CAL POLY
Master Plan

Preliminary Draft
May 1, 2000
May 1, 2000

Dear Cal Poly Campus and San Luis Obispo Community:

Cal Poly is pleased to share the preliminary draft of our Master Plan with you. We have prepared this draft based on an analysis of present and future conditions facing Cal Poly, on directions recommended by senior campus executives, and on the advice of campus and community groups and task forces.

While we have discussed many of the draft plan concepts with different groups as they have emerged, this is the first full public draft of the Master Plan. Readers will note that we have developed the principles and policies in the preliminary draft Master Plan to apply to all Cal Poly land holdings. At this time, however, most of the detailed analysis and recommendations focus on lands in San Luis Obispo County, particularly the Main Campus adjacent to the City of San Luis Obispo. As the plan develops, we will give additional attention to the University's land holdings at Swanton Pacific Ranch in Santa Cruz County.

We seek your comments and suggestions for strengthening the Master Plan before we proceed to the next steps. We will close public comment on June 12, 2000, so that we can refine the plan and prepare the draft Environmental Impact Report for release in the Fall. You will note that we have begun to integrate the environmental analysis in this preliminary draft through principles that address environmental issues and preliminary discussion of the environmental consequences of the Plan's recommendations.

Cal Poly has scheduled two public meetings to discuss the preliminary draft of the Master Plan, and the Master Plan team will schedule meetings with interested groups as needed to discuss the plan:

Monday, May 8, 11:00 A.M. to 1:00 P.M. on campus in the Veranda Café
Wednesday, May 10, 7:00 to 9:00 P.M. at the Monday Club, 1815 Monterey Street

This preliminary draft Master Plan is available in print, CD-ROM, and World Wide Web formats (linked from www.campusprojects.calpoly.edu). Print copies are available for public review at the San Luis Obispo City County Library, and at the Kennedy Library and Facilities Planning offices at Cal Poly. A limited number of print copies will be available to the public for a nominal fee to cover reproduction costs.

We thank you again for your continued interest in Cal Poly's master planning process. Please direct any questions or comments regarding this preliminary draft Master Plan, including requests for meetings or briefings with the Master Plan team, to Deby Anderson at 756-6806 (voice), 756-6807 (fax) or djanders@calpoly.edu by e-mail.

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ACKNOWLEDGEMENTS

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Landscape Advisory Committee
Biological Sciences Advisory Committee
College of Agriculture Land Use Committee
Housing and Residential Life
University Police
Intercollegiate Athletics
Cal Poly Foundation
Associated Students, Inc.
Student and Faculty projects in all six colleges

Campus/Community Task Force members

City of San Luis Obispo
County of San Luis Obispo
Cuesta Community College
San Luis Obispo Council of Governments
EXECUTIVE SUMMARY

Cal Poly

California Polytechnic State University, founded in 1901, is a predominately undergraduate, teaching university specializing in applied technical and professional fields. With its unique tradition of “learn-by-doing” education, Cal Poly students receive both theoretical knowledge in the classroom and practical experience in laboratories and fields, ensuring that graduates are prepared for careers in the 21st century.

About 70 percent of Cal Poly’s students major in engineering, agriculture, business, architecture or related fields. Programs in the liberal arts, science and mathematics, and teacher-training build on the University’s polytechnic character. More than 90 percent are undergraduates; the rest are in master’s degree or teaching credential programs.

The campus occupies over 6,000 acres in San Luis Obispo County and 3,200 acres in Santa Cruz County. These lands provide hands-on opportunities for students, especially those studying agriculture, biological sciences, architecture, and engineering, to apply their classroom knowledge to real-life situations.

Cal Poly, with its national reputation for excellence and its desirable location on the Central Coast, receives many more student applications than can be accommodated. Only about one in five undergraduate applicants ultimately enroll.

In Fall 1999, the average GPA and SAT scores for incoming freshmen were 3.64 and 1162.
Cal Poly is regularly included in “best colleges” lists. In its past seven surveys, U.S. News and World Report has ranked Cal Poly as the top public undergraduate university in the western United States. The magazine rates the engineering college the best public non-doctoral program in the entire country.

Master Plan Background

Cal Poly’s new Master Plan provides principles and guidelines for the physical development of Cal Poly so that the University can sustain its distinctive mission as a polytechnic university into the 21st century. The Plan is designed to meet the educational needs of the campus, respond to external developments in higher education, and address the role of the University as a member of its larger community.

The architectural firm of Allison and Rible prepared the first formal Master Plan for Cal Poly in 1949, based on a projected enrollment of 4,080. In 1958 the California Department of Education dictated that all non-metropolitan state college campuses plan for an enrollment of 12,000 Full-Time Equivalent Students (FTES). This led to the next Master Plan, prepared by the architectural firm of Falk and Booth in 1962, and approved by the California State University Board of Trustees in May 1963. In 1970, the 4th revision to this Master Plan increased the enrollment capacity to 15,000 FTES. Subsequent revisions to add or change building sites resulted from piecemeal planning for new projects - thus, a major review was long overdue.
The projected increase in college-bound students in California referred to as 'Tidal Wave II' expands the need for higher education. The high demand for a Cal Poly education, particularly in programs not generally available at other public universities in California, brings that pressure to San Luis Obispo. The existing investment in specialized programs, the number and quality of applications, and the economic and societal contributions of graduates all contribute to the perception of Cal Poly as a candidate for growth.

This Master Plan update represents the culmination of a three-year planning process at Cal Poly.

**Master Plan Summary**

As guidance for approximately the next 20 years, the Master Plan addresses academic program demand, physical and environmental constraints and opportunities, and capital and operating budget requirements to support a future enrollment of 17,500 net academic year and 2,500 summer full-time equivalent students (FTES). The Plan also anticipates a modest increase in technology-supported instruction and enhancements to curricula and advising to accelerate student progress to degree completion. Together these operational changes designed to increase summer enrollment, apply technology and facilitate student progress are expected to increase college year enrollment by about 9 percent without increasing fall headcount.

The physical development portion of the Master Plan focuses on land use and circulation issues associated with increasing enrollment during the Academic Year, as this scenario involves the most extensive change on campus. Enrollment growth projections translate into a Fall headcount of approximately 20,900 students and about 3,200 regular faculty and staff - an increase of about 17 percent over present capacity to be accomplished in phases over approximately 20 years.

The Master Plan redevelops and consolidates academic facilities within an expanded instructional core south of Brizzolara Creek. At the same time, the Plan is designed to protect natural environmental features and agricultural lands that form the character of the campus. A central feature of the plan involves creating new student residential communities accommodating approximately 3,000 additional students and provision of faculty and staff housing. Student services, recreational facilities, would be expanded commensurate with increased enrollment. Although parking may increase over existing numbers, the ratio of parking to students is planned to decrease during the planning period.
LEGEND

- Existing Agriculture Facilities
- Outdoor Teaching and Learning
- Roadways

Environmentally Sensitive Areas

- Biologically Sensitive Areas
- Preserves
- Significant Riparian Areas
- Reservoirs
- Streams

LAND USE MAP
Chorro Creek Watershed
University Land Uses

The Master Plan takes a broad approach to the analysis of the most suitable future use of all Cal Poly’s lands in both San Luis Obispo and Santa Cruz counties, including management practices to protect the University’s unique natural environment. The Master Plan team has applied principles from campus and community task forces that met during Spring 1999 to designate future land uses and develop the following physical plan elements.

Natural Environment

Environmentally sensitive areas and assets are designated as an overlay, determined by physical and biological features of the land. Principles focus on stewardship, protection and restoration.

Outdoor Teaching and Learning

“Living laboratories” (e.g., agricultural fields and units, ecological study areas, and design village) are central to Cal Poly’s mission and must remain integrated with the campus.

Campus Instructional Core

Additional enrollment requires some expansion of the campus core for instruction and support. Principles focus on creating a compact, “student-friendly, learner-centered” area with more open space and better pedestrian and bicycle circulation.
Residential Communities
New student housing complexes are conceived as living/learning communities, directly accessible to the campus instructional core. New undergraduate student housing on campus will reduce community impacts of enrollment growth.

Recreation
Flexible outdoor recreational fields and indoor facilities will serve the changing student population.

Circulation, Alternative Transportation, and Parking
Circulation systems both provide access to the campus and movement within it. The Master Plan encourages alternative forms of transportation to reduce congestion and parking. Internal circulation focuses on “user-friendly” pedestrian access.

Public Facilities and Utilities
Essential support facilities can be located outside the campus instructional core unless they require a central location to function effectively.

Support Activities and Services
A wide array of academic and support activities must be available to serve Cal Poly’s diverse student, faculty, staff and visitor populations - in both the instructional core and new residential communities.

Ancillary Activities and Facilities
A number of activities that serve the broader community as well as Cal Poly are complementary to the University’s instructional mission. However, not all of these facilities need to be provided within the campus instructional core.

Additional information regarding the Master Plan process is available at the following web site:

www.facilities.calpoly.edu/Facilities_Planning/FPDB/mp/

This website is also linked directly from:

www.campusprojects.calpoly.edu
Key Master Plan Elements
A  Centennial Green
B  University Union Plaza
C  Northeast Green
D  Northwest Green
E  Alumni Center/Retreat
F  New Residence Apartments
G  Engineering East Redevelopment
H  South Perimeter Pedestrian Way
I  North Perimeter Pedestrian Way
J  Brizzolara Creek Restoration
K  North Mountain Residence
L  New Residence Halls
M  New Residence Apartments
N  New Residence Apartments
O  New Residence Apartments
P  California Boulevard Extension
Q  New Sports Complex
R  Residence Apartments (Underway)
S  Highland Drive Entrance
T  New Corporation Yard
U  Rodeo
V  New Highland Drive Alignment
PS1  Parking Structure 1
PS2  Parking Structure 2
PS3  Parking Structure 3

Existing Key Buildings
01  Administration
03  Business
06  Performing Arts Center
11  Agricultural Sciences
18  Dairy Science
32  Equine Unit
34  Dexter Building
35  Kennedy Library
42  Mott Gymnasium
43  Recreation Center
48  Environmental Horticulture
60  Crandall Gymnasium
61  Mustang Stadium
65  University Union
105-110  Red Brick Residential Halls
112  Vista Grande
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LE G E N D
PS2
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# Executive Summary

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1 INTRODUCTION
Who are we and why are we doing the Master Plan update?
How did we get here?
**PLAN PURPOSE**

**Master Plan Statement**

The review of Cal Poly’s Master Plan is a process that both reveals and prepares. Demanding candid self-examination, the review compels the University to reveal its values and its defining characteristics. The process also challenges us to consider how Cal Poly’s mission and identity have prepared the University to meet the needs of an increasingly complex workplace and pluralistic society. Thus, a successful planning effort is simultaneously both retrospective and future-focused for it underscores the connections between what we have achieved and what we are, and what we seek to become. Whether examining the historical record or considering the University’s next century, we must ensure that our sense of mission is clear and compelling both for those within the University and for our several external constituencies. Such clarity is essential to developing a sense of shared purpose, promoting institutional community, and gaining the resources to support our high standards and aspirations.

**Vision, Values, Identity**

Cal Poly’s vision and values focus on our identity as a predominantly undergraduate, largely residential, public, polytechnic university that measures its worth and success primarily in terms of academic excellence, student learning and service to the State of California.

Student learning and service connect through an educational approach captured in the phrase “learn by doing.” More than a slogan, “learn by doing” is a guide to educating students to do what they study, to apply the principles that they learn, to act on their ideas in a world that requires action to solve problems and advance society, and to reflect on the consequences of their actions.

Cal Poly promotes a healthy dialogue between its polytechnic programs and the liberal arts and sciences. The University aims to enable its students “to see life whole,” to gain an appreciation not only for the basic knowledge and aptitudes that the liberal arts and sciences develop, but also for their social and ethical dimensions, that is, the habits of heart and mind that contribute to the development of a well-informed and responsible citizenry.

The distinctly residential character of the University underscores an
institutional obligation to promote learning and service beyond the formal settings of instruction through student clubs and organizations, the performing arts, athletics, internship and co-op programs, and community service. These activities enrich the lives of our students, enliven the campus, foster a culture of connected learning, and encourage civil engagement.

The University recognizes the relationship between the physical spaces where student learning and life occur and the spirit of learning. Both built and natural environments should complement each other and foster the educational goals of the University. The University’s commitment to the education of the whole person requires that our campus facilities and spaces support the social and physical developmental needs of our students in addition to their intellectual growth.

As a public university, Cal Poly recognizes its special obligations to serve public interests and gain public trust. The quality of our graduates and the integrity of our mission are the strongest ways with which we fulfill this obligation. The University recognizes the responsibilities of its mission and statewide service mandate to grow enrollments particularly in those polytechnic and professional areas that are not broadly available in the State.

As a highly selective University with a strong national reputation, Cal Poly acknowledges the exemplary obligation of leadership and seeks to participate in and shape the critical conversations regarding higher education in the State and nation.
Characteristics of the Cal Poly Mission

Cal Poly Mission Statement
(adopted as part of the University’s Strategic Plan, as amended through 1995)

As a predominantly undergraduate, comprehensive, polytechnic university serving California, the mission of Cal Poly is to discover, integrate, articulate, and apply knowledge. This it does by emphasizing teaching; engaging in research; participating in the various communities, local, state, national, and international, with which it pursues common interests; and where appropriate, providing students with the unique experience of direct involvement with the actual challenges of their disciplines in the United States and abroad.

Cal Poly is dedicated to complete respect for human rights and the development of the full potential of each of its individual members. Cal Poly is committed to providing an environment where all share in the common responsibility to safeguard each other’s rights, encourage a mutual concern for individual growth and appreciate the benefits of a diverse campus community.

Mission
• Polytechnic
• “Learn by doing”
• Primarily undergraduate
• Student-centered community
• State-of-the-art education (programs, practice, pedagogy and services)
• Social and intellectual diversity
• Statewide service area
• Technological currency

Key Institutional Characteristics
• Selective admissions
• Residential campus
• Major at entrance
• National reputation
**Aspiration**

- Model for public higher education

**Principles**

The following statements incorporate these values into a set of guiding principles that can be applied to academic, budget, human resource, and physical planning and development.

1. A student-centered, learner-directed culture, where teaching and learning resources systematically foster active learning.

2. A flexible institution that can sustain its unique polytechnic character and “learn-by-doing” tradition as well as anticipate and adapt to changes in the 21st century environment.

3. A confident community where all campus constituents work together to create the future.

4. A supportive environment that is physically comfortable and attractive, personally safe, culturally diverse, and intellectually stimulating.

5. A responsible university that meets societal needs (e.g., access, affordability, diversity, community and State needs).

6. An effectively managed organization that values quality and responsiveness in instruction, service, and support activities.
PLANNING PROCESS

College Year 1997-98

Task
- Unit strategic plans, building on University strategic plan, Cal Poly Plan, and disciplinary environmental scans - COMPLETED

Responsible Group: Colleges, divisions

College Year 1998-99

Summer

Task
- Draft discussion paper; prepare draft process; identify Master Plan format; clarify interim process and pending projects; identify stakeholders – COMPLETED

Responsible Group: Master Plan team (Administrative staff with consultants)
- Review draft process and identify initial issues – COMPLETED

Responsible Group: Campus Planning Committee
- Prepare talking points for public discussion (President Baker, others) – COMPLETED

Responsible Group: Master Plan team
- Meet with campus and community leaders to discuss process and issues – COMPLETED

Responsible Group: Campus Representatives (President Baker with key individuals)

Fall

Task
- Establish Web site; assemble data, including additional needs; establish scope of Master Plan – COMPLETED

Responsible Group: Master Plan team
- Synthesize issues to be addressed by planning process and refine scope; identify task force topics; identify opportunities for faculty and student involvement – COMPLETED

Responsible Group: Master Plan team
Fall-Winter

Task
- Brief campus groups, including deans, college councils, ASI, Senate Budget and Long-Range Planning Committee regarding process – COMPLETED

Responsible Group: Master Plan team
- Develop and review alternative enrollment scenarios – COMPLETED

Responsible Group: Dean’s Enrollment Planning Advisory Committee

Winter

Task
- Hold public meetings on and off campus – COMPLETED

Responsible Group: Master Plan team
- Confirm task forces and charges – COMPLETED

Responsible Group: Campus Planning Committee

Spring

Task
- Recommend principles to guide development of Master Plan – COMPLETED

Responsible Group: Campus/community task forces

College Year 1999-2000

Summer

Task
- Translate enrollment analysis into initial facility requirements; begin analysis of physical planning elements and their inter-relationships, including initial environmental analysis for Master Plan – COMPLETED

Responsible Group: Master Plan team, with advice from Campus/community task forces

Summer-Fall

Task
- Discuss policy issues and preliminary Master Plan concepts – COMPLETED

Responsible Group: President and vice presidents
**Fall**

**Task**
- Conduct follow-up analysis - COMPLETED  
  
  Responsible Group: Master Plan team

**Fall-Winter**

**Task**
- Brief campus groups - e.g., Campus Planning Committee, Strategic Management Group, University Planning and Budget Advisory Committee, Senate Budget and Long-Range Planning committee, College councils, CAGR Land Use Committee, Biological Sciences Advisory Committee, ASI, Foundation, and faculty and students involved with class projects - COMPLETED  
  
  Responsible Group: Master Plan team
- Develop preliminary draft, including physical planning alternatives (for main campus and ranches in San Luis Obispo County) - PENDING  
  
  Responsible Group: Master Plan team

**Spring**

**Task**
- Review preliminary draft, including physical planning alternatives - PENDING  
  
  Responsible Group: Campus/community task forces; City and County representatives
- Coordinate review of preliminary Draft Master Plan and Initial Environmental Study by campus and community. - PENDING  
  
  Responsible Group: Master Plan team, Facilitator

**College Year 2000-01**

**Summer**

**Task**
- Develop full Draft Environmental Impact Report, including environmental mitigation measures - PENDING  
  
  Responsible Group: Master Plan team, informed by review of Draft Master Plan and Initial Study
**Fall**

Task
- Coordinate review of Draft EIR – PENDING
  
  Responsible Group: Master Plan team, Facilitator

**Winter**

Task
- Final review and adoption of Master Plan on campus – PENDING
  
  Responsible Group: Campus Planning Committee; Strategic Management Group

**Spring**

Task
- Submit Master Plan to Board of Trustees for approval – PENDING
  
  Responsible Group: President Baker, Master Plan team
2 \hspace{2.5cm} \textbf{Guiding Framework}

What principles have guided this plan?
CONTEXT AND CHALLENGES

Context

Cal Poly’s Long-Range Enrollment Plan and Master Plan Update emerge from the following context:

• Cal Poly mission and statewide charter from Title V, emphasizing academic excellence in polytechnic curricula and applied “learn-by-doing” instruction.

• Student learning outcomes developed in the “Commitment to Visionary Pragmatism” report as the desired characteristics of a Cal Poly graduate.

  http://www.calpoly.edu/~communic/univ/visionary.html

• Responsibility to the State of California as a leader in the California State University system.

• Contribution as a member of the community in the Central Coast of California.

Several reports and resolutions published in the past 15 years contributed to the guiding framework for the Master Plan Update:

• The Academic Senate Long-Range Planning Committee report (1988) discussed possible growth to 17,400 FTES with proper planning. The Academic Senate adopted an additional resolution on “Principles to Govern Enrollment Growth at Cal Poly” in May 1999.

  http://www.calpoly.edu/~acadsen/

• The University Strategic Plan (1990-1994, amended through 1995) includes the concept that institutional size should be commensurate with planning, resources, and impacts.

  http://www.calpoly.edu/~communic/univ/stratplan.html

• The Land Use Diagram (1993) identified possible future sites for campus core expansion, outdoor agricultural labs, and recreational facilities.

• The Cal Poly Plan (1996) emphasized modest growth during the academic year and significant expansion of Summer Quarter.

  http://www.calpoly.edu/~inststdy/cp_plan/index.html
• College and unit strategic plans (1997-98) identified academic and other programmatic factors critical to the future of the University.


  http://www.president.calpoly.edu/articles/outlook4.98.html

• The campus self-study for the Western Association of Schools and Colleges (WASC) accreditation review (1999-2000) underscored the importance of the intellectual, social, and physical environments to Cal Poly as a “Center for Learning.”

  http://wasc.calpoly.edu/innovative/innovative.html

• Ten campus and community task forces met during Spring 1999 and recommended over 500 principles to guide the Master Plan Update.

  http://www.facilities.calpoly.edu/Facilities_Planning/FPDB/mp/

**Challenges and Directions**

Within this context, the Long-Range Enrollment Plan and Master Plan Update seeks to address the following questions. Statements in *italics* indicate the general approach being applied to address each challenge.

**Question 1**

Given Cal Poly’s mission and commitment to academic quality as well as an increasing demand for higher education in California, how can the University educate more students, with or without increasing the physical capacity of the campus?

a. **Student Progress** - Develop advising, streamline curriculum development, etc. per Cal Poly Plan, WASC self-study, and Advising Task Force to facilitate progress to degree completion.

b. **Distributed Teaching and Learning** - Increase off-site and technology-mediated instruction to enhance student learning.

c. **Year-Round Operations (YRO)**, particularly expansion of Summer quarter - Increase Summer enrollment to 40 percent of Academic Year Full-time Equivalent Student (AY FTES) level.
d. Increase Academic Year Full-Time Equivalent Students (AY FTES) - Increase campus instructional capacity to a level that can be supported by an on-campus residential learning community for all new undergraduate enrollment. Analysis of land potentially suitable for on-campus housing capacity indicates that Cal Poly may be able to house an additional 3,000 undergraduates, which translates to an increase in instructional capacity to about 17,500 net AY FTES.

**Question 2**
Given Cal Poly’s mission and the need for academic programs not broadly available in the State of California, what should be the future composition of academic programs and student enrollments?

e. Expand curricula and student enrollment in strategic academic programs, particularly biotechnology, engineering, and other advanced technology programs. [Detailed discussion pending deliberations by Deans’ Enrollment Planning Advisory Committee.]

**Question 3**
Given Cal Poly’s setting on the Central Coast of California, how can the University balance external pressures for enrollment growth with the character and resource capacity of the surrounding communities?

f. Make the Master Plan self-mitigating with respect to major environmental and community impacts. For example:

- Providing housing on campus for new undergraduate enrollment growth will help to avoid additional housing and traffic impacts on the community of San Luis Obispo.

- Encouraging students, faculty and staff to shift away from automobiles toward alternative transportation systems will reduce traffic congestion, improve air quality and limit the need to supply parking.

- Planning future campus facilities so as to mitigate environmental impacts as part of project design.

**Question 4**
Given Cal Poly’s mission, academic programs and land holdings, how can the University create and enhance its natural and built environment and provide technological support for both indoor and outdoor facilities that meet student learning needs and faculty and staff needs for scholarly and professional development?
g. Land use - overall direction

• Define and designate land uses consistent with University mission: environmental assets (as an overlay), instructional core and support, outdoor teaching and learning, student residential community, recreation, parking, and ancillary activities. Such designations will be used for all lands on the main campus, for the western ranches in San Luis Obispo County (Chorro, Walters and Escuela), and for Swanton Pacific Ranch in Santa Cruz County.

• Apply six basic principles to land use planning: balance among land uses that serve the University’s academic mission, environmental suitability, compatibility between adjacent uses, proximity among related uses, compactness in the instructional core, and community-building.

• Acknowledge that active learning can and should happen anywhere. To accomplish this, develop Design Guidelines that stress flexible facilities that provide space for interactions among faculty, students and staff, enable the use of different pedagogical styles, and are supported by state-of-the-art technology.

Question 5
Given Cal Poly’s predominantly undergraduate, residential character, how can the University provide facilities and services that integrate diverse student needs for physical and social development with intellectual development?

h. Establish a natural and built environment that reflects the way that students are expected to learn in the 21st century. This implies full access to information technology as well as opportunities for collaborative and active learning, teamwork, leadership development, and working with diverse populations, consistent with the desired characteristics of a Cal Poly graduate.

i. Provide for a full range of academic and student services in support of expanded instructional facilities and new residential learning communities. This implies curriculum, advising, recreation, social, and other student service programming concurrent with physical Master Plan development and phasing.

Question 6
Given Cal Poly’s mission, character, and physical setting, how can the University create and enhance a visual image through the Master Plan?
that reflects the University’s identity - that is, through land use patterns, and the form of structures and spaces?

j. Reinforce a “student-friendly/learner-centered” physical environment that reflects Cal Poly’s core academic programs and pedagogy. Design and landscape guidelines will supplement the Master Plan to provide detailed guidance regarding such design issues as way-finding, architectural vocabulary and open space-systems.

**Question 7**

Given academic program needs and limited operating budgets and capital resources, how can Cal Poly redevelop selected areas within the instructional core and expand academic and support facilities so as to avoid disruption of existing academic activities?

k. Sequence redevelopment and new development to take advantage of available land first. Then, phase so as to relocate activities to make additional land available concurrently for residential development and new instructional facilities.

l. To the extent feasible, schedule each phase to include a balance of instructional and support facilities, student housing, and parking, subject to analysis as to the timing and feasibility of obtaining funds, incurring debt and/or establishing partnerships to finance facilities.

m. Explore innovative project financing and delivery options such as public-private partnerships and “design-build” project development.

**Question 8**

Given Cal Poly’s context and role in its community, what processes should the University adopt and implement to communicate with the campus and broader community regarding planning and project development issues?

n. Recognize that the University belongs both to the community of higher education and to its local community, sharing the same regional environment with many neighbors. To this end, the University will broaden its communication and consultation both on and off campus with respect to campus planning issues.
MASTER PLAN TASK FORCE RECOMMENDATIONS

Overview

Following two general public meetings on and off campus during Winter 1999, the Master Plan team invited students, faculty, staff, and members of the larger community to recommend principles to guide the development of the Master Plan. Ten campus and community task forces met extensively through Spring quarter 1999 to develop their recommendations. Campus Planning Committee members as well as representatives of the professional planning team attended these meetings and guided the discussion. Task force members were not reticent to express their views and their reports reflect a number of explicit concerns, particularly with respect to neighborhood impacts, environmental issues, and Cal Poly’s planning and project review processes.

The resulting reports contained over 500 recommendations, many of which were very specific. Further, a number of the task forces included detailed examples to illustrate their recommendations. The professional planning team kept the complete list of recommendations as a reference, and published the task force reports on the Master Plan Web site. Then, the team consolidated the Task Force recommendations into a set of more general principles to guide the development of the Master Plan. These principles appear at a general level as part of the Guiding Framework for the Master Plan, and in more detail in each physical planning element and in the section on plan implementation.

Document Incorporation

The following sections indicate where the Master Plan team incorporated each task force’s recommendations in the physical planning elements of the draft Master Plan.

Land Use Task Force

See Master Plan Elements
Land Use,
Natural Environment,
Outdoor Teaching and Learning,
Campus Instructional Core,
Residential Communities,
Recreation, Athletics and Physical Education,
Public Facilities and Utilities,
Circulation,
Parking,
Support Activities and Services
Ancillary Activities and Facilities

Comments
Additional details to be reflected in Land Use and Project Review Procedures as part of Master Plan implementation.

Natural Environment Task Force

See Master Plan Elements
Land Use
Natural Environment
Outdoor Teaching and Learning
Campus Instructional Core

Comments
Additional details to be reflected in Best Management Practices as part of Master Plan implementation;
Process principles at general level in Guiding Framework;
Additional details to be reflected in Land Use and Project Review Procedures as part of Master Plan implementation.

Built Environment and Technology Task Force

See Master Plan Elements
Land Use,
Natural Environment,
Outdoor Teaching and Learning, Campus Instructional Core,
Public Facilities and Utilities,
Circulation,
Alternative Transportation,
Support Activities and Services

Comments
Additional details to be reflected in Land Use and Project Review Procedures, Design Guidelines and Landscape Plan as part of Master Plan implementation
Housing Task Force

See Master Plan Elements
Land Use,
Campus Instructional Core,
Residential Communities,
Recreation, Athletics and Physical Education,
Alternative Transportation,
Support Activities and Services

Circulation Task Force

See Master Plan Elements
Land Use,
Campus Instructional Core,
Circulation,
Alternative Transportation,
Parking

Utilities and Resources Task Force

See Master Plan Elements
Land Use,
Natural Environment,
Outdoor Teaching and Learning,
Public Facilities and Utilities,
Ancillary Activities and Facilities

Public and Support Services Task Force

See Master Plan Elements
Land Use,
Campus Instructional Core,
Residential Communities,
Recreation, Athletics and Physical Education,
Public Facilities and Utilities,
Circulation
Support Activities and Services

Neighborhood Relations Task Force

See Master Plan Elements
Land Use,
Natural Environment,
Campus Instructional Core,
Residential Communities,  
Alternative Transportation,  
Parking,  
Support Activities and Services,  
Ancillary Activities and Facilities

Comments  
Process principles at general level in Guiding Framework; Additional details to be reflected in Land Use and Project Review Procedures as part of Master Plan implementation.

**Intergovernmental Relations Task Force**

See Master Plan Elements  
Land Use

Comments  
Process principles at general level in Guiding Framework; Additional details to be reflected in Land Use and Project Review Procedures as part of Master Plan implementation.

**Economic Impacts Task Force**

See Master Plan Elements  
Land Use

Comments  
Details to be reflected in environmental impact analysis.

Refer to the Master Plan Website for a complete version of task force principles.
3 LONG-RANGE ENROLLMENT SCENARIOS

How might the campus change to enhance education in California?
What are the mixes for enrollment?
LONG-RANGE ENROLLMENT SCENARIOS

Introduction
During the 1998-99 academic year, the Deans’ Enrollment Planning Advisory Committee (DEPAC) developed four general scenarios to illustrate different ways in which Cal Poly might be able to educate more students - with or without expanding the physical capacity of the campus.

Student Progress
In addition to curricular and administrative support, increase student course load to 15 for full-time undergraduates.

Distributed Teaching and Learning
Double or triple the present enrollment in off-site programs, whether traditional study abroad, media-assisted, or internships and coops.

Increase Academic Year Full-Time Equivalent Students (AY FTES)
Consider a range of annual growth rates varying from 1 % to 2.8 %.

No Growth in AY FTES
Consider the potential for Summer enrollment to reach the CSU goal of 40 % of average AY FTES.

Year-Round Operations (YRO)
contribute to each scenario, but the issue was addressed particularly as a way to educate more students without increasing AY FTES. DEPAC is exploring YRO, particularly expansion of Summer quarter, during 1999-2000.

Principles
These scenarios stemmed from discussions of the University’s academic mission, stressing the following principles:

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1 For 1998-99 the Provost named the following to DEPAC: Bob Clover (for Jerry Hanley), Information Technology Services; Linda Dalton, Institutional Planning and Analysis; Juan Gonzalez, Student Affairs; Martin Harms, College of Architecture and Environmental Design; Steve Kaminaka, Academic Senate Budget and Long-Range Planning Committee; Euel Kennedy, Enrollment Support Services; Bob Kitamura, Facilities Planning; Bonnie Krupp, Institutional Planning and Analysis; Susan Opava, Research and Graduate Programs; Rick Ramirez, Budget and Analytic Business Services; Walter Rice, College of Business; and Harry Sharp, Chair, Extended University Programs and Services. Kimi Ikeda, Office of the Provost, frequently contributed. The following text draws directly from the DEPAC “Report on Long-Range Enrollment Scenarios,” dated March 1, 1999.
The University will be informed and guided by its mission. Cal Poly will remain polytechnic with a strong majority of our enrollments in “polytechnic” programs within which “learn by doing,” the “hands-on” approach to education, will characterize the lives of our primarily undergraduate student body. Across the campus these students will engage in state-of-the-art programs, pedagogy, and practices in the environment of a student-centered community where the faculty and staff serve students in a context of social and intellectual diversity, a learning community that is diverse in every sense with a statewide mandate to educate highly qualified and motivated citizens from all over California.

In addition, Cal Poly currently incorporates and will continue to incorporate the following characteristics for the foreseeable future:

- **Selective** - admission is sought by far more qualified applicants than can be accommodated.
- **Residential** - meaning that more than 80% of students move to the campus or the immediate surrounding community for the purpose of obtaining their education. They are not “commuters.”
- **Major at Entrance** - the students matriculate directly to a degree program.

The University’s very name, CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO, lengthy to be sure, proclaims much. Cal Poly is a public institution with a statewide mandate to emphasize higher education in “polytechnic” subjects. Simultaneously, the University adjoins the City and is in the County of San Luis Obispo. Cal Poly is “special” not only to its own residents, but to other Californians, thousands of whom would, if they had the opportunity, literally “trade places.” It follows that the changes in enrollment, facilities, faculty, and staff should be in the best interests of both the University’s local and statewide constituencies.

Within the context summarized above, DEPAC offered four basic enrollment scenarios as a starting place for discussion. In doing so the committee noted that the University may choose particular elements of any (or all) of these or other possible models for campus development over the next decade or two.
Alternative Futures: Four Scenarios

Student Progress: Students Graduating Sooner and Cal Poly Educating More Citizens (but not at any one moment)

The substance of this scenario is a group of suggestions that aim at (1) increasing the percentage of students who graduate and (2) decreasing the time they take to do so. Some suggestions (e.g., more evening classes, courses and modules of courses offered via the Internet) echo elements of other scenarios. Almost all of the suggestions (such as improved advising by department faculty and advising centers, automated on-demand degree audits, devising effective techniques that enable more students to finish their senior projects) could be pursued regardless of what other direction the university takes on enrollment.

Presently, Cal Poly’s retention and graduation rates, although the highest in the CSU, are substantially lower than comparable figures for University of California campuses with which we effectively compete for entering freshmen. The scenario calls for research, including “exit interviews,” with students who leave without graduating to understand the causes of this problem and identify potential remedies.

Distributed Teaching and Learning: Off-Site and/or ‘Virtual’ Enrollment

In this scenario University enrollment grows but the headcount of students on campus may not. At any moment an increasing percentage of students will temporarily reside elsewhere. Science majors, for example, can spend a quarter on board the California Maritime Academy’s training ship, The Golden Bear. At present, six to ten faculty and up to 150 students take the Spring quarter in London Study, a program that could operate year-round. Smaller numbers, usually accompanied by a couple of faculty, have spent terms in Mexico, Japan, Thailand and similar remote locations, as well as in nearby urban areas such as San Francisco. Scores - sometimes hundreds - of students may be away from the campus for a term and sometimes as long as a year. The numbers could increase, and simultaneously these students may augment off-campus learning by enrolling for classes offered here. They would communicate with instructors through e-mail and hold discussions with classmates around the world via two-way on-line video on the Internet. The campus is making plans that will enable dozens of students to enroll for a quarter in residence on the Swanton Pacific Ranch in Santa Cruz County. While there, they will simultaneously enroll for on-campus courses by two-way video.
Other Cal Poly students may use “distance education” technology to enroll for campus-based courses during the quarters (usually summer) they are “at home” rather than in San Luis Obispo. One example: community college students who are transferring into Cal Poly’s professional programs as juniors might take one or more essential “prerequisite courses” via the World Wide Web in the quarter(s) just before they move here. That could mean cutting a year off the time they would otherwise be in residence to obtain degrees.

Although most students could benefit from participation in one or more “distributed learning” experience, Cal Poly is residential. There are authentic intellectual, social, and personal benefits in the residential student life. The University wants undergraduates to spend most of their educational careers on or in the immediate vicinity of the campus. Therefore, this University does not anticipate offering “external degrees” at the undergraduate level. Nevertheless, the expanded use of “distance learning” in varied forms can increase Cal Poly’s FTES enrollment without increasing the local headcount at any given time.

**More On-Campus Academic Year Enrollment**

In this scenario both headcount and FTES (full-time equivalent students) on campus during the academic year would increase to a figure beyond the campus’s current physical Master Plan capacity of 15,000 AY FTES. Capacity can be increased by the construction of additional facilities: classrooms, laboratories, offices for faculty, etc. on the campus or by the leasing of instructional space elsewhere in the community.

“Capacity” could also be redefined upward (e.g., by increasing the number of hours per week that the campus schedules instructional space). That would mean more classes offered in the very late afternoon, evenings and/or on the weekends. Also, a few of our academic programs presently operate below “program capacity.” Small enrollment increases in those (mostly graduate) programs could be accomplished with modest impact on the physical and fiscal resources of the campus.

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2 For Cal Poly “residential” means the great majority of students have homes elsewhere. They moved to San Luis Obispo and took up temporary residence in a campus housing unit (or perhaps an apartment complex nearby that is populated almost entirely by other students) for the purpose of obtaining a Cal Poly education. The great majority will leave the community upon graduation. The committee recognizes that at some small liberal arts colleges the term “residential” means almost every student resides literally on the campus, but that the meaning of “residential” at Cal Poly is the one in general use in higher education today.
DEPAC observed that in recent years the CSU has funded all enrollment growth on a “CSU average” basis. That funding method, unlike the “mode and level” formula the state used in prior decades, fails to recognize higher costs inherent to this University’s polytechnic emphasis. As a result, State-assisted enrollment growth at the current “average” level will gradually, but inevitably, diminish the quality of the programs that give the University its strong reputation. \(^3\) DEPAC also assumed that any substantial increase in the headcount of students enrolling at San Luis Obispo during the academic year would be expected to have more or less proportionate impacts (positive and negative) on the local community.

**No More On-Campus Academic Year Enrollment**

The essence of this scenario is that AY (Academic Year) FTES on campus would not change significantly. Under this scenario, “College Year” enrollment, which includes enrollment in the summer term, might increase substantially. \(^4\) (Prior to budget cuts summer headcount enrollment in 1990 was 6464, or 37% of the Fall Quarter headcount. FTES that summer equaled 27% of fall figure. Students who enroll for the summer also carry lighter loads than during the academic year.)

If this scenario were adopted in isolation - without elements of other scenarios - and if the State of California continues to grow as predicted, the University’s share of all CSU students could be somewhat smaller than at present. Cal Poly is the only CSU campus (or one of only a few) that offers several polytechnic programs (e.g., architecture, graphic communication). Hence under this scenario, industry and State pressures could lead to increased enrollments in those “hard to find” programs. With “steady state” total enrollment on the campus as a whole, that would mean enrollments in other programs would have to be reduced. Such enrollment shifts would exacerbate the financial squeeze that derives from the CSU’s “average cost” funding.

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\(^3\) This observation concerning the CSU’s current practice for distribution of state general funds poses a challenge for any growth; however, the difficulty may be particularly acute for the “More AY FTES Scenario.”

\(^4\) Very few of Cal Poly’s academic facilities are air-conditioned, so all day summer use would be difficult (and in selected instances dangerous) unless and until ventilation is much improved or air-conditioning installed and used. What’s more, each summer some facilities are presently closed for major maintenance. As a result, plant capacity in the summer is less than during the academic year. More troublesome obstacles to a very large summer quarter derive from generations of student and faculty practice. Even if the state provided additional funding, it is not clear that faculty would be available or that students would enroll in significantly larger numbers.
ENROLLMENT GROWTH FACTORS

Background

Comparative Data - Growth Projections
The following table summarizes comparative growth rates as a reference for long-range enrollment planning at Cal Poly. A number of recent reports have used different methods to estimate the demand for higher education in the next decade. However, none of the enrollment projections for the CSU go beyond 2010-11, whereas population projections for California and San Luis Obispo communities extend to 2020-21. Western Interstate Commission on Higher Education projections show that the number of high school graduates - the primary source of increased demand for higher education known as “Tidal Wave II” - would peak in 2007 or 2008. This means that higher education impacts would peak over the following four to six years.

<table>
<thead>
<tr>
<th>Policy</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3%</td>
<td>CA Dept. of Finance (1999)</td>
</tr>
<tr>
<td>1.0%</td>
<td>City of SLO (1999)</td>
</tr>
<tr>
<td>2.4 - 2.8%</td>
<td>CSU (1998)</td>
</tr>
<tr>
<td>2.5 - 2.9%</td>
<td>CPEC (1999)</td>
</tr>
<tr>
<td>1.1 - 1.7%</td>
<td>CA Dept. of Finance (1999)</td>
</tr>
<tr>
<td>18 - 2.9%</td>
<td>SLO County pop.</td>
</tr>
<tr>
<td>0.7%</td>
<td>SLO City pop.</td>
</tr>
<tr>
<td>5.0%</td>
<td>Cuesta College</td>
</tr>
<tr>
<td>2.0 - 2.9%</td>
<td>CSU</td>
</tr>
<tr>
<td>1.0%</td>
<td>CSU</td>
</tr>
</tbody>
</table>

Critical Enrollment Measures
Enrollment and master planning must address three critical enrollment measures because each affects the University and the community in different ways.

College-Year Full-Time Equivalent Students (CY FTES)
The total amount of instruction offered during four academic quarters is represented by College-Year FTES. For example, any significant increase in Summer enrollment could add to instruction, support student progress, and help meet the demands of “Tidal Wave II” without significant changes in physical capacity. However, growth in CY FTES would require proportionate increases in the campus operating budget. CY FTES is also the basis for determining appropriate levels of instructional support - e.g., library and information resources, student:faculty and student:staff ratios.

Net Academic Year Full-Time Equivalent Students (Net AY FTES)
For instructional space planning, the critical measure is the amount of
instruction that actually uses classrooms and laboratories on campus. Thus, to calculate net AY FTES we subtract all instruction that is not scheduled in a classroom or laboratory on campus. The exclusion covers all supervision courses (senior project, master’s thesis) and other instruction listed as “to be arranged.” However, even this “other” on-site instruction requires campus support from faculty and administrative services. Cal Poly’s present physical capacity is 15,000 net AY FTES.

**Fall Head Count**

Many campus programs and services, as well as most community impacts, are based on number of students. For example, recruitment, admissions, orientation, advising, record-keeping, most services offered by Student Affairs, and fee revenues all are based on head count. We use full-time head count to calculate retention and graduation rates. Further, housing (on or off-campus), commuting, and other community impacts derive from the number of students enrolled. Analysis focuses on Fall head count as Fall is the peak term - and most new students enter in Fall quarter.

**Cal Poly - Past and Alternative Future Growth Rates**

The Master Plan team used a range of annual growth rates from comparative communities and institutions noted above to illustrate their implications for Cal Poly. The following table projects enrollment to 2020-21 for each growth rate, assuming a significant increase in summer but only modest changes in off-site instruction. Cal Poly expects future enrollment growth to occur in phases rather than follow a smooth rate of increase. Nevertheless, an increase of 3,000 additional students over 20 years would be approximately equivalent to a 1.5 percent annual increase. The environmental impact analysis will use other growth rates for comparative purposes.

<table>
<thead>
<tr>
<th>Past and Present</th>
<th>CY FTES</th>
<th>Net AY FTES</th>
<th>Fall Headcount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Enrollment, 1990-91</td>
<td>16,892</td>
<td>17,758</td>
<td></td>
</tr>
<tr>
<td>Most Recent Year, 1998-99</td>
<td>15,569</td>
<td>13,668</td>
<td>16,296</td>
</tr>
<tr>
<td>Projections for 1999-2000 (after Winter Census)</td>
<td>15,551</td>
<td>13,817</td>
<td>16,470</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alternative Future Growth Rates</th>
<th>Projections to the Year 2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999 Baseline -- No Increase in 15,000 AY FTES Capacity</td>
<td>18,309</td>
</tr>
<tr>
<td>1.0% Growth Rate -- Modified Baseline</td>
<td>19,342</td>
</tr>
<tr>
<td>1.5% Growth Rate -- Moderate Growth</td>
<td>21,244</td>
</tr>
<tr>
<td>1.75% Growth Rate -- RAND Calculations</td>
<td>22,261</td>
</tr>
<tr>
<td>2.0% Growth Rate</td>
<td>23,241</td>
</tr>
<tr>
<td>2.3% Growth Rate -- SLO County Policy</td>
<td>24,662</td>
</tr>
<tr>
<td>2.8 Growth Rate -- CSU High</td>
<td>27,056</td>
</tr>
</tbody>
</table>

Table 3.2

**Long-Range Enrollment Scenarios**

27
Key Variables

Assumptions about four key variables determine the relationships among CY FTES, net AY FTES, and Fall head count. Changes in any of these require both campus policy decisions and the means for implementation.

Two additional factors affect the enrollment capacity of the University and facility requirements.

First, campus policy regarding the number or proportion of students to be housed on campus contributes directly to the continuation and reinforcement of Cal Poly's character as a residential university. The assumption guiding the Master Plan is the principle that Cal Poly should provide housing on campus for all additional undergraduate students. This principle includes provision of appropriate housing types, support services and amenities to enhance the residential environment as a place for learning.

Second, as space needs vary by discipline, program mix affects both the amount and character of campus space. Thus, an essential next step in enrollment planning is the determination of the demand for and appropriate size of majors in programs critical to the State of California that are not generally available elsewhere.

The attached Table shows the implications of adding 3,000 additional students (Column A). This represents the approximate number that Cal Poly could house on campus. In columns B through E, Table 4 also shows how changes in the first four variables - course load, summer, off-site, and "other" on-site enrollment - affect college-year and net academic year FTES, with cumulative changes shown in Column F. The final lines in the Table translate student headcount into faculty and staff positions, assuming the continuation of present ratios.

The cumulative effect of these projections would be to increase the campus capacity as follows: Fall head count and net Academic Year FTES would increase approximately 17 percent over present capacity.
In addition, operational changes to increase summer term and to take advantage of distributed teaching and learning opportunities would enable the campus to increase College-Year FTES by an additional 9 percent with no corresponding increase in head count.

The template shown below is designed to trace the implications of different enrollment alternatives. The template starts with Fall Head Count as a critical measure of enrollment, and then calculates the implications for other critical measures.

The critical measures are:
- Fall Headcount – due to impacts on campus and community.
- CY FTES – for operating budget.
- Net AY FTES requiring instructional space – for facility planning.

The template shows the implications for the critical measures, first assuming no change in other factors. (Column A)

In addition, the template is designed to explore variation in 4 assumptions:
- Fall course load (Column B)
- Summer as a % of AY or CY FTES (Column C)
- % of off-site instruction (Column D)
- % of “other” on-site instruction not requiring instructional space (Column E)

The template shows the implications for the critical measures, after accounting for all 4 variations. (Column F)

Finally, the template shows the implications for faculty and staff needed to support enrollment growth.

Two past years are shown for comparison: Cal Poly’s previous all-time high, 1990-91, and last year, 1998-99.

<table>
<thead>
<tr>
<th>Past years for comparison</th>
<th>Present Capacity</th>
<th>HYPOTHETICAL IMPLICATIONS FOR GIVEN FALL HEAD COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1990-91</td>
<td>1998-99</td>
</tr>
<tr>
<td></td>
<td>all-time high</td>
<td>past year</td>
</tr>
<tr>
<td>1 Fall Headcount</td>
<td>17,758</td>
<td>16,296</td>
</tr>
<tr>
<td>2 Fall Load</td>
<td>13,422</td>
<td>13,922</td>
</tr>
<tr>
<td>3 Fall FTES</td>
<td>15,889</td>
<td>15,121</td>
</tr>
<tr>
<td>4 Summer Headcount (wt'd 3-yr avg load = 9.05)</td>
<td>6,464</td>
<td>4,088</td>
</tr>
<tr>
<td>5 Summer % of AY FTES</td>
<td>27.3%</td>
<td>17.1%</td>
</tr>
<tr>
<td>6 Summer FTES (annualized)</td>
<td>1,408</td>
<td>838</td>
</tr>
<tr>
<td>7 CY FTES</td>
<td>16,892</td>
<td>15,432</td>
</tr>
<tr>
<td>8 AY FTES</td>
<td>15,484</td>
<td>14,598</td>
</tr>
<tr>
<td>9 % Off-site AY FTES</td>
<td>8.6%</td>
<td>8.8%</td>
</tr>
<tr>
<td>10 Off-site AY FTES</td>
<td>1,222</td>
<td>1,456</td>
</tr>
<tr>
<td>11 Reduction in Fall Head Count on campus</td>
<td>1,789</td>
<td>1,622</td>
</tr>
<tr>
<td>12 On-site AY FTES</td>
<td>14,503</td>
<td>13,056</td>
</tr>
<tr>
<td>13 % &quot;Other&quot; on-site AY FTES</td>
<td>5.2%</td>
<td>5.5%</td>
</tr>
<tr>
<td>14 &quot;Other&quot; on-site AY FTES</td>
<td>819</td>
<td>881</td>
</tr>
<tr>
<td>15 Net AY FTES requiring instructional space</td>
<td>13,673</td>
<td>15,012</td>
</tr>
<tr>
<td>16 Faculty headcount</td>
<td>1,251</td>
<td>1,096</td>
</tr>
<tr>
<td>17 Management &amp; staff headcount, incl. Foundation and ASI</td>
<td>1,456</td>
<td>1,587</td>
</tr>
<tr>
<td>18 Fall student-faculty headcount ratio</td>
<td>14.20</td>
<td>14.87</td>
</tr>
<tr>
<td>19 Fall student-staff &amp; mgmt. headcount ratio</td>
<td>11.19</td>
<td>11.32</td>
</tr>
</tbody>
</table>

Note: Any change in Fall load is assumed to have a commensurate change in Winter and Spring loads as well.
4  |  EXISTING CONDITIONS

What do we look like now?
What are the existing constraints and resources?
**Existing Conditions**

**Definitions of Geographical Areas**

Cal Poly occupies approximately 3,000 acres in each of three sites - two in San Luis Obispo County and one in Santa Cruz County. As the Master Plan covers all of this property, the planning team has developed the following designations for each area.

**3,000 Contiguous Acres Adjacent to the City of San Luis Obispo**

*Campus Instructional Core*

The 155-acre Instructional Core is the area bounded on the south by the property line on the edge of the City of San Luis Obispo, on the west by the Union Pacific Railroad tracks, on the north by Highland Drive and the extension of Highland Drive easterly to a point due north of the present Building 70, and on the east by a portion of Perimeter Road and Grand Avenue. (Note: the northeast boundary is based on the realignment of Highland Drive proposed in the Master Plan.) The Campus Instructional Core is the academic and administrative center of the University.
**Extended Campus**

This area surrounds the campus Instructional Core on three sides, extending on the west from the Union Pacific Railroad along the Cal Poly property line to Highway 1, west across Highway 1 to include two parcels adjacent to the City of San Luis Obispo, then north along Stenner Creek Road to the Cal Poly property line. The northern boundary goes east, then north and east along the property line to the intersection with the Peterson Ranch property, then southeast across Brizzolara Creek to the Cal Poly property line, and south to the City of San Luis Obispo limits. The Extended Campus includes educational facilities associated with the campus farm, some parking, the on-campus student residential community and recreational facilities as well as some rangelands, creeks and foothills.
Main Campus
Together the Campus Instructional Core and Extended Campus comprise the Main Campus. The Master Plan does not use the term “campus” to refer to any other properties.

San Luis Obispo Creek Watershed Ranches
Cheda Ranch, Peterson Ranch, and Serrano Ranch are contiguous to the Main Campus. When appropriate, the Master Plan refers to them together as the San Luis Obispo Creek watershed ranches.

3,000 Acres North and West of Cuesta College in San Luis Obispo County
Chorro Creek Ranch
Chorro Creek Ranch is southwest of Highway 1 and north of Cuesta College. Walters Ranch and Escuela Ranch are northeast of Highway 1, west of Cuesta College. When appropriate, the Master Plan refers to them together as the Chorro Creek watershed ranches.

### 3,200 Acres in Santa Cruz County

**Swanton Pacific Ranch**

Swanton Pacific Ranch is located north of Davenport and occupies approximately 3,200 acres east of Highway 1 that is primarily in the Scotts Creek watershed.

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### AREAS OF CAL POLY LANDS IN SAN LUIS OBISPO COUNTY

<table>
<thead>
<tr>
<th>Description</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Campus</strong></td>
<td></td>
</tr>
<tr>
<td>Campus Instructional Core</td>
<td>155.0</td>
</tr>
<tr>
<td>Extended Campus Total</td>
<td>1166.0</td>
</tr>
<tr>
<td>Highland Parcel 1</td>
<td>33.0</td>
</tr>
<tr>
<td>Highland Parcel 2</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>SLO Creek Watershed Ranches</strong></td>
<td></td>
</tr>
<tr>
<td>Cheda Ranch</td>
<td>442.8</td>
</tr>
<tr>
<td>Peterson Ranch</td>
<td>425.8</td>
</tr>
<tr>
<td>Ecological Study Area (1975)</td>
<td>4.7</td>
</tr>
<tr>
<td>Botanical Garden (1953)</td>
<td>39.1</td>
</tr>
<tr>
<td>Architecture Study Area (1965)</td>
<td>16.5</td>
</tr>
<tr>
<td>Serrano Ranch</td>
<td>743.3</td>
</tr>
<tr>
<td><strong>Chorro Creek Watershed Ranches</strong></td>
<td></td>
</tr>
<tr>
<td>Chorro Creek Ranch</td>
<td>534.5</td>
</tr>
<tr>
<td>Walters Ranch</td>
<td>712.7</td>
</tr>
<tr>
<td>SLO Co. School &amp; Calif Archeological Site 544 (1971)</td>
<td>2.8</td>
</tr>
<tr>
<td>Escuela Ranch</td>
<td>1795.7</td>
</tr>
<tr>
<td>Biological Science Preserve (1967)</td>
<td>211.0</td>
</tr>
<tr>
<td><strong>Total University Acres</strong></td>
<td>5977.8</td>
</tr>
</tbody>
</table>

**NOTE:** This data was provided by the Natural Resources Management Department and was delineated into GIS from aerial photographs based on existing fencing. This data is in the process of being verified and should be used for preliminary estimates only.

**Table 4.1**
Summary of Existing Conditions

Cal Poly’s land holdings in San Luis Obispo and Santa Cruz counties include unique and valuable environmental resources, which provide a dramatic setting for the University and support its educational programs. Students and faculty alike enjoy access to diverse ecosystems, rich farmland and productive rangeland. The Master Plan depends on an improved and expanded understanding of these valuable assets as a basis for its recommendations. This section of the Master Plan provides an overview of Cal Poly’s existing physical conditions and a summary of the principal constraints and opportunities associated with land utilization.

An in depth analysis of the Main Campus’ physical conditions is available on the Cal Poly Master Plan Web site. The following overview focuses on seven critical Existing Conditions:

Intergovernmental context, circulation, biological and water resources, slopes, soils, agriculture facilities and resources, and the built environment in the instructional core.

Intergovernmental Context
The intergovernmental context map depicts Cal Poly’s relationship to the surrounding jurisdictions and urban uses. The Main Campus and surrounding lands to the north are in San Luis Obispo County. The surrounding lands include foothills of the Santa Lucia range and are primarily designated for rural and agricultural uses. This scenic setting provides the backdrop for views of the campus from various locations in the City and along Highway 1.

The Main Campus is adjacent to the City of San Luis Obispo on the south and west. The Alta Vista and Monterey Heights single-family neighborhoods border the southern edge of the campus, while the Bishop’s Peak single-family neighborhood lies to the west. The City, including these neighborhoods in particular, is concerned with traffic generated by the campus, parking on local streets, impacts of Cal Poly and Cuesta Community College students and faculty on the local housing market, noise from campus operations and activities and visual impacts such as night lighting.

Apartment complexes along Santa Rosa Street, California Boulevard and Foothill Boulevard house many students from Cal Poly and Cuesta Community College. The commercial areas closest to campus are along Foothill Boulevard and Monterey Street. Students, faculty and staff travel
to these commercial areas as well as other parts of the City for services not provided on campus.

Circulation and Parking

The existing circulation map shows the primary circulation routes, average daily trip totals, campus access points and critical intersections. The hilly terrain to the north and east of the campus and the Union Pacific railroad limit vehicular access to Cal Poly from off campus. While multi-family housing is closest to the California Boulevard entrance, the at-grade railroad crossing on Foothill Boulevard complicates access to the southwestern portion of campus for vehicles, bicycles, and pedestrians. Further, the campus currently provides only limited parking near the California Boulevard entrance. The Grand Avenue and Highland Drive entrances offer more direct access to parking on campus. Nevertheless, as most of the daily-use parking areas are located on the campus’ north side, drivers must travel through the campus to gain access.

Faculty and staff generally arrive during a traditional morning commute period while students arrive at and depart from the campus many times each day to fit their class schedules. This varied commuting pattern affects internal and surrounding circulation by creating multiple “peak-hour” cycles each day. Each time classes change, the campus experiences vehicular congestion and pedestrian and vehicle conflicts along Highland Drive, Perimeter Road, and Grand Avenue.

Biological and Water Resources

Cal Poly’s land holdings in the San Luis Obispo Creek watershed include a wide range of valuable natural resources immediately adjacent to the instructional core. Cal Poly’s academic programs take advantage of these natural areas for teaching and research. They include unique landforms, geological formations, plant and animal communities, streams, ponds, reservoirs, and wetlands.

Two streams offer unique opportunities to link the campus to a valuable natural feature. Brizzolara Creek descends from the Santa Lucia foothills on the northeast through Poly Canyon then traverses the northern edge of the instructional core westward to the Union Pacific railroad crossing. At that point it goes underground and re-emerges flowing south to join Stenner Creek. Stenner Creek winds its way south under the railroad trestles in Stenner Canyon then runs parallel to Highway 1. It continues south after crossing Highland Drive before joining Brizzolara Creek.
**Slopes**
As shown on the slopes map, steep hillsides and canyons bound the instructional core on the northeast. Much of the land to the north and west of the instructional core exhibits gentle slopes. This area is dedicated primarily to agricultural uses. The instructional core itself is fairly steep, contains numerous slope banks, and has an average cross slope of approximately 7%. These topographic features contribute to Cal Poly’s unique setting and provide spectacular views of the City of San Luis Obispo, the surrounding Morros and hillsides. At the same time, the same topographic features present serious constraints to development due to grading impacts, costs and visibility issues.

**Soils**
Cal Poly’s setting is greatly influenced by the amount of productive farmland proximate to the instructional core. This resource has enabled Cal Poly’s College of Agriculture to establish and maintain a broad range of agricultural practices. Within the extended campus area there are approximately 266 acres of Storie Index Grade 1 soils. These soils are present on slopes between 0-5%, are among the most productive in the County, and support a variety of irrigated and non-irrigated crops, orchards and pasturiland. There are also approximately 254 acres of Storie Index Grade 2 soils within the extended campus area that are also important. The Grade II soils are present on slightly steeper slopes between 5-10% and contain soil types that place moderate limits on the range of crops that can be grown. In addition, Storie Index Grades 3-6 represent progressively worse soil conditions for agricultural productivity, with Grade 6 not being suited for any type of agricultural use. The Master Plan seeks to protect all remaining Grade 1 prime soils for future agricultural use.

**Agriculture Facilities and Resources**
Agriculture facilities and fields surround the instructional core on the west and north, establishing Cal Poly’s agricultural setting. West of the railroad tracks, rich soils between Brizzolara and Stenner Creeks provide fertile ground for a variety of orchards, row crops, experimental crops and pastures. North of the instructional core, the campus farm contains animal units, environmental horticulture facilities, the arboretum, and Irrigation Research and Training Center. Four reservoirs and multiple ponds provide water for livestock, irrigation and agricultural wastewater treatment. Cal Poly faculty and students require continued access to these extensive outdoor teaching and learning facilities, consistent with the University’s “learn by doing” approach to education.
**Built Environment in the Instructional Core**

Within the instructional core, an historical range of structures, landmarks and memorials enrich the physical environment of the campus. The Built Environment map illustrates the age, quality, and life expectancy of the existing facilities within the Campus Instructional Core. Because the original campus structures were located near the California Boulevard entrance buildings in this area of the campus are among the oldest remaining on campus. In other areas, site layout, building footprint, and floor plans no longer meet campus instructional needs. They also have the greatest incidence of structural deficiency and functional obsolescence. Three general areas show potential for redevelopment within the instructional core: the Science Building area (building 52) in the center of the campus core, the corporation yard area to the northeast, and the southwest corner of campus where many of the buildings have far exceeded their life expectancy. These three areas provide opportunities for redevelopment to accommodate needed instructional space for new enrollment, improve pedestrian circulation, and gain green space without encroaching on valuable farmland and environmentally sensitive lands.
EXISTING CONDITIONS

LEGEND
- SLO City
- Cal Poly
- Downtown Core
- Commercial/Office
- Residential
- Multi-Family Housing

- Schools
- Medical Facilities
- Primary Roadways
- Secondary Roadways
- Railroad
- Approximate Projection of the Monterey Heights City Hillside Development Line

INTERGOVERNMENTAL EXHIBIT 4.3
Data Maps: City-Campus View

[Map of SLO City showing various land use areas, including schools, medical facilities, roadways, and residential areas.]

1/4 Mile (10 Minute Walk)

0 500 1,000 2,500 5,000 Feet
EXISTING CONDITIONS

CIRCULATION AND PARKING

LEGEND

- Existing Parking
- Primary Circulation - Heavy Use
- Primary Circulation - Medium Use
- Primary Circulation - Light Use
- Railroad
- Important Intersections
- Traffic Volumes
EXISTING CONDITIONS

EXHIBIT 4.5

BIOLOGICAL AND WATER RESOURCES
Data Maps: Main Campus

LEGEND

Preserves
Water Retention Ponds
Agricultural Wastewater Treatment Ponds
Riparian Areas
Trees
Streams
LEGEND

- 0% - 5%
- 5% - 10%
- 10% - 15%
- 15% - 20%
- 20% +
- Existing Buildings
Area 121
Rating: 41 - Grade 3
Limiting Factors: Drainage, Fertility

Area 123
Rating: 34 - Grade 4
Limiting Factors: Drainage, Fertility

Area 128
Rating: 54 - Grade 3
Limiting Factors: None

Area 129
Rating: 51 - Grade 3
Limiting Factors: None

Area 130
Rating: 42 - Grade 3
Limiting Factors: None

Area 132
Rating: 20 - Grade 4
Limiting Factors: None

Area 147
Rating: 20 - Grade 4
Limiting Factors: Erosion, Fertility

Area 148
Rating: 17 - Grade 5
Limiting Factors: Erosion, Fertility

Area 149
Rating: 9 - Grade 6
Limiting Factors: Erosion, Fertility

Area 150
Rating: 4 - Grade 6
Limiting Factors: Erosion, Fertility

Area 158
Rating: 68 - Grade 2
Limiting Factors: Fertility

Area 159
Rating: 465 - Grade 2
Limiting Factors: Fertility

Area 160
Rating: 54 - Grade 3
Limiting Factors: Erosion, Fertility

Area 163
Rating: 57 - Grade 3
Limiting Factors: Erosion, Fertility

Area 164
Rating: 48 - Grade 3
Limiting Factors: Erosion, Fertility

Area 165
Rating: 26 - Grade 4
Limiting Factors: Erosion, Fertility

Area 168
Rating: 38 - Grade 4
Limiting Factors: Erosion

Area 183
Rating: 3 - Grade 6
Limiting Factors: Erosion, Toxicity

Area 194
Rating: 5 - Grade 6
Limiting Factors: Erosion

Area 197
Rating: 86 - Grade 1
Limiting Factors: None

(Grade 1) (excellent) Soils have very minor or no limitations that restrict their use for general ag use

(Grade 2) (good) Soils are suitable for most crops, but they have minor limitations that narrow the choice of crops and may require some special management practices

(Grade 3) (fair) Soils are suited to fewer crops or to special crops and require careful management

(Grade 4) (poor) Soils are limited to a narrow range of crops; if used for intensive agriculture they require careful management

(Grade 5) (very poor) Soils generally are not suited to cultivated crops but can be used for pasture and range

(Grade 6) (non-agricultural) Consists of soils and land types that are not suited to agricultural uses
AG FACILITIES/Resources
Data Maps: Main Campus

LEGEND

- Agricultural Field Lines
- C29 Agricultural Field Numbers
- Orchards
- Preserves
- Water Retention Ponds
- Agricultural Wastewater Treatment Ponds
- Trees
- Streams

4
Existing Conditions

44
LEGEND

Age of Campus Structures
- 1900 - 1910
- 1920 - 1930
- 1931 - 1940
- 1941 - 1950
- 1951 - 1960
- 1961 - 1970
- 1971 - 1980
- 1981 - 1990
- 1991 - 2000

Abandoned (or soon to be)
Obsolete (functionality and maintenance)
On Historic Register
More Than 50 Years Old

Note: 1) All year ranges refer to when buildings were built.
2) No new buildings were constructed (in this view) between 1910 and 1920.
CONTRASTS AND OPPORTUNITIES ANALYSIS

Introduction

Thorough examination of the data regarding existing conditions provides insight into the factors that shape the development of the campus. On one hand, a number of unique physical features call for protection and enhancement for their intrinsic value as well as for their contribution to the Cal Poly mission. These include the outlying scenic hills and ridges, environmentally sensitive areas, and unique agricultural lands in both the San Luis Obispo Creek and Chorro Creek watersheds. On the other hand, lands close to the existing campus core must be studied closely as to their suitability for new instructional and support activities.

Constraints

The Master Plan team grouped constraints into three categories or “tiers”: regulatory, cost, and policy, with different degrees of flexibility. The Constraints Summary map in this section of the Master Plans shows how the three kinds of constraints combine to limit the areas suitable for additional facility development.

Regulatory Constraints

Land use activities are rarely prohibited absolutely. Rather some uses, especially when proposed on environmentally sensitive lands, require review by a permitting agency and incorporation of conditions and mitigation measures. Some of the following are not strictly regulatory, but carry similar intent.

Biological Resources

The campus has numerous wetlands, including riparian areas (Stenner and Brizzolara creeks), ponds (10 on campus), wet meadows and drainages. Some of these fall under the jurisdiction of the US Army Corps of Engineers as “waters of the US.” Filling or alteration is proscribed. Portions of the campus also support a number of rare and endangered species, including steelhead in some waterways and rare plants on serpentine rock formations.

Railroad

Union Pacific controls land along its right-of-way and rarely allows new, at-grade crossings. This limits options for new entrances to campus.

Riparian refers to the vegetation and habitat in and near our creeks.
Union Pacific may consider moving or “trading” an existing at-grade crossing (e.g., the one on California Boulevard by Poly Grove) for a new location.

*Agricultural Soils*

The conversion of prime agricultural land for facilities development would be a significant impact under the California Environmental Quality Act (CEQA), only permitted if unavoidable, and generally requiring an Environmental Impact Report and acquiescence of the California State University Board of Trustees.

**Cost Constraints**

These include site development, relocating and razing existing structures, and infrastructure provision or modification.

*Slope*

Development on steeper parts of campus, especially the eastern foothills, would cost more because of site preparation and foundation requirements. There is an increased risk of instability. The city and county both have restrictions on development on steeper slopes and may oppose Cal Poly’s developing too far up the hills, principally on aesthetic grounds. Maps for the constraints analysis show slopes greater than 20% as too steep for reasonable development costs.

*Existing Development*

The campus has made relatively recent capital investments in a number of facilities both within the campus core and in the extended campus. Proposed new development patterns need to respect both the factors determining the locations of these facilities and their life expectancy. In parts of the campus where redevelopment is appropriate, relocation costs need to be covered. Costs of razing or renovating buildings that are out of date or functionally obsolete include meeting regulatory requirements with respect to hazardous materials, such as asbestos and lead paint removal.

*Infrastructure*

The Utilidor project defined the core provision of services. Growth at any significant distance from the campus instructional core will require more expensive utility extensions. Water and sewer capacities are not present limitations to growth.

*Policy Constraints*

This category includes areas where campus or California State University policy differs from city and county regulations and practices, neighbor-
EXISTING CONDITIONS

- Projects Underway
- Sports Complex
- Parking Structure
- Parking
- Primary Roadways
- Railroad
- Important Intersections
- Potential Neighborhood Conflicts

LEGEND

- Orchards
- Preserves
- Riparian Areas
- Ponds
- Streams

Soils:

- Grade 1 (excellent)
  Soils have very minor or no limitations that restrict their use for general agricultural use.
- Grade 2 (good)
  Soils are suitable for most crops, but they have minor limitations that narrow the choice of crops and may require some special management practices.
hood disputes, and issues of concern to students, staff and faculty. Dealing with these issues on the sports complex and parking structure has resulted in agreements between Cal Poly and adjacent neighborhoods to mitigate impacts.

**Light and Glare**
This issue was important with the sports complex and parking structure, but can be addressed by appropriate design.

**Traffic**
Added enrollment will increase campus and off-campus traffic. CalTrans and the city will be looking to Cal Poly to contribute to resolution of congestion problems, especially at Grand Avenue, along Santa Rosa/Highway 1 and at Foothill and California Boulevard. The Alta Vista neighborhood will insist on maintaining current (or less) traffic on their roads. Traffic also affects air quality, of course.

**Aesthetics**
Several areas of campus, especially in the extended campus, are visible to neighbors on the hillsides and they will be concerned with the appearance of campus expansion.

**Noise**
This is more a function of specific activities rather than campus growth, but will still be monitored by neighbors, especially to the west.

**Opportunities - Development Suitability**
Any increase in enrollment will require additional instructional and support space, housing and parking. The Development Suitability map shows the areas most appropriate for future development, considering the limits shown by the composite constraints analysis.

**Development of New Areas**
The constraints analysis identified many areas less appropriate (more difficult) for development, due to soil conditions, slopes and other physical features. Considerable area remains that could support additional campus development, most of which is to the north of the campus core, but also includes the two parcels across Highway 1 near Highland Drive and land northeast of Slack Street and Grand Avenue.

**Potential Redevelopment Areas**
A number of areas on campus contain older buildings in poor condition and with inefficient building footprints and floor plans. These include
the Corporation Yards area and the area in the southwest corner of the campus. Redevelopment of these areas would take advantage of existing infrastructure.

**Intensification of the Campus Core**
Several areas in the core contain older and sometimes functionally obsolete buildings, which are the most obvious candidates for redevelopment. The area around Science building (52) at the center of the core offers the opportunity to develop a much higher density of classroom, office, and support. Redesign of this area could also provide more green space and improve pedestrian circulation.

**Satellite Development**
Rather than expanding out from the existing core of campus, another option would be to establish a new center of building and activity at a remote site. This option would require investment in the delivery of services and infrastructure, but could provide opportunities for consolidation and other efficiencies for the activities that would move.
Opportunities for Intensification and/or Redevelopment
Suitable for Facilities Expansion
Suitable for Specialty Housing
Suitable for Agriculture Facilities Enhancement

Note: White areas within the colored areas represent areas from the Constraints Summary which may have limitations for development.
Physical Plan Elements

What might we look like in the future?
UNIVERSITY LAND USES

Introduction

Cal Poly presently manages approximately 9,000 acres for instructional and related uses in three major locations. Cal Poly’s lands adjacent to the City of San Luis Obispo consist of the intensely used campus core and contiguous acreage to the northeast and northwest in the San Luis Obispo Creek watershed. In addition, the campus has three ranches (Chorro Creek, Walters and Escuela) in the Chorro Creek watershed on both sides of Highway 1 north and west of Cuesta College in San Luis Obispo County. Further, the campus manages about 3,000 additional acres at Swanton Pacific Ranch in Santa Cruz County just inland from the coast, north of the community of Davenport. In addition to these three sites, Cal Poly also is involved in leases, consortia, and other research arrangements at off-campus sites, such as a research station in the Carrizo Plain.¹ (refer to the regional and vicinity maps in the Executive Summary)

The land use element provides an overview of the Master Plan in terms of the balance among different activities that occur in all three locations. It establishes the broadest level of policies and principles and sets the stage for the more specific elements that follow.

Environmental Consequences

Plan components have been reviewed that may have significant environmental consequences. For the purpose of this draft, environmental issues have simply been identified with limited quantification of impacts — and are found throughout this chapter in these boxes. The next draft of the report will contain a full Environmental Impact Report derived from this initial study.

Existing Conditions and Issues

The use of Cal Poly’s lands has emerged historically without a detailed

¹ The Master Plan focuses on lands used for instruction and related purposes. Therefore, it does not address any lands managed by the Cal Poly Foundation as part of the University’s investment portfolio.

² Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.
plan for all its property in San Luis Obispo County and at Swanton Pacific Ranch. Previous master plans have focused on the campus core and agricultural facilities in the extended campus to the north of Brizzolara Creek.

**Issues**
- Lack of clearly designated existing or future land uses, leading to ambiguous expectations and tensions regarding competing demands.
- Inconsistent density and intensity of activity in the campus core.
- Lack of access between campus core and outdoor teaching and learning sites.
- Impacts such as view obstruction, noise, light and odors caused by changes in land uses adjacent to, or visible from, nearby neighborhoods.
- Impacts on the economy, housing market, circulation and transportation systems, public services and environmental resources associated with any increases in enrollment.
- Concern about compatibility of Cal Poly land uses with City and County land use policies.

**Principles**
The land use element of the Master Plan recognizes that all property has one or more existing or future uses. The land use map designates all these uses. In some instances, one use is an overlay over another - for example, environmentally sensitive areas overlap some lands used for outdoor teaching and learning.

Cal Poly’s approach to land use planning recognizes seven basic principles: balance among land uses that serve the University’s academic mission, environmental suitability, compatibility between adjacent uses, proximity among related uses, compactness in the instructional core, protection and provision of green space, and community-building. Consistent with these principles, the land use diagrams in the Master Plan provide designations for all Cal Poly lands in San Luis Obispo and Santa Cruz counties.

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1 The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives and from recommendations provided by the campus/community Land Use, Natural Environment and other task forces during Spring 1999.
Balance
This principle recognizes that the primary land use of the University is instructional - both within the existing campus core and in surrounding lands. To serve instructional uses, sufficient amounts of land must also be identified for support facilities and services, student housing, recreation, parking and ancillary activities. This principle also stresses foresight in designating future land uses to meet emerging academic needs and to take advantage of promising land management practices.

Environmental Suitability
The Master Plan seeks the best fit of instructional and supporting land uses to the widely varying character of Cal Poly’s lands - geology, topography, soils, watersheds, plant and animal communities and scenic views. Following this principle, the Master Plan designates environmentally sensitive areas for protection and retains all currently available prime agricultural soils for agricultural use. Further, the Master Plan recognizes that land use as well as site and building design can take advantage of Cal Poly’s environmental assets, such as its climate and surrounding hills. Thus, the principle of environmental suitability calls for limiting future development to those areas not affected by regulatory and/or high cost environmental constraints, and for restoration of environmentally sensitive areas that have become degraded.

Compatibility
Cal Poly recognizes that the institutional nature of a campus is different in scale and intensity from other urban, suburban and rural activities. Thus, this principle calls for establishing and maintaining a buffer between such uses as undergraduate student housing and single-family residential neighborhoods adjacent to campus. At the same time, faculty and staff housing might be built near existing single-family residential neighborhoods. This principle also recognizes that some instructional and related activities generate traffic, noise, light, odors, and other impacts that may affect surrounding neighborhoods as well as other instructional and related activities on campus.

Proximity
The Master Plan seeks to connect related activities to facilitate student learning - e.g., access between classrooms and laboratories and faculty offices, access to outdoor learning sites, access to academic and support services such as advising, student organizations, and recreation. Thus, new undergraduate housing should be near existing residence halls, and support services should be integrated within the instructional and residential communities. In contrast, activities that need not/cannot be provided within a 10-minute walking radius can be located at more distant locations.
remote sites - i.e., ancillary activities connected less directly to core instructional programs and/or activities that require significant land area.

**Compactness**
Cal Poly can use its land more effectively by maintaining and expanding the campus core within a 10-minute walking radius for instructional activities. A compact core can integrate multiple instructional and support functions in three-to-four story buildings and simultaneously provide open space for outdoor learning, passive recreation, and social functions. Compactness also makes it possible to consolidate related activities into “one-stop” service areas for students, faculty and staff. Making the campus core more compact calls for the relocation of some present uses to more optimal sites and redevelopment of selected areas.

**Green Space**
Green space is an integral part of the environment and is essential to the physical and social well-being of the campus. Cal Poly uses its lands in many different ways, ranging from passive recreation and study, and rural, agricultural uses to intense residential, recreational, and instructional activities. Green space plays a different role for each use, depending on the level of activity. Thus, this principle calls for planning, protecting and managing scenic and environmentally sensitive areas on the main campus, San Luis Obispo Creek watershed ranches, Chorro Creek watershed ranches, and at Swanton Pacific Ranch, consistent and complementary with outdoor learning, and the maintenance of environmental quality to sustain an attractive and resource efficient campus. In addition, it calls for the provision and design of green space as a component of each land use in the extended campus - including agricultural units as well as new residential complexes. The Campus Instructional Core element of the Master Plan addresses the design of a system of green spaces as central to creating a sense of place and visual continuity. Finally, campus green spaces should form links (spaces and corridors) at all scales to provide connections that help orient people throughout the campus.

**Community**
The Master Plan seeks to create a sense of community and identity on campus through its land use patterns. Centrally, the Master Plan integrates a range of teaching and learning activities within the campus core - active instruction, technology-enhanced learning, small and large group discussion areas. Further, consistent with the principle of proximity, the Master Plan calls for a mixed-use residential community with a
range of support services, as well as concentrated activity centers in the campus core that can provide a more intense community center.

Plan Components - Land Use Designations

In order to serve the University’s academic mission, the Master Plan proposes a set of land use categories. Two features of this classification scheme merit comment. First, Cal Poly has developed a set of designations that connect directly to integrated teaching and learning. Thus, the categories do not follow traditional city planning designations, such as housing, commercial, office, and the like. Second, Cal Poly recognizes that all lands have one or more present and future uses. Thus, the Master Plan uses specific terminology, such as “outdoor teaching and learning” and “environmentally sensitive areas” rather than a more generic “open space” designation.

This section of the Plan defines each land use designation. Subsequent elements of the Master Plan develop the detailed policies and components for each of these land uses and activities.

Natural Environment

Existing physical features, policies and regulations determine the environmentally sensitive areas and assets on campus. Recognizing that other activities may also occur in these areas, the Master Plan designates environmentally sensitive areas as an overlay on the land use diagram. The Master Plan also recognizes that the appropriateness of other activities depends on the relative sensitivity of each area. Thus, the Natural Environment section of the Master Plan distinguishes areas for preservation, restoration, and study.

Outdoor Teaching and Learning

With Cal Poly’s polytechnic programs and applied “learn-by-doing” approach to education, a significant amount of teaching and learning occurs outside traditional classrooms and laboratories. The College of Agriculture depends on a wide range of fields, animal units, and research centers as “living laboratories” to support its programs. In addition, students and faculty in the College of Science and Math study different geologic, biological, and botanical features of the campus. Design Village offers experimental design and construction opportunities for the College of Architecture and Environmental Design. The College of Engineering uses outdoor facilities in such disciplines as transportation engineering. Finally, faculty in the University Center for Teacher Education and College of Liberal Arts take advantage of the campus setting to
connect literature and culture with nature. The element on Outdoor Teaching and Learning designates land that regularly supports instruction, both within and outside the campus core.

**Campus Instructional Core**

The instructional and support activities in the campus core define the life of the campus community. This land use encompasses the facilities and outdoor spaces east of the Union Pacific Railroad, south of Brizzolara Creek, and west of Perimeter Road/Grand Avenue. This 200-acre area concentrates an intense mixture of activity - classrooms, teaching and research laboratories, media support, study areas, advising centers, student organizations, committee meetings, food service, social interaction and recreation. The Master Plan focuses on making the campus core more “student-friendly and learner-centered.” In order to use land more effectively, increase open space, and improve pedestrian and bicycle circulation, the Master Plan calls for expansion and redevelopment of selected areas within the campus core.

**Residential Communities**

The Master Plan designates several areas for residential communities. The most prominent is the expansion of undergraduate student housing to accommodate enrollment growth. Both new residential complexes as well as the existing student residence halls are being redesigned as living/learning communities, with a range of services integrated within them - including study, food service, and personal services. In addition, the Plan designates potential areas for married student housing, and faculty and staff housing, accompanied by appropriate services.

**Recreation, Athletics and Physical Education**

Any change in the number and composition of students affects the amount of land needed for sports and recreation. While the Plan calls for consolidating new athletic facilities north of Brizzolara Creek, other recreational opportunities will remain focused around the Recreation Center south of Perimeter Road, and new facilities will be included as part of the new residential communities.

**Public Facilities and Utilities**

This land use category recognizes the critical role of public facilities to support the campus, while acknowledging that not all of them need to be proximate to the campus core. Thus, this section of the Master Plan designates land for such functions as the campus warehouse, transportation services, farm shop, and University Police. The Master Plan does
not designate infrastructure as a land use. Rather, the discussion focuses on the capacity of these physical and utility systems to serve campus land use activities.

**Circulation, Alternative Transportation and Parking**
The Master Plan recognizes that parking is a major land use because most students, faculty and staff continue to commute by car. Related elements of the Plan address access and circulation issues and alternative transportation policies, which are designed to reduce parking demand. Nevertheless, the Master Plan must designate some land for surface lots and proposed parking structures to replace parking areas identified for other uses (e.g., in the expanded campus core) and meet projected parking needs.

**Support Activities and Services**
The Master Plan discusses the nature and extent of academic and support services required to support student enrollment, instruction, and an expanded residential community. However, because these services are designed to be integrated within the campus core and residential communities, the Master Plan does not designate support services as a separate land use.

**Ancillary Activities and Facilities**
A campus often attracts ancillary activities that contribute to the life of the campus and surrounding community and complement the University's academic mission. To allow for such future possibilities, the Master Plan identifies areas appropriate for such activities within the instructional core and at remote sites, such as the Goldtree property at the northwest corner of the main campus. Realization of such possibilities is likely to be tied to opportunities for partnerships with donors and other interested parties.

**Plan Components - Overall Future Land Use**
This section of the Land Use element provides an overview of the arrangement of future land uses at Cal Poly. Please refer to Chapter 7 for a discussion of campus procedures for considering any proposal to change these definitions or map designations.

**Main Campus**
The land use map shows that portions of the Campus Instructional Core will be redeveloped and expanded north to Brizzolara Creek, and that all new regular instruction and support activities required to meet future
Physical Plan Elements
University Land Uses

Exhibit 5.2

Legend:
- Agricultural Pavillion Area
- Optional Ancillary Facility
- Retreat/Alumni Center
- New Housing Areas
- New Recreation Areas
- Potential Restoration Areas

- Instructional Core Redevelopment Areas
- New Parking Structures
- New Surface Parking Lots
- Gateway Entrances
- Primary Roadways
- Facilities Services, Facilities Planning, Transportation Services and Support Shops
- North and South Perimeter Pedestrian Ways
enrollment needs will be concentrated within this area. This will require
relocating some current facilities, such as the Corporation Yards and
Farm Shop to provide additional land for academic use within the core.

The Master Plan continues to designate most lands in the Extended
Campus beyond the Instructional Core for outdoor teaching and learn-
ing. In addition, the Plan relocates some facilities to provide land
for future residential and recreational needs close to the campus core.
The map provides an overlay indicating environmentally sensitive areas
requiring careful protection, management, and, in some instances, resto-
ration.

The main additions to student housing involve the creation of residential
communities that extend north from the present residence halls into
the entrance to Poly Canyon. A smaller student residential complex
may be built in the southwest corner of campus. Future faculty and
staff housing may be constructed west of Santa Rosa Street (Highway
1). Future athletic facilities would be grouped north of Brizzolara Creek
around the Sports Complex, except for some recreation fields within
student residential communities. The map identifies one potential area
for ancillary activities and facilities in the Extended Campus: the site in
the southeast corner near Grand Avenue and Slack Street.

Circulation improvements include connecting California Boulevard to
Highland Drive, and extending Highland Drive south of Brizzolara
Creek to join an extension of Grand Avenue - all of these with com-
mensurate improvements in intersections and public transportation, pedes-
trian and bicycle routes. Within the campus core, through traffic will
be removed from both North and South Perimeter roads. The Master
Plan accommodates parking by adding some additional capacity, but also
by reducing the demand through policy alternatives. The Plan replaces
surface parking that would be displaced by redevelopment and expansion
of the campus core and by new student housing. In addition, the
Master Plan provides for two additional parking structures - one near the
California entrance in the Campus Instructional Core and one north of
Brizzolara Creek in the Extended Campus.

*Cheda, Peterson and Serrano Ranches in the San Luis Obispo Creek Watershed, and Chorro Creek, Walters and Escuela Ranches in the Chorro Creek Watershed*

Future land use at the ranches in both the San Luis Obispo Creek
watershed contiguous to the Main Campus and in the Chorro Creek
watershed west of Cuesta College will continue to be rural, focusing on
Exhibit 5.3
Chorro Creek Watershed

Legend

- Existing Agriculture Facilities
- Outdoor Teaching and Learning
- Roadways

Environmentally Sensitive Areas

- Biologically Sensitive Areas
- Preserves
- Significant Riparian Areas
- Reservoirs
- Streams
outdoor teaching and learning. As on the main campus, an overlay will designate environmentally sensitive areas for protection. Some specific areas will change to accommodate facilities from the Animal Science Department that will be moved away from the main campus to Chorro Creek or Walters ranch. In addition, the land use map identifies a potential area for ancillary activities and facilities at the Goldtree area northwest of the main campus at Cheda Ranch.

**Swanton Pacific Ranch**
- to be added

**Plan Components - Alternative Land Use and Circulation Patterns for Main Campus**

The Campus Development map reflects the outcome of a process of weighing different land use and circulation alternatives for the main campus. The Master Plan team explored a variety of options for providing additional instructional and support space, housing additional students, moving sports and recreation facilities, adding parking, and improving circulation. As the team weighed different choices, the principles enumerated above (and in the more detailed plan elements) guided the refinement of the land use and circulation plan.

Analysis of environmental suitability and outdoor teaching and learning requirements limited the area under consideration for expansion of instructional capacity and provision of additional student housing. At the same time, the principles of proximity and compactness called for those activities to be close to the existing campus core. Balancing these requirements led to the plan to remove uses like the warehouse from the core and to relocate selected animal science facilities to simultaneously improve their academic quality and allow for environmental restoration. Environmental analysis of the Goldtree area in the northwest portion of the main campus showed development potential. However, the remoteness of the site (about 2 miles from the campus core), along with access and infrastructure limitations, suggested that it would be more appropriate for future ancillary facilities.

The principles of compatibility and proximity strongly influenced the consolidation of athletic facilities north of Brizzolara Creek. In addition, the configuration of new student housing to form distinct residential communities contiguous to existing residence halls, with a full range of support services, activities and programs, followed these principles along with the principle of community.
The desire for compatibility and compactness also guided plans for vehicular circulation on campus. Extensions to California Boulevard and Highland Drive permit the removal of regular through traffic on North and South Perimeter roads so as to reinforce a compact campus core and make it more pedestrian and bicycle friendly.

Finding land for parking proved most challenging. The principle of proximity calls for making the campus core readily accessible from parking lots, yet the amount of land required for parking (and/or cost of additional parking structures) at present parking ratios was formidable. Further, the same proximate lands are in demand for outdoor teaching and learning, campus instructional core uses and student residential communities. These considerations required a balanced approach - increasing access via alternative transportation, reducing parking demand, and still providing some additional parking. A remote vehicle storage site with shuttle service remains an active option to balance freshman parking demands with limited parking space in the instructional core.
NATURAL ENVIRONMENT

Introduction
This element recognizes the land at Cal Poly that remains in a relatively natural condition. Of the 6,000 acres held in San Luis Obispo County, and the 3,200 acres of Swanton Pacific Ranch, only a small percentage constitutes the developed campus. A larger percentage is devoted to agriculture, much of which is grazing land that adds to the region’s natural beauty. The balance is part of California’s very unique coastal landscape, one of only a handful of Mediterranean climates found in the world.

Existing Conditions and Issues
Cal Poly’s natural environment may be viewed as several “landscapes,” each with qualities meriting conservation and offering numerous academic assets.

San Luis Obispo Creek Watershed Ranches and Main Campus
Many of the area’s natural resources infiltrate from the surrounding ranches into the Main Campus. These include the Brizzolara and Stenner Creek riparian corridors, the Santa Lucia hillside range and the entrance to Poly Canyon. The Master Plan recognizes these features and responds to the need for an appropriate balance between the urban and natural environments.

Ridges and Foothills
The eastern edge of the extended campus is built against the foothills of the Santa Lucia range. These features create a dramatic natural setting for the campus with panoramic views. Some of the steep slopes are studded with rare serpentine rock formations. Steep slopes on these hillsides are subject to erosion and other forms of degradation from grazing and human activity.

Plant and Animal Communities
The vegetated habitats of the campus include oak woodlands, chaparral, coastal scrub, serpentine grasslands, riparian woodlands and other habitats. Although non-native annual grasses have intruded into much of the area, important ecological study areas remain relatively undisturbed.
Water Resources
The campus also has numerous reservoirs, many of which function as wildlife habitat as well as irrigation water resources.

Poly Canyon including Peterson Ranch
Poly Canyon provides a direct route up Brizzolara Creek into the relatively undeveloped areas northeast of the campus instructional core. The steep walls and rolling hillsides protect a rich variety of flora and fauna. This area is used extensively by biology students, natural resource management classes, Design Village, and ROTC. The Canyon offers a serene setting for studies using this natural resource and also for those that come for active and passive recreation.

Stenner Canyon
Farther from the core than Poly Canyon, Stenner Canyon on the northwest side of the campus core offers examples of coastal scrub and, eventually, an avenue to the rare serpentine ridge with endemic species not yet degraded by non-native grasses from Europe and Africa. This area is a natural laboratory adjacent to the Los Padres National Forest and is close enough for field study within regular class periods.

Chorro Creek, Walters and Escuela Ranches
Cal Poly’s ranches west of Cuesta College occupy approximately 3,000 acres situated above the Chorro Valley and across from the Hollister Peak. They offer valuable agricultural and biological resources typical of the original California coastal landscape. The ranches are used for various agricultural studies such as vineyards, grazing and dry farming. A 211-acre biological preserve is located north of Highway 1 on Escuela Ranch. Several creeks and drainages traverse the ranches and eventually flow into Chorro creek and on to the Pacific Ocean.

Swanton Pacific Ranch
A diverse ecosystem lies within the ranch’s 3,200 acres, rising from the ocean’s edge and progressing into a redwood forest. In between there are range, cropland, streams and springs, a steam railroad, and a variety of wildlife. More than one third of the ranch is forest, which is predominantly comprised of redwood, douglas fir and tanbark oak along with over 400 additional plant species. Current timber management practices improve the forest’s overall health and demonstrate contemporary silviculture methods. Swanton Pacific Ranch offers extended residence classes in forestry and agriculture and short-term field experiences in biology and other fields.

Preserve refers to areas on campus with high biological value that are not appropriate for development, grazing or other activities that would degrade their quality.
Issues

- Lack of a complete inventory and understanding of Cal Poly’s natural and biological resources
- Inconsistent recognition of natural areas as valuable instructional assets
- Degradation of natural areas, especially riparian corridors
- Water quality in creeks
- Degradation of some of the more remote areas of campus by grazing practices
- Erosion on steep slopes, including the vicinity of the Cal Poly “P”
- Intrusion of campus development on some plant communities and wildlife habitats
- Air quality

Principles

Cal Poly’s natural resources are no less a vital component of its academic mission than its classrooms and croplands. Students from nearly every college study, explore, restore and enjoy the environment surrounding our campus. Using these resources wisely, and sustaining them, is a message that sometimes only a university can adequately convey through the generations. The principles that should guide Cal Poly in the future include developing ways to better understand, sustain and conserve our natural resources. Cal Poly intends to maintain and improve its leadership role as a steward of the land.

Stewardship

In addition to carrying out its primary mission of education and research through academic programs, the University functions as a prestigious and powerful institutional citizen. Within the overall context of its mission, the University will adopt management practices that restore and protect the natural resources within its boundaries. Cal Poly’s

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1 Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000, including the Biological Sciences Advisory Committee.

2 The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives and from recommendations provided by the campus/community Land Use, Natural Environment and other task forces during Spring 1999. In addition, the Landscape Advisory Committee and Biological Sciences Advisory Committee provided guidance for the development of this element.
6,000 acres in San Luis Obispo County constitute a large portion of the Chorro Valley and are recognized by many as one of the region’s most important natural areas, especially given its role as a watershed for the Morro Bay National Estuary.

**Understanding**
Cal Poly, as one of the premier educational institutions of the western United States, should offer education, insight and understanding of our natural environment to the greater community. Various colleges, through study and research, should continue to expand our knowledge of the rare coastal and related ecosystems that exist here and which are threatened in so many areas elsewhere. The natural and biological resources on the campus must be inventoried and studied as to how they can be managed and conserved so that future generations of students can use these relatively undisturbed, natural outdoor laboratories as part of their educational experience at Cal Poly. Please see the Outdoor Teaching and Learning element regarding the educational importance of Cal Poly’s natural environment.

**Conservation and Sustainability**
Managing coastal ecosystems is a valued academic endeavor. San Luis Obispo County receives national attention and funding for protection of its natural resources. Cal Poly can participate in these opportunities through education in the use and protection of our resources that perpetuate their continued existence.

**Bio-diversity**
Cal Poly has a high bio-diversity and variety of native plant communities within walking distance of the Campus Instructional Core. This feature needs to be recognized and addressed in the Master Plan. Typically, these sites are of value or interest because of their particular physical features, wildlife habitat, and/or vegetation. For example, there are several rare or endangered species and sensitive habitats on the campus that need to be protected for the long-term. Thus, Cal Poly will respect such study areas - e.g., relatively undisturbed native plant communities, areas of past or current disturbance that need to be restored, areas of managed grazing, or harvest of agricultural crops.

**Viability**
Natural systems, plant communities and wildlife habitats typically require a minimum size - i.e., land area, density, or width - in order to maintain their integrity and ability to support a diversity of species. Riparian
corridors require linear continuity as well as breadth. Further, because non-native plants can intrude across transition zones, ecological study areas require buffers from adjacent land uses.

**Restoration**
Degraded areas of Cal Poly’s natural resources should be restored both as an act of stewardship and as an academic opportunity to conduct research into appropriate management and restoration practices.

**Aesthetics**
Cal Poly has many native ecosystems as a backdrop for the campus. Not only are they used by students, but many visitors from all over the world and members of the community visit and appreciate the beauty of Cal Poly and recognize the importance of preserving these open space areas for future generations. Development and redevelopment stemming from this Master Plan will be sensitive to, and take advantage of, the campus’s visual resources.

**Access**
Cal Poly should provide access to its natural resources to enhance recreation and education, but trails and roads should be carefully designed and managed to avoid degradation of natural areas.

**Plan Components**
The Master Plan designates areas of land that are environmentally sensitive. These are generally shown as shaded areas on the land use maps. Some areas overlap with outdoor learning and other designations, and these areas should be coordinated with policies listed in their respective Master Plan elements. (refer to land use maps in the University Land Uses section)

The Master Plan proposes actions for the following environmentally sensitive lands on the 3,000 contiguous acres of the main campus, the Chorro Creek, Walters and Escuela ranches in San Luis Obispo County, and Swanton Pacific Ranch:

**Ecological and Biological Study Areas and Preserves**
The College of Science and Mathematics has designated several preserves and study areas for long-term research and protection on both the main campus and at the Escuela Ranch. In addition, class field trips and research activities use other outdoor lands regularly. These areas will
need to be protected from activities, including grazing, that may degrade their value as excellent biological and botanical educational resources.

**Riparian Corridor Protection and Restoration**
Brizzolara Creek flows through Poly Canyon and along the northern edge of the campus core. The section that flows alongside the feed mill site and other animal science facilities has been degraded. Sections of the creek banks have been reinforced or filled in. Existing facilities close to the creek need to be removed to allow for sufficient setback for creek restoration and protection of the habitat and riparian-woodland community. Stenner Creek emerges from Stenner Canyon, passes near Cheda Ranch and crosses Highland Avenue where it is joined by Brizzolara Creek. Cal Poly has begun to restore and enhance these riparian corridors along Brizzolara Creek. Seasonal creeks exist on campus lands at the Chorro Creek Watershed ranches. Future development should provide buffers, include restoration, and ensure there will be no further degradation of riparian areas. (refer to the campus development map in the University Land Uses section)

**Environmental Consequences**
Creek restoration will generally have positive effects on the environment, enhancing habitat and aesthetic values. In order to fully realize this potential, restoration plans must be carefully developed and followed to insure that construction activities associated with restoration (bank modifications, vegetation removal, etc.) do not significantly impact the resource.

**Serpentine Protection**
County maps as well as conservation organizations show where Cal Poly lands contain rare plant species endemic to serpentinite rock formations. The Nature Conservancy recognizes Cal Poly’s serpentine endemics as one of California’s most important rare habitats. These areas should be protected and designated as botanical reserves with instruction and conservation as the only allowed uses.

**Water Reservoirs and Other Impoundments**
Over the years a number of ponds have been established as water supply and retention and detention facilities for campus agricultural lands. Many of these ponds have developed wetland habitat qualities that support western pond turtles, fish and numerous waterfowl and
other bird species. Protection of these qualities and various wildlife species should be incorporated where practical into Cal Poly's pond maintenance practices. The ponds should also receive an edge buffer treatment from any nearby development.

### Environmental Consequences

Required maintenance of Cal Poly's ponds can be disruptive to wildlife and wetland values. Maintenance work should minimize effects on vegetative communities surrounding the edge of the resource. Work should be done outside of the waterfowl nesting season. Activities near the ponds should be sensitive to the wildlife that use the waters and nearby vegetation.

### Steep Slopes

The Extended Campus's eastern edge is built against the foothills of the Santa Lucia range. The City and the County have developed regulations to protect hillsides and to reduce damage to structures from steep slopes and poor building conditions. Development costs and slope failure risks are considerably higher when buildings are placed higher up on the hillsides. Hillside views are also degraded as a result of this condition. Cal Poly has designated a slope limit line of 20 percent, beyond which no development will occur. (refer to the slope map in the Existing Conditions section) A special set of management practices need to be developed for the area around the Cal Poly “P” east of campus in order to reduce erosion and protect the fragile slope around this landmark.

### Vegetated Habitats

As part of the implementation of the Master Plan Cal Poly should maintain an inventory of oak woodlands, chaparral, coastal scrub, serpentine communities, native grasslands and other habitats. Further delineation of campus plant communities will be undertaken as an implementation action. Additional areas should be evaluated as botanical preserves.

### Habitat for Rare and Endangered Species

Implementation of the Master Plan should maintain an inventory of any rare and endangered plants and animals on campus lands and a set of management practices for their protection and to maintain the viability of their habitats.
**Grazing**
Many areas of Cal Poly are rich with natural resources, and are also used for grazing sheep and cattle. These areas should be managed to realize the best practices for grazing while maintaining their ecological values.

**Trails**
Rural roads and trails provide access to agricultural and natural areas outside the campus core for recreation and study. To protect those assets, trails should be improved, and new trails should be designed and managed to be sensitive to ecological resources. Some areas should be designated as suitable for foot trails only; other areas should permit horseback riding and mountain bikes.

**Environmental Consequences**
Trail development can create modifications to drainage patterns, inducing erosion to hillsides, which increases sediment loading in surface waters. Proper setbacks from Brizzolara Creek should be developed.

**Vehicular Access**
Poly Canyon Road and other rural roads provide vehicular access to agricultural lands, Design Village, and other sites away from the campus instructional core. Vehicular access on these roads, including Poly Canyon Road, should be limited to campus service, maintenance and emergency vehicles. Rural road maintenance should be sensitive to the natural environment, particularly erosion and water quality at stream crossings.

**Extended Campus**
The Extended Campus’s natural resources include habitats along its edge, the Brizzolara Creek riparian corridor, and Smith, Shepard and other nearby reservoirs. These areas will be restored and buffered during redevelopment of the campus core.

**Swanton Pacific Ranch**
Swanton Pacific Ranch’s 3,200 acres contain an array of landscapes and habitats as well as important forest and agricultural resources. The resources of Swanton Pacific Ranch should be inventoried and maintained.

**Best Management Practices (BMP)**
Implementation of the Master Plan will include the development of a set of “best management practices” to protect and restore Cal Poly’s natural
environment. Details will be designed to fit individual circumstances. For example, rather than establish a set breadth as buffers for ponds and riparian corridors, management practices will be determined by such features as nearby slope banks.
OUTDOOR TEACHING AND LEARNING

Introduction

Cal Poly recognizes that student learning occurs throughout the campus. With Cal Poly’s polytechnic programs and applied, “learn-by-doing” approach to education, a significant amount of teaching and learning occurs outside traditional classrooms and laboratories. For example, the College of Agriculture operates a working farm with a wide range of fields, animal units, and research centers to support its programs. In addition, students and faculty in the College of Science and Mathematics study different geologic, biological, and botanical features of the campus. Design Village offers experimental design and construction opportunities for the College of Architecture and Environmental Design. The College of Engineering uses outdoor facilities for such programs as transportation engineering. Finally, faculty in all colleges may assign field trips and student projects that take advantage of the campus setting.

Existing Conditions and Issues

The campus devotes a significant amount of land to its “living laboratories” - nearly 5,700 acres in San Luis Obispo County; and all 3,200 acres at Swanton Pacific Ranch. Further, the campus is involved in a number of research stations and projects away from the main campus. The following table depicts agricultural use of Cal Poly Lands in San Luis Obispo County:

<table>
<thead>
<tr>
<th>Agricultural Activity</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigated Crops</td>
<td></td>
</tr>
<tr>
<td>Vegetable, ornamentals</td>
<td>65</td>
</tr>
<tr>
<td>Orchard, vineyards</td>
<td>245</td>
</tr>
<tr>
<td>Grain</td>
<td>35</td>
</tr>
<tr>
<td>Alfalfa</td>
<td>10</td>
</tr>
<tr>
<td>Permanent pasture</td>
<td>70</td>
</tr>
<tr>
<td>Dryland Crops</td>
<td></td>
</tr>
<tr>
<td>Hayland</td>
<td>135</td>
</tr>
<tr>
<td>Seeded pasture</td>
<td>131</td>
</tr>
<tr>
<td>Rangeland</td>
<td>4,107</td>
</tr>
<tr>
<td>Farmsteads, Instructional and Research Units</td>
<td>100</td>
</tr>
<tr>
<td>Sub-total</td>
<td>4,898</td>
</tr>
</tbody>
</table>

TABLE 5.1
Outdoor teaching and learning lands consist of the following (discussed in further detail below):

- The campus farm, which includes agricultural facilities in the Extended Campus surrounding the campus core, the Cheda, Peterson, and Serrano ranches in the San Luis Obispo Creek watershed, and the Chorro Creek, Walters, and Escuela ranches in the Chorro Creek watershed in San Luis Obispo County.
- Ecological and biological study areas and preserves in the Extended Campus, at Peterson Ranch and at Escuela Ranch.
- Discipline-specific outdoor facilities such as Design Village at the head of Poly Canyon.
- Campus core.
- Swanton Pacific Ranch.
- Other off-campus research stations and projects.

Campus Farm (in the Extended Campus)
The College of Agriculture (CAGR) actively manages the following lands and facilities as production units for regular field laboratory instruction, research and student enterprise projects.

- Crop lands - generally on prime agricultural soils.
- Orchards and vineyards - designated as Unique Agricultural Lands generally on prime and secondary agricultural soils.
- Grasslands/pastures/forage areas - generally on secondary agricultural soils designated as Farmlands of Local Importance and used for grazing, forage crop production and as wildlife habitat.
- Animal units and pens - e.g., Dairy Instructional Unit, Horse Unit, Swine Unit, Poultry Unit, Beef Unit.

Prime agricultural soils refer to the most valuable soils for farming.

Off-campus research stations occupy a variety of locations, and may change from time to time depending upon the nature of specific applied research projects. Some examples at the time of this writing include the following: Chumash Creek watershed project in coordination with the Morro Bay Estuary Plan, Walters Creek watershed project in coordination with the Morro Bay Estuary Plan, Carizzo Plain and Guadalupe Dunes. The Master Plan does not address these arrangements as they are managed individually by the disciplines or centers directly involved.
• Other instructional units - e.g., Crop Science, Environmental Horticulture
• Leaning Pine Arboretum
• Research units - e.g., Dairy Products Technology Center; Irrigation Training and Research Center
• Special CAGR teaching and research areas and projects:  e.g., tree farm; logging sports complex; survey field; farm tractor and equipment safety demonstration and practice field; controlled traffic farming system field; Merriam irrigation practices field; student experimental farm and composting facility; weed research field
• Special CAGR enterprise project areas not included above: vegetable and agronomic crop fields.
• Water supply, delivery and treatment systems, facilities and ponds;

**LEGEND**

- **Facilities**
  - A Animal Science
  - B Beef Evaluation
  - C BRAE Irrigation Training Research Center
  - D Corporation Yards (future)
  - E Crops
  - F Dairy
  - G Equestrian
  - H Environmental Horticulture Studies
  - I Equipment
  - J Poultry
  - K Residential Housing (Ag)
  - L Rodeo
  - M Swine

- **Fields**
  1. Crops
  2. Composting
  3. Experimental Farm (certified organic)
  4. Irrigation Study Field
  5. ITRC Expansion
  6. NRM Logging
  7. Pasture
  8. Rangeland/Grazing
  9. Red Rock Pit
  10. Tractor Safety and Electric Farming System
nutrient and waste management - These facilities are not only necessary to support agricultural operations, but they are also subjects of research and analysis themselves - e.g., by Bioresource and Agricultural Engineering, Natural Resources Management and Biological Sciences students and faculty. Examples include the methane recovery lagoon.

- Support facilities, sheds, equipment, etc. - Production agriculture requires a range of outbuildings and equipment to support safe and efficient production. Many of these facilities are also central to instruction for Bioresource and Agricultural Engineering students and faculty. Examples include the Agricultural Safety Institute.

- Note: Students and faculty in CAGR departments without assigned fields or units, such as Agribusiness, Agricultural Education and Communication, and Food Science and Nutrition, use the other production facilities as part of their curriculum. Activities involving surveying, global positioning systems, geographic information systems, and various field inventory exercises also use a variety of agricultural lands.

On the campus ranches in both watersheds in San Luis Obispo County, outdoor teaching and learning lands related to agriculture currently include the following:

- Grasslands/pastures/forage areas - generally on Class II soils, some designated as Farmlands of Local Importance, and used for grazing, forage crop production and as wildlife habitat on all six campus ranches in both watersheds
- Sheep unit - Cheda Ranch
- Crop lands - Chorro Creek Ranch
- Vineyards - Chorro Creek Ranch
Ecological and Biological Study Areas and Preserves

The College of Science and Mathematics manages several preserves and study areas for long-term research and protection on both the main campus and at the ranches in both the San Luis Obispo Creek and Chorro Creek watersheds. In addition, class field trips and research activities use other outdoor lands regularly. (refer to land use maps in the University Land Uses section)

- Botanical Garden east of the head of Poly Canyon, partly in Peterson Ranch
- Ecological Preserve on the north side of Brizzolara Creek above the entrance to Poly Canyon in the Extended Campus
• Ecological Preserve on the Escuela Ranch (211 acres)
• Riparian corridors, ponds, grasslands, woodlands, and serpentine slopes represent additional areas of interest to faculty and students in the sciences. Thus, scientific study is an overlapping activity in many environmentally sensitive areas and on some agricultural lands (especially rangelands). Further, faculty and students in other colleges, such as Liberal Arts take advantage of these areas to connect literature and culture with nature, or for nature sketching and photography.

**Discipline-Specific Outdoor Facilities**

**Design Village**
The College of Architecture and Environmental Design has sponsored experimental building in the area west of the head of Poly Canyon and is responsible for maintaining structures in this area known as Design Village at the boundary between the Extended Campus and Peterson Ranch.

**Other Outdoor Teaching and Learning Facilities**
Examples of other activities that require outdoor space include the following: College of Engineering’s smart highway pavement testing area; and student organizations and clubs: e.g., rodeo.

**Campus Instructional Core**
The Campus Instructional Core accommodates some outdoor teaching and learning activities that do not require large areas of land. Examples include a diversity of plant specimens, plant communities and plant arrangements of interest to such fields as botany, landscape architecture, and environmental and ornamental horticulture. In addition, the campus core offers subject matter for art, design, photography, and environmental design classes.

**Swanton Pacific Ranch**
Outdoor teaching and learning lands and facilities include the following:

• Crop lands - including areas designated for organic farming
• Grasslands/pastures/forage
• Forests/timber production
• Water supply, delivery and treatment systems, facilities and ponds
• Hydrologic research facilities
• Support facilities, sheds, equipment, etc.
• Farm houses used for classrooms, offices, staff, and student residences
• Swanton Pacific Railroad and related buildings and sheds

Issues
• Pressure to expand instructional core, sports and recreation activities and student housing
• Environmental degradation of some areas, in part due to past agricultural practices and some recreational uses (e.g., mountain bikes)
• Overlapping outdoor teaching and learning uses in some areas, leading to tensions over access and management practices, including conversion of one broad agricultural use to another
• Ambiguous boundaries or limits for some activities, such as grazing, Design Village, etc.
• Lack of clarity regarding responsibility for lands beyond those clearly defined as the campus farm

Principles
The Outdoor Teaching and Learning element of the Master Plan recognizes the centrality of outdoor “living laboratories” to Cal Poly’s mission and “learn-by-doing” approach to education. Thus, in addition to traditional indoor facilities such as classrooms, teaching laboratories, computer labs, and libraries, the Master Plan identifies, protects and clarifies responsibility for outdoor lands and facilities that contribute to student learning, both within and outside the campus core.

Eight principles guide the location of outdoor teaching and learning lands and facilities: foresight, suitability, investment, preservation, continuity, accessibility, visibility, and integration.

Foresight
In order to provide “state-of-the-art” learning opportunities, the campus must not simply sustain lands and facilities for outdoor teaching and

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1 Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.
learning, but more importantly, the campus must envision how these lands and facilities can meet emerging academic program needs. For example, campus agricultural lands can be used to experiment with multi-purpose facilities and exemplify applications of new technologies such as global positioning systems, sustainable yield timber harvesting, etc.

**Suitability**

Many outdoor teaching and learning activities depend on particular physical or environmental features, such as soil type, drainage, exposure, wildlife habitat or plant community.

**Investment**

Some outdoor teaching and learning activities involve significant past investments in plants, soil preparation, facilities, equipment, and/or supporting infrastructure. The Master Plan recognizes not only this capital investment, but also that such activities may need land for expansion to continue research projects.

**Preservation**

Outdoor teaching and learning activities depend on the continuous use of the same site over an extended period of time for research and/or experimentation. Typically, these sites are valuable or interesting because of their particular physical features or vegetation. Thus, the Master Plan respects such study areas – e.g., relatively undisturbed plant communities as well as areas being studied with respect to a succession of disturbances or restoration activities, or managed grazing or harvest.

**Continuity**

Where the Master Plan calls for moving an outdoor teaching activity, the principle of continuity calls for the identification and development of a new site and facilities first, so as to minimize disruption of teaching and learning. Obviously, biological or geological resource study areas and biologically significant disturbed areas that need to be restored cannot be moved and need to be protected and managed properly to assure sustainability and long term survival.

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1 The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives, from meetings with interested colleges and units – particularly, the College of Agriculture Land Use Committee and the Biological Sciences Advisory Committee – and from recommendations provided by the campus/community Land Use and other task forces during Spring 1999. The Natural Environment Task Force pointed out the centrality of outdoor teaching and learning to all colleges at Cal Poly.
Accessibility
Many courses use outdoor teaching and learning lands and facilities routinely, and these activities must be accessible to students and faculty within a normal laboratory schedule. In some instances, transportation for students (or animals) may be substituted for proximity, so long as such a service provides for access within normal laboratory teaching schedules.

Visibility
The centrality of outdoor teaching and learning also calls for outdoor teaching and learning lands and facilities to be a highly visible, even tangible, part of the main campus image - not just on outlying lands.

Integration
Outdoor teaching and learning activities that do not require extensive amounts of land should be integrated within the campus core as well as in outlying areas. For example, landscaped areas around buildings can also serve as study areas for different types of plants.

Plan Components
The Master Plan designates a range of outdoor teaching and learning lands and facilities. Some areas overlap with environmental designations and are subject to the policies in the Natural Environment element of the Master Plan. Others involve multiple users, and thus must be managed to accommodate students and faculty from more than one discipline or college. (refer to maps in the University Land Uses section)

The Master Plan reinforces outdoor teaching and learning lands and facilities on the main campus and campus ranches in San Luis Obispo County by the following programs:

Preservation and Enhancement of Campus Farm and Ranches
The Master Plan calls for the continuation of College of Agriculture outdoor teaching and learning uses, as shown on the land use maps for the Extended Campus and campus ranches. However, some adjustments in these lands are necessary to balance other campus needs. These changes are discussed below as part of the Farm Shop relocation and Animal Science facility redevelopment projects.

- Prime agricultural soils should be retained in agricultural use.
- The land use maps in the University Land Uses section clearly
define the boundaries of (a) the main campus working farm, and (b)
grazing lands on the campus ranches. The College of Agriculture
has primary responsibility for the management of these lands and
facilities.

- Where agricultural uses occur in environmentally sensitive areas,
  they should be managed to protect or enhance environmental qual-
  ity, sustainability and productivity of these sensitive areas.

- Please refer to Chapter 7 for a discussion of procedures and respon-
  sibilities with respect to any proposed changes or conversions of one
  broad agricultural use to another (e.g., from grasslands to crops).

- Farm Shop relocation to the old Poultry Unit will be covered
  in more detail in conjunction with plans to relocate the campus
  corporation yards. (See Public Facilities and Utilities element.)

**Environmental Consequences**

Agriculture is an intensive use of the land that involves modifications
to the soils, changes in habitats, the introduction of fertilizers and pesti-
cides, and the construction of ancillary facilities. Cal Poly has prepared
a Water Quality Management Plan that addresses most of the issues
associated with the environmental effects of agriculture. Any loss of
prime agricultural soil would be considered a significant environmental
impact.

**Animal Science Facility Redevelopment**

The Master Plan calls for relocation and redevelopment of Animal Sci-
ence facilities in order to provide more "state-of-the-art" facilities for that
department, to allow for environmental enhancement in the area around
Brizzolara Creek and to provide sites for additional student housing.

**Bull Test**

The current bull test area will be relocated to a 30-acre site at Chorro
Creek Ranch or Walters Ranch

**Beef Cattle Evaluation Center**

The existing facility will be relocated and reconfigured and will incorpo-
rate feedlot functions

**New Animal Science Pavilion**

A multi-purpose livestock arena within walking distance of the campus
core will accommodate lost access due to relocating the bull test to
Chorro Creek Ranch or Walters Ranch and will improve access from other animal units on the main campus. This facility will replace the existing old Beef Unit, Beef Pavilion and Herdsman Hall functions.

**Harvest/Post-Harvest Facility**
The abattoir will be replaced as part of the Animal Science Pavilion project.

**Feed Mill**
This facility should be relocated and redesigned for future needs. (Sites under consideration on the main campus include the Old Poultry Unit and a site proximate to the Dairy Unit feed storage area.)

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**Environmental Consequences**
One proposed site for the Bull Test is proximate to Chorro Creek, a major tributary to the Morro Bay National Estuary. Development of the facility should include BMPs designed to manage runoff. The Feed Mill is an intensive activity involving the storage and transportation of large quantities of grains. Circulation should be designed to avoid undue interference with other university traffic.

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**Preservation of Ecological and Biological Study Areas and Preserves**
To support long-term research as well as field trips and other nature study activities, the Master Plan identifies and protects ecological study areas on both the main campus, campus ranches in San Luis Obispo County and at Swanton Pacific Ranch.

- **Designated Preserves and Study Areas** - Areas within specified boundaries on the land use maps should be fully protected from any human activity except for hiking trails. Motorized vehicles, mountain bikes, horseback riding and grazing are prohibited in these areas. (See Natural Environment element.) Please refer to Chapter 7 for a discussion of policies with respect to removing rocks, vegetation or animals for scientific study and procedures for reviewing any changes proposed in these areas, including trail improvements.

- **Botanical Garden** - Please refer to Chapter 7 for a discussion of policies and procedures for management of the Botanical Garden to the east of the head of Poly Canyon.
Scientific study is an overlapping activity in many environmentally sensitive areas (such as riparian corridors, ponds, grasslands, woodlands, and serpentine slopes), and it should be conducted consistent with the policies and principles in the Natural Environment element of the Master Plan.

Scientific study is an overlapping activity on some agricultural lands (e.g., grasslands that serve as wildlife habitat). Thus, the management of those lands will recognize ongoing field research by faculty and students, particularly in the College of Agriculture and the College of Science and Mathematics. Please refer to Chapter 7 for a discussion of procedures and responsibilities for managing mixed use areas.

Environmental Consequences

The identification of ecological preserves will have a positive effect on the environment. These areas need to be marked in some fashion in order to insure their continued protection.

Design Village

The College of Architecture and Environmental Design is responsible for maintaining structures in the area known as Design Village.

As much of the Design Village area is environmentally sensitive (particularly with respect to erosion), future development in Design Village should be designed and managed to protect or enhance environmental quality (including water quality).

The natural and biological resources inventory of the campus should include detailed analysis of the Design Village area in order to identify any rare and endangered plant species associated with the adjacent serpentine rock formations.

Please refer to Chapter 7 for a discussion of procedures and responsibilities for managing the Design Village area.
Environmental Consequences

Sound construction practices should be followed for any development in this sensitive area of Poly Canyon. CAED has an opportunity to not only experiment with new design, but to also develop effective ways of minimizing impacts during construction. Erosion control, site minimization and construction scheduling are necessary ingredients for preserving this area.

Other Discipline-Specific Outdoor Teaching and Learning Facilities
The San Luis Obispo Creek Watershed land use map designates areas for outdoor teaching and learning, including: College of Engineering (smart highway pavement test track); rodeo arena; and other clubs or organizations.

Environmental Consequences

The proposed campus Land Use and Project Review procedures should cover all new facility development, with special attention to review procedures for projects in or near environmentally sensitive areas and agricultural lands.

Campus Core
The Campus Instructional Core can accommodate some outdoor teaching and learning activities that do not require large areas of land. (See Campus Instructional Core element.)

- Landscape guidelines should address planting to provide for a diversity of specimens, plant communities and arrangements of interest to such fields as botany, landscape architecture and environmental and ornamental horticulture.

- Exhibit areas in the campus core should be established to represent Cal Poly’s teaching, learning and research activities on a regular basis, rather than only during special events such as Open House.

Swanton Pacific Ranch
Outdoor teaching and learning practices are addressed as a central component of the Swanton Pacific Ranch land use plan.
CAMPUS INSTRUCTIONAL CORE

Introduction

The Campus Instructional Core is bounded by Slack Street on the south, Union Pacific Railroad on the west, Highland Drive on the north and Perimeter Road and Grand Avenue on the east. The instructional core, along with the surrounding outdoor teaching and learning facilities, is the heart of the University and contains its primary institutional and support service facilities, but not the existing campus student residence halls.

Existing Conditions and Issues

The campus core has a range of building types, sizes and ages, varying from small wood frame cottages and former dormitories to recent reinforced concrete structures. Several areas and individual buildings within the core are functionally obsolete. These include the existing corporation yard, Building 52 area, southwest corner including the Air Conditioning building, the northwest area including the Modoc building and the parking lot west of Kennedy Library. Currently, the campus is connected with a web of pedestrian walkways and random gathering spaces. Vehicle and pedestrian conflicts occur in many locations.

Issues

- Lack of hierarchy among urban spaces
- Lack of a clearly defined system of pedestrian thoroughfares, bike-ways and wayfinding
- Limited campus green space
- Lack of a design theme that integrates the built environment with the natural environment
- Sprawling one-story buildings in the center of campus
- Underutilized land in the Science Building (52) area and corporation yards

1 Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.
• Outdated instructional spaces and laboratory spaces
• Lack of flexibility in classroom technology and spatial arrangements
• Lack of continuity in architectural styles, building materials, scale, massing or orientation.
• Inconsistent use of materials in paving, urban furnishings, signs, graphics, lighting etc.
• Lack of an organized and cohesive campus landscape that supports the campus’s urban environment
• Poor connection between the campus core and adjacent residential and parking areas
• Building designs generally lacking in human orientation and connection to outdoor spaces

Principles
In an effort to maintain a compact instructional core and to avoid unnecessary conversion of surrounding agricultural and natural lands to urban uses, a predominant goal of the Master Plan is to reorganize and intensify the built environment within the existing campus core. A careful analysis of existing facilities and selective redevelopment of marginal resources make intensification of the core area possible. Redevelopment areas provide the opportunity to create a net gain of both instructional space and green space. Redevelopment provides significant opportunities to modernize facilities and create an organized system of pedestrian ways and urban spaces. Historically lacking a consistent urban design treatment, the campus should benefit from a concerted effort to identify a hierarchy of gathering spaces and landscapes.²

Student Centered and Learner Friendly
A student-centered and learner-directed philosophy is at the core of the University’s academic mission, and it embodies itself in the University’s culture, intellectual diversity, teaching resources and social opportunities. The campus physical design plays a vital role in achieving this mission. The Master Plan seizes this opportunity to evaluate and reform the campus physical framework to create an environment that should meet

¹ The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives and from recommendations provided by the campus/community Built Environment, Circulation and other task forces during Spring 1999. The Landscape Advisory Committee also recommended a set of principles that apply to the campus core.
this objective. Design of the campus core should enable learning and foster intellectual inquiry so it should be a delightful place to study, work and visit. Active learning happens everywhere.

Flexibility
Learning spaces should be kept as flexible as possible to ensure viability long into the future. It is critical to ensure that investments made in academic space can respond functionally to changing student needs, technology and instructional methods. New facilities proposed by the Master Plan need to be designed for diverse user groups, both in composition and size, to maintain this flexibility. A variety of learning spaces should be available to support different types of interactions, i.e. private (individual) study, small groups, large groups, formal and informal meetings.

Sense of Place
Cal Poly is blessed by its unique natural setting, community surroundings and climate. The Master Plan proposes to capitalize on this unique “sense of place” by providing direction for enhancing the physical environment of campus. Campus planning, including the placement of buildings, circulation paths, entries and landscaping should reflect and enhance connections to the surrounding landscape. Creating an organized series of campus green spaces, a clear system of pathways, a cohesive urban design treatment, and a variety of University facilities provides an environment where all forms of learning and living experiences can enrich student, faculty and staff life. A mix of gathering places should encourage conversation and interaction. Campus design should enable people to know where they are, wherever they are on the campus and enable them to find any destination with ease.

Compactness
Spatial efficiency and accessibility are principles that emphasize compactness within the instructional core. This quality enables facilities for additional enrollment and support structures to be placed within the existing campus core and within a 10-minute walking distance of most core destinations. Some areas of campus offer “infill” opportunities for the addition of a building or a new wing on an existing building to expand instructional capacity and contribute to a compact campus core.

Redevelopment
Making the best use of the University’s resources is important for many reasons. It is especially significant for promoting a compact instruc-
tional core and for creating a campus “sense of place” through urban design. While redevelopment of existing facilities within the campus core enables preservation of adjacent lands, it also provides opportunities to create a dynamic mix of educational, social and service spaces. Replacing existing one-story buildings with new multiple-story buildings can increase open space in the core and improve the quality of outdoor spaces and pedestrian and bike circulation.

**Visual continuity**
Campus buildings should incorporate the best design elements regarding massing, human scale, materials, articulation, architectural interest, and a connection with surrounding urban spaces. Outdoor spaces should have a sense of boundary and “sense of space” that help to define them as specific campus areas. Landscaping should tie these spaces together through a unifying visual design. A common design theme should connect all areas of the campus to provide a sense of continuity between entrances and the heart of the campus. The overall design of campus lighting standards, trash and recycling receptacles, street and directional signs, continuity of paved surface materials, plant materials, benches, seating, etc. should all contribute to and reinforce this visual thread. Landmarks and place-making elements that identify special campus locations and clarify directions should be created. Design of the built environment (interior and exterior) should take full advantage of the Central Coast’s Mediterranean climate for health, environmental, energy efficiency, and aesthetic reasons.

**Circulation**
Gateway entrances to Cal Poly should reflect its mission as an institution of higher learning. Campus pathways should provide an efficient and effective means of pedestrian circulation, whether people arrive by car, foot, bike or wheelchair. (refer to Circulation element, too)

**Multidisciplinary Districts**
The Master Plan creates opportunities for districts that consolidate connected disciplines rather than college-based districts per se. Each district should include instructional facilities for a group of related disciplines, general-purpose classrooms, student and faculty research space, offices, and support functions. Campus buildings and spaces should be designed appropriately with regard to their respective district, and also connect with adjacent districts. For example, buildings may need multiple fronts and entrances. Landscape design should reinforce the identity of each district and as well tie the campus together visually.
Integration of Support Activities
The campus core should provide a variety of support service centers where informal learning, interaction and socialization can occur as well as formal instruction. New buildings should integrate these activities within a single structure.

Social Environment
As Cal Poly’s residential community grows, the campus should offer entertainment and social facilities to support 24-hour activities. Residential villages should contain centers that provide needed residential services including groceries, housekeeping and personal services. It is critical that Cal Poly provide innovative, intriguing, dynamic and exciting campus spaces to meet future student needs.

Plan Components
Campus Centers
As the campus continues to evolve as an institution of higher learning, the range of services and activities made available to the campus population must be expanded to support changing needs. The unique physical spaces where these services and activities will be located need to be planned carefully. A primary goal of the Master Plan is to create one center on the campus that offers a diverse mix of support and social services. This center should represent the very heart of the campus where students, staff, faculty and visitors are drawn to experience the essence of Cal Poly’s University culture. The Master Plan also recognizes the need for other activity centers on the campus that provide support services and functions associated with a particular area on the campus. For example, the northwest center may contain a bookstore and supply outlet oriented primarily to the students and faculty in Architecture and Environmental Design, Engineering, and Art and Design. These satellite activity centers should be focused in their scope and function so as not to dilute the importance and attractiveness of the primary campus center. The location, primary functions and list of allowed uses for each of these four activity centers are listed below.
Campus Instructional Core
Central District
Northwest Satellite Center
Northeast Satellite Center
Residential Centers

Legend
- Central District
- Northwest Satellite Center
- Northeast Satellite Center
- Residential Centers
Primary Campus Activity Center

The primary campus activity center will be located as shown on the campus centers map in this element. It is generally bounded by the Science Building (52) on the west, the Administration building (1) to the north, the Performing Arts Center to the east and the Health Center (27) to the south. This “downtown area” includes the University Student Union, food serving facilities, Mott Gym and the Student Recreation Center. The functions of this space will include a variety of day and evening services and activities designed in an attractive outdoor setting capturing the unique SLO environment. The following table identifies the types of activities and uses appropriate in this area.

**Uses**

- Student Government
- Student Clubs
- University Central Administration
- Foundation Services
- Student Services (registrar, cashier)
- University Union
- Information Retrieval (Lexus/Nexus)
- Performing Arts
- Indoor Recreation (Rec. Center, Mott Gym)
- Personal Services (travel, hair salons, nails, dry cleaning, video etc.)
- Banking
- Postal Services
- Prepared Food and Beverages
- Franchise Food Outlets
- General Retail (books, music, technology, clothes, copying)
- Film Theater
- Informal Study Areas & Technology Access
- Outdoor gathering spaces (greens, courtyards, plazas)
- Temporary Housing (e.g. upper floor apartments for visitors)

Northwest Satellite Center

The northwest satellite center will be located as shown on the campus centers map in this element. It is generally bounded by Kennedy Library (35) on the south, the Advanced Technology Laboratory building to the west, Highland Drive on the north, and the Agricultural Sciences building (#11) to the east. This center is just across Brizzolara Creek from the new sports complex and major parking lots, so it is well-positioned to provide services and functions that will be needed in this area of campus. Uses may be located in one or more buildings and may contain
a mix of the following: expanded library space including media labs, satellite bookstore with a focus on the colleges of Architecture and Environmental Design, Engineering and the department of Applied Art and Design; limited food services such as a café and vending; informal study areas and technology access, and outdoor gathering and study spaces in the form of greens, courtyards and plazas to encourage interaction and to link this area together. This satellite will be linked to the new North Perimeter Pedestrian Way and to the Dexter Green providing an important connection to other centers on campus. The following table identifies the types of activities and uses appropriate in this area.

<table>
<thead>
<tr>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennedy Library Expansion  (includes media labs)</td>
</tr>
<tr>
<td>Satellite Bookstore  (limited to supplies demanded by surrounding colleges)</td>
</tr>
<tr>
<td>Information retrieval e.g. Lexus/Nexus</td>
</tr>
<tr>
<td>Café and Food Vending Services</td>
</tr>
<tr>
<td>Informal Study Areas and Technology Access</td>
</tr>
<tr>
<td>Outdoor Gathering Spaces</td>
</tr>
</tbody>
</table>

**Northeast Satellite Center**

The northeast satellite area will be located as shown on the campus centers map in this element. It is generally bounded by the extension of Highland Drive to the north and east, North Perimeter Pedestrian Way to the south, the Agricultural Engineering building (8) to the west. This satellite center will be located in one of the largest redevelopment areas on the campus and will be directly between the new student housing areas north of Brizzolara Creek and the Campus Instructional Core. The Master Plan specifies a large green area surrounded by numerous buildings with strong connections to the “central district,” the northwest center and the North Perimeter Pedestrian Way. Thus this center should contain services and functions designed primarily to serve the campus residential population such as the campus market with groceries, home supplies and a small café and food vending services. The following table identifies the types of activities and uses appropriate in this area.

<table>
<thead>
<tr>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Market  (includes home supplies, convenience parking)</td>
</tr>
<tr>
<td>Café and Food Vending Services</td>
</tr>
<tr>
<td>Informal Study Areas and Technology Access</td>
</tr>
<tr>
<td>Information Retrieval e.g. Lexus/Nexus</td>
</tr>
<tr>
<td>Outdoor Gathering Spaces</td>
</tr>
</tbody>
</table>
Residential Centers

The Master Plan further specifies residential centers be located within new student housing neighborhoods. Residential centers will generally be located as shown on the campus centers map in this element. The purpose of the residential centers is to provide social gathering spaces and support services directly relating to on-campus housing. The centers will be located in each new student housing complex and offer recreation amenities, formal and informal gathering space, study areas and lounges, and services such as self-service laundry. Residential centers should be designed to create desirable outdoor spaces with convenient access to the housing neighborhood it is intended to serve. The following table identifies the types of activities and uses appropriate in these areas.

<table>
<thead>
<tr>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Serve Laundry</td>
</tr>
<tr>
<td>Food Vending Services</td>
</tr>
<tr>
<td>Common Gathering Space (indoor and outdoor)</td>
</tr>
<tr>
<td>Informal Recreation (indoor and outdoor)</td>
</tr>
<tr>
<td>Informal Study Areas and Technology Access</td>
</tr>
<tr>
<td>Information Retrieval e.g. Lexus/Nexus</td>
</tr>
</tbody>
</table>

Specific Redevelopment Areas

The Master Plan reorganizes existing spaces within the campus core so that new facilities can offer an increase in academic and support space that respects Cal Poly’s “sense of place.” The Plan includes a series of new and enhanced urban spaces linked to the redevelopment areas and a system of pedestrian thoroughfares connecting these spaces. These urban spaces take advantage of Cal Poly’s unique setting and spectacular views from the campus to the surrounding hills. The Centennial Green, located in the Science building (52) area adjacent to the University Union, should be a key central space within the instructional core.

It should not only function as the geographic and physical center of campus, but it should serve, along with the student union, as the social heart of the campus and as a central student gathering space. Three other primary urban spaces in other redevelopment areas should work together with the Centennial Green to create a structure of interconnected districts and open spaces on the campus.
LEGEND

1. Centennial Green
2. Southwest Area
3. Northeast Area
4. Northwest Area
5. Modoc/Airconditioning
Centennial Green Area

The Centennial Green area offers a unique opportunity to capture Cal Poly’s unique “sense of place” and to create a central university focal point in the area presently occupied by Building 52. Its close proximity to the University Union, El Corral Bookstore, the Administration building, the recreation center and the PAC provides the opportunity to unite these uses and provide additional social and academic functions in a dynamic mixed-use environment (see campus centers discussion). The Green should provide a wonderful setting for new buildings and activities that are linked together around a series of new outdoor plazas and green spaces. The conversion of Perimeter Road to a broad pedestrian mall should also aid in connecting the campus’s cultural and recreational functions with this new student friendly and learning-centered core. The principal features of this new central space include:

• Redeveloping the Science building (52) from single-story facilities to multi-story facilities.
• Redeveloping the Engineering East building (20) west of Via Carta from a singlestory facility to multi-story buildings with the second floor oriented toward Via Carta for enhanced pedestrian access.
• Redesigning the building 52 area to provide a large, central green space (the Centennial Green) that takes advantage of the wonderful scenic views of the surrounding morros. A series of new multi-story buildings should front onto the Centennial Green and provide additional space for instructional and support uses, including technology-enhanced learning and student services.

Environmental Consequences

Construction activities with any of the redevelopment areas, especially here in the heart of the campus, will disrupt pedestrian and vehicular flows, produce noise, dust and odors that could be a nuisance to students, faculty and staff, as well as nearby neighborhoods. Sequencing and equipment choice will reduce construction related impacts.
• Connecting the campus pedestrian pathway system to the Centennial Green while integrating the following facilities and their surrounding spaces: the Student Union (65), the Administration Building (01), El Corral Bookstore (65), Fisher Science Building (33), Science North (53), Faculty Offices East (25), and Erhart Agriculture (10).

• Incorporating a mix of new facilities that provide food, retail and student services. These facilities should be at ground floor, urban-oriented locations with instructional, administrative and office spaces on upper floors.

• Within this area the Master Plan anticipates a potential net gain of approximately 150,000 square feet of new building space.

Northeast Area

This campus area currently accommodates the corporation yards and facilities which will be relocated outside the campus core to the old poultry unit. Other facilities currently supporting the College of Engineering will be included in the new Engineering Building in the northwest corner. Some of the existing uses in this area will remain in the same location, such as the Foundation Building (15), and others should be replaced and incorporated within the new layout. The latter uses include the agricultural facilities and the public safety facility. The principal elements of this new space include:
• Agriculture instructional complex to replace present Bio-resource (08) and Agricultural Engineering Building (08) to maintain a connection with agriculture instructional facilities in Erhart Agriculture (10) and Agricultural Sciences (11).

• New multi-story instructional facilities, student services, faculty offices and administrative spaces located in a series of buildings oriented towards a central green.

• A strong orientation to Highland Drive and the new north Perimeter Road pedestrian way

• A small amount of service, visitor and public parking incorporated into the design.

• A wide landscaped linear green with a broad pedestrian sidewalk along the Highland Drive frontage.

• The location for a transit stop adjacent to this area

• A new at-grade and/or grade separated pedestrian crossing connecting this area to the new eastern residential area.

• Within this area the Master Plan anticipates a potential net gain of approximately 250,000 square feet of new building space.
Northwest Area

Situated adjacent to Kennedy Library, this area offers opportunities to serve students and faculty alike by providing a mix of instructional activities, expanded library facilities, student services, offices and satellite retail and food services. This area is proximate to the new recreation sports complex, the agricultural facilities north of the core, the existing and new campus parking, and the expanded residential village along Brizzolara Creek. As a result, it becomes key to creating a satellite center in this area. The northwest area should include new engineering facilities adjacent to Highland Drive and should link a new University green space to the North Perimeter Road pedestrian way and Kennedy Library. The principal elements of this new space include:

- An effective connection between the Engineering facilities, the North Perimeter pedestrian way and the new green spaces.
- The replacement of the Modoc faculty offices building (119) with a new instructional facility
- The presentation of a stately, high quality image to pedestrians and motorists traveling along Highland Drive as this location should continue to serve as a primary campus entrance.
- A small amount of service, visitor and public parking incorporated into the design
- A wide, landscaped linear green with a broad pedestrian sidewalk occupying the frontage along Highland Drive.
- A transit stop located adjacent to this area.
- A new at-grade pedestrian crossing linking this area to the Brizzolara Creek path and recreation sports field to the north.
- Within this area the Master Plan anticipates a potential net gain of approximately 260,000 square feet of new building space.

Environmental Consequences

Grade separated crossings, in conjunction with pedestrian management (reducing or eliminating random crossings of Highland, Perimeter and Grand), will reduce conflicts with vehicles and provide a safer walking environment. Such crossings should be accessible for all citizens and should be designed with the personal safety of students, faculty and staff in mind. This would include ample lighting, no areas of concealment and adequate site distance for the user.
Environmental Consequences

The intersection of Highland Drive with the proposed extension of California Boulevard should be designed to minimize conflicts between automobiles, bicycles and pedestrians. This is discussed further under the Circulation Element. Several structures in the southwest area are more than 50 years old, including Crandell Gym, several of the office buildings (e.g. Jesperson) and the powerhouse. Prior to any redevelopment in this area that could have an effect—both directly and to the context of the structures—analyses should be performed to ascertain the significance of the older structures. The Powerhouse is currently listed on the National Register of Historic Buildings.

Southwest Area

The Southwest area of campus has a rich history. Crandall Gym, the Business building, the Powerhouse, Mustang Stadium, and other structures formed the early old Cal Poly campus. Heron, Jesperson, and Chase halls were built as dormitories (refer to Existing Conditions section for age of structures). California Boulevard was once the primary gateway and access to the campus. Today, much instructional space and
campus activity has moved away from this area, rendering it somewhat unconnected to the campus. The Master Plan proposes to redevelop this area with new uses that are architecturally consistent with the historic character. When California Boulevard is extended to Highland Drive this area should once again become a major entrance to the university.

A new student housing complex is proposed for this area to help balance the location of new residential communities and to help reinvigorate this portion of campus with additional student life activities. Mustang Stadium should remain in its present location; however, should the stadium be relocated in the future, this area should allow for an expanded campus green and additional space for instructional and support facilities. The principal elements of this new redeveloped area include:

- A new 700-800-space parking structure near the corner of Campus Way and California Blvd.

### Environmental Consequences

See the Parking Element for a discussion of the environmental consequences of developing parking structures.

- The redesign of campus vehicular access in the Campus Way area, including a major public transit stop or hub and closure of South Perimeter Road to regular traffic.
- A new residential complex for upper-division students adjacent to the parking structure and the Campus Child Care Center.

### Environmental Consequences

See Residential Communities Element for a discussion of the environmental consequences of developing new student housing.

- Redevelopment of the Air Conditioning Building for new instructional space
- A new Alumni Center and University Retreat situated near the current President’s Residence (51).
Environmental Consequences

The redevelopment of the area where the President's Residence is currently located will intensify uses in the southwest portion of campus. The project will result in increased traffic, noise and lighting in the area.

- Within this area the Master Plan anticipates a potential net gain of approximately 50,000 square feet of new building space.

North Perimeter Pedestrian Way

North Perimeter Drive should become a broad pedestrian way as vehicle traffic is removed from the core and shifted to Highland Drive. This area should serve as one of the primary pedestrian circulation routes linking the Kennedy Library/Northwest redevelopment area with the Northeast redevelopment area and also the expanded campus residential community adjacent to Poly Canyon. The way should be re-paved with a more pedestrian-friendly surface (as described in the Circulation element under the Pedestrian System section) and planted with trees to form a landscaped area complete with selected urban furnishings. Service and emergency vehicles and vehicles for the disabled should have access along this route. The way should form a “spine” connected to a series of pedestrian paths accessing various campus destinations.
South Perimeter Pedestrian Way

Similar to North Perimeter Drive, South Perimeter Drive should also become a broad pedestrian way when regular vehicular traffic is eliminated. This new pedestrian way should provide a key opportunity to link together the Cal Poly Theatre, Performing Arts Center and Recreation Center/Mott Gym with the University Union and campus core. At the eastern end of the new pedestrian way, where Highland Boulevard and Grand Avenue should connect, a new grade-separated crossing should connect the residence halls south and east of the core with the new Centennial Green and other core destinations. This way should also be re-paved with a more pedestrian-friendly surface (as described in the Circulation element under the pedestrian system section) and planted with trees to form a landscaped area complete with selected urban...
furnishings. Service and emergency vehicles and vehicles for the disabled should have access along this route. In addition, it should be open for egress from Parking Structure #1 after events at the Performing Arts Center. The mall should form another “spine” which is also connected to a series of pedestrian paths accessing various campus destinations.

**Campus Infill**

In addition to specific redevelopment areas described above, the Master Plan promotes strategic infill redevelopment within the instructional core. While the principal redevelopment areas provide opportunities to replace larger areas of campus with new facilities and urban spaces, smaller building additions and remodels can be accommodated in many areas. Selective infill presents unique opportunities to create renewed campus spaces in support of campus redevelopment and urban design goals.

**Campus Green Space Plan**

The Master Plan update attempts to create a clearly defined and beautiful urban open space system. Given the nature of past campus development, and absence of architecture design guidelines, most improvements and buildings lack a cohesive design. It is critical that the broad mix of building styles, types and forms be united with a strong urban fabric consisting of pedestrian thoroughfares, urban open spaces, consistent use of urban furnishings, graphics, signs and landscaping. Using a system of urban spaces, the Master Plan proposes a hierarchy of plazas and gathering spaces with both formal and informal functions. In support of many planning principles, the arrangement of campus open space should provide a fertile landscape for enhanced learning and interaction in a variety of settings. The principal features of the campus urban open space plan include the following:

- Establishing a series of campus green spaces at the following key locations: Centennial Green, Dexter Green, California Boulevard Green and new courtyards in the northwest and northeast redevelopment areas
- Linking these key open spaces with a clearly defined pedestrian and bikeway system (Refer to the Circulation element)
- Providing a rich campus landscape that unites the various architectural styles in a cohesive manner
- Identifying strategically located campus structures that serve as campus landmarks and represent places of importance
Campus Landscape Plan
Campus landscape design, development and maintenance are integral to the University’s educational mission. In addition to enriching the campus’s aesthetic beauty, the landscape plan also provides a cohesive treatment of exterior space and a living laboratory for study. Continued development and redevelopment of the campus landscape should incorporate the following features:

• Creating and maintaining a living, educational landscape for teaching and learning
• Capture and enhance Cal Poly’s unique “sense of place”
• Exhibit best practices of resource management and environmental stewardship and sustainability

The Master Plan proposes to develop a campus landscape plan as an implementation action. The landscape plan should advance the vision for the campus landscape. It should also provide guidance and standards that ensure that each project should contribute to the common vision of the campus landscape. The proposed landscape plan should address the following elements:

Memorials
Memorials should be planned as a part of the campus landscape. To the highest degree possible, the memorials program should create outdoor spaces that include seating, walls, benches, walkways, lighting and special paving. The memorials program should encourage the establishment of tree groves rather than individual tree plantings.

Safety
The landscape plan should address safety insofar as planting groupings might inhibit visibility or security lighting.

Planting
The campus landscape plan should incorporate compatible planting and landscape components including a diversity of plant species with Mediterranean and California species predominant. Acceptable plant lists should be developed to assist project designers in creating continuity within the campus landscape. Plantings should be based on appropriate plant communities and should be composed of compatible plant groups for energy and water conservation. In addition, plantings within
the campus core contribute to the University’s educational mission (see Outdoor Teaching and Learning element).

Grading and Drainage
Best management practices should be developed in the landscape plan to guide grading and drainage operations. Topics to address include: protecting native plantings and waterways, minimizing erosion, preventing siltation, ensuring proper re-vegetation, and establishing natural methods to drain and filter run-off water.

Hardscape/Paving
The landscape plan should address the following specifics for paving materials:

- Provide continuity with regard to paving materials and patterns.
- Improve paved surfaces with regard to safety, aesthetics and functional capacity
- Replace asphalt paving in the instructional core
- Increase the amount of green space in the instructional core
- Create a cohesive palette of urban furnishings, including signs, benches, trash receptacles, lighting, walls, fences, kiosks, bike racks and storage

Outdoor Art
The landscape plan should include guidelines for public art, including permanent displays as well as short-term student work.

Outdoor Exhibit Areas
The landscape plan needs to establish areas and standards for exhibits year-round, rather than only during special events like Open House.

Maintenance
The landscape plan should include a comprehensive campus landscape maintenance program that takes into account the following issues:

- Long-term costs including manpower, operations and energy use
- Tree maintenance
• Identification of priority landscapes and campus spaces where extra attention and funds are focused

• Clear communication between campus advisory bodies and maintenance staff

*Water*

The campus landscape plan should include the standards for water conservation and irrigation practices and protect natural waterways, wetlands and ponds.
Residential Communities

Introduction

Cal Poly’s residential character is one of its many distinguishing features. As a result of its statewide educational mission, Cal Poly accepts over three-fourths of its undergraduate students from outside California’s Central Coast.

The University recruits most support staff from San Luis Obispo and Santa Barbara counties. In contrast, most new faculty and administrators come from outside the immediate area. However, when faculty retire, they typically remain in the San Luis Obispo area.

Existing Conditions and Issues

The present main campus residential community consists of a series of residence halls banding the lower slope of the campus’s eastern hills. The residential complexes include full infrastructure to support computing, modest recreation facilities and Vista Grande cafe, one of the several dining facilities where students may use their meal cards. The campus provides additional food service within the campus core which include the Avenue, Back Stage Pizza, the Lighthouse, the Sandwich Factory, the Campus Market near the Library and various vending machines. The South Mountain residence halls are organized as living-learning communities around student majors or disciplines. Sierra Madre and Yosemite are the “First Year Connection” halls designed to provide incoming students with information, resources and support needed to be successful at Cal Poly. The North Mountain Halls house the returning student program. The present residence halls accommodate nearly 18% of the undergraduate students. (refer to the residential communities map in this element)

In addition, approximately 55 students live in small agricultural housing units or buildings in Design Village. These students provide direct supervision and security for animals and facilities in partial exchange for their housing.

All present residence halls except for the North Mountain Halls are traditional corridor-oriented dormitories, and residents are required to participate in one of several campus meal plans. With changing student housing markets, the campus is developing an additional 800-bed complex that will offer apartment-style units with food preparation facilities.

With the increasing demand for higher education in California, Cal Poly is expected to remain predominately undergraduate - with about 90 percent of its students continuing to be young, full-time undergraduates. (The Fall 1999 average undergraduate age is 21.3 years.)

<table>
<thead>
<tr>
<th>Existing Residence Halls</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>North Mountain</td>
<td>315</td>
</tr>
<tr>
<td>South Mountain (red bricks) (six @ 215)</td>
<td>1290</td>
</tr>
<tr>
<td>Sierra Madre</td>
<td>588</td>
</tr>
<tr>
<td>Yosemite</td>
<td>590</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>2783</td>
</tr>
<tr>
<td>CAGR units &amp; Design Village</td>
<td>55</td>
</tr>
<tr>
<td>Total current student housing on campus</td>
<td>2838</td>
</tr>
<tr>
<td>Apartment-style addition being designed</td>
<td>800</td>
</tr>
<tr>
<td>Total by 2002</td>
<td>3638</td>
</tr>
</tbody>
</table>

Table 5.2
Approximately two-thirds of Cal Poly students live in the City of San Luis Obispo. These include 300-400 students who live in fraternity and sorority houses, including those along California Boulevard.

The campus presently provides no faculty or staff housing except for the President’s residence and eight apartments within the residence halls for professional Resident Director staff.

Swanton Pacific Ranch provides housing for resident directors and staff as well as student interns.

**Issues**

Housing issues can be grouped with respect to their location and occupants:

**On-campus student housing**
- Mainly corridor-style design and required meal plan limit student options.
- Present demand exceeds capacity - a typical waiting list during the summer has 400-600 students seeking to live on campus.

**Off-campus student housing**
- Low vacancy rate in rental housing market

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1 Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.
• Variable quality and affordability in rental housing market
• Competition for housing with students who attend Cuesta College
• Neighborhood concerns regarding student behavior
• Access to campus
• Location of fraternities and sororities

Faculty and staff housing
• High costs in sales market
• Commuting distance to campus

Principles
San Luis Obispo County and its incorporated cities offer only a limited housing market for students, faculty and staff. Thus, the Master Plan allocates areas for housing additional members of the campus community. Cal Poly’s primary responsibility with respect to housing is to enhance student learning.

Seven principles guide the Residential Communities element of the Master Plan: student learning, housing type, support services, accessibility, affordable quality, feasibility, and community impact.²

Student Learning
A central reason for Cal Poly to consider providing more student housing is the opportunity to create residential environments that support learning, including study space, internet infrastructure and learning support within residential complexes. Such environments are particularly important to undergraduate students living away from home for the first time. Thus, the Master Plan also includes a policy requiring new freshmen to live on campus so as to be able to take advantage of this residential opportunity.

Housing Types
Traditional corridor-style student dormitories are no longer sufficient to meet all student housing needs. While freshmen may continue to

² The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives, from student and faculty-staff housing studies, and from recommendations provided by the campus/community Housing, Neighborhood and other task forces during Spring 1999.
prefer this form of accommodation, market analysis shows that upper-
division students prefer the greater privacy and flexibility associated with
apartment-style living. Furthermore, some students prefer living with
others in the same discipline. Thus, the Master Plan includes a range of
student housing types including traditional dormitories, discipline-based
living and learning facilities, apartment complexes and married student
housing. Cal Poly expects that some students will continue to select
fraternity housing, and that many students will prefer making their own
off-campus housing arrangements. In addition, the Master Plan allocates
areas for detached or attached single-family housing as well as rental
units for faculty and staff.

**Support Services**

To ensure that students living on campus have access to a full range of
support services, the proposed residential communities include space for
such activities in or proximate to future housing complexes. Examples
include personal services, retail food, meeting rooms, recreation and
entertainment. The range of services will be geared to each housing type.
For example, child care is important to some married students, faculty
and staff, but not relevant to most undergraduates. (See the Support
Services element of the Master Plan for more detail.)

**Accessibility**

Cal Poly anticipates that future students will enhance their learning
through use of emerging “virtual” means such as Web-based instruction,
research and administrative procedures. Thus, student housing must
be electronically accessible. At the same time, however, the University
expects face-to-face interactions to continue to dominate both curricular
and co-curricular learning. Some of this will be intentional - organized
seminars, labs, organizational meetings and team activities. Some will
be serendipitous - the unplanned conversation at the bookstore, food
court, library, or on one of the campus greens. Thus, student residential
communities must enable students to be accessible to one another as
well as to campus instructional facilities. This includes barrier-free ADA
access to all new student residential units. Faculty and staff housing
should not only be compatible with adjacent single-family residential
neighborhoods, but it should also benefit from the same amenities.

**Affordable Quality**

Student learning can be inhibited when students live in over-crowded
and/or sub-standard housing conditions. Sometimes this occurs as a
result of the tight local housing market: as demand increases, landlords
increase rents and some students end up living in less than desirable spaces. By providing more on-campus housing, Cal Poly intends to ease these market conditions. The University will continue to provide housing assistance services for students, faculty and staff to enter knowledgeably and responsibly into the rental (or purchase) markets.

**Feasibility**

Because housing is not funded by the State, any housing provided by the University must be self-supporting. Thus, the University must be able to finance student, faculty or staff housing through mechanisms that will return sufficient rents to offset capital and operating costs. To implement the Master Plan, Cal Poly is exploring a variety of such means, including partnerships, to balance costs and risks with the potential benefits of providing on-campus housing.

**External Community Impact**

The campus recognizes its impact on the San Luis Obispo community with respect to the housing market and traffic circulation. Additional housing on campus should mitigate immediate impacts on the local housing market for students, faculty and staff. At the same time, new on-campus housing communities will draw on both local services and resources and also contribute to the local economy and tax base.

**Plan Components**

The Residential Communities element of the Master Plan focuses on providing additional undergraduate student housing on campus in a variety of housing types. In addition, the Plan addresses married students, faculty and staff, and off-campus housing programs. The plan for Swanton Pacific Ranch Educational Center includes a residential facility for students and faculty who are there for an entire academic term as well as for short-term occupancy.

**Undergraduate Student Residential Communities on Campus**

The Master Plan identifies areas on campus to house all new undergraduate enrollment growth. By expanding its on-campus residential capacity by 3,000 to 6,600 beds, the University would be able to house about one-third of its future undergraduate students. The Master Plan contemplates a series of residential complexes stretching north from the present residence halls along the lower slopes of the hills east and north of the campus and along Brizzolara Creek. This layout places students in a unique setting between the surrounding natural environment and the more urbanized academic core. This arrangement retains a buffer
between undergraduate student residences and surrounding neighborhoods in San Luis Obispo.

Some additional housing could be constructed on the parking lots above (east of) the present residence halls. This complex could be corridor-style to accommodate a larger freshmen class that would be admitted annually as enrollment increases. The Master Plan calls for requiring all new freshmen to live on campus in order to benefit from the residential communities' supportive learning environment.

The primary area for a new apartment-style student residential community is near Brizzolara Creek. Site studies suggest a potential for nearly 1,500 beds in three complexes on the north side of Brizzolara Creek. An additional 540 beds could be provided on another site south of Brizzolara Creek (roughly on the Feed Mill's present site). The Master Plan calls for the design of these residential complexes to take advantage of, and be sensitive to, the natural setting. Thus, units would be clustered in small, 2-4 story groups with views and connecting open space. Active recreation facilities will be sited away from Brizzolara Creek. Conversion of the areas at the near Brizzolara Creek to student housing will provide an opportunity to restore the creek to a more natural condition and improve water quality. Thus, housing units, walkways, etc. will be set back from the creek, and drainage will be designed to enhance water quality. (Detailed management practices to protect and enhance Brizzolara Creek will be included in the implementation of the Master Plan.)

<table>
<thead>
<tr>
<th>Area</th>
<th>Housing type/density</th>
<th>Total beds</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – North of Brizzolara Creek</td>
<td>Apartment-style, 130 beds/Acre, 2-story</td>
<td>648</td>
<td></td>
</tr>
<tr>
<td>2 – North of Brizzolara Creek</td>
<td>Apartment-style, 130 beds/Acre, 2-story</td>
<td>560</td>
<td></td>
</tr>
<tr>
<td>3 – North of Brizzolara Creek</td>
<td>Apartment-style, 130 beds/Acre, 2-story</td>
<td>256</td>
<td></td>
</tr>
<tr>
<td>4 – Feed Mill</td>
<td>Apartment-style, 130 beds/Acre, 3-story</td>
<td>540</td>
<td></td>
</tr>
<tr>
<td>5 – East of lot R1</td>
<td>Corridor-style</td>
<td>512</td>
<td></td>
</tr>
<tr>
<td>6 – North Mountain redevelopment</td>
<td>Apartment-style, 130 beds/Acre</td>
<td>120</td>
<td>Net gain (Total beds = 420)</td>
</tr>
<tr>
<td>7 – Southwest corner</td>
<td>Apartment-style, 130 beds/Acre</td>
<td>364</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>3,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.4
New Residential Communities

- **H-1** Apartment Style Residences - 648 Beds
- **H-2** Apartment Style Residences - 560 Beds
- **H-3** Apartment Style Residences - 256 Beds
- **H-4** Apartment Style Residences - 540 Beds
- **H-5** Dormitory Style Residences - 512 Beds
- **H-6** North Mountain Housing Redevelopment
  - Apartment Style Residences - 420 Beds (120 beds net)
- **H-7** Apartment Style Residences - 364 Beds

**H-8,9** Off-Campus Housing - Married Students, Faculty and Staff

- **H-A** New Housing - Underway
- **H-B** South Mountain (Red Brick) Residence Halls
- **H-C** Sierra Madre Hall
- **H-D** Yosemite Hall

Note: Apartment Style Residences will accommodate returning students
The southwest corner of campus offers a separate site for approximately 360 beds. Separate from other student housing, this community could be designed to meet needs of specific learning communities or other groups. Finally, as phasing and financing permit, some of the present residence halls (e.g., North Mountain) may be replaced or remodeled to offer additional on-campus housing choices for students.

Designing new on-campus housing in the form of residential communities or villages will reinforce the integration of learning throughout student life. Thus, new residential complexes will include infrastructure for computing, group study and learning centers, as well as space within individual units for private study. In addition, the University recognizes that a residential population of 6,600 undergraduates will require a range of social and entertainment opportunities. (See the Support Services element for additional details about services.)
Environmental Consequences

The several residential centers proposed for Cal Poly will have impacts on biological resources, traffic, parking, visual resources, and public services. The projects will also have an impact on the area wide housing market. In general, there will be a benefit to students who will find less pressure in a very constrained market. A thorough discussion of impacts from a similar project can be found in the Final EIR for the Student Housing Project (800 beds located near the entrance to Poly Canyon) certified by the CSU Board of Trustees in February 2000. Specific impacts include:

- Biological resources. Most of the proposed residential sites are on the eastern edge of campus, adjacent to undeveloped areas.
Married Student Residential Community on Campus

The northeast corner of Slack and Grand is currently undeveloped and is bisected by a vegetated drainage. Development would require careful design to protect both natural features and the integrity of the nearby neighborhood. The parcel to the west of Santa Rosa is currently undeveloped. It is surrounded by residential development and would not result in considerable increased impacts.

Environmental Consequences

- Residential Communities
  Sites under consideration for possible married student housing include properties on the northeast corner of Slack and Grand and in the west of Santa Rosa Street (Highway 1).

- Environmental Consequences
  The northeast corner of Slack and Grand is currently undeveloped and is bisected by a vegetated drainage. Development would require careful design to protect both natural features and the integrity of the nearby neighborhood. The parcel to the west of Santa Rosa is currently undeveloped. It is surrounded by residential development and would not result in considerable increased impacts.

- Environmental Consequences (cont.)
  Impacts could occur to oak and chaparral habitats, as well as to the Brizzolara Creek riparian area. A key to mitigating these impacts is orienting the facilities away from the most sensitive areas so as not to encourage people into those areas.

  - Traffic: In general, the residential development on campus will have a positive impact on area circulation by reducing trips to and from campus during morning and evening peak hours.

  - Parking: New housing would increase the demand for on-campus parking. This is discussed in detail in the Parking Element.

  - Public services: Adding 3,000 students will increase the demand for services, especially water, wastewater and police. Water use could increase by approximately 200 acre feet per year, well within the Whale Rock Reservoir allocation. Wastewater generation (0.25 million gallons per day) will also be within the university’s allocation. Additional police personnel will be required with the addition of 3,000 students living on campus.

  - Visual resources: The projects would introduce development to areas of campus that are currently in grazing or other uses. Some features would be visible to places on campus and from hillside residences nearby. Design and color elements could mitigate these impacts.

  - Environmental Consequences (cont.)
  Impacts could occur to oak and chaparral habitats, as well as to the Brizzolara Creek riparian area. A key to mitigating these impacts is orienting the facilities away from the most sensitive areas so as not to encourage people into those areas.
**Faculty and Staff Residential Community or Housing Program**

The Cal Poly Foundation has been investigating the feasibility of offering a housing program for faculty and staff. Options under consideration include the construction of housing (for rent and/or sale with a ground lease from the University) on the properties to the west of Santa Rosa Street (Highway 1).

**Environmental Consequences**

The property owned by Cal Poly that currently houses the CDF facility is located at the northern edge of the City. Development here would be an extension of the City’s urban area and protrude further into the heretofore undeveloped areas of the county. Careful design and landscaping would be in order, as this would become the northern entrance to the City of San Luis Obispo.

Other options include housing assistance and financing programs that would not involve construction on Cal Poly lands.

**Off-Campus Student Housing Programs**

Cal Poly will continue to provide assistance to students seeking housing in the neighborhood rental market. Consistent with California State University System policy, Cal Poly expects that fraternities and sororities will remain off campus.

To assist students living off-campus, Cal Poly should work with the management of large nearby neighborhood complexes that house many students, such as the seven off campus association communities, to assure continuing availability to Cal Poly students, to enhance Internet access, and to increase alternative transportation options.

**Swanton Pacific Ranch Education Center**

to be added
Recreation, Athletics and Physical Education

Introduction

Recreational and athletic facilities are important to support the needs of the student population but also the instructional programs involved with physical education and intercollegiate sports. The Heery Sports Facilities Master Plan, prepared in 1996 as the basis for the development of the Sports Complex north of Brizzolara Creek, provides guidance for this element of the campus Master Plan. In some instances, design standards differ for intercollegiate athletic facilities. However, intramural recreation, physical education, and athletics can share many multipurpose outdoor fields and indoor facilities.

Existing Conditions

Outdoor Fields

Over the past two decades Cal Poly has converted recreational field space to indoor recreation facilities and instructional uses as the campus has grown. As a result, the campus has a deficit of field space for all programs, which is being addressed through construction of the new sports complex north of Brizzolara Creek. The campus had approximately 28 acres of recreation fields prior to construction of that new facility.

Current turf field space includes the practice soccer field south of the recreation center, the former baseball and practice fields west of Kennedy Library, fields in the track area and softball practice fields west of the Cal Poly Foundation Warehouse. All of the current fields are overused and require careful management to accommodate field demand and avoid loss of use. In addition, the baseball program practices and plays at an off-campus site. Because of these deficiencies many recreation and athletics programs needed new space, which is being addressed with the construction of the new Sports Complex, scheduled for initial use in Fall 2000.

The Sports Complex under construction north of Brizzolara Creek and west of Via Carta includes the following facilities:

- One (1) Baseball Stadium with practice infield, with a current seating capacity of 768 and potential expansion to 2500 seats
• Six (6) Recreation soccer/football fields
• Three (3) Recreation softball fields
• One (1) Softball stadium with practice infield with a current seating capacity of 426 with potential expansion to 1,000 seats
• Four (4) outdoor basketball courts
• One (1) restroom facility

Other outdoor facilities include the following:
• Recreation: basketball courts, outdoor swimming pool
• Athletics: Mott pool
• Joint use: tennis courts, track

Many of the Athletic Department programs will move to the new recreation sports fields upon completion. The football program, however, will remain in its present location at Mustang Stadium during the initial phases of the Master Plan.

**Indoor Recreation**
Presently, the Recreation Sports Center is the primary indoor facility for general student recreation. It houses a gymnasium for basketball, volleyball and other uses, racquetball courts, weight rooms, dance and exercise rooms, and its locker rooms serve the outdoor pool as well. The Rec Sports Center also provides space for some physical education courses. Crandall Gym and the Natatorium are used primarily for physical education courses.

Mott Gym accommodates indoor intercollegiate athletic activities, including basketball, weight-training rooms, and offices for coaching staff.

The University Union offers bowling and a game room.
Existing Recreation/Sports Facilities

1. Recreation Sports Complex
2. Practice Softball
3. Crandall Pool
4. Mustang Stadium
5. ASI Recreation Center
6. Mott Gym
7. Practice Soccer Field
8. Mott Pool
9. Running Track and Tennis Courts
10. Informal Outdoor Recreation Area at Yosemite Residence Halls
**Issues**

- Inadequate amount of turf field space for recreation and athletics (being addressed by the Sports Complex)
- Inadequate amount of seating in Mott Gym and lack of adequate restroom, press facilities and concession space
- Inadequate amount of outdoor court space in tennis and basketball
- Poor proximity to on-campus residents
- Lack of sports maintenance support facilities adjacent to field areas.
- Difficulty running tournaments with some existing facilities
- Inadequate seating at the track and field, lack of restrooms, concession space and press facilities

**Principles**

New recreational and athletic space need to be provided in strategic locations, physical arrangements and quantity sufficient to allow full development of a variety of recreation and sports programs. The Master Plan provides opportunities to locate recreational fields in optimal proximity to existing and future campus residential areas and to consolidate athletic programs to focused areas on campus (as proposed in the Heery Plan).

**Proximity**

Recreational facilities proposed in the Master Plan should be in close proximity to the population they are intended to serve. Physical education instruction must occur within normal course schedules, and students use recreation facilities between classes, thus getting to and from facilities within 10 minutes is important. Furthermore, the location of recreation amenities adjacent to residential areas is critical to establish a complete living environment. Finally, field and facility design should incorporate space for spectators (including ticket sales and concessions when appropriate) and access to field maintenance equipment.

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1. Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.

2. The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives and from recommendations provided by the campus/community Land Use, Public and Support Services and other task forces during Spring 1999.
The Master Plan seeks to develop flexible recreation and athletic space that can be shared by multiple users for a variety of activities. Space and facilities should accommodate both informal recreation and organized recreation sports programs. Outdoor and interior facilities need to be adequate in number to accommodate free play as well as scheduled activities.

**Specialization**
Where standards permit, facilities should be designed to serve recreation, physical education and intercollegiate athletic uses. Nevertheless, some sports facilities have specific standards, are designed for certain programs, and need scheduling priority to remain available for exclusive use. The Master Plan provides direction for site specific or specialty facilities.

**Continuity**
Where the Master Plan calls for moving recreation facilities in the future, the principle of continuity calls for the identification and development of a new site and facilities first, so as to minimize disruption.

**Variety**
Both the quantity and variety of recreational facilities and spaces should be designed with the specific needs of a diverse college population in mind rather than general community recreation standards.

**Plan Components**
The Master Plan identifies the recreation and athletic facilities necessary to support the future enrollment capacity of the University at the main campus. The new sports complex will be readily accessible from new on-campus student housing located to the north along Brizzolara Creek. Additional field space would be located within the new residential complexes and across from Yosemite Hall for greater convenience. These areas would greatly enhance the recreation opportunities on campus and achieve a much-needed redistribution of field space. The following section outlines the primary components of recreation and athletic spaces on campus.

**Grand and Slack Street fields**
A deficiency of field space continues to exist in the southeast area adjacent to Yosemite Residence Halls. Therefore, the Master Plan proposes to locate additional field space on the northwest corner of
Recreation, Athletics and Physical Education

New Recreation/Sports Facilities
- Recreation Sports Complex
- Crandall Pool
- Mustang Stadium
- ASI Recreation Center
- Practice Soccer Field
- Mott Gym Sports Complex
- Running Track and Tennis Courts

Legend

- New Recreation/Sports Facilities
- 1 Recreation Sports Complex
- 2 Crandall Pool
- 3 Mustang Stadium
- 4 ASI Recreation Center
- 5 Practice Soccer Field
- 6 Mott Gym Sports Complex
- 7 Running Track and Tennis Courts
- 8 New Recreation Sports Fields and Courts
- 9 Informal Recreation at Housing
Grand and Slack Streets in a portion of the current parking lot. These fields would provide needed and proximate field space to the existing freshmen dorms and the student recreation center. The Master Plan calls for an unlighted informal recreation area, that includes space to accommodate the following facilities:

- One (1) softball field
- One (1) recreation soccer/football field
- Two (2) basketball courts

**Brizzolara Recreation Area**

Located adjacent to Brizzolara Creek, these recreation sports facilities would be intended to serve the new student population in this area. With new housing planned along Brizzolara Creek, these sports fields are a critical component. The recreation space would be developed first as informal green space. This area would be designed to accommodate the displaced softball and soccer fields should Mustang Stadium be relocated at a later date. The Master Plan calls for the following facilities:

Informal green space if Mustang Stadium does not move. If Mustang Stadium moves, as discussed below, the following could be accommodated:

- One (1) recreation soccer/football field with lighting
- One (1) recreation softball field with lighting
- Two (2) basketball courts with lighting

Other recreation amenities as programmed for the residential village.

**Environmental Consequences**

The area proposed is currently a temporary parking lot. The development of recreation fields would constitute a beneficial impact for the area.

These recreation fields would be an amenity for the new student housing. Their proximity to Brizzolara Creek will require mitigation designed to reduce nutrient loading and the introduction of pesticides to the surface waters.
Sports Complex Area
Beyond the facilities under construction, the Heery plan identified this general area north of Brizzolara Creek for a number of additional facilities discussed below, including a new arena for basketball, other indoor events and maintenance facilities. The Master Plan draws from the recommendations of the Heery plan for siting future athletic facilities. However, the Master Plan supercedes the Heery plan with respect to the details of both siting and size of such facilities based on more recent analysis of recreation needs and the findings of the environmental review conducted for the Sports Complex. In addition, any additional sports facilities, like any other facility on campus, will be designed so as to mitigate environmental impacts on and off campus.

Athletic Field House
The athletics program projects a need for an 8,000-seat sports arena for intercollegiate basketball, currently housed in Mott Gym. With a new arena Mott Gym could be used for additional recreational sports activities. The new arena would include flexible court space, locker rooms, training facilities, office space and exhibit areas. This facility would also allow use by other sports and non-sports events. The arena would be located most beneficially adjacent to the future site of Mustang Stadium where locker room and other support facilities could be shared. Parking for events would be located in close proximity to the new structure at Via Carta. Refer to the Heery plan for a description.
Environmental Consequences

An 8,000 seat Arena would generate additional traffic to the area, though not during peak hours. The site is appropriately located adjacent to other existing and proposed athletic facilities, as well as the most abundant parking supply on campus. This area was studied in the 1997 EIR for the Cal Poly Sports Complex.

Mustang Stadium

When it is timely, and if resources are available, the football stadium could be relocated to the Sports Complex on the north side of Brizzolara Creek (in the location shown on the Heery plan) during a later phase of Master Plan implementation.

Moving Mustang Stadium to this location would displace two (2) soccer fields and two (2) softball fields. These four fields would be relocated to areas near the new Brizzolara residential area and the Grand Avenue and Slack Street entrance. Mustang Stadium would be designed to accommodate approximately 10,000 to 12,000 seats. This location would provide immediate access to the new parking structure at Via Carta and primary access from Highland Drive.

Mott Gym

The athletics program has identified a phased expansion to Mott Gym including increasing seating capacity to 4,000. The increase in seating capacity would include upgrading access for the disabled, press boxes, restroom facilities and concession space. In the event a new sports arena is constructed at the Sports Complex, the mid- and long-range improvements to Mott Gym would not be necessary. The potential use of Mott Gym as an additional recreation sports facility would need to be reviewed. Immediately south of Mott Gym, adjacent to the new parking structure, six new tennis courts will be constructed.
Track and Field Area
This facility is proposed to remain unlighted in its current location in the southeast corner of campus. Track events are supported by adjacent parking and the proximity to the Recreation Center and Mott Gym facilities. However, improvements to this facility are proposed in the Master Plan. The track will be resurfaced and relined. New seating for approximately 500 would be added in grandstand arrangements and new facilities for restrooms, concessions and press boxes will be planned.

Environmental Consequences
Track and field improvements are relatively minor and would likely result in less than significant impacts.

Immediately to the west of the Track a new practice field for a variety of sports will be developed.

Environmental Consequences
A new practice field in this location could have some effects on nearby residences from night time lighting and noise.

Recreational Trails - Foot, Mountain Bike and Equestrian
Cal Poly students, faculty and staff and members of the larger community use many of the roads and trails on outlying lands and campus ranches for recreation. The Natural Environment element of the Master Plan calls for standards for the design and management of footpaths, mountain bike trails and equestrian trails. Future campus maps would designate trails by appropriate use.

Informal Outdoor Recreation
In addition to formal recreation fields, the Master Plan shows informal outdoor recreation space within the new residential communities. These include small courtyards and areas for passive recreation, as well as sites for activities like pick-up basketball and volleyball.

Informal Indoor Recreation
The new residential communities should include multi-purpose indoor recreation space, including game rooms.
PUBLIC FACILITIES AND UTILITIES

Introduction

Public facilities and utilities include the physical facilities and infrastructure required to support campus operations. Some public facilities and services are highly visible, such as University Police, while others support students, faculty, staff, and visitor activity indirectly, even invisibly.

Existing Conditions and Issues

Specific public facilities and services on the main campus include:

- University Police, Parking and Access Services offices, operations center, and vehicle parking on the north side of North Perimeter Road and the information booth at the Grand Avenue entrance to the campus
- Transportation Services offices, garage, and vehicle storage yards, currently on the north side of North Perimeter Road
- The Farm Shop machine shop and garages, currently east of Via Carta, just south of Brizzolara Creek.
- Facility Services and Facilities Planning offices, workshops, and warehouse

Some aspects of the utility infrastructure occupy specific sites on campus:

- The Central Heating and Cooling Plant in Building 40 in the campus instructional core
- The Electrical Substation at the entrance to Poly Canyon
- The Future Thermal Energy Storage Tank - site studies under way

Other utilities function as systems linking services to campus facilities. Cal Poly has just completed the first phase of a combined utility infrastructure project known as the Utilidor. This phase consists of a mile-long looped vault for district heating, district cooling, domestic water and high-voltage electricity service.

The following utilities are described by their capacity and distribution:
Electricity

Capacity
The recently completed, University owned, Mustang Substation has the capacity for moderate capacity increases. Physical space exists for a twin primary transformer that together with the current primary transformer should provide ample capacity for the growth anticipated in the Master Plan.

Distribution
The campus is served by two 12,000 volt primary switched loops, one underground serving the campus core, and one overhead serving farm areas as far northwest as the new Poultry Unit. Both loops have ample capacity for the growth anticipated in the Master Plan. Future development would require connection and/or minor modifications to the existing loops and their associated switches.

District Heating

Capacity
The current central heating plant has three boilers serving the campus. Additional development may require the addition of boilers to the plant (Building 40). Relocation of the Graphic Communication printing press would provide space for these additional boilers.

Distribution
The Utilidor has ample capacity for current and future heating. Future development would require connection to the lines in the vault.

District Cooling

Capacity
The current central cooling plant has two chillers serving the campus. Additional development may require the addition of chillers to the plant (Building 40). Relocation of the Graphic Communication printing press would provide space for these additional chillers.

Distribution
The district cooling lines in the Utilidor are approximately half complete. Any major development, especially on the north side of campus would require completion of the loop in addition to connection to the lines in the vault.
**Water**

**Capacity**
Cal Poly is owns 33% of the Whale Rock Reservoir capacity of 40,660 acre feet or 13,706.48 acre feet. The safe annual consumption ceiling is 1,260 acre-feet and present annual average consumption is approximately 845 acre ft per year. This allocation includes both domestic and agriculture irrigation water. The Reservoir allocation has ample room for the growth anticipated in the Master Plan. Cal Poly participated in the construction of the new treatment plant, which allowed for the campus growth anticipated in the Master Plan. Present Cal Poly consumption is approximately 0.63 million gallons per day. At capacity, Cal Poly’s portion of the plant is 1.44 million gallons per day.

**Distribution**
Current water distribution limits are determined by fire-fighting capacities, not domestic use. Recent projects have vastly improved capacity, but new development may require additional local storage and/or distribution.

**Natural Gas**

**Capacity**
Natural gas delivery to the campus edge has capacity for the growth anticipated in the Master Plan.

**Distribution**
Power Plant boiler additions may require additional gas capacity to that facility. Development north of Brizzolara Creek, if not connected to the Utilidor, would require extensive improvements to the campus distribution system.

**Sanitary Sewerage**

**Capacity**
Cal Poly participated in the construction of the new treatment plant and allowed for campus growth anticipated in the Master Plan. Present consumption is approximately 0.323 million gallons per day. Cal Poly’s portion of the plant capacity is .471 million gallons per day. Total capacity in the collection system is 1.2 million gallons per day. However, storm run-off often exceeds this capacity.

**Distribution**
An extensive infiltration problem with storm water exists that could be solved by re-lining of existing lines and rerouting storm drainage.
from sewer lines. Development on the north side of campus, especially residences, may require a new trunk line to the campus’ western edge.

**Storm Drainage**

*Capacity*

All existing storm drains are close to capacity during high rains. Replacement development per the Master Plan should have little impact and may improve impact on existing system. Future storm drainage in undeveloped areas should be independent of the existing system.

*Distribution*

All existing storm drains feed into Brizzolara and Stenner creeks. New development will require greater on-site remediation of storm water impacts.

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**Environmental Consequences**

Stormwater facility development will be guided by Best Management Practices developed in the campus’ Stormwater Management Plan. These measures should ensure that water entering streams does not unduly contribute to sediment or nutrient loading, or any form of contamination.

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**Data and Communications**

*Capacity*

Cal Poly has most of the conduit capacity to make modifications as technology changes. Present technological changes require less conduit capacity for the backbone. The campus is in the process of a communications infrastructure upgrade. The campus should have a complete fiber backbone and all applicable spaces should have connectivity. This should give the campus the flexibility for Master Plan growth and technological changes.

*Distribution*

Cal Poly has a fiber backbone and copper connection to 90% of the spaces on campus. The campus core is 98% connected. As the campus core expands into undeveloped areas, infrastructure will be added to supply those areas.
Solid Waste and Recycling

Capacity
Solid waste is collected and removed daily by a waste hauler to the local landfill. The campus landfill is closed to all future use. The campus is presently diverting up to 50% of its waste from the landfill by recycling, except for waste from construction projects. The campus is presently being required to divert 50% of its waste from the landfills.

Distribution
Solid waste is collected in dumpsters at each building. Recycling containers are placed at the same location where room allows. Recycling collection is made by campus personnel and brought to a central location for pickup by the recycler. As the value of certain recycled material increases, it may be in the interest of Cal Poly to designate an area for processing and storing materials for sale to recyclers.

Issues\(^1\)
Many public facilities and services currently occupy land slated for campus-core redevelopment. Additionally, the functional capacity of certain existing facilities is compromised due to their age. Thus, the Master Plan addresses the following issues:

- Condition
- Location
- Resource capacity
- System capacities
- Energy consumption
- Conservation and recycling

Principles
Public facilities and services should be located outside the campus core unless their academic mission or functional nature requires immediate access to the core. Utility infrastructure must be provided for the expanded campus instructional core as well as for new residential com-

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\(^1\) Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.
munities. The following principles guide the location and approach to public facility and utility planning.\(^2\)

**Dependability**
Public services and utilities should support the University efficiently, with the flexibility to meet changing needs. The utility infrastructure shall be designed for ease of maintenance and renovation.

**Balance Between Cost and Environmental Impact**
Development of campus facilities and their utility infrastructure support shall consider sustainability, alternative sources, self-sufficiency, life-cycle costing and/or other strategies to minimize impacts on the environment.

**Resource Capacity and Conservation**
Utility design and use patterns need to acknowledge that they consume limited resources, and that their use has impacts on and off campus.

**Invisibility**
To the extent possible, public facilities and utility support structures shall be concealed from view.

**Plan Components**

**Corporation Yards**
The basic facilities that support campus operations should be relocated to the Old Poultry Unit site west of the railroad to allow expansion of the campus instructional core: Facility Services, Facilities Planning, Transportation Services, and the Farm Shop.

With expansion of the campus instructional core and addition of new student residential complexes, the University Police, Parking and Access Services operations center will be relocated at the northeast corner of the campus core.

**Other Public Facility and Utility Improvements**
In order to improve utility service and efficiency, the Master Plan includes the following projects:

\(^2\) The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives and from recommendations provided by the campus/community Utilities, Built Environment, Land Use, Public and Support Services and other task forces during Spring 1999.
• Location of the proposed Thermal Energy Storage tank(s) so as to minimize their visual impact while at the same time leave their functional capacity undiminished.

• Installation of a “twin” primary transformer at the Mustang electrical Substation.

• Relocation of the Graphic Communication printing press to allow for expansion of the Power Plant’s district heating boilers and district cooling chillers.

• Completion of the Utilidor chilled water loop.

• Repair and replacement of existing sewer and storm drains.

• Development of a distribution system that would enable the increased use of second-use water for irrigation.

Finally, Design Guidelines for implementing the Master Plan should encourage energy efficient building design.
Circulation

Introduction

University entrances and gateways, vehicular circulation and access, bike and pedestrian circulation and access, public transportation, and service and emergency access are key circulation issues concerning Cal Poly. Campus parking and alternative transportation systems are uniquely related to these issues and merit additional discussion in the alternative transportation and parking elements of the Master Plan.

Existing Conditions and Issues

The Master Plan discusses circulation at three different geographic scales: (1) regional access to San Luis Obispo, (2) local access to the campus, and (3) circulation within the campus.

Regional Access

The Central Coast of California is relatively isolated from other parts of the State. Airline access is limited to turboprop aircraft; Amtrak serves the community once daily each way from the north and south; and one major highway (101) provides vehicle access inland to the north and south. Lesser roads connect the area to the coast and Central Valley. Approximately three-fourths of Cal Poly’s undergraduates come to the area from outside the Central Coast, and because of Cal Poly’s relatively remote location, many of these students from outside the area travel to and from Cal Poly by car.

Local Access

Cal Poly is adjacent to the City of San Luis Obispo where most of its students live. However, students as well as faculty and staff also live in Los Osos, South County, North County or northern coastal areas. Approximately 13,600 students and 2,600 faculty and staff presently commute daily from off campus to study or work at the campus. With projected enrollment increases, the number of commuting students will not increase because additional students will live on campus. However, about 600 additional faculty and staff will commute to the University.

In recent years, Highland Drive and Grand Avenue have functioned as primary vehicular access points to the University. With nearly half of campus parking presently located along the instructional core’s northern edge; most traffic drives through the campus, contributing to pedestrian-vehicle conflicts, long intersection queues and congestion at Highland and Highway 1.
California Boulevard is closest to the multi-family housing where many students live, but it provides limited access to the University and parking in the vicinity of Mustang Stadium and the Business Building. Currently, California Boulevard does not connect to any major parking lots. The Union Pacific Railroad grade crossing at Foothill Boulevard, just south of the California Boulevard entrance, can cause vehicular, pedestrian and bicycle traffic delays when a train is crossing.

A minor campus entrance at Stenner Creek Road and Highway 1 is currently very dangerous.

Public transit routes circulate around the campus with designated stops along Perimeter Road.

Bike and pedestrian routes to campus run parallel to the street system, but they are discontinuous. In addition, pedestrians often cross the Union Pacific Railroad at illegal locations. (refer to the circulation data map in the Existing Conditions chapter)

**Internal Circulation**

The primary vehicular circulation route within the campus follows Perimeter Road, Poly Canyon Road, Via Carta and Mount Bishop Road with connections to campus entrances as well as to the residence halls. The roads inside the perimeter (Poly View Drive and Via Carta) are open only to service vehicles, and these vehicles are supposed to avoid traveling on these roads during class breaks. The only bike routes on campus follow the vehicle routes, with one addition - bicyclists may cross campus from north to south on Via Carta. Pedestrian routes traverse the campus in all directions with some connecting through buildings.

**Issues with Internal Circulation**

- No direct connection between California Boulevard and Highland Drive
- Vehicle congestion at Highland and Highway 1, Highland and Via Carta, Grand and South Perimeter, Highland and Mount Bishop Road intersections
- Access to outdoor teaching and learning facilities and fields

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1 Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.
• Uneven distribution of parking lots away from primary entrances
• Vehicle congestion at entrances and exits to parking lots, particularly at the change of classes
• Farm equipment and service access and circulation within core
• Vehicle and pedestrian conflicts along California, Grand, North and South Perimeter and Highland
• Lack of alignment between pedestrian routes and crosswalks
• Pedestrian ways are narrow, confusing and poorly lit
• Unclear delineation of pedestrian and bike paths on campus
• Lack of directional signage and building identification
• Limited, discontinuous bike routes on campus
• Topographical challenges to bike routes
• Inadequate bike storage and parking at key campus destinations
• Use of skateboards on pedestrian ways

Principles
Cal Poly is an integral and important part of its local and regional setting and must plan transportation systems and policies within this larger context. The campus-core environment is greatly affected by the perception of “automobile dominance.” A fundamental objective of the Circulation element is to redesign campus circulation systems to reduce automobile dependence by establishing a pedestrian-oriented campus core and reducing vehicular access to the core. Reducing conflicts between pedestrians, bicyclists and autos by establishing a comprehensive circulation plan is a primary objective of this Plan. Through careful pedestrian, bicycle and transit planning, the University should strive to obtain these goals and improve the quality of human spaces.2

Alternative Transportation
A multi-faceted approach to alternative transportation should assist in enabling a cultural shift away from vehicle dependence. (See Alternative Transportation element.)

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2 The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives and from recommendations provided by the campus/community Circulation and other task forces during Spring 1999. The Landscape Advisory Committee also recommended a set of principles that apply to circulation.
Public Transportation
Given the small scale of San Luis Obispo and the quantity of off-campus housing in close proximity to campus, additional public transportation could greatly reduce the need to increase the University parking supply to accommodate enrollment growth. Further, public transit routes and stops must be fully integrated into the campus circulation system.

Vehicle Trip Reduction
Traffic congestion can be reduced by increasing the number of persons in a vehicle and substituting alternative transportation, including public transportation, bicycles and pedestrians. In addition, Cal Poly could consider means to reduce the number of trips altogether by such means as “telework,” technology-mediated instruction, using the Internet for administrative transactions, and providing services on campus so that students, faculty, and staff don’t need to come and go more than once daily.

Access to Campus
The Master Plan should address local access to Cal Poly, including the coordination of pedestrian, bicycle and vehicle circulation systems and public transportation routes with the City, County and transit providers.

Strategic Parking Locations
A key to reducing the perception of “auto-dominance” is to distribute public parking close to campus entrances and in close proximity to campus residential areas. Primary entrances to the University need to provide direct access to parking lots or structures in order to reduce impacts on the surrounding neighborhoods and minimize vehicle pedestrian conflicts on campus. (See Parking element.)

Bicycle Friendly
Safe and effective bicycle connections to the surrounding street system, a clear bike path system on campus, and convenient bike parking and storage can and should increase bike use as a preferred commuting choice.

Compatibility of Circulation Systems
Traffic congestion and safety issues arise when circulation systems for motorized vehicles, bicycles, and pedestrians cross or overlap. The Master Plan should find ways to reduce these conflicts by designing separate routes and managing intersections. Grade-separated pedestrian crossings should be considered, including Union Pacific railroad crossings in cooperation with Union Pacific.
**Pedestrian Orientation**
An instructional core free from parking and vehicular access has long been a University goal. As the instructional core redevelops, a greater amount of land should be dedicated to campus green space and pedestrian spaces supporting a student-centered and learner-friendly atmosphere.

**Service Access**
While removing vehicles from the instructional core, access by service, emergency and vehicles for disabled persons must be provided. Functions such as deliveries, trash pick-up, maintenance and emergency services are a vital necessity. Service routes should be designed to be used and look like pedestrian ways in terms of paving and layout. Many of the pedestrian-oriented circulation routes should also serve these vehicles.

**Organization**
Campus pedestrian systems in particular must be clearly organized to link all parts of campus in order to help visitors as well as students, faculty and staff find their way around. The pedestrian system must provide for access for the disabled to all campus facilities. Paths through campus should be efficiently designed to move people to their destinations, whether by car, bike, foot or Disability Resource Center services vehicle.

**User Friendly**
For visitors and daily users alike, a clear directional sign and facility identification system is a must. People should know where they are on campus at all locations and be able to find any campus destination with ease.

**Safety**
Safety must be addressed with respect to all circulation systems - vehicular, bicycle, pedestrian - including visibility and management of traffic flow at problematic intersections and crossings. In addition, pedestrian routes need to be lighted, graded or surfaced to ensure personal safety.

**Beautification**
Attractive gateways and entrance corridors, as well as the campus landscape setting, should also enhance circulation to and through the campus. (See Campus Instructional Core element.)
Plan Components

In support of the circulation policies and principles, the Master Plan Update reflects a commitment to providing enhanced access to and from campus for all modes of transportation. Concurrent with access improvements, the campus core should be restricted to pedestrian, bike, service and access for disabled persons. This shift in access is aimed at creating a pedestrian-oriented instructional core with vehicle access to strategically placed parking areas at the perimeter. This shift also underscores a commitment to developing a safe and efficient pedestrian circulation system that reduces pedestrian/vehicular conflict. The plan further recommends beautification and enhancement of key gateways and entrance corridors. These improvements are critical in order to reinforce the University’s importance as an educational institution.

The Circulation element focuses on the following components:

• Campus entrances and gateways
• Campus pedestrian system
• Campus bicycle system
• Campus connection to public transit system
• Campus shuttle
• Campus vehicle circulation system

Campus Entrances and Gateways

Campus entrances provide the first image of the University to the community, visitors and prospective students as well as students, faculty and staff. The three principal entrances to the campus are very different in terms of context and design. The Grand Avenue entrance offers panoramic views of Cal Poly, the residence halls and landmarks like the Performing Arts Center. The Highland Drive entrance from Highway 1 provides a scenic overview of the City of San Luis Obispo, the campus, its natural setting and agricultural fields. The California Boulevard entrance provides a connection to San Luis Obispo’s historic railroad past and to many of the campus’s older buildings.

Grand Avenue and Slack Street

Highway 101 exit signs direct visitors to the Grand Avenue entrance to campus. This entrance provides an informal procession through adjacent residential areas and panoramic views of the entire SLO community. The entrance at Slack Street provides opportunities to screen
LEGEND

- Existing Parking
- New Surface Parking
- Remote Parking
- New Parking Structures
- Primary Campus Roadways
- Campus Gateways
- Key Intersections
  (May require traffic control)
parking areas, provide exposure to adjacent hillsides and display recreation fields and prominent Cal Poly facilities such as the Performing Arts Center and various residence halls. Views from this entrance also offer a contrast between the scale of the single-family neighborhoods to the south and the more institutional appearance of the campus.

**Highland Drive and Highway 1**
The campus entrance at Highland Drive and Highway 1 is important not only as an image statement about the University but also as a key entrance to the City of San Luis Obispo and as the southern end of scenic Highway 1. Beautification efforts should strive to acknowledge these three elements and provide for a balanced approach supportive of this context. Particular attention should be given to the views both of campus and to the surrounding morros from this location. The more detailed Highland Corridor Area Plan (in progress) recognizes how important the visual connection is between the dense campus instructional core and the University’s natural environment and agricultural heritage; it also redesigns circulation at this entrance to reduce conflicts between vehicle, bicycle and pedestrian traffic.

**Environmental Consequences**
Improvements to Highland should be designed to protect views, minimize impacts and conflicts with agricultural resources and minimize the introduction of pollutants to Brizzolara Creek.

**California Boulevard, Foothill Boulevard and Campus Way**
The California Boulevard entrance provides the closest access to student-occupied multi-family housing both east and west of the Union Pacific Railroad. This historic palm-lined street once was the University’s primary entrance. It should be redesigned to improve access, and Cal Poly should work with the City and Union Pacific Railroad to address access and congestion because vehicles approach this entrance from either California or Foothill Boulevard.

**Environmental Consequences**
Pedestrian conflicts will increase as California Boulevard is extended to Highland. Historic trees in Poly Grove should be maintained.
**Campus Pedestrian System**

A clearly defined system of pedestrian ways, linking all campus functions together and to the broader community, is a critical component in the shift to a pedestrian dominated campus core.

**Pedestrian Connections To and From Off-Campus Locations**

Redesign of Cal Poly’s three entrances should address pedestrian access to campus, with the following features:

- **Grand Avenue:** Sidewalks along this corridor should be widened and linked to more direct routes to campus core destinations.

- **Highland Drive:** The more detailed Highland Corridor Area Plan (in progress) recommends pedestrian treatment on this route.

- **California Boulevard redesign:** should include a widened pedestrian way from Foothill to Highland along the California frontage. Informal pedestrian crossings of the Union Pacific railroad should be replaced by one well-placed crossing to adjacent off-campus housing areas. A pedestrian path should be developed to provide a direct connection between off-campus housing areas along Foothill and the campus core.

- **Other pedestrian access from off campus:** Improve pedestrian routes and walkways from major points of access to the internal campus network, including Slack Street at the soccer practice field, from Longview and Hathway on either side of the Recreational Center, and Crandall Way between the Child Care Center and Alumni House.

**Internal Pedestrian Circulation**

The pedestrian circulation system should link campus urban spaces with student destinations and perimeter parking, providing a logical and easy-to-use pathway system.

Many of the existing campus walkways started as paved streets with little space designed and dedicated to the pedestrian. The Design Guidelines and Landscape Plan, as part of the Master Plan implementation, should provide guidance for resurfacing major pedestrian pathways. Surfaces must be designed to accept service and emergency vehicle loads.

- Consider grade-separated crossings along Highland and Grand at key locations to reduce conflicts between cars and pedestrians traveling to and from campus residential areas.
Primary Campus Pedestrian Circulation Routes

Controls to Inhibit At-Grade Pedestrian Crossing

Class I Railroad Recreation Trail

Brizzolara Creek Trail

Traffic Controlled Pedestrian Crossing

Potential Grade-Separated Crossings
Environmental Consequences

Grade-separated crossings will require extensive modifications to Highland. Modifications to Highland will raise the level of the roadway, possibly impacting visual resources from the center of campus.

- Develop at-grade crossings with appropriate traffic control systems at strategic locations along California, Highland and Grand and include corresponding pedestrian circulation designs to channel pedestrians to these key crossing locations.
- Improve Via Carta as a major pedestrian promenade from the recreation center to Highland Drive.
- Improve pedestrian access and connections to all transit stops and to all parking lots.
- Design all pedestrian ways wide enough to comfortably accommodate high use and to be well lighted, have well-placed directional signs, supported by a consistent campus furnishing theme i.e. light types, benches, trash, signposts and graphics.
- Design all pedestrian ways to reduce conflicts between foot traffic and bicyclists.
- The pedestrian system must be compliant with the American Disabilities Act (ADA).
- Develop a new pedestrian path along Brizzolara Creek from the California/Highland intersection to the new residential housing village at the Poly Canyon entrance. The path should be sensitively sited to support restoration of this natural creek corridor.
- Develop other new pedestrian ways to connect the instructional core with the surrounding residential villages and natural areas such as Brizzolara Creek and Poly Canyon.

Environmental Consequences

Paths along the creek and into natural areas like Poly Canyon serve to introduce many more people into native environments. Large numbers bring with them erosive foot and bike travel, litter and singularly insignificant, but cumulatively greater impacts to these areas. Trail location and pedestrian containment are key elements to mitigating these potential impacts. Trail setbacks should be maintained and crossings minimized.
Designated Campus Bikeways

Class II Bikeways on Roadways

Class I Bikeway Along Railroad

Principal Bike Storage Areas
Circulation

Campus Bicycle system

Development of a campus bicycle system is an important step in reducing vehicle trips to the campus. Of particular importance is the connection of the surrounding City bikeway system to the campus system while ensuring direct routes to primary destinations and ease of use. Campus bike lanes need to be clearly marked and proper use of these lanes needs to be enforced. Separating pedestrians and vehicles from bike lanes is important as well.

- Extend the Class I railroad recreational trail from Foothill Boulevard north to the new recreation sports complex.
- Provide Class II bike lanes on Highland Drive, California Boulevard and Grand Avenue and connect these bike lanes to the surrounding City bikeway system.
- Establish an internal bikeway system for the campus core linking the off-campus route to key on-campus destinations.
- Establish clearly marked bike lanes on campus through the use of special paving surfaces, color markings and attractive signage.
- Establish clear bike routes from perimeter parking lots to key destinations on campus.
- Provide conveniently located safe, secure and attractive bicycle storage facilities at primary destinations and activity centers.

Environmental Consequences

Paths along the creek and into natural areas like Poly Canyon serve to introduce many more people into native environments. Large numbers bring with them erosive foot and bike travel, litter and singularly insignificant, but cumulatively greater impacts to these areas. Trail location and pedestrian containment are key elements to mitigating these potential impacts. Trail setbacks should be maintained and crossings minimized.

Environmental Consequences

Bicycles, while an important alternative transportation mode, conflict with pedestrians and automobiles. Bike routes need to be located to reduce conflicts and improve visibility for all travelers.
Campus Connection to Public Transit System

An effective transit system is key to supporting alternative modes of access and transportation to the campus. Connection with pedestrian and bike systems is critical to making the entire system easy and efficient to use. Thus, Cal Poly should continue to work with local transit providers to enhance access to Cal Poly and integrate transit access into the campus circulation system.

- Adjust transit routes to follow new campus roadway alignment.
- Locate transit pullouts and shelters at strategic locations providing convenient access and connections to destinations on campus.

Campus Shuttle

In order to encourage alternative transportation and to provide access to and from nearby student residential complexes, parking lots and outdoor
teaching and learning facilities, Cal Poly should undertake a financial feasibility analysis to institute a campus shuttle service. Routes should be designed to serve regular locations on a frequent schedule. In addition, the shuttle service feasibility study should include an analysis of the ability to provide ad hoc access for student field trips and other activities in the Extended Campus away from the instructional core. The shuttle should have regular loading and unloading points along the roads surrounding the campus core. (refer to Alternative Transportation element)

Environmental Consequences
Shuttles will have a positive effect environmentally. Shuttle routes should be designed to minimize conflicts with pedestrians.

Campus Vehicle Circulation System
The campus vehicle circulation system should be redesigned to surround the campus instructional core, with consideration of medians in the primary roads to create a boulevard effect.

Grand Avenue
Grand Avenue should continue to offer key access to campus from Highway 101 and San Luis Obispo’s northeastern area. Grand Avenue should provide necessary access to the Performing Arts Center, Grand Avenue Parking Structure and the large surface parking area in front of the Yosemite residence halls. The lane configuration and design should remain largely as it presently exists. Pedestrian crossings should be redesigned to increase access and safety across Grand Ave.

Highland Drive
Highland Drive should be redesigned and extended from the current
terminus at Via Carta to connect with Perimeter Drive adjacent to the Fisher Science Building.

This new alignment will include additional land in the campus instructional core, thus providing needed expansion space for academic redevelopment. Highland Drive should provide access to a new parking structure at Via Carta and new residential villages along Brizzolara Creek at the entrance to Poly Canyon. Highland Drive should include both one travel lane and a class II bike lane in each direction.

Environmental Consequences

The Highland extension will bring automobile traffic closer to Brizzolara Creek. Stormwater drainage should provide detention and pollutant removal. The roadway should be designed to provide a protective barrier to the creek.

Highland Drive should also be improved with landscaping and other beautification efforts from the entrance at Highway 1 to the intersection at California pursuant to the Highland Drive area plan (in progress). Highland Drive should be designed to accommodate pedestrian crossings as shown in the roadway section below.

California Boulevard

California Blvd. should be connected to Highland Drive. A new connection at Highland Drive should greatly enhance access to the campus from the Foothill corridor area. An important circulation aspect of the California Blvd. extension to Highland Drive is the internal connection between the southwest corner of campus and other major campus
Circulation gateways. For example, with the proposed closure of North and South Perimeter Roads to campus traffic, a visitor arriving at the Visitor Information Center on Grand Ave. for a meeting at Career Services would otherwise have to leave the campus roadway system and reenter campus via California Blvd.

**Environmental Consequences**

The California Boulevard/Highland Drive intersection will introduce considerable additional traffic to the northwest corner of campus. The proximity of the railroad crossing and the stop sign at Mt Bishop Road will create considerable queuing along Highland, especially during the morning peak hour, which currently experiences approximately 1,300 trips. Signalization and lane modifications may be necessary to maintain reasonable flow through this area.

California should be redesigned to provide access to a new parking structure at the corner of Campus Way and California and should provide both one travel lane and a class II bike lane in each direction. The extension of California Boulevard calls for extending the 3-acre lawn west of the Business Building both north and south along the new street as an expanded Campus green belt.

Via Carta

Via Carta, north of its intersection with Highland Drive, should be redesigned to accommodate additional vehicles and pedestrians needing to access the recreational sports facility, new residential village areas and the new parking structure. This road should be widened to accommodate travel lanes in each direction, a center turn lane and one class II bike lane in each direction.
A new widened pedestrian way should be developed on each side of the street to provide convenient access for pedestrians and should be connected to the Brizzolara creek walkway. The intersection at Via Carta and Highland should be reconfigured as recommended by the campus traffic engineer.

Key Intersection Designs
The design of specific campus roadway intersections should depend on a case-by-case analysis. However, designs should explore a range of solutions that provide the best response to the needs. Designs should therefore consider roundabouts, signalization, stop signs, intersection geometry, lane configuration and other solutions. Intersection redesign should also reduce reliance on University Police staff to monitor and control traffic as a routine daily practice.

Service, Emergency and ADA Access
Access to the campus core by service and emergency vehicles is very important. These vehicles need to circulate throughout the core while sharing circulation routes with pedestrians and bicyclists. Conflicts between these users should be reduced through design and routing plans. Most, if not all, buildings need to be accessed for routine maintenance and service on a daily basis. Clearly defined routes between service centers, such as the Corporation Yard and the campus core, are identified in the Master Plan. The Disability Resource Center shuttle service should use these routes as well. (refer to the campus service access map on the following page)

Loading and Unloading
The Master Plan accommodates loading and unloading of car pools and van pools at strategic and convenient locations along roads surrounding the campus core.
5

Physical Plan Elements

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Circulation
ALTERNATIVE TRANSPORTATION

Introduction

The need to bring people to campus in a more efficient and environmentally responsible way is so important that the subject merits a separate element in the Master Plan. Enrollment growth would place additional demands on the road system that provides access to campus. Also, Master Plan studies show that the campus cannot reasonably accommodate the anticipated future demand for parking. This element describes Cal Poly’s current program and future plans for increasing the use of alternatives to the private vehicle for transportation to and from campus.

Existing Conditions and Issues

The primary means of arriving on campus other than by automobile are on foot, by bicycle and bus. Van pools and car pools are active on campus as well. Cal Poly ranks number one in San Luis Obispo County for the average ridership per vehicle. This means more people commute to campus than to any other county institution in something other than a single occupancy vehicle. The following agencies provide the most common alternative means of transportation available to students, staff and faculty:

- SLO Transit - the city operates the local bus service that provides service within the city limits and Cal Poly.
- Central Coast Area Transit (CCAT) provides regional bus service to Cal Poly.
- San Luis Obispo Regional Ridesharing is a referral service providing information on car pools, van pools, shuttles, bicycling and public transit.
- The Cal Poly Access Services office provides information regarding car pools, van pools, shuttles, bicycling and public transit.
- Cal Poly operates a vanpool program for campus employees (who share the monthly cost). 10% of faculty and staff regularly participated in van pools in 1999.

Of those who ride the city bus, 78% were students and 22% were faculty and staff.

1 Cal Poly currently provides an annual operating subsidy to both SLO transit and CCAT to encourage students, faculty and staff to use public transportation.
Alternative Transportation

Local Bus Route 1 - Broad and Johnson Loop
Local Bus Route 1 - Cal Poly Loop
Local Bus Route 3 - Johnson and Broad Loop
Local Bus Route 3 - South Higuera Loop
Local Bus Route 4 - Madonna, Laguna Lake, Cal Poly
Local Bus Route 5 - Cal Poly, Laguna Lake, Madonna

Bus Stops

LEGEND

- Blue: Local Bus Route 1 - Broad and Johnson Loop
- Orange: Local Bus Route 1 - Cal Poly Loop
- Green: Local Bus Route 3 - Johnson and Broad Loop
- Teal: Local Bus Route 3 - South Higuera Loop
- Yellow: Local Bus Route 4 - Madonna, Laguna Lake, Cal Poly
- Red: Local Bus Route 5 - Cal Poly, Laguna Lake, Madonna

Bus Stops

5

PHYSICAL PLAN ELEMENTS

T60 Alternative Transportation
Issues

- Cal Poly’s remote regional location, which encourages students to bring cars when they move to San Luis Obispo.
- Dependence on the automobile by many students, faculty and staff.
- Perception of alternative transportation as slow and otherwise inconvenient.
- Difficulty in setting transit schedules to meet class schedules.
- The cost to the University of maintaining access to alternative transportation, especially the bus service.
- Lack of incentives to change travel behavior.

Principles

Cal Poly should continue its regional leadership role in fostering the use of alternative transportation and discouraging the use of single-occupant automobiles. An important step toward achieving these goals should be working to modify the culture of Cal Poly students, faculty and staff regarding the use of the automobile.

Education

Cal Poly should continue to improve its programs to demonstrate the availability of transit services and other forms of alternative transportation. To change the culture with respect to reducing automobile dependence, the campus should expand its current educational programs.

Encouragement

Cal Poly should study the financial feasibility of expanding its incentives for students, faculty, and staff to encourage use of alternative transportation.

Convenience

Cal Poly should continue to work with city and regional agencies to make alternative transportation increasingly convenient, including scheduling, access and quality of service.

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2 Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.

3 The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives and from recommendations provided by the campus/community Circulation and other task forces during Spring 1999.
Plan Components

Cal Poly’s approach to encouraging the use of alternative transportation involves both incentives and policies. The following list suggests some possibilities that should be addressed in more detail in operational plans associated with the implementation of the Master Plan. Analysis of practices at comparable institutions should provide helpful insight into the feasibility and potential success of these and other programs.

- **Van pools** - Increase this service’s convenience and available information.
- **Car pools** - Encourage car pooling by considering more convenient parking locations and/or lower parking fees for regular car pools.
- **On-campus Transit** - Explore the feasibility of providing shuttle service on-campus so that students, faculty, and staff do not need their cars to cover longer distances on campus.
- **City Transit Improvements** - Continue to work with transit providers to improve local transit to campus to meet future needs.
- **Bike/Pedestrian Enhancement** - Make bike and pedestrian travel to campus safer and more convenient, especially at the California Boulevard entrance to campus. (See Circulation element.)
- **Faculty/Staff Incentives** - Explore additional means of making alternative transportation more attractive, subject to collective bargaining arrangements.
- **Entertainment and Other Services** - Provide entertainment and recreation resources on campus that will entice resident students to stay on campus rather than traveling elsewhere for these services.
- **Subsidy** - Continue to provide financial incentives for students, faculty and staff to use public transportation, as it reduces the need to provide parking on campus.
- **Parking Fees** - Explore the adjustment of parking fees, to the extent allowed by law and CSU policy, to meet costs and assist with alternative transportation systems.

Environmental Consequences

The successful implementation of alternative transportation modes will result in beneficial impacts to area traffic and air quality.
Cal Poly Master Plan

Cal Poly Commuting Patterns, 1997 and 1999

<table>
<thead>
<tr>
<th></th>
<th>Inferred Number</th>
<th>Inferred Number</th>
<th>Inferred Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>faculty and staff</td>
<td>students</td>
<td>faculty and staff</td>
</tr>
<tr>
<td>Number of respondents</td>
<td>1997</td>
<td>1999</td>
<td>1997</td>
</tr>
<tr>
<td>1997</td>
<td>997</td>
<td>594</td>
<td>2,552</td>
</tr>
<tr>
<td>1999</td>
<td>2,352</td>
<td>1,429</td>
<td>9,971</td>
</tr>
<tr>
<td>Average vehicle occupancy</td>
<td>1.42</td>
<td>1.48</td>
<td>3.16</td>
</tr>
<tr>
<td>Most frequent mode</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>drive alone</td>
<td>59.0%</td>
<td>56.0%</td>
<td>1,429</td>
</tr>
<tr>
<td>carpool</td>
<td>13.8%</td>
<td>14.0%</td>
<td>357</td>
</tr>
<tr>
<td>vanpool</td>
<td>7.3%</td>
<td>10.0%</td>
<td>255</td>
</tr>
<tr>
<td>bicycle</td>
<td>3.6%</td>
<td>4.0%</td>
<td>102</td>
</tr>
<tr>
<td>walk</td>
<td>3.2%</td>
<td>3.0%</td>
<td>77</td>
</tr>
<tr>
<td>City bus</td>
<td>2.0%</td>
<td>2.0%</td>
<td>51</td>
</tr>
<tr>
<td>County bus</td>
<td>1.0%</td>
<td>2.0%</td>
<td>51</td>
</tr>
<tr>
<td>Sub-total, alternative modes</td>
<td>30.9%</td>
<td>25.0%</td>
<td>893</td>
</tr>
<tr>
<td></td>
<td>89.9%</td>
<td>91.0%</td>
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</tr>
</tbody>
</table>

Note: Inferred number column applies percentages from survey to entire campus population for Fall 1999.
Parking

Introduction

Parking is a challenge for any large institution. Many students, faculty and staff travel several miles to campus. While Cal Poly has the most successful program for reducing single occupancy vehicles, there is still a large demand for parking on campus. The program contained in the Master Plan provides for parking in three structures and various surface lots around the Campus Instructional Core. The structures should use land more efficiently, bring commuters closer to campus, and reduce the need for continued sprawl of surface lots. A structure should be located at each of the three major entrances to campus.

Existing Conditions and Issues

Most of Cal Poly’s present parking facilities are located on the southeast corner and north side of campus. Several small lots for visitors, deliveries, disabled individuals, short-term parking, other special needs, and staff are tucked into the campus instructional core. Cal Poly has approximately 5,800 existing parking spaces. A 931-space parking structure located adjacent to the Grand Avenue entrance is scheduled for completion in Summer 2000.

Lots with a total of 1,530 spaces serve campus residence halls. Approximately 55% of the students who reside on-campus have cars with them and have purchased parking permits and are accommodated in these lots.

Over 8,000 commuting students are issued parking passes. Of these, approximately 1,500 live on campus and receive residential permits. Approximately 20% of those students receiving permits live within one mile of campus (7% live within one-half mile).

**TABLE 5.6**

<table>
<thead>
<tr>
<th>General Location (Area)</th>
<th>General</th>
<th>Staff</th>
<th>Other*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southwest Campus (C)</td>
<td>29</td>
<td>454</td>
<td>187</td>
<td>670</td>
</tr>
<tr>
<td>Grand Avenue (G)</td>
<td>568</td>
<td>242</td>
<td>80</td>
<td>890</td>
</tr>
<tr>
<td>North Campus (H)</td>
<td>2013</td>
<td>564</td>
<td>218</td>
<td>2795</td>
</tr>
<tr>
<td>Residential (R)</td>
<td>1337</td>
<td>8</td>
<td>35</td>
<td>1380</td>
</tr>
<tr>
<td>Administration (A)</td>
<td>0</td>
<td>0</td>
<td>67</td>
<td>67</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>3947</td>
<td>1268</td>
<td>585</td>
<td>5800</td>
</tr>
</tbody>
</table>

*includes: guest, disabled, metered, state, loading, short term
Existing Campus Parking

Data Maps: Main Campus

Legend

- Existing Surface Parking
- Existing Parking Structure
Parking demand typically peaks during Winter Quarter, mid-week in the middle part of the day. At these times, occupancy reaches 95% or higher. This level is considered full occupancy and, therefore, lots in the core area are fully utilized during peak daytime periods.

**Issues**

- Full occupancy of parking lots during peak times.
- Inconvenient access to surface lots extending too far from the campus instructional core.
- Safety in reaching distant lots, especially in the evening.
- Land valuable for other purposes consumed by surface lots.
- Visual obtrusiveness of lots and structures.

**Principles**

Cal Poly seeks to provide efficient parking that brings students, faculty and staff close to the campus core without overwhelming the campus environment. The University cannot reasonably meet future demands for parking at existing parking ratios. To remedy the projected future parking deficit, Cal Poly should seek to change the culture of the campus with regard to the automobile.

**Culture**

The Master Plan includes many features that should both encourage commuters and on-campus residents to reduce their use of the automobile. Part of this cultural shift should include the development of activities and facilities on campus that make it function as a community, reducing the need or desire to go elsewhere.

**Reduction**

Cal Poly should use policies and incentives to reduce parking demand by students, faculty and staff.

**Location and Access**

Concentrating parking near campus entrances should reduce through-

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1. Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.

2. The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives and from recommendations provided by the campus/community Circulation, Land Use and other task forces during Spring 1999.
circulation, control sprawl and maintain a 10-minute walking distance within the campus instructional core. For those who must park farther away, Cal Poly should study the feasibility of providing shuttle service.

**Alternatives**
Opportunities and encouragement should be provided for finding other ways to campus. These are described more fully in the Alternative Transportation element of this plan.

**Parking Management**
The campus should research parking management alternatives, including limiting permit access and establishing pricing policies to reduce the need to develop additional parking.

**Neighborhoods**
Cal Poly should be sensitive to the impact of campus circulation and parking policies on adjacent neighborhoods.

**Visibility and Safety**
Parking lot and structure design should reduce their visual obtrusiveness, but at the same time be responsive to concerns about personal safety or burglary and vandalism.

**Plan Components**
The purpose of this Master Plan element is twofold: to provide for efficient parking necessary to accommodate the enrollment and housing increases, and to change the culture of the campus in a way that reduces dependence on the automobile.

**Parking Supply**
Enrollment and residential increases on campus will increase the demand for parking. The Master Plan provides for parking facilities to replace lots converted to other uses and to meet a portion of the additional demand for parking. These should be organized around the three principal entrances to campus, each of which should have a parking structure for maximizing the use of space near the campus core.

- Construct two parking structures. Parking Structure II (up to 700-800 spaces) should be located in the southwest corner of campus off California Boulevard. Parking Structure III (up to 1,300 spaces) should be located adjacent to Via Carta in the northern edge of the campus core.
Three alternative locations have been proposed for the parking structure to be located near the intersection of Highland Drive and Via Carta. Each location favors a different use. The northeast corner of the intersection would place the structure closest to the new residential community near Brizzolara Creek. However, this would be farther from the instructional core and have a greater impact on agricultural resources. Cal Poly’s former Master Plan had the structure located on the surface parking lot directly north of the library. While most proximate to campus, this location removes a large area of land from the instructional core that could be developed with academic and related uses. The third location, north of Brizzolara and west of Via Carta, is roughly equidistant from the new housing, the athletic facilities existing and proposed at the Sports Complex, and most importantly, the instructional core. This location requires the development of an effective method for getting pedestrians across Highland.

Environmental Consequences

The development of the parking structure will have both construction and operational impacts on campus and to the surrounding neighborhood. Impacts will be similar to those of the Grand Avenue Parking Structure located near the Performing Arts Center. These impacts are detailed in the project’s Final EIR certified by the CSU Board of Trustees in March 1998. Operational impacts include traffic, air quality, noise, light, and safety.

- Traffic. Some additional trips to campus will be generated with the provision of the additional parking. This will be reduced over time as enrollment increases return the supply of parking back to its current demand ratio. This area of campus experiences a large movement of pedestrians coming from the high density housing to the southwest. Turning movements from and onto California Boulevard will intensify. A redesign of the area’s circulation system will be required.

- Air Quality. Concentrations of carbon monoxide could exceed state standards depending on facility design and use.

- Noise. Traffic increases would incrementally add to existing noise levels.

- Light. Structure lighting would increase existing light levels.

- Safety. Parking structure design and lighting should mitigate potential risks of personal and property crime.
• Build additional surface lots adjacent to new residential areas to meet the needs of upper-division residents.

Environmental Consequences

California Boulevard - The facility will likely be the most prominent feature at this entrance to campus. Design will be important in the protection of the visual resources of the area. It will also require modifications to circulation patterns at California and Campus Way.

Highland Drive - Alternative locations on the northern side of campus will be examined for this facility. It could be the largest structure on campus and will change traffic patterns at Highland and Via Carta.

• Continue to provide small lots to meet special needs strategically within the campus core.

• Explore the need for a remote vehicle storage to be used if the demand for residential parking exceeds supply. The value of the remote site would be to preclude the need for additional surface lots near the campus core. This would be especially valuable for students who only need their cars occasionally.

Environmental Consequences

Remote vehicle storage will require the grading (and possible paving) of a large area near the Goldtree region northwest of the campus instructional core. This could result in the loss of agricultural land and modifications of surface drainage. Because of the nature of the lot, the majority of the surface should be permeable to reduce the intensification of runoff.
Parking Demand
To limit the amount of land devoted to parking, the Master Plan is based on achieving a reduction in parking demand to a level of 2,000 spaces fewer than would be required if present parking ratios were to continue. A campus access and parking management plan should be developed to implement the Master Plan. Such a plan should consider the following possible means to reduce parking demand.

Freshman Parking
One approach to reducing parking demand could be to discourage freshmen residents from maintaining cars on campus (with exceptions made for hardship and job-related requirements). The inelasticity of demand for first-year student housing should prevent this policy from having a detrimental effect on the dormitory market. In addition, if students become familiar with alternative transportation systems they may be more likely to continue to use them throughout their careers as students.

Geographic Controls
Another measure to reduce parking demand on campus would be to limit the eligibility of students living near campus to purchase quarterly parking permits, unless they have special needs.

<table>
<thead>
<tr>
<th>Miles From Campus</th>
<th>Students with Permits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - .25</td>
<td>130</td>
</tr>
<tr>
<td>.25 - .5</td>
<td>428</td>
</tr>
<tr>
<td>.5 - .75</td>
<td>569</td>
</tr>
<tr>
<td>.75 - 1</td>
<td>353</td>
</tr>
</tbody>
</table>

TABLE 5.7

Percentage of Students with Parking Permits by Distance from Campus

TABLE 5.8
Environmental Consequences

Restricting the parking on campus in any form will increase pressure on both alternative forms of transportation and on nearby neighborhoods. The latter will occur as students primarily seek nearby, off-campus parking. Cal Poly should work with the city to increase protections for resident neighborhood parking.

Enrollment scenarios

Yet another approach to managing parking demand would be to spread the schedule of courses over more hours each day and over a longer week, including weekends. This could reduce the peak demand times. In addition, some demand for parking would be reduced by students who use technology-mediated instruction, or by staff who “telework” at home rather than drive to campus. On the other hand, a more concentrated or efficient class schedule for individual students would discourage multiple daily trips to campus.

See Alternative Transportation element for complementary proposals for managing parking on campus.
Support Activities and Services

Introduction

An academic community with a significant residential component requires a wide range of support activities and services. These services encompass programs and activities that address the needs of four population groups: students, faculty, staff, and visitors or guests. People in any of these groups may have special needs, depending on their personal or family situation, such as a disability, ethnic origin or cultural background. Support services address the following types of activities, whether they are required routinely on a daily or weekly basis, or only occasionally: (1) academic support, (2) institutional support, (3) governance, (4) social, cultural and recreational activities, and (5) basic daily living activities.

Existing Conditions and Issues

Cal Poly presently offers a wide range of support services through all of its major units:

The Division of Academic Affairs includes the Library, Information Technology Services, Enrollment Support Services (Admissions, Academic Records, and Financial Aid), and academic advising, in addition to direct instruction.

The Division of Student Affairs provides a range of co-curricular activities, including Student Academic Services, Student Life and Activities, Judicial Affairs, Disability Resource Center, Career Services, Health and Counseling, as well as Housing and Residential Life.

Associated Students Inc. manages student organizations and activities including student government, the Children’s Center, Recreational Sports Center, intramural recreation, and the University Union.

The Cal Poly Foundation supports the campus with retail and food services, and manages research grants and contracts.

The Division of Administration and Finance provides basic administrative support functions such as human resources (personnel), facilities planning and operations, university police, risk management, budgeting, accounting, procurement, mail, and the like.
The Division of Advancement offers the means to supplement resources available from the State of California with private funds for such purposes as scholarships, and equipment and facility enhancement. It maintains communications with the public, alumni and friends of the University.

Issues
Major concerns with many support services focus on their programmatic characteristics - service quality, variety, hours, and funding - as well as their sufficiency or adequacy to meet future demands. Not only must any increase in enrollment be accompanied by the operating budget to provide for a proportionate increase in service needs, but the campus must also be able to find the space and personnel to offer those services.

Additional specific issues identified during the planning process include the following:\footnote{Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.}

- Services for non-traditional students, such as adults returning to study part way through their careers.
- Child and dependent care.
- Campus safety and security.
- Emergency response.
- Access for students, faculty and staff to commercial services not currently available on campus.
- Impacts of any enrollment growth on public services provided by the City or County.

Principles
The Master Plan recognizes the importance of a safe, accessible, supportive and affordable environment to the academic community. Fundamentally, all support services must be designed with respect to how they contribute (directly or indirectly) to teaching and learning. At the same time, support services must offer options that are responsive to different needs and interests of sub-groups among students, faculty, staff and visitors. Any significant growth or change in the composition of the student population needs to be accompanied by a commensurate
increase and/or adjustment in the nature of services provided. These may include service availability during summers, evenings and weekends as more classes and other learning opportunities are scheduled during those times.

Ten general principles guide the support services element of the Master Plan. While many of them reinforce one another, it is helpful to list each as an important concept. Many of these principles stress the nature of services required on campus, with the expectation that the Master Plan provide space to accommodate them.

**Array**
The following types of services need to be provided on campus: (1) services that are needed specifically by students (e.g., library, advising, bookstore); (2) services that benefit from or require knowledge of the campus and that require coordination with academics or other campus services (e.g., financial aid, academic assistance, disability resources, personal counseling for students); and (3) services used frequently by a considerable number of students, faculty and/or staff daily (e.g., food service, banking, health care).

**Commercial Services**
Cal Poly is not immediately adjacent to a city commercial district, which limits student, faculty and staff access to such services. As a result, the campus needs to ensure provision of some commercial services on campus (e.g., banking) to reduce the need for students, faculty and staff to run errands off campus during the day. Furthermore, the University needs to design its new campus residential communities with sufficient space to provide for a modest selection of convenient personal and entertainment services.

**Diversity of Needs**
Contemporary learning studies find that students have different ways of learning effectively. Furthermore, people from different personal, ethnic, and cultural backgrounds have different tastes and needs. To accommodate such differences, services need to be offered in a variety of forms. Examples include different kinds of supplemental instruction for students requiring extra help in their classes, or food service options and meal plans to accommodate a range of budgets and diets.

**Use Patterns**
Facility and circulation system capacities are typically designed with peak
use patterns in mind. Support services require the same consideration to accommodate peak periods, or manage demand so as to even out peaks - e.g., class schedules and exams spread out over the day and week, rotation of registration priorities. Service centers of all types (e.g., advising, counseling, health care) need sufficient space to accommodate students (or other clientele) waiting for service.

**Coordination**
Related services that require face-to-face interactions should be coordinated and consolidated in central, accessible locations so as to be convenient to the students, faculty and staff they are intended to serve.

**Accessibility**
Services must be accessible both physically and temporally. In some instances, 24-hour/7-day electronic access can substitute for physical access - e.g., Computing Help Desk, Health Center Hot-Line, Career Services Web site, touch-tone or Web registration, and on-line purchasing. In other instances, however, students, faculty and staff need to be able interact with service providers face-to-face. For routine services, locations must be accessible to people with disabilities, convenient to other teaching and learning activities, and office hours must accommodate changing schedules. Services with frequent off-campus interaction - such as visits by potential students, donors, parents, vendors or other guests - should be located close to off-campus circulation routes and parking facilities.

**Flexibility**
Facility design for all campus services - academic, residential, social, cultural, recreational - should be flexible enough to keep pace with changing technology and changing student needs.

**Community Interaction**
Cal Poly can draw upon the broader community for services used infrequently or by a relatively small proportion of students, faculty and staff. At the same time, Cal Poly can provide opportunities to contribute to services desired by the larger community through such programs as the Performing Arts Center, service learning and the activities of clubs and organizations.

**Access When Away From Campus**
University services are usually established to support students in residence, or living in the local community. However, the distributed
teaching and learning scenario for increasing enrollment implies that additional students should be learning while physically away from campus. The service needs of these students need to be addressed by campus programs, even when they do not require access to facilities on campus, including direct academic services, such as computing, library access, academic advising, counseling, health care, etc.

Legal Compliance

Campus services and facilities must be designed to meet or exceed applicable legal guidelines such as access for those with physical or learning disabilities, fire safety, and emergency response systems.

**Plan Components**

The Master Plan provides for a full range of academic and student services in support of expanded enrollment, instructional facilities and new residential learning communities. This implies the need for curriculum, advising, recreation, social, and other student service programming to occur concurrently with physical Master Plan development and phasing. The Master Plan provides space to accommodate these support services and activities, consistent with the principles listed above. Because support activities and services are integrated with other land uses - primarily the instructional core and residential communities - the land use map does not designate special areas for them.

**Academic Support**

Activities, such as library services, information technology, advising, supplemental instruction, testing, and registration, directly support teaching and learning. The Master Plan incorporates these services in office space within the campus instructional core.

**Institutional Support**

Other institutional activities are necessary to keep the University operating daily. Where these activities involve routine face-to-face interactions with students, the Master Plan incorporates them within the instructional core. Several institutional support activities, such as warehousing and transportation services, require relatively large amounts of land and do not need to be within a 10-minute walking distance of the campus core. They are being consolidated at the Old Poultry Unit. *(refer to Public Services and Facilities element)*

**Governance**

The campus requires space to support student organizations and faculty and staff involvement in collegial consultation. The Master Plan accom-
modates a variety of meeting spaces within the campus instructional core. In addition, space in student residential communities can accommodate some student organization functions closer to where students live.

**Social, Cultural and Recreational Activities**

The primary center for cultural and social activities will continue to be the area around the University Union and Performing Arts Center. These will be expanded to serve the larger on-campus residential population (see Campus Instructional Core element). Other formal and informal social and recreational activities are integrated both within the instructional core and in residential communities. (The Recreation element addresses organized recreational activities.)

**Basic Living Activities**

Students, faculty, staff and visitors might use a variety of other services and activities routinely or occasionally on campus, such as food service, banking, and personal services. The Master Plan accommodates space for the array of services suggested in the principles above, both within the expanded campus core and within new residential communities. The Campus Core and Circulation elements also address access and safety issues.

Note: Many of the Support Activities and Services principles should be implemented more directly in the Design and Landscape Guidelines that should be developed to implement the Master Plan.

**Environmental Consequences**

In general, support services will be developed within the campus instructional core. Since this area is urbanized, there will be little or no impacts associated with these facilities.
Ancillary Activities and Facilities

Introduction

A university often attracts ancillary activities that contribute to the life of the campus and surrounding community. Some of these activities may directly support teaching and learning, while others are more ancillary. Funding of facilities for ancillary activities is typically tied to opportunities for partnerships with donors and other interested parties.

Existing Conditions and Issues

Cal Poly has a successful history of partnerships to provide facilities that cannot be supported entirely by State of California funds. Where such partnerships contribute directly to teaching and learning, the campus has provided for them within or close to the campus core. Thus, the Performing Arts Center - a partnership between Cal Poly, the City of San Luis Obispo, and the Foundation for the Performing Arts Center - was built adjacent to the Cal Poly Theatre to expand instructional opportunities for students in the performing arts. Similarly, Cal Poly and its Associated Students, Incorporated, have formed partnerships to provide for student recreation (Recreational Sports Center and the Sports Complex) and services such as the Children’s Center near the campus core. Furthermore, Cal Poly has taken advantage of donor and grant funding for a range of research facilities, including ARDFA, Advanced Technology Lab, Irrigation Training and Research Center, Dairy Products Technology Center, Gallo vineyards, and ICAD. At Swanton Pacific Ranch, the Swanton Pacific Railroad constitutes another partnership activity that Cal Poly manages as part of the legacy associated with that property.

From time to time campus and community members propose additional facilities that would build on and enhance Cal Poly’s faculty and student research or other instructional activities. Examples include a conference center, research partnerships with local firms, “incubator” support for technology development, English-as-a-second-language institutes, golf learning center, and the like. Often, these activities would involve significant amounts of land and require access for groups other than Cal Poly’s regular students, faculty and staff.
Issues

- Competition for land between ancillary activities and land uses more central to teaching and learning.
- Infrastructure and access requirements for ancillary facilities.
- Financial requirements to support partnerships for ancillary activities and facilities.

Principles

The primary policy associated with ancillary activities is that they must clearly complement teaching and learning. Ancillary facilities should not compete with core instructional needs for land within or near the campus core. Such activities can be located at more remote sites when they need not be provided within a 10-minute walking radius and/or when they require significant land area.

Principles for locating specific ancillary facilities should be the same as for land use in general - that is, relationship to the University’s academic mission, environmental suitability, compatibility between adjacent uses, proximity among related uses, and community-building - except that compactness in the instructional core may not apply. Please see the Land Use element for discussion of these principles.

Plan Components

The Master Plan identifies two potential sites for ancillary activities and facilities on the main campus. No sites are proposed on the western ranches in order to maintain their rural character and to support outdoor teaching and learning. Swanton Pacific Ranch may offer additional opportunities for some ancillary facilities. (refer to the land use maps in the University Land Uses element)

Slack Street and Grand Avenue

A site in the southeast corner of the main campus adjacent to Slack Street offers one potential site for ancillary facilities. The Master Plan

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1 Issues include items identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000.

2 The Master Plan team synthesized this list of principles from meetings with the President and senior campus executives and from recommendations provided by the campus/community Land Use, Neighborhood Relations and other task forces during Spring 1999.
does not show this site for student housing in order to provide a buffer between students and the adjacent residential neighborhood; and the usable area of the site is not large enough to support a significant amount of faculty and staff housing. However, it does offer access at the Grand Avenue entrance of the campus, and may be suitable for a visitor-oriented ancillary facility.

**Environmental Consequences**

This area was discussed in the Residential Communities element.

**Goldtree**

The northwest corner of the main campus includes approximately 200 acres known as the Goldtree site. While currently part of the outdoor teaching and learning inventory, the area is not used heavily by the College of Agriculture. It is close to the Union Pacific Railroad and has access to water, but other infrastructure would be required to develop the site. Access could be provided from Highway 1 (perhaps from an improved intersection at Stenner Creek Road) and/or internally from Mount Bishop Road. Preliminary studies suggest the potential for approximately 35 acres for development.

**Environmental Consequences**

Goldtree is a relatively remote location approximately two miles north of the campus instructional core. The area has been used by the College of Agriculture for cropping and grazing. The soils are of relatively marginal quality and the area was previously disturbed during railroad construction. Some of the area is visible from Highway 1 and so care should be taken in facility siting to minimize impacts to visual resources. Access to the site from Highway 1 could require signalization or lane modification.

**Swanton Pacific Ranch**

to be added
When do we do what?
**Phasing Options**

Note: As the Master Plan update process continues, Cal Poly will be developing a phasing strategy. This discussion presents assumptions and considerations that will affect phasing.

**Assumptions and Present Funding Practices for State-Funded Projects:**

**Funding - State-Funded Projects**
- A campus may have up to three unfunded active projects on the five-year capital outlay plan for state funding.
- However, given total funds available and competing requests from other campuses, in recent years one campus would receive funding for one major capital outlay project per year at most.
- On average, a campus might qualify for a project of $8-10 million per year.

**Timing - State-Funded Projects**
- Major capital outlay requests are submitted to the Chancellor’s Office in April for review by the Trustees in the Fall prior to initial funding. This involves a lead-time for submittals of nearly 1 1/2 years.
- Projects are funded for completion during a three-year design and construction period.
- Thus, Cal Poly follows the following schedule for a major project. Funding years coincide with the start of the fiscal year (July 1), and depend on authorization as part of the annual State Budget Act.
  - Year 0 - submittal
  - Year 1 - initial funding, including design
  - Year 2 - construction
  - Year 3 - construction, including equipment funding
  - Year 4 - fall occupancy
- No growth project can be submitted prior to the approval of the new master plan.
- State-funded projects in the queue prior to expected approval of the Master Plan update will continue as scheduled (e.g., College
of Engineering replacement building, College of Architecture and Environmental Design and College of Engineering renovation project).

**Master Plan Phasing Considerations**

- Provide enrollment growth potential to meet some portion of Tidal Wave II demand prior to peak. The number of high school graduates will reach a peak in 2007 and 2008, which means that the effect on college education will peak from approximately 2007 through 2014.

- Relocate facilities or uses in a form to meet future needs prior to demolition or removal of facilities from existing site.

- Free-up sites for enrollment growth and housing projects.

- Link enrollment growth to amount of housing that can be provided based on sites available.

- Obtain funding for enrollment growth project prior to committing to housing construction for that phase.

- Meet support needs associated with enrollment growth and housing through facilities and/or policy adjustments (e.g., parking).

- Accommodate renovation and replacement requirements for major capital outlay funds as well as enrollment growth projects.

**Phasing Characteristics**

- Each phase may have the following components:

  - Relocation of existing facilities or uses to free up space for new use.

  - Instruction/instructional support facility to accommodate increase in enrollment during the academic year.

  - Student housing and related services to accommodate Fall headcount associated with enrollment growth.

  - Parking for students, faculty and staff to accommodate increase in enrollment during the academic year.

  - Renovation and replacement to enhance existing capacity.

  - Non-state funded projects that contribute toward instructional and related needs.
• Each phase may focus on a particular site planning area, but may involve projects in additional locations to support the primary components of the phase.

• Each phase should enable subsequent phases.

• In order to meet instructional needs for both major and service courses, and instructional support requirements, all instructional buildings must combine classrooms, laboratories, offices, etc. for related disciplines.

**Project Financing and Delivery Considerations**

As a public institution, the California State University system must follow state requirements with respect to project financing and delivery. However, to the extent possible, the University should explore a range of alternatives, such as public-private partnerships and collaborative “design-build” project development techniques.
How do we do this?
Follow Up

Introduction

Note: The Master Plan establishes a number of principles and expectations regarding the future of the campus that require a number of additional detailed plans to implement. The Physical Plan elements in Chapter 5 identify many of these. However, many of them involve operational issues that are too specific for the Master Plan and require further study. Thus, the Master Plan focuses on the purposes and principles, with the expectation that follow up studies and plans will provide the necessary operational flexibility to achieve the desired results. Examples of these studies and plans include the following, some of which are underway:

Geographical Area Plans and Redevelopment Plans for Areas Not Covered in the Master Plan:

Circulation Plans
- Highland Drive (in progress)
- California Boulevard (completed)
- Grand Avenue
- Campus pedestrian system
- Campus bicycle system
- Key intersection design

Design Guidelines
- Architecture design guidelines
- Landscape plan

Natural Environment and Outdoor Teaching and Learning
- Current inventory of natural features, environmentally sensitive areas, unique habitats and plant communities, rare and endangered species, etc. (in progress)
- Current inventory of outdoor teaching and learning land uses (in progress)
- Recreational trails plan
Management and Operations

- Best Management Practices (BMPs) for environmentally sensitive areas, including riparian areas
- Land use and project review procedures
- Land use management practices
- Life-cycle costing and energy efficiency
- Parking management
- Access and alternative transportation
- Water Quality Management Plan (in progress)
- Air conditioning plan (in progress)
- Other utility capacity and distribution studies
Introduction
Planning and project review process issues that have arisen during the Master Plan Update process can be grouped in two categories: (1) communication with the broader community regarding physical planning issues, and (2) structure on campus for consultation, comment and recommendations regarding such issues. The campus should establish the detailed structure and procedures for addressing physical planning issues through a set of Land Use and Project Review Procedures as part of the implementation of the Master Plan.

Community Communications
The Master Plan Update, as well as specific projects, generate significant interest on and off campus. Because Cal Poly is the largest institution in the local area, anything the University does with respect to enrollment and its physical facilities is highly visible.

Cal Poly’s impact can be measured in at least the following ways:

- Housing units occupied
- Purchases made
- Jobs created and jobs needed
- Tax revenues generated
- Events attracted to the area
- Community leadership provided
- Community organizations to which students, faculty and staff contribute
- Services offered and services used
- Resources consumed and waste generated
- Miles traveled/trips taken; cars driven; bicycles and buses ridden

It is no wonder then, that residents, businesses, organizations, and local government agencies in San Luis Obispo city and county are very interested in Cal Poly’s activities.
At the same time as it is a member of its local community, Cal Poly is first and foremost a member of the higher education community. As a university in the California State University system it is accountable to its Board of Trustees, state elected officials, and, ultimately, California voters and taxpayers. The campus should balance its role in the community with its responsibility as a state institution of higher education. Thus, campus enrollment and physical planning take place within both local and state contexts.

**Communication Principles**

Cal Poly wants to enjoy a friendly and constructive relationship with its surrounding community and adjoining jurisdictions. Within the framework of its academic mission, the University recognizes that it is also a part of a larger community, sharing the same regional environment with many neighbors. To this end, the University will work to maintain good communication and relations with the City of San Luis Obispo, the county, and its immediate neighbors. This section sets forth principles that will guide University communications with its many publics.

**Communication**

The University will seek opportunities to broaden its communication both on and off campus. These include:

- Regular communication with the elected officials of the city and county about the physical plans Cal Poly is considering.
- Meetings with neighbors early in project planning and design about projects that may affect them and cooperative discussions on ways to relieve possible impacts.
- Widely published information about campus plans, activities and process - available on the Web and through other media.

**Planning**

The University will include the City and County of San Luis Obispo and its immediate neighbors in discussions about its physical plans for the

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1 These principles address issues identified by campus and community members during Fall 1998, at public meetings during Winter 1999, during task force discussions in Spring 1999, and at subsequent meetings with campus and community groups in Fall 1999 and Winter 2000. Two campus/community task forces in particular - Neighborhood Relations and Intergovernmental Relations - recommended a number of very specific processes and procedures for physical planning and project review with the community. Some of these were too specific for the Master Plan, while others will be addressed as part of Master Plan implementation.
future. The development of the Master Plan has been shared broadly with the public, and this approach should be continued with other major physical planning efforts.

**Consultation**

The University will provide the City and County of San Luis Obispo and permitting authorities with a clear avenue of consultation regarding physical planning projects on campus. Cal Poly recognizes that it is a large organization with many divisions. Cal Poly will identify appropriate personnel and procedures through a set of Land Use and Project Review Procedures as part of the implementation of the Master Plan so that those interacting with the University are able to do so effectively and efficiently.

Cal Poly follows two formal consultation processes that involve local elected officials and the broader community - the Campus Planning Committee and environmental assessments.

**Campus Planning Committee**

The Campus Planning Committee serves review functions typically provided by both a city planning commission and a design review committee in local government. Its responsibilities include review of the campus master plan, five-year capital improvement program, environmental assessments related to major capital outlay projects, and design review of major capital outlay projects at the programming, conceptual and schematic design phases. The Campus Planning Committee is a standing committee of the University, mandated by the Board of Trustees. Members include the President, all four Vice Presidents, Vice Provost for Institutional Planning, Director of Facilities Planning, two deans (Agriculture and Architecture and Environmental Design), two faculty (appointed by the Academic Senate), an ASI student representative, a CSU system representative, the official campus architect, and City and County representatives. Once projects are formulated, the Facilities Planning Office places them on the agenda of the Campus Planning Committee for review, comment, and recommendations before the President forwards them to the CSU Chancellor’s Office. With the completion of the Master Plan update, Cal Poly will post Campus Planning Committee meeting schedules and agendas in a timely manner in advance of meetings and will make summary minutes available on a Web site.
Environmental Assessment

Cal Poly follows the requirements of the California Environmental Quality Act (CEQA) with respect to physical planning and major capital outlay projects. The California State University Board of Trustees serves as the lead agency for certifying environmental determinations regarding projects subject to CEQA. Cal Poly prepares initial studies, “negative declarations” and environmental impact reports with the assistance of the campus environmental consultant and forwards these to the CSU. Cal Poly notifies and invites comments during the review process from elected officials, public agencies and the public, consistent with CEQA requirements.

Campus Planning Structure

Campus physical planning at Cal Poly follows both administrative and consultative processes. Ultimate responsibility for Master Plan approval lies with the California State University Board of Trustees or the California Post-Secondary Education Commission for decisions associated with enrollment capacity. On campus, the Facilities Planning office in the Division of Administration and Finance is responsible for physical planning. This office works in consultation with the Provost’s Office regarding academic projects and implications of all physical planning projects on academic issues. Within the Provost’s Office, the Office of Institutional Planning and Analysis provides enrollment and space studies that inform campus planning efforts.

College and University Interests

The Master Plan addresses campus land uses beyond the instructional core at some length. The Natural Environment element identifies environmentally sensitive areas. The Outdoor Teaching and Learning element describes uses of campus lands by nearly all colleges. Some colleges clearly have jurisdiction over certain activities - e.g., agricultural units, botanical garden, Design Village. However, outdoor teaching and learning uses also overlap with one another on some lands - e.g., grasslands used for grazing and field study. In addition, students, faculty and staff, and members of the larger community take advantage of Cal Poly’s natural setting for outdoor recreation - hiking, mountain biking, horseback riding. Sometimes these overlapping uses come into conflict, particularly when issues of environmental protection, degradation, and restoration arise, but also when one user proposes a change that affects others - e.g., conversion of grasslands to cultivated crops.
The implementation of the Master Plan will establish a structure in the Land Use and Project Review Procedures to review and adjudicate these land use management issues, based on analysis of the academic needs that are served by outdoor teaching and learning lands.