaks (Santa Rosa) | 746 | $2,400 | $3.21 |
| The Reserve (Rohnert Park) | 935 | $2,320 | $2.48 |

*Costar*

## Planning Area Market Demand

The Planning Area is a strong location for residential development. Based on the site's competitive position and historical absorption rates of comparable projects, the Planning Area's maximum share of countywide housing demand is estimated to be nine percent. This market share would support an absorption rate of 60 single-family units and 20 multifamily units per year, or 300 single-family units and 100 multifamily units over a five-year absorption period. Table 9-11 summarizes projected countywide housing demand and the Planning Area's potential share.

### *Multifamily Housing Opportunities*

Multifamily housing, both age-restricted and conventional, is suitable for adaptive reuse of existing structures, although new construction is likely needed to capture the maximum potential housing demand. While multifamily housing development in Sonoma County is generally concentrated closer to job centers in urban areas along the Highway 101 corridor, the Planning Area has the potential to capture multifamily demand by offering unique recreational opportunities and other amenities and by targeting segments of multifamily housing demand that are currently underserved by the competitive supply. The presence of a large institutional user in the Planning Area, as described in Section 9.8, would significantly strengthen multifamily market demand. Commercial and hospitality uses would also have a positive effect on market demand. Demand for multifamily housing has the potential to increase over time as the Planning Area becomes more established as a mixed-use community, particularly if new urban amenities (transit, services, schools) are introduced to better serve new residents.

Near-term multifamily market opportunities include smaller rental units that would be convenient to the workforce commuting to jobs in Sonoma Valley's hospitality and health industries. As described in Section 9.2, smaller multifamily units with lower rents would draw from a larger pool of income-qualified households including moderate-income households and possibly lower income households for the smallest units. Workforce housing units can be developed as a standalone building or as part of a larger mixed- income development that also includes deed-restricted affordable units.

*Table 9-11: Estimated Market Rate Housing Demand in Planning Area*

| *Factor* | *Single-Family* | *Multi-Family* | *Total Units* |
|---|---|---|---|
| Est. Annual County Market Demand | 690 | 230 | 920 |
| Planning Area Share of County | 9% | 9% | 9% |
| Annual Planning Area Market Demand | 60 | 20 | 80 |
| 5-Year Planning Area Market Demand | 300 | 100 | 400 |

*Keyser Marston Associates (estimate)*

Senior housing for ages 55 and over is another promising opportunity within the Planning Area based on the projected population growth of this age segment and nearby precedents such as Oakmont Gardens and Spring Lake Village. Housing types include independent living, assisted living, and memory care. While unit sizes of senior housing projects tend to be smaller than conventional multifamily projects, senior housing projects offer more generous common areas and amenities such as dining, community rooms, swimming pools, and gardens. On a per acre basis, land prices paid for senior housing projects in Sonoma County are comparable to conventional multifamily projects, based on land sales recorded since 2016. Near-term demand for senior housing is a subset of the total estimated multifamily market demand shown in Table 9-8.

## *Single-Family Housing Opportunities*

Despite strong market demand for single-family housing, physically opportunities for new single-family housing at SDC are very limited, given the need to accommodate new development within the campus core and keep the surrounding areas as open space. Apart from the selective renovation of existing homes, single-family housing is not suitable for adaptive reuse due to the size and configuration of most existing buildings. The development of single-family housing would require new construction on available sites in the campus core. Locating single family development near agricultural and recreational uses, as suggested in the *Existing Conditions Assessment,* would enhance market appeal and set the Planning Area apart from a typical subdivision.

Higher-density single-family housing types, either attached or detached, would achieve the most efficient use of limited land in the campus core. Table 9-12 provides benchmarks for single-family lot and home sizes based on newly built homes, resale activity in the Lower Sonoma Valley, nearby residential subdivisions, and County development standards. Small lot detached homes (5,000 to 7,000 square foot lots) comprise of most the recent development and sales activity in the Lower Sonoma Valley. Cluster housing development, which groups homes closer together, is a less common, but promising opportunity to capture single family market demand while preserving open space. The Sonoma Greens subdivision south of the site offers a precedent for clustered townhomes on 2,500 square foot lots with larger common areas. Development standards for cottage housing recently adopted by the County encourage clusters of smaller, more affordable units at a scale comparable to a large single-family home. Larger lots, such as those found in the Trinity Oaks subdivision of Glen Ellen, would command a price premium relative to smaller lots but would potentially take longer to absorb and be more challenging to physically accommodate within the footprint of the existing campus core in any significant quantity.

*Table 9-12: Benchmarks for Single Family Lot and Home Sizes*

| *Housing Type* | *Benchmark* | *Median Lot Sq. Ft.* | *Median Home Sq. Ft.* |
|---|---|---|---|
| Cottage Housing | County zoning[1] | 2,500 | 900 |
| Townhouses | Sonoma Greens subdivision | 2,560 | 1,890 |
| Small Lots | New homes sold countywide | 5,150 | 1,950 |
| Small Lots | Lower Sonoma Valley resales | 7,200 | 1,550 |
| Larger Lots | Trinity Oaks subdivision | 48,400 | 1,900 |

*Redfin, RealQuest*

[1] Reflects minimum lot size and maximum average unit size per Sec. 26-88-063 of Sonoma County Zoning Regulations.

# 9.4 Hospitality

## Hospitality Market Trends

### *Lodging*

Hotel revenues per available room increased by an average of 8 percent per year from 2014 to 2018 in Sonoma County. Revenues per available room decreased slightly in 2019, potentially indicating a peaking market after several years of strong growth. Table 9-13 shows revenue and occupancy trends of hotels in Sonoma County since 2014.

The hotel market in Sonoma County varies significantly by season, with occupancy exceeding 80 percent in the summer and falling near 60 percent in early winter.

Table 9-14 shows the bimonthly change in occupancy and room rates that occurred in 2019.

Since 2000, the county's hotel supply has grown at an average rate of 1.5 percent per year, representing a cumulative gain of over 1,600 hotel rooms, a net of the 400 rooms destroyed in the October 2017 fires and other reductions in supply. The upscale segment has added the most rooms, while the luxury segment has grown the fastest. Table 9-15 shows the change in the county's hotel room supply from 2000 to 2019 by hotel class.

The county has a significant pipeline of hotels that are under construction, proposed, and entitled. The pipeline of 1,715 rooms exceeds the total number of rooms added to the county over the last two decades. Three-quarters of the pipeline is comprised of limited or select-service hotels in the midscale and upscale segments. Examples of hotels in this category include Cambria Suites and Courtyard by Marriott. Nearly 250 pipeline rooms fall into the category of downtown boutique hotels, including a proposed hotel on the Sonoma Plaza. The only luxury resort hotels in the pipeline are the 130-room Montage in Healdsburg, due to open in the fall of 2020, and a resort in Kenwood that was previously approved for a 50-room inn, a spa and a restaurant. Table 9-16 shows the hotel pipeline in Sonoma County by market segment.

*Table 9-13: Hotel Market Trends in Sonoma County*

| *Metric* | *2014* | *2015* | *2016* | *2017* | *2018* | *2019* |
|---|---|---|---|---|---|---|
| Avg. Daily Rate | $148 | $161 | $172 | $184 | $200 | $201 |
| Occupancy % | 80% | 80% | 79% | 80% | 79% | 77% |
| RevPAR | $118 | $129 | $136 | $148 | $159 | $154 |

*CBRE Hotels*

*Table 9-14: Seasonal Performance of Hotels in Sonoma County (2019)*

| *Metric* | *Dec/ Jan* | *Feb/ March* | *April/ May* | *June/ July* | *Aug/ Sept* | *Oct/ Nov* |
|---|---|---|---|---|---|---|
| Avg. Daily Rate | $166 | $169 | $199 | $207 | $226 | $199 |
| Occupancy % | 62% | 74% | 79% | 84% | 84% | 77% |
| RevPAR | $103 | $124 | $157 | $174 | $191 | $155 |

*CBRE Hotels*

## *Table 9-15: Change in Hotel Room Supply in Sonoma County (2000 to 2019)*

| *Class* | *2000 Rooms* | *New Rooms* | *Lost Rooms*[1] | *2019 Rooms* | *Net Change* | *Annual Growth %* |
|---|---|---|---|---|---|---|
| Economy | 1,620 | 214 | -203 | 1,631 | 11 | 0.0% |
| Midscale | 1,460 | 708 | -124 | 2,044 | 584 | 1.8% |
| Upscale | 1,371 | 885 | -260 | 1,996 | 625 | 2.0% |
| Luxury | 576 | 403 | 0 | 979 | 403 | 2.8% |
| Total | 5,027 | 2,210 | -587 | 6,650 | 1,623 | 1.5% |

[1] Approximately 400 rooms were destroyed in the October 2017 fires. Hotel closures account for the balance of supply reductions.

*Smith Travel Research (STR)*

## *Table 9-16: Proposed, Entitled, and Under Construction Hotels in Sonoma County*

| *Class/ Service* | *Projects* | *Rooms* | *%* |
|---|---|---|---|
| Midscale, Limited Service | 4 | 461 | 27% |
| Upscale, Select/ Limited Service | 6 | 828 | 48% |
| Downtown Boutique | 4 | 246 | 14% |
| Luxury | 2 | 180 | 11% |
| Total | 16 | 1,715 | 100% |

*Sonoma County Economic Development Board*

*Table 9-17: Sonoma County Hotels with Largest Indoor Event Spaces*

| *Hotel Property* | *Rooms* | *Indoor Sq. Ft* | *Outdoor Sq. Ft.* | *Total Sq. Ft.* |
|---|---|---|---|---|
| Graton Resort (Rohnert Park) | 200 | 20,000 | - | 20,000 |
| Doubletree (Rohnert Park) | 245 | 18,000 | 32,000 | 50,000 |
| Hyatt Regency (Santa Rosa) | 253 | 17,540 | 22,050 | 39,590 |
| Fairmont (Sonoma) | 226 | 15,000 | 16,000 | 31,000 |
| Sheraton (Petaluma) | 184 | 15,000 | 0 | 15,000 |

*Sonoma County Tourism*

## *Event Space*

To counteract the seasonal nature of the hotel market, many Sonoma County hotels include event space for weddings and business meetings as an additional revenue source. The hotels with the highest room counts in the county also have the county's largest indoor event spaces. Table 9-17 lists hotels in the county with 15,000 square feet or more of indoor event space. Graton Resort and Casino in Rohnert Park includes the county's largest indoor event space with 20,000 square feet built in 2016.

Elsewhere in the North Bay, two hotels in Napa (each over 400 rooms) have larger indoor event spaces in the range of 25,000 to 35,000 square feet.

Event spaces attached to boutique hotels tend to be smaller and rely more on outdoor spaces to accommodate large parties. Indoor event spaces of North Bay boutique hotels generally range from 2,000 to 5,000 square feet for hotels with less than 100 rooms and up to 15,000 square feet for hotels with more than 100 rooms. Table 9-18 shows the size of indoor and outdoor event spaces offered by boutique hotels in the North Bay.

*Table 9-18: Event Spaces of North Bay Boutique Hotels*

| *Hotel Property* | *Rooms* | *Indoor Sq. Ft* | *Outdoor Sq. Ft.* | *Total Sq. Ft.* |
|---|---|---|---|---|
| Kenwood Inn (Kenwood) | 29 | 1,120 | 1,400 | 2,520 |
| Auberge Du Soleil (Rutherford) | 50 | 2,915 | 1,200 | 4,115 |
| Calistoga Ranch (Calistoga) | 50 | 2,649 | 10,482 | 13,131 |
| Bardessono (Yountville) | 62 | 1,665 | 1,500 | 3,164 |
| Meadowood Resort (Helena) | 85 | 4,225 | 18,000 | 22,225 |
| Solage Calistoga (Calistoga) | 89 | 4,710 | 6,350 | 11,060 |
| Carneros Resort and Spa (Napa) | 100 | 10,000 | 22,000 | 32,000 |
| Montage (Healdsburg) | 130 | N/av | N/av | 20,000 |
| Cavallo Point (Sausalito) | 142 | 14,000 | 12,500 | 26,500 |

*Sonoma County Tourism and Visit Napa Valley*

## Countywide Market Demand

The 2019 Travel and Tourism Forecast prepared by Tourism Economics for Visit California projects annual visitor trips to the San Francisco Bay Area to grow by two percent per year in the near term. Assuming room demand in Sonoma County also grows by two percent per year, 1,500 hotel rooms would be needed in the county over the next 10 years. The timing of demand may take longer than 10 years, depending on how quickly tourism recovers from the COVID pandemic.

The county's current hotel pipeline exceeds projected demand, but is mostly concentrated in the upscale, limited service market segment. Opportunities likely remain for higher-end boutique hotels to attract investment by differentiating from the competitive supply.

## Planning Area Market Demand

The Planning Area's natural setting makes it a unique and attractive location for a boutique hotel with an event center. The supportable size is estimated to be 100 to 130 rooms and up to 15,000 square feet of interior meeting space, based on comparable boutique hotels in the North Bay. High-quality outdoor areas may augment or replace indoor meeting capacity, as is common in the market.

The market opportunity for a boutique hotel and event center is conditioned on identifying an available site in the Planning Area that provides scenic views and access to recreation and open space. Adaptive reuse is a possibility if the site meets the foregoing criteria. However, a higher-end resort with dispersed guestrooms would generate higher room rates and likely support a greater share of infrastructure costs than a traditional hotel format. Hospitality uses targeted toward a lower price point also have market potential but would generate significantly less income to fund infrastructure and other priorities.

# 9.5 Office

## Office Market Trends

As noted in the Socioeconomic Profile, major office-using sectors are underrepresented in Sonoma County and have yet to fully recover jobs lost during the 2008-2009 recession. Consequently, office demand has been relatively weak in Sonoma County compared to elsewhere in the Bay Area. While new construction added 200,000 square feet in the past five years, the county's total office inventory has decreased after accounting for destroyed or demolished buildings. Table 9-19 compares office real estate trends in Sonoma County and the Lower Sonoma Valley. Office space is concentrated in cities along the Route 101 corridor. Current asking rents are higher in Lower Sonoma Valley than the broader county, likely explained by the type and quality of space available.

*Table 9-19: Office Market Trends*

| *Metric* | *Sonoma County* | *Lower Valley* | *% of County* |
|---|---|---|---|
| 2019 Inventory (Sq. Ft.) | 16,778,000 | 835,000 | 5% |
| 5-Year Net Inventory Change | -132,000 | 8,000 | |
| 5-Year Gross Construction | 206,000 | 8,000 | 4% |
| 2019 Asking Rent Per Sq. Ft. | $1.88 | $2.51 | - |
| 2019 Vacancy | 6% | 5% | - |

*Costar*

## Countywide Market Demand

Over the next 10 years, office demand in Sonoma County is estimated to average 100,000 square feet per year, assuming annual job growth of 0.6 percent per year (the median of population forecasts reviewed in the Socioeconomic Profile). Not all potential market demand may materialize in new construction due to factors such as financial feasibility.

## Planning Area Market Demand

The Planning Area is a challenging location for the office market because it lacks the transportation access that many tenants require. Compounding Sonoma County's relatively weak office market position and the site's lack of accessibility are changes in the office market that may ensue in COVID-19 aftermath if working from home takes off. With all these caveats, there might be an opportunity to attract smaller, service-oriented office tenants to the site. If remote working trends continue after COVID-19, office demand in the Plan Area might include larger employers opening small satellite offices targeted to a remote workforce, although it is too early to quantify the magnitude of this demand.

Based on the scale of the local office market in the Sonoma Lower Valley, the Planning Area's maximum share of countywide office demand is estimated to be two percent. This market share would support an absorption rate of approximately 2,000 square feet per year, or 10,000 square feet over a five-year absorption period. Table 9-20 summarizes the Planning Area's potential share of countywide demand.

The demand estimate does not reflect the possibility of a major institutional user locating to the site, as described in Section 1.8, or major changes in office market demand that could follow a possible shift toward remote work in the aftermath of the COVID pandemic.

*Table 9-20: Estimated Office Demand in Planning Area*

| *Factor* | *Office Sq. Ft.* |
|---|---|
| Estimated Annual County Market Demand | 100,000 |
| Planning Area Share of County | 2% |
| Annual Planning Area Market Demand | 2,000 |
| 5-Year Planning Area Market Demand | 10,000 |

*Keyser Marston Associates (estimate)*

# 9.6 Retail

## Retail Market Trends

The county's total retail inventory has stayed relatively flat over the last five years. Table 9-21 compares retail real estate conditions in Sonoma County and the Lower Sonoma Valley. Approximately 350,000 square feet of new retail space has been built in the last five years. No new construction has occurred in the Lower Sonoma Valley.

As is widely known, retail has been undergoing a major transition with the rise of online shopping. Brick-and-mortar sales growth has been stronger for food and entertainment and weaker for hard and soft goods. From 2015 to 2019, restaurant sales in Sonoma County grew at an annual rate of four percent per year while clothing, general merchandise, and home furnishing sales did not keep pace with the rate of inflation.

*Table 9-21: Retail Market Trends*

| *Metric* | *Sonoma County* | *Lower Valley* | *% of County* |
|---|---|---|---|
| 2019 Inventory (Sq. Ft.) | 24,705,000 | 1,440,000 | 6% |
| 5-Year Net Inventory Change | -85,000 | 0 | |
| 5-Year Gross Construction | 354,000 | 0 | 0% |
| 2019 Asking Rent Per Sq. Ft. | $1.58 | $1.79 | - |
| 2019 Vacancy | 4% | 3% | - |

*Costar*

## Planning Area Market Demand

Market potential is limited for large-scale, regional-serving retail to locate in the Planning Area. Retail is more likely to be oriented toward onsite residents, workers, and visitors to the Planning Area.

The amount of local-serving retail needed will depend on the population supported by other uses.

For illustrative purposes, Table 9-22 provides an estimate of retail demand based on a buildout population of 400 households. Total household retail demand would amount to $12 million or $30,000 per household. Assuming onsite retail captures 10 percent of household spending, plus an allowance for sales to workers and visitors equivalent to 40 percent of sales, total onsite retail sales would amount to $2 million per year. This level of sales would support approximately 5,000 square feet of retail.

Retail can be accommodated through adaptive reuse of existing buildings. Adaptive reuse would need to address the plumbing and mechanical requirements of restaurant tenants, which are likely to comprise a significant share of tenant demand, given recent retail trends.

*Table 9-22: Estimated Retail Demand in Planning Area*

| *Factor* | *Annual Sales Potential (millions)* | *Retail Sq. Ft.* |
|---|---|---|
| Retail Spending by 400 New Households[1] | $12.0 | |
| Project Share (10% of Resident Spending) | $1.2 | |
| Non-Resident Sales (40% of Onsite Sales) | $0.8 | |
| Total Onsite Sales / Supported Sq. Ft.[2] | $2.0 | 5,000 |

[1] Assuming total retail spending of $30,000 per household.

[2] Assuming sales productivity of $400 per square foot.

*ESRI Business Analyst, Keyser Marston Associates (estimate)*

# 9.7 Industrial and Flex Space

## Industrial and Flex Market Trends

### *Industrial*

There has been a spike in industrial development in the county over the last five years, driven by rapid growth in the warehouse and distribution industry. Approximately 90 percent of new development is comprised of warehouse buildings of 40,000 square feet or more with celling heights above 24 feet and ample loading docks. Smaller, specialty industrial buildings constitute the balance of new development. Examples include buildings occupied by artisan food processors in Healdsburg's Grove Street corridor.

Table 9-23 compares industrial real estate trends in Sonoma County and the Lower Sonoma Valley. The Lower Sonoma Valley has captured a significant share of recent industrial development, concentrated in the Schellville area south of the City of Sonoma. The largest of these developments, Victory Station, was vacant for more than a year after completion, explaining the higher vacancy rate in the Lower Sonoma Valley versus the county overall.

The building has since been leased to Amazon after market data was collected.

*Table 9-23: Industrial Market Trends*

| *Metric* | *Sonoma County* | *Lower Valley* | *Valley % of County* |
|---|---|---|---|
| 2019 Inventory (Sq. Ft.) | 27,558,000 | 2,678,000 | 10% |
| 5-Year Net Inventory Change | 1,060,000 | 520,000 | - |
| 5-Year Gross Construction | 1,234,830 | 520,000 | 42% |
| 2019 Asking Rent Per Sq. Ft. | $1.12 | $0.85 | - |
| 2019 Vacancy | 4% | 15% | - |

*Costar*

### *Flex Space*

Flex spaces refers to industrial buildings that allow for a combination of office and light industrial uses. This product type is common in business parks along the Route 101 corridor. Table 9-24 compares flex real estate trends in Sonoma County and the Lower Sonoma Valley. No recent flex construction has occurred in the county. Less than one percent of the existing flex inventory is located in the Lower Sonoma Valley.

## Countywide Market Demand

Over the next 10 years, industrial real estate demand in Sonoma County is estimated to average 230,000 square feet per year, assuming total annual job growth of 0.6 percent per year (the median of forecasts reviewed in the Socioeconomic Profile) and a gradual increase in the share of industrial and warehouse jobs within the county. Large warehouses are estimated to make up 90 percent of demand while smaller, specialty buildings make up the balance, based on the development trends reviewed earlier in this section.

*Table 9-24: Flex Market Trends*

| *Metric* | *Sonoma County* | *Lower Valley* | *Valley % of County* |
|---|---|---|---|
| 2019 Inventory (Sq. Ft.) | 6,637,000 | 41,000 | 0.6% |
| 5-Year Net Inventory Change | -8,000 | 0 | - |
| 5-Year Gross Construction | - | - | 0% |
| 2019 Asking Rent Per Sq. Ft. | $1.20 | - | - |
| 2019 Vacancy | 6% | 5% | - |

*Costar*

## Planning Area Market Demand

While the potential for large scale industrial development is limited in the Planning Area, the Planning Area may have the opportunity to attract small-scale manufacturers and artisan food processors, as described in the *Existing Conditions Assessment*. The Planning Area's maximum share of specialty industrial demand is estimated to be 20 percent, representing a two percent share of overall industrial demand within the County. This market share would amount to an absorption rate of 4,000 square feet per year, or 20,000 square feet over a five-year absorption period. Table 9-25 summarizes projected industrial demand and the Planning Area's potential market share.

Industrial demand in the Planning Area can be met through a combination of shared workshops (up to 15,000 square feet based on the local precedents of Chimera Arts and Maker Space and 180 Studios) and individual leases. Industrial development is best suited to the adaptive reuse of existing buildings. New industrial development is unlikely to be the highest value use of infill sites in the campus core.

*Table 9-25: Estimated Industrial Demand in Planning Area*

| *Factor* | *Traditional[1] Sq. Ft.* | *Specialty [2] Sq. Ft.* | *Total Sq. Ft.* |
|---|---|---|---|
| Est. Annual County Market Demand | 210,000 | 20,000 | 230,000 |
| Planning Area Share of County | 0% | 20% | 2% |
| Annual Planning Area Market Demand | 0 | 4,000 | 4,000 |
| 5-Year Planning Area Market Demand | 0 | 20,000 | 20,000 |

[1] Large warehouse buildings above 40,000 square feet.

[2] Smaller buildings targeted to artisans and small manufacturers.

*Keyser Marston Associates (estimate)*

## 9.8 Institutional

Given the size and configuration of the Planning Area, there might be an opportunity to attract a large institutional user to occupy a significant portion of the campus core. Example institutional users include educational and medical institutions, or a large corporate campus. Attracting a large institutional user to the Planning Area would involve a proactive marketing effort whose outcome and timing cannot be anticipated based on market trends. While land use alternatives might explore ways to accommodate a large institutional user, the Specific Plan should not depend solely on this possibility.

Higher education and medical campuses generate market demand for complimentary uses such as residential, commercial, and hospitality, in addition to their own facility needs. The development of new educational and medical campuses is often integrated with these complementary uses. For example, CalPoly Pomona (CPP) and a development partner plan to redevelop the 309-acre site of the former Lanterman Developmental Center in Pomona (one mile from CPP's main campus) as a new mixed-use university district that combines academic uses with housing and recreation.

It is common for developers of large sites to seek an educational or medical institution to anchor the project because of the spinoff benefits that these institutions provide. In Placer County, the master developer of the planned 2,200-acre Placer Ranch development recently donated 300 acres to Sacramento State for a satellite campus (about 25 miles from the main campus) that will eventually accommodate up to 500 full-time students. The balance of the development includes housing and commercial development catered to university students, faculty, and staff. In San Francisco, a commercial developer donated the land for UCSF's Mission Bay campus as an anchor and catalyst for an emerging biomedical district.

Corporate campuses represent another potential large end user, provided that building requirements do not conflict with the historic fabric of the campus core. There are a few local precedents of corporate campuses in historic districts. In the Presidio, Lucasfilms' Letterman Digital Arts Center contains four buildings totaling 850,000 square feet. The buildings were designed to complement the Presidio's historic architecture and incorporate materials from the army hospital that previously occupied the 23-acre site. (The Presidio Trust funded the significant upfront site preparation and demolition costs.) In Santa Clara, on the west campus of the former Agnews Developmental Center, Sun Microsystems (now Oracle) developed an office campus totaling 1 million square feet on 83 acres. While most of the office square footage is located in new buildings, the campus has retained four historic buildings of the former developmental center, some of which are open to the public.

## 9.9 Community Amenities

Complementing value-generating uses with community amenities that contribute to quality of life is fundamental to the Planning Area's market appeal. As with affordable housing, the level of amenities provided must be in balance with the financial capacity of the overall development to support capital and operating costs.

As detailed in the *Existing Conditions Assessment,* potential Planning Area amenities include arts, community service, and recreational uses. Arts and community services are potential uses for existing buildings in the campus core, assuming spaces are offered at relatively affordable rents. Example tenants include artist workshops, museums, vocational training, and health services. Rents would help offset the operating costs of existing buildings but are unlikely to generate enough value to fund other project costs. Recreational opportunities include new or enhanced biking and hiking trails throughout the site. Recreational uses may

generate modest income through fee and lease revenue. They also have the potential to add value to nearby uses in the campus core.

The Presidio in San Francisco offers a local example of how community amenities and open space can be balanced with income-generating uses to support an economically sustainable district. The Presidio is a 1,491-acre historic district that includes 800 acres of open space and a variety of recreational opportunities including hiking trails, group campsites, and picnic areas. The Presidio is operated as a public trust that generates lease revenues to cover operating expenses. Income-generating uses in the district include 1,441 rental residential units and 2 million square feet of commercial space leased at market rates. Table 9-26 summarizes the Presidio's 2019 earned revenues by land use. Net revenues from residential, commercial, and hospitality uses are directed toward the maintenance of open space and operation of public programs that enhance the Presidio's appeal.

*Table 9-26: Earned Revenues of the Presidio Trust by Land Use*

| *Land use* | *2019 Revenue ($million)* | *% of Total* | *Notes* |
|---|---|---|---|
| Housing | $62.60 | 46% | 1,441 units (15% affordable) |
| Commercial | $30.90 | 23% | 2 million square feet |
| Hospitality | $30.80 | 22% | 2 hotels, 6 event venues, golf course |
| Other | $12.00 | 9% | Permits, parking, utilities |
| Total | $136.30 | 100% | |

*Presidio Trust FY2019 Performance and Accountability Report*

## 9.10 Additional Income-Generating Uses

The focus of this market demand analysis is on real estate development opportunities in the campus core. The broader site's significant open space, habitat, and ecosystem assets may provide additional opportunities, apart from real estate development, to generate income or attract philanthropic support. Examples provided in the *Existing Conditions Assessment* include the sale of water to local service providers and philanthropic support for acquisition and management of conservation easements, as well as permit and fee revenues from recreational uses such as equestrian or sports fields.

Agricultural uses outside the campus core represent another potential source of income, provided that uses do not conflict with objectives to protect and preserve open space and wildlife corridors. The 2018 *Existing Conditions Assessment* identifies opportunities for vineyards, mixed agriculture, livestock operations, and nursery operations in the Planning Area. While direct lease revenues would be modest, agricultural uses have the potential to enhance the value of adjoining residential and hospitality uses, particularly if onsite residents and guests benefit from the access to fresh produce and farm goods.

## 9.11 Key Issues and Planning Implications

- **Limited Palette of Strong Market-Driven Uses.** Single family, some multifamily, and hospitality are the market-driven uses with the strongest near-term development potential in the Planning Area. Near-term market demand is more limited for commercial and industrial uses. The market-driven land uses evaluated in this chapter represent the primary opportunities to generate income that will fund infrastructure costs and desired amenities in the Planning Area. The palette of market-driven land uses is similar to other large reuse projects such as the Presidio, which derives the majority of its earned revenue from residential, commercial, and hospitality uses.

- **Demand for Affordable Housing Governed by Financing Capacity.** While there is significant unmet need for affordable housing throughout Sonoma County, the amount of affordable housing that can be feasibly built in the plan area is dependent on the availability of

affordable housing financing sources that help fund the cost to build affordable units. These sources include competitive state and local funding sources, or contributions from market rate development.

- **"Fit" Between Market Demand, SDC's Physical Fabric, and State's Site Redevelopment Objectives.** The SDC is not a blank canvas, but rather consists of a core campus with an extensive number of buildings, and very limited "vacant" land. While single-family residential may be an obvious "market-demand" driven candidate, such development may not represent an optimal use of the site given the State's stated objective of not allowing new development outside of the campus core. Development of extensive amount of single-family housing in the core may not further the State's and the County's goals to accommodate a significant amount of housing at the site and may result in even lower intensity of development than what already exists. Almost all existing residential development at the site is also designed for long-term care clients/residents and is not readily convertible to single-family housing. Thus, any single-family residential use should be considered as part of an overall mix of housing that may result, rather than as the dominant form of development.

- **Ability of New Development to Support Infrastructure Improvements.** The ability of new development to support extensive improvements to the existing infrastructure in place will be governed by the ability to generate revenue and profits. The list of such uses is limited and includes resort(s) and some amount of housing. Financial feasibility of new development will be explored in greater detail during the alternatives phase of the planning process.

# Historic Resources at the Sonoma Developmental Center: Existing Conditions

*Chapter Ten*

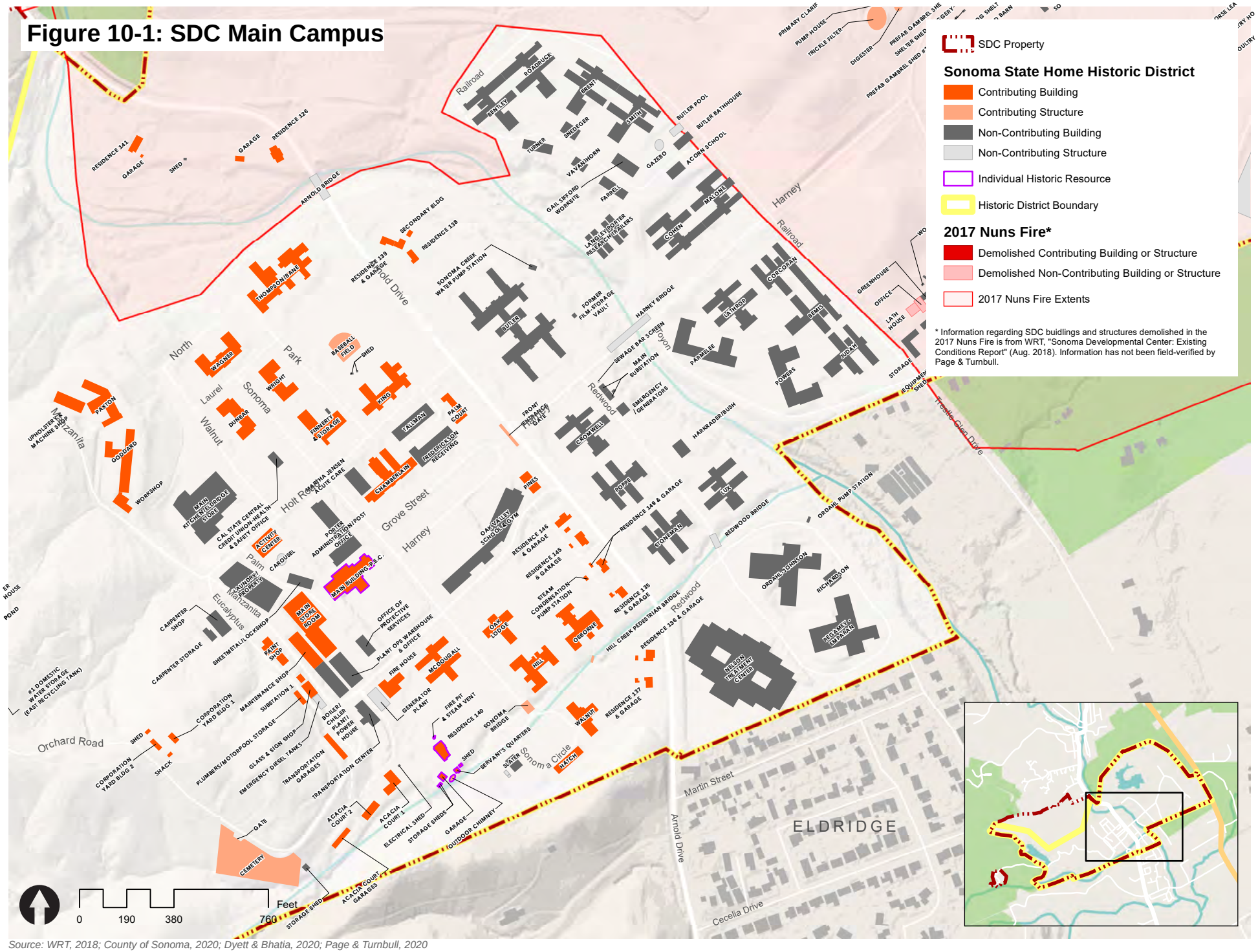
## 10.1 Introduction

Phase 1 of the Sonoma Developmental Center (SDC) Reuse project was undertaken by the WRT Consultant Team, including Page & Turnbull, from 2016 to 2018. Page & Turnbull led the project team's effort in understanding the historic context and historic resources. The analysis relied on the May 2017 *Historical Resources Inventory and Evaluation Report for the Sonoma Development Center (HREIR)* prepared by JRP Consulting, which was submitted to the State Historic Preservation Officer (SHPO) in May 2017.

In-depth information and analysis on the archaeological resources, built historic resources, and cultural landscape on the SDC site is included in the WRT Existing Conditions Report (August 2018), primarily in Chapters 6 through 9. The chapters detail the historical development at the site, from the area's earliest Native American occupants to the development of the SDC beginning in the 1880s through today. The report also describes the historic district, its contributing buildings, character-defining features, and the current condition of the site's buildings and infrastructure. It provides an overview of land-use regulations that are applicable to the site under the County's jurisdiction and summarizes Sonoma County General Plan policies and zoning districts relevant to historic resources. Lastly, the WRT Existing Conditions Report discusses considerations for the adaptive reuse of existing buildings on the property.

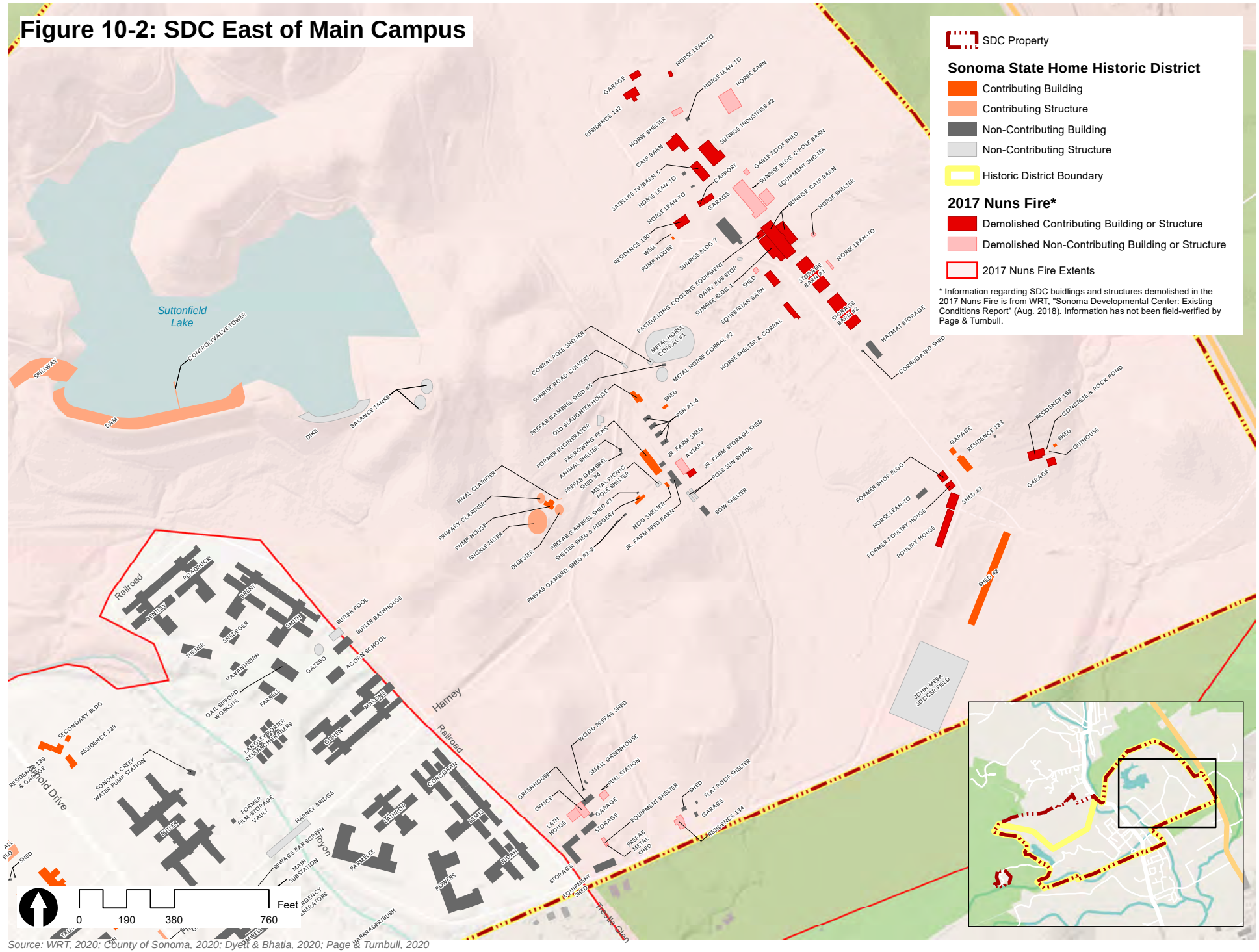
Following the submittal of the WRT Existing Conditions Report in August 2018, a final determination was issued by the SHPO regarding the period of significance, contributing resources, and limits of the historic district boundary. The SHPO determination revises some of the findings in the historic resource assessment contained in the WRT report, in particular, the historic district boundary and number of contributing resources. This document builds on that information, providing an overview of architectural character in Glen Ellen and Eldridge, Sonoma County; outlining key planning considerations regarding historic resources; and discussing opportunities for historic building reuse and infill. The site is shown in Figures 10-1, 10-2, and 10-3.

# Figure 10-1: SDC Main Campus



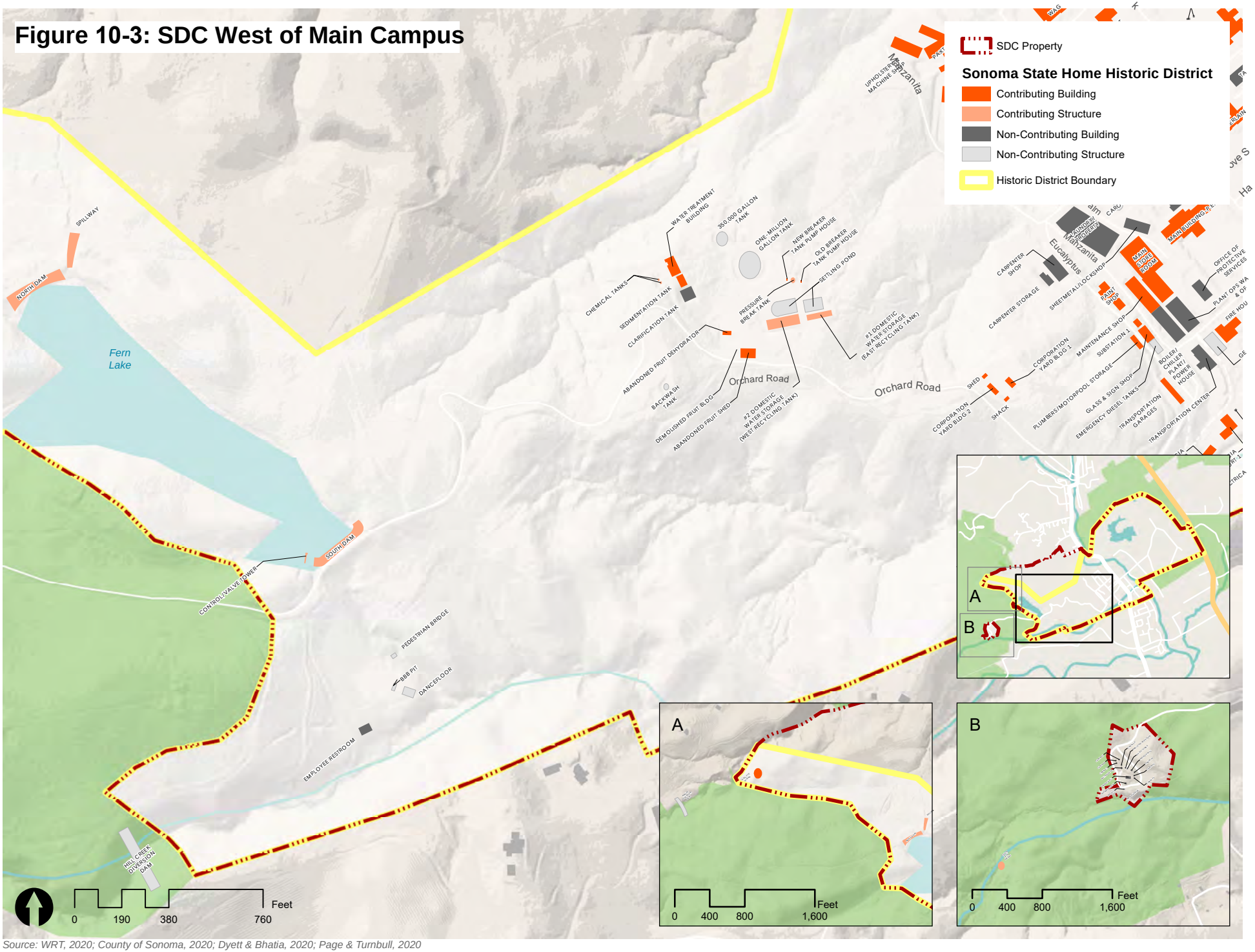

Source: WRT, 2018; County of Sonoma, 2020; Dyett & Bhatia, 2020; Page & Turnbull, 2020

# Figure 10-2: SDC East of Main Campus




Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020; Page & Turnbull, 2020

# Figure 10-3: SDC West of Main Campus




*Source: WRT, 2020; County of Sonoma, 2020; Dyett & Bhatia, 2020; Page & Turnbull, 2020*

## 10.2 Architectural History of Glen Ellen and Eldridge, Sonoma County

The SDC site is located in Eldridge, Sonoma County, California. Eldridge is a small town of roughly 1,300 residents located adjacent to the small town of Glen Ellen; both are situated along Sonoma Creek in Sonoma Valley, approximately six miles northwest of the city of Sonoma and 13 miles southeast of Santa Rosa. Much of the architectural and cultural landscape character of the Sonoma Valley lies in the scattering of "valley hamlets." These towns, including Glen Ellen and the city of Sonoma, have historic features such as clusters of historic buildings, a classic town green, main streets with shops, and small residences that face the green.

The first known inhabitants of the area were Native American members of the Coast Miwok, Pomo, and Winton tribes, who intermingled in Sonoma Valley. Archaeological evidence of these peoples' activity in the Glen Ellen/Eldridge area can be found in the sites of summer villages in the valley, and winter camps on mountain slopes.

The area's first settlers were Mexican of European descent, and the area was at the far northeast corner of General Mariano Vallejo's vast Petaluma land grant. In 1839, Vallejo constructed a sawmill along Sonoma Creek, north of the SDC site in current-day Glen Ellen, and used it to process redwood and Douglas fir.[1] A wood-frame general store was added to the stone-built mill in 1856, which became a stage coach stop between Sonoma and Santa Rosa. The mill remains the oldest historic resource in the immediate area, while the adobe Sonoma Barracks in downtown Sonoma and the adjacent adobe Mission San Francisco Solano date back to 1836 and 1840, respectively. The area's mid-1800s homesteads were simple in design and built of wood; commercial buildings were built of wood, stone, or brick. Several that remain today, such as the vernacular-styled

1. "A Glen Ellen Timeline", accessed at the website of the Glen Ellen Historical Society at http://glenellenhistoricalsociety.org/pages/timeline/index.html , on April 16, 2020, with additional information provided by Jim Shere.

Wegenerville Resort (1868) on the Benziger Winery property in Glen Ellen, are designated local landmarks.[2]

Rail service came to Glen Ellen and Eldridge in the 1880s, and the area became a popular vacation destination for residents of San Francisco. Some residents turned their private homes into vacation rentals, and several small hotels and resorts were built, including the Mervyn Hotel (1885), Dr. C. C. O'Donnell's health resort (1891), and the Chauvet Hotel (1906). In 1891, the State Home for Feeble Minded Children relocated to Eldridge; the campus would later be known as the Sonoma Developmental Center. Today, much of the architecture that remains in the area from this era includes vernacular commercial buildings concentrated at hamlet cores and characterized by local materials such as stone, redwood, and brick, and Victorian-era details like segmental arched window openings and modest wood moldings.

The era of rail tourism waned in the 1920s as auto tourism increased. Glen Ellen and Eldridge became towns of permanent residents, many of whom are the third and fourth generation of original settlers. The rail lines that brought the area its brief period of rapid expansion were removed in the 1940s, and the steel was repurposed in the shipbuilding effort of World War II. During and after the war, the area experienced a large period of growth, as evidenced by the addition of swaths of housing and related businesses, primarily set for those working at Mare Island and other industrial sites.[3] Building styles that remain from this era reflect typical versions seen throughout Northern California, including early twentieth century Craftsman bungalows, Minimal Traditional residences from the 1930s and 1940s, Ranch houses from the 1950s through 1980s, and multi-use commercial and residential buildings along central thoroughfares.[4]

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2. County of Sonoma, "Wegenerville Resort: Historic Landmark Information," accessed April 17, 2020, https://sonomacounty.ca.gov/PRMD/Planning/Historic-Resources/Historic-Landmarks/District-1/Wegenerville-Resort/.

3. "Architecture," County of Sonoma, accessed April 16, 2020, https://sonomacounty.ca.gov/PRMD/Planning/Historic-Resources/Glen-Ellen/Architecture/.

4. Ibid.

Today, Sonoma Valley remains a vibrant local and international agricultural and tourism area, with an eclectic mix of nineteenth- and twentieth-century architecture.

## 10.3 Updates to Historic Resource Determinations at SDC

In May 2017, a Historical Resources Inventory and Evaluation Report (HRIER) was submitted to the California Office of Historic Preservation (OHP), including the State Historic Preservation Officer (SHPO), for compliance with Public Resources Code § 5024 and § 5024.5.[5] The report was submitted under the direction of the California Department of General Services (DGS), and in cooperation with California Department of Developmental Services (DDS), JRP Historical Consulting, with Denise Bradley, Cultural Landscapes. Page & Turnbull has referenced this document as it is the most recent and extensive historic resource assessment of the SDC site to date.

JRP surveyed and inventoried all buildings, structures, and features built in 1967 or earlier. JRP also reviewed existing documentation and completed extensive research, developed historic contexts, and evaluated the resources for listing in the National Register of Historic Places (National Register), in the California Register of Historical Resources (California Register), as a California Historical Landmark, and as a cultural landscape. All of this was synthesized and incorporated into the HRIER, which identified that there are two buildings that meet the criteria for individual listing in the National Register and California Register: the extant administrative wing of the original main hospital building called the PEC Building, and Sonoma House (also called Residence 140) as well as its support buildings and structures. According to the DPR 523 form, "[t]he historical property boundary includes the buildings and the surrounding landscaped grounds. It extends to Sonoma

5. JRP Historical Consulting, LLC and Denise Bradley, Cultural Landscapes, *Historical Resources Inventory and Evaluation Report: Sonoma Developmental Center, PRC § 5024 and § 5024.5 Compliance Report* (May 2017), i.

Street on the east, to Hill Creek on the south, and to the tree line on the north and west."[6]

In addition, the HRIER identified a Sonoma State Home Historic District (SSHHD), which is eligible for inclusion in both the National Register and California Register, as well as designation as a California Historical Landmark. The SSHHD has not been officially designated. Both individually eligible buildings—the PEC Building and Sonoma House—were identified as contributors to the SSHHD According to the HRIER:

*"The Sonoma State Home Historic District is historically significant and is a distinguishable entity whose components lack individual distinction, but which comprise an important concentration and continuity of buildings, structures, objects, and landscape features that are united historically by plan, purpose, and physical development. The historic district and its contributors retain sufficient historic integrity to convey their significance.*

*The district has significance at both a national and state level in the areas of Health/Medicine and Social History for its pioneering role in housing, educating, and medically treating the state's population of people with intellectual and developmental disabilities. The period of significance begins in 1889 with the purchase of the Eldridge site, and ends in 1949 with the retirement of Superintendent Fred Butler. The center's significance is at a state level from 1889 through 1917, during the period of establishment and early growth. The center had national-level significance from 1918 to 1949, when it operated the nation's most active eugenic sterilization program. The significance is demonstrated by the presence of buildings within the historic district that clearly convey their function in caring for people with developmental disabilities. The historic district boundary [Figures 10-1 and 10-3] includes the main campus area west*

6. JRP Historical Consulting, LLC and Denise Bradley, Cultural Landscapes, *Historical Resources Inventory and Evaluation Report: Sonoma Developmental Center, PRC § 5024 and § 5024.5 Compliance Report* (October 2019), 871.

*of Arnold Drive. It encompasses 46 contributing resources, including the landscaped grounds.*[7]"

In a letter dated July 22, 2019, the SHPO concurred that the SSHHD is significant under National Register Criterion A at a state and national level with a period of significance of 1889 to 1949. SHPO also determined that the SSHHD is eligible under National Register Criterion C at the state level as a representative example of institutional design in California utilizing both Kirkbride and Cottage Plan models. Additionally, the SSHHD met eligibility requirements as a California Historical Landmark and was placed on the Master List of Historic Resources pursuant to Public Resources Code § 5024(d).

While the SHPO concurred on the period of significance described in the HRIER, the boundary of the SSHHD changed to include all of the current SDC campus excluding a section of undeveloped, wooded land in the northwest section of campus. It was determined that a cultural landscape does not exist, but that there are landscape features that contribute to the SSHHD. JRP updated the HRIER in October 2019 to reflect the SHPO's determination. These contributing landscape features are detailed in-depth in Table 4 of the updated HRIER. Not all buildings, structures, and landscape elements within the SSHHD are considered contributing resources because some of them are outside the 1889-1949 period of significance, and others do not have sufficient historical integrity. Due to the expansion of the SSHHD boundary, the number of contributing resources grew from 46, as identified in JRP's May 2017 report, to 94 buildings and structures. These 94 contributors are listed below and are also shown in Figure 1 to Figure 3.[8]

7. *Historical Resources Inventory and Evaluation Report: Sonoma Developmental Center Report* (October 2019), ii.

8. Ibid., 128-135.

In 2017, the Sonoma Complex (Nuns) Fire destroyed much of the far-east end of campus; a total of 19 contributing buildings and structures were destroyed, and this was not reflected in the October 2019 HREIR.[9] They are noted in the tables that follow.

## List of Contributing Resources within the Sonoma State Home Historic District (sorted alphabetically by Resource Name)

*Table 10-1A: Main Campus (Between Railroad Street on east and Manzanita / Eucalyptus on west)*

| *Resource Name* | *Year Built* | *Findings* |
|---|---|---|
| Acacia Court I with (noncontributing) Electrical Shed | 1914 / pre-1966 | 2D2 |
| Acacia Court II | 1923 | 2D2 |
| Acacia Court Garage with (noncontributing) Shed | 1923 / pre-1959 | 2D2 |
| Activity Center | 1909 | 2D2 |
| Baseball Field with (noncontributing) Sheds | 1928 / post-1966 | 2D2 |
| Chamberlain Hospital | 1931 | 2D2 |
| Dunbar | 1925 | 2D2 |
| Finnerty with (noncontributing) Storage Shed | 1930 / pre-1954 | 2D2 |
| Fire House | 1932 | 2D2 |
| Glass & Sign Shop | 1916 | 2D2 |
| Goddard with Workshop | 1939 / 1945 | 2D2 |
| Hatch | 1924 | 2D2 |
| Hill | 1940 | 2D2 |
| Hill Creek Pedestrian Bridge | Pre-1940 | 2D2 |
| King | 1940 | 2D2 |
| Main Building (PEC) | 1890 / 1908 | 2D2/1S |
| Main Store Room | 1932 | 2D2 |

9. Information regarding SDC buildings and structures demolished in the 2017 Nuns Fire is from WRT's *Sonoma Developmental Center: Existing Conditions Report* (August 2018). Information has not been field-verified by Page & Turnbull.

| *Resource Name* | *Year Built* | *Findings* |
|---|---|---|
| Maintenance Shop | 1918 | 2D2 |
| McDougall | 1939 | 2D2 |
| Oak Lodge | 1908 | 2D2 |
| Osborne | 1940 | 2D2 |
| Paint Shop | 1918 | 2D2 |
| Palm Court | 1930 | 2D2 |
| Paxton | 1932 | 2D2 |
| Pines | 1924 | 2D2 |
| Plumbers / Motor Pool Storage | ca. 1926-1931 | 2D2 |
| Residence 126 with Garage | 1914 / 1925 | 2D2 |
| Residence 135 with Garage | 1939 | 2D2 |
| Residence 136 with Garage | 1939 | 2D2 |
| Residence 137 with Garage | 1939 | 2D2 |
| Residence 138 | 1949 | 2D2 |
| Residence 139 with Garage and Secondary Building | 1949 | 2D2 |
| Residence 141 with Garage and (noncontributing) Shed | 1897 | 2D2 |

| *Resource Name* | *Year Built* | *Findings* |
|---|---|---|
| Residence 145 with Garage | 1930 | 2D2 |
| Residence 146 with Garage | 1924 | 2D2 |
| Residence 149 with Garage | 1932 | 2D2 |
| SDC Campus Grounds | 1893-2015 | 2D2 |
| Sonoma Bridge | 1916 | 2D2 |
| Sonoma House with Servant Quarters, Garage, Sheds | 1897 | 2B |
| Steam Condensation Station | ca. 1939 | 2D2 |
| Substation 1 | 1923 | 2D2 |
| Thompson / Bane | 1939 | 2D2 |
| Transportation Garages | 1930 | 2D2 |
| Upholstery & Machine Shop | 1945 | 2D2 |
| Wagner | 1926 | 2D2 |
| Walnut | 1918 | 2D2 |
| Wright | 1925 | 2D2 |

*Table 10-1B: West of Main Campus (Cemetery, Corporation Yard, Fruit Processing Unit)*

| *Resource Name* | *Year Built* | *Findings* |
|---|---|---|
| Cemetery | ca. 1890 | 2D2 |
| Corporation Yard Building 1 | ca. 1923 | 2D2 |
| Corporation Yard Building 2 | ca. 1923 | 2D2 |
| Corporation Yard Shack | ca. 1923 | 2D2 |
| Corporation Yard Shed 1 | ca. 1923 | 2D2 |
| Corporation Yard Shed 2 | ca. 1923 | 2D2 |
| Fruit Dehydrator | ca. 1947 | 2D2 |
| Fruit Shed | ca. 1935 | 2D2 |

*Table 10-1C: Hog Area (East of Main Campus)*

| *Resource Name* | *Year Built* | *Findings* |
|---|---|---|
| Farrowing Pen | 1927 | 2D2 |
| Hog Shelter | 1949 | 2D2 |
| Jr. Farm Storage Shed (destroyed in 2017 Nuns Fire) | 1923 | 2D2 |
| Old Slaughter House | 1949 | 2D2 |
| Shed | 1949 | 2D2 |
| Shelter Shed & Piggery | 1927 | 2D2 |

*Table 10-1D: Dairy Area (East of Main Campus)*

| *Resource Name* | *Year Built* | *Findings* |
|---|---|---|
| Calf Barn (destroyed in 2017 Nuns Fire) | 1948 | 2D2 |
| Equestrian Barn (destroyed in 2017 Nuns Fire) | 1925 | 2D2 |
| Horse Shelter & Corral (destroyed in 2017 Nuns Fire) | 1948-1952 | 2D2 |
| Pasteurizing Cooling Equipment (destroyed in 2017 Nuns Fire) | 1944 | 2D2 |
| Pump House | pre-1934 | 2D2 |
| Residence 142 with Garage (destroyed in 2017 Nuns Fire) | ca. 1932 | 2D2 |
| Residence 150 with Garage (destroyed in 2017 Nuns Fire) | 1897 | 2D2 |
| Satellite TV / Barn 5 (destroyed in 2017 Nuns Fire) | 1942 | 2D2 |
| Storage Barn #1 (destroyed in 2017 Nuns Fire) | 1937 | 2D2 |
| Storage Barn #2 (destroyed in 2017 Nuns Fire) | 1935 | 2D2 |
| Sunrise Building 1 (destroyed in 2017 Nuns Fire) | 1938 | 2D2 |
| Sunrise – Calf Barn #1 (destroyed in 2017 Nuns Fire) | 1908 | 2D2 |
| Sunrise – Calf Barn #2 (destroyed in 2017 Nuns Fire) | 1940 | 2D2 |

| *Resource Name* | *Year Built* | *Findings* |
|---|---|---|
| Sunrise Industries #2 (destroyed in 2017 Nuns Fire) | 1942 | 2D2 |
| Well | 1934 | 2D2 |

*Table 10-1E: Poultry Area (East of Main Campus)*

| *Resource Name* | *Year Built* | *Findings* |
|---|---|---|
| Feed Storage Building – Building No. 3 (Shed #1) | 1949 | 2D2 |
| Laying House (Shed #2) | 1934-1935 | 2D2 |
| Poultry House - Building No. 2 (destroyed in 2017 Nuns Fire) | 1923 | 2D2 |
| Poultry House - Building No. 4 (Former Poultry House) (destroyed in 2017 Nuns Fire) | 1936 | 2D2 |
| Residence 133 with Garage | 1928 | 2D2 |
| Residence 152 with Garage and Out Buildings (destroyed in 2017 Nuns Fire) | 1907 | 2D2 |
| Shop Building – Building No. 5 (Former Shop Building) (destroyed in 2017 Nuns Fire) | 1938-1942 | 2D2 |

*Table 10-1F: SDC Water and Sewage System (Features outside Main Campus Area)*

| *Resource Name* | *Year Built* | *Findings* |
|---|---|---|
| Coon Trap Spring Collection Point[10] | Unknown | 2D2 |
| Fern Lake Reservoir | 1910 | 2D2 |
| Fern Spring Collection Point | Unknown | 2D2 |
| Old Sewage Treatment Facility (in Dairy Area) | 1939 | 2D2 |
| Pressure Break Tank | 1911 | 2D2 |
| Recycling Tanks | 1895/1911 | 2D2 |
| Roulette Spring Collection Point | 1896 | 2D2 |
| Suttonfield Lake Reservoir | 1938 | 2D2 |
| Water Treatment Building | 1938 | 2D2 |

Notes to Tables 1A-1F:

2D2 - Contributor to a district determined eligible for NRHP by consensus. Listed in CRHR.

1S - Individual property currently listed in the NRHP by the Keeper. Also listed in CRHR.

2B - Eligible for NRHP as an individual property and as a contributor to an eligible district. Listed in CRHR.

10. The Coon Trap Spring Collection Point is an associated feature of the SDC Water and Sewage System, but is located outside of the historic district boundary.

## 10.4 Character-Defining Features

For a property to be eligible for national, state, or local designation under one of the significance criteria, the physical character-defining features that convey the property's historic identity must be evident. To be eligible, a property must clearly contain enough of those characteristics, and these features must also retain a sufficient degree of integrity. Characteristics can be expressed in terms such as form, proportion, structure, plan, style, or materials.

The character-defining features of the SSHHD include the resources and elements that date to the 1889-1949 period of significance. The October 2019 HRIER offers the following summarized list of site-specific character-defining features:

- The layout, arrangement, and location of buildings, roads, and pathways;
- The general setting with expansive green space including its vegetation (i.e. lawn, bushes, and mature trees);
- The architectural styles of buildings included as contributors to the district (i.e. French Eclectic, Spanish eclectic, Tudor revival, and industrial);
- The materials of built environment contributors (i.e. tile roofs, stucco and brick cladding, original wood windows, concrete pathways, paved roads); and
- The general form and massing of buildings.[11]

The character-defining features specific to the 94 contributing buildings and structures are detailed in the individual DPR forms in Appendix B of the October 2019 HRIER.

The 2019 HRIER provides a more detailed table of site-specific, cultural landscape character-defining features that contribute to the SSHHD. The following text is an adapted version of the HRIER table and reflects the most updated understanding of the district boundary. Features that were destroyed in the 2017 Nuns Fire are noted.

11. JRP Historical Consulting, 118.

## Cultural Landscape Character-Defining Features

### *Spatial Organization*

#### Core Area

Spatial organization of the core area includes the following key components:

1. Orthogonal grid of street, which creates the basic block system of the core area;
2. East-to-west axis along Harney Street, which provides the main entrance into the center and includes the stone entrance gateway structure, the two lanes of the Harney Street separated by a landscape median, and broad lawns on either side of the street;
3. Buildings set well back from the street and with a consistent set back along each side of the street; and
4. Broad lawns forming a continuous band of vegetation between the street and the buildings.

#### Residences 133, 136, 137, 145, 146, and 149

Spatial organization for this row of houses along Arnold Drive have:

1. Uniform set back from the street;
2. Continuous lawn (broken only by two driveways and Hill Creek), which runs along the front of the houses and the street; and
3. Parking and garages are located behind (west) of the houses.

#### Maintenance-Support Facilities Area

Buildings are sited close to each other with the length of the building parallel to the main two streets—Manzanita and Eucalyptus—that provide access to this area.

#### Baseball Field

Spatial organization is evaluated on independent DPR Form.

#### Residences 126 and 141

Spatial organization for these two houses north of main campus includes:

1. Locations of the houses;
2. Small yard area around each house; and

3. Broad band of land (now wooded) between the houses and creek.

### Agricultural Areas

Spatial organization includes:

1. Open fields;
2. Location of farm buildings in rows or clusters (destroyed by 2017 Nuns Fire);
3. Location of residences in close proximity to dairy and poultry farms (destroyed by 2017 Nuns Fire); and
4. Small yards by residences (destroyed by 2017 Nuns Fire).

## *Circulation Features*

### Streets within the Core Grid

- Harney Street
- Holt Street
- Laurel Street
- North Street
- Park Street
- Sonoma Street
- Sonoma Circle
- Walnut Street
- Wilson Street

### East Campus Streets

- Harney Street west of Sonoma Creek

### Ancillary Streets

- Magnolia Street
- Maple Street
- Shady Lane
- Driveway to Sonoma House (Residence 140)
- Driveway between Residences 136 and 137
- Driveway between Residences 145 and 149
- Driveway to Residence 152 (destroyed by 2017 Nuns Fire)
- Driveway to Residence 141

### Maintenance Support Facilities Streets

- Eucalyptus Street
- Manzanita Street

- Orchard Road

## Agricultural and Outlying Streets

- Orchard Road
- Sunrise Road
- John Mesa Dairy
- Baker Road
- Dairy Road

## Sidewalks

- PEC entrance plaza on east side of building and sidewalk along south side
- Street-side sidewalks that parallel the street system
- Sidewalks to the main entrances of the buildings built before 1950

## Pedestrian Bridges

- Sonoma Bridge – Evaluated on West Campus Bridges DPR form
- Hill Creek Pedestrian Bridge (concrete) – Evaluated on West Campus Bridges DPR Dorm

## *Vegetation Characteristics*[12]

- Presence of a lawn in front of and between buildings in the core area and around the residences in the ancillary areas
- Harvey Street median - grass and double row of palms (no longer extant) that alternate with the pollarded sycamore trees
- Baseball Field - grass outfield and dirt infield

12. See chapters 5 and 6 of WRT's *Sonoma Developmental Center: Existing Conditions Report* (Aug. 2018) for information about plant communities and cultural landscape. Other than distinctive trees, specific plant species have not previously been analyzed for their era of planting and potential to contribute to the historic district.

## *Structures (Stone)*

### Entrance Structures

- Main Entrance Structure and Bus Shelter on west side of Arnold Drive at Harney Street
- Holt Street Entrance Structure on west side of Arnold Drive at Holt Street
- Wilson Street Entrance Structure on west side of Arnold Drive at Wilson Street

### Wilson Street and Unnamed Drainage

- Stone retaining wall along west side of Arnold Drive and continuing along south side of Wilson Street
- Magnolia Bridge - stone vehicular bridge across drainage that connects Wilson Street to Magnolia Street
- Stone ditch/gutter connecting to unnamed drainage from retaining wall along the south side of Wilson Street

### Hill Creek

- Sonoma Bridge - Evaluated on West Campus Bridges DPR Form
- Stone retaining walls along the sides of portions of Hill Creek

### Hatch

- Stone retaining wall behind Hatch and Slater (Note: non-contributing CMU section)

### Residence 140 (Sonoma House)

- Stone retaining wall along north edge of driveway
- Circular stone planter to south of house (palm tree is nonextant)
- Stone wall and fireplace to south of house (this structure has major cracks)
- Sonoma House Pedestrian Bridge - east of house and spanning an unnamed drainage

### Chamberlain

- Stone retaining wall at the west end of Chamberlain

### Impressions

- Circular stone planters around trees behind (east) of Impressions

### Walnut Street vicinity

- Stone retaining wall and ditch above (west) of Walnut Street

- Stone tree well below (east) of Goddard
- Stone ditch west of Wagner
- Stone retaining wall and ditch on east side Walnut Street (vicinity of Dunbar)
- Stone retaining wall under concrete wall on east side of Health & Safety parking lot

## Vicinity of Activity Center

- Stone retaining wall and gutter in vicinity of Activity Center and Carousel
- Stone gutter along south side of Activity Center
- Stone retaining wall (around tree) to east of Carousel

## Manzanita Street Vicinity

- Stone retaining walls along east and west sides of Manzanita Street
- Stone "well" on west side of Manzanita Street near intersection with Holt Street

## Eucalyptus Street Vicinity

- Stone retaining walls along east and west sides of Eucalyptus Street
- Stone retaining wall at south end of Transportation Garages
- Stone retaining wall along west side of parking area above (west) Transportation Garages and stone retaining walls continuing along sides of unpaved drive leading to Plumbers/Motorpool Storage
- Stone retaining wall above (west) of Carpenter Shop

## Orchard Road Vicinity

- Stone retaining wall (continuation of wall above Transportation Garage) along north side of Orchard Road

  Note: Stone wall system continues along north side of Orchard Road to vicinity of Corporation Yard (outside of historic district); walls also in vicinity of road that led to non-extant Laurel Cottage (outside of historic district)

- Stone retaining wall along south side of Orchard Road (continuation of wall along Shady Lane); continues along portion of Orchard Road that is outside of Historic District

## Cemetery

- Low stone wall with two columns for gate at entrance

### Shady Lane Vicinity

- Stone retaining wall in vicinity of Acacia Court with continuation along parking lot that is south of Acacia Court Garages
- Stone retaining wall along parking lot that is north of Acacia Court Garages with continuation along Shady Lane to corner of Orchard Road

### Residence 141[13] (destroyed in 2017 Nuns Fire)

- Stone free-standing wall in back yard
- Stone barbeque/grill in back yard

### Residence 142 (destroyed in 2017 Nuns Fire)

- Stone retaining wall along one side of driveway

## *Structure (PEC Walls)*

- Low concrete retaining wall that runs across the frontage along Sonoma Street and continues along Wilson Street to the entrance to the PEC parking lot and along Holt Street to the entrance to the Porter Administration parking lot

  Note: Non-historic break in wall due to semi-circular entrance sidewalk to the Porter Administration Building

- Two decorative columns or bollards that frame eastern entrance to PEC parking lot
- Low stepped wall (brick or stone construction with cement plaster finish) that extends along Wilson Street and wraps around the second (western) entrance to the PEC parking lot
- Circular concrete bollard, with a conical cap, sits at the south end of this wall

# Small-Scale Features

## *Streetscape*

- Streetlight fixture with historic post (tapered, ribbed metal post that is currently painted green) topped with non-historic luminaire

13. Extent and damage resulting from 2017 Nuns Fire is from WRT, *Sonoma Developmental Center: Existing Conditions Report* (Aug. 2018). Information has not been field-verified by Page & Turnbull. Thus, the current condition of the residence and its landscape are unknown.

- Concrete street signposts (slender square posts finished with the name of the street stamped vertically into one or more sides)

### *Site Furnishings*

- Two concrete benches in the plaza on the east side of PEC

### *Edging*

- PEC: Planting bed at east-side plaza (low concrete ledge—forming half of a decagon—faced with brick)
- PEC: Concrete curb across planting bed on the east side of south wing
- Residence 146: low brick retaining wall around foundation

## 10.5 Key Issues and Planning Considerations

Many considerations should be kept in mind when creating a redevelopment strategy for the Sonoma Developmental Center site. The significant existing building fabric and historic significance of the SDC site provide both opportunities and challenges to any redevelopment scenario.

### Constraints of Historic Buildings and Districts

- **Regulatory Constraints:** Current zoning density guidelines on-site stipulate a maximum 40 percent lot coverage and 35-foot height limit for the core campus. A potential public vote may be required if a change to the Community Separator regulation is sought, as the SDC property encroaches upon a designated Community Separator in a wildlife corridor, referred to as a "pinch point" connecting Jack London State Historic Park and the Mayacamas Mountains. In addition, historic districts place certain regulatory constraints on development. The redevelopment strategy must be reviewed and concurred upon by the California Office of Historic Preservation (OHP) in order to comply with Public Resources Code § 5024 and § 5024.5. The purpose of this review process is to ensure that the project is planned in ways that avoid or minimize adverse effects to the two individually significant buildings and the historic district.

- **Retention of Historic District:** The revised Historic District boundary, stipulated by the SHPO, includes most of the SDC site, while contributing buildings are generally clustered in the core campus west of Arnold Drive. Accompanying maps identify contributors to the SSHHD, some of which are located in the agricultural area east of Arnold Drive. A general rule of thumb is that two-thirds of contributing buildings that make up a historic district should be retained in order to avoid compromising the integrity of the SSHHD. While this may limit development opportunities, the intent is to preserve the overall character associated with groupings of buildings that together define the SSHHD, prioritizing the core campus area.

- **Secretary of the Interior's Standards:** Existing buildings provide both opportunities and constraints for redevelopment, and historic buildings add a layer of regulatory process that can be costly and complex. The designation of nearly all of the SDC site as a historic district dictates CEQA impact analysis on historic resources, including considerations for any reuse or redevelopment schemes. The buildings and features that are considered contributors to the historic district will also require consideration as reuse options are evaluated for conformance to the Secretary of the Interior's Standards (SOI Standards).

As part of the CEQA process, projects in designated districts must conform to the SOI Standards or be mitigated. Projects that comply with the SOI Standards benefit from a regulatory presumption that they would have a less-than-significant adverse impact on a historic resource. Projects that do not comply with the SOI Standards may or may not cause a substantial adverse change in the significance of a historic resource.

The SOI Standards are a useful analytic tool for understanding and describing the potential impacts of substantial changes to historic resources. Typically for adaptive reuse projects, the SOI Standards for Rehabilitation, listed below, serve as primary guidance:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

- **Interior Character-Defining Features:** Retaining historic character is prioritized for the exterior of historic buildings since that is what is most visible to the general public. However, in some cases, interior features should

be taken into account during the design of rehabilitation projects. According to JRP, the following SDC buildings have interior features that should be preserved:

1. Main Building/PEC
2. Sonoma House
3. Chamberlain Hospital
4. Goddard Cottage and Workshop
5. Hatch Cottage
6. Paxton Cottage and the Upholstery & Machine Shop

- **Repair vs. Replacement:** Preservation-sensitive decisions should be made related to the repair rather than replacement of materials, with a focus on original architecture rather than later non-historic additions, and to new infill development that complements the scale and massing of adjacent historic features.
- **Hazardous Material Remediation:** Generally, existing buildings need hazardous material remediation based on the level of change required. Cost of remediation may add significant expense to project budgets or may be cost-prohibitive.
- **ADA-required upgrades:** Some buildings may require extensive ADA upgrades, depending on the proposed use.
- **Reuse Potential of Building Typologies:** Some existing buildings are purpose-built and may present a challenge for reuse. Some building layouts, especially those designed for institutional and hospital use may not be conducive or easily adapted to other uses.
- **Compatibility of New Construction:** The insertion of new development within the site will require sensitivity to existing scale and landscape features and must also be compatible with the historic character of the district.

## Opportunities for Historic Building Reuse & Infill Sites

- **Tax Credit Potential & Future Tax Relief:** Rehabilitated individual historic buildings and contributors to the historic district qualify for the Historic Rehabilitation Tax Credit, a federal program that (as of 2020) allows a 20% income tax credit for the rehabilitation of certified historic buildings. The tax credit is offered to rehabilitation projects that conform to the SOI Standards; in these cases, the SOI Standards must be met for the exterior and the interior of the

project. The state of California enabled a Historic Preservation Tax Credit program in 2019, the terms of which are under consideration; this credit can be combined with the federal tax credit and may offer additional incentive for adaptive reuse projects.

- **Architectural Character & Quality of Construction:** The level of detail and design present on the SDC site is not easily replicated with modern building practice and economics. Interesting buildings often "play well with others," creating a community focal point. The majority of the historic buildings on the SDC site were built to last and of institutional grade construction, and therefore long-term longevity can reasonably be expected.

- **Established Location:** The SDC property is a fixture in the Sonoma Valley. The sense of place, complete with historic buildings and mature landscape, offers an established location for its next life.

- **Variety of Former Uses:** Previous building uses lend themselves to a variety of future uses. In general, the flexibility of the existing buildings provides relatively easy reuse opportunities.

- **Community Services in Place:** Existing on-site facilities such as the Main Kitchen, Fire Station, and Post Office also provide a unique opportunity to create a self-sustaining community within the site.

- **Well-Maintained Campus:** Good stewardship and maintenance of the site and buildings prior to closure allow a less expensive redevelopment opportunity than many re-purposed institutional sites.

- **Attractive Redevelopment Potential:** In addition to the two identified individually significant historic buildings, rehabilitation of contributing buildings within the historic district can make for a more attractive sense of place.

- **Existing "Neighborhoods":** Existing buildings can be easily grouped into nodes or "neighborhoods." These character areas can be reinforced with infill development. Additional opportunities for redevelopment within the outer character areas could reinforce their appeal.

- **Existing Low Density & Development Opportunity:** The existing low-density site provides new infill development opportunities. Key opportunity sites within the core campus allow for infill development that can reinforce and build upon the existing strong sense of place. Development opportunities east of Arnold Drive may allow flexibility and opportunities for higher density investment while minimizing the impact on the character of the historic core campus west of Arnold Drive.

- **Spirit of Community:** The SDC site offers an existing sense of community that is respected and can be reinforced. The mix of building types and uses express a neighborhood atmosphere that should be built upon.