Attachment C Stanford Community Plan Update (track changes)

# of Santa Clara Stanford University Community Plan

1850

TRACKED CHANGES VERSION 12.13.2022

THE COUNTY

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## Introduction

Stanford University <u>("Stanford" or "University")</u> is a private university located in the northwest corner of Santa Clara County<sub>t</sub> adjacent to San Mateo County. Founded in 1891, Stanford has grown over time to become a highly respected institution of higher learning and research. It contains over 4,000 acres of land within the jurisdictional boundaries of Santa Clara County, the area addressed under this Community Plan (the "Stanford Community Plan Area"). Stanford also owns lands in other jurisdictions, including Palo Alto, Menlo Park, San Mateo County, Woodside, and Portola Valley (see Figure 1 Government Jurisdiction on Stanford Lands).

The unincorporated lands of Stanford <u>University</u> within Santa Clara County are subject to the land use jurisdiction and regulatory authority of the County. The 1995 Santa Clara County General Plan <u>and subsequent General Plan Element updates</u> serves as the <u>principal means</u> <u>regulatory document that establish the policy direction and of setting</u> goals and overall policy <u>direction</u> for <u>physical development and</u> use of lands <u>and physical development</u> within the unincorporated area. The Stanford Community Plan refines the policies <u>and goal</u> of the General Plan as they apply to Stanford lands within the County.

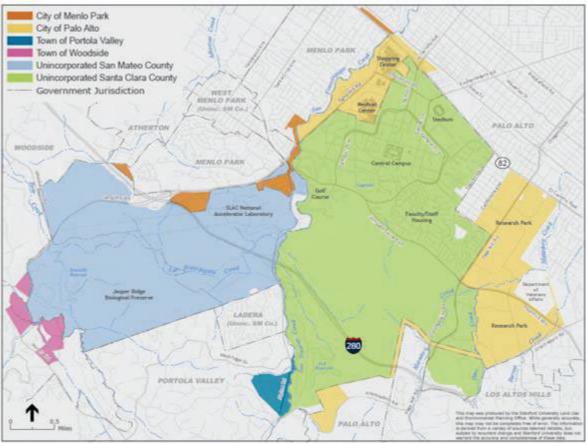
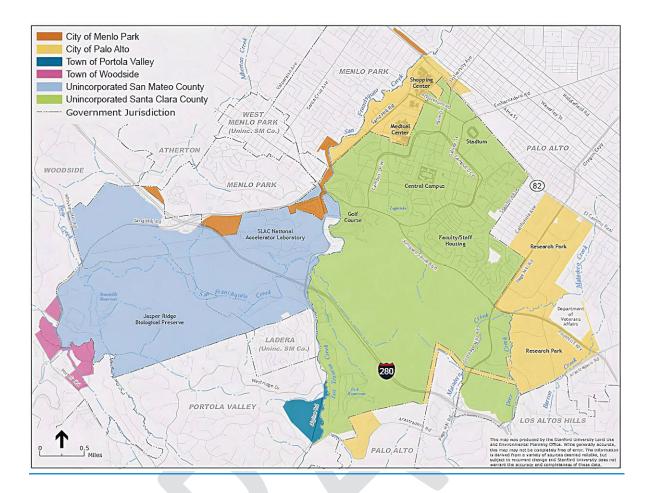


Figure Intro 1: \_ Government Jurisdiction on Stanford Land



## Purpose of the Community Plan and Relation to General Plan

Community Pplans focus on a particular region or community within the overall general plan area of a jurisdiction. As an integral part of the overall General Plan, a community plan must be consistent with the General Plan, in keeping with the general requirements of Sstate law that general plans be internally consistent. To facilitate consistency, the Stanford Community Plan builds upon the basic strategies and policy framework for each element of the General Plan, tailoring the treatment of each subject to those aspects of an element most applicable and pertinent to Stanford.

The Community Plan is also consistent with and furthers the implementation of associated planning instruments, such as the 1985 Land Use Policy Agreement. (For more information <u>on</u> this notable land use agreement between the County, Palo Alto and Stanford University, please refer to the Growth and Development Chapter).

The primary purpose of the <u>Stanford</u> Community Plan is to guide <u>the</u> future use and development of Stanford lands in a manner that incorporates key General Plan principles of compact urban development, open space preservation, and resource conservation. Growth and

development, in general, can have both <u>benefits-advantages</u> and disadvantages. The Community Plan attempts to achieve <u>the an</u> appropriate balance between the reasonable expectations of the University to use and develop its land with the interests of the public to responsibly manage such growth. <u>The 2000 Community Plan established a total development of</u> <u>17,300,000 square feet inclusive of academic space, academic support facilities and student</u> <u>housing. This 2022 Community Plan update does not include development beyond this amount.</u> <u>Any additional increase would require a Community Plan amendment and concurrent General</u> <u>Use Permit (GUP) application.</u>

The Community Plan is adopted as an amendment of the General Plan in the manner set forth by Government Code §\_65350 et seq. Any and all revisions to the Community Plan considered in the future must also be made according to the provisions of State law for adopting and amending general plans.

### **Organization of the Community Plan**

Community Plan issues focused topics and policies are organized into seven chapters:

- •1. Growth and Development,
- •2\_Land Use,
- •<u>3.</u>Open Space,
- •4. Housing,
- •5. Circulation,
- <u>A</u>Resource Conservation, and
- •7. Health and Safety.

Each of these-chapters addresses issues focused topics and policies as they pertain to Stanford lands and its regional setting. The <u>strategies and policies y</u> are not intended to duplicate all aspects of the General Plan chapters or "elements" on which they are based. Instead, each chapter provides the <u>specific additional</u> focus and context beyond that provided in the General Plan in order to provide policy direction and guide decision-making for Stanford

lands.

Each chapter of the <u>Stanford</u> Community Plan uses the same organizational structure. Within each chapter, a summary is provided, indicating the <u>basic</u>-strategies set forth in the chapter. These strategies are overall policy approaches to various <u>areas of focus</u>-issues, and they form the framework for more detailed policies and implementation recommendations on the particular subjects, which are articulated in <u>the each respective</u> chapter. Strategy statements correspond with those of the relevant General Plan chapters, with modifications to reflect the particular circumstances, <u>topics</u>-issues, and policies as they relate to Stanford. Following the chapter summary, each chapter contains relevant background information, followed by discussion for each strategy and its associated policies and implementation-recommendation-recommendations.

## Implementation of the Community Plan

Prior to the adoption of the 2000 Community Plan, the principal means of guiding land use and development for Stanford lands was the "General Use Permit," or GUP. The GUP served as a form of master use permit under which Stanford received approvals for development, consistent with the provisions of the County's Zoning Ordinance. <u>Under the updated Stanford Community Plan, tThe GUP General Use Permit</u> will remain as the principal <u>land use</u> <u>entitlement means</u> for <u>implementimplementation ofing</u> the Community Plan. The GUP <del>will contains</del> conditions regarding review of individual projects, as well as provisions requiring certain actions, such as regular monitoring and reporting <u>as well as other land use</u> <u>entitlements and approvals that may be required for development</u>.

<u>Additionally, t</u>The <u>Stanford</u> Community Plan also contains implementation recommendations plans measures to enact and apply the policies zoning districts appropriate to the land use designations specified in the <u>Stanford Community planPlan</u> for the purpose of more specifically regulating the land use and development.

Individual projects allowed under the <u>Stanford</u> Community Plan, <u>anddocumented in the 2000</u> <u>GUP, and noted in future GUPs</u> <u>General Use Permit</u> are <u>also</u> subject to the County's Architecture and Site Approval (ASA) <u>and/or Grading Approval</u> permitting process. As such, the <u>Stanford</u> Community Plan is further implemented by the review and conditioning procedures of ASA <u>and Grading Approval</u>. In particular, certain conditions of development approval may be employed specifically to carry out environmental mitigations required under the Environmental Impact Report prepared for the adoption of the <u>72000 GUP</u>, <u>Stanford</u> Community Plan and/<u>or new approved</u> GUP.

## Informing Studies of the Community Plan: Municipal Services, Graduate Student Housing Affordability, and Childcare<del>, and</del>

## Studies

In November 2016, Stanford University applied for a new GUP. The County's efforts to update the GUP included community outreach such as community meetings, public comment intake, and Planning Commission and Board of Supervisors meetings. As part of the County's processing of the GUP application, the Department of Planning and Development recommended additional amendments to the Community Plan. The Stanford-proposed and County staff-recommended Community Plan amendments were considered by the Planning Commission and Board of Supervisors in tandem with consideration of the new GUP for Stanford in 2019. On November 1, 2019, Stanford withdrew the GUP and Community Plan amendment application (hereby referred to as the "2019 GUP"), and none of the Community Plan amendments were adopted at that time.

At the February 11, 2020 Board of Supervisors meeting, the Board directed County staff to continue its work on the Community Plan update, which would include three studies to inform the update:

- Municipal Services Study,
- Graduate Student Housing Affordability Study, and
- Childcare Study

### **Municipal Services Study**

The 1985 Land Use Policy Agreement and the 2000 Stanford Community Plan recognize Stanford's status as a municipal service provider. The 1985 Land Use Policy Agreement is among Stanford University, the County of Santa Clara, and the City of Palo Alto. The Agreement states, "Stanford intends to continue to provide all municipal services to its academic facilities in the unincorporated area of Santa Clara County." Furthermore, Policy SCP-GD 9 of the 2000 Stanford Community Plan states, "The provision of urban services to the academic lands of Stanford University shall be the responsibility of the University. This may be accomplished through direct provision of such services by Stanford, payment of in-lieu fees, or appropriate contractual relationships with local jurisdictions."

The Municipal Services Study was prepared in coordination with Management Partners, a consulting firm that offers strategic planning, process improvement, organizational analysis, and other services for local governments. Management Partners engaged in questionnaires, a survey, and/or interviews with Stanford staff, County staff, City of Palo Alto staff, and Stanford

graduate students. Management Partners was retained by the County to gather information about municipal services provided by Stanford and describe any existing gaps in service provision or delivery that may exist. In the analysis of municipal services, Management Partners compared the service data to that of the City of Palo Alto, in addition to another large private university in California, the University of Southern California (USC).

An administrative draft was shared with Stanford University and City of Palo Alto staff, per the 1985 Land Use Policy Agreement (Section 1.c). Jurisdictions adjacent to Stanford were also provided the administrative draft and were given the opportunity to provide input to County staff at a multi-jurisdictional meeting that took place on April 6, 2022. A public draft was released in mid-April, and a Municipal Services Study community meeting was held on April 26, 2022.

### Findings:

- 1. For all of the 26 municipal services examined in this study, the services provided are generally equivalent to those provided by cities.
- 2. The ability of Stanford community residents and County of Santa Clara officials to understand, measure, and evaluate service delivery (transparency) needs improvement.
- 3. Fiscal transparency and public accountability are limited and needs improvement.
- 4. A framework to document services is needed.
- 5. Where warranted, the County of Santa Clara, Stanford University, and the City of Palo Alto (as well as other affected jurisdictions) should collaborate to identify voluntary funding mechanism(s) for any municipal services or public-school services.

### Graduate Student Housing Affordability Study

Keyser Marston Associates (KMA) prepared the Graduate Student Housing Affordability Study. This analysis was prepared to evaluate whether there is evidence of housing affordability challenges among graduate students at Stanford University. The analysis estimates the share of graduate students who have a gap in financial resources to meet their housing and other living expenses. Findings reflect consideration of funding sources used by Stanford graduate students to finance their education including stipends, fellowships, loans, and parental support. The analysis also includes additional student loan debt and estimated funding through Stanford's Graduate Family Grant and Graduate Student Aid Fund, for those eligible, as possible sources to address an estimated gap in resources.

This study uses data from the Stanford Student Survey on University Life and a Faculty and Staff Survey (Stanford Student Survey on University Life or 2021 SCC Survey) that was released by the County in November 2021 requesting information for the Graduate Student Housing Affordability and Childcare Studies. In addition to survey questions informing these two studies, the surveys requested responses to questions pertaining to food sufficiency, dependent health care, mental health, and policing perceptions. County Staff and consultants received the raw data from the survey in January 2022.

An administrative draft of the Graduate Student Housing Affordability Study was shared with Stanford University and City of Palo Alto staff. A public draft was released in mid- May, and a Graduate Student Housing Affordability Study community meeting was held on May 19, 2022. Findings of this analysis are not specific to housing affordability. The analysis considers the ability to afford living expenses in the aggregate.

### Findings:

- 1. Stanford provides housing to approximately 75% of graduate students. Rents for 85% of housing spaces are within a range affordable to households with Low or Moderate incomes. Despite this, some graduate students still experience affordability challenges.
- 2. 16% of graduate students responding to the 2021 SCC Survey experience frequent financial challenges and/or food insecurity to the extent they sometimes or often do not have enough to eat.
- 3. 10% of graduate students have inadequate resources to meet estimated living expenses, based on the 2021 SCC Survey.
- 4. 5% of graduate students have inadequate resources for housing and other living expenses after potential additional "gap" funding sources are considered. Potential gap funding sources include maximizing the use of student loans and Stanford's Graduate Family Grant and Graduate Student Aid Fund programs. This 5% share of graduate students with a shortfall to meet living expenses after gap funding sources translates to an estimated 470 graduate students based on enrollment for the 2021-22 academic year. For these graduate students, the estimated average gap between available resources and living expenses exceeds \$20,000 per year.
- 5. Affordability challenges are most prevalent among international students, driven in part by the fact that the spouse of an international graduate student is permitted to come to the U.S. but typically not allowed to work based on visa restrictions, and by a lack of access to federal student loans.
- 6. Nearly 14% of graduate students with children have an estimated gap in resources to meet living expenses, triple that of graduate students without children. This estimate is after consideration of gap funding sources including Stanford's Graduate Family Grant program, which provides up to \$20,000 to qualifying graduate students with children but is not estimated to be sufficient on its own to address the affordability challenges of eligible families.

### **Childcare Study**

The Childcare Study was prepared by Public Consulting Group (PCG). This review included original quantitative and qualitative research to learn more about the needs and suitability of the University's current childcare offerings and comparison to a group of public and private

peer institutions throughout the country. "Peer institutions" refers to those that:

- 1. Operate within the Carnegie classification system as R1 institutions, which are doctoral universities with high levels of research,
- 2. Offer on-campus childcare services, and
- 3. Have campuses located in regions with similar costs of living.

PCG conducted surveys and focus groups among Stanford students, including undergraduate, graduate, professional degree, and PhD students, and Stanford faculty and staff, including administrative staff, faculty, and all post-doctoral scholars. An administrative draft was shared with Stanford University and City of Palo Alto staff. A public draft was released in mid-May 2022, and a Childcare Study community meeting was held on May 25, 2022.

### Findings:

- Stanford's on-campus childcare centers appear to offer similar levels of service and cost to that offered at peer institutions. It is important to state clearly that the services are only roughly comparable to services offered by peer institutions because, unlike those of the peer institutions, most of the University's on-campus childcare facilities have not been rated by third-party organizations/systems such as the National Association for the Education of Young Children (NAEYC) and the California Quality Rating and Improvement System (CA QRIS).
- 2. The University offers more childcare programs and slots per potential use than its peer institutions; however, there remains unmet needs in the populations served, according to graduate students, faculty, and staff who reported long wait times and an inability to access on-campus childcare.
- 3. Stanford's reported cost for on-campus childcare remains higher than the reported average childcare costs incurred by students, faculty, and staff for on- and off-campus childcare, combined. More than half of responding graduate students (60%), and faculty and staff (60%), ranked cost of childcare as "most concerning," making it the single most concerning issue for both groups.
- 4. The majority of Stanford graduate students, faculty, and staff ranked "providing more substantial childcare subsidies" as the most preferred form of additional childcare benefit, regardless of whether that benefit would be applied to on- or off-campus childcare facilities.

The findings, conclusions, and recommendations of these three studies informed sections of this updated Stanford Community Plan.

## Major Policy Directions of the Community Plan

The major policy directions of the <u>Stanford</u> Community Plan are expressed within each chapter's major Strategies. In <u>more</u> general terms, the major policy directions include the following concepts and principles:

- a. <u>pP</u>romote compact urban development together with conservation of natural resources;
- b. **a**<u>A</u>llow Stanford flexibility to develop its lands within a framework that minimizes potential negative effects ("flexibility with accountability");
- c. a<u>A</u>ccommodate development for academic uses and housing on lands only within an Academic Growth Boundary, or AGB, while limiting the uses and development potential for lands outside the AGB to conserve open space and natural resources;
- d. <u>dD</u>ifferentiate the major land uses within the plan area according to areas in academic use, housing for <u>faculty/staff and other workers</u><u>faculty I staff</u>, and open space outside the AGB;
- e. <u>PP</u>lan for and ensure that substantial new <u>adequate</u> housing development, <u>on the</u> <u>Stanford campus</u>, occurs <u>before or</u> concurrently with approval for increases in academic space and facilities;
- f. mMeet mobility and access needs primarily though means other than major road improvements, including <u>a continuation of the "no net new commute trips" policy in</u> <u>combination with a VMT-focused approach</u>, appropriate integration of land use, transit services, transportation demand management, and <u>management-performance</u> <u>standards for of the number of controlling the net-new commute trips</u> which may be generated; and,
- g. <u>A</u>chieve the various conservation, public health, and safety goals by emphasizing preventive measures or avoidance of impacts, requiring mitigation for impacts that may occur, and promoting resource restoration.

In conclusion, the <u>Stanford</u> Community Plan represents a <u>major evolutionary change</u> <u>continuation and evolution of well-established and successful polices to guide from the</u> <u>development decision making processes regulatory processes</u> previously employed by the County that regulates and implements development on <u>for</u> Stanford <u>University lands within</u> <u>Santa Clara County jurisdiction</u>. It reflects a more proactive than reactive approach to land use planning for

Stanford. Furthermore, it is intended to provide significantly more useful background information and policy guidance than was previously available to serve as a guide to future land use and development decision-making for Stanford University.

The Community Plan supersedes the previous Stanford Chapter contained within Part 4, Book B of the General Plan for Urban Unincorporated Area Issues and Policies, as well as the land use policies for Stanford University Lands - Campus and Stanford University Lands - Academic

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Reserve and Open Space in Part 3, Book B of the General Plan.

As needed, the Community Plan may be amended over time to improve its usefulness and effectiveness to decision-makers, Stanford, and the general public.

## **Growth and Development**

## **Chapter Summary**

This chapter of the Community Plan articulates the fundamental approach that the County will pursue when considering future growth of the University.

This plan considers Stanford lands in Santa Clara County in their entirety and identifies the portion of those lands which are most appropriate for future development. The County's intent is to for channel development to achieve the primary General Plan policy directions of compact urban development and resource conservation. The primary mechanism to direct growth is the establishment of an long-term Academic Growth Boundary (AGB). that is to remain in place until a defined level of development intensity has been achieved on lands within the growth boundary.

An important aspect of <u>managing</u> overseeing growth at Stanford is the coordination of land use decision making, consultation, and policies regarding annexation. This chapter reinforces <u>the</u> <u>1985 Land Use Policy Agreement</u>, <u>agreements</u> which is a tri-party agreement <u>have been in place</u> <u>between among</u> the County, the City of Palo Alto, and Stanford <u>University since 1985 relating</u> to<u>as it relates to</u> the delivery of services, <u>land uses</u>, governmental organization, and cooperation. Finally, this chapter provides a basis for continued monitoring of Stanford's development activities and mitigation of environmental impacts associated with growth and development.

Community Plan strategies for growth and development are:

Strategy #<u>No.</u> 1: Promote compact development and conservation of natural resources through use of an Academic Growth Boundary.

Strategy #<u>No.</u> 2: Maintain Co-operative Planning Agreements and Implementation.

Strategy #<u>No.</u> 3: Mitigate and Monitor the Impacts of Growth.

## Background

### Location and Setting

### **Governmental Jurisdictions**

Stanford University is located in Santa Clara and San Mateo counties, approximately 35 miles south of San Francisco and 20 miles north of San Jose, California. Stanford's landsoriginal land grant- totalsing approximately 8,180 acres and are-is located in six jurisdictions: unincorporated Santa Clara and San Mateo counties, the cities of Palo Alto and Menlo Park, and the towns\_of Portola Valley and Woodside (see **Figure 1.1–Government Jurisdictions**). Approxi–mately 4,000 acres containing Stanford's academic, open space and agricultural lands are located within unincorporated Santa Clara County (the distribution of Stanford lands is shown in Table 1.1 below).

### Table 1.1—Distribution of Stanford Lands across Jurisdictions

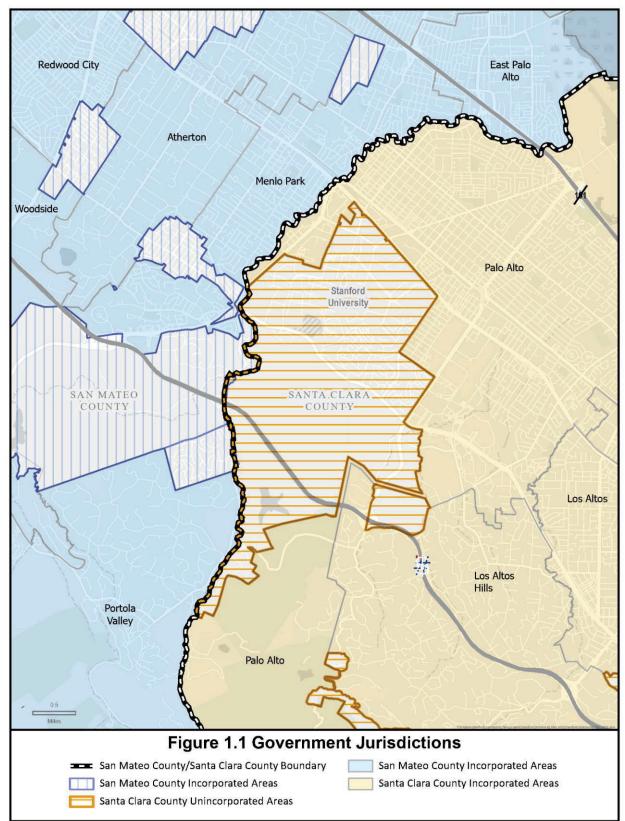
Santa Clara County	Acres Percent of Total	
Unincorporated	4,017	49%
Palo Alto	1,161	14%
San Mateo County		
Unincorporated	2,701	33%
Woodside	114	1%
Menlo Park	111	1%
Portola Valley	76	1%
	0.100	

Total 8,180

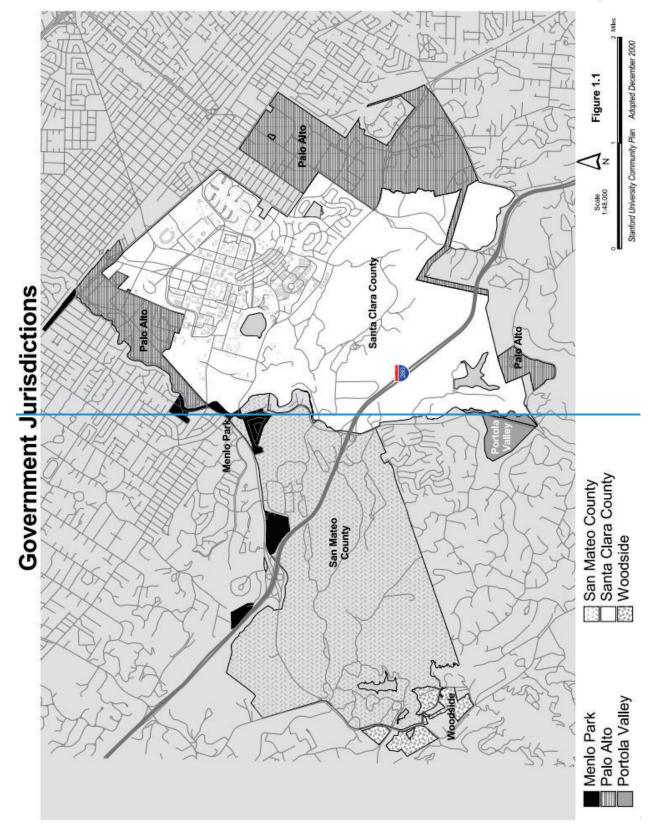
Source: Stanford University

Unincorporated Stanford lands in both Santa Clara <u>County</u> and San Mateo Count<u>yies</u> are within different spheres of influence. <u>A "sphere of influence" is a planning boundary outside of an agency's legal boundary (such as the city limit line) that designates the agency's probable future boundary and service area, as determined by the Local Agency Formation Commission (<u>LAFCO</u>). Some portions of Stanford lands are within the City of Palo Alto's urban service area and sphere of influence. All unincorporated San Mateo County lands are within a city sphere of influence. Due to the unique nature <u>and history</u> of Stan–ford, the rules, regulations, and policy agreements relating to urban service areas are applied differently for Stanford than for other areas of the County.</u>





Chapter 1 Growth and Development



In some cases, the uses on Stanford lands differ sharply between jurisdictions, most notably for those areas that are within the City of Palo Alto. These lands are expressly intended for interim non-academic uses that support the operation of the University (see Policy Context, below). Land uses within the City of Palo Alto include the Stanford University Medical Center, Stanford Shopping Center, Stanford Research Park, and apartment complexes. Lands in the San Mateo County jurisdictions are largely undeveloped, with the exception of the Stanford Linear Accelerator Center in unincorporated San Mateo County.

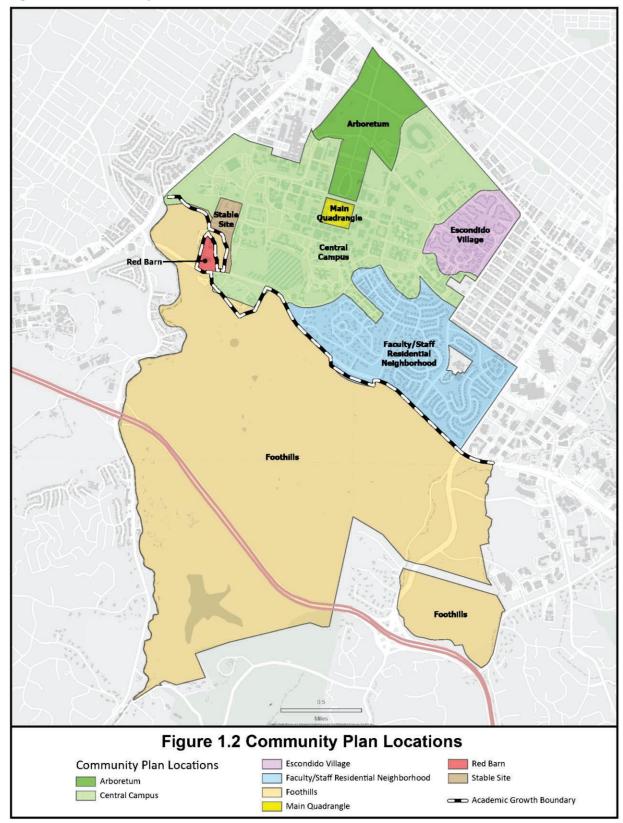
### **Community Plan Area Physical Setting**

Both developed and undeveloped areas of the Stanford campus are distinctive. Stanford is a complex and active place with a wide variety of activities taking place throughout the campus. With <u>an arrayits extent</u> of academic buildings, housing, academic and student support services, and cultural and athletic facilities the campus has been compared by many to <u>be the equivalent</u> <u>of</u> a fully-functional city.

The <u>clearest\_geographic</u> distinction on the Stanford campus is between the central cam–pus, where <u>essentially all</u>-development is concentrated, and the foothills which have remained <u>basically mostly</u> undeveloped. Of the 4,017 acres of land in unincorporated Santa Clara County, <u>approximately 1,8001,724</u> acres are north of Junipero Serra Boulevard and ap–proximately <u>2,2002,293</u> acres are located south of the roadway.

Within these two primary areas there are several important geographic areas and sites addressed throughout the Community Plan. These locations are defined on **Figure 1.2** - **Community Plan Locations**.

### **Figure 1.2 Community Plan Locations**





### Policy Context for the Community Plan

Policies for Stanford are addressed in the Santa Clara County General Plan under the portion of the plan concerning urban unincorporated areas, recognizing the nature of the activities which take place at Stanford. However, Stanford is not subject to the General Plan strategies and policies for other urban unincorporated areas, which are "pockets" of unincorporated lands that are intended for future annexation. The Stanford University campus lands are unlike all-other urban unincorporated lands in Santa Clara County in a number of significant respects in that they:

- Are used for academic and academic support space and related purposes;
- Are entirely under the ownership of a single landowner that
  - is both a major employer and a major provider of housing,
  - provides is responsible to provide all-many of its own urban services and facilities, and
  - has its own land use planning staff;
- Have limitations on their sale the sale of their lands (due to restrictions in the Founding Grant);
- Are the subject of <u>the 1985 Land Use Policy Agreement</u>, a tri-party agreement between <u>the County</u>, the City of Palo Alto, and Stanford University; unique interjurisdictional agreements involving the County, Palo Alto, and the University; and,
- Encompass a unique integrated community whose members are all related, in one way or another, to the University.

<u>Prior to the adoption of the Community Plan in 2000, Prior to the Community Plan</u>, Stanford's policy framework was composed of:

- Santa Clara County General Plan Land Use Map designations and policies for Stan-ford;
- The 1985 Land Use Policy Agreement between Stanford, the City of Palo Alto, and the County; and,
- The 1989 General Use Permit, which stipulated the allowable amount of new development on Stanford lands and the conditions under which that development could occur.

Due to Stanford's multi-jurisdictional setting and the need to consider issues concerning annexation as they specifically apply to Stanford, the County of Santa Clara, the City of Palo Alto and Stanford University are parties to an agreement entitled the 1985 Land Use Policy Agreement. This agreement sets forth the policies regarding land use, an-nexation, planning, and development of Stanford lands in Santa Clara County-(see side-bar), and defines what uses may remain in the unincorporated County and what uses must be annexed to the City of Palo Alto.

The general policies of the Land Use Agreement outline Stanford University's uniqueness, and documents the agreement that all academic, open space, and agricultural uses should remain on unincorporated lands, while non-academic uses on Stanford lands should be subject to city annexation. In essence, tThe Land Use Policy Agreement augments the sphere of influence by affording Palo Alto review opportunity for proj–ects on all unincorporated Stanford lands (not just those within the delineated sphere of influence north of Junipero Serra Boulevard), and by identifying what types of uses are to remain unincorporated (see sidebar).

- Academic Uses: The Stanford Board of Trustees holds all Stanford lands for ultimate academic use. Unincorporated Stanford lands in Santa Clara County are subject to the County General Plan and Zoning Ordinance, as well as other land use approvals granted by the County. Pursuant to the 1985 Land Use Policy Agreement, the parties agree that neither seek annexation to Palo Alto of parcels designated for academic use.
- Non-Academic Uses: The Trustees allow non-academic use of certain designated parcels to produce income to support the University and its programs. These policies define "non-academic uses," state Stanford's intent to request annexation for parcels on which any non- academic use is proposed and describe the City of Palo Alto's review and approval procedure.

The Land Use Policy Agreement states that the County, the City of Palo Alto, and Stan–ford agree that Stanford lands "-... *are held in perpetual trust for educational purposes* ...-" (Policy l-a), and is responsible for providing its own (directly or by contract) municipal services. These policies also include agreements regarding multi-jurisdictional review procedures, which are to occur prior to any project or proposal.

The 1985 Land Use Policy Agreement also calls for maintenance of a document known as the Protocol, which outlines all adopted land use designations, regulation, restric—tions, and review and referral procedures for land use and development on the Stan—ford campus. <u>Revisions to the Protocol are made at a staff level with the most recent version occurring in 2000, after the Board of Supervisors approved the 2000 Community Plan and 2000 General Use Permit.</u>

This Community Plan intends to maintain and <u>enhance support</u> the 1985 Land Use Policy Agreement. The Protocol will need to be amended according to this policy agreement to reflect the strategies and policies of the Community Plan.

In light of the multi\_jurisdictional agreements, unincorporated Stanford lands are exempted by the County of Santa Clara and the Land Use Policy agreement from the following two major General Plan strategies generally applicable to urban unincorporated area:

- Unincorporated lands within city urban service areas should be annexed to the cities in whose urban service areas they are located.
- Land uses for unincorporated lands within city urban ser—vice areas should conform to the general plan of the city in whose urban service area they are located.

The needs and issues which are commonly addressed through the mechanisms of annexation, sphere of influence, and urban service area are instead addressed at Stanford through the <u>1985</u> Land Use Policy Agreement. The County normally requires most forms of new development in urban unincorporated areas to conform to the land use and density requirements of the applicable city's General Plan, with the expectation that these areas will be annexed at some point in the future.

Since academic uses at Stanford are not intended for future annexation, they are not required to conform to the requirements of the City of Palo Alto. Dispensation from the Palo Alto Comprehensive Plan through the <u>1985</u> Land Use Policy Agreement also applies to the Palo Alto Urban Service Area. By agreement of all parties, it is the County General Plan<u>, of which this</u> <u>Community Plan is a part</u>, defines the extent of urban growth at Stanford.

#### 1985 Land Use Policy Agreement Ceneral Policies

The general policies of the 1985 Land Use Policy Agreement outline Stanford University's unique ness and document the agreement that all aca demic, open space, and agricultural uses should remain unincorporated while non academic uses on University land should be subject to city an nexation, there is an acknowledgement that the University holds its lands in perpetual trust for educational purposes and is responsible for pro-viding its own municipleal services. These policies also include agreements regarding mulit-jurisdic-tional review procedures, which are to occur prior to any project or proposal.

Specific Policies Governing Academic Use of Stanford Lands

The Stanford Board of Trustees holds all Stanford lands for ultimate academic use. Unincorporated Stanford lands in Santa Clara County are subject to the County General Plan and ZoningOrdinance as well as other land use approvals granted by the County. Both Palo Alto and Stanford agree that neither seek annexation to Palo Alto of parcels designated for academic use.

MSpecific Policies Coverning Non Academic Use of Stanford Lands

The Trustees allow non-academic use of certain designated parcels to produce income to support the University and its programs. These policies de- fine "non-academic uses," state Stanford;s intent to request annexation for parcels on which any non-academic use is proposed, and describe the City of Pale Alto's review and approval procedure.

Implementation of the Policies by the Protocol

The staffs of the three parties, incooperation, will maintain an informational document know as a Protocol. The staffs will continue to refer develop-ment applications to each other. Revisions to the Protocol are to be made by the three staffs, to re-flect any adopted changes in the County land use and development regulations, and administrative practices and procedures.

The creation of the Community Plan for Stanford University marks a major milestone in more than 100 years of cooperative planning between the County of Santa Clara and Stanford University. This Community Plan reflects an unprecedented level of shared commitment to the principles of quality land use planning, environmental studies, and public involvement in the planning process. Furthermore, the Community Plan repre-sents a commitment to stewardship of a unique regional asset.

The County <u>has</u> determined <u>in 2000</u>, <u>that a more deliberate planning instrument is needed to</u> <u>provide the County with a policy framework for decisions regarding development at Stanford</u> when faced with regional growth pressures impacting the quality of life in local communities, that a more deliberate planning instrument was needed to provide the County with a policy framework for decisions regarding development at Stanford. The Community Plan identifies policies and establishes land use designations that reflect the character and resources of the various Stanford lands in unincorporated Santa Clara County. The Community Plan is based on the need for a Stanford-specific policy framework within the context of the County's priorities for land use, growth and development, and other planning issues as expressed in the General Plan.

No portion of the Community Plan may be modified without the approval of a majority of members of the Santa Clara County Board of Supervisors, and modification of the AGB requires a <u>4/5four-fifths (4/5)</u> vote of the Board. The Com–munity Plan offers local communities a greater specificity in the planning and decision\_making processes of both Stanford and ultimately the County. The General Use Permit serves within this framework as the general approval for a specified amount of development at Stanford.

The Community Plan is based on the County's analysis of Stanford's development needs in the context of the County's priorities for land use, growth and development, and other planning issues as expressed in the General Plan. This Community Plan is not intended to define the long term development potential of Stanford's unincorporated lands, with regard to either the amount of or the location of development for the period beyond the intended planning horizon. However, the County and Stanford recognize that such an understanding may be needed in the future to provide an opportunity for serious consideration of trade-offs in the future location of development.

#### **General Plan Policy Direction**

This Community Plan is a part of and a supplement to the Santa Clara County General Plan. It is meant to be consistent with the General Plan and refine its strategies, poli–cies, and implementation-recommendations-measures as they apply to Stanford. The Community Plan particularly emphasizes and is based upon two fundamental and complementary principles expressed in the General Plan and related to growth and development:

- Compact and efficient urban development; and,
- Conservation of natural resources.

### Stanford University Development Trends

Ongoing expansion of academic programs and research opportunities at Stanford has also engendered a corresponding increase in building area on the campus. New development attributable to growth in academic buildings, support services, and student housing has mostly occurred since World War II; total square feet of building area on the campus (excluding faculty housing) increased almost threefold from 1960 to 2000, as shown in Table 1.2.

Policy SCP-GD 12 of the 2000 Community Plan outlined that Stanford, in coordination with the County, would complete a Sustainable Development Study that would, in summary, 1) demonstrate how future development will be sited to prevent sprawl into the hillsides and provide long-term assurance of compact urban development, and 2) provide for protection and/or avoidance of sensitive plant and animal species and their habitats. This is referred to as the 2008 Sustainable Development Study (SDS). The SDS demonstrated that Stanford lands within the AGB demonstrated sufficient capacity to accommodate future campus growth through 2035. It explored long-term growth potential for Stanford lands through 2035 and demonstrated how future development could be sited within the AGB; addressed resource protection in the foothills through a sensitivity study; and identified principles and programs for environment sustainability in development and operation of the University.

The SDS demonstrated sufficient capacity of lands within Stanford's Academic Growth Boundary (AGB) to accommodate a high growth rate scenario (300,000 square feet of academic and housing per year) through 2035 without the need to adjust the AGB. Later, the County determined that current planning needs require a longer-term assessment. This resulted in the 2018 Sustainable Development Study Supplement (SDSS).

The 2018 SDSS assesses the long-term development capacity of the Stanford campus based on benchmark data from other research universities, anticipated development of surrounding communities, and resource constraints and other factors that may limit future growth. Beyond 2035, more than 500 acres of the Stanford campus have been identified that could theoretically be developed using a variety of land use intensification strategies, allowing up to 44 million square feet of total development on the campus over a period of 100 years or more.

This would nearly triple the existing density of the campus, demonstrating that campus development can be contained within the AGB over the foreseeable future, thus protecting these open space lands. The 2018 SDSS analyzed the following intensification strategies for development within the AGB:

- Redevelop Parking Facilities
- Redevelop Lower Density Areas
- <u>Relocate Agricultural Lands and Facilities</u>
- Relocate Athletic Facilities

The 2018 SDSS concludes that with implementation of these intensification strategies, Stanford land within the AGB could accommodate continued development at the historic rate (200,000 square feet of academic and housing per year) for 100 years or more if other constraints (including transportation capacity, water and housing supply, and wastewater treatment capacity) could be resolved. The SDSS explains that there are a variety of physical, environmental, and societal constraints that could limit future development, and it is reasonable to expect that Stanford's ability to manage these constraints, and societal and technological change would alter the rates of development outlined in the study. Both the SDSS and SDS do not approve development, but rather are planning exercises/studies.

Table 1.2 shows the incremental and cumulative academic, academic support and student housing square footages from 1875-2021. The growth rate since 1960 has represented an average annual addition of approximately 200,000 square-feet (s.f.) of academic building area, academic support facilities, and student housing; however, this rate can vary considerably year-to-year.

Fime Period	Building Area Added	Cumulative Building Area	
	(gross square feet)		
	_		
<del>875-1960</del>	4,363,375	4,363,375	
961-1965	<del>1,069,406</del>	<del>5,432,781</del>	
966-1970	<del>1,353,405</del>	<del>6,786,186</del>	
971-1975	<del>890,496</del>	<del>7,676,682</del>	
976 1980	758,805	<del>8,435,487</del>	
81 1985	<del>562,736</del>	<del>8,998,223</del>	
986-1990	<del>1,348,8</del> 41	<del>10,347,064</del>	
991-1995	<del>439,840</del>	<del>10,786,90</del> 4	
<del>996-2000</del>	<del>1,507,326</del>	<del>12,294,230</del>	
otal	<del>12,294,230</del>		

### Table 1.2 – Incremental and Cumulative Square Footages from 1875-2020

Time Period	<u>Academic</u>	<u>Cumulative</u>	<u>Student</u>	<u>Cumulative</u>	<u>Total</u>
	<b>Building Area</b>	<u>Academic</u>	<b>Housing</b>	<u>Student</u>	<u>Cumulative</u>
	Added (square	<b>Building</b>	Area Added	Housing Area	<b>Building Area</b>
	<u>feet)</u>	Area	<u>(square feet)</u>		
<u>1875-1960</u>	<u>2,790,913</u>	<u>2,790,913</u>	<u>1,466,041</u>	<u>1,466,041</u>	<u>4,256,954</u>

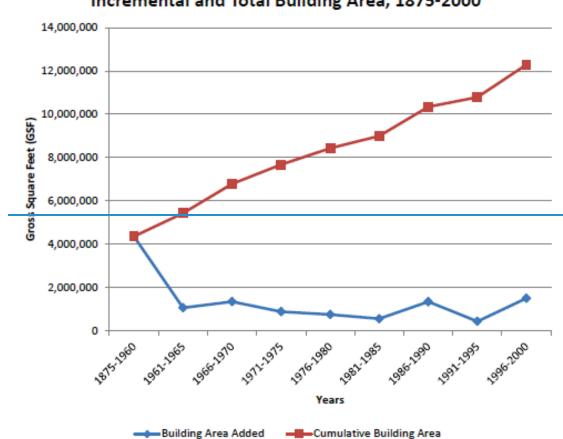
Chapter 1 Growth and Development

				Glowar and Development		
<u>1961-1965</u>	<u>510,754</u>	<u>3,301,667</u>	<u>554,410</u>	<u>2,020,451</u>	<u>5,322,118</u>	
<u>1966-1970</u>	<u>1,036,559</u>	<u>4,338,226</u>	<u>286,374</u>	2,306,825	<u>6,645,051</u>	
<u>1971-1975</u>	<u>509,589</u>	4,847,815	374,402	2,681,227	7,529,042	
<u>1976-1980</u>	713,250	<u>5,561,065</u>	<u>45,620</u>	2,726,847	8,287,912	
<u>1981-1985</u>	<u>323,925</u>	<u>5,884,990</u>	<u>238,786</u>	<u>2,965,633</u>	<u>8,850,623</u>	
<u>1986-1990</u>	<u>985,735</u>	<u>6,870,725</u>	<u>294,626</u>	<u>3,260,259</u>	10,130,984	
<u>1991-1995</u>	<u>322,388</u>	<u>7,193,113</u>	<u>130,897</u>	3,391,156	<u>10,584,269</u>	
<u>1996-2000</u>	<u>1,027,278</u>	<u>8,220,391</u>	<u>495,360</u>	<u>3,886,516</u>	<u>12,106,907</u>	
2001-2005	<u>187,491</u>	<u>8,407,882</u>	<u>140,854</u>	4,027,370	<u>12,435,252</u>	
<u>2006-2010</u>	<u>638,953</u>	<u>9,046,835</u>	<u>488,924</u>	<u>4,516,294</u>	13,563,129	
2011-2015	<u>571,096</u>	<u>9,617,931</u>	263,007	<u>4,779,301</u>	<u>14,397,232</u>	
<u>2016-2020</u>	<u>453,434</u>	<u>10,071,365</u>	<u>1,710,552</u>	<u>6,489,853</u>	16,561,218	
<u>2021</u>	<u>-90,221</u>	<u>9,981,144</u>	<u>N/A</u>	<u>6,489,853</u>	<u>16,470,997</u>	
<u>Total</u>	<u>9,981,144</u>		<u>6,489,853</u>		<u>16,470,997</u>	

#### Source:

<u>1875-2000 data obtained from Stanford University Land Use and Environmental Planning Office</u> <u>2001-2021 data obtained from 2000 GUP Annual Report No. 21</u>

The existing building area on the Stanford campus includes approximately 5,900 units of undergraduate housing and 3,860 units of graduate student housing. Housing for faculty and staff, which is not included in the building area total, comprises 9 units, most of which are single family homes. The growth rate since 1960 has represented an average annual addition of 198,200 square feet of academic uses, support facilities, and student housing. While the amount of growth on an annual or 5 year basis has fluctuated over the last 40 years the rate of increase in cumulative building area has occurred at a relatively constant rate of ap-proximately 200,000 square feet per year, as shown in the chart below.



Incremental and Total Building Area, 1875-2000

would be infeasible to accommodate an additional 200,000 square feet annually in perpetuity, it is unclear how much additional development is appropriate. It is also unclear whether, when and to what extent Stanford may propose to develop the foot-hills

### Zoning and General Use Permit

The <u>General Use district or "Al</u>" zoning district, as assigned per the County of Santa Clara Zoning Ordinance, the Special Purpose Base District, applied to Stanford University requires that a <u>Uuse Ppermit</u> be granted for development and operation of academic activities at Stanford. Since the 1960s, this <u>Uuse Ppermit</u> has been in the form of a "General Use Permi<u>t</u>," or <u>GUP</u>, for the University rather than a-separate <u>land use entitlements permit</u> for each building.

The 2000 General Use Permit (GUP) replaced the 1989 GUP, and i. It is the permit under which Stanford continues its academic and support uses, and authorizes the University to develop the following facilities:

- Academic and academic-support facilities (an additional 2,035,000 net s.f. plus the square footage remaining under the 1989 GUP)
- Childcare or community centers (an additional 40,000 s.f.)

While it

- Temporary trailers and surge space (up to 50,000 s.f.)
- Parking structures and lots (2,300 net new parking spaces)
- Housing (3,018 housing units, increased to 4,468 housing units in 2016)

The 2000 GUP replaced the 1989 GUP after approximately 10 years. As of 2021, the 2000 GUP is still in effect, with some amendments over the past 20 years.

The GUP shall be updated every 10 years, with both annual monitoring and periodic reports occurring throughout that time. The frequency and content of the periodic reports shall be determined by the GUP conditions of approval and shall serve to document and summarize development at Stanford University, GUP compliance, and indicate any recommended opportunities for amendments or clarifications of the GUP by the County. Guidelines for these reports are outlined in Strategy No. 3 of this chapter.

In 1989, the General Use Permit approved for Stanford allowed for 2,100,300 square feet of new development on the campus, including both academic uses and student hous-ing. Since 1989 Stanford has averaged 177,450 additional gross square feet per year, with approximately 76% of this annual development devoted to academic, athletic and support facilities and 24% for student housing.

## Strategies, Policies, and Implementation

## Strategy #<u>No.</u>1: Promote compact development and conservation of natural resources through use of an Academic Growth Boundary

The County General Plan promotes the use of long-term urban growth boundaries by cities to delineate areas intended for future urbanization from those <u>areas</u> not intended for future urban use. Unlike an Urban Service Area boundary, which typically indicates the areas in which a city is able and willing to provide urban services in the short term (5 years), an urban growth boundary is meant to provide adequate land to accommodate urban development for a significantly longer time period<u>a</u>-of approximately 20 years.

The delineation of urban growth boundaries can promote compact urban development and conservation of natural resources by (a) <u>focusing channeling</u> development within existing urban areas and (b) excluding important habitat, hazard, or open space areas from the urban growth boundary area.

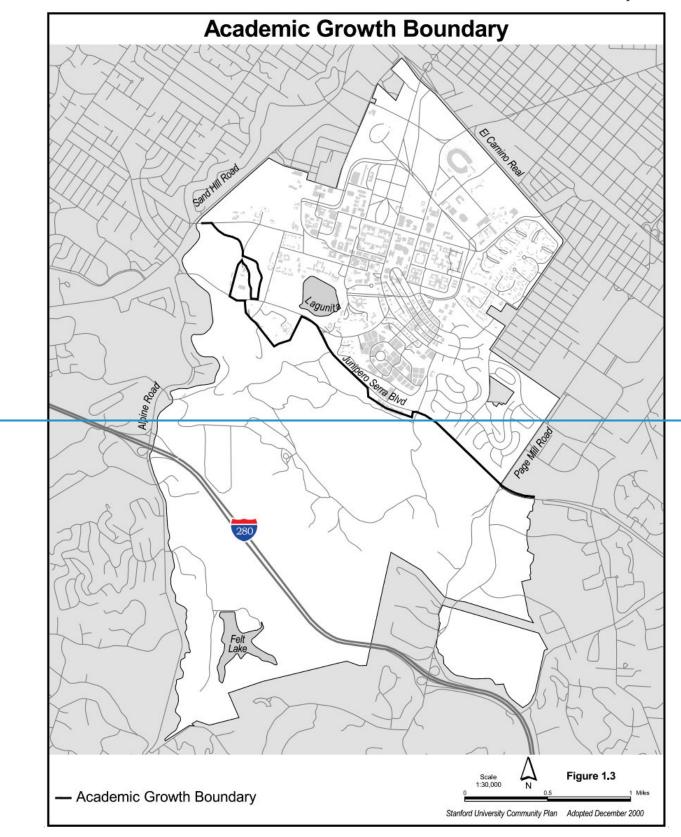
The General Plan identifies considerations for the establishment and periodic review of urban growth boundaries between the County and incorporated cities.

The Community Plan <u>applies continues</u> the <u>concept-use</u> of an urban growth boundary <u>to at</u> Stanford in the form of <u>an the</u> "Academic Growth Boundary" (AGB), <u>see Figure 1.3 Academic</u> <u>Growth Boundary</u>. The concept of the <u>AGB</u>, growth bound ary as it applies to Stanford, is a basic one: development must occur within the AGB, with lands outside the AGB remaining in open space.

<u>Currently, there are 1,724 acres of land within the AGB, and 2,293 acres of land outside the</u> <u>AGB.</u> The AGB is the primary mecha—nism for promoting compact urban development and resource conservation in the Community Plan, and it serves as the basis for associated policies throughout the plan that reinforce this basic demarcation line.







### Academic Growth Boundary Location

The Academic Growth Boundary generally parallels existing developed areas (see **Fig-ure 1.3**--**Academic Growth Boundary**). The purpose of this selected location is to direct all new development to infill sites rather than expansion areas, allowing for a compact form of urban development that promotes use of non-auto transportation modes and that conserves land and other natural resources. Over time, this location will primarily result in a central campus at Stanford that is developed more intensively than the cam-pus today. The location of the AGB also allows for a variety of settings to meet different academic and research needs.

Throughout the Community Plan, areas within the AGB (generally north of Junipero Serra Boulevard) are considered "central campus" and the areas outside the AGB (gen-erally south of Junipero Serra Boulevard) are considered "foothills" (see **Figure 1.2 — Community Plan Locations**).

### **Development Policies**

Allowable development for areas within and outside the Academic Growth Boundary is defined in the Land Use chapter of the Community Plan. Different land use desig—nations are applied in those areas that direct development to land inside the growth boundary. Essentially all uses associated with the educational and residential function of the campus are directed inside the boundary, while areas outside the boundary are reserved for open space and academic activities that require the foothill setting for their basic functioning. A major existing use which is outside the AGB is the Stanford Golf Course, which is considered an open space use under the Community Plan.

### Academic Growth Boundary Timing

The Academic Growth Boundary is not meant to be a intended to provide a permanent planning boundary for academic development on the Stanford campus on a long-term basis if planned development can be accommodated within its boundaries. The land within the AGB totals 1,724 acres (developable), and the land outside the AGB totals 2,293 acres (open space). 7 but it does need to remain in place for a long enough period of time to ensure that development will be directed toward the central campus over the long term. \_The AGB will remain in the established location for a period of at least 2599 years. The Community Plan requires a <u>super-majority</u> vote of four-fifths (4/5) of all members of the Board of Supervisors for any modification to modify to the AGB location during this 2599--year time period, in contrast to the simple Board majority required for other General Plan amendments.

Based on the historic growth rate of approximately 200,000 square feet of additional development per year for the past 40 years, 25 years of development would total an ad-ditional 5 million square feet, excluding faculty I staff housing which is separately regu-lated. Adding 5 million square feet to the current total would result in a central cam-pus building area of approximately 17,300,000 square feet, excluding faculty and staff housing. In addition to the time limitation, this amount of cumulative development

is a prerequisite or "trigger" for possible modification of the AGB. No modification of the

growth boundary may be proposed or approved prior to 25 years from approval of the Community Plan and total building area on the central campus reaches 17,300,000 square feet. The 2000 Community Plan included a development threshold of 17.3 million square feet of academic and student housing as well as a 25-year time period before the AGB could be modified. Now that the campus has exceeded the development area identified and Stanford is proposing to develop within the ACB, a development threshold for the ACB is not needed because the Community Plan and General Use Permit will establish allowable growth levels within the ACB. The ACB should remain in its current location for 99 years, provided there is adequate area within the AGB to accommodate University development in a compact urban form. Any modification of the ACB during this 99 year period shall require a 4/5ths vote of all members of the Board of Supervisors. Additional growth and development beyond what is authorized in this Community Plan and the General Use Permit requires an amendment to the Community Plan and review under the California Environmental Quality Act (CEQA). The AGB should remain in its current location for a minimum of 99 years, and indefinitely so long as it provides adequate area to accommodate University development in a compact urban form. A review of the AGB should be conducted periodically to confirm that it continues to provide adequate development potential in its current location.

While the current location of the ABG should remain for a minimum of 99 years, should a request to consider an amendment sooner, the following factors shall be considered:

- University development patterns in the past and recent trends;
- Stanford growth projections and potential constraints to growth other than available area within the AGB;
- Strategies to increase efficient use of available land within the AGB;
- Feasibility of accommodating future growth within the AGB;
- Implications of AGB expansion for resource conservation.

Any expansion of the AGB shall require a super-majority vote of the Board of Supervisors (fourfifths (4/5) vote required) and a finding, based on the above factors, that future development cannot be feasibly accommodated within the existing AGB.

The land area in which this development would be located is 1,370 acres, which is the area of the central campus excluding the current and proposed future faculty/ staff resi-dential area.

This AGE<u>B</u> threshold serves several purposes, including:

1. It defines the point at which expansion of the portion of the campus designated for academic and related development may be considered.

It defines the development intensity level for the Academic Campus land use.des ignation (see Land Use Chapter) under the Community Plan.

- It provides for an adequate amount of additional building area to serve Stanford's needs over the long term.
- It specifically aims to provide a concentration of people and activity conducive to use of transit and non-automobile trips.
- Encourages the efficient and sustainable use of Stanford lands within the AGB;
- Promotes a concentration of people and activity conductive to the use of transit and other non-automobile modes of transportation; and,
- <u>Preserves open space</u>, protects natural resources and scenic vistas, and avoids geologic hazards in foothill areas outside the AGB.

It is important to distinguish that the AGB modification threshold in no way serves as an approval by the County of this amount of development. Actual development

and population growth proposals by Stanford, both in the form of General Use Permit applications and as applications for individual building projects under the  $\subseteq G$ UP, will continue to be evaluated for their environmental and policy impacts by County staff, the Planning Commission, and the Board of Supervisors.

Accommodating all future additional development within the AGB may require explo-ration of new areas for development in the future, such as the area of the west campus currently expected to remain undeveloped according to the development agreement between the City of Palo Alto and Stanford for the Sand Hill Road Corridor Projects.

Concurrent with their application for a General Plan amendment in the form of a Com-munity Plan, Stanford University filed an application with the County for a new Gen-eral Use Permit, requesting 2,035,000 additional square feet of academic and support space, 2,000 housing units for students, 350 units for postdoctoral fellows, and up to 668 housing units for faculty and staff. Excluding faculty and staff housing and assuming 550 square feet per unit of student housing and 1,000 square feet per unit of postdoctor-al fellow housing, this development application requests an additional 3,485,000 square feet of new building area on the campus over the next 10 years. Despite this accelerated rate of new development compared to past years, the AGB will remain in place for 25 years, indicating that growth rates would need to decline in the future. The calculations for the AGB threshold are summarized in Table 1.3 **Table 1.3** compares campus development (cumulative academic, academic support, and student housing) within the AGB in 2000 and 2021. It does not include faculty and staff housing, or land designated to faculty and staff residential areas. Additional student housing over and above the limits in **Table 1.3** can be constructed in compliance with a certified environmental document and approved General Use Permit. Development in residential areas is regulated in the Community Plan under a different land use designation that defines allowable residential density for these areas.

#### Table 1.3 – AGB/Central Campus Threshold Calculations Development

	· · · · · · · · · · · · · · · · · · ·
Land area (excluding faculty/staff residential areas)	1,370 acres
<u>Current bB</u> uilding area <u>Area (2000)</u>	12,300,000 <u>12,106,907</u> square
	feet
Building Area (2021)	16,470,997 square feet
Current building intensity ratio (building area/land area)Floor	0.2 <u>0</u> <del>1</del>
<u>Area Ratio (2000)</u>	
Floor Area Ratio (2021)	<u>0.28</u>
40-year annual growth rate	200,000 square feet per year
25 year growth allocation (growth rate * 25 years)	<del>5,000,000 square feet</del>
AGB threshold building area	<del>17,300,000 square feet</del>
AGB threshold building intensity (AGB threshold building	<del>0.29</del>
<del>area/land area)</del>	
Proposed General Use Permit development	<del>3,485,000 square feet</del>
Amount remaining in AGB threshold after GUP development	<del>1,515,000 square feet</del>
Source: 2000 GUP Annual Report No. 21	

Calculations of current and future on campus building area do not include faculty I staff housingDevelopment in residential areas is regulated in the Community Plan un-der a different land use designation that defines allowable residential density for these areas, consistent with the historical practice of excluding faculty I staff housing from the General Use Permit.

#### **Community Plan Policies Supporting Academic Growth Boundary**

The following tTable <u>1.4</u> describes some means by which the Academic Growth Boundary, and the associated concepts of compact urban development and resource conservation, are reinforced in other chapters of the Community Plan.

#### Table 1.4 Community Plan Reinforcement of AGB

Chapter	AGB Reinforcement
Land Use	Land Use designations within and outside the AGB
Housing	Identification of housing sites within the AGB; promotion of higher
	density
Open Space	Protection of open space outside the AGB; promotion of balance
	between high intensity development and open space inside the AGB
Circulation	"No net new commute trips" and reverse commute trips monitoring
	during the peak hour and peak period, and Vehicle Miles Traveled
	(VMT) standards, which promotes compact development to allow for
	use of transit, bikes and walkingbicycle, and pedestrian networks

#### Policies

#### SCP-GD1

Establish and maintain an Academic Growth Boundary (AGB) as shown on Figure 1.3. Direct future development on Stanford lands within the AGB, consistent with the Com–munity Plan land use designations.

#### SCP-GD 2

Retain the location of the AGB as shown in Figure 1.3 <u>for a 99–year period</u>, <u>(until December 31, 2121)</u>. for at least 25 years, and until the building area of academic and support facilities and student housing reaches 17,300,000 square feet.

#### SCP-GD 3

<u>Allow mM</u>odification of the location of the A<u>cademic Growth Boundary (AGB)</u> within 25-99 years <u>shall of its initial approval</u> only <u>be allowed upon a four-fifths vote of the Board of</u> Supervisors <u>based upon the following factors:</u>

- a. Development of new academic facilities or housing cannot be feasibly accommodated within the boundaries of the existing AGB or on other property owned by Stanford in reasonable proximity to the Stanford campus.
- b. Development of new academic facilities or housing outside of the existing AGB will meet all transportation policies of the Stanford Community Plan and transportation requirements of the current General Use Permit (GUP).
- c. Adequate urban services and infrastructure can be provided to the proposed new academic facilities or housing outside of the existing AGB.
- d. Adequate water supplies are available to serve the expanded AGB without adversely affecting the water supplies to any other existing users.
- e. Implications of AGB expansion for resource conservation.

#### SCP-GD 4

The design and intensity of growth within the A<u>cademic</u> <u>Growth</u> <u>Boundary (AGB)</u> should facilitate transit usage. There should be a mixture of uses to allow for a high degree of pedestrian and bike trips. The location of uses should facilitate non-auto trips.

#### SCP-GD 5

The design and intensity of development outside the A<u>cademic Growth Boundary (AGB)</u> should be very low intensity supporting <u>environmental restoration</u>, <u>utilities</u>, academic field research, research needing remote locations, agricultural and <u>outdoor</u> recreational uses.

#### SCP-GD 6

Incremental additional Ddevelopment within the AGB may only be permitted through a General Use Permit (GUP) approved by the County. Additional growth and development within the AGB beyond what is authorized by the GUP shall not be allowed without a certified environmental document and approved GUPeneral Use Permit.

#### SCP-GD 7

Maximum allowable development within the Community Plan area for academic and academic support spaces (including student housing) shall comply with the following, unless authorized through an amendment to this Community Plan and a concurrent General Use Permit (GUP) application.

• Maximum 17,300,000 square feet, which includes academic and academic support space, and student housing. The 17,300,000 square feet does not include faculty/staff housing.

#### SCP-GD 8

Encourage new housing consistent with the County's list of housing opportunity sites within the Housing Element.

#### **Implementation Measures**

#### **SCP-GD** (i) 1

Require that Stanford, annually, prepare, and submit an assessment of how annual construction from the previous year implements 'intensification strategies' to development within the Academic Growth Boundary (AGB).

# Strategy #<u>No.</u>2: Engage in Cooperative Planning and Implementation

The policies associated with this strategy articulate and reinforce the decision—making and cooperative arrangements among Stanford, the City of Palo Alto, and the County of Santa Clara, which have been in place for several decades. These policies clearly ar—ticulate a departure from General Plan policies for other urban unincorporated areas of the <u>Ceounty</u>; however, because the County's intentions regarding annexation, use regula—tion, and service provision differ from other urban areas, it is appropriate that special—ized policies and consultation procedures apply to Stanford.

The 1985 Land Use Policy agreement stipulates that Stanford will provide all municipal services to unincorporated portions of Stanford lands, including contractual arrange—ments for services as needed. The Community Plan and new General Use Permit cre—ate a need to ensure that service use by Stanford residents and Stanford's provision or contracting of services, are consistent with one another.

The policies also reflect the County's desire to understand the University's long-term development plans so that such development may accomplish the University's aca-demic mission in a manner consistent with quality planning practices and the County's planning objectives. The Community Plan represents a commitment to quality steward-ship of a unique regional asset.

To provide for consideration of these issues, Stanford will be required prepared, at its own expense and in cooperation with the County Planning Office, a<u>the 20098</u> Sustainable Development Study (20098 SDS) covering all of its unincorporated lands in Santa Clara County. <u>The County then prepared the and the 2018 Sustainable Development Study Supplement</u> (SDSS). Both documents were discussed earlier in this chapter. This study will be required to be completed during the time that the 2000 General Use Permit is in effect to ensure that both growth under the 2000 General Use Permit and future growth patterns are consistent with the recommendations of the study regarding the appropriate location and manner of development. The Sustainable Development Study shall be based upon and meet planning principles and criteria established by the Board of Supervisors in the Community Plan and 2000 General Use Permit, as supplemented by the County Planning Office. These principles and criteria will include, but not be limited to, recognition, protection and avoidance of important natural resources including sensitive plant and animal species and their habitats, creeks and riparian areas, drainage areas, watersheds, scenic viewsheds, and geologic features such as steep or unstable slopes, and faults. The Sustainable Develop-

ment Study shall identify the maximum planned buildout potential for all of Stanford's unincorporated Santa Clara County land, demonstrate how development will be sited to prevent sprawl into the hillsides, contain development in clustered areas, and pro-vide long-

term assurance of compact urban development. In the interest of maintaining hillside views, developable areas should generally be limited to those with an elevation lower than 200 feet. Coupled with new zoning that promotes clustering of develop-ment, the Sustainable Development Study will address issues of resource protection with a view beyond the 25-year time frame of the AGB.

The County may, at Stanford's expense, choose to conduct a parallel study to the Sus-tainable Development Study prepared by Stanford, or may choose to do additional<u>future</u> analysis work to supplement the SDS and the SDSS, through a major modification to the GUP and/or a Community Plan Amendment. No CEQA analysis was done on the intensification strategies in the SDS or SDSS; therefore, the intensification strategies have not been evaluated under CEQA and should not be used to justify development, unless CEQA analysis is conducted. Stanford's study. The Sustainable Development Study will be sub-mitted to the Board of Supervisors for approval.

#### Policies

#### SCP-GD 97

The use and development of Stanford lands in the unincorporated area of Santa Clara County shall be consistent with:

- the County General Plan, including this Community Plan;
- the County Zoning Ordinance;
- a conditional-Uuse Ppermit known as the Stanford University General Use Permit;
- other <u>Uuse Ppermits</u> and approvals as required, granted by the County within the parameters of the Zoning Ordinance and the General Use Permit; and,
- the Land Use Policy Agreement among the County, the City of Palo Alto, and Stan–ford <u>University</u>.

#### SCP-GD 108

Academic and related development on unincorporated lands of Stanford University within Palo Alto's urban service area shall not be required to conform to the City of Palo Alto's Comprehensive Plan.

#### SCP-GD <u>11</u>9

The provision of urban services to the academic lands of Stanford University shall be the responsibility of the University, <u>based on the 1985 Land Use Policy Agreement and an</u> <u>evaluation prepared by the County</u>. This may be accomplished through direct provision of such services by Stanford, payment of in-lieu <u>or impact</u> fees, or appropriate contractual rela-

tionships with local jurisdictions.

#### SCP-GD 120

Annexation of Stanford lands shall be in accordance with the 1985 Land Use Policy Agreement:

- Academic land uses, <u>and housing for faculty, staff, and students</u>, for which the University provides or obtains its own services, will not be required to annex to a city.
- Open space and agricultural uses of land will remain unincorporated.
- Other non-academic uses of University land should be subject, in appropriate cases, to city annexation, as agreed to in the <u>1985</u> Land Use Policy Agreement.

#### SCP-GD 131

In accordance with the adopted Land Use Policy Agreement and Protocol, provide opportunities for the City of Palo Alto to review and comment upon projects and propos- als involving Stanford University that may affect the City.

#### SCP-GD 1214

Determine and define the long-term incremental growth potential for Stanford lands, and identify the maximum planned buildout potential and all appropriate areas of potential development through completion of a Sustainable Development Study. The <u>Any future</u> <u>S</u>Sustainable Development Study, and supplements thereof shall accomplish the following:

- Demonstrate how future development <u>will could</u> be sited to prevent sprawl into the hillsides, contain development in clustered areas, and provide long-term assurance of compact urban development; and
- <u>Provide forIdentify concepts for</u> protection and/ or avoidance of sensitive plant and animal species and their habitats, creeks and riparian areas, drainage areas, watersheds, scenic views—heds, and geologic features such as steep or unstable slopes, and faults.

#### Implementation RecommendationsMeasures

#### SCP-GD (i) 21

Revise the Protocol <u>with a report to the Board of Supervisors</u>, which is maintained under the stipulations of the 1985 Land Use Policy Agreement, to reflect changes in land use policies and review procedures result–ing from <del>adoption of</del> the Community Plan-and the 2000 General Use <u>Permit</u>, and respective modifications.

#### SCP-GD (i) <u>3</u>2

Identify urban service levels and service needs of Stanford residents. If Stanford is not providing an appropriate level of urban services to its residents, require that Stanford either provide any needed municipal services, pay in-lieu fees, or contract with the ap-propriate agencies to provide them. Contractual agreements or services required by the County will recognize that individuals commonly use services independent of juris-dictional boundaries, that jurisdictions may employ policies that give priority to their residents for service use, and that service levels differ among jurisdictions.

#### **SCP-GD (i)** 4

Develop reimbursement agreements between the University and Palo Alto, the County and other jurisdictions for fair share costs of municipal services provided to Stanford as determined by a nexus study and based on current and projected costs for providing municipal services. Include unreimbursed services provided to properties located both on campus and those located in adjacent cities. Include reimbursement for additional expenses resulting from large University events.

#### **SCP-GD (i) 5**

Stanford shall provide a functional organizational chart for all municipal services, along with the staff member responsible for providing service-related data, on an annual basis.

#### SCP-GD (i) 6

Stanford shall provide complete service and performance metrics for all municipal services, including appropriations and staffing levels, for the last three years, along with annual updates.

#### **SCP-GD (i) 7**

<u>Stanford shall develop and deploy an annual survey of customers to assess customer awareness</u> and satisfaction levels with all municipal services.

#### SCP-GD (i) 8

<u>The County should perform an assessment of Stanford residents' satisfaction with animal</u> <u>control services provided by the County.</u>

#### **SCP-GD (i) 9**

<u>Require a joint County and Stanford evaluation of survey results and analysis to determine if</u> <u>Stanford should contract with the City of Palo Alto, which has a fully functioning animal care</u> <u>system, for more convenient service to Stanford residents.</u>

#### **SCP-GD (i) 10**

Stanford shall pay for their share of expenses with implementation of new, or improvements made to, fire emergency preparedness measures.

#### **SCP-GD (i) 11**

The County and Stanford shall collaborate to address food insecurity issues for Stanford affiliates.

#### **SCP-GD (i) 12**

Develop an agreement between the County, the City of Palo Alto, and Stanford for additional shared use of University fields and recreational resources.

#### **SCP-GD (i) 13**

Stanford shall provide fair-share maintenance funding for Palo Alto city parks used by Stanford affiliates.

#### **SCP-GD (i) 14**

The County, Stanford, and the Palo Alto Unified School District (PAUSD) should work collaboratively to identify and equalize payments in lieu of property taxes (PILOT) for any public school service provided to the Stanford community.

#### **SCP-GD (i) 15**

Stanford street lighting facilities shall be identified appropriately so in the case of public inquiries, City of Palo Alto staff can direct people appropriately.

#### **SCP-GD (i) 16**

Stanford shall thoroughly document its fiber system to improve fiber cutover events and other maintenance issues.

#### **SCP-GD (i) 17**

Stanford shall improve access and transparency of campus Childcare services by:

- Participating in the California Quality Rating and Improvement System (CA QRIS), or a nationally-recognized system by an entity such as the National Association for the Education of Young Children (NAEYC), and making this information on program guality readily available to all students, faculty, and staff;
- Increasing transparency and reducing redundancy for on-campus childcare applications;
- Conducting ongoing childcare needs assessments by an independent, outside evaluator;
- Providing greater information to Stanford affiliates about off-campus Childcare alternatives; and
- Designing Childcare benefits specifically for graduate students.

#### SCP-GD (i) 3

Require that Stanford prepare and submit to the Board of Supervisors for approval a Sustainable Development Study to determine the maximum appropriate buildout and development location potential for all of Stanford's unincorporated lands. The Sus-tainable Development Study shall be completed and approved prior to acceptance of applications for the second 50% of the academic development allowed under the 2000 GUP. Further, the County shall not accept any further use permit applications until the Sustainable Development Study is completed. If appropriate, the County Planning Office may conduct additional work related to the Sustainable Development Study. All

work associated with the study shall be conducted at Stanford's expense. The County's approval of the Sustainable Development Study shall in no way be construed as the County's agreement to or approval of the amount, type, or location of developmeproposed in the Study SCP-GD (i) 4

With respect to the foothills, the Sustainable Development Study shall identify all area(s) of potential future development. The potential development area(s) shall be consistent with the Community Plan strategies and policies, which include but are not limited to the strategies and policies relating to compact urban development, conser-vation of natural resources, open space protection, maintenance of scenic values, and avoidance of hazards

## Strategy #<u>No.</u>3: Mitigate and Monitor the Impacts of Growth

Growth under the Community Plan has the potential to result in impacts to the campus, surrounding communities and the natural environment. These impacts have been and will continue to be analyzed in accordance with the requirements of the California En–vironmental Quality Act (CEQA), and mitigation measures for those impacts have been identified. The policies and implementation recommendations measures in the Community Plan and the conditions of the General Use Permit (GUP) incorporate both mitigation measures for environmental impacts and other policy-level considerations.

Under the General Use PermitGUP, Stanford will be required to obtain additional approval for each individual building or project proposed. Depending on the nature of the proj–ect, each approval may require additional environmental review. Additional conditions will be required on a project-specific basis that are consistent with the conditions of the General Use PermitGUP.

Stanford's compliance with the 1989 General Use Permit<u>GUP</u> iswas\_monitored through an annual report process. The County intends to continue to monitor implementation of <u>development under the approved General Use PermitGUP through the requirement of an</u> annual report prepared by the County. However, the County intends to prepare that report under its own direction rather than requiring Stanford to prepare and submit the report as occurred in the past. The preparation of the report shall be funded by Stanford. This report will need to track Stanford's compliance with each of the individual conditions of the <u>General Use PermitGUP</u>, for topics such as transportation, building area, housing, population growth, and habi-tat protection.

The conditions of the GUP may also require periodic reporting to document and summarize development at Stanford University, GUP compliance, and indicate any recommended

opportunities for amendments or clarifications of the GUPs by the County. For example, such periodic review could enable a more immediate response to emergency declarations, compliance issues, or shifts in campus programming.

<u>The County intends to ensure that ongoing development on the campus meets the policies</u> <u>under the Community Plan by requiring that Stanford demonstrate adherence to traffic and</u> <u>development policies prior to development permitted under future General Use Permits.</u> It is important that future monitoring and reporting procedures be both verifiable and understandable.

An additional aspect of monitoring will be ongoing communication between the County Planning Office and the local community regarding development at Stanford.

#### Policies

#### SCP-GD 1315

Stanford University will mitigate environmental impacts of its growth and develop—ment in accordance with the conditions of the General Use Permit <u>(GUP)</u> and mitigation moni—toring program for the Community Plan and <u>General Use PermitGUP</u>.

#### SCP-GD 1416

Review Stanford's compliance with mitigation requirements and conditions <u>of approval</u> of the Gen–eral Use Permit <u>(GUP)</u> through <u>the mitigation monitoring reporting program and annual</u> <u>reporting</u>.an independent, verifiable, and understandable monitoring and reporting procedure.

#### SCP-GD 1517

Promote ongoing exchange of information between the County and the local commu–nity regarding development activity at Stanford through the creation of a Community Resource Group (CRG).

#### **SCP-GD 18**

The General Use Permit (GUP) shall be updated every 10 years with periodic progress reports as determined by the GUP conditions of approval. The Board of Supervisors may consider setting a different timeframe during its review of the next GUP application.

#### Implementation RecommendationsMeasures

#### SCP-GD (i) <u>518</u>

Prepare annual reports to evaluate Stanford's compliance with the conditions of the General Use Permit <u>(GUP)</u> and progress towards meeting the implementation recommenda—tions of the Community Plan. Preparation of the report shall be funded by Stanford. The annual report shall be presented to the Community Resource Group (CRG) at its first quarterly meeting each year,

and shall then be submitted to the Planning Commission no later than June of each year. <u>The</u> <u>County will establish other periodic reviews through the General Use PermitGUP to ensure</u> <u>compliance with all conditions of approval and mitigation measures.</u>

#### **SCP-GD (i) 19**

Through the General Use Permit (GUP) conditions of approval, establish a procedure and mechanism to implement phased approvals (for example, every 5 years) within the GUP approval.

#### SCP-GD (i) 206

Review and evaluate applications for individual building projects under the General Use Permit (GUP), and any other use permit applications, for consistency with the Community Plan, the conditions of the General Use PermitGUP, and all other relevant County policies and requirements.

#### SCP-GD (i) <u>21</u>7

<u>Create-Maintain</u> a Community Resource Group (CRG) comprised of 8-12 persons. The CRG members shall be selected by the County <u>Department</u> Planning <u>and Development</u> Office in consultation with the County Supervisor for the Fifth Super–visorial District. The CRG w<u>illould</u> meet at least quarterly and w<u>illould</u> serve as a mecha–nism for exchange of information and perspectives on Stanford development issues but w<u>illould</u> have no formal role as an advisory body.

#### **SCP-GD (i) 22**

The County shall prepare periodic reports of the General Use Permit (GUP) to document and summarize development at Stanford University, GUP compliance, and indicate any recommended opportunities for amendments or clarifications of the GUP by the County.

## Land Use

## **Chapter Summary**

Land use, and the policies that govern it, contribute fundamentally to the character and form of a community. At Stanford, the combination and arrangement of land uses form a complete community that is self-contained for many of its functions, but which is also part of a larger regional setting.

At the countywide level, institutions like Stanford are designated as "Major Educational and Institutional Uses" on the General Plan Land Use Map. This Land Use Plan designation differentiates universities and similar institutions from other major categories or classifications of land use. Policy R-LU 63 of the County's General Plan states the description and intent of the institutional designation:

The Major Educational and Institutional Uses designation is applied to lands belonging to a university, religious order, or private institution, used as a place of learning, an academic reserve for future university use, a seminary, or a research facility.

With the establishment of the Community Plan, Stanford lands are further divided into a set of sub-categories of land use. Designations applied to lands within the Academic Growth Boundary (AGB) include:

- Academic Campus,
- Campus Open Space,
- Campus Residential Low Density,
- Campus Residential Medium Density, and
- Public School.

Two additional designations have been established to apply to lands outside the Aca–demic Growth Boundary:

- Open Space/Field Research, and
- Special Conservation Area.

Consistent with the format of the General Plan's Land Use Chapter, the policies in this chapter provide basic descriptions of the purpose of each land use designation, policy statements indicating the range of allowable uses, and development-related policies.

Other strategies and policies for the overall form and extent of campus growth are contained in the Growth and Development chapter. Stanford was founded as and remains a residential university, with academic, residential, athletic, <u>campus serving</u> commercial, and a variety of other land uses. Maintaining appropriate <u>and adequate</u> arrangements and inter-relationships between these uses, correlated with the transportation network, is as essential to the function and well-being of the University as an entity as it is to the function of any <u>city-urban area</u>.

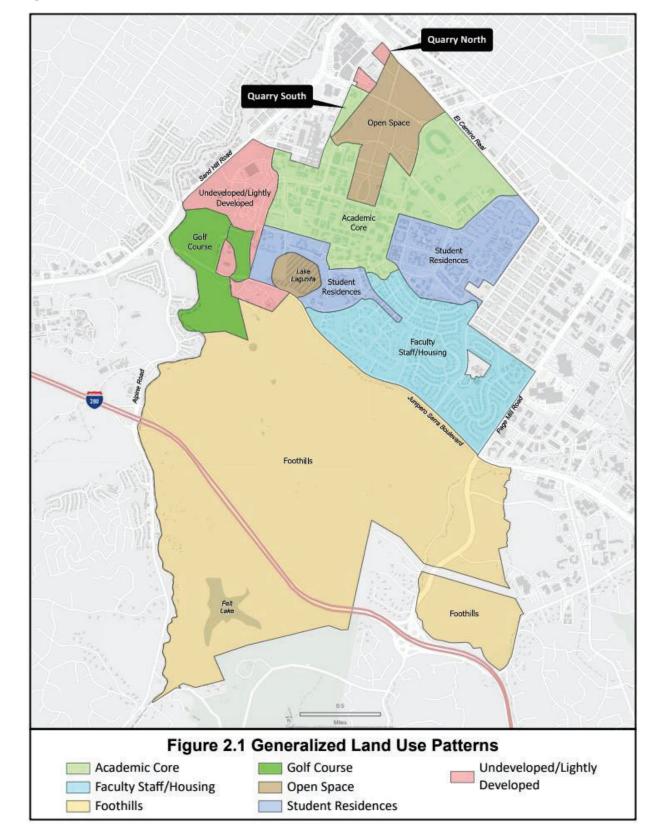
Furthermore, the built and open space environments of the campus lands complement each other and function together to define the cam—pus' unique sense of place. As Stanford grows and changes over time and campus land use intensifies, it is important to maintain these interrelationships and guide development. in such a way that the The most appropriate and optimal development locations are selected without sacrificing those qualities and areas which contribute to the quality of life on Stanford University land.

## Background

Academic buildings and land uses, student and faculty/I-staff residences, student and community services, and other types of land uses are closely integrated on the Stanford campus. Nevertheless, Stanford does exhibit a definiteHowever, the Campus does contain a distinguishable land use pattern, based upon the original layout for the overall campus design (see Figure 2.1 –Generalized Land Use Pattern).

- The developed portion of the campus is primarily contained between Junipero Serra Boulevard and El Camino Real.
- Uses within the central campus are in a generally concentric arrangement of residences around a core of academic buildings.
- Uses with a close relationship to one another, such as athletic facilities or science and medical buildings, are clustered together.
- Faculty and staff housing is <u>highlyare</u> concentrated in the southeastern corner of the central campus.
- Despite the <u>highlyintensely</u> developed nature of most of the central campus, important and extensive open space or undeveloped areas remain.

The clearest land use distinction on unincorporated Stanford land in Santa Clara County is between the developed central campus and the largely undeveloped foothills. Historically, these two areas were assigned separate land use designations, or sub-categories of the Major Educational and Institutional Uses designation, which previously served as the only differentiation in land use policy for the campus at the General Plan level. This approach provided extensive flexibility for Stanford to arrange and integrate different land uses, particularly in the central campus, but it did not recognize the many different land uses which do exist at Stanford. Nor did it necessarily provide much certainty or future guidance regarding long term land use patterns, which is the principal purpose of land use elements in general plans.



#### Figure 2.1 – Generalized Land Use Pattern



The concept contained in the Community Plan builds upon the former approach by establishing an Academic Growth Boundary (AGB) to reinforce the distinction between the urbanized campus area and the undeveloped portions of the foothill lands, while maintaining a significant amount of flexibility for the use of lands within the AGB.

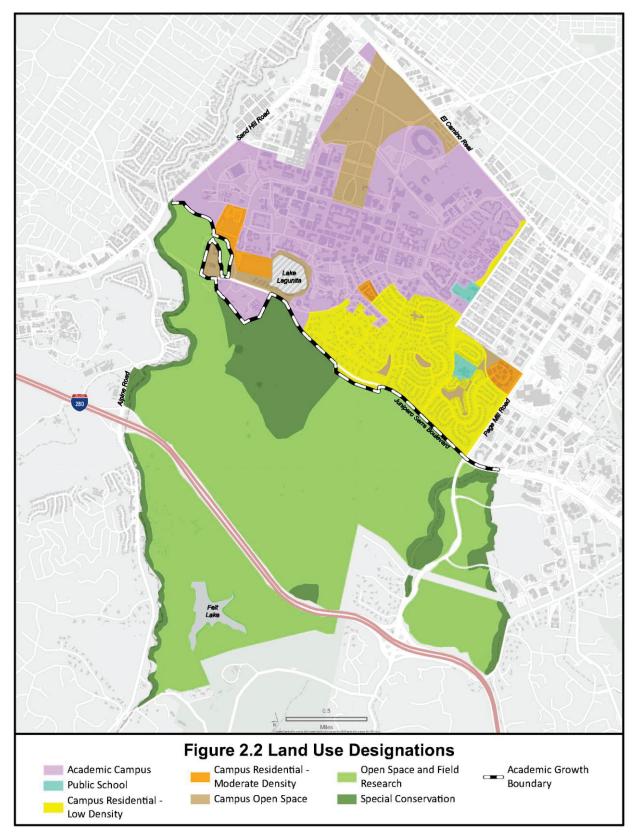
The Land Use Diagram indicating the locations of the land use designations is included as **Figure 2.2– Land Use Designations**.

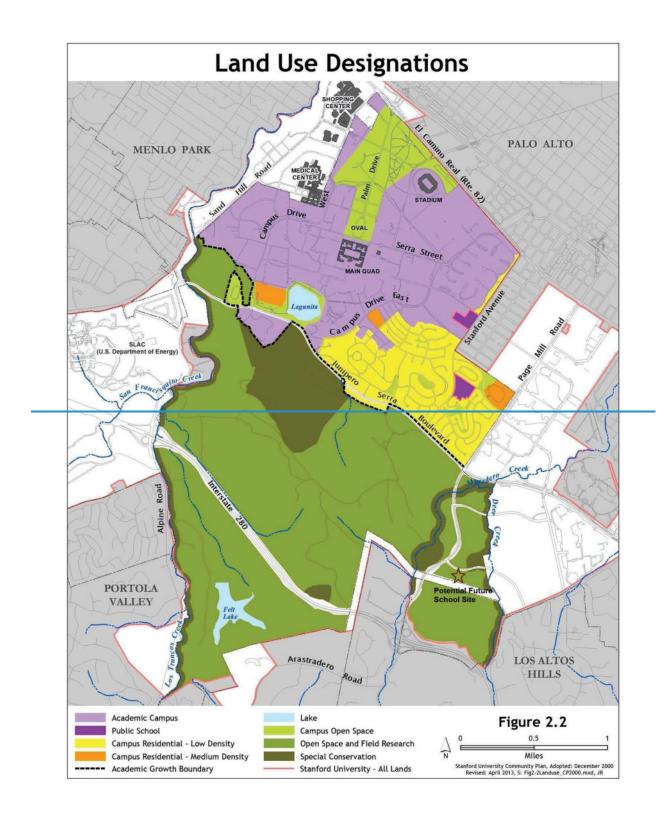
The Community Plan Area is also characterized by its ten Development Districts. As illustrated in **Figure 2.3— Development Districts**, the Foothills district is the only district outside of the AGB. The other nine Development Districts are inside the AGB. The Development Districts are as follows:

- West Campus
- Lathrop
- Foothills
- Lagunita
- Campus Center
- Quarry
- Arboretum
- DAPER & Administrative
- East Campus
- San Juan

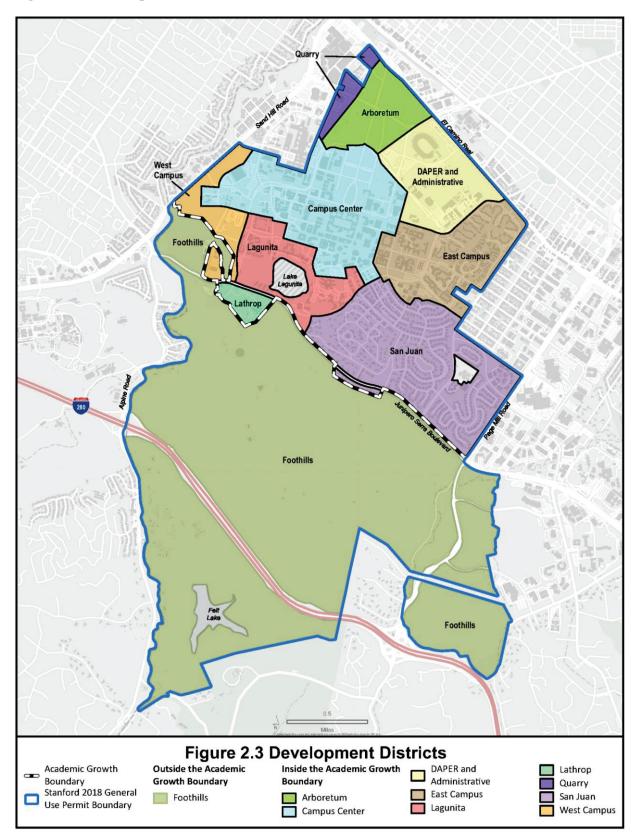
The building area allocated for each development district is outlined in the General Use Permit (GUP). As discussed in the Growth and Development chapter, the current cumulative building area on campus (cumulative academic, academic support, and student housing) is approximately 16.5 million gross square feet (s.f.).

Figure 2.2- Land Use Designations





#### Figure 2.3 – Development Districts



#### Lands inside the AGB

Within the A<u>cademic</u> G<u>rowth</u> B<u>oundary (AGB)</u>, the land use designations balance the need to maintain the proximity of related uses with the desire to conserve the character of some individual land uses and areas. Consequently, the concept of an "Academic Campus" land use designation, which encompasses areas with academic buildings, student housing, and student and academic support services, is retained from the previous designations.

Additional designations for faculty-[I-staff housing and for protected central campus open space are also established provided. A residential population density for faculty I staff housing is provide, based on an assumed household size of 2.4 persons per household as projected by ABAG. On-campus public schools are recognized as a separate land use.

#### Statement of standards of population density and building intensity for lands inside the ACB:

As discussed in the Growth and Development chapter, the current cumulative build- ing area on campus is approximately 12.3 million gross square feet (gs.f.). An additional 2,035,000 gsf of academic and academic support space and 3,018 additional housing units may be constructed through the year 2010.

Population density inside the AGB is indirectly controlled through limits on academic and residential development. The cur-rent campus daytime population is approximately 21,000 and is expected to increase by 2,201 persons (1,266 graduate/postgraduate and 935 faculty I staff) over the 2000 to 2010 period Residential population increases in the Academic Campus area (graduate stu-dents and postgraduates) are included in these totals.

In faculty-I-/staff residential areas, residential population densities are provided through the Campus Residential-Low Density and Campus Residential-Medium Density land use designations. <u>Based on 2021 Census data for Santa Clara County, the persons per household</u> (2016-2020) average is 2.97. The Low-Density designation limits development to eight units per acre, which results in approximately 24 people per acre. The Medium Density designation limits development to 15 units per acre, which results in approximately 24 people per acre.

Higher density faculty/staff housing may be developed within the Academic Campus areas at densities that are 30 du/ac or higher. The Housing Element identifies specific opportunity sites where this housing is planned for. Near transit stations, development is anticipated in a range of 60 to 100 du/ac.

It is not pos- sible for the County to predict development levels or population increases beyond 2010 because no additional development proposals have been submitted by Stanford and it is unknown whether the County would approve such proposals.

#### Lands outside the AGB

The land use designation established for this portion of Stanford lands reflects its general open space character. In keeping with the concept of the Academic Growth Boundary (AGB), the Community Plan Growth and Development policies, the Stanford University Habitat Conservation Plan, and the zoning designations under the County Zoning Ordinance, future use of this area is limited to field research-related activities and open space uses. In the past, the land use designation established for this portion of Stanford lands reflected its general open space character but also provided some potential for future academic use, as well as housing. In keeping with the concept of the Academic Growth Boundary and the Community Plan Growth and Development policies, the future use of this area is limited to field research related activities and open space uses. Greater emphasis is placed on conserving the open space character of the land, and an additional designation, Special Conservation Areas, provides even greater protection to the most environmentally sensitive areas.

The individual land use plan designations that follow describe the uses that are allowed on Stanford lands. The designations correspond to those depicted on **Figure 2.2 - Land Use Designations**. All allowable uses are consistent with the policies of the 1985 Land Use Policy Agreement between the County, the City of Palo Alto, and Stanford.

#### Statement of standards of population density and building intensity for lands outside the AGB:

For lands outside the AGB, the population density and building intensity are expected to be quite-low due to the nature of the uses allowed in the Open Space/Field Research and Special Conservation Area designations. The maximum allowable development on these lands through the year 2010 is 15,000 gsf. Any additional population in these land use designations is included in the population totals for lands inside the AGB.No additional population is included within these land use designations because it is already included in the population totals for land designations inside the AGB.

## Strategies, Policies, and Implementations

## **Academic Campus**

#### Description and Intent SCP-LU-1

The Academic Campus designation applies to lands in current or intended academic use. Academic use includes both facilities used for teaching or research activities and the wide range of uses which support academic activity, such as administrative offices, athletic facilities, student housing, and student and administrative support services.

This designation is meant to provide Stanford with the opportunity to locate these uses in relation to one another according to the University's programmatic needs.

#### Policies Allowable Uses SCP-LU <u>21</u>

Allowable academic uses within the Academic Campus designation include:

- a. instruction and research (including teaching hospital facilities);
- b. administrative facilities;
- c. <u>high density</u> housing intended for students, postgraduate fellows, and other designated person\_nelmedical residents;
- d. high density housing for <u>Stanford</u> faculty/<sub>z</sub> and staff, and other workers;
- e. athletics, physical education, and recreation facilities;
- f. support services (such as child-care facilities, the bookstore, and the post office);
- g. infrastructure, storage, and maintenance facilities;
- h. cultural facilities associated with the University; and,
- i. non-profit research institutions with close academic ties to the University.

#### **Development Policies**

#### SCP-LU 32

Development intensity of individual facilities may vary with the type of allowed use. Maximum cumulative development amounts are permitted through the Stanford General Use Permit (GUP) and Community Plan (See Growth and Development Chapter) -is 17,300,000 square feet consistent with the AGB threshold amount of academic development (See Growth and Development Chapter). Any additional increase in development would require a Community Plan amendment and concurrent GUP application. Housing for faculty and staff at densities above 1530 units per acre may be developed within the Academic Campus land use designation. -Actual project approvals occur upon approval of Architectural and Site Approval (ASA), unless it is located in a designated housing opportunity site in the Housing Element.-

#### SCP-LU 3

<u>The County should periodically evaluate zoning designations to ensure that they conform and are consistent with Community Plan policies and land use designations.</u>

#### SCP-LU 4

Development must be consistent with the 1985 Land Use Policy Agreement, amended as needed, with regard to allowable uses and provision of services.

#### SCP-LU 5

Maintain appropriate clustering requirements for development in the Lathrop Development District, located south of Junipero Serra Boulevard, within the Academic Growth Boundary (AGB). Development in the Lathrop Development District shall occur only on the lands identified as Lathrop District Developable Areas. Structures which are not for the purpose of occupancy, such as fences or golf course access bridges, may be permitted in other areas of the Lathrop Development District in accordance with the requirements of the Santa Clara County Zoning Ordinance.

#### Implementation RecommendationsMeasures

#### SCP-LU (i) 1

Maintain-The County will periodically evaluate the use of the County's Al, General Use Zoning District for areas under the Academic Campus land use designation as an appropriate implementation tool in relation to, with allowable uses, development standards, and land use intensity controls, and conditions governed further through the General Use Permit (GUP).

#### **SCP-LU (i) 2**

Revise the Santa Clara County Zoning Ordinance to allow faculty/staff residential development in the A1 Zone at a minimum density of 30 du/ac.

#### **SCP-LU (i) 3**

The County shall evaluate and amend the Lathrop District Developable Areas boundary to include lands that have been disturbed by prior development or site improvement.

## **Campus Residential – Low Density (CR-L)**

#### Description and Intent SCP-LU 5

The Campus Residential-Low Density designation applies to lands immediately adja—cent to the Academic Campus area that have a low-density residential character and are used for housing University faculty,\_<u>-and</u>\_staff, <u>and other workers</u>. These areas are an important housing resource that allows <u>Stanford</u> faculty,\_<u>-and</u>-staff, <u>and other workers</u> to live in close proximity to the academic portions of the campus. This designation applies to existing low\_-density residential neighbor—hoods and to new residential areas where lower density of development is desired for compatibility with adjacent development.

#### Policies

#### Allowable Uses

#### SCP-LU 6

Uses within this the Campus Residential-Low Density designation shall be primarily residential, with some provision for limited commercial services oriented to the residential neighborhood. Allowable uses include:

- a. Single-family housing, duplexes, and townhouses available as residences for Uni–versity faculty<u>/-and-staff\_and\_other\_workers</u>-
- b. Residential support services such as child-care or convenience commercial facilities at a neighborhood-serving level.

#### **Development Policies**

#### SCP-LU 78

Residential density up to 8 units per acre is permitted <u>within the Campus Residential-Low</u> <u>Density designation</u>, with potential for clustering individual units to provide public or private open space. This residential density yields a population density up to 19 persons per acre.

#### SCP-LU 89

Residential support <u>uses services</u> shall be of a scale consistent with and appropriate to the surrounding neighborhood.

#### Implementation RecommendationsMeasures

#### **SCP-LU (i) 34**

Evaluate existing zoning designations and related development standards to ensure Community Plan goals are being implemented for the Campus Residential-Low Density areas, known as the faculty/staff subdivision or San Juan Residential District. The County shall evaluate the land development regulations and zoning as appropriate.

## Campus Residential – Medium Density (CR-M)

#### Description and Intent SCP-LU 10

The Campus Residential-Medium Density designation applies to lands immediately adjacent to the Academic Campus area that have a higher density residential character and are used for housing University faculty, and staff and other workers. These areas are an important housing resource that provides housing opportunities for faculty, and staff and other workers and which promote the more efficient use of land for residential development. This designation applies primarily to new residential areas which provide opportunities for a more com–pact development pattern than the existing single-family residential neighborhoods.

#### Allowable Uses

#### SCP-LU <u>9</u>11

Uses in th<u>eis Campus Residential-Medium Density</u> designation shall primarily be residential, supplemented by services ori—ented to the residential neighborhood. Allowable uses include:

- a. Single-family housing, duplexes, townhouses, condominiums, flats, and apartments available to University faculty, and staff and other workers.
- b. Residential support services such as child-care, recreation services, or convenience commercial facilities.

**Development Policies** 

#### SCP-LU 1012

Residential density between 8 and 15 units per acre is permitted <u>within the Campus</u> <u>Residential-Medium Density designation</u>, with potential for clustering individual units to provide public or private open space. This residential density yields a population density between 19 and 36 persons per acre.

#### SCP-LU 1113

Residential support <u>uses services</u> shall be of a scale consistent with and appropriate to the surrounding neighborhood.

#### Implementation RecommendationsMeasures

#### None

SCP LU (i) 3

Enact and apply appropriate zoning consistent with the allowable uses and develop- ment policies of this designation.

## **Campus Open Space (COS)**

#### Description and Intent SCP-LU 14

The Campus Open Space designation applies to open spaces essential to the historic form and character of the campus (including Palm Drive, the Oval, the Arboretum, the Red Barn area, and Lake Lagunita). It also applies to designated parks within <u>faculty/I staff</u> residential neighborhoods and to important and substantial resource conservation areas such as wetlands or habitat conservation areas within the central campus.

#### Policies

#### Allowable Uses

#### SCP-LU <u>12</u>15

Uses in the Campus Open Space designation must retain land in open space, and must be consistent with the individual character of each area included in this designation. These areas shall be maintained as park--like areas, unimproved open space, landscape buffers, riparian corridors, and conservation areas. Temporary activities of a limited nature that are in keeping with the open space character are also permitted. Examples include limited duration special events or general recreational activities, such as those regularly occurring in the Oval area.

#### **Development Policies**

#### SCP-LU 1316

No new permanent, above ground buildings or structures for occupancy are permitted within the Campus Open Space designation. Any non-conforming uses or buildings are subject to the County Code Chapter 4.50. Landscaping structures or features, such as walls, fences, arbors, fountains, and statues or other forms of public art, are allowed.

#### SCP-LU 1417

Temporary structures associated with appropriate temporary activities may be allowed <u>within</u> <u>the Campus Open Space designation</u>, such as concession stands, tents, or similar structures. However, no temporary use which results in the degradation of biological resources is permitted.

#### Implementation Recommendations Measures

#### **SCP-LU (i) 5**

The County will enact and apply a new appropriate zoning district for Campus Open Space that will be applied to the Arboretum area covered under the Campus Open Space land use designation.

#### SCP-LU (i) 6

In coordination with the County, require that Stanford prepare and submit to the Board of Supervisors for approval a study to document historic landscapes on campus.

## **Public School (PS)**

## Description and Intent

#### SCP-LU 18

Th<u>eis Public School (PS)</u> designation applies to land <u>intended for used</u> as <u>a public schools</u>, such as the Lucille M. Nixon and Escondido Elementary schools located on the Stanford Campus.

<u>The</u> "potential future public school site" has been relocated from its prior planned location outside of the Academic Growth Boundary (AGB), to be inside the AGB on the west side of campus. The "potential future public school site" location is in the West Campus Development District, not including any portion of the Stanford Golf Course (see Figure 2.3 – Development \_ Districts). This area is within the AGB proximate to faculty, staff, postgraduate fellows, and other worker housing locations to facilitate planning for a new public elementary school, as appropriate.

## Allowab<u>le Us</u>es

#### SCP-LU 1519

The use of these <u>Public School (PS)</u> lands is limited to public school facilities, including appropriate buildings, parking, playgrounds, and athletics fields.

#### **Development Policies**

#### SCP-LU 1620

Stanford and the appropriate school district shall make every effort to develop school sites in an efficient manner consistent with the environmental setting of the site.

#### SCP-LU 1721

Stanford and each school district shall seek and promote opportunities for cooperative use of facilities, as appropriate.

#### SCP-LU 1822

If Stanford land used for a public school is no longer required for school use at any time in the future, it may be converted to another use by the University if redesignated for the intended use through the General PlanCommunity Plan amendment process.

#### **SCP-LU 19**

<u>The potential future school site in the West Campus Development District</u>, but not within the Stanford Golf Course, <u>may be relocated with approval by the Board of Supervisors if the need</u>

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for a school at a different location of the campus is warranted by future development patterns.

#### **Implementation Measures**

#### **SCP-LU (i)** 7

Stanford may develop the area designated for use as a future public school for a non-public school purpose if the Board of Supervisors finds:

- a. Stanford has demonstrated its use of the area is necessary in order to implement the development authorized under the applicable General <u>Use Permit (GUP)</u>;
- b. No other areas within the Academic Growth Boundary (AGB) are feasible for such development; and
- a.c. Another area within the AGB cademic Growth Boundary has been designated for future use as a public school by the Board.

### **Open Space and Field Research (OS/FR)**

**Description and Intent** 

#### SCP-LU 23

The Open Space and Field Research designation applies to undeveloped lands outside the Academic Growth Boundary (AGB). These lands are important for their environmental resources and for their role in creating an open space setting for the campus and the region. They also serve as a resource for field research and research related activities dependent on the undeveloped foothill environment.

#### Policies

#### SCP-LU 2420

Lands within the Open Space and Field Research designation are not eligible for uses other than those permitted under the policies of this land use designation except through a <u>General</u> <u>PlanCommunity Plan</u> amendment to change the land use designation of the property. If any <u>of</u> the Open Space and Field Research lands are proposed for a land <u>use</u> designation which is intended to be applied only to lands within the Academic Growth Boundary (AGB), the proposed amendment must include a modification of the AGB. Proposals to modify the AGB must be inaccordance with the applicable policies governing its amendment contained within the Growth and Development Chapter.; therefore, no such General Plan amendment may be considered within 25 years of approval of the Community Plan and cumulative development of at least 17.3 million square feet within the AGB.

#### SCP-LU 2521

Th<u>eis Open Space and Field Research</u> designation does not include lands in which special biological resources or hazards exist and which are inappropriate for development under County, State, or Federal laws, regulations, or policies (see Special Conservation Areas

#### designation).

#### Allowable Uses

#### SCP-LU 2622

Allowable land uses within the Open Space and Field Research designation include:

- a. field study <u>research</u> activities;
- b. utility infrastructure in keeping with the predominantly natural appearance of the foothill setting;
- c. grazing and other low intensity agricultural uses;
- e.d.outdoor recreational activities which are consistent with protection of environmental resources (e.g., not construction or operation of a new golf course) and with appropriate policies regarding foothill access;
- d.e. specialized facilities and installations that by their nature require a remote or natural setting, such as astronomical or other antennae installations or structures accessory to field studyresearch activities; and,
- e.<u>f.</u> environmental restoration.

#### **Development Policies**

#### SCP-LU 2723

No permanent buildings or structures are allowed <u>within the Open Space and Field Research</u> <u>designation</u>, other than utility infrastructure and a limited number of small, specialized facilities or installations that support permitted or existing activities, or require a remote, natural setting and cannot be feasibly located within the A<u>cademic Growth Boundary (AGB)</u>.

#### SCP-LU 2824

Existing non-conforming uses within th<u>e</u>is <u>Open Space and Field Research</u> designation, <u>are</u> <u>allowed to remain, in accordance with the County's requirements for non-conforming</u> <u>structures.such as the golf course, may continue indefinitely.</u> Remodeling or reconstruction of existing facilities after a natural disaster may be allowed, but no further expansion is permitted. Modification of the configuration of the golf course generally within its existing boundaries is permitted.

#### SCP-LU 2925

Allowable development shall be clustered as feasible <u>within the Open Space and Field Research</u> <u>designation</u>, primarily in areas with low environmental sensitivity, to preserve expanses of open space, environmentally sensitive areas, and scenic vistas.

#### Implementation Recommendations Measures

#### NoneSCP-LU (i) 4

Enact and apply appropriate zoning consistent with the allowable uses and develop ment

policies of this designation. Incorporate the clustering model of the County's Hillsides General Plan designation and Hillside zoning district in the development standards for this new zoning district.

### **Special Conservation Area**

#### Description and Intent SCP-LU-30

The Special Conservation Areas designation applies to lands south of Junipero Serra Boulevard which is deemed unsuitable for development due to natural resource <u>and development</u> constraints. Accordingly, no physical development <u>may occur in these areas</u> other than that which supports conservation efforts <u>or are required for safety reasons-may occur in these areas</u>. It

#### Policies

#### **SCP-LU 26**

<u>The Special Conservation Areas may</u> include areas with the following environmental constraints:

- a. Steep or unstable slopes;
- b. Seismic or other geologic hazard zones;
- c. Riparian areas extending 150 feet from the top of creek banks; and,
- d. Sensitive habitat areas, particularly for special status species.

#### Allowable Uses

#### SCP-LU 3127

The use of these <u>Special Conservation</u> <u>aA</u>reas is limited to conservation activities and habitat management, field environmental studies, and appropriate agricultural uses. Recreational use may be allowed if it is consistent with the particular environmental constraints of an area. Access for recreational use may be restricted.

#### **Development Policies**

#### SCP-LU 3228

No new permanent development in the form of buildings or structures is allowed <u>within the</u> <u>Special Conservation Areas</u>, other than <u>safety facilities</u>, <u>utilities</u>, <u>construction</u>, modification, and maintenance of improvements to support conservation efforts, <u>small markers or other</u> <u>identifiers indicating the presence of sensitive resources (such as Native American remains)</u>, <u>new signs</u>, <u>bridges</u>, and <u>fences provided that they are constructed in accordance with the terms</u> <u>of the Stanford University Special Conservation Area Plan and Stanford University Habitat</u> <u>Conservation Plan</u>. Existing non-conforming uses are allowed to remain, in accordance with the County's requirements for non-conforming structures.

#### SCP-LU-33 29

Promote management of the Special Conservation Areas to protect natural habitats, preserve sensitive species, promote public safety, and minimize human impacts in conformance with the Stanford University Special Conservation Area Plan approved by the County and the requirements of the Stanford University Habitat Conservation Plan approved by the U.S. Fish and Wildlife Service. Stanford shall prepare a Special Conservation Plan for the Special Conservation Areas. The Special Conservation Plan shall be submitted to the County Planning Office for ap-proval. The plan will provide management guidelines addressing the following goals:

e. habitat management within the area for 25 years;

**f.** control of invasive, non-native species;

**g**- control of erosion; avoidance of undisturbed areas; public safety; appropriate access; and

**h.** minimization of human caused impacts.

The plan will contain measures specific to California tiger salamander, red legged frog, and steelhead habitat; riparian habitat; and geologic and seismic hazard areas. The plan will consider such activities as resource conservation, construction of facilities to support conservation activities, access, vegetation management, and best management practices for Stanford lessees located in the Special Conservation Areas.

#### Implementation RecommendationsMeasures

#### SCP-LU (i) 58

The County Planning Office-will review and comment on any proposed program, <u>planned</u> <u>activities</u>, or policy for recreational access to lands within the Special Conservation Areas designa—tion<u>in a manner consistent with the provisions of Stanford University Special</u> <u>Conservation Area Plan</u>, the requirements of the SCA – Special Conservation Areas Zoning <u>District</u>, and the Stanford University Habitat Conservation Plan.

#### SCP-LU (i) 6

Review planned activities in Special Conservation Areas in a manner consistent with the provisions of the Special Conservation Plan.

#### SCP-LU (i) 7

Enact and apply appropriate zoning consistent with the allowable uses and development policies of this designation.

# Housing

## **Chapter Summary**

Housing is a <u>countywide-regional</u> issue of concern<u>. It is-that has taken on particular of great</u> importance <u>throughout Santa Clara County and specifically to undergraduate students</u>, graduate students, faculty, staff, postgraduate fellows, other workers, and the community at <u>large</u> in the northern portion of Santa Clara County, where Stanford University is located.

Countywide, housing supply and affordability issues have been of paramount importance for decades. The housing situation in the area surrounding Stanford has somewhat different implications for the University and its students, faculty and staff than it does for other area residents. The effect of the housing market on Stanford <u>as well as the university's effect on local housing demand</u> is of particular concern to the County and the University for several reasons.

- **a.** The University has a large population of graduate students with very limited incomes who are at a severe disadvantage in the local rental market. Hospital residents and postdoctoral fellows also have incomes substantially lower than the area's median income.
- Faculty, and staff, postgraduate fellows, and other workers must compete for rental and ownership housing with other area residents. Unlike other Santa Clara County industries, where an individual employer is likely to compete with other local employers for workers, Stanford is competing for its faculty and staff with other universities which are generally located in areas with more affordable housing markets. Stanford considers the housing market as a primary significant obstacle in its recruiting and retention efforts for graduate students, faculty and staff.
- <u>Undergraduate students</u>, <u>Sgraduate s</u>tudents, faculty, <u>and administrative staff</u>, <u>postgraduate fellows</u>, and other workers that cannot afford to live in the vicinity <u>of the Stanford campus</u> must often commute very long distances to their classes and jobs at Stanford, <u>leading to worsening traffic and greater personal stress</u> <u>affecting social and behavioral health</u>. if they cannot find affordable housing close to the campus.

In the century <u>sS</u>ince its <u>inceptionfounding</u>, Stanford University has taken steps to address the housing needs of its students and faculty many times, due to the limitations of the housing market and Stanford's nature as a residential university. However, as <u>the limited</u> housing supply and <u>decreasing</u> affordability trends within Santa Clara County and the Stanford area <u>worsenintensify</u>, it is in the interest of both Stanford University and the <u>public County</u> to ensure balance between housing demand and supply as it pertains to Stanford University's development.

Stanford lands represent one of the most important opportunities in the County to improve the balance between jobs and housing, due to the potential to provide housing on Stanford lands for designated University populations.

While housing on Stanford lands is directly accessible only to Stanford undergraduate and graduate students, faculty, staff, postgraduate fellows, and other workers, it also benefits the wider community by relieving the additional pressure Stanford affiliates would otherwise place on the local housing market. While this housing is directly accessible only to Stanford students, faculty and staff, it also benefits the wider community by augmenting the local housing supply. To that end, development of additional housing on the campus is a fundamental policy direction of this Community Plan.

One of the<u>A</u> primary means of expediting ensuring the construction of needed housing identified in the Community Plan is a linkage policy that requires housing to be developed concurrent with or prior to further new academic development. The linkage policy is essential for mitigating housing impacts of anticipated development as well as meeting transportation-related goals for net trip generation described in the Circulation Chapter.

The following strategies are included in the Stanford Community Plan to address Stanford's housing needs and to indicate the overall policy direction for Stanford with respect to housing issues:

#### Strategy #<u>No.</u> 1: Increase the Supply and Affordability of Housing

Sub-Strategy 1A: \_\_\_\_Plan for an More-Adequate and Balanced Housing Supply Sub-Strategy 1B: \_\_\_\_\_Facilitate and Expedite Needed Residential Development Sub-Strategy 1C: \_\_\_\_\_\_Augment Affordability Programs and Funding

**Strategy** #<u>No.</u> **2:** <u>Ensure Compatibility of New Housing with Existing Neighborhoods</u><u>Balance</u> Housing Needs with Neighborhood Conservation

## Background

#### Housing Demand and Supply -\_ Regional and Historical-Countywide Historical Context

The issues of housing supply and affordability at the countywide level are discussed extensively in the <u>Ceounty's Housing Element-Housing Chapter of Book A of the General Plan</u>. Housing issues have been at the forefront of the <u>Ceounty's planning issues-challenges</u> for decades. At the heart of the <u>County's housing is</u> issues is the <u>matter of jobs/housing imbalance.</u> <u>This imbalance is a multi-faceted problem which involves inadequate numbers of dwelling units to serve all-those who work and wish to reside in the <u>Ceounty</u>, housing which is not affordable to many households, and significant and increasing distances between housing and job locations at a countywide and regional level.</u>

## As documented by the Association of Bay Area Governments (ABAG), the Midpeninsula subregion also has a substantial imbalance between jobs and housing.

These problems are particularly acute in the northern portion of <u>Santa Clara</u> the <u>C</u>eounty and the southern portion of San Mateo County, which have long been particularly job-rich areas. <u>The adverse social, economic, and environmental effects of this general imbalance are well-recognized and are compounded by each cycle of major economic growth. This imbalance between jobs and housing acutely affects both the local housing market and traffic congestion.</u>

Increased employment and population growth has also resulted in ever increasing prices of market rate housing. This has resulted in the need for new housing at all income levels. According to the Regional Housing Needs Allocation (RHNA) provided by ABAG per California law, there is a severe shortage of housing in both Santa Clara County and the region that is affordable to Extremely Low-, Very Low-, Low-, and Moderate-Income Households. As a result, the Santa Clara County 2023-2031 Housing Element must meet a RHNA requirement of 3,125 housing units, with specific below market affordability requirements of 508 new Moderate-Income units, 477 new Low-Income units, and 828 new Very Low-Income units within the unincorporated area of the County.

#### The adverse social, economic, and environmental effects of this general imbalance are wellrecognized, and are compounded witheach cycle of major economic growth.

Like other jurisdictions in the region, the County has adopted local land use ordinances to encourage the production of affordable housing. In September 2018, the County of Santa Clara adopted the Inclusionary Housing Zoning Ordinance (NS-1200.368) and the Affordable Housing Impact Mitigation Fee Ordinance (NS-300.929).

These ordinances specifically relate to Stanford University by requiringes that a portion of all market rate housing constructed on-campus be set aside for restricted affordable housing and that the County receive the payment of a housing impact fee on each net new square foot of

academic development. The collection of this impact fee would fund new affordable housing projects within a 6-mile radius of the campus. However, this Community Plan update takes a different approach and includes a policy to require all new affordable housing be located on campus or nearby Stanford lands (SCP-H (i) 5) due to the historic inability of in-lieu fees to provide adequate resources to fully fund new housing developments.

The strategies in the Community Plan go beyond the policies and programs of the County's Housing Element because they focus on the specific supply and demand issues of housing Stanford faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students.

To address these issues, the County's Housing Element includes three locations on the Stanford campus as housing opportunity sites, Quarry-El Camino, Quarry-Arboretum and Escondido Village. These sites provide an opportunity for Stanford to locate housing consistent with the County's Housing Element and not preclude the identification of other future locations for housing on campus and inside the Academic Growth Boundary (AGB), particularly within the Academic Campus land use designation. The Community Plan may also be amended to identify other areas appropriate for housing development over time to facilitate appropriate housing development.

#### Housing in the Stanford Area

The communities within the that surround Stanford area include the cities of Palo Alto, Menlo Park, Atherton, Woodside, Portola Valley, Los Altos Hills, Los Altos, East Palo Alto, Redwood City, and Mountain View. Stanford students, faculty, and staff, postgraduate fellows, and other workers who seek housing in thise Stanford area encounter some common themeschallenges: high housing costs and relatively few housing units available for sale or for rent. The communities that surround Stanford include Palo Alto, Menlo Park, Atherton, Woodside, Portola Valley, Los Altos Hills, Los Altos, and Mountain View. High household incomes, good school districts, climate, and geographic location, amenities, and other factors make the Stanford area one of the most desirable and in-demand locations of any in the Bay Area.

<u>TWithin this general area</u>, the jobs/housing imbalance that is characteristic of Silicon Valley and Santa Clara County <u>and documented by ABAG</u>, <u>generally</u> is most acute <u>in the Stanford area</u>. During <del>n</del>-the 1990s, when Silicon Valley experienced a notably strong economic growth cycle, the number of jobs in Palo Alto and Menlo Park increased by approximately 12,000, while the number of housing units increased by only 1,060 (California Department of Finance, ABAG Projections 2000). Since that time, the incomes and wealth creation associated with the high technology industries in this area have continued to result in an ability and willingness to pay the high market values for housing prices in these highly desirable communities.

Collectively the ongoing, scarcity of housing, combined with very high prices, and limited

affordable homes, are potentcompelling factors in the housing situation for the Stanford area. Most recent data from the U.S. Census and the U.S. Bureau of Labor Statistics indicate that from 2010 to 2021, the population of Santa Clara County increased by 5.8% (from 1,781,642 to 1,885,508), employment increased by 18.2% (From 837,900 to 1,005,900), and the number of housing units increased by 9.7% (from 631,920 to 693,240). When the last Census was conducted in 1990, Santa Clara County had 861,000 jobs and 540,000 housing units. In very rough terms, assuming 1.56 workers per household, the County estimated there was a gross deficit of 12,220 units. By 1999, that deficit increased to approximately 20,000 units (California Department of Finance and California Employment Development Department). This information indicates that the jobs/housing imbalance Countywide increased from 1.36 jobs per housing unit in 2010 to 1.47 jobs per housing unit in 2021.

The Midpeninsula subregion as a whole has a substantial imbalance between jobs and housing. According to the Association of Bay Area Governments Projects 2000, incorporated cities from Redwood City in the north to Mountain View in the south are estimated to have 2.33 jobs for every household. The two cities in this area with the highest ratio of jobs to households are Palo Alto (3.92 jobs per household) and Menlo Park (2.52 jobs per household), followed closely by Mountain View (2.42 jobs per household). This imbalance between jobs and housing acutely affects both the local housing market and traffic congestion.

These basic calculations are intended to convey only an approximate indication of the severity of the jobs/housing imbalance within the Stanford area. The ratiosy address only those units needed by those employed in <u>Santa Clara Countythe county</u>, and <u>do</u> not includ<u>eing</u> students and retirees. Even as the Silicon Valley economy experiences certain fluctuations in growth trends, vacancy rates in the <u>C</u>eounty remain low. Furthermore, availability of for sale housing remains far below demand.

Since the mid 1990s, Silicon Valley has seen one of its most impressive economic growth cycles in the last 50 years. For example, in Palo Alto and Menlo Park, the number of jobs increased by approximately 12,000 between 1990 and 1999, while the number of housing units increased by only 1,060 during this time, with new jobs outnumbering new housing units by a factor of almost 12:1 (California Department of Finance, ABAG Projections 2000). Furthermore, the incomes and wealth creation associated with the high technology industries in the area have resulted in unprecedented ability and willingness to pay what the market will bear for housing prices in these highly desirable communities. Collectively, scarcity of housing, prosperity, and desirability have been and will continue to be potent factors in the housing situation for the Stanford area.

All of the aforementioned factors have contributed to a decline in overall affordability of housing over time. Median advertised rents in local newspapers in the Stanford area in 1999 ranged from \$650 for a studio or rented room to \$2,500 for a 3 bedroom apartment or home. The median advertised rent for two-bedroom units was \$2,400 per month. Median prices of for sale

## housing are also higher in Palo Alto than for Santa Clara County overall, and the same is true for Menlo Park relative to San Mateo County's median home price.

The housing supply and affordability concerns that are experienced countywide have a particularly strong effect <u>on at</u>-Stanford <u>lands</u> due to the high housing prices in the <u>immediate</u> area <u>around Stanford</u>, the large population of students with <u>relatively</u> low income<u>s</u>, and Stanford's need to compete for faculty with universities in more affordable parts of the country.

As a residential university, Stanford has historically provided two types of housing on Stanford lands; housing for students and housing for faculty and staff. While this effort has helped to alleviate some of the university's housing challenges, as discussed throughout this chapter, further efforts are necessary. Off-campus housing solutions pursued by the University reduces housing choices in the nearby communities by restricting most Stanford--owned housing to Stanford affiliates only.

Additional housing on the campus not only provides housing near jobs and augments <u>the local</u> <u>and</u> regional <u>housing</u> supply, <u>but</u> it also contributes to regional commute trip reduction and enables Stanford to meet <u>transportation-related goals described in the Circulation chapter.trip</u> generation goals.

To help mitigate the impacts associated with the high cost of housing on the Midpeninsula, the City of Palo Alto has implemented an inclusionary zoning ordinance that requires new housing developments to offer a specific number of units at below market rates or make a cash payment in lieu of developing the units. In addition, Palo Alto has instituted a program that requires developers of new nonresidential projects to make affordable housing impact payments based on square footage to a fund used to develop below market rate housing. All development on Stanford lands that occurs within the City of Palo Alto is subject to these requirements unless otherwise exempt.

#### **Current Campus Housing Types – Student Housing**

There are currently two main types of housing on the Stanford campus: student housing and faculty/staff housing. Student housing for undergraduates and graduate students is closely integrated within the campus core, reflecting the University's programmatic emphasis on an educational environment that extends to the residences.

As indicated in **Table 3.1**, the number of total students, including undergraduates and graduates, that reside on campus has grown by approximately 65% since the issuance of the 1989 GUP to 2021. This increase reflects growth attributed to the development of new housing units, as well as re-configuring existing units to accommodate a greater number of units. As described in the Growth and Development chapter, academic building area, academic support facilities, and student housing has cumulatively grown at an average rate of approximately

200,000 s.f. per year since 1960. The average annual addition of student housing since 1960 is 82,400 s.f.

The 2000 GUP authorized the University to develop 3,018 housing units with allocations for faculty and staff, graduate and undergraduate students, and postdoctoral and medical students. This was increased to 4,468 units in 2016.

#### Table 3.1 Number of Students Residing on Campus

<u>1989</u>	<u>2000</u>	<u>2015</u>	<u>2018</u>	<u>2021</u>	
<u>8,422</u>	<u>9,353</u>	<u>11,402</u>	<u>11,822</u>	<u>13,855</u>	
Source: Stant	ford Univers	ity Land Use	and Environ	mental Plannin	g Office, Faculty Staff Housing, and

Residential and Dining Enterprises.

#### The student housing is comprised of dormitories and apartments.

Undergraduates primarily live in dormitories, and remain on campus only during the academic yearyear, and will likely relocate to new residences the following term. According to Stanford's published facts about campus life, entering undergraduate first-year students are guaranteed housing for four years. Of these eligible students, approximately 97% reside in one of the university's 80 housing facilities.

Graduate students <u>include individuals enrolled in a doctoral program, an academic master's</u> <u>degree program, or a professional degree program. These students</u> live primarily in apartments, and often occupy their apartments year-round for multiple years while they obtain their degrees. Graduate student housing is mostly concentrated on the east side of campus, primarily in the 3,200 personEscondido Village. Stanford's published inventory of on- and off-campus graduate student housing as of the 2021-22 academic year is estimated to accommodate approximately 80% of reported graduate student enrollment.

At the direction of the County Board of Supervisors, the County commissioned a study on Graduate Student Housing Affordability by Keyser Marston Associates ("KMA Study") during the preparation of this Community Plan. The KMA study, released in May 2022, evaluated whether there is evidence of housing affordability challenges among Stanford's graduate student population. The KMA study found that Stanford provides housing to approximately 75% of its graduate students and that while 85% of housing spaces were rented within a range of affordability to low- and moderate-income households, some students still reported experiencing affordability challenges.

As of the 2021-22 academic year, Stanford has a published inventory of approximately 7,158

housing spaces available to graduate students. Spaces reserved specifically for graduate students in single-person households represent approximately 83% (5,946) of the total. Of these spaces, approximately 80% are private rooms in a shared apartment and 20% are studio units designated for single person occupancy. The remaining inventory of graduate housing spaces, approximately 17%, consist of the entire housing unit and are reserved for couples and households with children under 18.

The KMA study estimated that during the 2021-22 academic year 70% of Stanford's graduate student population were single person households, while the remaining 30% were multi-person households, including singles with children and couples with or without children. This estimation reflects a misalignment between supply and demand of housing for Stanford graduate students, relative to household size, where the demand for multi-person family housing spaces is nearly double the supply. As a result, Stanford graduate student households that reflect couples or families with children under 18, may not be adequately served by university housing and must compete for other limited low-income housing opportunities in the Bay Area housing market and commute from more affordable areas.

To offset housing costs the KMA study acknowledges that Stanford provides "gap" funding sources, including Stanford's Graduate Family Grant and Graduate Student Aid Fund programs. However, even after considering gap funding sources of up to \$20,000; approximately 14% of graduate students with children have an estimated gap in resources to meet living expenses triple that of graduate students without children. Approximately 75% of graduate student residents are single students while the remainder are couples or students with children.

The number of students residing on campus has increased since the 1989 General Use Permit was issued. Some of the increase was due to the addition of housing units, and some was due to increasing the number of students housed in existing facilities.

Table 3.1: Number of Students Residing on Campus						
Students	<u>1988-1</u>	989	<u>1998-1</u>		Net Change	<del>% change</del>
Undergradua	ate	5,492	5,839	347	<u>    6%</u>	
Graduate	<del>2,930</del>	3,515	585	20%		
ource: Stanford General Use Permit Annual Report #11						

In response to the findings from the KMA study this chapter includes policies that locates all future student housing on campus, encourages on-campus housing for graduate students with children, and encourages the expansion of financial assistance for graduate students with special

#### consideration for households with children.

Stanford guarantees on-campus housing for all of its approximately 6,500 undergraduates who wish to live on campus. Ninety three percent of undergraduates currently choose to live on campus. The University also currently provides graduate student housing for 46% of graduate students. With the addition of 483 units in Escondido Village in 2000-01, this percentage will increase to fifty percent.

#### **Current Campus Housing Types – Faculty and Staff Housing**

On-campus housing opportunities are also available to active faculty, retired faculty, surviving faculty spouses, and senior staff. Currently, 9<u>37</u>89 on-campus units are available to faculty and staff. Most of these homes are <u>situated in the San Juan neighborhood</u>, <u>located at the southeast</u> <u>area of the campus</u>. These homes are on long term ground leases <u>of 51 to 99 years</u>, whereby the occupants lease the land <u>and improvements</u> from the University <del>but own the home itself</del>. Twenty five percent of the campus homes are multiple family dwellings and 3 percent are attached townhomes. The University also gives priority to faculty and staff for rental housing it owns outside unincorporated Santa Clara County, including Stanford West Apartments, Vi at Palo Alto Senior Housing, and Mayfield Place.

The Community Plan provides for a substantial increase in the supply of faculty and staff housing eligible to University employees. In addition, a new rental housing complex of 628 apartments at Stanford West, with priority for Stanford faculty and staff, is now under construction on Sand Hill Road in Palo Alto. A senior housing complex with over 388 units has also been approved. Detailed Stanford priority criteria have been developed for the Stanford West Apartments and seniors projects in order to address Stanford's housing needs. Stanford has also identified several other potential residential development sites on its lands in other jurisdictions.

The coordinating mechanism for faculty and staff housing is a full time faculty/staff housing office that is responsible for counseling and assistance in locating housing, developing and implementing loan assistance and subsidy programs, and facilitating sales of on-campus homes to eligible faculty and staff. Stanford establishes eligibility requirements for such programs after consultation with the Faculty Senate and approval of the Board of Trustees.

Although Stanford provides opportunities for a substantial number of faculty and senior staff to live on the campus, there is a growing imbalance between the number of senior and retired faculty residing on campus and the number of their more junior colleagues who live on the campus. In 1989, 22% of the residents of faculty/staff housing were emeriti. By 1999, that percentage had increased to 34% of the total. In 1999, 50% of emeriti and 40% of full professors lived on campus, but only 14% of assistant professors and 25% of associate professors were campus residents (Faculty Housing Development Proposals, January 1999). As housing in the

faculty subdivision is increasingly occupied by senior and retired faculty, less housing is available for new and junior faculty.

Stanford affiliates not housed on the campus or in other Stanford housing seek private market housing and commute to the campus from surrounding communities and from all over the Bay Area. For faculty, staff, postgraduate fellows, and other workers who live off campus, but are not accommodated by Stanford housing, the high rents in neighboring Palo Alto and Menlo Park may mean they must look further out to find housing. This chapter requires housing designated for extremely low-, very low-, low-, moderate-income and above moderate-income persons that are faculty, staff, postgraduate fellows, other workers.

#### **Housing Affordability Programs**

As noted above, the University must follow the Ceounty's Affordable Housing Impact Mitigation Fee Ordinance (NS-300.929) and Inclusionary Housing Zoning Ordinance (NS-1200.368). In addition to these local mandates, Tthe University has a variety of housing assistance loan programs intended to address the difference in the cost of home ownership in the Stanford area and areas in proximity to other major research universities. These programs include the Graduate Family Grant and Graduate Student Aid Fund programs, previously noted.

The University is aware of the ongoing regional affordability challenges and their impact on the Stanford community. In an effort to learn more about these challenges Stanford formed an Affordability Task Force in 2018 with the goal to gather community input through surveys and focus groups. As a result of this effort, in January 2022, Stanford announced the following affordability enhancements:

- <u>A 3% increase to base-salary for regular benefits-eligible faculty and staff, to take effect</u> on March 1, 2022.
- <u>A \$2,750 (max) stipend for regular benefits-eligible staff earning a base pay of \$150,000 or less, annually, that were required to be physically present and perform all work duties on-site between February and December 2022.</u>
- <u>Subsidies covering up to 100% coverage of Cardinal Care health insurance for eligible graduate students supported on assistantships and fellowships, effective September 2022. (Coverage cost \$6,192 for the 2021-22 term.)</u>
- An increased to the maximum annual family grant for eligible graduate students from \$15,000 to \$20,000, and the amount for postdocs from \$5,000 to \$10,000.
- Launch of a pilot program that provides short-term market-rate rental housing for newly arriving postdoctoral scholars. The furnished housing units are at the Hawthorne Apartments in Palo Alto and available for 2-month minimum and 4-month maximum

leases.

- <u>A series of one-time grants for early-career, pre-tenure faculty with financial needs. The</u> <u>support options include an additional year on the tenure clock, a "post-pandemic leave</u> <u>quarter," a taxable salary grant up to \$30,000 for childcare expenses incurred during the</u> <u>pandemic, or research grants up to \$100,000.</u>
- Enhancements to faculty housing assistance, including the Housing Allowance Program and the Restricted Ground Lease purchase programThe programs are currently made available to over 2,900 Stanford employees. There are 964 loans outstanding with a balance of \$135.8 million. Three hundred and twenty-seven new loans were initiated in 1998-1999, and individuals may obtain more than one type of loan.

While these initiatives are improvements to Stanford's gap financing efforts, the challenge of meeting the university's demand for housing and minimizing the effects of increasing competition for market rate and affordable units in neighboring communities remain. Despite the assistance programs, housing in the Stanford area remains unaffordable to many eligible faculty and staff. The Strategies, Policies, and Implementation Measures that follow in this chapter aim to address these persistent housing and affordability issues directly on Stanford lands in unincorporated Santa Clara County. According to the Faculty Staff Housing Office in January 1999, an associate professor earning the median salary who has a working spouse and who takes advantage of all of the available assistance programs can afford a house that costs approximately \$575,000. This amount exceeds the current median price in Santa Clara county, but it is significantly less than the median housing price for homes on the campus and in the surrounding area. Stanford has recently provided special housing supplements and loans to faculty for recruitment and retention, totaling \$9 million in 1997 98, when the assistance programs have been insufficient. In 2000, the Provost initiated a faculty task force to consider housing affordability issues and the effectiveness of the current assistance programs.

#### **Housing Supply and Needs**

As a residential university, Stanford provides a substantial amount of housing and housing assistance compared to other employers in the County. The following is a general assessment of the extent of housing supply and assistance provided.

Stanford's housing programs meet the needs of the different campus populations to varying degrees.

**Undergraduates**. Stanford's commitment is to provide four years of on campus housing to undergraduates who choose to live on campus. Approximately 93% of the undergraduates choose to live on campus, all of whom are provided with housing.

**Graduate students**. Stanford currently houses 46% of its approximately 7,000 graduate students on campus, which will increase to 50% with the completion of the housing in

Escondido Village. An additional 700 students are housed in subsidized off campus apartments, with planned increases for 2000-2001. There is substantial demand for additional on campus graduate student housing, as evidenced by the growing number of students who cannot be assigned on campus housing in a given year. For example, in 1999, over 1,071 students were denied opportunity for on campus housing through the allocation system referred to as the "lottery." In 2000, despite the addition of 480 new units, the number of unassigned students decreased only slightly, to985. In addition, many graduate student rooms and apartments are accommodating more students than they have in the past. Stanford intends to construct 1,900 additional graduate student housing units under this Community Plan.

• Medical residents/postdoctoral fellows. This group is largely not addressed by current housing programs and, due to low salaries, is at a significant disadvantage in the local housing market. The University currently provides 72 units for medical residents at the Welch Road apartments in Palo Alto. It proposes to construct several hundred additional units for residents and postdoctoral fellows under the Community Plan.

• Faculty/senior staff. Currently, 30% of active faculty live on the campus, with many more taking advantage of the various housing assistance programs. Recruitment of faculty is a very strong force behind Stanford's interest in developing substantial amounts of additional faculty housing. The Community Plan creates the opportunity for up to 668 additional units of faculty and staff housing.

• Other staff. Of Stanford's approximately 7,000 staff members (including Medical Center and Stanford Linear Accelerator Center (SLAC), approximately 650 are eligible for on-campus housing or for housing assistance programs at this time (Faculty Staff Housing Office). When completed, the Stanford West housing project will provide 628 rental units for faculty and staff on a priority basis.

#### Planned New Campus Housing

Under the General Use Permit associated with the Community Plan, the University intends to add 2,200 students, faculty and staff to its overall population. The Community Plan identifies locations for residential development that would allow between 2,655 and 3,022 additional housing units to be constructed on Stanford land. At this ratio, Stanford will add 1.36 housing units for every additional person added to the campus. This ratio represents an improvement in housing supply for new population compared to the 1989 General Use Permit. Under the 1989 General Use Permit, Stanford housed 1.03 additional people for every person added to the campus population. This rate of housing production stands in strong contrast to that of the region, where one housing unit was created for every 9 jobs in northwest Santa Clara County and for every 7 jobs in southern San Mateo County during the 1990s (Silicon Valley Manufacturers Group Housing Solutions report, 1999).

## Strategies, Policies and Implementation

## Strategy #<u>No.</u>1: Increase the Supply and Affordability of Housing

The Stanford campus provides one of the most significant opportunities for substantial amounts of new housing development in Santa Clara County. This strategy expresses the fundamental objective of the Community Plan to increase the general supply of housing on campus to meet the need generated by the Stanford University institution of higher learning and research. The Stanford campus provides a significant opportunity for new housing to be planned for and developed in Santa Clara County. Accordingly, Strategy No. 1 aligns with the Sub-strategies similar to those contained within the Housing Chapter of the General PlanElement for countywide housing issues objective elaborate on the principal strategy. These strategies involve planning for housing, facilitating and expediting the actual construction of needed housing, and augmenting affordability programs.

#### **Linkage Policy**

The principal means for assuring that additional housing supply is constructed in a timely manner is referred to as <u>thea</u> "linkage policy" in the Community Plan. This policy requires that Stanford construct significant proportions of the potential housing units identified within the Housing Chapter of the Community Plan prior to<sub>*L*</sub> or concurrently with<sub>*L*</sub> approved increases in academic space. Additionally, a portion of that housing would be affordable to households at moderate-income levels and below.

To implement the linkage policy, the General Use Permit <u>(GUP)</u>, which serves to implement the Community Plan, would contain specific provisions to the effectrequire that approval of proposed increases in <u>net new academic and academic support space academic space</u> may be granted only on condition that a specified amount and type of housing supply <u>has been or</u> will be constructed concurrently. Such mechanisms ensure that approvals for <u>net new academic and academic space</u> do not exacerbate already significant housing supply and affordability deficiencies in the regional housing market.

A linkage policy also ensures that Stanford can achieve stringent-transportation-related Community Plan goals and <u>performance</u> standards. <u>Appropriate housing/academic linkage</u> requirements are determined through the preparation of a nexus study upon submittal of a <u>GUP application that would accomplish the following:</u>-

- Identify the increase in campus population with the proposed GUP application, including all faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students.
- Estimate the number of housing units or spaces needed to accommodate the increased population.
- Estimate the distribution of household incomes for each major category of added population.
- Determine the number of housing units by affordability category and type that are needed to accommodate the added worker and student population.

The County acknowledges that there are a number of contingencies which can affect the feasibility of completing housing development within a specific time period. Funding, competing academic priorities, and other factors <del>obviously</del> play a role. It is also important for the County to acknowledge its responsibility for housing development in <u>the timely processing and</u> approval of housing proposals.

However, in light of overall housing trends and County General Plan policy, it is essential that the County assure that housing development proposed in the Community Plan be constructed in manner concurrent with academic development approved through the life of the <u>General Use</u> <u>PermitGUP</u>.

Approval of significant new <u>non residentialacademic</u> development without such <u>assurances</u> <u>requirements</u> could exacerbate housing shortages by adding population without augmenting housing supply. Furthermore, existing General Plan policies <u>on the subject</u> call upon all jurisdictions <u>in the County</u> to address the continuing imbalances between employment-related land uses and housing. Providing housing commensurate with new academic development is therefore consistent with the policies of the Countywide Growth and Development Chapter and Housing Chapter of the General Plan.

## Sub-Strategy #<u>No.</u>1A: Plan for a<u>n</u> <u>More</u>-Adequate and Balanced Housing Supply

Planning for an more-adequate and balanced housing supply involves both supplying providing

<u>both more-diverse</u> housing types that meet various Stanford population needs, as well as providing housing that is more affordable to the target populations.

Strategy <u>No.</u> 1A emphasizes the importance of designating lands for housing development, as a necessary precursor to actual <u>developmenthousing production</u>. The diversity of the Stanford community and the groups in need of housing requires a multifaceted approach to housing development that enhances Stanford's already varied housing stock.

<u>Traditionally, only students and faculty have been prioritized for housing.</u> <u>Specifically,</u> <u>However,</u> the Community Plan\_<u>provides forrequires</u> increased housing supply to <u>undergraduate and graduate students</u>, <u>post-doctoral fellows</u>, <u>and faculty</u>, <u>staff</u>, and other <u>workers</u>, upon further development of the campus., the two groups which have traditionally been the priority populations for campus housing. The Plan also provides more balance in priorities for various populations, such as increased housing for medical residents and postdoctoral fellows, who have traditionally not been served by campus housing.

This Community Plan further recognizes the differing characteristics between student housing areas and faculty/staff housing areas. Student housing consists of dormitories and apartments that surround the academic portions of the campus. Its occupants are more transitional, with students moving on a frequent basis and heavily involved in activities throughout the campus. The nature of this housing is reflected in its inclusion in the Academic Campus land use designation, which allows for flexibility in the location and use of new student housing by not separating it from the academic uses. As the Community Plan calls for more housing of additional workers who were not previously provided for, the plan is flexible on the location of housing within the Academic Campus area for housing of all types.

Within the Academic Campus land use designation, this plan identifies several locations for new student housing, particularly in Escondido Village and an area near existing student housing known as the "Searsville Block" that is currently occupied by 13 faculty homes. Other potential sites are also identified near existing student housing areas. The Community Plan also defines locations along Quarry Road for medical resident and postdoctoral fellow housing.

In contrast to the <u>existing</u> student housing areas, the <u>San Juan District</u> faculty <u>and</u> staff residential areas more closely reflects a traditional residential neighborhood. The density of most single\_family portions of the <u>area-San Juan District</u> is generally 3-5 units per acre, although some lots exceed one acre in size. There are two multi-family condominium complexes of approximately 15 units per acre and one complex of attached townhomes. Faculty and staff housing on the campus is almost entirely owner-occupied <u>through long-term leases</u>. <u>New</u> <u>housing for staff and other workers will be encouraged in both the existing residential areas as</u> <u>well as suitable locations throughout the campus</u>.

In recognition of the <u>University and</u> residents' interest in maintaining the character of the <u>faculty/staff\_San Juan District</u> residential area, the Community Plan contains separate land use

designations for these portions of the campus to distinguish them from the academic core area.

These two land use designations for low- and medium-density housing allow up to 8 and 15 units per acre, respectively (see Land Use Chapter). Higher density faculty/staff housing is a permitted use in the Academic Campus land use designation.

With these designations, the Community Plan emphasizes higher densities than that characteristic of existing single\_-family areas in an effort to use land more efficiently and promote production of more affordable housing. The plan also identifies two major sites for new faculty/staff residential neighborhoods at the medium density designation. The first is located on a field northeast of the Red Barn and is known as the "Stable Site." The second is located on the existing driving range near Lake Lagunita.

Developing substantial amounts of additional housing will require development of significant undeveloped sites and/or intensification of use in existing housing areas through redevelopment. Opportunity sites for housing development are identified under this strategy in the table below and should be the focus of future housing development on the campus. The housing sites as shown in this plan in Table 3.2 below do not preclude the identification of other locations for housing inside the AGB in the future, particularly within the Academic Campus land use designation.

The Community Plan may also be amended to identify other areas appropriate for housing development over time to facilitate appropriate housing development.

Table 3.2: Proposed Housing Development Potential					
Code	Location	Acres	# Units		
A	Manzanita	1.6	<del>100</del>		
₿	Mayfield/Row by	<del>1.3</del>	<del>125</del>		
	Florence Moore area				
C	Escondido Village: Infill	116.5			
			<del>1,495</del>		
Ð	Escondido Village: El	4.3	<del>250</del>		
	Camino Real Frontage				
E	Escondido Village: Stanford	<del>9.4</del>	<del>9-75</del>		
	Avenue				
F	Driving Range	<del>17.5</del>	<del>102-195</del>		
G	Searsville Block	<del>12.8</del>	<del>380</del>		
	W/removal of		<del>(-13)389</del>		
H	Quarry and Arboretum	<del>8.0</del>	<del>200</del>		
Ŧ	Quarry & El Camino Real	<del>6.2</del>	<del>150</del>		
J	The Lower Knoll				
K	Lower Frenchman's	2.2	<del>2-18</del>		
F	<del>Gerona/Junipero Serra</del>	<del>1.5</del>	<del>1-12</del>		
	Blvd				

M	<del>Dolores</del>			
N	<b>Mayfield</b>	<del>1.3</del>	<del>1-9</del>	
θ	Stable Site			
	<del>Totals (14 sites)</del>			
	<del>Totals (14 sites)</del>	<del>182.6</del>	<del>2,824</del>	

Table Notes: Previously identified sites including the Lower Knoll and Dolores sites have been eliminated from consideration. The 200 units of potential housing in the Lower Knoll site have been transferred to within the Escondido Village: Infill site (site C).

The Driving Range (site F) has been converted from graduate student housing as originally identified to faculty/staff housing to compensate for a reduction in the size of the Stable Site. The 350 units identified for the Driving Range site have been transferred to Searsville Block (site G) and Escondido Village: Infill (site C). In 2013, the 372 units identified for the Stable Site were removed from the faculty/staff housing category and added to the student housing category. In 2015, the housing type classifications were removed to provide greater flexibility in meeting campus housing needs; however, the General Use Permit retained the requirement that no more than 668 of the housing units can be constructed for faculty and staff and no more that 350 of the housing units can be constructed for postdoctoral residents and medical residents.

#### Figure 3.1 Potential Housing Sites

Potential housing sites by resident category are described in Table 3.3:

Table 3.3: Planned Housing and Sites	
Planned Housing	Sites
New housing for single students, including:	Escondido Village
<ul> <li>apartments or group housing for</li> </ul>	Mayfield/Row
graduate students or postgraduate	Searsville Block area
fellows, and	<del>Manzanita Quadrangle (undergrads)</del>
<ul> <li>dormitory spaces for</li> </ul>	
Apartments for hospital residents	Arboretum and Quarry Rd.
and postdoctoral fellows	corner Quarry Rd. and El Camino
New units for faculty and staff, depending	Driving Range
on the mix and densities	Escondido Village: Stanford Ave. area
	Sites in existing campus residential
	neighborhoods (Mayfield, Lower
	Frenchman's, Gerona/Junipero Serra
	DI I

#### Policies

#### SCP-H1

Promote <u>a variety of diverse</u> housing types and supply adequate <u>housing</u> to meet the needs of faculty, staff, <u>postgraduate fellows</u>, other workers, <u>undergraduate students</u>, and <u>graduate</u> students.

#### SCP-H 2

Designate sufficient campus land at <u>minimum</u> densities for <u>faculty</u>, <u>staff</u>, <u>postgraduate fellows</u>, <u>other workers</u>, <u>undergraduate students</u>, <u>and graduate</u> <u>students</u>, <u>faculty</u>, <u>and staff housing</u>, <u>as</u> <u>identified in Table 3.2</u> and Figure 3.1, Proposed Housing Development Potential and Sites.

#### SCP-H 3

Maintain <u>and increase undergraduate and graduate</u> student <del>and postgraduate</del> housing as an integral part of the <u>A</u>academic <del>areas of the c</del><u>C</u>ampus<u>land use designation</u>, and locate the housing in proximity to related schools, colleges, and research facilities.

#### SCP-H 4

<u>Within the Academic Campus land use designation</u>, <u>Dd</u>evelop housing at <u>minimum</u> densities (<u>30 du/ac</u>) that makes <u>more efficient use of land and enhances</u> the affordability of housing.

#### <u>SCP-H 5</u>

Balance net new academic development with adequate housing, as documented by a linkage policy nexus study. The County shall contract with a third-party to provide a housing-linkage nexus study upon submittal of a General Use Permit (GUP) application by the University. As part of the application review process, the study shall be finalized by the applicant. The information provided in the nexus study shall be consistent with the requests in the GUP application and shall demonstrate that net new academic and academic support space do not exacerbate the housing supply imbalance and affordability deficiencies in the regional housing market. The nexus study may include innovative operational and academic strategies, such as, but not limited to, remote and telework practices. The study shall provide a timeline for the phasing of proposed development. A certificate of completion for any non-residential academic development may not be issued until the required housing units intended to balance said non-residential academic development receive a final inspection.

#### <u>SCP-H 6</u>

A nexus study shall determine required housing based on the income-levels of anticipated employees, including "post-docs" and graduate students.

#### Implementation Recommendations Measures

#### SCP-H\_-(i) 1

Ensure that <u>faculty</u>, <u>staff</u>, <u>postgraduate fellows</u>, <u>other worker</u>, <u>undergraduate student</u>, <u>and</u> <u>graduate</u> student<del>, <u>postgraduate</u>, <u>and hospital resident</u> housing <u>areis</u> included as a permitted use <u>both</u> within the Academic Campus <u>land use designation as well as the A1 zoning districtareas</u>.</del>

#### <u>SCP-H (i) 2</u>

Affordable housing provided over and above a nexus study determined amount is encouraged. Future General Use Permit (GUP) conditions of approval shall allow for additional affordable units over the required housing linkage policy units by providing a corresponding reduction in the number of required market rate units, as long as the total number of identified linkage policy units are provided for all net square feet of new academic and academic support uses.

#### <u>SCP-H (i) 3</u>

<u>All required housing, both affordable and market rate, is required to be located on campus or on contiguous original Stanford land grant Stanford lands. A minimum of 70 percent of the housing shall be on campus and up to 30 percent may be off campus on original land grant Stanford lands in Palo Alto contiguous to the Community Plan Area.</u>

#### SCP-H (i) 2

Subsequent to the adoption of the Community Plan, enact zoning districts and regulations that provide for low-density development of faculty housing (1-8 units/acre), with appropriate development standards, as a permitted use within the Campus Residential Low Density areas of Stanford.

#### SCP-H (i) 3

Subsequent to the adoption of the Community Plan, enact zoning districts and zoning regulations that provide for medium density faculty housing development (8–15 units/acre), with appropriate development standards, as a permitted use within the Campus Residential-Medium Density areas of Stanford.

#### **SCP-H (i) 4**

Provide 100 percent of all needed housing for new undergraduate and graduate students. Any graduate student housing unit that is not utilized by graduate students, may become available to faculty, staff, postgraduate fellows, and other workers.

#### <u>SCP-H -(i) 5</u>

In order to implement the linkage policy, a major modification of the General Use Permit (GUP) shall include be any increase in net square feet of new academic and academic support uses that would generate an increase in housing demand. The number of housing units required shall be determined by a nexus study and based on the proposed new academic and academic support development.

#### **SCP-H (i) 6**

Amend the zoning ordinance to establish housing at minimum densities (30 du/ac) within the Academic Campus land use designation, to make efficient use of land and enhances the affordability of housing.

## Sub-Strategy #<u>No.</u> 1B: Facilitate and Expedite Needed Residential Development

Once residential development sites are planned, the timing and enabling of housing construction are important considerations. Designating Identifying land available for potential housing development alone provides only the basis for housing development. Additional mechanisms at both the plan and implementation levels are needed to ensure that designated sites are developed in a timely manner. A variety of tools are available to facilitate and expedite needed residential development.

#### **Streamlining Permit Applications and Approval Processes**

Other means of facilitating housing development include <u>S</u>streamlining of environmental review and permitting processes <u>are two means of facilitating housing development</u>. The concept of a Community Plan and General Use Permit (<u>GUP</u>) afford the opportunity to minimize subsequent environmental review of individual projects by means of a program-level EIR to provide initial CEQA review for anticipated projects.

Time savings may also be achieved in the permitting of individual projects by coordinating to ensure that applications for Architecture and Site Approval (ASA) or for building permits are as complete and adequate as possible upon submittal. Other streamlining mechanisms are aimed at facilitating the planning and approval of new housing; these would include measures allowing consideration of General Plan amendments for additional areas within the AGB to be designated Campus Residential without first gaining Board of Supervisors approval of

consideration of the amendment, as is required for other types of General Plan amendments. The Board would retain authority for final approval of the General Plan amendment.

#### Housing in Other Jurisdictions

The location of required housing for faculty, staff, postgraduate fellows, and other workers on the Stanford campus promotes a development pattern that minimizes commute trips to and from the University and promotes pedestrian and bicycle trips.

<u>Although the County of Santa Clara does not regulate the use of Stanford-owned land that is</u> located within the surrounding cities or San Mateo County, the County recognizes that housing on Stanford lands in other jurisdictions can contribute to the supply of housing needed to serve the growing <del>u</del>University population.

The 1985 Land Use Policy Agreement calls for a coordinated planning approach for addressing issues that affect the Ceounty, the City of Palo Alto, and the University. The Community Plan policies are meant to prioritize housing development on the Stanford University campus, Although Santa Clara County does not control the use of Stanford owned land that is within incorporated cities or San Mateo County, the County recognizes both the need for housing created by uses on these lands and the opportunities for housing that appropriate development and redevelopment of these lands presents. Any housing on Stanford lands in any jurisdiction augments the regional housing supply and therefore contributes to the balance of the area's housing supply. The Community Plan policies are meant to and encourage housing development on all appropriate original land grant Stanford lands, regardless of the jurisdiction.within the City of Palo Alto.

#### Policies

#### SCP-H <u>7</u>5

Recognize the connection between expansion of academic facilities and the resultant increase in housing demand, as well as the immediate need for additional on-campus housing to meet address-current demand.

#### SCP- H 86

Through the General Use Permit (GUP), permit development of additional on-campus housing, including housing for designated <u>extremely low-</u>, very low-, low-, and moderate-income and above <u>moderate income moderate-income</u> persons and faculty, staff, <u>postgraduate fellows</u>, other <u>workers</u>, <u>undergraduate students</u>, and <u>graduate</u> students<del>, postgraduate fellows</del>, and <u>hospital</u> residents.

#### SCP - H <u>9</u>7

Require that new housing development occur commensurate with population growth and academic development approvals on campus. Through <u>future the major modifications of a</u>

General Use Permit<u>General Use Permit (GUP</u>), establish conditions<u>of approval</u> to require construction of needed housing prior to or concurrently with approval for increases in academic space.

#### SCP - H <u>10</u>8

Streamline the review and approval of housing projects to the extent possible, consistent with County standards, land use policy, and State law.

#### SCP - H <u>11</u>9

Support Stanford's efforts to develop housing on land in other jurisdictions, on original land grant Stanford lands in Palo Alto contiguous to the Community Plan Area, particularly housing specifically targeted to Stanford faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students, and other affiliated persons.

#### **Implementation MeasuresImplementation Recommendations**

#### SCP-H (i) 4

Determine through the General Use Permitappropriate housing/academic linkage requirements based on the amount of approved academic construction.

#### SCP-H (i) <u>57</u>

MaintainStreamline and formalize current practicespermit processes, such as pre-design consultations where appropriate, and develop new mechanisms which would help streamline and facilitate County review. and permitting processes. Examples include electronic plan submittal pilot programs, together with better means of assuring that changes in building plans are consistently incorporated in all mechanical, electrical and plumbing plans.

#### **SCP-H (i) 8**

The County shall develop a streamlined approval process for on-campus housing within 1/2mile of a public transit station or high-capacity transit stop.

#### SCP-H (i) <u>96</u>

Allow County Planning Office consideration of applications for General Plan amendments to create additional Campus Residential areas inside the A<u>cademic</u> G<u>rowth</u> B<u>oundary (AGB)</u> without requiring that the Board approve the consideration in the annual General Plan amendment review process. The Board will retain authority for final approval of the General Plan amendment, after considering the Planning Commission's recommendation.

#### SCP-H (i) 7

Allow County Planning Office consideration of applications for General Plan amendments to

remove areas from the Campus Residential designation without requiring that the Board approve the consideration in the annual General Plan amendment review process, if Stanford is able to demonstrate that it will meet all quantified housing provision requirements. The Board will retain authority for final approval of the General Plan amendment, after considering the Planning Commission's recommendation.

#### **SCP-H (i) 10**

<u>Ministerially approve housing identified in previous and current Housing Elements as a</u> <u>designated opportunity site, based on objective standards. Quarry-El Camino, -and-Quarry-</u> <u>Arboretum, and Escondido Village are identified in the previous and current Housing</u> <u>Elements.</u>

#### **SCP-H (i) 11**

Adopt objective design guidelines for areas on campus eligible for streamlined permitting review.

#### **SCP-H (i) 12**

The County should consider more extensive utilization of on-campus permit streamlining, after implementing and processing streamlined projects identified as housing opportunity sites in the SCP and a certified Housing Element.

## Sub-Strategy #<u>No.</u>1C: Augment Affordability Programs and Funding

For housing to meet the needs of its target population, its price must be consistent with the income of the intended residents. Affordability needs vary greatly with the population served; housing can be considered "affordable" by accepted regulatory agencies but can still be too expensive for specific populations. Graduate students and postdoctoral fellows at Stanford are two groups whose incomes are substantially below the County median used to calculate affordability for purposes of government--sponsored housing assistance programs.

To provide an affordability analysis of graduate student housing, the KMA study reviewed data from a 2021 survey ("2021 SCC Survey") conducted by the Public Consulting Group on behalf of the County and in coordination with the Stanford Graduate Student Council, as well as other graduate student organizations. A key finding from the KMA study indicates that 5% of graduate student respondents (approximately 470 students) reported having inadequate resources for housing and other living expenses after potential additional gap funding sources were considered. The KMA study attributes this difficulty in gap financing to the size of the gap, estimated to exceed \$20,000 per year.

All of Stanford's graduate student housing is affordable to the target population according to the standards related to area median income (AMI) supplied by the <u>F</u>federal government. The

income range of this population requires that housing be priced accordingly, or it could not be occupied by graduate students. As a result, construction of new housing for this population is subsidized by the University.

Planning for this housing must consider the affordability implications for both the graduate students and the University.

The postgraduate fellow/hospital resident housing program <u>\_ largely new to the University</u> through the Community Plan, also serves a population earning substantially less than the area median income<u>AMI</u>. When the proposed undergraduate, graduate student housing, and postdoctorate housing are considered together, these 2,350 units <u>\_ 78%</u> of all proposed housing under the Community Plan \_ should be affordable to its population.

Promotion of housing affordability is <u>somewhat</u>-more complex for faculty and staff housing as it has <u>traditionally</u> been developed by the University. One <u>important</u> mechanism for promoting housing affordability is to reduce the cost of each unit through higher density, which is planned for most of the new housing under this plan. However, housing prices themselves are difficult to control, particularly for ownership housing. While Stanford can set the price for the initial housing offering, resale prices will reflect market forces without price controls. Additionally, <u>deed</u>-restricted affordable ownership units can be created to serve multiple households over time, with re-sales completed to eligible buyers.

One approach to meeting this challenge would involve increasing the supply of on-campus rental housing for faculty,<u>-and</u>\_-staff,<u>postgraduate fellows</u>, <u>and other workers</u>. Stanford could therefore control future rental prices and could retain a portion of such rental housing for designated populations.

Stanford's residential assistance programs are an important mechanism to make housing more affordable for eligible participants purchasing homes. The eligibility requirements for these programs reflect the University's educational objectives in their availability to faculty and senior staff.

<u>However</u>, Oother staff members, many of whom are in need of more affordable housing, are not currently eligible for the programs or for on-campus housing. <u>New policies under this</u> <u>Community Plan update require that new housing be provided at all staff levels based on the</u> <u>new housing demand created by net new campus development</u>. In a related matter, provision of rental housing subsidy is another unmet housing need.</u>

As indicated above, the University's primary means of promoting housing affordability to faculty and staff is in the form of subsidies and direct financial assistance. Increasing assistance levels to those for whom assistance has traditionally been provided, such as faculty, or extending financial assistance to those who have not previously been eligible for such

programs, will require a substantial increase in funding to those programs. The County supports increasing the funding of such programs by Stanford to the maximum extent feasible.

#### Policies

#### SCP-H 912

<u>Encourage Stanford to</u> continue <u>and expand</u>to Provide financial assistance for housing to faculty<sub>z</sub>-and staff, <u>postgraduate fellows</u>, and other workers and consider expanding programs to include rental assistance through Stanford rental and home buying assistance.

#### <u>SCP-H 13</u>

Encourage Stanford to continue and expand financial assistance for graduate students with special consideration for households with children, such as the Graduate Family Grant Program.

#### SCP-H 1014

Promote the <u>creation of new</u> affordab<u>leility</u> of housing by:

- <u>Consistent with RHNA requiremenContinue thets</u>, <u>Housing Linkage Policy</u>,
- Maintain and implement the County's the Affordable Housing Impact Mitigation Fee Ordinance, Inclusionary Housing Ordinance,
- <u>Utilize the General Use Permit (GUP) process</u>, <u>Requiring Stanford for Stanford</u> to provide a sufficient level of affordable housing on <u>campus</u> to meet the affordable housing needs generated by new academic development <u>and housingon its</u> <u>unincorporated lands or make an appropriate payment in lieu of providing the housing</u>; and,

•

• <u>Require the construction of affordable housing and not accept in-lieu fee payments.</u>

#### <u>SCP-H 15</u>

<u>Encourage</u>Encouraging Stanford to extend housing assistance and on campus residence eligibility to populations faculty, staff, postgraduate fellows, and other workers which have previously not been servedeligible.

#### <u>SCP-H 16</u>

<u>Provide on-campus housing eligibility to populations which have previously not been eligible</u> (i.e. staff, postgraduate fellows, other workers, etc.).

#### Implementation RecommendationsMeasures

#### SCP-H (i) 813

Stanford shall provide a number of affordable housing units equal to 15% of the units needed to house the non-student population increase associated with the development. One third of these units shall be made available to persons of very-low income; one third of these units shall be made available to persons of low income; and one-third of these units shall be made available to persons of moderate income. For rental units, the units shall be made available to persons in each group at a rate not to exceed 30% of the income for the respective group. For for sale units, the units shall be made available to persons in each group at a rate not to exceed 30% of the income for the respective group. For for sale units, the units shall be made available to persons in each group at a rate not to exceed 40% of the income for the respective group. The dwelling units shall be located on Stanford lands and shall be made available to persons who are not undergraduate students, graduate students, post-graduate fellows or medical residents associated with Stanford or its affiliates. Compliance with this affordable housing requirement shall be ensured for at least 50 years. Monitor the effectiveness of housing ordinances and update as needed:

- ——Inclusionary Housing for the unincorporated areas of the County of Santa Clara Ordinance
- •
- Stanford University Community Plan Area Academic Space Affordable Housing Impact <u>Mitigation Fee Ordinance</u>

#### **SCP-H (i) 14**

Adopt an ordinance to rescind the *Affordable Housing Impact Mitigation Fee Ordinance* to reflect the Community Plan policy to require construction of housing to satisfy academic development <u>demands</u>.

#### SCP-H (i) 8

For each new academic development project built by Stanford, identify an appropriate payment that Stanford may elect to pay in lieu of compliance with SCP H (i) 6. This payment shall be equal to the affordable housing payment (also known as the below market rate program payment) charged by the City of Palo Alto when the development project is built. If the City of Palo Alto does not have such a payment at that time or Stanford challenges the payment as unreasonable, the County will determine the appropriate payment based upon a study funded by Stanford and undertaken by or under the direction of the County.

#### **SCP-H (i) 15**

Encourage Stanford to provide more on-campus affordable housing for graduate students with children.

#### **SCP-H (i) 16**

Stanford should work with the Stanford Graduate Student Council (GSC) on increased transit access. Examples of this include: Restore and expand Marguerite services, including Shopping Express and late-night N & O lines;- Provide graduate student access to fully subsidized Caltrain monthly passes and the VTA SmartPass.

#### **SCP-H (i) 17**

Stanford should, in collaboration with the Graduate Student Council (GSC), conduct additional surveys of graduate students. Examples of this include: Confirm the results of the GSC Summer Affordability Survey and create a strategic plan to protect students' financial well-being.

## Strategy #<u>No.</u> 2: <u>Ensure Compatibility of New Housing with Existing</u> <u>Neighborhoods</u><u>Balance Housing Needs with Neighborhood</u> <del>Conservation</del>

The residential character of both the faculty<u>/ and staff</u> neighborhoods and the student housing areas contributes to the quality and experience of the campus and the lives of its residents. Residential neighborhoods are characterized not only by the houses or apartments they contain, but by their range of uses and the visual character and feel provided by the density, infrastructure, and landscaping. Easy access to complementary services and transportation facilities can help reduce the need for automobile trips and enhance the residential quality of life.

Some important discussion topics regarding the residential character of the campus have been raised by various groups of campus residents.

• Existing residential neighborhoods present opportunities to expand the range of uses in easy walking distance of residents. Places to shop for food, eat, gather, and engage in recreational activities could have the dual benefits of reducing the need to travel off campus and enhancing the quality of life for residents. For example, graduate students have expressed a desire for retail and recreational opportunities convenient to their residential areas. <u>Child careChildcare</u> is also a valued amenity that can directly serve neighborhood residents. Due to the potential of such amenities to reduce automobile

trips, policies promoting an appropriate mix of such uses are also included in the Circulation Chapter.

- Parks and open spaces in the faculty/staff areas are a valued recreational amenity for many residents. These spaces are considered neighborhood institutions but have had no formal protection from development in the past. For more detailed discussion of parks, refer to the Open Space Chapter.
- <u>Accessory Dwelling Units (ADUs). The County strongly encourages the University to</u> <u>allow and encourage the construction of ADUs within the Faculty Staff Subdivision in</u> order to expand the range of housing types available on campus.

Faculty and staff campus residents are concerned about the potential for development at higher densities than existing areas within their neighborhood. The concerns about neighborhood compatibility need to be balanced with global concerns about housing supply and affordability. The creation of more specific land use designations for faculty/staff housing areas can help achieve certainty regarding future development potential in these neighborhoods, which can be further reinforced with corresponding zoning.

These considerations are also applicable to new residential areas, which provide enhanced opportunities for the creation of a balanced range of uses in neighborhoods.

The importance of <u>balancing housing needs with neighborhood conservationensuring</u> <u>compatibility of new housing with existing neighborhoods</u> also extends to the off-campus environs of Palo Alto and Menlo Park located immediately adjacent to many of the potential sites for new or more intensely developed housing on the periphery of the campus.

With respect to potential new or additional housing along the Palo Alto and Menlo Park interfaces, community members have raised concerns about maintaining compatibility with existing neighborhoods and preservation of campus open space <u>or athletic fields</u> that serves as a buffer between the University and the surrounding community. As with the concerns expressed by campus residents, the concerns of off-campus residents, too, need to be balanced with the larger concerns about<u>imperative to increase the</u> housing supply and affordability.

#### Policies

#### SCP-H 1117

Promote location of housing near compatible and neighborhood-serving support uses and facilities, such as child-care, shopping, and recreation, and promote inclusion of such neighborhood-serving facilities in housing areas, as appropriate.

#### SCP-H 1218

Plan housing areas and facilities to take maximum advantage of existing and planned transportation services and facilities.

#### SCP-H 13

Recognize and enhance the character of existing residential areas for faculty/staff and students.

#### SCP-H 1419

Balance concerns about the compatibility of new housing development in existing neighborhoods with the need for increased housing supply and improved affordability.

#### SCP-H 1520

Provide and maintain parks and related facilities in Campus Residential areas (see Open Space Chapter).

#### SCP-H 1621

Balance concerns about tIn collaboration with Stanford, encourage he compatibility of new housing development on the campus periphery with existing off-campus neighborhoods through application of design guidelines that incorporate objective development standards consistent with Sstate law. with the need for increased housing supply and improved affordability.

#### SCP-H 1722

Balance concerns aboutSeek a balance between the maintenance of <u>open space</u> buffers between the University and Menlo Park and Palo Alto with the need for increased housing supply and improved affordability (see Open Space Chapter).

#### **SCP-H 23**

Accessory Dwelling Units (ADUs). Encourage Stanford to allow ADUs within the Faculty/Staff Subdivision consistent with state law and County regulations.

#### Implementation RecommendationsMeasures

#### SCP-H (i)9

Adopt zoning that allows appropriate non-residential uses in both faculty and student housing areas.

#### SCP-H (i) <u>1017</u>

Adopt-Maintain zoning consistent with the General Plan designations for Campus Residential-Low Density and Campus Residential-Moderate Density (see Land Use). This zoning may incorporate height limits, <u>lot coverage</u>, floor area ratios, <u>lot widths/frontage</u> and setback <u>requirementss</u> for appropriate compatibility with <u>both existing Stanford neighborhoods and</u> adjacent off-campus neighborhoods in Palo Alto and Menlo Park.

#### SCP-H (i) 1118

Identify opportunities for creation of <u>compact development through the provision of</u> childcare facilities, commercial services, recreational facilities, or other types of support services in residential <u>development and redevelopmentareas</u>.

#### SCP-H (i) 1219

Encourage and, as appropriate, require support facilities to serve residential areas through both the General Use Permit <u>(GUP)</u> and through subsequent review of individual projects-<u>based on</u> the findings of a feasibility study, with the methodology defined by the County.

#### **SCP-H (i) 13**

Review development applications for projects on the campus periphery for provision of adequate landscaping elements to separate and buffer adjacent uses and to retain the quasi-rural feel of the campus where it abuts the surrounding community.

#### **SCP-H (i) 20**

<u>Recognize and enhance the physical character of existing and new residential areas through the</u> <u>adoption of design guidelines and objective standards.</u>

# Circulation

## **Chapter Summary**

One of the greatest challenges that jurisdictions throughout the Bay Area have faced as they try to alleviate local congestion is the degree to which the existing patterns of land use and development undermine efforts to reduce dependence on the single-occupant automobile. The objective of circulation systems is to allow for access and mobility, while; con-gestion impedes achievement of this objective.

The Stanford University campus is a unique setting in which many of the limitations found elsewhere of land use, density, transit accessibility, and mechanisms for coordi—nated problem-solving are reduced, thereby, creating opportunities for walking, bicycling, and transit uses unknown throughout much of Santa-Clara County.

This chapter of the Community Plan attempts to capitalizeseeks to further improve upon the strong track record developed through the 2000 Community Plan. The next phase of building on the transportation poten—tial of Stanford and its surrounding communities, is primarily through a Vehicle Miles Traveled (VMT)-focused approach in addition to the long-standing standard of "no net new commute trips" performance standard for the unincorporated Santa Clara County portion of Stanford Universitycampus.

The plan defines this standard approach as no additional trips above a measured base level, established by monitoring data, during the peak hour and peak period commute times in the campus commute direction, as well as in the reverse commute direction. This results in the following three distinct transportation performance standards that will allow the University to continue to grow and evolve to serve its mission, while not substantially adding more traffic and Vehicle-Miles-Traveled:-

- Vehicle Miles Traveled (VMT). As of July 1, 2020, VMT is the required metric to evaluate transportation impacts under CEQA (Senate Bill 743). SB 743 encourages alternative modes of transportation, such as walking and biking, better access to daily destinations, reduction in commute times, less sprawl, and will improve air quality resulting from less auto emissions.
- No net new commute trips (NNNCT). This performance standard is defined as no additional trips above a measured base line during the AM and PM peak-hour (1 hour), in the predominate commute direction, and has been in effect since 2001. The AM and PM peak-period (3 hours or more) standard is new with this plan update and is during the peak commute. This standard ensures that there will be no additional automobile trips over an established baseline determined by the Stanford Traffic Monitoring Program which includes extensive data collection efforts including cordon counts,

parking counts, parking ratios, cut through traffic percentages, and trip credits recorded on an annual basis since 2001.

• **Reverse Trips.** This performance standard controls the growth in reverse commute trips, the trips in the opposite direction of the predominate commute direction, so as to not contribute substantially to local area congestion. This applies to the peak hour (1 hour) and the peak period (3 hours).

The "no net new commute trips" standard is a challenging one that is much more strin-gent than any standard applied elsewhere in the county. <u>The VMT-focused approach works</u> collaboratively with the "no net new commute trips" and reverse trip performances standards. Meeting th<u>eseis</u> standards will require a combination of <u>approaches land use planning</u>, transportation demand management (TDM) and roadway system improvement efforts, that together <u>will</u> form a comprehensive <u>circulation</u> system <u>and</u> allow<u>ing</u> people to function without cars on a daily basis.<del>.</del>

- <u>Land use</u>. On-campus housing will reduce the need for new commute trips to the campus. The availability of convenient support services on the campus is also cru–cial for reducing automobile trips.
- Transportation Demand Management. The innovation and effectiveness of Stan-ford's current transportation demand management (TDM) programs are widely recognized, but new opportunities may will need to be identified in order to continue meeting the "no net new commute trips" standard. While most TDM programs are directly commute-related, non-commute alternatives also need to be provided in order to allow workers to commute without cars and still be able to meet their daily needs.
- **Roadway system improvements**. Efforts such as traffic-calming improvements, pedestrian and bicycle infrastructure, roundabouts, and intersection and limited street widenings, are necessary for a functioning complete streets system and can reduce congestion and associated social and environmental impacts in specific locations.

This Community Plan chapter also recognizes that, while commute trip reduction is a priority, in some cases other mechanisms may be needed to address non-commute con-gestion or inadequacies in the street system. System expansion may also be needed if Stanford is unable or unwilling to meet the "no net new commute trips" standard. Such mechanisms may include intersection or street widening. <u>To provide focus for these various efforts, t</u>The<u>guiding</u> Community Plan strategies for Circulation are:

#### Strategy <u>No.</u># 1:<u>Achieve "no net new commute trips" Avoid worsening of traffic</u> <u>congestion</u> through land use and\_-transportation demand management.

#### Strategy No.# 2:\_\_\_\_\_Alleviate local congestion in the context of commute trip reduction.

Strategy No.# 3:\_\_\_\_\_Alleviate local congestion during special events.

## Background

As congestion grows throughout the Bay Area, employers, government agencies, and the general public are increasingly concerned with the inability of existing roadways to meet current and future needs, especially as the demand for housing increases to accommodate job and population growth.

While expansion of roads and intersections can help temporarily ease congestion, better use of the existing <u>road</u> system through less use of single--occupant automobiles is <u>a corresponding</u> effort that can avoid many of the<u>needed to avoid the</u> social and economic costs of added roads.

The closely integrated nature of the uses within the Stanford area and the wide range of activities that take place on and around the campus have made traffic congestion a fact of everyday life in the region. Increasing intensity in the use of land has led to substan—tial concerns about traffic levels in the area immediately surrounding the University. On a more regional level, long-distance commutes from distant counties have become more common as rising housing prices and increasing demand for a fixed amount of housing force local employees to live farther from their workplaces. Commuters in ever-increasing numbers spend more time on freeways each day.

The increasing intensity of development on and around the Stanford campus can <del>po-tentially</del> be offset by the high level of transportation accessibility in the area. Many loca—tions, including the campus, have a number of amenities that make it possible to move to and around the area without using cars, thereby decreasing the potential for local congestion. These amenities include:

- A well-integrated mix of land uses, with employment and service opportunities in close proximity to housing;
- An environment that is pleasant and accessible to pedestrians and bicyclists; and,
- A variety of convenient transit services accessing major activity centers (see side bar).

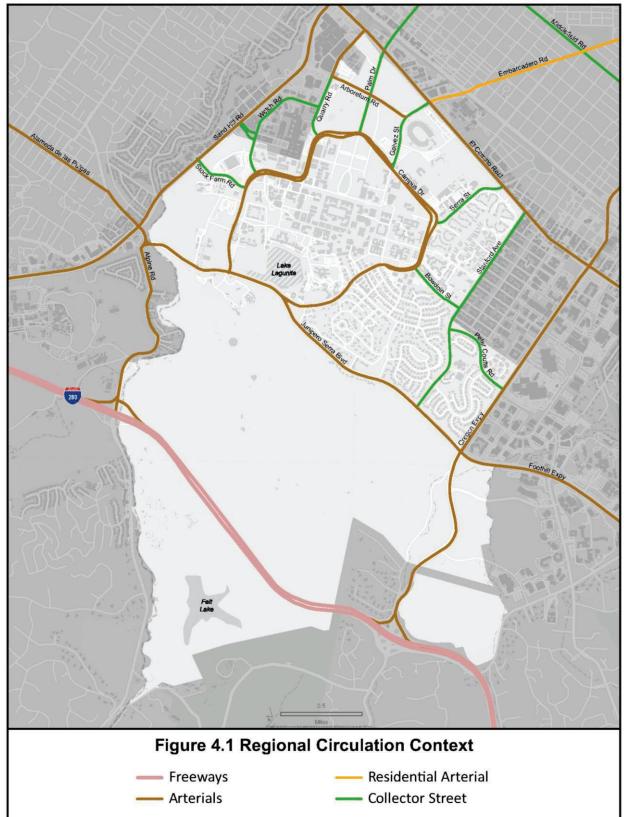
The Community Plan strategies, policies and implementation measures for circulation focus-on enhancing those amenities to allow for new development to occur without corre-sponding increases in commute traffic to and on the campus, and on expanding the existing monitoring program to reduce the negative traffic impacts on the surrounding communities produced by the desired new residential development's reverse commute trips.

#### Stanford's Land Use and Circulation System

Stanford's circulation system operates within the context of a larger regional system (Ssee **Figure 4.1 – Regional Circulation Context**).

Local campus roadways provide links be-tween academic facilities and between on--campus residences and academic facilities. Collector roadways on the campus operate as a traditional street network, providing con-nections from local on-campus roadways to the collectors and arterials surrounding the campus.





#### **Traffic Congestion and Stanford University**

Traffic congestion is of major concern throughout Santa Clara County. In addition to the inconvenience of traffic congestion, extensive use of single occupant automobiles poses serious threats to the environment, requires extensive amounts of land to accom- modate automobiles, and is expensive for both individuals and the public.

Some of the streets around Stanford carry significant amounts of traffic each day, with daily traffic volumes reaching or exceeding 20,000 cars on several important campus acc cess roads such as Embarcadero Road/Galvez Street, University Avenue/Palm Drive, Sand Hill Road, and Alpine Road. The most heav ily traveled roadway in the campus vicinity is El Camino Real (SR 82), which is used by over 40,000 cars each day on the portions of the road adjacent to the campus and over 50,000 cars each day to the north and south of the campus. The traffic throughout the area

#### **Circulation Systems Supporting Stanford**

Standford students, employees and visitors regularly use road networks and <u>transit</u> systems <u>and private services</u> administered by a variety of agencies in the travels to and from campus. <u>These systems are described in greater detail below.</u>

#### Transit

- Cal<sup>+</sup>train servesing north-south Peninsula travel and the cities of San Francisco and San Jose. This rail service is oper-ated by the Cal<sup>+</sup>train Joint Powers Board with Palo Alto stations at University Avenue and California Avenue. Both stations are highly accessible to residential and em-ployment areas and are heavily used<sup>17</sup> <u>T</u>the University Avenue Station is ranked second and the California Avenue Station is ranked eighth of the system's 32 stations in terms of ridership. There is also a "Stanford Special Events only Station" that serves the campus, primarily for large athletic events.
- Regional bus routes operated by <u>the</u> Santa Clara Valley Transportation Authority, <u>Dumbarton Express, AC Transit, with four routes in the area</u> and San Mateo County Transit (SamTrans), with eight routes in the areastop at the Palo Alto intermodal Transit <u>Center</u>, which is one--mile from Stanford's main guad.
- Marguerite is a free shuttle system operated by Stanford University and servesing both intra-campus routes and off-campus destinations such as the University Avenue and Cali-fornia Avenue Caltrain stations and downtown Palo Alto. According to Stanford, the Marguerite has 41 all-electric buses in its fleet (all equipped with bicycle racks), 19 routes, and has operated over two million miles. Prior to the pandemic in 2019, 2.74 million passengers rode the Marguerite. Stanford Transportation continued to offer service on 50% of its shuttle routes during the pandemic. Following the return to campus in fall of 2021, ridership steadily increased to nearly 640,000 passengers. Marguerite ridership is on track to double that number to 1.3 million passengers in 2022.

#### Roadways <u>& Networks</u>

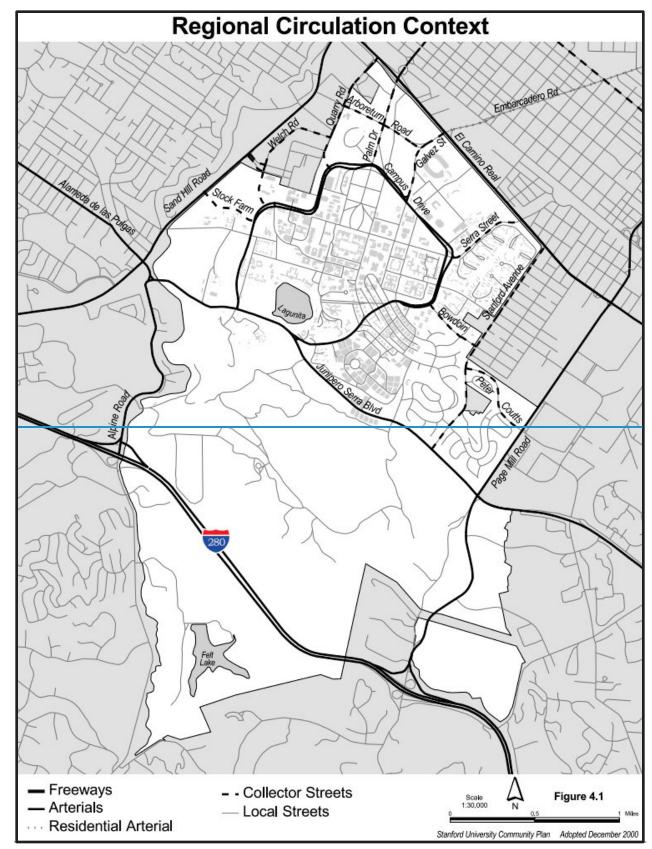
- Local and arterial street, bicycle, and pedestrian network<u>s are</u> maintained by surrounding cities<u>.</u>
- Interstate 280, US 101, and State Route 82 (El Camino Real) <u>are</u>main—tained by the California Depart—ment of Transportation (Caltrans)

#### Ride Share, Ride Hailing & Delivery Services

- Stanford students, employees, and visitors use ride share systems and ride share hailing services to travel to and from campus.
- •

•

 Delivery services deliver food, goods, and services to campus, when requested by Stanford students, employees, and visitors.



has been and will continue to be attributable to both Stanford and other traffic genera tors in Palo Alto, Menlo Park, and other surrounding jurisdictions.

#### **Traffic Congestion and Stanford University**

<u>Traffic congestion is of major concern throughout Santa Clara County. In addition to the</u> <u>inconvenience of traffic congestion, extensive use of single-occupant automobiles poses serious</u> <u>threats to the environment, requires extensive amounts of land to accommodate automobiles,</u> <u>and is expensive for both individuals and the public. The Stanford campus exists within an area</u> <u>with significant traffic generating destinations that has been and will continue to be attributable</u> <u>to both Stanford and other traffic generators in Palo Alto, Menlo Park, and other surrounding</u> <u>jurisdictions.</u>

<u>Several important campus access roads such as Embarcadero Road/Galvez Street, University</u> <u>Avenue/Palm Drive, Sand Hill Road, and Alpine Road carry significant amounts of traffic each</u> <u>day. The most heavily traveled roadway in the campus vicinity is El Camino Real (SR 82). The</u> <u>traffic throughout the area can be a significant problem for many of the residents and visitors.</u>

Stanford University has the potential to be a major contributor to traffic in the area. The currentIn 2016, the average daytime population of the campus, which includes students, faculty and staff on unincorporated lands, is-was approximately 21,00032,051 persons. The resident popu-lation of the campus is-was approximately 12,40015,338 (Source: 2018 General Use Permit Circulated Draft Environmental Impact Report/Stanford University Land Use and Environmental Planning Office, in consultation with the Stanford Office of Institutional Research and Decision Support).- of which eighty four percent are estimat -ed to also work or attend classes on the campus. This reduces the potential of campus residents to contribute to commute traffic (Community Plan/ General Use Permit Draft Environmental Impact Report). In addition, there are an estimated 24,000 people em-ployed on other portions of Stanford lands, including the Stanford Research Park, the Stanford Shopping Center, and the Stanford University Medical Center.

In the past, Stanford has been subject to special conditions on its General Use Permit that were meant to limit the impact of growth in the unincorporated portion of Stanford on traffic congestion. The 1989 General Use Permit contains a "no net new commute trips" goal as a condition of approval, which required increases in population to be off-set by increased TDM participation and additional on campus housing.Over the last decade, this goal has helped encourage Stanford to both add housing for over 1,200 new campus residents and to enhance a TDM system that today includes a free shuttle bus system, pay parking, car- and vanpool incentives and programs, and cash incentives. Stanford initiated many of these efforts without the additional incentive of the General Use Permit. In 1990, when the General Use Permit trip reduction requirement had been in place for less than one year, only 55% of Stanford students, faculty, and staff commuted alone to work compared to 78% of all the workers in Santa Clara County.

In addition to the University's contribution to routine commute hour congestion and VMT, the hosting of special events during non-peak hours contributes to both on- and off-site congestion. The University frequently uses its public safety personnel and others to direct traffic entering and leaving the campus during special events. This approach helps mitigate but does not avoid the congestion resulting from the large number of visitors who arrive and depart from the campus within a relatively short timeframe.

Traffic Monitoring ProgramA variety of mechanisms can be used to alleviate local congestion:

- Land use approaches, particularly location of places of work, residence, and ser vices in close proximity to one another, reduce the need for automobile use to meet basic daily needs. With sufficient intensity and combination of uses, non-auto trips are convenient and have a greater possibility of occurring than in a low-density, single use development pattern. A close integration of different uses can reduce the overall number of vehicle miles traveled on a regional level and the amount of time that individuals must spend commuting.
- Transportation Demand Management refers to the combination of incentives and programs used to make it possible and desirable for people to use alternatives to single-occupant vehicles during commute hours

Roadway system improvements, which include efforts such as intersection and street widening, are necessary for a functioning street system and can reduce con-gestion and associated social and environmental impacts in specific locations. This approach does not reduce automobile trips or vehicle miles traveled.

Using the data provided by the Stanford Traffic Monitoring Program, the strategies in this chapter aim to expand the existing program to reduce, to the extent possible, the negative traffic impacts on the surrounding communities produced by the desired new residential development's reverse commute trips. The Stanford Traffic Monitoring Program includes extensive data collection efforts including cordon counts, parking counts, parking ratios, cut through traffic percentages, and trip credits recorded on an annual basis since 2001.

In addition to the University's contribution to routine commute hour congestion, the hosting of special events during non-peak hours contributes to both on-and off site congestion. The University frequently uses its public safety personnel and others to di-rect traffic entering and leaving the campus during special events. This approach helps mitigate, but does not avoid the congestion resulting from the large number of visitors who arrive and depart from the campus within a relatively short timeframe.

The methodology for the annual traffic monitoring program pursuant to a major modification of the GUP to assess compliance with the no net new commute trips, peak periods and reverse commute trips performance standards, is as follows:

- 1. Continue use of the 2001 "Baseline" for the no net new commute trips one hour performance standard.
- 2. Establish the "Baseline" for the new performance standards.
- 3. Adjust all "Baselines" or thresholds to accommodate trips to and from housing built on Housing Element opportunity sites.
- 4. Annual Cordon Count.
- 5. Apply cut through trips and hospital parking adjustments.
- —<u>Apply</u>
- 6. Trip Credits.
- 7. Determination of meeting transportation performance standards.

# Strategies, Policies and Implementation

# Strategy #<u>No.</u>1: <u>Achieve "no net new commuter tripsAvoid worsening of</u> <u>traffic congestion</u> through land use and transportation demand management

Commute trip reduction concepts expressed in the 1989 General Use Permit have been adopted as a standard in this Community Plan, with direct measurement of commute trips rather than use of a formula to measure compliance. The standard of "no net new commute trips", as articulated in this plan, establishes a goal that there be no additional automobile trips over the calculated baseline in the peak commute direction during peak commute hours. This The "no net new commute trips" and "reverse trips" standards combined with a VMT-focused approach is are at the core of the transportation approach expressed in this plan, and is the basis of its policies and implementation recommenda- tions actions expressed in this plan.

Stanford proposes to add 2,200 students, faculty and staff through 2010 and to construct several thousand housing units for Stanford students, faculty and staff. This added population creates the potential to create additional traffic throughout the local area.

The concept behind "no net new commute trips" is that the added population should create no additional transportation impact in the commute direction during commute times.

Achievement of th<u>ese</u> standard<u>s</u> will require a comprehensive system that makes it pos–sible for individuals to meet their transportation needs without using a <u>carvehicle</u>. Such a system involves both land use solutions to bring a variety of uses together and thereby reduce the

number of activities that require <u>car-vehicle</u> use, as well as a range of alternative means of transportation that can meet a variety of needs. <u>Although the strategy is focused</u> on commute trip reduction, oOptions for those without cars will <u>also</u> need to be provided <u>at non-commute times as well</u> to make it possible for individuals to function throughout the day without their <u>carsvehicles</u>.

In the past the County has not required any single solution for commute trip reduction, but instead allowed Stanford the flexibility to achieve commute trip reduction within the overall goal. The monitoring system allowed for both land use and transportation demand management approaches. While the Community Plan calls for a more direct monitoring system than was used under the 1989 General Use Permit, it maintains the County's role of establishing the overall standard and allowing Stanford to use a variety of mechanisms as appropriate to meet the standard.

The County has provided Stanford considerable flexibility to achieve commute trip reduction within the overall goals. The monitoring system allowed for both land use and transportation demand management approaches, and it maintains the County's role of establishing the overall performance standards, while allowing Stanford to use a variety of mechanisms and innovate as appropriate to meet the standards.

## Land Use and Trip Reduction

An important land use pattern that supports non-auto transportation is the location of housing close to jobs and services. Stanford is a residential university with significant land holdings, allowing students and faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students to live in close proximity to one another and to the academic facilities on the campus.

Integration of academic, residential and supporting land use, and the concentration of uses in the central campus are strategies for supporting travel alternatives to the single occupant vehicle. One reason behind the Community Plan's emphasis on on-campus housing is the potential to reduce commute trips by locating more housing close to the University's jobs, classrooms and laboratories.

The existing concentration of uses in the central campus allows for a circulation system that is well integrated with the campus land use pattern, enhancing the ability of those on campus to use travel alternatives. Comprehensive pedestrian and bicycle circulation systems and transit services to, from, and throughout the campus contribute to the ease with which people are able to move about without an automobile (see Figure 4.2 – Pri-mary Pedestrian Pathways and Bikeways and Figure 4.3 – Local Transit Services).

While uses within the campus are well-concentrated, the campus as a whole is rela—tively isolated from many service destinations within the surrounding communities. This separation between the campus and the adjacent cities is partially by design. <u>T</u>-the Arboretum, which

separates Stanford from downtown Palo Alto, was an important component of Leland <u>and Jane</u> Stanford's original campus layout, in <u>collaboration with F.L. Olmsted</u>.

In other cases, the isolation results from the nature of the uses that border the campus, such as the Stanford Research Park and Stanford Shopping Center. These uses are important destinations, but they are relatively inaccessible to pedestrians and are not commonly used on a daily basis by campus residents.

<u>A</u>The Community Plan has identified housing sites in a reas which currently separate the developed portions of the campus, from Palo Alto; from a transportation standpointsuch as the <u>Quarry District</u>, development of these sites and which are conveniently located for both to onand off-campus activities, transit, and retail, and to transit services could be valuable.should be a high priority for new housing.

#### **Transportation Demand Management**

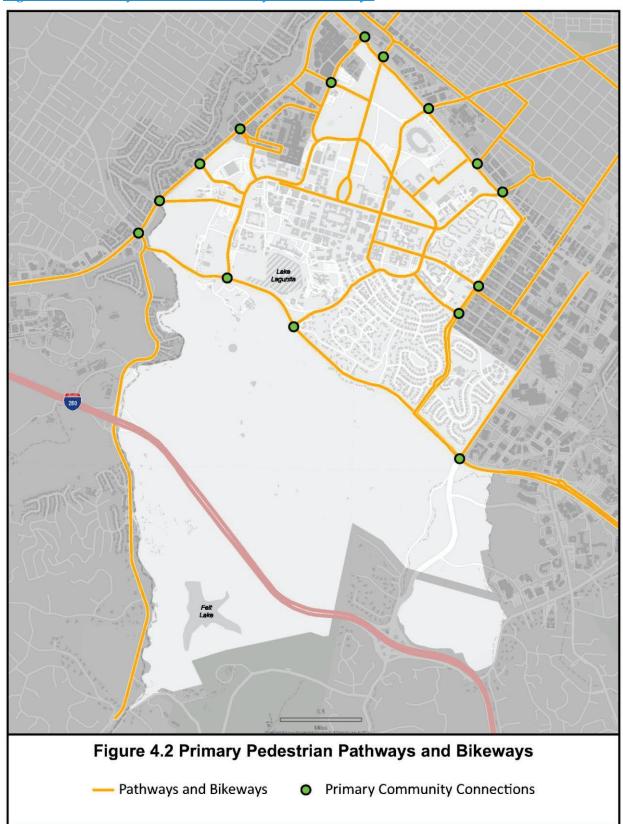
The range of transportation alternatives that can be provided by the private and public sectors to reduce congestion through peak hour trip reduction is collectively known as Transportation Demand Management (TDM). The Santa Clara County General Plan TDM goal calls for use of transportation modes other than the single occupant automo-bile by 2010, or an average vehicle ridership of 1.33. According to the 1990 Census, 78% According to the 2020 American Community Survey by the U.S. Census, 81.2% of all commute trips in the <u>C</u>eounty were made in single-occupant automobiles.

Because of the unique nature of the population, activities, and opportunities for mixed land uses on the campus, Stanford can and does achieve a much higher rate of alternative transportation mode use. Stanford's TDM program is the most extensive in the <u>C</u>eounty, and it includes services ranging from informational <u>pamphlets-website</u> to a free shuttle system running throughout the campus and to major off-campus destinations-(see sidebar).

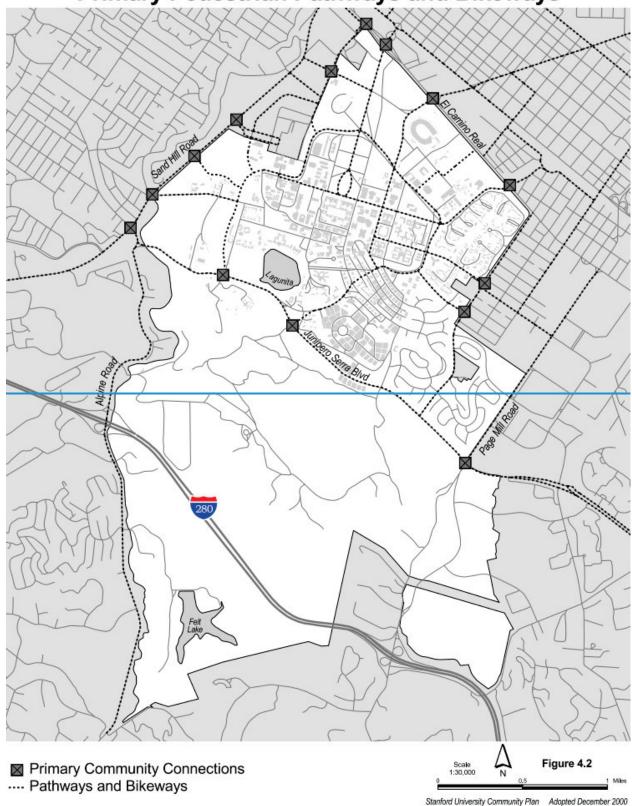
TDM at Stanford goes well beyond basic programs that make other transportation modes more available or easier to use; for example, Stanford is the only major employer in the northern portion of the County that charges employees for <u>parking, and parking and</u> has <u>recently</u> instituted a policy prohibiting a portion of campus residents (freshman students) from keeping cars on campus.

The current system under the General Use Per–mit <u>(GUP)</u> of maintaining a "performance standard" (i.e., no net new commute trips) without mandating specific TDM programs has allowed Stanford to modify its programs as the Univer–sity's needs change over time and as Stanford learns more about the effec–tiveness of individual measures.

Currently, state law restricts the County's ability to impose TDM requirements. It is the County's intent that the no net new commute trips standard be enforced to the fullest extent allowed by law.

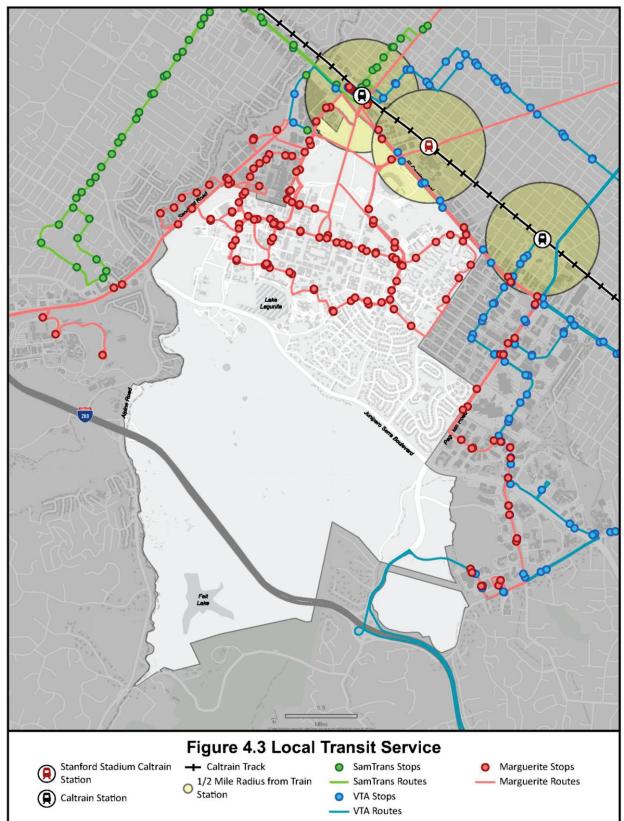


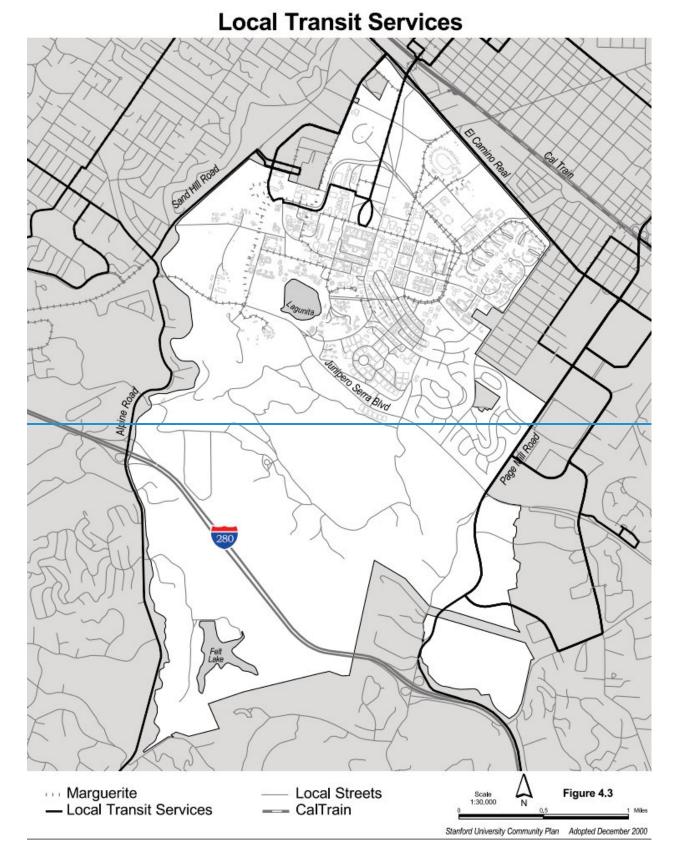




**Primary Pedestrian Pathways and Bikeways** 

# Figure 4.3- Local Transit Service





# Parking

Anecdotal evidence indicates that <u>s</u> ome transportation demand man–agement programs, particularly parking fees and shortages, can affect neighborhoods adjacent to the cam–pus through parking "spillover." However, oversupply of parking on the campus could undermine efforts to encourage alternative transporta–tion mode use. Any negative external impacts of individual transportation demand management strategies will need to be considered and balanced by the University and the County.

Parking is currently available on the Stanford campus at a ratio of 1.03 spaces per student, faculty and staff (including Medical School students and faculty), with a non-residential ratio of 0.52 spaces per student, facul-ty and staff. On street and residential parking serving faculty housing is not included in this total. Provision of on-campus housing can help reduce the need for additional commuter-orient—ed parking, as on-campus residents should not regularly need parking places in commuter lots. The Community Plan does not encourageseeks to moderate expansion of the current parking supply to a degree that would substan-tially change current parking ratios on the campus, particularly as the potential impacts of a limited parking supply can be addressed through other means (such as residential parking permit programs in neighborhoods near the campus).

Parking is distributed throughout the Stanford campus, with the exception of the pedestrian campus core. The campus includes parking structures and surface lots. Paid visitor parking is provided in most of the larger lots and structures. In the reporting period for Annual Report No. 21, changes in parking resulted in an estimated net increase of 1,716 parking spaces on the campus for a total cumulative increase since September 1, 2000 of 580 spaces. Changes in parking occurred in the Campus Center, West Campus, Quarry DAPER, and East Campus.

While there have been new parking structures constructed under the 2000 General Use Permit (GUP), they have largely replaced other parking facilities on campus. Stanford has replaced surface parking in the campus core with structures outside the campus core, with the goal of removing vehicles from the pedestrian areas of campus and maximizing opportunities for infill development.

#### **Current Stanford Transportation Demand Management (TDM) Programs**

The following list summarizes programs that are current TDM strategies applied by the <u>university</u>:

#### Marguerite Shuttle System

- Free local shuttle bus system
- 41 battery-electric and 8 diesel (backup) buses in a 19-route system
- Service to <u>two-University Avenue and Stanford</u> train stations <u>(Stanford Station</u> <u>used for special events</u>), El Camino bus stops, Palo Alto and Menlo Park shopping districts, as well as on-campu<u>st</u> travel
- Weeknight and weekend service

## Carpool/Vanpools

- Full-time Stanford Employee Transportation Coordinator
- Preferential and reduced-rate parking for carpools
- Over 500 separate carpools
- Vanpools to San Francisco, <u>Fremont, San Jose, San Ramon, Berkeley, Oakland</u>, Santa Cruz, <u>Morgan Hill, Manteca, Fairfield</u>, and <u>Modesto stops along those corridors</u>

**Bicycle Support**<u>\$650,000 in bicycle capital improvements for new bike racks, commuter bike enclosures, bike paths, and clothes lockers over the past five years</u>

- Secure bicycle parking and clothes lockers
- Bike maintenance facilities, safety classes, discounted equipment

#### **On-Campus "Transportation Store"**

- Sales outlet for Cal<sup>+</sup>train, VTA, and Sam–Trans tickets and passes
- 1,700 transit passes sold annually
- Transit schedules for all major public transit systems
- Promotion of TDM programs

#### Parking Demand ManagementPrograms

- Parking fees imposed
- Participants in the "Clean Air Cash" pro-gram receive cash for not purchasing a park-ing permit
- Freshman prohibited from having vehicles
- Parking restrictions

#### **Guaranteed Ride Home Program**

- <u>"Safety net"</u> for emergencies
- —Provides free taxi ridesrideshare or car rentals
- \_

**Looking Ahead - Options Under Consider- ation** 

- Increased Marguerite frequencies and ex panded services off campus
- Universal Transit Pass
- Satellite/remote parking with shuttle connec- tions to campus

Car sharing program

## Vehicle Rentals/Car Sharing

• Short- or long-term rental discounts are offered for Stanford affiliates

# Eco Pass/Go Pass

- Free Caltrain Go Passes to eligible hospital and University employees as well as postdocs and graduate students.
- The Go Pass allows unlimited travel on Caltrain between all zones.
- Free VTA Smart Passes offered to eligible hospital and University employees. The Smart Pass allows unlimited travel on VTA buses and light rail.
- Free AC Transit Easy Passes allows unlimited travel on AC Transit lines for East Bay residents.

## **Education and Information Programs**

• Provides education and information designed to encourage use of alternative transportation modes.

## **Charter Bus Services**

• <u>Charter bus services for large groups offered for on or off campus destinations, at a</u> <u>low cost to the campus community</u>

## **Off-Campus Trip Reduction Efforts**

Recognizing the extreme challenge for Stanford to meet the "no net new commute trips" standard in the future, the Community Plan provides an additional mechanism for trip reduction efforts by the University through policies and implementation pro–grams that recognize Stanford's future participation in trip reduction efforts that occur in other jurisdictions. For Eexamples, of such efforts might include a park and ride facility at the western end of the Dumbarton Bridge developed in cooperation with the Cities of Palo Alto and East Palo Alto that could help reduce traffic along the University Avenue corridor, or a comprehensive trip reduction program for the Stanford Research Park operated in conjunction with the City of Palo Alto and the Research Park leaseholders and employers.

The Community Plan provides the <u>opportunity mechanism</u> for the County <u>Planning Office</u> to rec–ognize Stanford's participation in such effort as an appropriate credit toward the "no net new commute trips" standard. The Plan provides for such recognition because:

- Stanford's current rate of alternative transportation mode use is high, and addi-tional efforts may prove to have reached the point of "diminishing returns" with regard to their effectiveness. In contrast, other workers in the region may prove to be more receptive to TDM programs because there are fewer programs now avail-able to them.
- Both Stanford's resources and the resources of neighboring cities may be more

effectively leveraged in combination with one another than if they are devoted to independent and potentially competingseparate programs.

- •
- Cooperative measures that address traffic on streets around the campus may be of as much or more benefit to surrounding communities than measures directed only at Stanford residents and employees.

The County Planning Office will need to carefully monitor Stanford's participation and the effectiveness of such programs, and may choose to grant Stanford commute trip credit towards achievement of the "no net new commute trips" standard for such ef–forts.

# Policies

# SCP-C 1

Apply a "no net new commute trips" <u>performance</u> standard for campus-related trips in the <u>peak</u> commute <u>and "reverse commute"</u> direction<u>s</u>, during <u>the morning and evening</u> peak hours <u>and the "3-hour peak periods"</u> to the fullest extent <u>feasible and allowed by lawallowed by law</u>.

# <u>SCP-C 2</u>

To encourage addition of transit-oriented housing, accommodate trips to and from housing built on opportunity sites identified in the Housing Element when calculating the "no net new commute trips" and "reverse trips" performance standards.

# SCP-C <u>3</u>2

Within the overall pattern of land uses on the campus, promote a development pattern that supports rReducetion in automobile dependency and greenhouse gas emissions through the following a reduction of Vehicle Miles Traveled (VMT)-focused approach which includes land uses and street system designs that support reduced vehicle usees.

New academic and residential development shall occur within the Academic Growth Boundary. Support services for campus residents and employees should be accommodated in close proximity to residential and academic facilities.

New development should be located near existing transit services, particularly if extension of transit service to the new facilities would otherwise be infeasible or impractical.

# SCP-C <u>4</u>3

Encourage addition of housing <u>consistent with housing policies</u> in locations convenient to <u>transit</u>, jobs <del>on</del>-within the Community Plan area and contiguous</del> Stanford land in other jurisdictions (<u>Fi.e., Palo Alto</u>) in order to reduce the need for vehicular trips.<del>, such as near the Stanford Medical Center.</del>

# SCP-C <u>5</u>4

Enhance pedestrian and bicycle <u>access\_networks and safe routes to school</u> to and through the campus.

# SCP-C 65

Permit-Support and encourage regular modification of Stanford's Transportation Demand Management (TDM) program to allow for changes in user needs and in available services over time.

# SCP-C 76

Continue to regulate parking supply as a mechanism for transportation demand man-agement, while avoiding "spillover" of parking into neighborhoods adjacent to the campus. Over time, require Stanford to maintain a consistent level of parking in pro-portion to students, faculty and staff, as compared to the current ratio of 1.03 spaces per student, faculty and staff member. Regulate parking supply as a mechanism for transportation demand management to encourage non-automobile trips, while avoiding spillover of parking into neighborhoods near the campus.

# SCP-C <u>8</u>7

<u>In addition to meeting the no net new commute trips performance standard, In addition to</u> meeting the no net new commute trips standard, encourage Stanford to reduce-<u>minimize</u> automobile travel at non-commute <u>hours-times</u> and in non-commute directions, such as traffic associated with lunchtime activities by employees or travel by families of on-campus residents.

# SCP-C <u>9</u>8

Credit Maintain theparticipation trip credit system for verified or modeled vehicle trip reduction projects and programs that improve in-off-campus motor vehicle trip reduction completed or funded by Stanford within geographic area impacted by Stanford-related traffic. efforts that benefit the streets sur-rounding the campus towards Stanford's achievement of the "no net new commute trips" standard.

# **SCP-C 10**

Encourage Stanford to provide appropriate supporting services, such as childcare and convenience retail, in new and existing residential areas or neighborhoods in order to reduce the need for vehicular travel.

# **SCP-C** 11

Encourage broader access to Transportation Demand Management (TDM) programs for all Stanford campus workers, users, and visitors.

# <u>SCP-C 12</u>

Encourage Stanford to maintain public access through campus to support the existing connections of the street system (i.e. Campus Drive, Quarry Road, Palm Drive, Galvez Street, Serra Street, and Stock Farm Road) with the surrounding off-campus areas to facilitate efficient and dispersed traffic patterns.

# <u>SCP-C 13</u>

Encourage Stanford to coordinate with Transportation Network Companies (TNCs) to adjust their geolocation technology with the aim to direct passengers originating trips from on campus to meet their drivers at designated loading zones.

# **SCP-C** 14

Encourage Stanford to explore integrated digital platforms for transportation services which would allow users to consume multiple aspects of transportation services through a single platform.

# <u>SCP-C 15</u>

Encourage non-single occupant vehicle (SOV) travel by subsidizing the cost of carpooling, vanpooling, and transit for first/last mile trips.

Implementation RecommendationsMeasures

# SCP-C\_-(i) 1

Adopt and maintain zoning regulations that <u>support the reduction of automobile dependency</u> <u>and greenhouse gas emissions</u>. <del>allow for a mix of land uses in academic and residential areas in</del> order to reduce the need for automobile use on and off the cam- pus.</del>

# SCP-C\_-(i) 2

Locate supporting services such as <u>day-child</u>care and convenience retail in new and existing graduate student and faculty <u>and-I</u> staff residential neighborhoods <u>in order to reduce the need</u> <u>for vehicular travel.</u>

<u>. Particularly rR</u>eview for provision of support services in applications for substantial new residential develop—ment\_for provision of supporting services to determine if additional supporting services are needed.</u>

## SCP-C\_-(i) 3

Review development project applications for access to and integration with the over-all system of pedestrian bikeways and pathways <u>both on and off campus</u> on the Stanford campus. Particularly consider this issue for development <del>along the Quarry Road corridor</del> with regard to enhancement of pedestrian access to the Palo Alto <u>Intermodal</u> Transit Center, <u>Stanford Special</u> <u>Event Station, California Avenue Station and El Camino Real</u>.

## SCP-C\_-(i) 4

Establish a system for direct, independent, and verifiable monitoring of Stanford's level of achievement with the "no net new commute trips," <u>"3-hour peak period trips," "reverse trips," and VMT performance standards</u> through the annual monitoring procedure. <u>Specific thresholds shall be determined at time of General Use Permit (GUP) approval or modification. For any housing built on opportunity sites identified in the Housing Element, trip thresholds shall be adjusted to allow an increase in trips equal to the number of affordable units multiplied by the trip rates for Multifamily Housing (Mid-Rise) Close to Rail Transit (221), as identified in the Institute of Transportation Engineers' *Trip Generation Manual*, 11<sup>th</sup> edition, or successor editions.</u>

#### SCP-C\_-(i) 5

Review the Transportation Demand Management system on an annual basis and con–sult with Stanford, and adjacent communities as appropriate, to ensure that new needs or opportunities are considered. Incorporate the following considerations into the review process:

- TDM strategies <u>shall be primarily aimed at should serve to reducinge</u> the number of cars entering the campus during the morning peak hour<u>s</u> and leaving during the evening peak hour<u>s and reducinge VMT to meet reduction levels determined at time of General</u> <u>Use Permit (GUP) approval or major modification.</u>
- Programs serving intra-campus or off-peak travel should shall be primarily aimed at making it possible for employees and residents to conduct their daily activities without a car.

# SCP-C\_-(i) 6

Encourage Stanford to identify opportunities and develop proposals for participation in offcampus trip reduction efforts <u>by public agencies and other private entities</u>. Assess the expected effectiveness of the proposed programs, and a<u>Apply verified or modeled</u> trip reduction credits to the annual calculation of Stanford's com–pliance with the "no net new commute trips<u></u>" <u>"reverse trips" and/or VMT performance</u> standard<u>s</u>, as appropriate.

#### **SCP-C (i)** 7

<u>Promote a development pattern that reduces automobile dependency and greenhouse gas</u> <u>emissions through the following approaches:</u>

- New academic and on-campus residential development shall occur within the Academic Growth Boundary (AGB).
- Encourage location of new development near existing transit services, particularly if extension of transit service to the new facilities would otherwise be infeasible or impractical.

## **SCP-C (i) 8**

Enhance safe and efficient pedestrian and bicycle access through the campus, incorporating "complete streets" design principles that support their use, including wide bike lanes and sidewalks, bicycle facilities, bike circles, roundabouts, marked crosswalks, crossing opportunities, buffer from vehicle traffic, median islands, streetscape, bus stops, tree shading, landscape treatments, appropriate rest stops, signage, wayfinding, and routes that connect different land uses (academic, residential, supportive commercial), and facilitate mobility on and off campus.

#### **SCP-C (i) 9**

Plan, design, and implement pedestrian and bicycle paths that provide safe routes to schools, incorporating design principles and routes that connect residences to existing and designated school sites.

#### **SCP-C (i) 10**

Support the facilitation of delivery services by providing areas in centralized locations for receipt of deliveries that offer one of the following: clothes lockers for delivery services, temporary storage for package deliveries, and/or other delivery supportive measures as proposed that may reduce VMT by reducing the number of trips that may otherwise have been by delivery vehicles.

# Strategy #<u>No.</u>2: Alleviate local congestion\_-<u>in and around the</u> <u>Community Plan Area</u>in the context of commute trip reduction.

The Community Plan emphasizes on-campus housing and commute trip reduction as mechanisms to <u>lower VMT and</u> alleviate the potential effects of development at Stanford on the local street system. These approaches are meant to reduce congestion at a regional level, by making it possible for more Stanford students and employees to live within walking or biking distance of their place of work, and to reduce Stanford's contribution to peak traffic levels.

However, growth which occurs under the Community Plan will still affect the local street system. The addition of residents and employees to the campus community will increase the number of people in the area, creating more potential for congestion due to non-commute related trips. Spouses of Stanford affiliated campus residents commute away from the campus to reach their workplaces. Household members of Stanford-affiliated campus residents likely commute away from the campus to reach their workplaces and other non-work-related household trips. Special events at the campus during evenings and weekends have created, and will likely continue to create, traffic conges—tion on streets that access the campus.

While the increased traffic resulting from these activities does not outweigh the benefits of oncampus housing and commute trip reduction, the potential for this added traffic to inconvenience local residents needs to be considered and addressed accordingly. Current General Plan policies indicate that where local level of service impacts are unavoidable, particularly at locations that already have a poor level of service, making system-wide <u>multimodal</u> improvements (such as transit enhancements) that provide regional ben-efits is an appropriate response.

However, in some situations, street system alterations such as widening roads or adding dedicated turning lanes at intersections may also be needed. In many locations surrounding the campus, such alterations may either be in–feasible or undesirable. This Community Plan recognizes that the County cannot by law require Stanford to implement TDM programs. Therefore, intersection improvements may be needed if Stanford is unable or unwilling to achieve the goal.

#### **Congestion Management**

The balance between land use and congestion is coordinated through the Congestion Management Program of the Santa Clara Valley Transportation Authority (VTA). The Congestion Management Program (CMP) works to maintain service levels on a desig—nated network of roadways in the <u>C</u>eounty. The CMP recognizes the potential for devel—opment in congested areas to create traffic that exceeds service level standards, particu—larly in locations that are highly accessible to transit, and therefore, desirable for higher density development, and sets direction for land use planning in these areas to focus on expanded capabilities for alternative transportation modes.

Following the direction set by the VTA, the County General Plan emphasizes the con–cept of transportation demand management (TDM) and the tradeoffs between local and re–gional congestion (see Circulation chapter of the Santa Clara County General Plan). As a goal, the General Plan calls for 35% of all trips to occur in ways other than the single–occupant automobile. Stanford has far exceeded this goal for many years. The "no net new commute trips" standard is a much more stringent approach that reflects the unique opportunities for trip reduction on the campus.

## System Capacity Expansion

Local congestion can be reduced in two primary ways: <u>1</u>) reducing the number of cars, or <u>2</u>) expanding a street or intersection to allow more cars to pass through it more easily. Although the County's preferred approach at Stanford is to pursue trip reduction, there are some situations where system expansion may be needed <u>in order</u> to alleviate "bot–tlenecks" that would indicate system problems and contribute unduly to the social and environmental costs of traffic congestion.

In the Stanford area, traffic can be attributed partially to <u>UniversityUniversity</u> activities and partially to other traffic generators, both on and off Stanford-owned land. When system expansions are needed, <u>Stanford's growth and traffic impact shall be considered, and</u> Stanford's responsibility for contributing to the cost of the projects <u>should be proportional to its impact</u>. needs to be considered.

When considering the need for changes to individual intersections as a strategy for reducing congestion, the standards of the appropriate local jurisdiction with regard to acceptable levels of congestion and the point at which the contribution of Stanford's traffic will be significant are applicable.

At Stanford, the <u>"no net new commute trips"</u><u>transportation performances</u> standard<u>s</u> <del>should be</del> <u>adequateare designed</u> to reduce the effects of growth at Stanford from impacting the transportation network. <u>However, localized congestion may occur at specific locations as land</u> <u>uses and daily activities change over time.</u>

Expan-sion of system-roadway capacity that involves modification of intersections is in most cases considered a mechanism when only done in combination with improving transit, bicycle, and pedestrian facilities to facilitate non-auto trip making. Stanford's participation in the trip credit program can assist in providing partial or full funding for these types of street improvements. Trip credits would be proportionate to the amount of funding provided by the University. to mitigate traffic impacts if Stanford is unable or unwilling to achieve the "no net new commute trips" standard.

The following policies and implementation recommendations emphasize a set of priori—ties for consideration when considering roadway modifications:

- **Maintain the street hierarchy**. Efforts to increase through traffic capacity should be focused on appropriate streets that serve as important intra-campus or off-campus linkages.
- Use the internal campus street system. As much as possible, the internal campus street system, rather than roads bordering on areas outside the central campus should be used. The campus road system should be maintained and upgraded as needed to accommodate appropriate trips.
- **Recognize surrounding land uses**. Streets should be designed and operated in a manner consistent with the types of development they serve. This issue has been of particular concern to campus residents directly on Junipero Serra Boulevard.
- **Consider jurisdictional priorities**. Different jurisdictions affected by Stanford traf–fic have different priorities for street expansion. Coordination between the County, Stanford, and the appropriate jurisdiction is needed to determine the most appro–priate strategy for addressing the congestion.
- Maintain a proportional approach. Stanford should be responsible for its fair share of necessary expansion of off-campus roads and intersections <u>based on the trip credit</u> <u>program and guidelines.</u>-
- Think beyond cars. Modifications, and system, and network improvements for transit, walking and bicycles can complement Stanford's on-campus transportation demand man–agement efforts in reducing trips and congestion. Look to invest in completing local and regional transit, bicycle, and pedestrian networks along routes to, from, and through the campus.

# Policies

#### SCP-C <u>16</u>9

<u>Where feasible and consistent with other Community Plan policies</u>, <u>Mm</u>aintain consistency with the procedures and adopted policies of the appropriate juris–diction when evaluating <u>off-</u> <u>campus</u> local intersection service levels and defining mechanisms for addressing impacts.

# SCP-C <u>17</u>10

Modify street and intersection capacity and configuration in a manner <u>that prioritizes and</u> <u>improves access and circulation for pedestrians, transit, and bicycles instead of or in addition to</u> <u>system expansions that prioritize or encourage automobiles</u>, consistent with <del>the street hierarchy</del> <del>and surrounding land uses</del>.

## SCP-C <u>18</u>11

Prioritize use and improvement of the internal campus <u>multi-modal</u> circulation system over road—ways on the campus edges.

#### SCP-C 1912

Consult with jurisdictions surrounding the campus regarding the potential non-com-mute traffic impacts of new development and activities at Stanford, and work with the jurisdictions to reduce potential effects on neighborhoods surrounding the campus.

#### SCP-C-13

Identify opportunities to improve access and circulation for pedestrians, transit and bicycles instead of or in addition to system expansions that accommodate automobiles.

#### <u>SCP-C 20</u>

Expand the trip credit area to include areas that experience campus related traffic including, but not limited to, the Belle Haven and Bayfront areas in Menlo Park and East Palo Alto that experience Stanford related commute traffic.

## Implementation RecommendationsMeasures

#### SCP-C\_-(i) <u>118</u>

Require street system network and design expansions improvements on the campus that will ease traffic flow and internal circulation, particularly in situations where such capacity expansion would make on- campus routes preferable to off-campus roadways.

## SCP-C\_-(i) 129

If Stanford does not meet the "no net new commute trips," <u>"3-hour peak period trips,"</u> <u>"reverse trips," or VMT goalperformance standards</u> for new development on campus <u>over any</u> <u>two years out of a consecutive three-year period</u>, require Stanford to:

- Plan and fund verifiable or modeled offsetting transportation trip credits as approved by the County; 's contribution toward intersection improvements at im-pacted locations-or
- 2) Provide equivalent funding toward other transportation impact mitigation efforts in consultation with VTA and the City of Palo Alto, or other agencies within the "cordon credit area,", to a degree proportional to the effect of the new development on future traffic levelsnumber of trips over the identified trip thresholds, as verified by the County.
- 3) If Stanford does not fully offset its performance standard exceedances through items 1) and 2), the County shall not approve any additional development permits until Stanford fully offsets its exceedances.
- 4) If Stanford and the County enter into a compliance agreement pursuant to which Stanford agrees to fully offset all of its exceedances no later than two years after the exceedances occurred, the County may exercise its discretion to approve additional development permits during the two-year compliance period.

If Stanford does not either meet the no net new commute trips goal or contrib- ute proportional funding toward intersection improvements or equivalent funding for transportation mitigation efforts, do not grant additional development permits until Stanford meets the established requirements.

#### **SCP-C (i) 10**

Negotiate renewal of agreements with the City of Palo Alto for the management of traffic associated with special events.

#### SCP-C\_-(i) 1311

Cooperate with the Congestion Management Agency, which for the County of Santa Clara is the Valley Transportation Authority (VTA), in implementing deficiency plans, where needed, for Congestion Management Program system roadways and intersec—tions in proximity to the Stanford campus.

## SCP-C\_-(i) 1412

Consider redesign of <u>Continue to improve</u> Junipero Serra Boulevard in order to reduce speeding, enhance bicycle, pedestrian and motorist safety, <u>recognize address</u> the needs of residents taking access from the street, improve migration opportunities for the California tiger salamander, and maintain the scenic character of the roadway<del>, without substantially affecting</del> traf\_fic volumes. Pursue redesign through cooperative efforts among the County, Stanford University, and local residents, as well as other agencies as appropriate.

#### SCP-C\_-(i) 1513

Work-The County and Stanford shall cooperatively work with surrounding jurisdictions and <u>VTA</u> to develop solutions to regional transportation problems.

# Strategy #<u>No.</u>3: Alleviate local congestion from special events.

Stanford hosts a variety of special events. While generally not held during peak com-mute hours, these events draw large numbers of visitors to campus. Because these visi-tors tend to arrive in a compressed timeframe, they often overwhelm the local transpor-tation infrastructure. The Community Plan addresses these impacts with the following policies and implementation recommendations.

**Policies** 

# **Policies**

#### SCP-C <u>21</u>14

<u>Stanford will i</u>Identify opportunities <u>with Valley Transportation Authority (VTA) and Caltrain</u> to promote the use of public transit<u>and Stanford shuttle service</u> for special events at Stanford.

#### SCP-C 2215

<u>Stanford will w</u>Work with neighboring jurisdictions to manage special event traffic.

## SCP-C 2316

<u>Stanford will p</u>Provide advance notification of events expected to draw large crowds to oncampus residents and the surrounding community.

## SCP-C 2417

<u>Stanford will c</u>Consult with jurisdictions surrounding the campus regarding the potential noncom–mute traffic impacts of <u>new development and activitiesspecial events</u> at Stanford, and work with the jurisdictions to reduce potential effects on neighborhoods surrounding the campus.

# Implementation RecommendationsMeasures

# SCP-C\_-(i) <u>16</u>14

Require Stanford to institute <u>communication mechanisms for a</u>-special events <u>(social media,</u> hotline, and website) that on-campus resi-dents and the general public can <u>contact access</u> for information regarding upcoming special events <u>and available public transit and Stanford</u> <u>shuttle transportation options</u>.

#### SCP-C\_-(i) 1715

Require Stanford to provide the public with notice of special events <u>that meet or exceed 8,500</u> <u>persons</u> in <u>two</u> newspapers of local circulation in the Palo Alto and Menlo Park area <u>and on</u> <u>prominent social media channels at least 10 days prior to the event</u>. For special events that meet <u>or exceed 5,000 persons</u>, Stanford will institute a list serve for interested parties that wish to be <u>notified of such events</u>.

# SCP-C\_-(i) <u>18</u>16

<u>Stanford shall comply with all requirements of the County and nearby cities for the</u> <u>management of traffic and parking associated with special events.</u> Negotiate renewal of agreements with the City of Palo Alto for the management of traffic associated with special events.

# <u>SCP-C -(i) 19</u>

Require Stanford to coordinate the management of traffic and parking associated with special events with surrounding jurisdictions based on a Special Event Management Plan, which includes traffic and parking, reviewed and approved by the County.

# **Open Space**

# **Chapter Summary**

Open <u>land-Space</u> is a defining feature of Santa Clara County, and a resource that is becoming increasingly valued with the expansion and intensification of urban areas. At Stanford, formal open <u>lands space</u> and natural open spaces define the visual character of the campus and frame the academic core. Open spaces, particularly the foothills south of Junipero Serra Boulevard, are visible almost everywhere on the campus and from many locations in surrounding communities.

Preservation of open space and the natural character of undeveloped lands is a prominent goal of the Santa Clara County General Plan policies. The Academic Growth Boundary <u>(AGB)</u> will serve to define lands which are to be retained as open areas from those areas which should be targeted for future development. The strategies, policies and implementation recommendations <u>measures</u> in this chapter create a framework for open space protection based on a differentiation of open lands according to their location within or outside the AGB:

- Outside the AGB, land is to remain undeveloped except for uses associated with research activities that require a remote or foothill setting for their functioning. Recreational use of the areas outside the AGB is promoted through dedication of trails consistent with the Countywide Trails Master Plan.
- Future development should be targeted to areas inside the AGB. While some areas inside the AGB that are currently undeveloped are-yet suitable for future development, others are to be preserved as important elements in the campus layout, as campus open space, biological resource areas, or as recreational resources. On the whole, a balance between development, open space, and recreational facilities will-need to be achieved.

This Community Plan <u>seeks establishes</u> ways to maintain <u>these the</u> open lands in a manner consistent with both County goals and policies and Stanford's interests as a private property own-er. To that end, this chapter incorporates land use strategies that preserve the character of these lands and conservation of all <u>of theirStanford</u> resources into the future, while retaining them under <u>U</u>university ownership.

Chapter 5 Open Space

Strategies for open space preservation include:

- Strategy #<u>No.</u> 1: Locate additional development inside the Academic\_-Growth\_-Boundary
- Strategy #<u>No.</u> 2: Balance recreational use and environmental objectives
- Strategy #<u>No.</u> 3: Plan for parks and open space land within the Academic Growth
- Boundary

# Background

Open space at Stanford performs a multitude of functions beneficial to both the University and the community at large, including:

- preservation of natural habitats,
- protection of sensitive species of animals and plants,
- protection of watersheds and flood control,
- preventing development in hazard areas,
- preservation of scenic vistas,
- provision of respite areas and recreational opportunities, and
- buffers to define urban form.

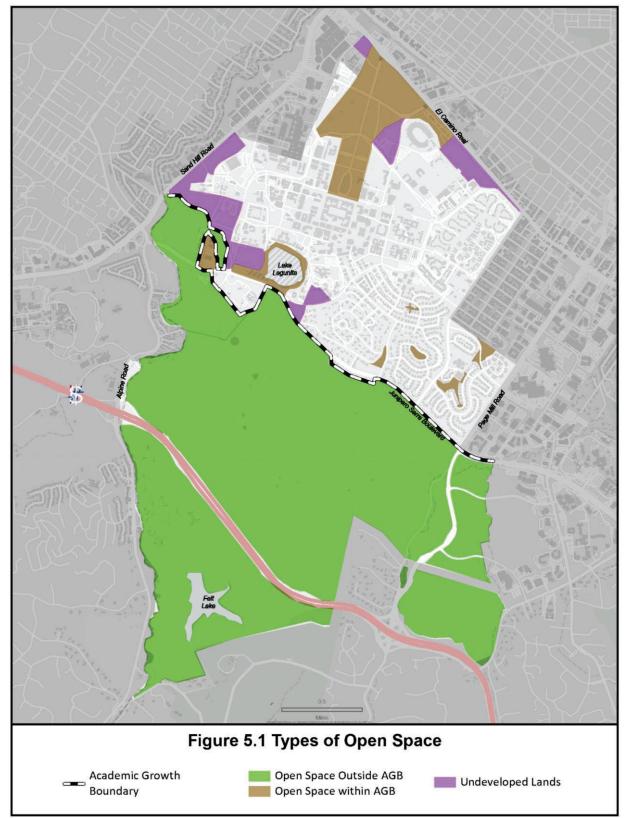
At Stanford, open space serves the additional purposes of supporting teaching and research<sub>z</sub> and <u>while</u> preserving the beauty and character of the campus.

#### **Types of Open Space**

The concept of "open space" applies to several types of land that serve a variety of purposes. At Stanford, open lands are located in both relatively flat areas within and bordering the central campus and in the foothills south of Junipero Serra Boulevard. Lands outside the Academic Growth Boundary (AGB) are to remain undeveloped except for field research purposes.

Within the AGB, some undeveloped lands are intended and targeted for future development, while others are meant to remain as open space that helps define the built university and is a key element in the campus design (see **Figure 5.1 – Types of Open Spaces**).

# **Figure 5.1 – Types of Open Spaces**





# **Open Space Outside the Academic Growth Boundary**

# **Current Use and Setting**

Stanford's lands outside the Academic Growth Boundary <u>(AGB)</u> consist of undeveloped lands known as "the foothills," comprising approximately half of the Community Plan area and two-thirds of the University's total 8,180 acres. The future of these lands has been an issue of ongoing concern for both Stanford and the community.

These lands, which extend southwest of Junipero Serra Boulevard across I-280 and into San Mateo County, are comprised of grasslands, oak woodlands, and riparian areas.

The area is largely undeveloped and used for low-intensity research agricultural leases, and recreation. It is also home to utility installations and the eighteen-hole Stanford Golf Course. The Stanford Linear Accelerator Center and the 1,200-acre Jasper Ridge Biological Preserve are in San Mateo County.

Past land use policies for the foothills have included a General Plan designation of Academic Reserve and Open Space (which limits allowable uses to low-intensity activities in keeping with the character of the land). In addition, all land south of Junipero Serra Boulevard was included in Special Condition Area C under the 1989 General Use Per-mit, which required individual use permits for development in this area.

Other jurisdictions with Stanford lands have established land use policies for undeveloped Stanford foothill lands. Most of the undeveloped land in San Mateo County is designated Institutional/General Open Space/Future Study in the San Mateo County General Plan.

The City of Palo Alto maintains three scenic easements on a portion of Coyote Hill in the Stanford Research Park<sub>2</sub> south of Foothill Avenue. <u>One-Two</u> easement<u>s will</u> expired in 2002 and 2010, while the others third one hasve an expiration dates of 2010 and 2041 and are is automatically extended by a year each January 1<sup>st</sup> unless the University gives the City notice of non-renewal.

By providing undeveloped settings for research and teaching, foothill open space at Stanford directly supports specific academic programs. Astrophysics, conservation biology, civil and environmental engineering and art are examples of academic programs directly supported by opportunities provided by open space in the foothills.

**Competing Concerns and Priorities: Open Space Protection and Recreational Use** The Stanford foothills are recognized throughout the Midpeninsula as a valuable open space resource. However, the potential for future development of these lands has been a contentious issue for several decades. Stanford's internal policies call for the maintenance of land for <u>possible</u> future academic use.

On the regional level, the Stanford foothills are a functional component of the open space system that forms a visual and environmental backdrop for northern Santa Clara County. A combination of <u>C</u>eounty and city parks, publicly-owned watersheds, and preserves owned by the Midpeninsula Regional Open Space District north and south of Stanford lands create a chain of open space along the ridges of the Santa Cruz Mountains. Conversely, Stanford's immediate surroundings in the foothills include land which is primarily in residential use in Los Altos, Los Altos Hills, Palo Alto, Portola Valley, and Menlo Park, making the Stanford foothills a rare example of open space adjacent to the urbanized area. The extensive development that has occurred in these jurisdictions has caused many of these neighbors to place a high value on guarantees for long-term or permanent protection of the Stanford foothills.

Recreational use of Stanford land is enjoyed by residents of the Stanford campus and neighboring communities. The close proximity of the Stanford foothills to the developed areas of the Midpeninsula make it a popular destination. Use of these lands is allowed by permission of the University. Recreational use of the foothills raises several associated issues:

- While the foothills are a popular recreation destination and used in the manner of a park by many visitors, they are not publicly owned or operated. Stanford does not provide the amenities that are normally associated with public trails and does not patrol the area to prevent visitors from leaving designated trails or manage the land as a recreation area. As a result, recreational use may contribute to trail and environmental degradation.
- Trail user parking is a particular concern to residents of the neighboring faculty-L/staff subdivision. As a result, Stanford instituted a residential parking permit program in this neighborhood, and trail users have been parking along Stanford Avenue, which is a County-maintained road. As a result of continued resident concerns, the speed limit has been reduced and the County has modified the road to manage parking and reduce erosion, but has continued to allow public parking along portions of the street.
- Visitor access to environmentally sensitive areas, particularly riparian areas which are home to special status species, has the potential to result in degradation of habitat and direct impacts on animals, as well as adverse effects on research, education, and restoration efforts.

Maintaining natural resources in the foothills will require achievement of a balance between

environmental protection and access to open space.

# Open Space within the Academic Growth Boundary

#### **Current Use and Setting**

Inside the A<u>cademic</u> <u>Growth</u> <u>Boundary (AGB</u>), open spaces and undeveloped areas serve a variety of purposes:

- <u>Campus-defining open space</u>. Open spaces help define the form of the main cam–pus. Major on-campus open spaces include the Oval, Palm Drive, the Arboretum, and Lake Lagunita. Several of these spaces serve additional purposes, such as storm water detention in the Arboretum and California tiger salamander habitat in Lake Lagunita.
- <u>Undeveloped central campus land</u>. Undeveloped tracts of varying size remain north of Junipero Serra Boulevard, primarily on the west side of the campus and in the faculty<u>/staff</u> subdivision. Some of these areas are planned for future residential development, while others could provide opportunities for new academic buildings.
- <u>Athletic fields</u>. Stanford maintains extensive athletic facilities, including playing fields located primarily in two areas (near El Camino Real and in the western portion of the campus near Sand Hill Road). These playing fields are programmed for use through the Department of Athletics, Physical Education and Recreation.
- <u>**Recreational facilities.</u>** Formal and informal recreation facilities\_ such as Wilbur field and playgrounds in Escondido Village and the faculty/<u>staff</u> subdivision, are provided to serve campus residents. The golf driving range and the Stanford Golf Course (located outside the AGB) provide recreational opportunities to both Stanford students and others.</u>
- <u>Buffer</u>. Undeveloped tracts along the Palo Alto and Menlo Park borders on Sand Hill Road, Stanford Avenue, and El Camino Real currently provide a buffer between the urban core of the University and the surrounding communities. Some of these areas are planned for future residential development while others will continue to provide a buffer.

#### **Open Space Protection Policies**

In the past, open space protection at Stanford has occurred through General Plan land use designations, zoning designations, and through conditions of the 1989 General Use Permit

(GUP). The General Plan designation of Academic Reserve and Open Space limited allowable uses to low-intensity uses compatible with the character of the land and its resources. North of Junipero Serra Boulevard, this General Plan designation was applied to the golf course, the portion of the Arboretum north of Campus Drive, and all of the land bordering El Camino Real. Three Special Condition Areas identified in the 1989 General Use Permit area were also located in the central campus area. The Arboretum, the El Camino Real setback, and the lands on the west side of campus bordering Sand Hill Road were placed in these Spe- cial Condition Areas, which required a separate use permit for development rather than allowing development under the General Use Permit. No restriction was placed on the types of uses that may be applied for in these special condition areas, other than those restrictions imposed by the Academic Reserve and Open Space land use designation. Many of the open spaces and undeveloped areas in the central campus are within the area subject to the 1989 General Use Permit. Potential development in the CUP area requires Architecture and Site Approval (ASA) and is only limited by the cumulative population and square footage thresholds of the GUP.

The Stanford Community Plan identifies two different types of lands that serve both academic and open space purposes. Within the Academic Growth BoundaryAGB, the Community Plan identifies Campus Open Space. Among other locations, these areas include the Oval, the Arboretum, and the area surrounding Lagunita.

Outside the Academic Growth BoundaryAGB, the Stanford Community Plan identifies Open Space and Field Research and Special Conservation Areas. In 2003, the Santa Clara County Board of Supervisors adopted new zoning for the Open Space and Field Research (OS/F) district. Under the OS/F zoning, a viewshed analysis is required for any project that requires Architecture and Site Approval.

In addition, Santa Clara County Planning Commission approval is needed for buildings and structures over 1,000 square feet; towers and antenna over 35 feet tall that are located in a high visibility zone or corridor; and projects with environmental impacts that cannot be mitigated to less-than-significant levels.

Separate from the 1989 General Use Permit, t<u>T</u>he City of Palo Alto and Stanford entered into a development agreement in 1997 for projects along Sand Hill Road, inside the City limits, which also affects the land along Sand Hill Road that is located in the unincorporated portion of the County. Among many other stipulations, this agreement specifies that no use other than athletic fields may be developed along Sand Hill Road from Junipero Serra Boulevard to Pasteur Drive and east to Campus Drive West.

The exception to this arrangement <u>is-was</u> that housing may be developed east of Fremont Road in the area known as the Stable Site. This agreement <u>wasis</u> in effect until 2020<u>and is no longer in</u> <u>effect</u>. The development agreement resulted from a negotiation between Stanford and the City of Palo Alto, and involve<u>ds</u> an agreement by Stanford not to pursue certain activities rather than a condition or limitation imposed by the County. This development agreement may be modified at the mutual consent of Stanford and the City of Palo Alto.

# **Competing Concerns and Priorities**

The open spaces within the AGB are subject to a variety of development pressures. While some of the areas are viewed as undeveloped lands which could be appropriate for future development, others provide important resources as open lands within the urban setting. Competing concerns and priorities for some of the open lands within the AGB include:

- The Arboretum is seen by many as the initial defining landscape at the main entrance of the <u>U</u>university and as an open space buffer from the urban environs of Palo Alto. Given its altered natural state (replacement of much of the original oak woodlands with eucalyptus forest), it is seen by others as a potential location for future university expansion preferable to the foothills and other areas of critical habitat.
- Lake Lagunita is the most critical and highest value habitat of the California tiger salamander at Stanford. Undeveloped lands surrounding the lake have been identified as potential future sites for housing and expansion of the academic campus.

Residential development in the faculty I staff subdivision is proposed in areas which currently serve as informal recreation areas for residents.

- While existing athletic facilities and recreational areas for students are not generally proposed for development at this time, the Academic Campus designation applied to much of this area does allow for the future development of these open areas through the definition of allowable uses.
- Development of faculty/staff<u>/other workers</u> housing could require relocation of the Driving Range to a site adjacent to the golf course.
- Faculty/staff<u>/other workers</u> and student housing <u>may be</u> proposed on the Stanford Avenue and El Camino Real frontages which currently serve to buffer development on Stanford's campus from the surrounding community.

# Strategies, Policies, and Implementation

# Strategy #<u>No.</u>1: Locate additional development inside the Academic Growth Boundary

From the County's viewpoint,<u>The</u> maintenance of the open space in the Stanford foothills is a central strategy for meeting the General Plan objectives of resource conservation and compact urban development. Concentration of academic development inside the A<u>cademic</u>Growth B<u>oundary (AGB)</u> allows for retention of the open space character of the land outside of the AGB, while continuing to meet the University's land use objectives.

This strategy incorporates open space into the overall campus development approach, recognizing the area outside the AGB as an integral part of the campus environment that balances and moderates the intensity of the academic core. Efforts to preserve the foothills will require additional concentration and intensification of the central campus core.

Conversely, maintaining the central campus as the focus of all new development will allow the foothills to remain in their natural state. The implementation measures discuss mechanisms for achieving long-term open space protection in the foothills that build on the overall land use strategy. Such measures include conservation easements in critical habitat areas and identification of opportunities to secure Stanford's commitment to open space protection.

This plan recognizes the need to protect open space in the Stanford foothills through the "Open Space and Field Research" land use designation, which allows for activities that support research and teaching requiring a remote or foothill setting for their functioning. Locations which are categorically not suited for development, such as habitats for rare species and geologic hazard areas, are designated Special Conservation and are completely restricted in terms of use and development.

This strategy and the associated policies and implementation recommendations reflect those policies articulated elsewhere in the Community Plan, particularly in the Growth and Development, Land Use, and Resource Conservation chapters. The policies are reiterated here

to emphasize their value from the perspective of open space preservation.

**Figure 5.2\_Designated Open Space**, indicates those open space lands formally protected through Community Plan land use designations or other existing arrangements.

Board of Supervisors Draft 12/13/2022 -Stanford University Community Plan

# Figure 5.2 – Designated Open Space





# Policies

# SCP-OS 1

Locate development inside the Academic Growth Boundary (AGB), allowing lands outside the boundary to continue as open space.

# SCP-OS 2

Allow only field research and, a limited number of small, specialized facilities or installations that support permitted or existing activities, and other uses that require a remote or foothill setting for their functioning in areas outside the Academic Growth Boundary (AGB). Do not permit any new development that is not associated with such uses (see Land Use Chapter). Section E2-b of the 2000 Stanford University General Use Permit establishes that a cumulative maximum of 15,000 square feet of building area may be located in the Foothills district in a manner consistent with the General Plan and zoning. This amount may not be increased, and shall be accompanied by an identified corresponding equivalent decrease in building area in the other development districts. No individual building or facility may exceed 5,000 square feet in size.

### SCP-OS 3

Identify and delineate Special Conservation areas where no development would be permitted (see Land Use Chapter). Preserve special conservation areas where they have been estimated identified under the Special Conservation Area land use designation.

# Implementation RecommendationsMeasures

# SCP-OS (i) 1

Prioritize and use infill sites and areas with potential for redevelopment within the A<u>cademic</u> G<u>rowth Boundary (AGB)</u> as locations for new development.

# SCP-OS (i) 2

Require easements as appropriate in Special Conservation areas. Locate easements in areas which serve critical habitat needs.

### SCP-OS (i) 3

Identify and pursue opportunities to remove existing obstacles to development within the Academic Growth Boundary (AGB) in exchange for easement protection of lands outside the AGB.

# Strategy #<u>No.</u> 2: Balance recreational use and environmental objectives

Through its Countywide Trails Master Plan, the County has created the mechanisms to provide a comprehensive trail system throughout Santa Clara County. The plan articulates County policies for the location, management, dedication and use of trails.

Because Stanford lands border on a number of designated preserves and parklands, the Trails Master Plan identifies trail linkages in the regional trail system which cross Stan–ford lands. These trails are intended to provide links between developed urban areas and open space in the foothills and baylands. The Community Plan incorporates trails in accordance with the Countywide Trails Master Plan.

The Trails Master Plan identifies the following linkages on Stanford lands; actual alignments of these links must be designed to protect sensitive habitat areas, and on-going academic, agricultural, and residential uses. (See **Figure 5.3 – County Trails Master Plan Designated Trails**):

- Route S1 is shown as a "sub-regional route on other public lands" in the Matadero Creek/Page Mill Road corridor and is partially on a public road. The alignment follows Matadero Creek and Old Page Mill Road in the Stanford Community Plan area.
- The connector route C1, in the San Francisquito/Los Trancos Creek corridors, is designated as a "trail route within private property." The alignment generally follows the creeks and Alpine Road.

Some of these trails, in whole or in part, currently exist on Stanford land. The Los Tran-cos Creek and Arastradero Recreational trails have been in place for a number of years, and a portion of the San Francisquito Creek trail has been designated within the City of Palo Alto. Development associated with the General Use Permit creates a need and an opportu-nity for trail dedication on Stanford land.

The actual alignment, design, and development of trails on Stanford land will need to comply with all relevant County policies. Creation of trails on Stanford land should be coordinated among the six jurisdictions in which Stanford lands are located, as well as the Midpeninsula Regional Open Space District.

Since 2000, Stanford has completed all of the County's requirements for dedication and construction of trails shown on the 1995 Countywide Trails Master Plan. Stanford dedicated easements for and completed the S1 Trail within Santa Clara County in 2011. Stanford also reached agreement with Portola Valley and constructed the portion of the C1 Trail that is located in Portola Valley in 2011. Stanford reached agreement with Los Altos Hills and constructed the C2 Trail in 2013.

The only jurisdiction that did not accept funding was San Mateo County. The Trails Agreement anticipated this potential outcome and required that, in such an event, Stanford would instead pay the County of Santa Clara the amount it was required to offer San Mateo County to construct the portion of the C1 Trial that is located in San Mateo County. To satisfy this requirement, Stanford paid \$10.4 million to the County Santa Clara in 2014 which was placed into a County Recreation Fund.

Figure 5.3 County Trails Master Plan Designated Trails

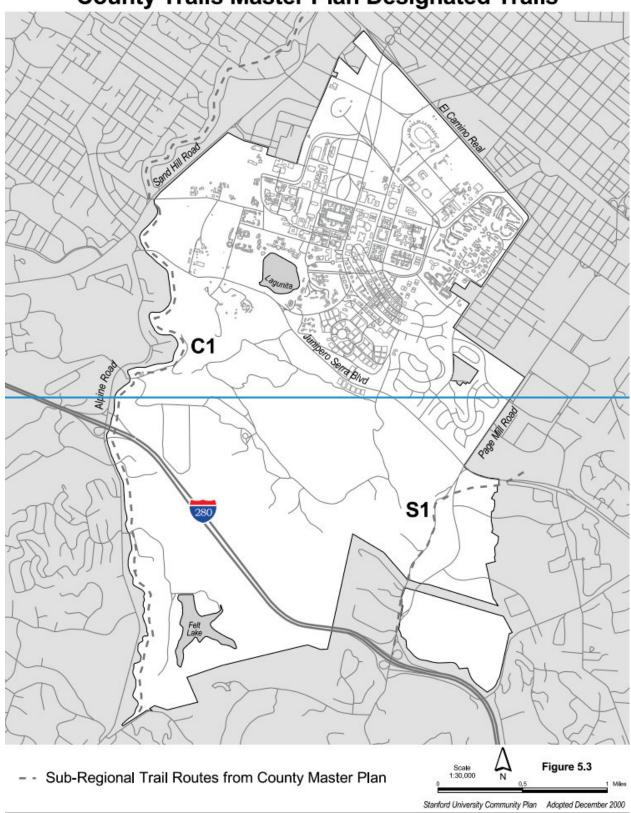


The County of Santa Clara Board of Supervisors conducted a proposal process to award the \$10.4 million in funding (County Recreation Fund) that it received from Stanford in lieu of constructing the C1 trial segment in San Mateo County. Various trail projects have been funded.

Stanford has completed all of the County's requirements for dedication and construction of the trails shown on the 1995 Countywide Trails Master Plan.



# **Figure 5.3 - County Trails Master Plan Designated Trails**



# **County Trails Master Plan Designated Trails**

# Policies

# SCP-OS 4

Require dedication of trails on Stanford land as specified in the Countywide Trails Master Plan, consistent with environmental objectives, academic uses and with the priori—ties of the County Parks and Recreation Department.

# SCP-OS 5

Protect sensitive habitat areas, areas used for academic purposes, and areas under active agricultural use in the alignment and design of trails.

# SCP-OS 6

Plan for, design, and develop trails on Stanford lands in a manner consistent with the policies articulated in the Countywide Trails Master Plan.

### SCP-OS 7

Minimize impacts of recreational activities on academic facilities and environmental resources.

### SCP-OS 8

Encourage Stanford to work with the community to allow public access to trails not included in the County Trails Master Plan in a way that minimizes impacts on academic <u>facilities</u> and environmental resources.

# Implementation RecommendationsMeasures

### SCP-OS (i) 4

Coordinate efforts among Stanford and local agencies to define more precise trail alignments for the trails crossing Stanford lands as described in the Countywide Trails Master Plan, and to determine terms for trail development, maintenance, and liability.

### SCP-OS (i) 5

Restrict access to sensitive habitat or hazardous areas, locations under ecological resto-ration, and research sites.

### SCP-OS (i) 6

Develop programs to protect and restore overused or misused recreational areas.

# Strategy #<u>No.</u>3: Plan for parks and open space land within the Academic Growth Boundary

The interplay between buildings and open space is an important distinguishing visual feature of the Stanford campus. The Stanford campus continually presents contrasts between intensive development and open space, and between formal and defined open space settings and informal, natural areas that evoke Stanford's natural setting.

The Community Plan identifies the areas within the A<u>cademic Growth Boundary (AGB)</u> as the location for future development, maintaining the foothills as open space. As development of the academic core intensifies, treatment of open space areas becomes increasingly important for maintenance of the essential character of Stanford. In addition, implicit in the stated objective of maintaining Stanford as a residential campus is the provision of all of the physical elements of a complete residential community.

Planning for expansion of the basic academic facilities should include open space necessary for a balanced environment. The competing concerns for open space on the campus, and the need to protect significant open spaces, is the basis behind the Cam–pus Open Space land use designation. Undeveloped lands or open spaces which are not specifically protected through the Campus Open Space designation are addressed through Community Plan policies that will help ensure the availability of adequate amounts of open land for recreational use and to balance built areas. **Figure 5.2– Protected Designated Open Space**, indicates those open space lands formally protected through Com–munity Plan land use designations.

Recognizing the different types and roles of central campus open space, the Community Plan stipulates a variety of measures for protecting and enhancing these spaces:

- **Form-giving open space features:** Potentially hHistoric or form giving open space and landscape features which are essential to the character of the campus are designated Campus Open Space in the Community Plan (see Land Use Chapter). This designation also ap-plies to areas within the Academic Growth Boundary which are essential to the habitat value of critical natural areas located within the AGB.
- <u>Parks in residential areas</u>: Areas which have long been used as parks and play–grounds in the faculty/staff subdivision are a valued amenity for the resident community and are also designated Campus Open Space in the Community Plan. These designated Campus Open Space areas within and adjacent to the faculty/staff subdivision total 18.4 acres. This space can be considered adequate for a population of 3,680 according to the 5 acres per 1,000 residents standard recognized by the State of California as the maximum amount of park area that can be required in a new subdivision. The current estimated population of the faculty I staff subdivisions will also be provided at the 5 acres/1,000 residents

### standard.

- <u>Athletic fields</u>: Athletic and recreational facilities also function as open space. The designated athletic facilities, intramural playfields, and informal fields near residences directly support academic and residential programs and are included in the Academic Campus designation. Community Plan policies call for provision of adequate outdoor athletic facilities to support the student population.
- <u>Buffers</u>: Undeveloped land on the periphery of campus both defines the gateway to the campus and provides a buffer to the surrounding community from the University's development. These buffer areas carry a variety of land use designations. Many of the important frontages are designated Campus Open Space. Others with some potential for development are designated Residential or Academic Campus. Community Plan policies call for the need to balance new development with the importance of maintaining adequate open space buffers along the interfaces with neighboring off-campus communities.

### Policies

### SCP-OS 9

Identify and preserve significant open space through use of the Campus Open Space designation in order to maintain the quality and character of the central campus.

### SCP-OS 10

Require Stanford to maintain recreational open space to meet existing and future recreational needs of the Stanford community.

### **SCP-OS 11**

Balance concerns about the maintenance of buffers between the University and Cities of Palo Alto and Menlo Park with the need for increased housing supply and improved affordability (see Housing Chapter).

### **SCP-OS 12**

Park and recreation areas should be designed and landscaped, incorporating safety features, and maintained in accordance with County requirements.

# Implementation RecommendationsMeasures

### SCP-OS (i) 7

Identify, protect, and restore historic campus open space features essential to the organizing principles of the campus plan.

# SCP-OS (i) 8

Require Stanford to provide sufficient campus parks and open space in the <u>residential</u> areas <u>desig-nated Campus Residential</u>, at the rate of 5 acres for 1,000 population.

# SCP-OS (i) 9

Review development applications for continued provision of recreational and athletic facilities convenient to student residences and in adequate amounts to serve student needs.

### **SCP-OS (i) 10**

Incorporate open space in redevelopment of the core campus.

### **SCP-OS (i) 11**

Review development applications in the Academic Campus land use designation for continued provision of buffer between development on the campus and surrounding off-campus communities.

### **SCP-OS (i) 12**

Develop appropriate setback requirements as part of the new zoning for the Campus Residential Low Density and Campus Residential Moderate Density land use designations.

# **Resource Conservation**

# **Chapter Summary**

Stanford contains a great wealth of natural resources which the Community Plan aims to preserve and protect in a manner that balances conservation and development of the campus.

Resources include plant and wildlife species, creeks and other special habi–tat areas, water resources, historic and prehistoric resources, and visual resources. All types of resources contribute to the natural and built environment of the campus.

Many types of resources are protected through various <u>S</u>state and <u>F</u>federal laws. The policies and implementation recommendations in this chapter reinforce, enhance, and supplement these mandated resource conservation approaches for the particular natu—ral and built environment of Stanford lands.

This chapter of the Stanford Community Plan addresses a range of resource conserva—tion subjects, and each has a subsection of the chapter devoted to it. These subsections include:

- Habitat and Biodiversity,
- Water Quality and Watershed Management,
- Heritage Resources, and
- Scenic Resources.

Other Resource Conservation topic areas are discussed in the County of Santa Clara's General Plan, including Water Supply, Agricultural Resources, Mineral Resources, Solid Waste Management, and Energy Resources, in sufficient detail to guide activities at Stanford.

# Community Plan strategies for resource conservation are:

Habitat and Biodiversity

Strategy # <u>No.</u> 1:_	Improve Current Knowledge and Awareness of Habitats and Natural Areas
Strategy # <u>No.</u> 2:	Protect the Biological Integrity of Habitat Areas and Adequately Mitigate Impact
Strategy # <u>No.</u> 3:	Encourage and Promote Habitat Restoration

Water Quality and Watershed Management

Strategy # <u>No.</u> 4:	Reduce Non-Point Source Pollution
Strategy # <u>No.</u> 5:	Enhance and Restore Wetlands, Riparian Areas, and other Habitats that Improve Watershed Quality
Strategy # <u>No.</u> 6:	Prepare and Implement Comprehensive Watershed Management Plans
Heritage Resources	
Strategy # <u>No.</u> 7:	Inventory and Evaluate Heritage Resources
Strategy # <u>No.</u> 8:	Protect Heritage Resources Through Avoidance,
	Adaptive Reuse and Sensitive Planning and Design
Scenic Resources	
Strategy # <u>No.</u> 9:	Employ Growth and Development Policies That Conserve Scenic Resources
Strategy	_Maintain and Enhance the Scenic Values of Urbanized Area Settings

# Background

While the concept of resource conservation encompasses a diverse set of topics that in-volve both the built and the natural environment, there are common themes that bring these issues together. These themes are expressed in the General Plan but are discussed in this Community Plan to provide a sense of their application to Stanford and the importance of resource conservation in the overall approach to development on Univer-sity lands:

- Value: Stanford's resources discussed in this chapter all provide a variety of types of values to both the Stanford community and the wider area. For example, species and habitats have value from both the ecological viewpoint and for scientific re—search purposes. Historic buildings house Stanford's academic programs and alsoand enhance the physical identity of the University and the wider community.
- **Stewardship:** The concept of stewardship involves recognition of the value of natural and heritage resources, leading to active efforts to preserve and enhance the quality of the environment and its resources. Stanford's preservation of the vast majority of its foothills is an example of stewardship, particularly in times when the University actively chose not to develop this land. As pressure to grow increas—es, stewardship becomes both more difficult and more important.

• **Challenges:** Challenges to effective resource conservation stem from the increas—ing demands on natural resources presented by growth at the University and elsewhere, from the limited capacity of the environment to absorb impacts from human activity, and from the need for cooperative, regional action to implement effective measures.

The General Plan advocates a set of overall strategies for resource conservation efforts, which include:

- 1. Improving and updating current knowledge of resources;
- 2. Emphasizing pro-active, preventive measures to avoid impacts;
- 3. Minimizing or compensating for impacts which do happen;
- 4. Restoring resources where possible; and,
- 5. Evaluating the effectiveness of mitigation measures employed.

Strategies and policies for various subjects as they relate to Stanford's lands are based upon these overall strategies, <u>but and</u> may be tailored or limited to the specific resources and circumstances involved with Stanford lands.

One advantage for resource conservation at Stanford is the tremendous amount of knowledge that has been gathered and activities that have been initiated over the years. These measures are discussed more fully for each topic area.

One of the most important tools available to local government <u>in the area offor</u> resource conservation is the California Environmental Quality Act (CEQA), which requires that the significant environmental impacts of development projects be recognized and miti–gated, as appropriate. At Stanford, the County has taken the approach to require com–prehensive environmental review of potential impacts associated with the issuance of the General Use Permit <u>(GUP)</u>. This analysis is then supplemented by additional environmen–tal review of the impacts of each new project.

# Habitat and Biodiversity Background

Stanford's natural setting is an asset to both the University and the region. The diversity of local flora and fauna, and close proximity of the main campus to relatively unspoiled areas, allow for laboratory activities, teaching, and research to be closely linked to field—based studies, providing Stanford with academic opportunities unique among its peer institutions. The large acreage in open space supports relatively uninterrupted habitat and wildlife corridors connecting to publicly-owned open spaces in the region. On lands which are not owned by Stanford and are not under public ownership, extensive development has occurred, leading to habitat fragmentation and increasing local inter—est in maintaining Stanford as open lands.

Protection of species depends on protection of the habitats in which they live. Stan-ford's lands support a rich array of native biological communities including riparian oak woodland, other oak woodlands, and annual grasslands. A number of species and biotic communities found on Stanford lands are protected by one or more local, <u>S</u>state, or <u>E</u>federal statutes such as the <u>E</u>federal Endangered Species Act (ESA), the California Endangered Species Act (<u>CESA</u>), and the <u>E</u>federal Migratory Bird Treaty Act. These species are collectively referred to as "special status species" and include <u>the following</u>:

- The ESA lists the California red-legged frog and the California tiger salamander as
   "threatened," and the Steelheed Trout and the San Francisco Garter Snake are listed as
   "endangered." Although two of these species are not aquatic they typically associate
   with pond or creeks with surrounding vegetation. All of these species can, therefore,
   Two species which use creeks on Stanford lands as habitat, the California red legged
   frog and the steelhead trout, are listed as "threatened" under the ESA. These species can
   be protected through use of buffers along creeks and protection of water quality.
   Another important consideration for creek species is the effect of water use from creeks
   for irrigation and other purposes.
- Several other species found at Stanford are candidates for protection under the ESA, most notably the California tiger salamander (CTS). Because there is the most immediate conflict between this species and both ongoing activities and proposed new development, the salamander is the subject of extensive effort; issues related to the CTS are described in more detail below.
- Trees in the riparian forest, oak woodland savanna, and central campus provide breeding and foraging habitat for a wide variety of birds, including several species of special concern such as the Cooper's hawk, sharp-shinned hawk, golden eagle, and loggerhead shrike. The Land Use designations and Open Space chapter poli-cies are in part intended to conserve the resources of these areas for the habitat value they provide.

# **Stanford Conservation Efforts**

Stanford has engaged in efforts over time to preserve habitats and biodiversity. <u>In 2013, the</u> <u>United States Fish and Wildlife Services (USFWS) approved a Habitat Conservation Plan (HCP)</u> <u>prepared by Stanford as part of an effort to address Federal Endangered Species Act</u> <u>requirements pertaining to the California tiger salamander. The purpose of the HCP is to</u> <u>describe Stanford's anticipated operational and development activities and identify measures</u> <u>that will minimize and mitigate the effects of those activities on identified species of concern.</u> <u>The HCP asserts that proper stewardship of Stanford's lands "has been, and will continue to be,</u> <u>essential to the success of the University."</u>

A five-point policy initiative clarifies elements of the HCP program as they relate to the following:

1. Measurable biological goals and objectives.

- 2. adaptive management,
- 3. monitoring,
- 4. permit duration, and
- 5. public participation.

Based on the conservation programs and commitments identified in the HCP, the USFWS issued Stanford an Incidental Take Permit (ITP) in compliance with Section 10(a) of the ESA. In May 2016, the California Department of Fish Wildlife (CDFW) determined that the ITP issued by the USFWS, including the incorporated measures in the HCP, is consistent with the CESA. Stanford's HCP thereby provides compliance with both the ESA and CESA for protected species on most of Stanford's land within unincorporated Santa Clara County.

The HCP key resource conservation components include:

• Implementation of steelhead trout restoration projects in San Francisquito Creek, such as removal of the Happy Hollow (Lagunita) Dam to allow for improved dispersal of fish and installation of a fish-ladder at the Los Trancos diversion facility.

Dedication of a 90-acre permanent conservation easement along the most biologically sensitive portions of Deer and Matadero creeks.

•

- <u>Establishment of a 300-acre, 50-year no-build area in the lower foothills. Within this</u> <u>"California Tiger Salamander Reserve," construction of eight seasonally filled ponds and</u> <u>designation of 30 acres as a permanent conservation easement.</u>
- •
- <u>A 50-year commitment for the management of Lake Lagunita for the benefit of seasonal</u> wetland-dependent species, including the California tiger salamander.
- •
- <u>Construction of four new ponds suitable for California red-legged frog reproduction and year-round occupation.</u>

•

• <u>Annual monitoring of species of conservation concern, including federally and Sstate</u> <u>listed species, and species which may potentially cause environmental problems (mainly</u> <u>invasive non-native species).</u>

•

• <u>Widespread vegetation management, including weed control and the planting of native</u> <u>species.</u>

•

Additional conservation efforts pursued by the University include:

- Implementation of steelhead trout restoration projects in San Francisquito Creek, such as removal of the Happy Hollow (Lagunita) Dam to allow for improved dispersal of fish and installation of a fish-ladder at the Los Trancos diversion facility.
- Implementation of steelhead trout restoration projects in San Francisquito Creek, such as removal of the Happy Hollow (Lagunita) Dam to allow for improved dispersal of fish and installation of a fish-ladder at the Los Trancos diversion facility.
- Monitoring of conditions and review of land use activities in Special Conservation Areas that are outside the HCP Plan Area, along Los Trancos and San Francisquito creeks, and according to measures outlined in the Stanford HCP.
- Construction of three tunnels under Junipero Serra Boulevard to facilitate California
   tiger salamander dispersal.
- Collaboration with the jurisdictions of Portola Valley and San Mateo County on
   <u>environmentally sound creek bank stabilization efforts (partly in Santa Clara County)</u>
   <u>along Los Trancos Creek.</u>
- Promotion of the overall health of tree canopy and biodiversity in the central campus through planting of native and climate-adapted introduced species, preservation of existing trees and widespread vegetation management, including weed control.

An important aspect of these conservation activities is the opportunity to learn from these efforts. As an academic institution and long-term landowner, Stanford is able to monitor and test different methods of habitat conservation and restoration in search of the most effective strategies. In addition to the Jasper Ridge Biological Preserve, Stan–ford faculty, students, and researchers have long-term research and teaching interests in San Francisquito Creek, Los Trancos Creek, Matadero Creek, and the oak woodlands and annual grasslands.

The oak reforestation program is perhaps the best-known habitat restoration program on the campus, involving Stanford, nonprofit organizations, and numerous volunteers from the campus and neighboring communities. This program was initiated by Stan–ford in the early 1980s, following the preparation of a Vegetation Management Plan in 1983-which found a lack of young oak trees and a decline in mature trees in the natural areas on the campus. After several years of operation in the foothills, the reforestation program has been extended to the Arboretum, and it has also involved reintroduction of native understory shrubs, grasses and forbs (broadleaf herbs) in addition to oaks.

This continuing program has yielded many lessons and insights that have been used to modify techniques for planting and maintenance. The oak reforestation program is an excellent example of comprehensive land stewardship and management that restores habitat and contributes to the knowledge of the natural environment.

# California Tiger Salamander

The CTS is a state species of special concern and a federal candidate for listing as threat-ened or endangered. Lake Lagunita and the surrounding undeveloped lands provide both aquatic breeding and terrestrial habitat for the California tiger salamander (CTS). Stanford's population is the only remaining known population of this species on the San Francisco Peninsula. The rarity of this population and the fact that the salamander habitat is located in potential development areas create a particularly high level of interest in the potential effects of development under the Community Plan on this species.

The CTS has very particular life cycle needs which require extensive habitat preserva—tion and management, in both developed and undeveloped areas. CTS breed in Lake Lagunita, where seasonal filling makes water available for a period of time that co—incides with the amphibian's breeding cycle. After hatching and developing to their terrestrial form in water, juvenile salamanders migrate to upland habitats up to one kilometer or more from the breeding site, where they live in holes created by ground rodents. These estivation sites are located both north and south of Junipero Serra Bou—levard. Adult salamanders return to their breeding ponds with the first heavy rains of winter. Aquatic breeding sites and usable upland habitat, particularly within 500 me—ters of the lake, comprise the salamander's crucial habitat needs.

Primary threats to the <u>California Tiger Salamander</u>CTS at Stanford are:

- Traffic mortality due to crossing of Junipero Serra Boulevard during migration;
- Impacts from activities associated with development, such as trapping in utility boxes and harm to individuals from landscape maintenance; and
- Loss of habitat from new development.

In 1998, a Management Agreement for the California Tiger Salamander was signed by the U-S-Fish and Wildlife Service, the California Department of Fish and Game<u>CDFW</u>, the County, and Stanford. The <u>California Tiger Salamander CTS</u>-Management Agreement identified mechanisms to reduce the impact of these threats on the CTS, particularly addressing a defined zone around Lake Lagunita known as the CTS Management Zone.

The agreement was required as a condition of approval for construction of the Lyman graduate student residences near Lake Lagunita, as a mitigation for the impacts on the salamander asso-

ciated with that project and other identified projects within the Management Zone. The Management Agreement allows for additional mitigation of projects in the Manage–ment Zone which are not covered by the agreement, which would include all develop–ment associated with the new General Use Permit (GUP).

On August 13, 2013, the Santa Clara County Board of Supervisors acknowledged the County Planning Director's determination that the HCP provides "equal habitat value and protection for the California tiger salamander."

Some of the primary strategies have included efforts to make developed areas inacces sible to salamanders, modification of management practices, and the creation of several experimental breeding ponds in the foothills to reduce the population's reliance on Lake Lagunita. While Stanford hopes to increase use of the foothill breeding ponds over the long term, the success of these ponds has not been established. The University also intends to construct a tunnel crossing under Junipero Serra Boulevard to reduce traffic mortality. Protection of Lake Lagunita and habitat around the lake will remain as an important aspect of salamander management in the future.

# Strategies, Policies, and Implementation

The Community Plan incorporates the major habitat preservation concepts or strategies included in the General Plan, namely, acknowledging habitat and biological resources, preserving habitat, mitigating impacts, and restoring habitat. The Community Plan implements these concepts through restrictions on development in the foothills to only those activi—ties which support academic activity based on the foothill setting and through em—phasizing development in the central campus that is sensitive to the natural resources affected by the development.

# Strategy #<u>No.</u>1: Improve Current Knowledge and Awareness of Habitats and Natural Areas

This strategy acknowledges the need for accurate and up-to-date information on local biodiversity in order to conduct successful conservation and land use planning. Stan–ford maintains an evolving database on many levels of local biotic diversity. In particu–lar, data on the distribution and condition of protected species and plant-defined bio–logical communities, such as serpentine grasslands, are incorporated into the database on an annual basis and should be transmitted to the County as well. Stanford is also conducting ongoing studies investigating the impacts of non-native species on local ecosystems. The policies associated with this strategy call for continued data collection and information transmission to the County.

# Policies

### SCP-RC 1

<u>Stanford shall Mm</u>aintain and update inventories and maps of important biological resources on Stan–ford lands, including protected species, species considered at risk of local extinction, and habitat types (biotic communities), for use in conservation efforts, land use decision making, and monitoring of resource status.

### SCP-RC 2

Allow field research and other academic activities related to improving knowledge and understanding of habitat resources to occur in areas south of Junipero Serra Boulevard.

# Implementation Recommendations Measures

### SCP-RC (i) 1

Require Stanford <u>shall</u>, as needed, to prepare California Natural Diversity Database records for species of concern.

### SCP-RC (i) 2

<u>Stanford shall</u> <u>T</u>transmit natural resource map updates to the County using the County's current elec-tronic map format standards, <u>upon request by the County</u>.

### SCP-RC (i) 3

Stanford shall provide a copy of the annual report and the 5-year overview report provided under the Habitat Conservation Plan (HCP) to the County.

# Strategy #<u>No.</u> 2: Protect the Biological Integrity of Habitat Areas and Adequately Mitigate Impacts

Protection of existing natural resource areas is an essential component of successful conservation planning. At Stanford such protection involves the management and long\_\_\_term commitment to the preservation of environmentally significant areas, particularly in the foothills.

The question of what habitat areas are "sensitive" and most in need of protection is not a simple one. Habitats for some special-status species under <u>S</u>state or <u>F</u>federal law are clear candidates for protection. Such habitats at Stanford include Lake Lagunita, other breeding ponds, and the upland habitat (undeveloped land within 500 meters of breed—ing sites) for the California tiger salamander. It also includes the creeks and their ripar—ian surroundings which support steelhead and red-legged frogs. While much of this habitat area is located in the foothills, which will remain largely undeveloped, some ar—eas around Lake Lagunita on the north side of Junipero Serra Boulevard are within the Academic Growth Boundary (AGB). This area is viable salamander habitat and should be considered a sensitive area for management purposes.

While location of development and activities outside of the most sensitive habitat areas is important, appropriate management within already developed areas and in loca—tions used for agriculture and recreation is also critical to the protection of species and habitats. For example, there is concern about the effects of recreational activity in the foothills in terms of erosion and effects on habitat and wildlife. Unlimited access to the creeks in these areas could pose a threat to the special status species in such aquatic en—vironments. Resource management of some of these areas can be particularly challeng—ing in areas that are not directly controlled by the University, such as on agricultural leaseholds on undeveloped lands.

### California Tiger Salamander

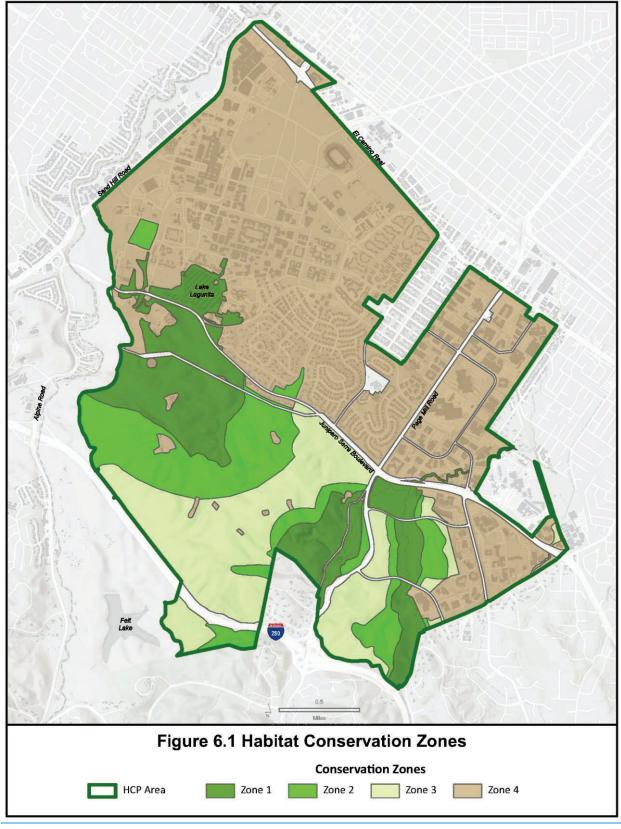
Measures to protect habitat for the CTS under the Community Plan will minimize development in the most crucial habitat areas over the long term. These areas are undevel–oped lands within 500 meters of CTS breeding sites, without intervening development that fully blocks salamander access. Specifically, existing prime habitat includes Lake Lagunita and its undeveloped environs and the Lower Knoll, with undeveloped lands south of J<u>unipero Serra</u> B<u>oulevard</u> also serving as important habitat.

<u>These sensitive areas are generally located within Zone 1 of the HCP's conservation zones.</u> (See **Figure 6.1** <u>— California Tiger Salamander Habitat Habitat Conservation Zones</u>). <u>The HCP</u> calls for the avoidance of development in Zone 1 to the maximum extent feasible and to pursue restoration and enhancement. While the Driving Range is adjacent to the lake, recreational activities have prevented it from acting as prime salamander habitat.</u>

The primary tools to protect prime habitat are long term conservation easements and creation of new salamander habitat through addition of viable breeding ponds. The ACB itself is an important tool for CTS habitat protection in that it will prevent devel-opment in some portions of the CTS habitat area.

If the CTS is listed as a threatened or endangered species by the U.S. Fish and Wildlife Service in the future, Stanford will be required to obtain incidental take authorization and prepare a Habitat Conservation Plan if any development or activities that affect the salamander are proposedStanford's HCP provides compliance with both the ESA and CESA for protected species on most of Stanford's land within unincorporated Santa Clara County. The policies associated with this strategy include references to the HCP as appropriate and emphasize both avoidance of disturbance to sensitive habitat areas and mitigation of any impacts that do occur.

Figure -6.1 Habitat Conservation Zones



Policies

### SCP-RC 3

Assure the protection of habitats for special status species in approving the location and design of new development. Avoid habitat areas for these species in the location of development whenever feasible.

# SCP-RC 4

Protect and maintain habitats, natural areas, and wildlife corridors in development and redevelopment.

# SCP-RC 5

Protect habitat areas through use of the Open Space and Field Research, Special Con–servation, and Campus Open Space land use designations, and through use of the Academic Growth Boundary (AGB). If land use designation changes or AGB relocation is pro–posed, conduct detailed studies for presence of special status species and their habitat prior to decision making.

# SCP-RC 6

Require Stanford to mitigate any impacts on special status species <u>(i.e. locally important species</u> <u>not covered by the Habitat Conservation Plan - HCP)</u> or other biological resources that result from land use and development through:

- a. Mitigation measures that have proven to be effective which shall be implemented prior to commencement of site preparation and construction activities as appropri—ate.
- b. Mitigation measures such as provision of new habitat areas which shall be moni-tored and, if necessary, revised over time to ensure the viability of these measures as mitigation.

# SCP-RC 7

Support the Biological Goals of the Habitat Conservation Plan (HCP) which include:

- a. Maintain and enhance natural communities so that they benefit the Covered Species.
- b. Stabilize the local California tiger salamander population and increase its chance of long-term persistence at Stanford.
- c. Maintain ponds to promote California tiger salamander reproduction in the Foothills.
- d. Increase the local California red-legged frog population and increase its change of longterm persistence at Stanford.
- e. Maintain or improve habitat that could support the San Francisco garter snake and continue to contribute to the body of information about garter snakes at Stanford.

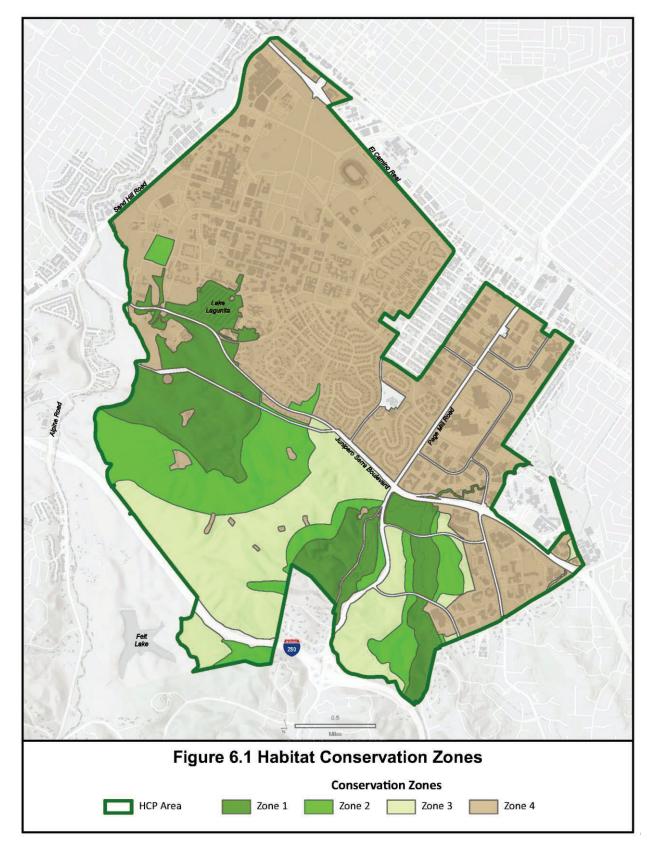
### SCP-RC 87

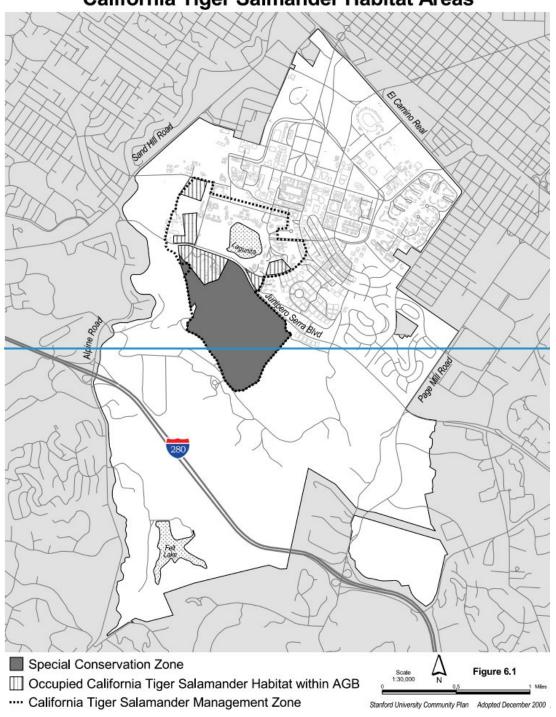
Maintain and restore riparian buffer zones along creeks as described in Santa Clara County General Plan Policy R-RC-37.

# SCP-RC 98

Monitor and evaluate the rRecreational uses should not occur in of sensitive habitat areas and should be limited. if nec-essary the recreational use of areas supporting significant, but less sensitive, natural resources.

Figure - 6.1 Habitat Conservation Zones





California Tiger Salmander Habitat Areas

Implementation RecommendationMeasures

### SCP-RC (i) <u>4</u>3

Establish guidelines<u>Maintain regulatory standards</u> for review and approval of research and teaching activities in habi—tat areas, particularly in those areas which support special-status species.

### SCP-RC (i) 45

Develop and implement a program for monitoring and managing recreational activities in the foothillsOngoing recreational activities shall be managed with regard to the habitat impacts of these activities and in conformance with the Stanford University Habitat Conservation Plan (HCP).

# SCP-RC (i) 56

Participate in the preparation and implementation of a<u>All development shall conform with the</u> H<u>abitat Conservation Plan (HCP)</u> for Stanford lands <u>approved by</u>, if such an effort is initiated by Stanford or\_the U.S. Fish and Wildlife Service <u>and any corresponding requirements by the</u> <u>California Department of Fish and Wildlife</u>.

# SCP-RC (i) 76

Require long-term habitat protection measures in appropriate locations as mitigation for development in habitat areas that support special-status species or that are protected through local, <u>S</u>state, or <u>F</u>federal regulations.

### **SCP-RC (i) 8**

<u>To improve implementation of Habitat Conservation Plan (HCP) protections, project-specific</u> <u>HCP mitigation related to the proposed development must be identified and included in that</u> <u>individual project, if applicable. Coordinate with Stanford to standardize an efficient system to</u> <u>verify project-specific HCP compliance.</u>

### SCP-RC (i) 97

Require replacement of trees <u>per the County's Tree Preservation and Removal Ordinance. Trees</u> greater than 12 inches in diameter <u>shall be replaced at a ratio of 3:1 for oaks and 1:1 for other</u> <u>protected trees.</u> which are removed at a 1:1 ratio of replacement to removed trees. For oaks which meet this criteria, require relocation of trees or replacement at a 3:1 ratio. <u>A Vegetation</u> Management Plan for the entire campus may be submitted by Stanford to the County Planning Office for review and approval, to replace the project-by-project tree replacement requirements. This plan must provide for the same or greater level of tree protection as required by the County's Tree Preservation and Removal ordinance.

### SCP-RC (i) 8

Develop guidelines for the location, siting and review of proposed construction projects that

#### minimize impacts to natural resources.

### SCP-RC (i) <u>10</u>9

Identify opportunities to conserve water used for irrigation and other purposes in order to limit use of water from creeks.

# Strategy #No. 3: Encourage and Promote Habitat Restoration

Just as protection of existing natural resources is a critical element to successful resource conservation planning, so too is habitat restoration. After well over 200 years of occupation by European settlers and their descendeants, and more than 8,000 years of occupation by Native Americans, Santa Clara County, including the Stanford area, has been modified significantly by humans. Habitat loss, habitat fragmentation, and habitat modification have all occurred on a large scale in the region, with most changes occurring in the last 150 years. For example, the Stanford foothills, which are considered an important natural resource, are primarily comprised of non-native grasses and have been substantially altered through cattle grazing. Both foothill areas and flatlands in areas surrounding Stanford lands have been extensively developed.

Habitat restoration is also a potential mitigation measure for development in sensitive habitat in other locations. The policies associated with this strategy encourage continued habitat restoration as part of a comprehensive approach to habitat preservation and management.

# Policies

### SCP-RC <u>10</u>9

<u>Stanford should</u> <u>Ee</u>stablish priorities for the restoration or rehabilitation of sensitive habitat areas and include habitat restoration as a key component of conservation management and plan–ning.

### SCP-RC 110

Stanford <u>shallshould</u> continue and support efforts to enhance habitats and populations of protected native species, including, but not limited to:

- a. reduction of non-native invasive species;
- b. wetland creation efforts, particularly to increase breeding sites for the California tiger salamander; and
- c. the oak reforestation program in the foothills, the Arboretum, and in other natural areas.

# Implementation Recommendation Measures

### SCP-RC (i) <u>11</u>10

Coordinate wetland preservation for flood control purposes with habitat restoration efforts.

# SCP-RC (i) <u>12</u>11

Encourage location of facilities and trails out of sensitive habitat areas and areas under-going habitat restoration.

# Water Quality and Watershed Management Background

Healthy watersheds with good water quality are a critical component of resource con-servation because watercourses are home to many of the campus' sensitive species, and because the quality of the watershed affects the larger San Francisco Bay ecosystem. Activities on Stanford lands have the potential to affect the quality of creeks and their associated riparian habitats, creating lasting impacts on both terrestrial habitat and wa-ter quality and species.

Stanford lands are included in two watersheds: the San Francisquito and the Matadero (see **Figure 6.2\_Watershed Boundaries**). The San Francisquito Creek system, including San Francisquito, Los Trancos, Corte Madera, Sausal, and Bear creeks, and the Sears—ville Reservoir, is the larger of the two and is located in the west and north portions of the University. Stretches of this system form the boundary between Santa Clara and San Mateo Counties. Stanford has three water diversions in this watershed: the Sears—ville Dam, a recently redesigned pumping facility located at the Stanford Golf Course near Junipero Serra Boulevard, and the Felt Lake diversion on Los Trancos Creek (at Arastradero Road).

The Matadero system encompasses the eastern areas of the University and consists of Matadero and Deer creeks. This watershed is located entirely in Santa Clara County. The Stanford portion of this watershed in unincorporated Santa Clara County is in natural streambeds with substantial existing riparian vegetation. Downstream portions of the system are maintained in artificial channels. Stanford has no water diversions in this system.

Portions of Stanford lands also contain a groundwater recharge area, which crosses the central

campus (see **Figure 6.3 – Groundwater Recharge Area**). This area is referred to as an "unconfined" zone where groundwater recharge is not generally precluded by soils and geologic features. As additional development occurs in this portion of the campus, there is less opportunity for infiltration and recharge of the aquifer through ground percolation and more runoff into creeks and storm drain systems. Drainage design and detention pond systems can offset increases in impervious surfaces, ensuring opportu—nities for recharge.

As part of the 2000 General Use Permit, Stanford had the option to prepare a site-specific groundwater recharge study for each building project within the unconfined zone or a comprehensive groundwater recharge study for all development that could occur within the unconfined zone. Stanford chose to develop a comprehensive approach to groundwater recharge and the Santa Clara Valley Water District approved the study in 2015.

The study outlines calculation methodology for groundwater recharge lost by development and Stanford's operational practice for conveying water to Lagunita from Stanford's surface water sources for the benefit of California tiger salamanders. These surface water sources include water diverted from creeks and/or impounded by dams and filter backwash water from Stanford's irrigation water supply filtration facility. Lagunita has a high infiltration rate and groundwater recharge is very effective.

<u>The approved report and subsequent calculations of recharge lost bye development</u> <u>demonstrate that the cumulative amount of groundwater conveyed to Lagunita is far greater</u> <u>than the cumulative amount of groundwater recharge lost annually, by a factor of more than</u> <u>100. The accounting of recharge is tracked to ensure that all future development would</u> <u>continue to result in an annual net positive recharge to the unconfined zone.</u>

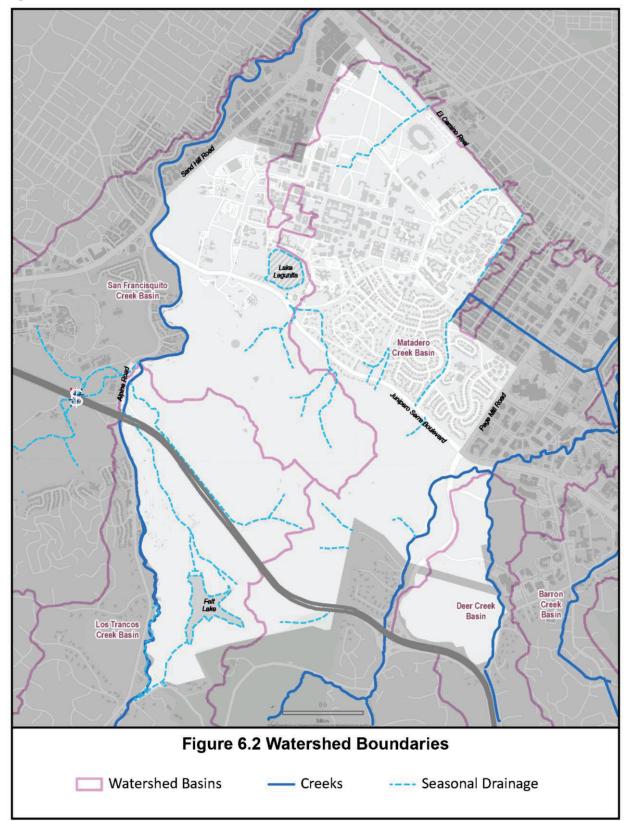
Stanford participates in a regional Joint Powers Agency (JPA) for the San Francisquito Creek Watershed, along with the Cities of Palo Alto, Menlo Park, and East Palo Alto, the County of San Mateo, and the Santa Clara Valley Water District. This JPA focuses- on both habitat protection and flood control in the watershed. It grew from the Coordi—nated Resource Management and Planning (CRMP) process for San Francisquito Creek. Watershed management and planning in Santa Clara County is conducted under the auspices of the Santa Clara Valley Water District (SCVWD or "Valley Water").

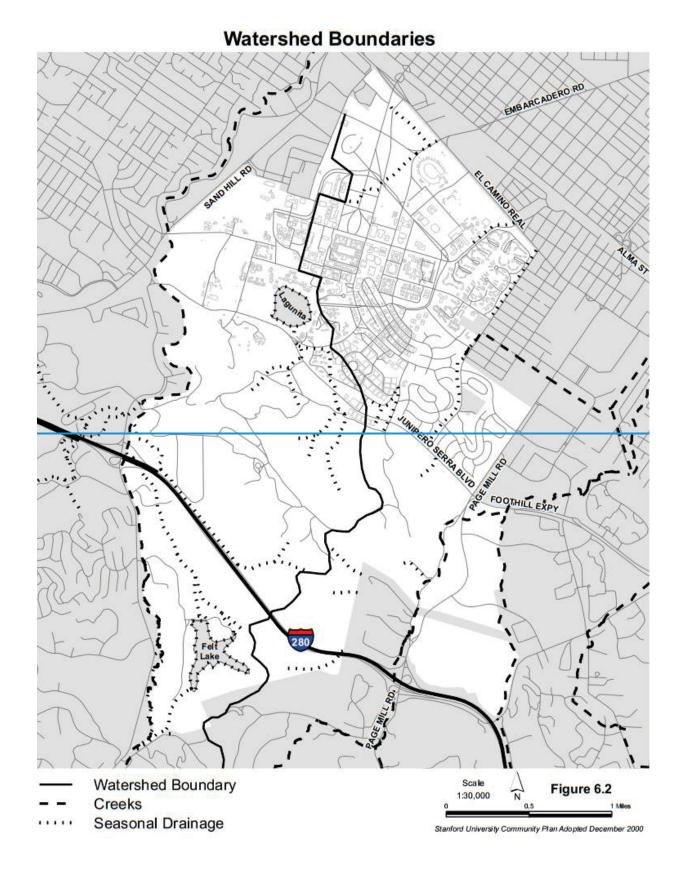
# Strategies, Policies, and Implementation

The strategies, policies and implementation recommendations related to water quality and watershed management reflect the General Plan's comprehensive approach to this issue. These focus on reducing pollution sources and maintaining streamside environ-ments rather than on treatment of polluted water. Comprehensive watershed manage-ment requires coordination among a multitude of landowners and jurisdictions. As a major landowner with a variety of uses on its lands, Stanford is an important contribu-tor to the overall health of <u>the</u> watersheds in which it lies.

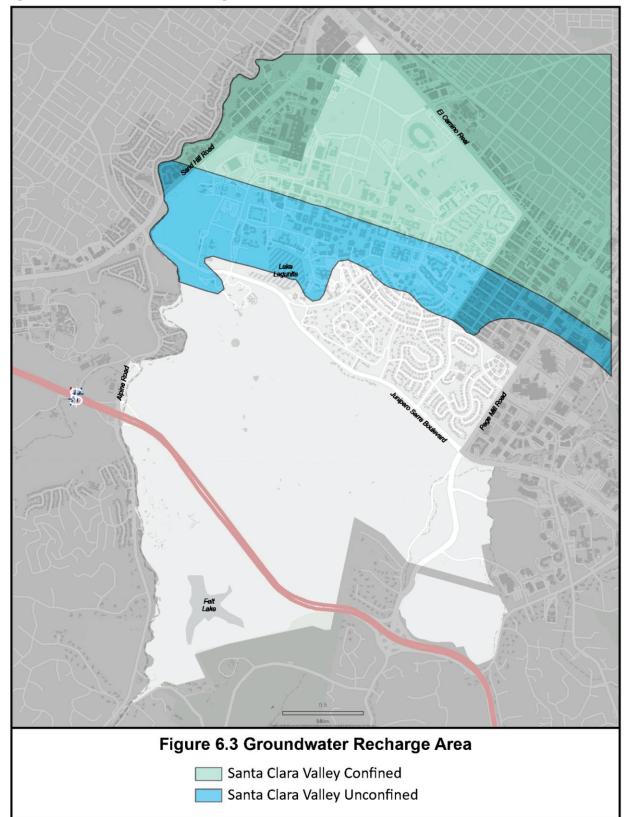
Board of Supervisors Draft 12/13/2022 - Stanford University Community Plan

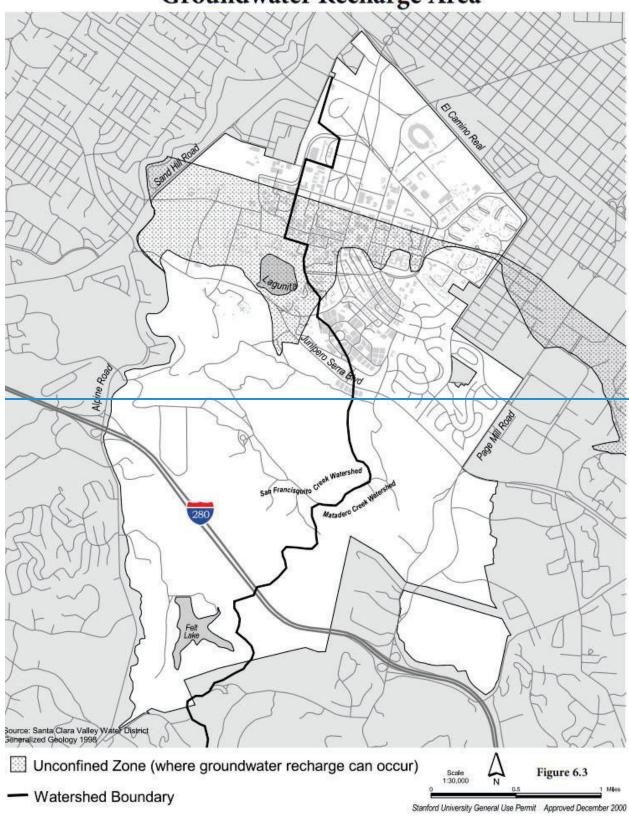
# **Figure 6.2 – Watershed Boundaries**











### Strategy #<u>No.</u> 4: Reduce Non-Point Source Pollution

Non-point source pollution has been identified as a major regional problem, account—ing for approximately half of the contaminants discharged into San Francisco Bay. This type of pollution ste<u>mm</u>s from a variety of sources on the campus, such as streets, park—ing lots, agricultural waste and runoff, erosion, and chemical or other waste from re—search activities. Stanford and the County's efforts to reduce non-point source pollution are diverse, ranging from public education to development and implementation of best management practices.

Agricultural activities on leased lands owned by the University have been a-particular source of water pollution. These activities are under the influence of Stanford as a land-owner, but not the direct control of Stanford as an operator. As a landowner, Stanford has the ability to require water pollution prevention practices as terms and conditions of its leases.

### Policies

### SCP-RC 12

<u>Require Stanford to C</u>continue the use of appropriate best management practices to reduce nonpoint source pollution in agricultural, recreational, and academic areas and for construction activi—ties, and include these practices as terms and conditions of leases of Stanford lands.

### SCP-RC 13

In planning for new development and redevelopment, utilize site, building and landscape design features which serve to reduce non-point source pollution.

### SCP-RC 14

Promote and participate in interjurisdictional efforts to identify and reduce non-point source pollution and to develop economically viable best management practices for improving water quality.

### SCP-RC 15

Emphasize groundwater recharge through natural percolation and filtration over increased runoff to storm drains and creeks.

### Implementation RecommendationMeasures

### SCP-RC (i) <u>13</u>12

<u>Stanford shall</u> <del>D</del><u>d</u> evelop education programs for relevant University personnel and for campus lease--holders on water quality issues.

### SCP-RC (i) 1413

<u>Stanford shall</u> <u>C</u>onduct regular maintenance on existing storm water systems.

### SCP-RC (i) <u>15</u>14

Incorporate conditions within approvals for new development to minimize sources of non-point source pollution and employ best management practices as mitigations.

# Strategy #<u>No.</u> 5: Enhance and Restore Wetlands, Riparian Areas, and other Habitats that Improve Watershed Quality

A critical feature of efforts to improve regional water quality is the existence of func-tioning wetlands and surrounding vegetated areas. Wetlands and associated vegetated areas act to reduce erosion, absorb runoff, and reduce the intensity of flood events. Nat-ural areas contribute to water quality of both surface water features and underground aquifers. This function adds to the County and Stanford's interest in the protection of riparian areas through streamside buffers and in the protection of central-campus wet-lands, particularly in the Arboretum and around Lake Lagunita.

### Policies

### SCP-RC 16

Assist Stanford in identifying and implementing agricultural and other land manage-ment practices that promote native species and that contribute to erosion control.

### SCP-RC 17

Avoid development in Special Conservation Areas, riparian areas and wetlands.

### SCP-RC 18

Maintain native plant communities south of Junipero Serra Boulevard and in Campus Open Space areas such as oak woodland, chaparral, and riparian trees and shrubs that serve to prevent soil erosion and creek bank collapse.

### SCP-RC 19

Enhance seasonal wetlands in the Arboretum.

### SCP-RC 20

Continue to seasonally fill Lake Lagunita and create seasonal wetlands habitat, creek flow permitting, subject to the Stanford University Habitat Conservation Plan (HCP).

### Implementation RecommendationMeasures

### SCP-RC (i) <u>16</u>15

Where appropriate during development and redevelopment, Stanford shall be required to relocate structures, roads, and trails away from creeks and in a manner that minimiz—es the addition of impermeable surfaces.

### SCP-RC (i) <u>17</u>16

Incorporate flood control features such as detention basins into new development. Design and engage in flood control activities for entire drainage areas rather than on project-by-project basis for each new campus facility.

### Strategy #<u>No.</u>6: Prepare and Implement Comprehensive Watershed Management Plans

The primary goal of watershed management planning is greater assurance of water quality, with the important additional benefits of habitat and natural resource protec—tion. Because watershed management issues are complex and involve multiple parties, efforts have increased in the last several years to approach water quality issues from a comprehensive watershed management approach. One such ongoing endeavor is the Watershed Management Initiative for Santa Clara County, in which numerous jurisdic—tions and stakeholders have worked together over time to address watershed manage—ment and water quality collectively from a comprehensive perspective.

Stanford's participation in the preparation and implementation of watershed manage-ment plans is important due to the amount of land owned by the University and the variety of activities and resources on University lands. In order to manage watersheds on Stanford lands and to contribute to regional planning, Stanford contributes scientific information and participates in regional planning efforts such as that of Joint Powers Authority for San Francisquito Creek Watershed.

### Policies

### SCP-RC 21

Support and encourage Stanford's participation in regional watershed management planning and implementation for watersheds including Stanford lands.

### Implementation RecommendationMeasures

### SCP-RC (i) <u>18</u>17

Stanford <u>should-shall</u> continue to participate in region-wide watershed conservation and management activities (e.g. Coordinated Resource Management Program and the Joint Powers Authority for San Francisquito Creek).

### **SCP-RC (i) 19**

Stanford shall periodically prepare an updated Drainage Master Plan based on Countyspecified design criteria upon approval of a new or major modification of a General Use Permit (GUP).

# Heritage Resources Background

Heritage resources at Stanford include those features which reflect and embody the campus history. Many of these features are central to the visual and functional form and character of the campus. While many equate heritage resources with historic buildings only, these resources encompass a range of features that contribute to the campus heritage, including archaeological sites from prehistoric and historic times as well as major landscape features.

### **Archaeological Sites**

Archaeological sites are an important link to the past and source of understanding of the area's history. Archaeological sites at Stanford reach as far back as remains indicat—ing a human presence 7,600 years ago. Resources on the Stanford campus include sites from the local Muwekma Ohlone culture and their ancestors, as well as nineteenth- and earlier twentieth-century archaeological deposits associated with Spanish, Mexican, early American, and Stanford history.

Stanford faculty and students have conducted archaeological digs on campus since the 1920s. In 1986, the Campus Archaeology program made the first effort to systematically investigate the entire 8,180-acre land holding. More than 50 prehistoric archaeological sites relating to the ancestors of the local Muwekma Ohlone culture, primarily along the creeks at the campus edges, were identified during that process.

Historic records have also been investigated to ensure documentation of deposits associated with European settlers and their descendants. It is customary not to include maps of archaeological sites in plans in order to help protect the integrity of the sites. Stanford makes efforts to protect these ancient sites and has designed development to avoid or to permit and mitigate potential impacts to prehistoric resources.

The University created an 11-acre archaeological preserve along San Francisquito Creek in 1986 that encompasses one of the oldest prehistoric sites on the campus. A conser–vation easement was dedicated over this preserve in conjunction with the City of Palo Alto's development agreement for the Sand Hill Road projects in 1997.

Prehistoric sites are generally protected from development disturbance by the Com–munity Plan land use designations and Academic Growth Boundary (AGB). In the event that future development does occur that affects prehistoric sites, such as in the golf course, protective measures would be required. Ecological restoration and flood control in creeks also pose a threat to archaeological resources, which should be considering in the planning and implementation of such efforts.

During the implementation of the 2000 General Use Permit (GUP), no building projects were sited on or in the immediate vicinity of a mapped prehistoric or historic archaeological site. No previously unknown sites or human skeletal remains were discovered during building construction.

### **Historic Structures and Sites**

The Stanford University campus contains a number of significant historic structures and sites associated with the Stanford family and the University, as well as with the previous occupants of the land. Stanford's academic facilities include <u>more than 200approximately 365</u> structures that meet the minimum age criteria for being potentially historic, i.e., constructed more than 50 years ago. (See **Figure 6.4 -Age of Existing Structures**). In addi–tion to these resources related to Stanford's history over the past 120 years, the Univer–sity lands contain a small number of older structures dating from the 1860s and 1870s, prior to the establishment of the Stanford Palo Alto Stock Farm and the University.

The University established a Historic Values Subcommittee, an advisory group to the University Committee on Land and Building Development, in 1987 to evaluate the significance of campus buildings and landscapes. The Historic Values Subcommittee maintains a Historic Values Index (HVI) to inform their recommendations on historic structures and features. The HVI has been in use since 1986 as a mechanism for evaluat-ing the relative historic value of campus features in order to guide land use and build ing projects. To date, 94 buildings or other features (such as Palm Drive) have been evaluated for placement on the HVI Cumulative Evaluation Index. Inclusion on the in dex is based on five criteria: age, aesthetic quality, uniqueness at Stanford, importance in Stanford history, and importance to the external community. Structures more than 50 years old are evaluated for inclusion on the HVI. The University has included reports on the activities of the Historic Values Subcommit-tee, as well as projects relating to historic structures, in the Annual Report required by the 1989 GUP. While the Historic Values Index provides important information about the local significance of campus structures, the Index is not an official listing or register of historically important resourcSome campus buildings appear on Efederal, Sstate, and Ceounty lists of historic resources, including the Santa Clara County Heritage Resources Inventory. (Figure 6.5 - Listed Historic Structure).

Stanford's faculty and staff housing area, referred to as the San Juan Residential District, also contains significant historic structures associated with prominent architects. The area includes seven buildings that are listed resources including one listed on the National Register; four listed locally on the County's Heritage Resource Inventory (HRI); one listed on the HRI and designated as both a National Historic Landmark and California Historical Landmark; and one listed on the HRI and as a National Historic Landmark.

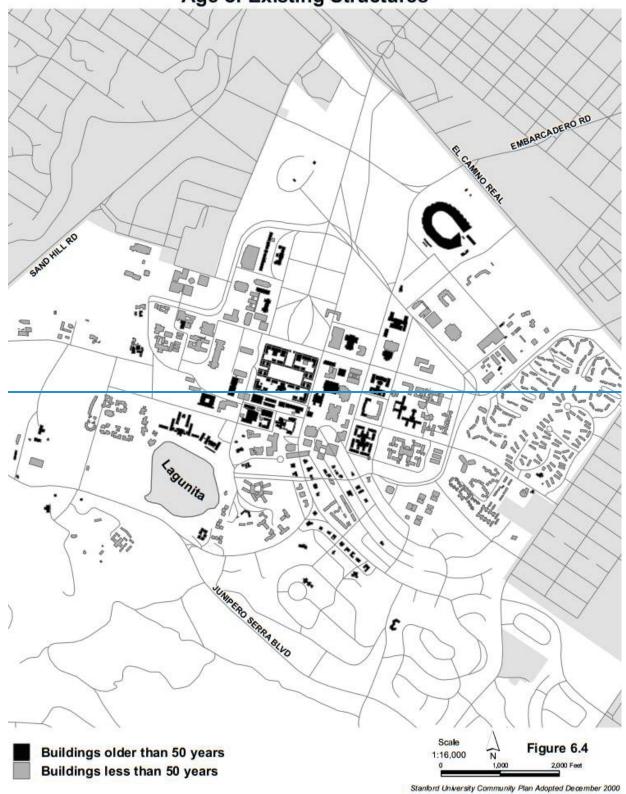
<u>The County Planning Office commissioned a historic resources survey for four out of eight</u> neighborhoods of the Residential District (**Figure 6.6 – San Juan Residential District Survey**  **Area Map**) to assess if the Residential District or portions of it merit designation as a historic district. The survey identified a potential historic district in Lower San Juan Neighborhood as eligible for listing and provided a context for individual property evaluations and future district studies, as documented in the San Juan Residential District Historic Resources Survey Report, dated March 2021.

The County's Heritage Resources Inventory (HRI) is a publication of the Santa Clara County Historical Heritage Commission. Stanford projects which involve properties <u>structures</u> included in the <u>HRI</u>, or structures determined by the County Planning Office to be eligible for listing, or new development in proximity to listed or potentially historic structuresCounty's Heritage Resources Inventory are referred to the Historical Heritage Commission for review and comment, and potential impacts on any historic resources are also considered in the environmental review process associated with a development proposal. The County has an established -process for evaluation and protection of historic resources.

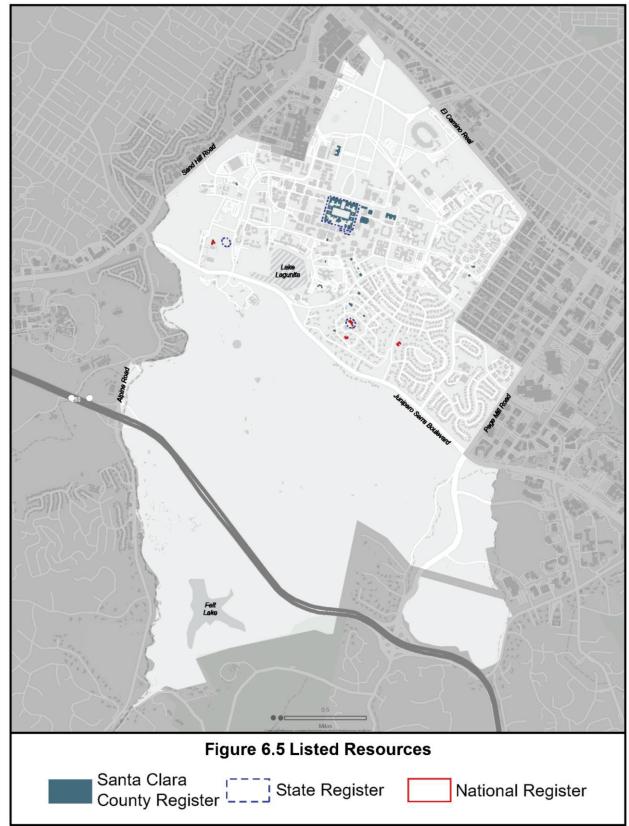
As with other resource conservation issues, the strategies for conservation of historic resources call for inventorying and evaluating the resources involved, preventing and minimizing impacts, and restoring and enhancing resources, as appropriate.

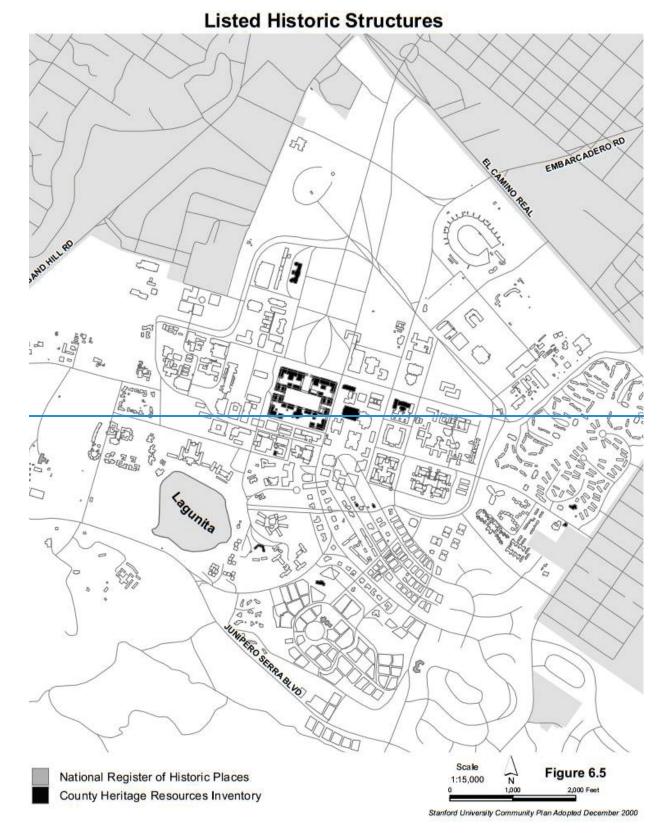


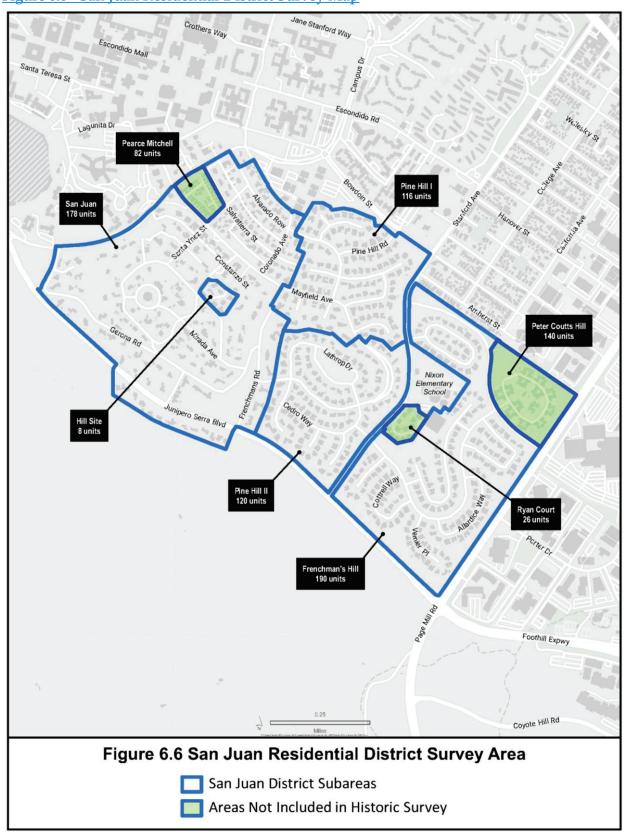




### **Figure 6.5 – Listed Resources**









## Strategies, Policies and Implementation

### Strategy #<u>No.</u>7: Inventory and Evaluate Heritage Resources

The key architectural and landscape elements that define the character of the campus should be identified and evaluated for the purpose of ensuring their protection in fu–ture planning.

The County's primary mechanism for identifying and evaluating heritage resources is the Historic Heritage Commission and the Heritage Resources Inventory. Campus features which are highly rated in Stanford's Historic Values Index are not necessarily included in the County's inventory. Structures that are 50 years or older are assessed for historic value through the trigger of proposed building projects, such as demolition, remodeling, or alteration. If through the review process, the structure in question is found to be eligible for listing, it is Each must be individually considered and included within the County's Heritage Resources Inventory by action of the Board of Supervi–sors. Evaluating Stanford's historic resources for inclusion in the Heritage Resources Inventory is will be an important ongoing aspect of the conservation of these resources.

### Policies

### SCP-RC 22

Maintain informational databases and formal inventories of heritage resources as the basis for local decision-making regarding historic buildings, archaeological and paleon—tological sites, heritage trees, and landscape features.

### Implementation RecommendationMeasures

### SCP-RC (i) 2018

Stanford shall inventory, map, and monitor the status of archaeological and paleonto–logical resources on Stanford lands and prepare and update archaeological site records for transmittal to the California Historical Resources Information System.

### SCP-RC (i) 2119

Review existing and potential historic resources at Stanford for possible inclusion on the County's Heritage Resources Inventory, including heritage trees. As part of a development application, provide for documentation of existing and potential historic resources at Stanford for possible inclusion on the County's Heritage Resources Inventory (HRI), including historic landscapes and heritage trees.

### **SCP-RC(i) 22**

Evaluate and enact appropriate designation for areas of San Juan Residential District identified by the historic resources survey as potential for historic district designation if significant development is proposed in those areas, specifically the Lower San Juan Neighborhood area.

### Strategy #<u>No.</u>8: Protect Heritage Resources Through Avoidance, Adaptive Reuse, and Sensitive Planning and Design

Heritage resources can be protected in a variety of ways. Of primary importance are land use planning and site design that incorporate historic features, heritage trees, and archaeological resources in ways that avoid the need for relocation or destruction of the resource. Another involves the careful review and consideration of alternatives to the potential loss of a resource when plans or individual development proposals conflict with heritage resource preservation.

One opportunity for heritage resource conservation is adaptive reuse of historic struc-tures rather than demolition when a building becomes obsolete. Stanford has employed both adaptive reuse and avoidance in site design in numerous cases over time.

For example, Encina Hall, a designated historic structure, was one of the first dormito-ries on the campus. It was used for administrative offices, and is now being converted for academic use. T<u>t</u>he Stanford Museum (now the Iris and Gerald B. Cantor Center for the Visual Arts) was extensively restored in conjunction with construction of a new building to expand the facility. Stanford's record of historic preservation has been ac-knowledged through the Covernor's Award for Excellence in Historic Preservation in 1999, an Honor Award from the National Trust for Historic Preservation in 2000, and many national awards for individual restoration projects.

While it is common to recognize, acknowledge and restore important historic build—ings, the preferred approach for archaeological resources is to allow the sites to remain undisturbed and leave their locations undisclosed.

The General Plan recognizes the importance of preserving heritage resources as well as the difficulties and financial burdens of adapting older structures to modern use. The challenge for Stanford and the County in the future is to plan for preservation and pro–vide incentives rather than disincentives for adaptive reuse.

### Policies

### SCP-RC 23

Protect heritage resources, including sites, structures, and trees in campus development through careful campus land use planning, individual project design, project review, use of appropriate guidelines, and other implementation measures.

#### SCP-RC 24

Protect the integrity of significant archaeological sites and other heritage resources. En–sure the confidentiality of archaeological site locations in conformance with <u>S</u>etate laws.

### SCP-RC 25

Take into account the need to <u>pP</u>rotect archaeological and paleontological resources in any environmental enhancement activities involving creek restoration and flood control.

### SCP-RC 26

Give priority to the avoidance or adaptive reuse of historic structures over demolition whenever possible.

### Implementation RecommendationMeasures

### SCP-RC (i) 2320

Require adequate background information, and site plans, and appropriate Secretary of the Interior's Standards compatibility analysis to assist in evaluation of po-tential impacts to heritage resources resulting from project development.

### **SCP-RC (i) 21**

Acknowledge and make use of the information contained within the University's His- toric Values Index, as appropriate, when considering individual project applications.

### SCP-RC (i) 2422

<u>The County should Ii</u>dentify appropriate incentives and seek opportunities to encourage preservation of historic structures on the campus.

# Scenic Resources Background

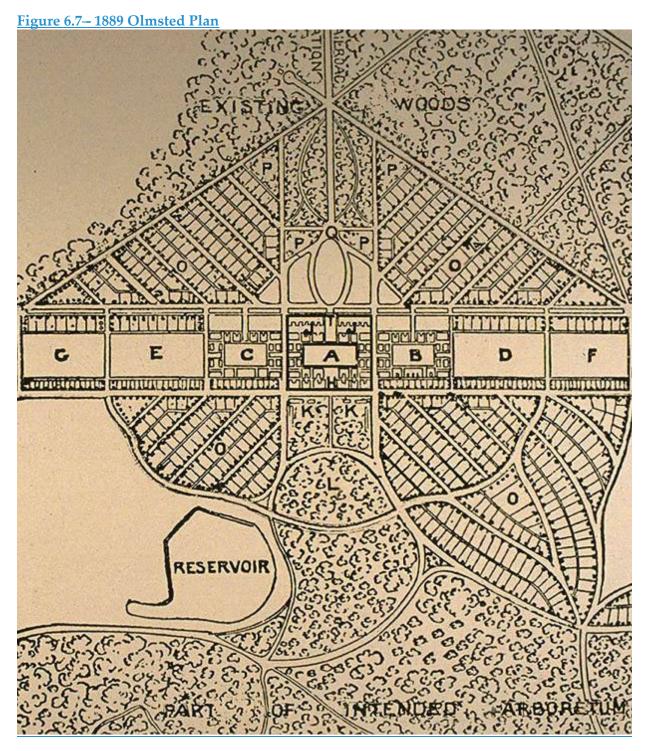
The Stanford University campus and its associated undeveloped lands are a significant visual resource on the northern edge of the County. The largely undeveloped hillsides, natural streams, landmark architecture, and landscape setting of the central campus are important to the quality of life in this area of the <u>C</u>eounty.

### **Central Campus**

Stanford <u>has made is making</u> substantial efforts to improve the visual character of the central campus through a return to the concepts behind the original <u>Olmstead</u> campus plan<u>(see Figure 6.7 - 1889 Olmsted Plan</u>), which called for a series of interconnected quads in a formal setting. <u>The Olmsted Plan put in place a series of design strategies that have become defining features</u> of the Stanford University campus. These core features of the plan are strong enough that, even

with development decisions in the intervening decades that ran counter to the plan, the framework carried through and provides the grounding principles for planning and architecture that is undertaken today. These elemental features of the Olmsted, as seen in Figure 6.7, include:

- The juxtaposition of the open hills and the buildings of the main campus
- The buffers for the campus created by the foothills to the south and the arboretum to the <u>north</u>
- The envisioned series of east-west quadrangles
- The network of malls that run both north-south and east-west



Recently, the University has fo-cused on emphasizing the major axes crossing the campus and on enhancing the natu-ral landscape and creating contrasts between formal landscaped areas and more natural settings. Additional efforts have been made to translate the campus architectural ver-nacular of sandstone, red tile roofs, and arcades to a contemporary use in new campus buildings. Open spaces in the central campus also contribute significantly to Stanford's visual character; both major spaces like the Arboretum or Lake Lagunita and small open and landscaped settings are integral to the campus.

### Foothills

While the central campus is a setting that is generally experienced only by those actually on the campus, the undeveloped foothills are an important component of the region—al setting that help define the visual character of the surrounding communities. Strong limitations on foothill development espoused and established in this Community Plan will help protect the predominantly natural appearance of the foothills. If appropriate development does occur consistent with the Open Space and Field Research land use designation, screening or other strategies that minimize the impact of any new struc—tures or developed areas can be incorporated in project design and mitigations.

The strategies for protection of visual resources differentiate between the open space and the central campus\_built environment, reflecting the differences in these two visual environments and in appropriate protection mechanisms.

## Strategies, Policies and Implementation

The land use designations adopted in the Community Plan afford significant protection for lands both in the Campus Open Space areas and in the Open Space and Field Re–search areas beyond the limits of the Academic Growth Boundary (AGB). The natural streams which cross the campus are protected by riparian buffer zones, as discussed in the Habitat and Biodiversity and Water Quality and Watershed Management sections of this chapter. In addition, the Community Plan provides for parks and recreational open space in the Open Space chapter. These land use policies are reflected in the Land Use Designations, described in the Land Use chapter.

## Strategy #<u>No.</u>9: Employ Growth and Development Policies That Conserve Scenic Resources

### Policies

### SCP-RC 27

Protect the scenic and aesthetic qualities of the natural setting of Stanford lands in the County by means of appropriate land use designations, growth management tools, and careful review of individual development projects.

SCP-RC 28

Emphasize development within the Academic Growth Boundary (see Land Use and Growth and Development chapters).

### **Implementation Measures**

### SCP-RC(i) 2925

Ensure adequate screening and reduction of visual impacts of any development in designated open space areas through the development review process.

# Strategy #<u>No.</u>10: Maintain and Enhance the Scenic Values of Urbanized Area Settings

The Community Plan includes measures designed to protect open space and historic landscape elements on the central campus, as well as significant architectural land—marks contributing to the scenic quality of the area. In addition to the policies described above in the Heritage Resources section, the Campus Open Space land use designation has been adopted in part to protect the scenic character of major campus open spaces (see Open Space Chapter).

The County's role in enhancing the scenic character of the central campus is review<u>ed</u> through the Architecture and Site Approval <u>process</u>. This review ensures adequate and inte\_grated landscaping and screening, when appropriate. Through the University Archi-tect/Planning Office the University takes the lead role in defining the character of the <u>campus builtcampus-built</u> environment.

### Policies

### SCP-RC 3028

Preserve and enhance attractive, scenic urban settings on the Stanford campus and within Stanford's residential areas.

### SCP-RC 3129

Preserve significant historic landscape elements within the fabric of the campus' archi-tecture and design.

### SCP-RC <u>3230</u>

Maintain elements of the native landscape in Campus Open Space areas and through—out the developed portion of the campus.

### SCP-RC 3331

Maintain sign standards to ensure that signs are harmonious with the character of sce-nic area.

### **Implementation Measures**

<u>None</u>

# Health & Safety

# **Chapter Summary**

This chapter of the Stanford Community Plan addresses a range of public health and safety issues. It includes policies that are intended to minimize potential human or en–vironmental injury and property damage.

This chapter refines the Strategies identified in the County's General Plan Health and Safety chapter for the following sections that require further refinement for Stanford lands:

- Air Quality,
- Geological Hazards,
- Flooding,
- Hazardous Materials,
- Emergency Preparedness and Response,
- Noise, and
- Law Enforcement.
- Social and Emotional Health
- Climate Change and Climate Adaptation

Other Health and Safety topic areas discussed in the County's General Plan include Aviation Safety, Fire Hazards, Health and Safety Facilities Planning, and <u>Waste WaterWastewater</u> Disposal. These subjects do not require refinement in the Stanford Community Plan because the strategies, policies, and implementation recommendations contained in the General Plan are in sufficient detail to guide Stanford land use.

The overall strategies or public policy approach to addressing Health and Safety issues involve prevention, mitigation, or minimizing risk, and preparedness. <u>The COVID-19 pandemic</u> reinforced the need for a renewed and heightened commitment to make communities better prepared and resilient against all forms of public health threats. These overall strategies provide a framework for understanding the more detailed <u>social</u>, <u>behavioral</u>, <u>and physical</u> policies that have been developed with respect to natural hazards, for example. Where most applicable, these strategies also provide the basic framework for public policy with regard to the Stanford <u>Community</u> Plan.

It should be further noted that with regard to sanitary waste-water disposal, the Univer–sity maintains a sanitary sewer collection system that serves all areas of the main cam–pus. The campus sewer system consists of approximately 46 miles of sewer lines. The Stanford sewer system connects to the Palo Alto sanitary sewer system and the sewage is treated at the Palo Alto Regional Water Quality Control Plant (RWQCP). The City of Palo Alto operates the RWQCP for the communities of Palo Alto, East Palo Alto, Los Altos Hills, Mountain View, and Stanford University.

The Community Plan contains the following strategies for health and safety:

<u>Air Quality</u>	
Strategy <u>No.</u> # 1:	Manage Campus Growth and Land Use for
Cleaner Air	
Strategy <u>No.</u> # 2:	Emphasize Transportation Alternatives and
	Transportation Demand Management to Reduce Vehicle
	Emissions
Strategy <u>No.</u> # 3:	Control Sources of Particulate Emissions
<u>Geologic Hazards</u>	
Strategy <u>No.</u> # 4:	Design, Locate, and Regulate Development to Avoid
	or Withstand Hazards
Flood Hazards	
Strategy <u>No.</u> # 5:	Design, Locate, and Regulate Development to Avoid
	or Withstand Hazard
<u>Hazardous Materials</u>	
Strategy <u>No.</u> # 6:	Manage Hazardous Materials Safely and
Efficiently	
Emergency Preparedness	-
Strategy <u>No.</u> # 7:	Adequately Plan for Risk Reduction, Immediate Disaster Response and Post-Disaster Recovery
	Disaster Response and Post-Disaster Recovery
<u>Noise</u>	
Strategy <u>No.</u> # 8:	Prevent or Minimize Excessive Noise
Law Enforcement	
Strategy <u>No.</u> # 9:	Provide Law Enforcement Oversight

Social and Emotional Health

Strategy No. #10:Ensure Provision of Services, Policies and Programs thataddress Social and Emotional Health

Climate Change and Adaptation Strategy No. #11: Plan for Climate Change and Adaptation

# Air Quality Background

Air quality is a regional concern that requires regional participation for improvement. Air quality is affected by emissions from automobiles, industrial facilities, construction, and other activities; the effects of these activities on air quality is further influenced by weather, wind and topography. Pollution created in one location has the potential to affect air quality many miles away. Air quality is measured and described through concentrations of pollutants, and is evaluated based on <u>Setate and Ff</u>ederal standards for a variety of pollutants.

Pollutants of the greatest concern in the San Francisco Bay Area, and which are most applicable to Stanford, are ground-level ozone (O3) and respirable particulate matter (PM10). The Bay Area is "non-attainment" for O3 according to state and federal standards and is "non-attainment" for PM10 according to <u>S</u>state standards.

Ozone is produced primarily from motor vehicle emissions and is the primary compo-nent of smog. The concentration of ozone can primarily be reduced through reductions in automobile use that stem from location of homes, jobs, and services in close proxim—ity to one another and through use of alternative transportation or alternative fuels.

Respirable particulate matter is a combination of pollutants that includes dust, pollen, ash, smoke, and other similar pollutants. While some forms of PM10 result from natural processes, others can be reduced or avoided through "best management practices" that reduce dust from construction activities and through control on industrial emissions. For more detailed information on air quality issues, refer to the Countywide Health and Safety Chapter, Book A, Element of the General Plan.

Stanford University's four-remaining three primary sources of air pollution are:

- Motor vehicle exhaust: Stanford's Transportation Demand Management (TDM) program is meant to reduce use of automobiles, leading to corresponding reduc-tions in the emission of pollutants. The same strategies that are applicable <u>Ceounty</u>- and regionwide for reducing motor vehicle use are applicable to Stanford as well: coordinated land use patterns that allow for reduction or elimination of automobile trips and measures to facilitate the use of alternative transportation modes. Pro-grams to encourage these methods are in place and will be continued at Stanford. Electric, hybrid, and other alternative-fuel vehicles are other options for automo-bile emission reduction. Cardinal Cogeneration Power Plant (Cardinal Cogen). Cardinal Cogen is a com-binedcycle power plant on the Stanford campus providing steam, chilled water, and electrical power for the core campus and the Medical Center. The plant burns natural gas, with its major emissions being nitrogen oxides (NOx) and carbon monoxide. The plant is permitted through the Bay Area Air Quality Management District; by granting this permit, the District indicates that the equipment should meet all air quality standards. The permits are held by Cardinal Cogen, which is a wholly owned subsidiary of General Electric.
- Facility maintenance and laboratory activities. Stanford produces intermittent, lowvolume emissions of odorous and/-or toxic substances resulting from various facility maintenance and research activities. Stanford currently reduces these emis—sions through various operational procedures.
- **Construction.** Construction projects on campus create particulate matter pollu—tion during ground disturbance. Stanford utilizes procedures to control particulate matter during construction projects and from equipment exhaust which have been identified by the Bay Area Air Quality Management District (BAAQMD).

# Strategies, Policies, and Implementation

The strategies and policies for managing campus growth, together with the Land Use Designations of the Community Plan are consistent with the fundamental approach to improved air quality outlined in the General Plan. By focusing future campus devel—opment within the Academic Growth Boundary (AGB), emphasizing higher density of resi-dential development, locating new residential development close to related academic facilities, and

providing neighborhood commercial services and amenities close to resi-dential development, land use patterns can contribute greatly to the success of related strategies to manage travel demand and reduce dependency on the automobile.

### Strategy #<u>No.</u> 1: Manage Campus Growth and Land Use for Cleaner Air

### Policies

### SCP-HS 1

Limit campus growth and development to lands within the Academic Growth Bound–ary (AGB) in order to minimize cumulative impacts on air quality.

### SCP-HS 2

Within the Academic Growth Boundary (AGB), emphasize concepts of appropriate integration of land uses, compact campus development patterns, and more efficient, higher density residential development to reduce <u>VMT</u>, automobile dependency, <u>and greenhouse gas</u> <u>emissions, and and</u> promote use of alterna—tive transportation modes.

### SCP-HS 3

Encourage Stanford to prepare a campus-wide construction laydown areas management plan to improve application of performance standards (Best Management Practices - BMPss) for reducing particulate matter pollution on campus. Identify potential centralized construction laydown areas to serve multiple construction projects and reduce the number of laydown sites dispersed across campus.

### Implementation RecommendationsMeasures

### None

## Strategy #<u>No.</u> 2: Emphasize Transportation Alternatives and Transportation Demand Management Reduce Automobile Dependency and Vehicle Emissions

Closely linked to growth management and land use patterns, provision of travel alter-natives and transportation demand management (TDM) are also instrumental in reduc-ing vehicle emissions and improving air quality. The subjects of transportation alter-natives and TDM are most thoroughly addressed in the County's General Plan within the Transportation Chapter and Air Quality Section of the Health and Safety ChapterElement.

Additional information on Stanford's use of these strategies is also provided in the Cir–culation Chapter of the Community Plan.

### Policies

### SCP-HS <u>4</u>3

Maintain and enhance the use of transportation alternatives and demand management to the extent allowed by law for the purpose of reducing automobile dependency, re—ducing trip generation, and reducing vehicle emissions.

### SCP-HS 54

Promote the use of alternative fuel and propulsion systems for shuttle vehicles, other transit vehicles, construction, and fleet vehicles.

### Implementation Recommendation Measures

### SCP-HS (i) 1

Consider a program that would provide incentives for the increasing use of electric, hybrid" gas and electrichydrogen, or other reduced zero-emission vehicles towards meeting the "no net new commute trips" transportation performance standards.

### **Strategy #<u>No.</u>**3: Control Sources of Particulate Emissions

Particulate emission sources range from earthmoving and construction equipment to gasolinepowered leaf blowers, wood-burning fireplaces and charcoal grills. Each con-tributes to various types of pollutant emissions to varying degrees. Primary emphasis for Stanford involves the reduction of construction-related emissions.

Trucks, earthmoving equipment, and construction activities can introduce particulate matter and dust that have localized impacts as well as cumulative impacts in the region. There are a variety of best management practices (BMP's) intended to reduce the amount of particulates generated by these sources. Potential air quality impacts from significant construction projects are typically addressed within the environmental assessments and conditions applicable to each development project. The latter often involve best man–agement practices as defined the Bay Area Air Quality Management District (BAAQMD) for such purposes.

### Policies

### SCP-HS 65

Reduce particulate matter pollution originating from road and building construction. Require all best management practices (<u>BMPs</u>) and feasible control measures through project conditions and mitigations, as appropriate.

### Implementation Recommendation Measures

### SCP-HS (i) 2

Require Stanford to use appropriate best management practices (<u>BMPs</u>) and other feasible mitigation for the reduction of particulate matter pollution during construction.

# *Geological Hazards* Background

The Stanford campus is located on the boundary between the San Francisco Bay alluvial plain to the northeast and the foothills of the Santa Cruz mountains to the south and southwest. The western boundary of the Community Plan area lies approximately <u>2two</u> miles east of the San Andreas fault.

### **Earthquake Faults**

Earthquake faults are the contact areas between major plates of the earth's surface. The San Andreas fault is the contact surface between the North American plate on the east and the Pacific plate to the west. Over many millions of years, the relative movements of these two plates have deformed bedrock units which have, in turn, been eroded differentially, resulting in the northwest-trending ridges and valleys present in Santa Clara County and throughout the Coast Range. Continued movement of the Pacific plate northwards relative to the North American plate causes strain to accumulate in the bedrock, which is periodically released by fault rupture along the San Andreas and other related faults nearby, producing earthquakes of various magnitudes.

While the San Andreas fault is the most well-known fault in the vicinity of the Univer–sity, <u>there are</u> other related faults which are also sources of seismic activity in the area. These include the Hayward, Calaveras, San Gregorio, and Monte Vista/Berrocal faults.

Stanford has been substantially affected by earthquake activity in the past, including the 1906 earthquake which originated on the San Andreas fault (Richter magnitude 8.25) and the 1989 Loma Prieta earthquake (magnitude 7.1), which occurred on a fault subordinate to the San Andreas. The 1906 earthquake completely destroyed several major unreinforced masonry buildings on the campus. While no buildings collapsed during the 1989 earthquake, moderate damage was widespread., and repairs to campus structures are still underway after 10 years, at a cost of many millions of dollars.

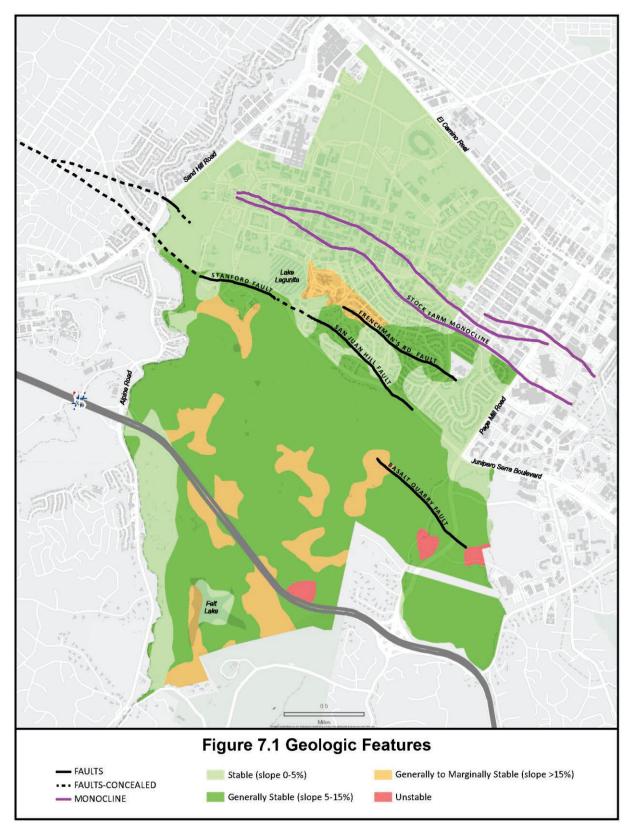
Several small faults have been mapped on Stanford lands, including the Frenchman's Road, Stanford, San Juan Hill, and Basalt Quarry faults (see **Figure 7.1 – Geologic Fea–tures**). These faults are all 2.5 miles or less in length. The degree of activity of these faults is not known with any certainty, and they are subject to investigations prior to development approvals within their fault zones.

### **Stock Farm Monocline**

Another geologic feature of concern on the Stanford campus is the Stock Farm Mono-cline. The monocline is a northwest-trending feature indicated by a northeast-facing slope located between Page Mill Road and Campus Drive West. It has been studied ex-tensively and judged to be an active fold in the geologic strata. An underlying "blind" thrust fault is believed to produce the folding, but it is not certain whether the thrust fault is capable of generating earthquakes.

Although no surface deformation has been detected on the monocline as a result of the 1906 or 1989 Loma Prieta earthquakes, it is considered capable of having minor ground deformation along its lower hinge in association with a strong earthquake originating on the San Andreas fault. <u>Several inches of bending and compression are possible over a zone up to 100 feet wide, according to the 1995 Dames and Moore report. Conse-quently, a "zone of special consideration" has been established along the lower hinge of the monocline where it crosses the Stanford campus, and special requirements were established for all projects within the Monocline Zone, subject to review by the County Geologist.</u>

### **Figure 7.1 – Geologic Features**





# **Geologic Features**

### Seismic Hazards and Slope Stability

Seismic hazards include ground shaking, surface rupture, ground deformation, liquefaction, and differential settlement. Shaking intensity is a measure of the effect of an earthquake at a specific location. The intensity of ground shaking depends on several factors including:

- the amount of energy released during the earthquake (magnitude)
- the distance between the source fault and the site (attenuation)
- the type of geologic material underlying the area (amplification).

Slope instability, which can also be related to seismic activity, is the other primary geologic hazard that potentially affects Stanford land. Landsliding can occur when- soils rich in clay minerals are saturated with water, reducing the shear strength of the soil and underlying rock. Modifications of topography or drainage can also destabilize slopes and lead to landsliding. Earthquakes can also cause landsliding in areas prone to slope instability. Areas with high landslide potential in the foothills portion of Stanford lands are shown on the map of Geologic Features.

### Measures for Hazard Reduction and Management

The areas of Stanford land in the County that might be subject to greatest slope instability are located outside the Academic Growth Boundary Academic Growth Boundary (AGB). Land uses within these areas have been restricted by the Land Use designations and policies included within the Community Plan, consistent with the General Plan. In particular, the "Open Space and Field Research" designation applied to most of the land area in question limits allow—able land uses and minimizes the potential risk to people and property from seismic and geologic hazards. "Unstable" slope areas are designated "Special Conservation Areas" in the Community Plan Land Use Map (see Figure 2.2).

Following the Loma Prieta earthquake in 1989, the University prepared the Earthquake Risk Management Report of 1990. The report recognizes the risks from earthquakes on the Peninsula Segment of the San Andreas Fault, outlines ways to strengthen poten—tially hazardous buildings and improve organizational preparedness, and establishes institutional goals during and following an earthquake nearby.

<u>Since 1989,</u> <u>T</u>the University's seismic strengthening and replacement program has resulted in the investment of approximately <u>\$600 million in over 100 seismic rehabilitation projects. This includes the retrofit and/or mitigation of approximately forty--five unreinforced masonry buildings that were completed by 2000 to conform to the Santa Clara County URM Ordinance, as well as numerous voluntary seismic strengthening projects.</u>

Additionally, the University published Seismic Engineering Guidelines to supplement the Department of Project Management's Project Delivery process in October 2017. This document provides guidelines, codes, and practices that ensure new facilities meet applicable design and safety standards and that existing facilities meet seismic evaluation and retrofit standards. The document also provides analysis and defines a process for workflow and peer review to ensure

buildings perform appropriately under postulated earthquake levels. \$250 million in nearly 100 seismic rehabilitation programs since 1989. The work includes the retrofit of approximately 45 hazardous unreinforced masonry (URM) buildings by the year 2000 to conform to the Santa Clara County URM Ordinance. Stanford's seismic strengthening program meets the requirements of the Uniform Building Code (UBC) and all current amendments.

# Strategies, Policies, and Implementation

The strategy of the Community Plan for geologic hazard mitigation involves the adequacy of the design, location, and review of individual development proposals within areas of the campus designated for academic and residential development.

Given the considerable amount of <u>S</u>state and local regulation concerning seismic safety for building and development, policies of the Community Plan essentially reiterate existing General Plan policies, with particular geologic review requirements for Stanford lands in the Stockfarm Monocline "zone of special consideration."

Otherwise, the policies of the Growth and Development, Land Use, and Open Space chapters of the Community Plan serve to significantly limit the potential use and de-velopment of areas outside the Academic Growth Boundary (AGB) such that the risk of expo-sure to natural hazards is low. The information provided within the Community Plan, General Plan, and the maps and inventories of the County Geologist, including the County's Geologic Hazard Zone Maps are utilized in land use and development permit decision-making processes. Lastly, educational programs or efforts related to natural hazards for Stanford campus residents and employees are described in the Emergency Preparedness and Response section of this chapter.

# Strategy #<u>No.</u>4: Design, Locate, and Regulate Development to Avoid or Withstand Hazards

Campus areas designated for academic use and development north of Junipero Serra Boulevard are generally not subject to significant slope stability problems or greater ground-shaking intensities than other similar areas within the region. The primary means of assuring adequate building safety are the provisions of the County's Geologic Ordinance, <u>S</u>state law, and adherence to applicable provisions of the Uniform Building Codes.

### Policies

### SCP-HS 76

Avoid significant geologic hazard areas, such as unstable slopes, in locating new de-velopment. For projects proposed within areas of concern, provide geologic reports of investigations which quantify the risks and recommend mitigation measures. Such reports must be reviewed and approved by the County Geologist.

### SCP-HS 87

Through the development review process, ensure compliance with all applicable Coun-ty ordinances and other laws, regulations, and codes for seismic evaluation and the design of new and existing buildings and campus infrastructure.

### SCP-HS 89

Maintain designation of lands with significant geologic hazards identified as "hazard areas" on the Special Conservation Areas and Categories map, in the Stanford University Special Conservation Area Plan, which was approved by the County Planning Office on August 5, 2015. Designate such lands with significant geologic hazards Special Conservation Areas in the Community Plan Land Use map.

### **SCP-HS 10**

Encourage the preparation of comprehensive mapping of fault zones within the Academic area of the campus to facilitate review and consideration during the General Use Permit (GUP) application process by the County Geologist.

### Implementation Recommendation Measures

### SCP-HS (i) 3

Refine geologic hazard maps based on the results of reports submitted to and reviewed <u>by the</u> <u>County Geologist upon submittal of a new General Use Permit (GUP) application.</u> by the <u>County Geologist</u>.

# Flood Hazards Background

### Watersheds

Stanford lands in Santa Clara County are primarily located in the San Francisquito and Matadero creek watersheds, and contain several creeks, reservoirs, and dams (see Fig–ure 6.3–Watershed Boundaries).

The San Francisquito Creek watershed encompasses 40 square miles. Stanford lands in unincorporated Santa Clara County comprise approximately 1,800 acres or about 8 percent of the watershed, of which <u>approximately</u> 510 acres are developed. The watershed extends from the ridge of the Santa Cruz Mountains to San Francisco Bay and is characterized by a wide variety of both developed and undeveloped areas across five municipalities and two counties. Both San Francisquito and Los Trancos Creeks on Stanford lands are within the watershed, as well as Felt Lake, Searsville Lake, and Lake Lagunita.

Stanford lands in other jurisdictions that are within the San Francisquito Creek wa-tershed

include all land in San Mateo County, which is largely undeveloped with the exception of the Stanford Linear Accelerator Center (SLAC) and the Stanford Hills resi-dential neighborhood. These lands also contain several agricultural leaseholds and the 1,200-acre Jasper Ridge Biological Preserve. The northern portion of Stanford's land in the City of Palo Alto, which contain the Stanford Medical Center, the Stanford Shopping Center, and several residential complexes are also in this watershed. All told, Stanford lands comprise approximately 21-% of the total watershed land area.

Approximately 2,100 acres of the project area are located in the Matadero Creek Water-shed. This watershed encompasses the eastern portion of Stanford lands and includes Matadero, Arastradero, and Deer Creeks. The watershed also contains the Stanford Research Park and residential and commercial areas in Palo Alto. The Barron Creek watershed, which is located to the southeast of the Matadero Creek watershed, drains portions of Los Altos Hills, the Stanford Research Park, and the Barron Park residential neighborhood; this creek ultimately drains to the Bay through Matadero Creek.

Approximately <u>2</u>,100 acres of the\_-Community Plan project area lies within the Arastradero Creek Watershed. Arastradero Creek flows in a southerly direction.

### Storm Drainage System

The University campus storm drain system consists of a number of systems working together to manage storm water runoff. The system's main working components are more than 800 catch basins, approximately 40 miles of pipeline, and <u>6six</u> miles of open soil drainage ditches. Stanford also has runoff detention areas in topographically low areas, such as the Arboretum and the Oval. Once storm water is collected in the drain–age network, it flows by gravity from the campus to Matadero Creek or San Francis–quito Creek. Storm water flows to Matadero or San Francisquito Creek, in many cases through the City of Palo Alto's storm drainage system, before joining San Francisco Bay.

### **Hazard Potential**

Like many other issues addressed in the Community Plan, flood hazards and flooding are multijurisdictional in nature, in that the manner in which development and drain—age are handled in one location can have substantial effects on other property owners or communities. Primary hazard potential involves creek overflow and storm drainage system overflow.

No portion of the Community Plan project area is located within the 100-year flood zones defined by the Federal Emergency Management Agency (FEMA) (1996 data). However, flooding may at times occur due to extraordinary events. For example, flooding has oc–curred on the campus and downstream of Stanford as recently as February 1998, when prolonged and steady rainfall caused San Francisquito Creek and local storm drain–age systems to overflow. Overall, an estimated 11,000 acres of land in Palo Alto, Menlo Park, and East Palo Alto were flooded due to the creek overflow, resulting in an esti–mated \$28.1 million in damage, according to the Santa Clara Valley Water District.

Regional and local flood hazards also include inundation due to dam failure. The University coordinates with the California Department of Water Resources, Division of Safety of Dams, to inspect the dams yearly for structural integrity and proper maintenance.

Effective flood control requires extensive cooperation of government agencies, land-owners, and land users. Stanford, as the owner of extensive amounts of land within the watersheds, has the potential to affect downstream flooding and flow along San Fran-cisquito and Matadero Creeks. Stanford is working with the Cities of Palo Alto, Menlo Park, and East Palo Alto on Coordinated Resource Management Planning (CRMP) for the San Francisquito Creek Watershed, resulting in a Watershed Master Plan. The Com-munity Plan policies and implementation recommendations are based on this plan and those of the County General Plan. Stanford has worked closely with the San Francisquito Creek Joint Powers Authority (SFCJPA) to produce the watershed Comprehensive Plan to address the interrelated issues of flood protection, ecosystem restoration and creation of recreational opportunities along the creek and in the watershed. The report released October 2021 highlights the SFCJPA's commitment to working with Stanford for access to and information about the area to adequately evaluate potential options for flood protection and mitigations efforts on Stanford lands.

### Strategies, Policies and Implementation

# Strategy #<u>No.</u>5: Design, Locate, and Regulate Development to Avoid or Withstand Hazards

Policies and implementation have been included to address two different flooding issues: (1) possible flooding and storm drainage issues on and near the campus that could result from campus activities, and (2) the effect of campus activities on the hy–drology of the watersheds and creeks.

One effect of the Community Plan's growth and development-related policies, which encourage compact development and infill use of campus lands, will be the intensifica—tion of land use within the <u>Academic Growth BoundaryAcademic Growth Boundary (AGB)</u>. More development and associ—ated parking and streets will increase impervious surfaces over time, with the potential to marginally increase creek flooding and stormwater flooding on campus as well as downstream flow within the watersheds. The Community Plan therefore focuses on accommodating all increased peak drainage flows on site until storm water can be accommodated within local streams and creeks after the time of peak flows.

Policies and implementation specific to maintenance of riparian corridors are included in the Resource Conservation chapter.

### Policies

### SCP-HS 119

Require Stanford to dDesign development and infrastructure improvements, including storm drainage detention facilities, to accommodate runoff from future development so as to achieve no increase in peak flows.

### SCP-HS 1210

Stanford shall mMaintain and enhance surface and subsurface drainage systems.

### SCP-HS 1311

Stanford shall c<u>C</u>ontrol erosion from future development in order to limit sediment from reaching the storm drain system and creeks, to avoid hydrological impacts.

### **SCP-HS 14**

Encourage Stanford to coordinate with the San Francisquito Creek Joint Powers Authority (SFCJPA) on efforts to address flooding and other watershed-related issues in the San Francisquito Creek Watershed.

### Implementation RecommendationMeasures

### SCP-HS (i) 4

The State Division of Safety of Dams shall continue to annually inspect Stanford darns-dams for structural integrity and encourage repairs as needed.

### SCP-HS (i) 5

Review proposed Stanford projects and require best management practices (BMPs) for reducing erosion at construction sites.

### SCP-HS (i) 6

<u>Stanford shall</u><u>P</u> provide public education/information on erosion and drainage issues for <u>U</u>university project managers and leaseholders.

### SCP-HS (i) 7

Construct and maintain storm drainage detention facilities and other improvements as needed to ensure no net increase in downstream flows.

# Hazardous Materials Background

Transportation, use, storage and disposal of hazardous substances are governed through numerous <u>Setate</u> and <u>Ff</u>ederal legislative measures. While the regulations origi—nate with <u>Ff</u>ederal and <u>Setate</u> government, the County plays a role in enforcing these regulations within its jurisdiction. The County Department of Environmental Health is a primary agency responsible for addressing hazardous materials, along with the Plan—ning, Building, and Fire Marshal's Offices.

At Stanford, hazardous materials are used in the academic areas and the Medical Cen–ter in teaching, research, and patient care programs. Hazardous materials are addressed through a variety of programs and procedures by both the County and the University.

Stanford University's Department of Environmental Health and Safety (EH&S) <u>is responsible</u> for over sees the <u>safe storage</u>, <u>handling</u>, <u>collection</u>, <u>recycling</u>, and disposal of chemical, <u>radiological</u>, <u>and medical/biological biomedical</u>, <u>and low-level ra-dioactive</u> wastes generated by laboratories, shops, and studios at the University. These waste types are managed under the University's Hazardous Waste Program.

Hazardous Materials Management Plans for campus buildings are prepared, regularly updated, and submitted to Santa Clara County <u>Department of</u> Environmental Health-<u>Department</u>'s Hazardous Materials Compliance Division. <u>As documented in Stanford's 2018 General Use</u> <u>Permit (GUP) application, to facilitate hazardous materials tracking and reporting, Stanford has implemented an online chemical inventory database system whereby authenticated chemical users may maintain their hazardous materials inventories, supporting timely and accurate submission of required regulatory reports.</u>

In addition, Stanford requires that employ–ees involved in hazardous materials handling receive appropriate training-

Stanford's EH&S oversees the campus Environmental Safety Facility, which currently operates as a "<u>RCRA large quantity</u> generator" facility that <u>can-provides</u>-interim storage for hazardous waste for less than 90 days. This facility is regulated by Santa Clara County Department of Environmental Health. The Environmental Safety Facility also contains a waste inciner ator, which is currently licensed and operated to incinerate a small volume of low-level radioactive wastes containing tritium and carbon 14 when necessary. Since 1994, the incinerator has been operated less than 1 or 2 days per year.

Over time, Stanford has focused increasingly on off-site rather than on-site waste dis-posal. Hazardous wastes that are shipped off-site are packaged, marked, labeled, mani-fested, and transported in accordance with applicable governmental regulations to a permitted disposal facility. In the area of waste reduction, waste generating processes have been evaluated in laboratories producing larger volumes of waste to determine options to reduce sources and to minimize wastes.

EH&S reviews proposed plans for new campus facilities and for remodels to address health, safety, and environmental risks associated with activities conducted in the buildings, in accordance with applicable environmental and health and safety laws, codes, and regulations. Building plans are also reviewed by the County's Building In–spection Office and Fire Marshal's Office for compliance with applicable codes.

The County reviews building design and occupancy standards based on a reported inventory of chemicals or other hazardous materials which are to be stored and used inside a building. Over time, the use of the building and the needs of its occupants changes, creating a risk of unsafe circumstances whereby more or different materials are being used in a building than the design and construction allow.

The inventory of materials in a building is reviewed at the time that any building permits are reviewed and issued and through regular inspections by the County Fire Marshal's Office. It is important that the inventory of materials in a building remain consistent with the building construction. Obsolescence in building design is a major factor behind the con–tinuing redevelopment of the campus.

## Strategies, Policies and Implementation

## Strategy #No. 6: Manage Hazardous Materials Safety and Efficiently

The strategy for hazardous material management and its associated policies focuses on issue- of oversight and emphasizes compliance with the significant existing array of regulations and laws governing hazardous materials. It also incorporates a broadly recognized need to find substitute materials and reduce volumes of hazardous materi–als as much as possible to reduce risk levels.

### Policies

### SCP-HS 1513

Employ all feasible measures to safely and effectively manage hazardous materials and wastes and to site hazardous wastes treatment facilities.

### SCP-HS <u>16</u>14

Ensure compliance with all <u>F</u>federal, <u>S</u>state, and local regulations concerning hazardous waste management and disposal.

### SCP-HS 1715

Evaluate, as required under the California Environmental Quality Act, the potential health risks and effects of buildings proposed by Stanford in which hazardous materi–als will be used.

### SCP-HS 1816

Encourage the substitution of less hazardous materials and/ or use of smaller volumes of hazardous materials, while maintaining amounts necessary to support University activities.

### Implementation RecommendationMeasures

### SCP-HS (i) 8

The County shall collaborate with Stanford and other regulatory agencies to develop appropriate standards for review of possible health risks from air emissions of future Stanford laboratory facilities.

### SCP-HS (i) 9

The County shall require the implementation of good laboratory practices to prevent release of odorous and toxic air contaminants. <u>Good laboratory practices shall be defined as adhering to state and local regulatory practices such as, but not limited to,</u> Health and Safety Code 25200.3.1 on lab waste accumulation, the University's Safety Manual on Toxic Gas Users Guide, and <u>Santa Clara County Ordinance B11 (Chapters XIII and XIV) on chemical handling and storage.</u>

### **SCP-HS (i) 10**

Stanford shall provide adequate training for staff and students to segregate incompatible chemicals, use earthquake protection for chemical storage areas, and employ secondary containment. <u>Training shall be compliant with the Department of Environmental Health training standards.</u>

### **SCP-HS** (i) 11

The County shall Support Stanford's provision of an integrated waste management program to manage collection of chemical, radioactive and biomedical waste, and ensure environmentally protective disposal.

### **SCP-HS (i) 12**

Stanford shall Pprepare Risk Management Plans for compliance with California Accidental Release Prevention Laws as needed, or reduce/substitute quantities of materials to levels below

that which requires such plans.

# *Emergency Preparedness and Response* **Background**

In Santa Clara County, the first responsibility for emergency response lies with the individual jurisdictions. Under the provisions of the 1985 Land Use Policy Agreement, Stanford functions in this case as a jurisdiction, with its own plans and programs for emergency response, preparedness, and prevention. The County's role is to collaborate with Stanford in ensuring adequate emergency response and to consider emergency--related issues in review of development applications from Stanford, and support the City of Palo Alto in response to any major event occurring on the Stanford campus, and on an as-needed basis. All response activities must be coordinated with the City of Palo Alto or other <u>relevant departments agencies</u> for the unincorporated areas of the campus <u>as necessitated by the situation</u>.

#### **Emergency Preparedness at Stanford**

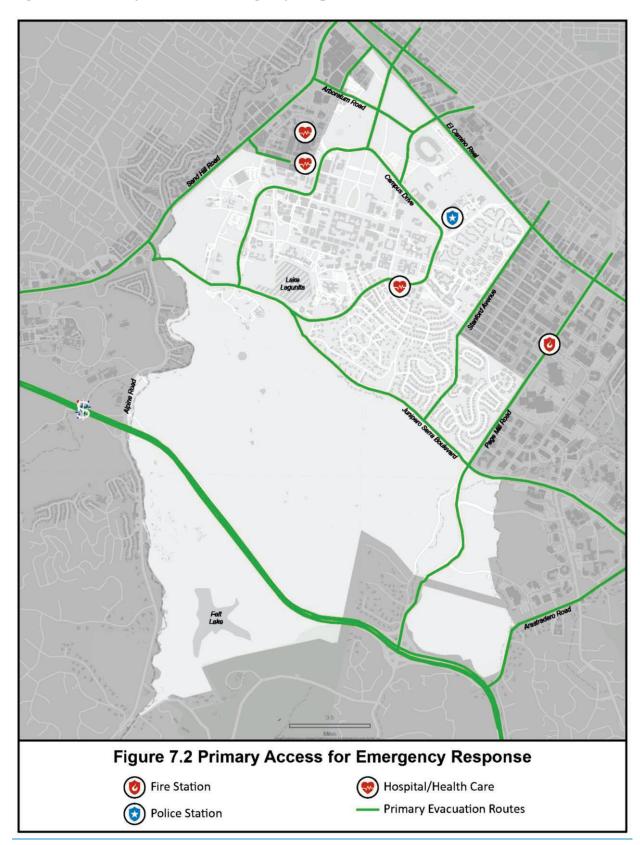
Emergency preparedness addresses the response to, and recovery from, natural and hu-maninduced emergencies. Stanford University emergency plans include the Stanford Emergency Plan, Cabinet Emergency Planning Guidelines, and Department Emergency Planning Guidelines. These documents provide a management framework for responding to major emergencies that may threaten the health and safety of the University com-munity or disrupt its programs and operations.

The plans address a variety of types of emergency situations, including earthquakes, fires or explosions, hazardous material releases, extended power outages, floods, and mass casualty events. In accordance with these emergency plans, the University main—tains supplies to support post-disaster recovery. For example, the University currently stores emergency food supplies for on-campus residents, and maintains water reser—voirs to increase the emergency water supply.

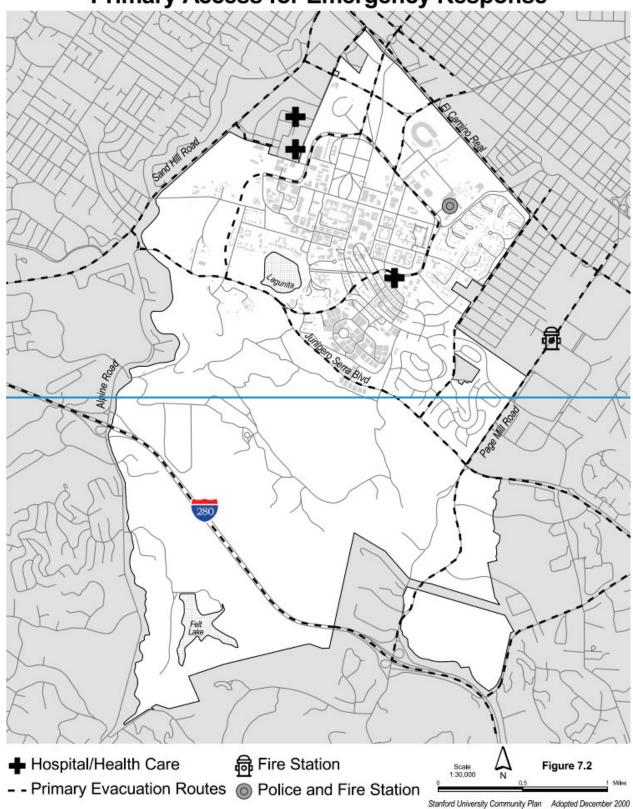
The Stanford Emergency Plan establishes an Emergency Management Team (EMT) that ascertains the scope of an incident and advises the University President. EMT emer—gency response actions are guided by the University's overriding emergency priorities: 1) protect life safety, 2) secure critical infrastructure and facilities, and 3) resume the teaching and research program.

**Figure 7.2**, **\_\_Primary Access for Emergency Response**, illustrates current major access routes within the campus, the location of existing fire and police facilities, and major evacuation routes.

Board of Supervisors Draft 12/13/22 - Stanford University Community Plan







# **Primary Access for Emergency Response**

## Strategies, Policies and Implementation

Stanford University engages in emergency prevention, preparedness, and response through its plans and programs. In addition, the Stanford Hospitals and Clinics are an important regional resource for the surrounding area in the case of an emergency that results in injuries and casualties. The County and Stanford should continue to work as partners in the emergency response arena, with each entity assuming the appropriate responsibilities. The County's role in the emergency process includes:

- Review of development projects in the Planning, Building Inspection, and Fire Marshal's Offices and in the Department of Environmental Health to ensure avoidance or reduction of risks associated with the location, access to, or design of new buildings or the use of hazardous materials.
- Ongoing inspection of facilities for code compliance.
- Application of appropriate land use designations or building requirements in areas more prone to hazard.
- Support for Stanford's emergency response efforts through implementation of the Santa Clara County Emergency Plan, prepared and implemented through the County Office of Emergency Services.

## Strategy #<u>No.</u>7: Adequate Plan for Risk Reduction, Immediate Disaster Response and Post-Disaster Recovery

This strategy and the associated policies emphasize a multifaceted approach to reduction of risk, emergency response, and recovery. Like many aspects of the Community Plan, disaster preparedness and response is in many ways a multijurisdictional issue that requires efforts on the part of Stanford, the County, and other jurisdictions. Com–munity Plan strategies and policies are largely implemented through existing pro–grams, efforts, and procedures. However, in the event of certain types of emergencies, particularly earthquake and fire, most households and businesses are individually under-prepared for the aftermath of a significant disaster.

Policies emphasize the continuation of existing programmatic efforts by Stanford for emergency preparedness and response, while also promoting the potential for im—proving coordination and preparedness for faculty, staff, and student residents of the University. Improved neighborhood coordination, campus-wide preparedness, and communication capabilities will enable Stanford's many populations to cope with the effects of a major disaster, such as an earthquake, more effectively.

### Policies

### SCP-HS 16

Coordinate with Stanford and local jurisdictions in both reducing general risk levels and preparing for emergency response.

#### SCP-HS-17

Stanford shall prepare and maintain effective and feasible emergency plans for disaster response and recovery.

#### SCP-HS 1<u>9</u>8

Consider emergency prevention and ability for emergency response in review of development projects on the campus with regard to access, seismic risks, flooding, fire, and other emergency issues.

#### SCP-HS 19

Stanford shall promote coordination at the neighborhood level and within campus stu-dent housing areas to achieve improved earthquake or other disaster preparedness and response capabilities.

#### SCP-HS 20

Stanford shall provide training and general public education for faculty, staff, and stu-dents regarding improved emergency preparedness and response.

#### **SCP-HS 20**

<u>Provide for adequate planning for risk reduction, immediate disaster, and post-disaster</u> recovery.

### Implementation Recommendation Measures

### **SCP-HS (i) 13**

<u>Coordinate with Stanford and local jurisdictions in both reducing general risk levels and</u> preparing for emergency response.

#### **SCP-HS (i) 14**

Stanford shall prepare and maintain effective and feasible emergency plans for disaster response and recovery.

#### **SCP-HS (i) 15**

Stanford shall promote coordination at the neighborhood level and within campus student housing areas to achieve improved earthquake or other disaster preparedness and response capabilities.

### **SCP-HS (i) 16**

Stanford shall communicate with all residents at least twice a year, informing them of current emergency preparedness and response plans applicable to their neighborhood.

### **SCP-HS (i) 17**

Stanford shall provide training and general public education for faculty, staff, and students regarding improved emergency preparedness and response.

### SCP-HS (i) <u>18</u>13

Periodically assess emergency preparation and recovery plans for adequacy<u>as consistent with</u> <u>the Multi-Jurisdictional Hazard Mitigation Plan and the Santa Clara County Emergency</u> <u>Operations Plan (EOP) that is updated and revised on a 5-year cycle</u>.

### SCP-HS (i) <u>19</u>14

Conduct emergency drills, training, and simulations on a periodic basis to enhance preparedness and make needed improvements to emergency response plans.

# Noise Background

The overall purpose of addressing noise in general plans is to limit the exposure of the community to excessive noise levels. Various kinds of noise generators, such as airports, roads, and train corridors, are identified, evaluated, and the noise levels generated are used to guide various kinds of land use planning and development decision-making processes.

Noise on or near the Stanford campus can affect both the campus population and resi-dents of surrounding areas. Stanford lands inside the <u>Academic Growth Boundary Academic Growth</u> <u>Boundary (AGB)</u>, like the surrounding area, are urbanized and contain a variety of noise sources. The most notable sources include transportation-related uses such as arterial roadways, railroad tracks, and airplanes, as well as construction projects and miscellaneous sources.

Noise sources on the campus include traffic on major campus streets and adjacent arte-rial roadways, construction noise, and operational noise sources, such as mechanical equipment, delivery vehicles, and garbage pickup. Noise sources also include athletic events at the University's outdoor athletic facilities, including Stanford Stadium and Sunken Diamond; performances and other events at Frost Amphitheater; and Life Flight emergency helicopter landings and takeoffs at Stanford University Medical Center. Noise from these sources is intermittent and often seasonal. Its potential for impact on off-site residences is a direct function of the responsible operation of these facilities.

In order to address some of these concerns, Stanford maintains a noise hotline accessible to the general public and campus residents twenty-four hours a day, seven days a week.- The Noise Hotline operator captures noise complaint information and callers are offered forwarding to the non-emergency dispatch for a timely response to the noise disruption. If the caller does not want to be connected to the non-emergency dispatch, the complaint is logged and recorded for tracking purposes.

Growth at Stanford has the potential to increase noise on the campus and in the sur-rounding area through an increase in traffic and through additional construction re-lated noise. It also increases the campus population which may be subject to sources of excessive noise. As part of the Community Plan environmental review process, noise sampling sites were evaluated for noise levels and projected noise levels were evaluated for potential significance by year 20<u>35</u>10. The sites selected represent potentially noise-sensitive uses. None of these sites, including on-campus and off-campus locations along major arterial roads, were considered to result in significant and excessive noise generation. Of all the possible sources of excessive noise, construction and operational sources are consid-ered substantial enough to warrant special efforts to minimize noise and the impacts to humans and the natural environment.

Santa Clara County regulates noise under the standards identified in the County noise ordinance and noise element of the General Plan. The ordinance applies to all unincor–porated lands, including those at Stanford University. Off-site noise impacts are evalu–ated at property lines, not within the campus lands.

# Strategies, Policies and Implementation

## Strategy #No. 8: Prevent or Minimize Excessive Noise

The effects of noise can be reduced through either minimizing or eliminating the noise itself or through land use and development that reduces the effect of noise. Some of the means of minimizing noise conflicts include:

- Reducing activities which create noise. Trip reduction at Stanford helps reduce roadway noise both on and off the campus.
- Locating noise sources away from sensitive noise receptors (such as residences or, conversely, locating sensitive receptors away from noise sources in new develop—ment.
- Design and construction of buildings in a manner that reduces interior noise levels.

### Policies

### SCP-HS 21

Identify potential noise-producing uses and determine needs for mitigation using ap-plicable County, local, and other government standards when evaluating proposals for new Stanford

facilities.

### SCP-HS 22

Locate new land uses and development projects to conform with County noise compat-ibility standards for land uses.

### SCP-HS 23

Minimize noise from construction equipment and other operational sources, through engineering solutions, hours of operation, delivery schedules, and the location of spe-cific noise sources as far away from sensitive receptors as possible.

### Implementation RecommendationMeasures

### SCP-HS (i) <u>20</u>15

<u>Stanford shall</u> <u>Pp</u>rovide noise buffers as needed and control excessive noise sources from future facili—ties.

### SCP-HS (i) <u>21</u>16

<u>Stanford shall comply</u><u>Ensure compliance</u>\_with the County noise ordinance and other applicable standards.

### SCP-HS (i) 2217

Require that Stanford design and construct new buildings with soundproofing materi–als as necessary and appropriate.

### SCP-HS (i) 2318

Require that Stanford maintain a hotline/<u>communication mechanism</u> that members of the public can <u>contact-access</u> to reg-ister noise complaints.

### **SCP-HS (i) 24**

<u>Stanford shall report on the number of noise complaints registered through their hotline as part</u> of their annual report submitted to the County.

# Law Enforcement Background

The Stanford University Department of Public Safety historically has provided law enforcement services for the University under authority delegated by the County Sher–iff. However, the County Sheriff is ultimately responsible for law enforcement on Stan–ford's unincorporated lands. The County and the Sheriff have the responsibility to en–sure that the Stanford University Department of Public Safety is staffed with qualified personnel, provides necessary law enforcement information to the Sheriff, maintains an appropriate reporting relationship with the Sheriff's office, and complies with state laws and regulations regarding public access to law enforcement information.

## Strategies, Policies and Implementation

## Strategy #<u>No.</u>9: Provide Law Enforcement Oversite

## Policies

### SCP-HS 24

The Stanford University Department of Public Safety <u>shall-may</u> be permitted to undertake law enforcement activities on unincorporated Stanford lands if it enters into an agree—ment with the County Office of the Sheriff setting forth the terms and conditions under which the Stanford University Department of Public Safety will be authorized to under-take law enforcement activities.

## Implementation Recommendation Measures

### SCP-HS (i) 2519

The County Office of the Sheriff and Stanford will develop and maintain an agreement setting forth the conditions under which the Stanford University Department of Pub–lic Safety is authorized to undertake law enforcement activities on campus. The issues addressed in the agreement shall include, but not be limited to, adequate qualifications and training of Stanford University Department of Public Safety personnel, appropriate reporting relationships between the Stanford University Department of Public Safety and the Sheriff, complete and timely submission of law enforcement information to the Sheriff, and compliance with legal requirements regarding public access to law enforcement information.

### **SCP-HS (i) 26**

The County, may as needed, shall periodically undertake an independent evaluation of the effectiveness and adequacy public serving adequacy of the law enforcement agreement

(Memorandum of Understanding Regarding Police Services Between County of Santa Clara and Stanford University) and negotiate any changes as deemed appropriate by the Board of Supervisors.

### **SCP-HS (i) 27**

Stanford shall provide law enforcement service data that indicate the number of crimes reported by type, the number of crime prevention presentations and attendees, the number of sworn and non-sworn staff and the number of cases filed with the District Attorney's Office, the number of emergency and non-emergency calls received and the response time in minutes to those calls, the number of officer-initiated calls, and budgeted appropriations and staffing levels for law enforcement services.

Stanford shall provide law enforcement service data for the last three years, along with annual updates, that indicate the number of crimes reported by type, crime rates, the number of crime prevention presentations and attendees, the number of sworn, non-sworn, and contract staff, the number and percent of cases assigned to the County for prosecution, the number of emergency and non-emergency calls received and the response times in minutes to those calls, the number of officer initiated calls, and budgeted appropriations and staffing levels for law enforcement services.

### <u>SCP-HS (i) 28</u>

Stanford shall conduct an provide annual customer service survey of law enforcement services feedback to gauge customer awareness of services provided and program satisfaction level.program satisfaction levels of students, employees, and residents.

# <u>Social, Mental and Emotional Health</u> Background

Social, mental and emotional health is an integral aspect of overall health and directly impacts the quality of life of individuals, families, and communities on the Stanford University Campus. Within the context of family, community and culture, social and emotional health refers to a state in which a person is able to cope with everyday events, think clearly, be responsible, meet challenges, and have meaningful relationships with others.

Social and emotional health issues are perceived differently than physical illness. Varying socio-cultural norms may support or impede wellness. When serious mental illness occurs, -individuals must cope with not only the symptoms and disabilities from their illnesses, but also the societal stigma attached to the disease that manifests in stereotypes and prejudice. As a result of both, people with mental illness lack access to opportunities that define a quality life, such as good jobs with access to good pay and benefits, safe housing, satisfactory health care, and affiliation with a diverse group of people. The physical, social, and environmental factors that affect social and emotional health are specific to culture, race, and income. Experiences of racism and discrimination increase stress levels and threaten social and emotional health.

The policies and implementation plans established herein are adapted from the Health Element of the Santa Clara County General Plan, which was adopted by the Board of Supervisors on August 25, 2015. The applicable County Health Element policies are identified in parenthesis following each policy.

### Mental Illness and Substance Abuse

Mental illness and substance abuse are problems that severely compromise social and emotional health. More recently referred to as *behavioral health problems*, they include schizophrenia, bipolar disorder, depression, and addiction to alcohol, illegal drugs (methamphetamines, heroin, hallucinogens, hazardous chemicals, etc.) or prescription drugs.

### **Tobacco/Nicotine and Vaping Use**

According to the Centers for Disease Control and Prevention (CDC), tobacco use is the leading preventable cause of disease, disability, and death in the United States. Cigarette smoking -results in more than 443,000 premature deaths in the United -States- each year – about 1

in every 5 U.S. -deaths — and an additional 8.6 million suffer with a serious smoking related illness. For every -one person who dies from smoking, 20 more suffer from at least one serious tobacco-related -illness.

### **Suicide**

Suicide is the 10th-leading cause of death in the United States, accounting for more than 36,000 -per year and an even greater number of people attempt suicide. According to a CDC study, -more than 2.2 million adults reported making suicide plans in the last year. Approximately 90 percent of all individuals who committed suicide met criteria for one or more diagnosable psychiatric conditions. Because considering that social, mental, and emotional health treatment providers are in regular contact with patients at risk for suicide, they are an important resource for early detection and prevention. Substance use disorders are also linked to suicide risk. Individuals with a diagnosis of abuse or dependence on alcohol or drugs are almost six times more likely to report a lifetime suicide attempt.

In Santa Clara County, suicide is the leading cause of death by fatal injury. While suicide is confounding, it is preventable, given effective education, services, and supports. Prevention for suicide must be focused on risk detection and reduction through a variety of means. The earlier treatment is sought, generally the better the outcome. In Santa Clara County, death by suicide is

the 10th leading cause of death, the same as the national rate. Santa Clara ranks 54th out of California's 58 counties in the rate of adolescent self-inflicted injury. Death by suicide occurs, on average, every three days. There are two attempts and an estimated 14 suicidal behaviors every day in Santa Clara County.

## Strategies, Policies and Implementation

## **Strategy No. 10: Ensure Provision of Services, Policies, and Programs that address Social and Emotional Health**

### **Policies**

### **SCP-HS 25**

Stanford and the County should expand and coordinate suicide prevention and intervention programs, including increasing suicide awareness and prevention through public messaging of availability of services (HE-B.31; HE-B.32).

### <u>SCP-HS 26</u>

Stanford and the County should offer behavioral health services to individuals employed or living within the Stanford Community Plan Area, addressing areas such as mental illness and substance abuse and supporting and providing services to LGBTQ populations, culturally diverse and traditionally underrepresented communities, and veterans.

### **SCP-HS -27**

Encourage Stanford to be maintained as a smoke free campus and to take measures to limit access to tobacco, including providing services that implement tobacco cessation treatment services, banning smoke in public spaces, and encouraging onsite retailers to eliminate the sale of tobacco products, including electronic smoking devices (HE-B.20; HE-B.23; HE-B.24; HE-E.9).

### **Implementation Measures**

### **SCP-HS (i) 28<del>29</del>**

Stanford should improve its behavioral health and suicide prevention programs for its students and employees.

### <u>SCP-HS (i) 2930</u>

Stanford shall provide annual information on behavioral health services that may include metrics that reflect the quality of services such as <del>data for the last three years, along with annual updates that indicate wait times, utilization rates and total number of users, percent of individuals accessing alternative health care (i.e. Kaiser or Blue Shield), <del>the ratio of clinical staff to students, percent of clients requiring more than 10 visits, appropriation levels and staffing levels.</del></del>

### **SCP-HS (i) 301**

Stanford shall conduct an provide-annual customer service survey of mental and behavioral health services feedback-to gauge customer awareness of services provided and program satisfaction level.program satisfaction levels of students, employees, and residents

### **SCP-HS (i) 31**<del>2</del>

Stanford shall implement the County ordinance requirements to ensure the campus remains a smoke free environment and restricts the sales of tobacco products.

# **Climate Change and Adaptation**

## **Background**

"Global warming," "global climate change," and "climate emergency" are the terms used to describe the increase in the average temperature of the earth' s near-surface air and oceans since the mid-20th century and its projected continued rise in temperature. It is estimated that global surface temperatures have increased approximately 1.33 degrees Fahrenheit (°F) over the last 100 years. Continued warming is projected to increase global average temperature between 2°F and 9.7°F over the next 100 years.

Green House Gases (GHGs) naturally trap heat by impeding the exit of solar radiation that has reached the earth. -Increases in GHG concentrations in the earth's atmosphere are the main cause of human-induced climate change. Some GHGs occur naturally and are necessary for keeping the earth's surface habitable. Increased GHG concentrations resulting from human activity such as fossil fuel burning and deforestation are believed to be responsible for most of the observed temperature increase.

Potential adverse impacts of global warming within California include an exacerbation of air quality problems, a reduction in quality and supply of water to the Sstate from the Sierra snowpack, a rise in sea levels resulting in the displacement of coastal businesses and residences,

damage to the marine ecosystems and the natural environment, and an increase in healthrelated problems

The Sierra snowpack, an important source of water supply for the state, has shrunk 10 percent in the last 100 years. It is expected to continue to decrease by as much as 25 percent by 2050. World-wide changes are causing sea levels to rise – about eight inches of increase has been recorded at the Golden Gate Bridge over the past 100 years – threatening low coastal areas with inundation and serious damage from storms.

Temperature projections show a warming trend across the Bay Area for the rest of the century. Although Santa Clara County has a milder climate than other areas of the Sstate, it is expected to experience an increased number of extreme heat days. According to the California Department of Public Health's October 2013 Report entitled "Preparing California for Extreme Heat: Guidance and Recommendations," projections report San Jose will experience an estimated 71 extreme heat days by 2050 and 111 extreme heat days by 2099. Extreme heat poses severe danger to human health and is one of the most dangerous forms of natural disasters. It can cause a range of health problems, from rashes, dehydration, and cramps, to heat exhaustion or heat stroke, which can result in hospitalization and death. It can also worsen chronic conditions such as cardiovascular and respiratory disease.

Particular groups are at greater risk of heat-related health effects, including people living in poverty, seniors, pregnant women, young children, people with chronic conditions, the socially isolated, the disabled, and workers in outdoor jobs. Temperatures will also be greater in more densely developed urban areas with higher concentrations of materials such as asphalt and glass that intensify the heat. This urban heat island effect can be reduced by planting shade trees, maintaining urban canopy trees or urban forests, and creating cool roofing, including living roofs.

Changes in temperature and precipitation may lead to expansion of insect and rodent populations, resulting in increases in vector-borne diseases such as Hantavirus, Lyme disease and West Nile virus.

In 2015, Bay Area Air Quality Management District (BAAQMD) estimated that annual GHG emissions in Santa Clara County for basis year 2011 were listed as 16.0 million metric tons of CO2e. As evaluated in the Environmental Impact Report (EIR) prepared for the 2018 General Use Permit (GUP) aApplication, total GHG emissions for Stanford University in 2018 were 125,672 metric tons of CO2e.

There has been a general decrease in GHG emissions attributed to Stanford over the last several years due to several factors. There have been ongoing improvements in the vehicle fleet as old vehicles are replaced with newer, cleaner vehicles, and existing regulatory standards that are resulting in lower emitting vehicles and cleaner fuels. In addition, Stanford has changed its energy systems, including an overhaul of its campus heating and cooling system in 2015,

known as Stanford Energy System Innovations (SESI), which replaced Stanford's steam-based heating system with a hot-water based heating system, and replaced its cogeneration plant with a more efficient Central Energy Facility (CEF).

In addition, Stanford procures electricity via a direct access program from the grid through Electricity Service Providers that includes the Stanford Solar Generating Station in Kern County. The Kern County solar facility, which became operational in January 2017, provides a 68megawatt peak solar plant generating 159,000 megawatt-hours per year (MWh/year). Stanford receives Renewable Energy Credits for the electricity it produces there, which offset the nonrenewable energy GHG emissions it consumes locally.

In addition, Stanford is building rooftop panels on new buildings, including the Science and Engineering Quad and the Knight Management Center. These two systems are expected to provide up to 53 percent of Stanford's total electricity use.

The policies and implementation plans established herein are adapted from the Health Element of the Santa Clara County General Plan, which was adopted by the Board of Supervisors on August 25, 2015. The applicable County Health Element policies are identified in parenthesis following each policy.

# **Strategies, Policies and Implementation**

## Strategy No. 11: Plan for Climate Change and Adaptation

**Policies** 

### **SCP-HS 28**

<u>Green house gas (GHG)HG -rReduction. Land Use and Transportation systems and programs at</u> <u>Stanford should be designed and implemented to reduce GHG emissions from mobile sources,</u> <u>such as reducing vehicle trips, vehicle use, vehicle miles traveled (VMT), vehicle idling, and</u> <u>traffic congestion. (HE-G.5).</u>

### <u>SCP-HS 29</u>

Renewable energy. Stanford should continue to obtain energy used within the Community Plan Area from renewable sources, including solar and wind turbines, on academic, and residential buildings (HE-G.11).

### **SCP-HS 30**

Energy technologies. Stanford should evaluate potential adoption of advanced energy

technologies to reduce greenhouse gas emissions (GHG), including integrated building systems, distributed generation, demand response programs, smart grid infrastructure, energy storage and backup, and electric transportation infrastructure (HE-G.12).

### **SCP-HS 31**

Heat island mitigation. Support ongoing development and redevelopment of lands within the Stanford Community Plan should incorporate, where feasible, -urban greening and the use of green infrastructure to minimize the urban heat island effect (HE-G.16).

### **SCP-HS 32**

Access to emergency cooling. Stanford should promote improved access to cooling during heat events, particularly for the most vulnerable populations. Measures can include on-site cooling, emergency generators, and cooling centers (HE-G.17).

## **Implementation Measures**

### **SCP-HS (i) 32<del>3</del>**

Stanford should minimize new impervious surfaces in new development and incorporate greening, including landscaping, green roofs, green walls, and other aspects of biophilic (community greening) design into new development.

### **SCP-HS (i) 334**

Stanford, the County, and City of Palo Alto should collaborate on the potential for the campus and surrounding areas to become an "EcoDistrict" utilizing sustainable urban systems. An EcoDistrict provides for district wide sustainability solutions at a larger scale than individual buildings. An EcoDistrict links energy, transportation, water and land use in an integrated, efficient resource system.

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