

# San Francisco State University



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## Community Resilience Building Workshop Summary of Findings

April 2022



# San Francisco State University Community Resilience Building Workshop *Summary of Findings*

## Overview

The need for academic institutions, municipalities, counties, states, and federal agencies to increase resilience to extreme weather events and a changing climate is strikingly evident amongst the communities across the state of California. Recent events such as severe wildfires, extreme precipitation events, high winds, and extended heat waves have reinforced this urgency and compelled leading communities like San Francisco State University within the California State University System to proactively collaborate on planning and develop actions that mitigating risks and enhance resilience. Ultimately, this type of leadership is to be commended because it will reduce the vulnerability and reinforce the strengths of people, infrastructure, and ecosystems and serve as a model for other communities in California and across the Nation.

Recently, San Francisco State University agreed to partner with Second Nature and The Nature Conservancy on collaboratively launching a community-based process to assess extreme weather and climate change impacts and to generate and prioritize solutions that improve resiliency, sustainability, and equity for their community. In April 2022, the San Francisco State University Core Team hosted a workshop as part of the Community Resilience Building process that was facilitated by The Nature Conservancy and Second Nature. The core directive of this effort was the engagement with and between community members (i.e. student, staff, faculty) to define strengths and vulnerabilities and develop priority resilience actions for the greater Campus community.

The SFSU Community Resilience Building Workshop's central objectives were to:

- Define top local, natural, and climate-related hazards of concern;
- Identify existing and future strengths and vulnerabilities;
- Identify and prioritize actions for the community;
- Identify opportunities to collaboratively advance actions to increase resilience across the community, and beyond.

The SFSU community benefited from a unique “anywhere at any scale”, community-driven process called Community Resilience Building (CRB) ([www.CommunityResilienceBuilding.org](http://www.CommunityResilienceBuilding.org)). The CRB’s tools, other relevant planning documents, and local maps were integrated into the workshop process to provide both decision-support and visualization around shared issues and existing priorities across San Francisco State University Campuses including the Campus Vision Plan—Future State 2035 (2018), Romberg Tiburon Campus—Living Community Challenge Vision Plan (2019), and the Emergency Operations Plan (revised October 2020). Using the CRB process, rich with information, experience, and dialogue, the participants produced the findings presented in this summary report including an overview of the top hazards, current concerns and challenges, existing strengths, and proposed actions to improve resilience to hazards and climate change on Campus, today and in the future.

The summary of findings transcribed in this report, like any that concern the evolving nature of risk assessment and associated action, are proffered for comments, corrections and updates from workshop attendees and other stakeholders alike. The leadership displayed by San Francisco State University on community resilience building will benefit from the continuous and expanding participation of all those concerned.

## **Summary of Findings**

### **Top Hazards and Vulnerable Areas for the Community**

Prior to the CRB Workshop, the SFSU Core Team identified top hazards across the three Campuses (Main, Tiburon, Sierra Nevada). The hazards of greatest concern included 1) severe droughts, 2) wildfires (both wildfires themselves (Sierra Nevada Field Station) as well as the impacts on air quality in and around the Bay Area), and 3) extreme precipitation events resulting in flooding as well as sea level rise (Romberg Tiburon Campus). These hazards have direct and increasing impacts on the infrastructure, community members (students, staff, faculty), and environment including within Campus, surrounding neighborhoods, green open spaces, housing, local businesses, Campus facilities and operations (e.g. dining), social support services and other critical infrastructure and community assets.

## Current Concerns and Challenges Presented by Hazards

The San Francisco State University community has several concerns and faces multiple challenges related to the impacts of natural hazards and climate change. In recent years, the three Campuses have experienced a series of highly disruptive and damaging weather events including the 2017 Labor Day weekend heat wave, state-wide droughts (2012-2016), October 2017 wildfires, and Covid-19 pandemic as well as other less impactful, but more frequent events (see San Francisco Hazards and Climate Resilience Plan (2020)). Impacts from these events have included reduced air quality, rain-induced, localized flooding, high wind events, and heat waves that have knocked out power, isolated community members, closed facilities, and damaged property. The magnitude and intensity of these events and others across the Campus, San Francisco, and the state of California have increased awareness of natural hazards and climate change, while motivating communities such as San Francisco State University to proactively and comprehensively improve their resilience.

This series of extreme weather events coupled with a changing climate highlights that the impacts from hazards are diverse: ranging from poor air quality from wildfires that threatened the health of community members and close critical facilities on Campus; direct wildfire threats to the Sierra Nevada Field Campus; sea level rise and land slides at the Romberg Tiburon Campus; and localized flooding from stormwater runoff during intense storms and heavy precipitation events. Longer periods of elevated heat, particularly in July and August, have raised concerns about vulnerable segments of the Campus community. The combination of these issues presents a challenge to preparedness and mitigation priorities and requires comprehensive, yet tailored actions for specific locations and/or areas across the Campuses.

The workshop participants were generally in agreement that the Campus, city of San Francisco, and the entire Bay Area are experiencing more intense and frequent weather events that are being amplified by ongoing changes in the climate. Additionally, there was a general concern about the increasing challenges of being prepared for multiple and potentially overlapping worst case scenarios at any time of year. The impact of the current Covid-19 pandemic was raised frequently by workshop participants.



(Credit: sfstate.sodexomyway.com)



(Credit: HMC Architects)



(Credit: housing.sfsu.edu)

## ***Specific Categories of Concerns and Challenges***

As in any community, San Francisco State University is not uniformly vulnerable to hazards and climate change, and certain locations, assets, and populations have and will be affected to a greater degree than others. Workshop participants identified the following items as their community's key areas of concern and challenges across several broad categories.

### **Infrastructure Concerns and Challenges**

#### **Campus Facilities & Systems Infrastructure:**

- Wastewater system and facility tied to City of San Francisco wastewater system which has holding tanks that are aging and very vulnerable to sea level rise.
- City of San Francisco is assessing the feasibility of decentralizing their wastewater management system which would require San Francisco State University to identify and fund, potentially, very expensive alternative treatment options for Campus.
- Limited additional opportunities on Campus to capture, filter, and store rainwater via green stormwater infrastructure.
- Outdated heating and hot water systems in older building with issues often affecting the entire campus because of a single, quickly aging, heating loop system.
- Proximity to the Pacific Ocean increases the impacts on buildings due to high level of salt in ocean fog (rust, physical weathering, metal fusion, etc.).
- Most buildings have no air-conditioning system with frequent voiced concerns about proper indoor ventilation and inability to open windows particularly during the warmer months.
- Aging facilities on the oldest Campus in the California State University system.
- Concerns amongst faculty in the College of Science and Engineering about the indoor air quality conditions within the facility.
- Listing of the Romberg Tiburon Campus as a historic landmark reduces options for renovation to improve resilience to structures and facilities.

#### **Emergency Management & Preparedness:**

- Dining Halls on Campus do not have backup power which present challenges to maintaining healthy dining and safe food storage due to interruption of refrigeration services.
- Facility housing capacity and preparedness during "shelter in place" events are not currently adequate.
- Lack of adequate evacuation plan with strategies to handle major external closures (bridges, roads, public transportation) and the safe movement of students to and from Campus.
- Romberg Tiburon Campus location is vulnerable to ongoing and increasing sea level rise, landslides, and frequent and persistent power outages that together present immediate and long-term implications to facilities and functionality of this Campus.

## ***Specific Categories of Concerns and Challenges (cont'd)***

- Sierra Nevada Field Campus in a location that is vulnerable to wildfires, high winds, and extreme temperatures.
- Residence Halls have emergency lighting for 24 hours but require battery-based, back-up power for longer periods of power outages and safety lighting needs.
- Dried up historic riverbed now covered by Campus presents a potential liquefaction site during earthquakes that can restrict buildability in certain areas.
- Low lying areas around Lake Merced are subjected to routine flooding during periods of excessive rainfall.
- Ever present concerns related to impacts on structures and safety of people on-campus due to seismic activity.
- Limited accessibility and reliability of internet connectivity on Campus in some circumstances and locations.
- Concerns about sprinkler systems not being operable in certain buildings on Tiburon Campus.
- During heavy precipitation events select basements on Campus flood.
- Increase vulnerability of students, staff, and faculty due to deferred maintenance of buildings and facilities on Campus.
- Recognized lack of clarity amongst the student population as to where to go and shelter in times of crisis.

## **Campus Community Health, Wellbeing, & Equity:**

- Increasingly poor air quality across San Francisco including on Campus has resulted in cancelation of classes due to concerns about the impacts on health of faculty, staff, and students.
- Ongoing inequity concerns amongst vulnerable students due to homelessness, housing insecurity, living in unsafe housing, and unreliability and access to internet.
- Remote modality may put students at risk in terms of their wellness and wellbeing.
- High degree of food insecurity amongst students with many routinely not getting enough food or have access to nutritious foods on a daily basis.
- Campus currently not prepared for return of the full complement of students next academic year (fall 2022).
- Lack of full awareness across student community regarding environmental sustainability and actions individuals can take on and off Campus.
- High level of “climate anxiety” amongst students on Campus with a growing understanding that small actions they can take individually are insufficient leading to a feeling of powerlessness.
- Less than satisfactory relationship and ongoing friction between Campus and the adjoining neighborhoods and communities (i.e. “historically complex relationship”).
- Ongoing and sustained drought conditions within the City and on Campus with lack of adequate long-term focus on water conservation amongst residents.

## *Specific Categories of Concerns and Challenges (cont'd)*

### **Transportation, Housing, Food, Waste, & Power:**

- Crisis mentality amongst Campus leadership due to decades of operating without adequate budgets results in campus-wide decisions based on reactionary expedience and not long-term sustainability of various systems such as transportation, housing, food, waste, and power.
- Growing perception that Campus leadership waits out movements for change generated by collaborations between faculty and students until vocal students graduate (e.g. Bike Coalition).
- Long commute times (up to 2.5 hours) for faculty, staff, and students which can reduce time available to provide and receive educational services.
- Ongoing concerns about not enough being done to make the Campus less car-dependent and more public transit focused.
- Installation of E-V charging station viewed as benefiting the elite with electric cars and redirect focus away from alternative, more sustainable transportation (walking, biking, public transit) for students.
- Campus is bike friendly, but the immediate off-campus environment and street scape is not safe for cyclists (i.e. “Campus is an cyclists island”).
- Faculty Union presents barrier to getting the true cost of parking reflected in price of parking with associated concerns about the safety of the parking structure (i.e. collapse during earthquake).
- Lack of adequate and efficient connection or interconnection between BART and Campus which creates an obstacle to more ridership amongst student community.
- Campus shuttle isn’t running outside of normal class hours and is therefore not helpful for students taking in-person, evening classes. This present a commuter challenge for students and places a greater financial and safety burden on those that University is charged with serving.
- Power shutdowns in San Francisco and adjoining municipalities due to external wildfires impacts the ability of remote students to connect with educational resources and classes regardless of whether power remains on or interrupted on Campus.
- Due to impacts of living off campus from power outages and poor air quality from wildfires, students requests during the Pandemic to come to Campus because they require power and relief from smoke inhalation. There was no operational plan in place to handle this situation at beginning of Pandemic.
- Identified inequalities in the telecommute practices with concerns about how “essential” employee or worker is defined and changes based on type and extent of emergency.
- Staff unable to live in San Francisco in close proximity to workplace on Campus due to high cost of living.
- High costs of food and housing places relatively increased financial burden on students, staff, and faculty.

## *Specific Categories of Concerns and Challenges (cont'd)*

- Increase in waste production on Campus that has been amplified by the Pandemic with single-use products and packaging and campus vendors insisting on stocking and selling bottled water.
- Three bin system is not meeting intended goals with waste routinely going into the wrong waste stream (e.g. compost in waste bins).
- Lack of bins and ways to receive old but not outdated electronics for recycling and reuse.



(Credit: calstate.edu)



(Credit: sfexaminer.com)



(Credit: sfchronicle.com)

## **Current Strengths and Assets**

Just as certain locations, assets, and populations across the SFSU community stand out as particularly vulnerable to the impacts of hazards and climate change, other features are notably assets for community resilience building. Workshop participants identified the following items as their community's key strengths and expressed interest in using them as the core of future resilience building actions.

- Clearly, the responsive and committed engagement by leaderships, staff, faculty, and students is a very appreciated strength within and across the SFSU community on priorities identified herein will help advance comprehensive, cost-effective, community resilience building actions.
- San Francisco State University serves as a nexus between the student body and surrounding neighborhoods with growing awareness of opportunities to strengthen the social infrastructure and create feedback mechanisms for the Campus to be more responsive and ultimately serve as an “anchor institution” for the larger community.
- Long-standing culture of inclusion on Campus with resources that support a diverse student and staff community coupled with a growing recognition that “students are their communities’ voice on Campus.”
- San Francisco State University is a gathering place during emergencies with every building approved by state Fire Marshall and Architects Office resulting in a safe physical space that meets high building code standards.
- New Office of Emergency Services supports a wide variety of risks associated with Campus and potential impacts on the surrounding community.
- Constructive partnership with City on stormwater management with Campus-wide master plan for on-campus stormwater retention.
- Close proximity of Lake Merced that is recognized as a natural asset amongst the campus community and surrounding neighborhoods.
- Climate Leadership Incubator Committee helps to develop student programming focused on climate solutions and climate justice.
- Pandemic resulted in greater resilience in educational delivery methods and approaches via technology and online teaching techniques.
- Recent campus-wide shift by Information Technology Services from paper-based processes to online modality to accommodate remote locations of staff and faculty (i.e. docuSign, cloud storage, Box, etc.) due to obstacles presented by the Pandemic.

## **Current Strengths and Assets (cont'd)**

- San Francisco State University is a recognized leader in sustainability and now resilience and can serve as a model for other Campuses across the California State University system.
- Hybrid workdays and temporary telecommute schedules for faculty and staff reduces the number of vehicles on streets in and around the Campus and has been shown to increase work productivity.
- Due to the increasing poor air quality events, alert warnings are now sent out to students and classes are assigned to a “remote modality”.
- Projects underway to shift to battery-based, backup power due to power shut offs, rolling blackouts, and brown outs across San Francisco although the location of Campus is less likely to experience power outages.
- In process of switching older buildings from diesel generators to microgrids.
- Sophisticated and mature fundraising operation with the ability to quickly pivot and communicate with alumni network (480,000 alumni) to raise funds in response to wildfires and the Pandemic (e.g. Hope Crisis Fund for food and computers - \$500,000 raised within first three months of Pandemic).
- Robust Health Promotion and Wellness Department established to provide basic needs such as temporary housing and food to student in need on an ongoing basis (see 2015 Basic Needs Report).
- Pre-drafted, messaging guidance document to be used for communications regarding responses and differing air quality levels and Campus procedures for faculty, staff, and students. This will enable quicker response and communication time across the Campus community as conditions shift.
- Increased focus on adapting dining services to provide needed resources on Campus during crises by working with a large dining company (Sodexo) to use research and insights and tools such as emergency menu systems and support services.
- Growing interest amongst student body to be engaged and instrumental in planning for future needs and services on Campus given their critical perspectives on and experiences with key issues such as food security, environmental health, housing, and transportation.
- Outdoor spaces on Campus conducive to teaching with generally good climate resulting in a very usable extension of indoor classrooms.

## **Current Strengths and Assets (cont'd)**

- University students are considered by many an asset to the larger community, both economically and culturally, with graduates often remaining in the community.
- Campus landscaping and signage are greatly appreciated by students and visitors alike with information readily available ranging from signage about types of plants to wastewater management using green stormwater infrastructure.
- Compact Campus that is conducive to walking anywhere quickly as well as being in close proximity to assets within the encompassing City.
- Student population is very public transit-orientated (vs. cars) with ready access to MTA and MUNI via dedicated stops at the Campus's main entrance.
- Seventeen E-Charging Stations added to parking system (Lot 19, 20).
- Effective track record of students and faculty coordinating and collaborating to create favorable change for the community (e.g. pushing for free municipal transportation).
- Availability of a reuse list serve to help students avoid purchasing new items such as furniture and office supplies.
- Aging infrastructure presents an opportunity to replace building systems and appliances with high efficiency models as part of decarbonization process on Campus.
- Campus is effectively a laboratory to test out new systems including better ways to manage stormwater runoff that is environmentally beneficial, sustainable, and cost effective.
- Campus is embedded within a highly progressive City that often leads the way for the nation on sustainability and resilience-related actions that benefit residents and the environment.
- Recognition by campus leadership of the importance of the surrounding neighborhoods to the ongoing success of San Francisco State University.
- Top notch information technology and academic technology infrastructure in place with IMS iLearn as a standout platform for educational exchange.
- Solid relationship between Campus leadership and transportation agencies operating in the San Francisco including BART, SFTA, and MUNI.
- Campus proximate to public transportation with a dedicated MUNI bus line stop.

## **Current Strengths and Assets (cont'd)**

- Dining halls and services have responded to increased demands as the Campus becomes more and more a hub for the community during major catastrophic events.
- Strong and growing connection with the city of San Francisco and the Mayor's Task Force and the President's participation in the Covid Response Committee.
- Strong focus on ensuring proper waste disposal including compost bins all over Campus.
- In response to needs such as homelessness amongst students during the Pandemic, the on-campus Wellness Center provided showering facilities.
- West Campus Green Housing Project with new student health and dining center which will help accommodate and care for more students on campus.
- Due to the Pandemic, the Campus community is now able to quickly pivot to online learning formats as a result of disruptive events (i.e. power outages, poor air quality days due to wildfires, earthquakes).
- Pandemic required building new and strengthening existing relationships via conversations across and between many departments and services (facilities (carpenters, painters, plumbers), emergency services, ITS, etc.) ("breaking silos").
- The accommodating responses by students to necessary shifts in educational exchanges amplified the resilience and sustainability of the San Francisco State University student body.
- Presidents' Climate Leadership Commitment and leadership provided by the Sustainability Department in accord with the student body and surrounding communities.
- Engaged Campus community that is open to shared governance and supporting further growth and expansion.



(Credit: sfsugatorgroup.wordpress.com)

## **Recommendations to Improve Resilience**

A common theme among workshop participants was the need to continue community-based planning efforts focused on developing adaptive measures to reduce community vulnerability to extreme weather, climate change and other common concerns raised. To that end, the workshop participants helped to identify several overarching priority themes requiring more immediate and/or ongoing attention including:

- **Long-term vision and growth** (i.e. sustainability, conservation, transportation, housing, renewable energy, inclusion, waste management, water conservation, workforce development);
- **Infrastructure improvements** (i.e. facilities improvements, stormwater management systems, transportation system, campus landscape, safety);
- **Quality of life improvements** (i.e. housing, affordability, mobility, sustainability, health equity, connectivity, food & water security, diversity);
- **Emergency management** (i.e. communications, outreach, education, continuation of services, sheltering, vulnerable populations, surrounding neighborhoods).

In direct response, the workshop participants developed the following priority and additional action list.

### **Priority Actions**

- Recognize and expand programs that came out of the Pandemic and were embraced by the student community including grocery/food supplies and mental health and wellness resources as a means of strengthening personal and community resilience.
- Initiate and support an engagement plan amongst faculty, staff, and students to identify the top challenges and concerns for the Campus community. Look to also include representation from the surrounding neighborhoods in discussions.
- Set goals and objectives at the campus-wide and department-wide scales that track and provide a system for auditing various systems including waste, energy, water, transportation, and food provisioning, where appropriate.
- Invest in battery backup power sources to increase resilience to power shut offs as they likely continue to become more and more regular and longer lasting.

## Priority Actions (cont'd)

- Look to sustain strategic crisis response fundraising to help provide broader basic needs for all students including the Hope Crisis Fund and short-term housing.
- Continue to strength the Guardians Scholars Program for those aging out of the foster program and use this program as a model for other programs.
- Expand affordable housing programs that can help build resilience and provide support for students during a crisis. Currently have approximately funds from state (\$116M) to cover debt from Housing Department and keep rates affordable for first year (700 students currently) and some second-year students.
- Work to develop a capital improvement plan for deferred maintenance and aging infrastructure that identifies and prioritizes projects over longer time horizons.
- Look to bring in academic expertise from the Psychology Department and other relevant Departments to help address the growing degree of “climate anxiety” amongst the student body.
- Hire a transportation management professional for the University with the specific focus on improving transit planning, options, and access for all members of the Campus community across public transit systems and the Campus shuttle services.
- Increase the visibility of the Bicycle Barn in the Administration Building parking lot to help promote the use of bikes, provide repairs and bike sharing, and continue to serve as a social hub for the Campus community.
- Set up a “Gator Grub Alert” type app where students are alerted to leftover food from catered events on Campus to help reduce food insecurity amongst vulnerable portions of the student body.
- Establish mandatory training for all incoming freshmen students on how to properly use and sort waste for the three-bin system on Campus (similar to required alcohol abuse training currently provided by the University to freshmen students).
- Explore opportunities to further support students on Campus with staff and faculty in a remote/hybrid work environment. Define what a “hybrid campus” looks like and how the same high level of service and education will be maintained.
- Continue communications from President’s Office seeking community input on future sustainability practices, policies, and projects.

## Priority Actions (cont'd)

- Work to identify ways to reestablish and/or improve campus-community relationships with immediate neighbors including neighborhoods such as Ocean View, Merced Heights, Ingleside, Park Merced, and Outer Sunset. Start by identifying what resources and/or services can be made available by the Campus to these neighborhoods and match with needs of neighborhoods (e.g. heat, food, and shelter during crisis).
- Continually update maps (visual and verbal) of key resources on Campus such as water bottle filling stations, emergency phones, hygiene products, and non-binary restrooms as well as equitable and accessible places for those with disabilities.
- Work with Facilities, Office of Emergency Services, and Capital Planning to address student vulnerabilities and move toward securing funding to make the necessary changes to improve the condition and situation for the entire student body (i.e. housing, transportation, food security, safety, etc.).
- Expand on “City Eat on Fridays” distribution to San Francisco food pantries and package excess food for distribution on other days to food pantries on Campus (“rescue hot fresh meals for students in need”).
- Work via an intentional collaboration between faculty, staff, and students to secure funding and make improvement to the outdoor spaces on Campus with intentional focus on helping to improve mental health, accessibility, and community building (e.g. furniture in gathering spaces, welcoming signage, resource maps, etc.).
- Set up and maintain community-wide town hall style meeting where students and faculty can have a forum and safe space to address equity issues on Campus.



(Credit: wrnsstudio.com)



(Credit: together.sfsu.edu)



(Credit: sierra.sfsu.edu)

## Additional Actions

- Provide training for staff and faculty on approaches and methods to increase inclusivity of surrounding neighborhood members in initiatives, events, projects, and programs. Seek to make the Campus more relevant to members of the surrounding neighborhoods.
- Commit to creating a long-term tree planting and management plan for the Campus as well as the surrounding neighborhoods that better connects and “blurs” the boundaries of campus and city. The plan should incorporate considerations of future climate and equity-based, tree canopy improvement opportunities.
- Continue to conduct education training and periodic Community Resilience Building workshops to strengthen relationships, build trust, and priority actions for the community. Future workshops should look to include representation from the surrounding neighborhoods and the city of San Francisco.
- Seek out ways to increase campus-wide awareness of issues faced by students that experience crisis situations routinely and not only during major events like the Pandemic and use these efforts to secure and sustain funding for support.
- Continue to work towards completing the Climate Commitment with Second Nature and serve as a model for other campuses in the California State University system.
- Work towards updating the Campus physical master plan in response to issues and challenges that emerged during the Pandemic.
- Assess the current back-up power needs across Campus and then develop a plan to address power availability gaps via a centralized process and potentially system, over time.
- Continue to create an environment on Campus that fosters and support the connections between various student groups in hopes of strengthening overall resilience of the student body and surrounding communities.
- Increase the installation of green stormwater infrastructure on Campus and continue to teach students about the benefits and design of features such as bioswales.
- Continue to receive donating of 20-100 meal swipes to be provided to self-identified students experiencing and living with food insecurity.
- Continue to increase and fully incorporate climate justice, sustainability, and corporate social responsibility into curriculum across Campus.

## **Additional Actions (cont'd)**

- Work to eliminate sales of plastic water bottles on Campus and purchase/install campus-wide water dispensers to help ensure equitable availability of water and reduce waste.
- Increase connections between Campus and surrounding neighborhoods by launching a hackathon to promote student and community collaborating to address common challenges with winner receiving funding to solve or initiate solutions.
- Implement permanent solutions that increase stable and reliable connections between to Daily City BART station and Campus during regular and after-hour periods (i.e. bike share, Campus shuttle after hours, etc.).
- Reach decision on hybrid work schedules and define the parameters for all staff on telecommuting which will help retain current employees and attract new employees.
- Complete staff compensation survey and then negotiate with staff union for equitable compensation for essential workers who would have to physically come into work.
- Further assess the expected increases in population density in surrounding neighborhoods and how the Campus can become better positioned to benefit from these increases as an education and resource provider.
- Develop “surge spaces” with room to accommodate classes during times of stress with an emphasis on caring for international students. Conversations with Campus staff involved with real estate and housing office on this topic are recommended.
- Seek out opportunities to define and dedicate indoor and outdoor space on Campus for commuter students.
- Continue to find opportunities to augment and maximize planning with city of San Francisco staff and departments, the adjoining shopping center, housing project teams, and entities in charge of improving transportation.
- Improve the receptivity and welcoming nature of main entry points to Campus with larger “Welcome to our Campus” signage that are tied into existing or future way-finding features.
- Look to broaden access to free public transportation for faculty, staff, and students.
- Transition to electric lab equipment in Thorton Hall.
- Establish a “green revolving fund” that Departments and/or Campus-wide can access for discretionary funds to help with circumstances during natural disasters.

## Additional Actions (cont'd)

- Explore options to provide mandatory training on sustainability and resilience to all faculty similar to current requirements for a one-week training on business ethics.
- Work to improve the safety of the surrounding neighborhoods for bicyclists attempting to commute to Campus.
- Conduct training for Campus Facilities staff on how to operate new systems with succession training and direct coordination with Emergency Operations staff.



(Credit: development.sfsu.edu)

## **CRB Workshop Participants: Department/Organization**

San Francisco State University - University Enterprises  
San Francisco State University - Office of Sustainability  
San Francisco State University - Enterprise Risk Management  
San Francisco State University - Department of Geography & Environment  
San Francisco State University - Students  
San Francisco State University - Campus Recreation  
San Francisco State University - School of Public Affairs & Civic Engagement  
San Francisco State University - Employment Services  
San Francisco State University - Food+Shelter+Success - Basic Needs Program  
San Francisco State University - Office of Emergency Services  
San Francisco State University - Structural Maintenance - Facilities Services  
San Francisco State University - Resident Dining - Sodexo  
San Francisco State University - Capital Planning, Design and Construction  
San Francisco State University - Student Affairs & Enrollment Management  
San Francisco State University - College of Liberal & Creative Arts  
San Francisco State University - Quality Assurance  
San Francisco State University - Graduate College of Education  
San Francisco State University - Department of Elementary Education  
San Francisco State University - Environment, Health and Safety  
San Francisco State University - Lam Family College of Business  
San Francisco State University - Conference & Event Services  
San Francisco State Foundation

## **SFSU CRB Core Project Team**

**Caitlin Steele** - Director of Sustainability & Energy - San Francisco State University

**Andrew Oliphant** - Professor/Department Chair - Department of Geography & Environment - San Francisco State University

**Michael Beatty** - Risk Manager - Enterprise Risk Management - San Francisco State University

## **Online CRB Workshop Facilitation Team**

The Nature Conservancy - Adam Whelchel, Ph.D. (Lead Facilitator)

Second Nature - Chantal Madray (Small Group Facilitator)

Independent - Rachel Valletta, Ph.D. (Small Group Facilitator)

The Nature Conservancy - Sue AnderBois (Small Group Facilitator)

Second Nature - Cami Sockow (Small Group Facilitator)

Second Nature - Shaina Maciejewski (Scribe)

Second Nature - Joelle Geisler-Haley (Scribe)

Second Nature - Blythe Coleman-Mumford (Scribe)

Second Nature - Anya Gandavadi (Scribe)

## **Recommended Citation**

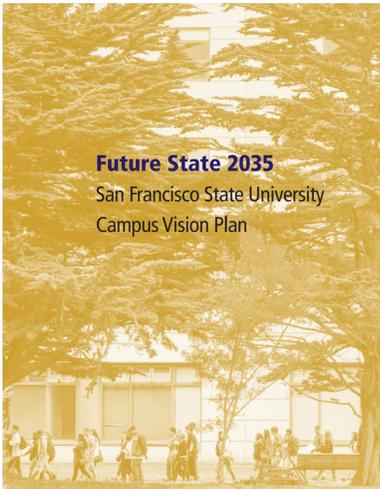
San Francisco State University (2022). Online Community Resilience Building Workshop - Summary of Findings Report. The Nature Conservancy and Second Nature. San Francisco, California.

## **Acknowledgements**

Special thanks to the SFSU leadership, staff, faculty, and students for their willingness to collaboratively embrace the Community Resilience Building process in hopes of a more resilient, sustainable, and equitable future for their community. This online Community Resilience Building Workshop was made possible in large part through the generous contribution of the facilitation team members from Second Nature and The Nature Conservancy who skillfully conducted the workshop in close partnership with the San Francisco State University Community Resilience Building Core Project Team.

# Appendix A

## San Francisco State University Community Resilience Building Workshop Map Resource Packet\* Used During Workshop



### Living Community Challenge Vision Plan – DRAFT –

San Francisco State University Romberg Tiburon Campus  
August 19, 2019



Prepared by Avelin Tien for San Francisco State University



**\*Gathered from San Francisco State University's Future State 2035 (2018) and Romberg Tiburon Master Plan (2019).**

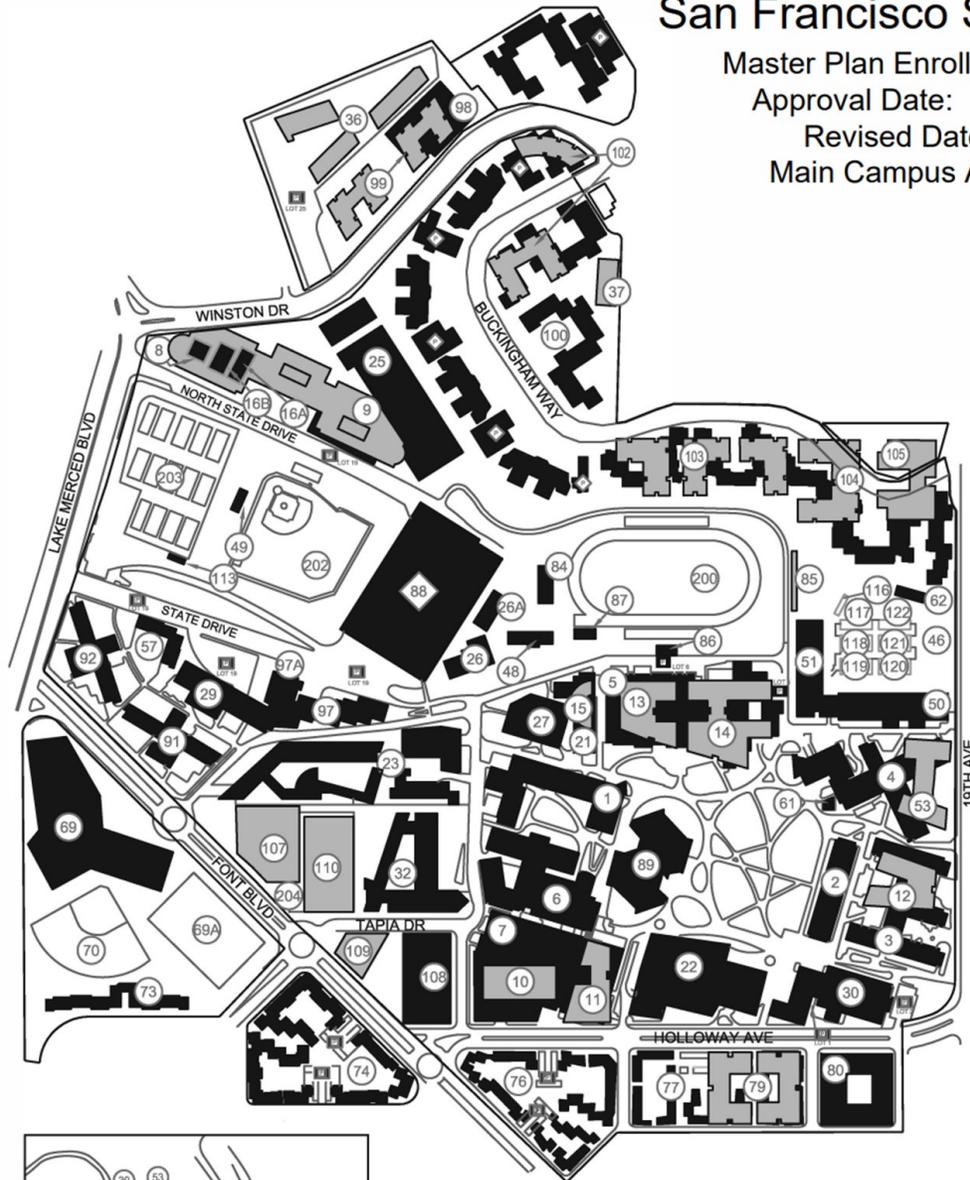
# San Francisco State University

Master Plan Enrollment: 25,000 FTE

Approval Date: September 1964

Revised Date: July 2019

Main Campus Acreage: 144.1



Building	Campus Boundary	Parking
Existing	Existing	Existing Lot
Future	Future	Future Lot
Temporary		Existing Structure
Existing Not In Use		Future Structure



# San Francisco State University

## Master Plan Enrollment: 25,000 FTE

Master Plan approved by the Board of Trustees: September 1964

Master Plan Revision approved by the Board of Trustees: June 1965, January 1966, September 1970, February 1971, November 1978, January 1981, March 1982, May 1985, July 1987, March 1988, March 1999, November 2004, January 2005, May 2006, March 2007, November 2007, March 2013, May 2014, May 2017, July 2019

- |   |  |
|---|--|
| 1. Burk Hall  | 73. University Park South  |
| 2. Business Building  | 74. University Park South  |
| 3. HSS Building   | 76. University Park South  |
| 4. Science Building   | 77. University Park South  |
| 5. Gymnasium  | 79. <i>Housing/Mixed-use</i>   |
| 6. Fine Arts Building   | 80. Holloway Revitalization Hsg/Mixed-use                                  |
| 7. Creative Arts Building                                     | 84. Warehouse #1   |
| 8. Children's Campus  | 85. <i>Pedestrian Bridge</i>   |
| 9. <i>Gymnasium</i>   | 86. Press Box  |
| 10. <i>HSS South Classroom Replacement Building</i>           | 87. Stadium Restroom Building  |
| 11. <i>HHS North Classroom Replacement Building</i>           | 88. Parking Structure  |
| 12. <i>Business Building</i>                                  | 89. Cesar Chavez Student Center  |
| 13. <i>Ethnic Studies and Psychology Replacement Building</i> | 91. Mary Ward Hall   |
| 14. <i>Academic Building</i>                                  | 92. Mary Park Hall   |
| 15. <i>Academic Building / University Club</i>                | 97. The Towers at Centennial Square  |
| 16. Temporary Annex Building (Buildings 16a-16b)              | 97A. The Towers at Centennial Square                                       |
| 21. Ethnic Studies and Psychology Building                    | 98. Temporary Building X   |
| 22. J. Paul Leonard Library                                   | 99. <i>University Park North (Housing)</i>                                 |
| 23. The Village at Centennial Square (Buildings 23a-23d)      | 100. University Park North   |
| 25. Corporation Yard  | 102. <i>University Park North (Housing)</i>                                |
| 26. Central Plant   | 103. <i>University Park North (Housing)</i>                                |
| 26A. Waste Management   | 104. <i>University Park North (Housing)</i>                                |
| 27. Student Health Center                                     | 105. <i>University Conference Center</i>                                   |
| 29. Residence Dining Center                                   | 107. <i>Creative Arts Replacement Building/School of Music</i>             |
| 30. Administration Building                                   | 108. Creative Arts Replacement Building/ BECA                              |
| 32. Humanities Building                                       | 109. <i>Creative Arts Replacement Building/Auditorium</i>                  |
| 36. <i>Facilities Building and Corporation Yard</i>           | 110. <i>Creative Arts Replacement Building/School of Theatre and Dance</i> |
| 37. <i>Satellite Power Plant</i>                              | 113. Restrooms   |
| 46. Florence Hale Stephenson Field                            | 116. Modular Building K  |
| 48. Field House No. 1   | 117. Modular Building N  |
| 49. Field House No. 2   | 118. Modular Building O  |
| 50. Hensill Hall  | 119. Modular Building P  |
| 51. Thornton Hall   | 120. Modular Building Q  |
| 53. <i>Science Replacement Building</i>                       | 121. Modular Building R  |
| 57. Children's Center   | 122. Modular Building S  |
| 61. Greenhouse No.1   | 200. Cox Stadium   |
| 62. Greenhouse No.2   | 202. Maloney Field   |
| 69. Mashouf Wellness Center                                   | 203. Tennis Courts   |
| 69 A. Mashouf Wellness Center Field                           | 204. Multi-use Recreation Field  |
| 70. Softball Field  |  |

LEGEND:  
Existing Facility / Proposed Facility

## EXISTING CAMPUS FACILITIES AND OPEN SPACE

Includes projects currently underway

- CA building (Phase 1) **(1)**
- University Park South (Building A) **(2)**

### LEGEND

- Underway Constructions
- Recreational uses
- Athletics
- Existing Buildings
- Existing Landscape
- Campus Boundary



## FULL BUILDOUT

The Future State 2035 program will result in significant improvements to the campus.

### LEGEND

- Building projects
- Landscape projects
- Major pathways
- Demolitions
- Infrastructure Projects
- Land Swap
- Athletics
- Campus Boundary

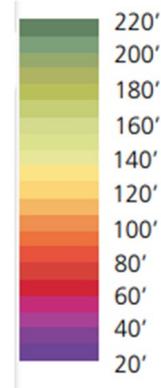




## ELEVATION AND TOPOGRAPHY

Elevations on the campus range from 40 feet in the lower valley near Lake Merced Boulevard **(1)** to a high point of 165 feet at the intersection of Holloway and 19th avenues **(2)**.

### LEGEND





## ECOLOGICAL FACTORS

Step slopes, combined with dense eucalyptus and mixed-growth forests, contribute to the unique landscape of the campus. Prevailing westerly winds flow up the valley. Buildings should avoid shading outdoor spaces.

### LEGEND

-  Wind Direction
-  Existing Tree Canopy
-  Sun Path - Summer Solstice
-  Sun Path - Winter Solstice
-  Sun Range

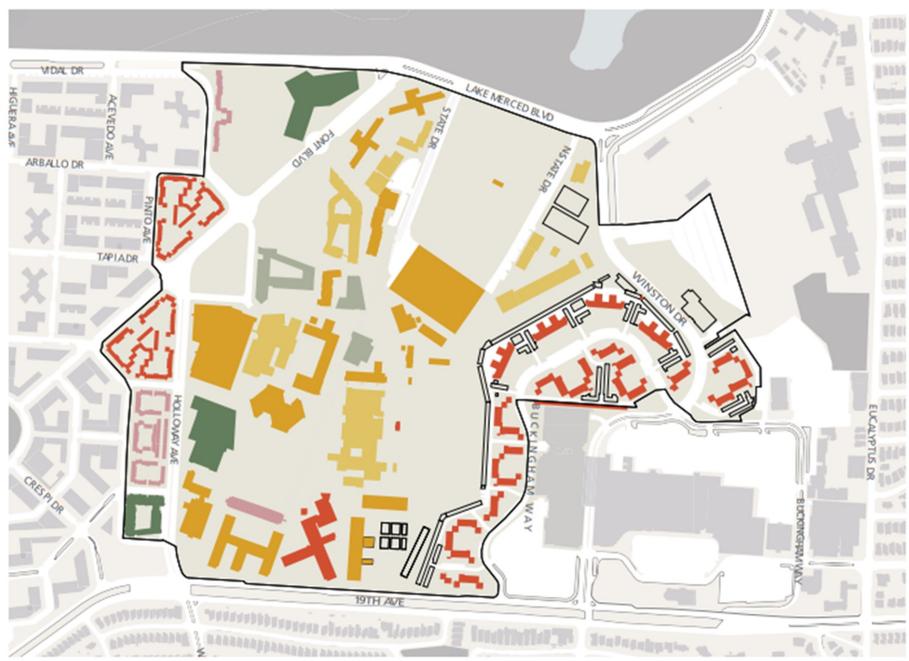
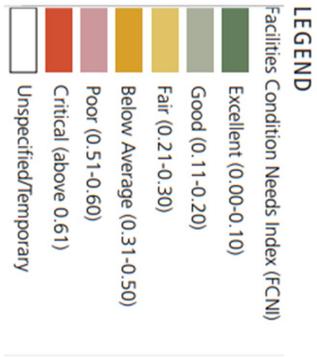
### EXISTING EASEMENTS AND POOR SOILS

Existing utility easements and liquefaction zones restrict the areas suitable for new buildings and constrain the use of some parcels.

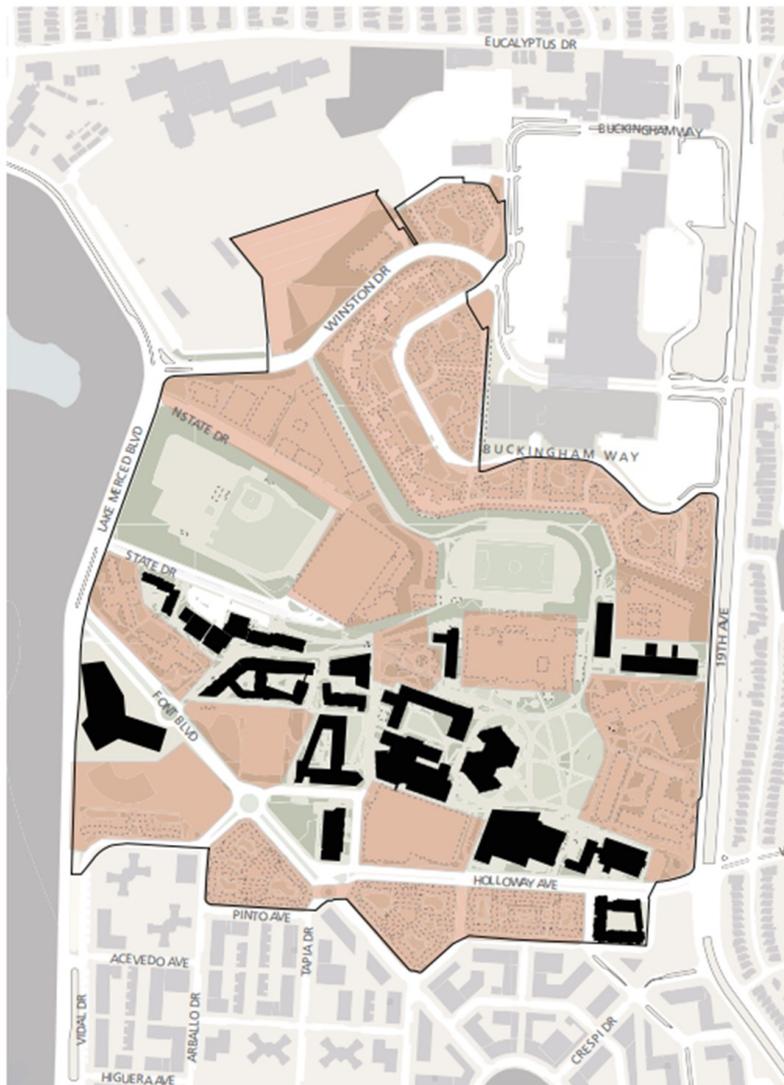


### EXISTING BUILDING CONDITIONS

The SES *Facilities Condition Assessment* prepared in 2014 documents the age and condition of buildings.



Existing Building Conditions

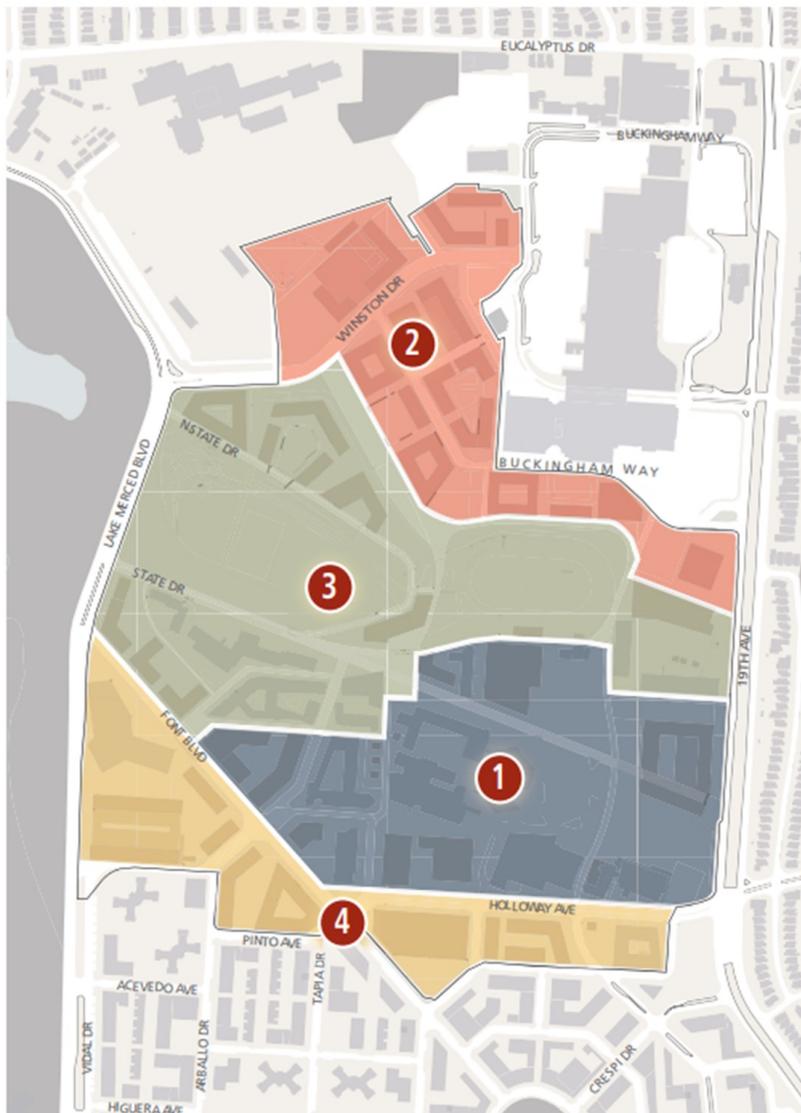


## BUILDING OPPORTUNITIES

Future State 2035 proposes phased removal of low-quality, poorly used buildings. These include structures on liquefaction zones of poor soil, such as the parking garage. The combination of low-quality buildings and under-used land parcels suggests locations for campus upgrades and infill projects.

### LEGEND

- Potential Building Sites
- Buildings to Remain
- Buildings to be Removed



## PROPOSED CAMPUS NEIGHBORHOODS

Each neighborhood presents specific opportunities to strengthen the identity and function of the campus.

- Central Campus **(1)**
- North Campus **(2)**
- Lower Valley and Upper Valley **(3)**
- South Campus **(4)**

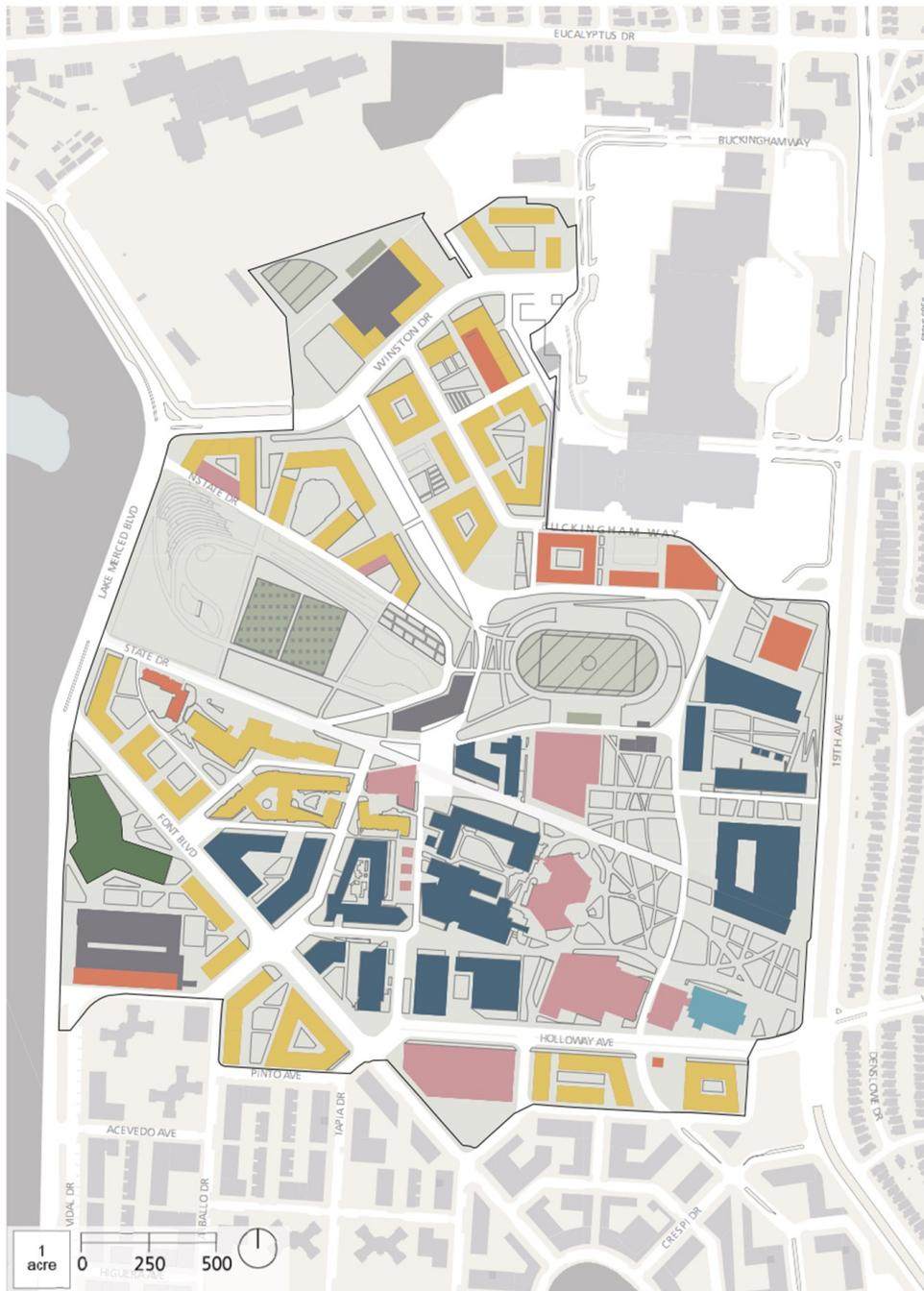
### EXISTING CAMPUS USES

Currently, academic uses cluster around the Quad and along 19th Avenue and Holloway Avenue.

#### LEGEND

- Academic
- Residential
- Administration
- Student Life and Support
- Athletics (indoor and outdoor)
- Recreational (indoor and outdoor)
- Shared
- Parking and Service Centers
- Campus Boundary



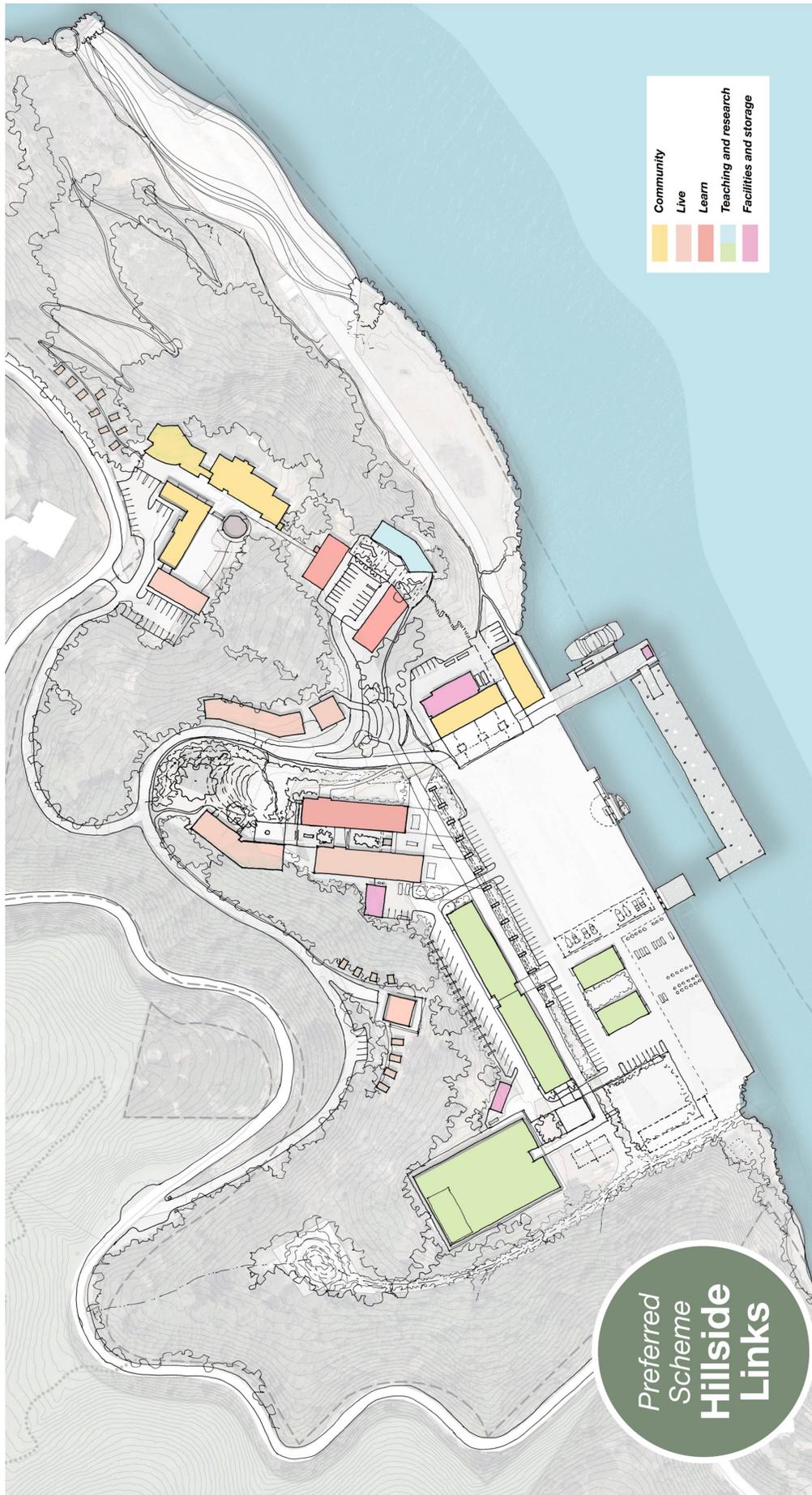


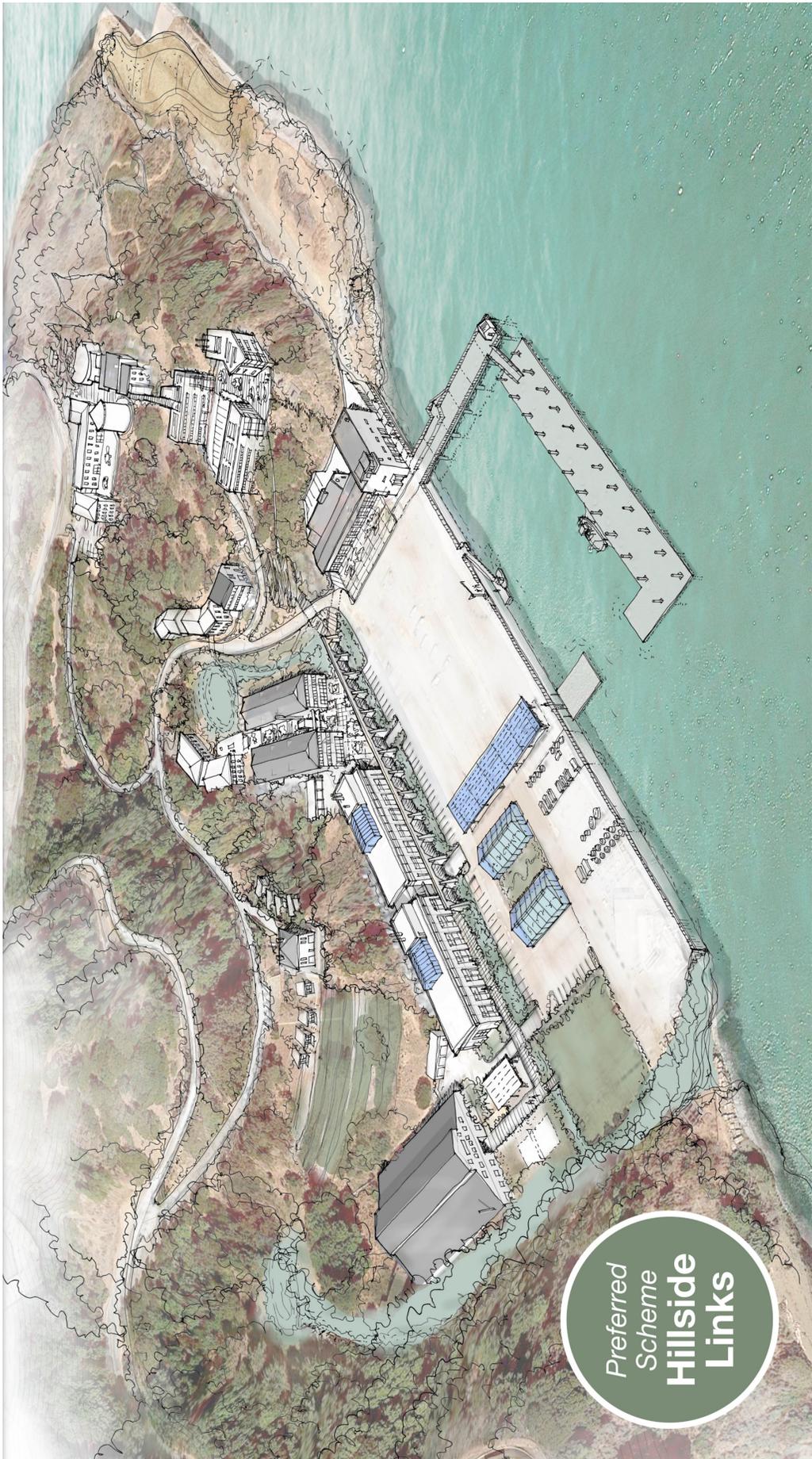
**PROPOSED CAMPUS USES**

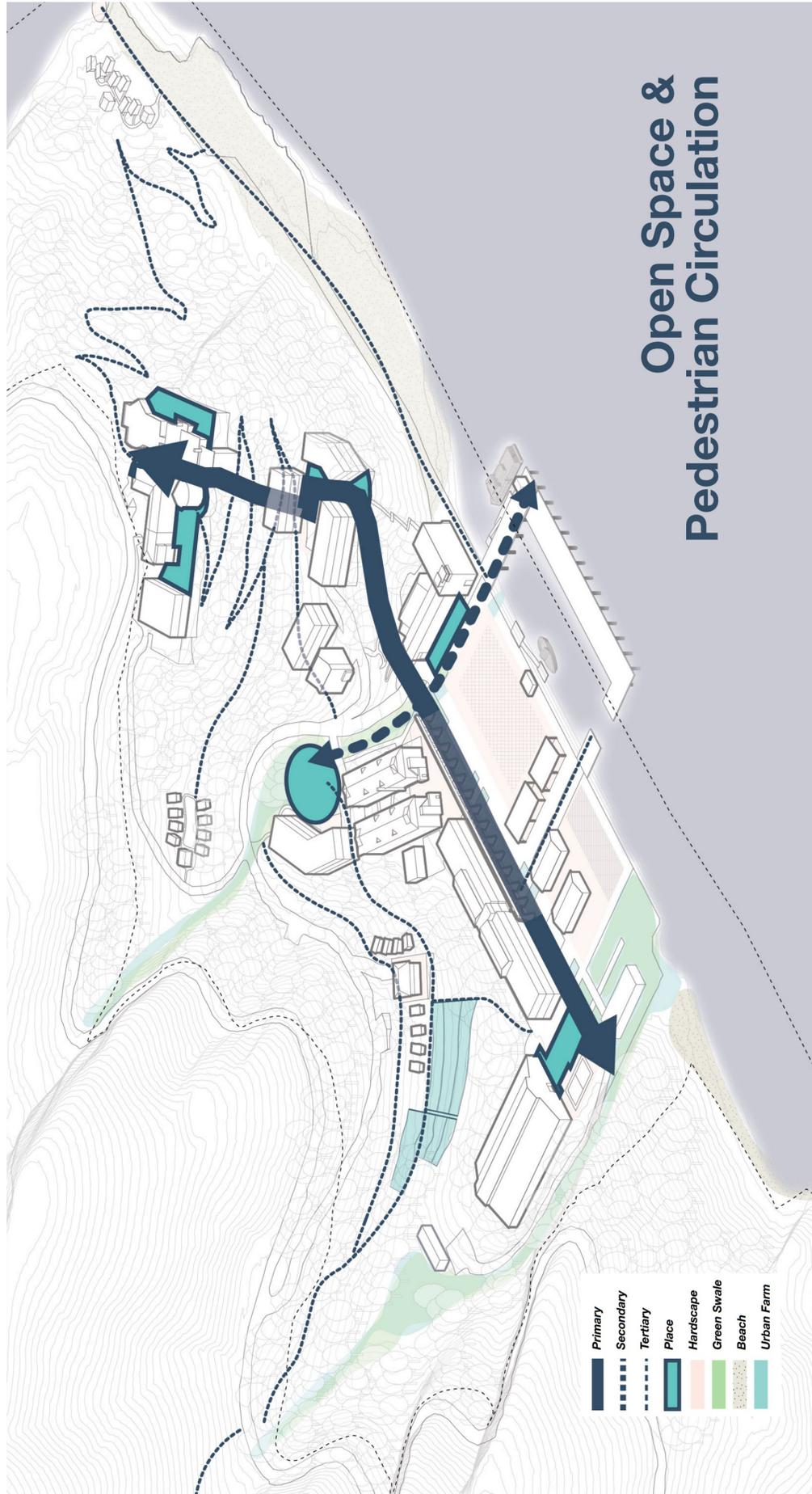
Proposed campus uses reinforce the existing pattern of activities on campus while making fuller use of University properties along the Font-Holloway corridor and north of the valley.

**LEGEND**

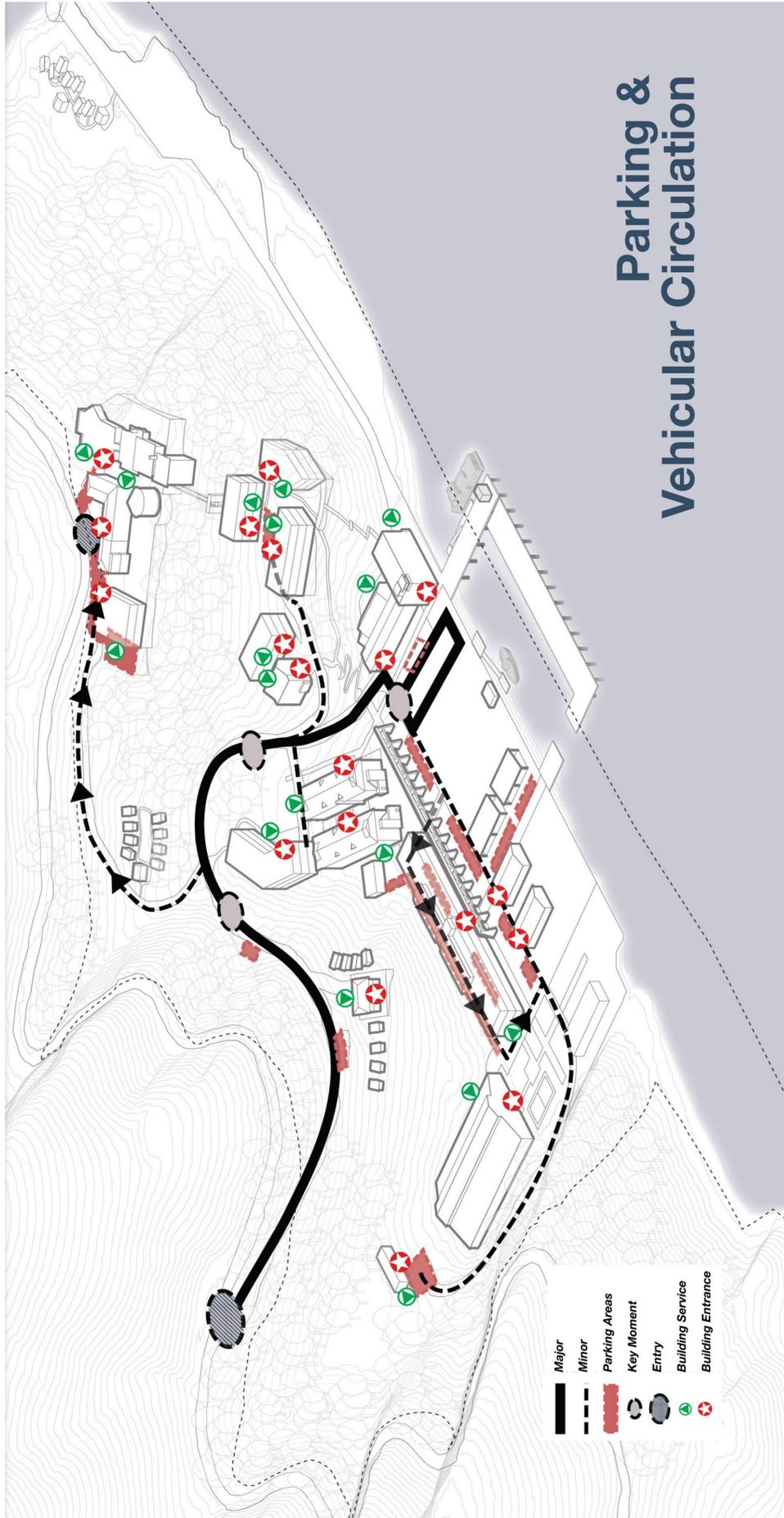
- Academic
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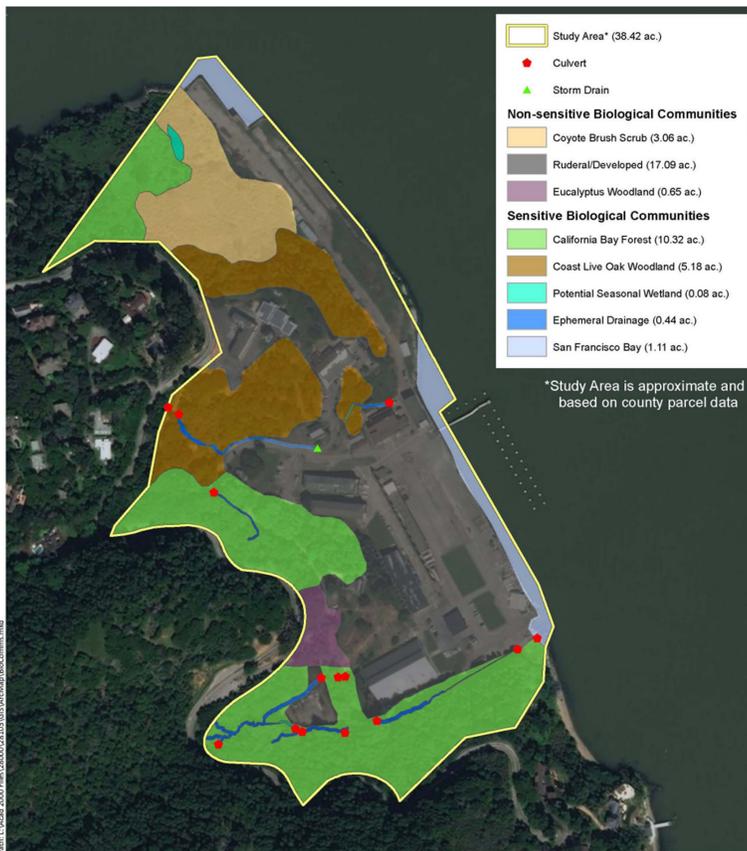




# Vehicular Circulation & Parking



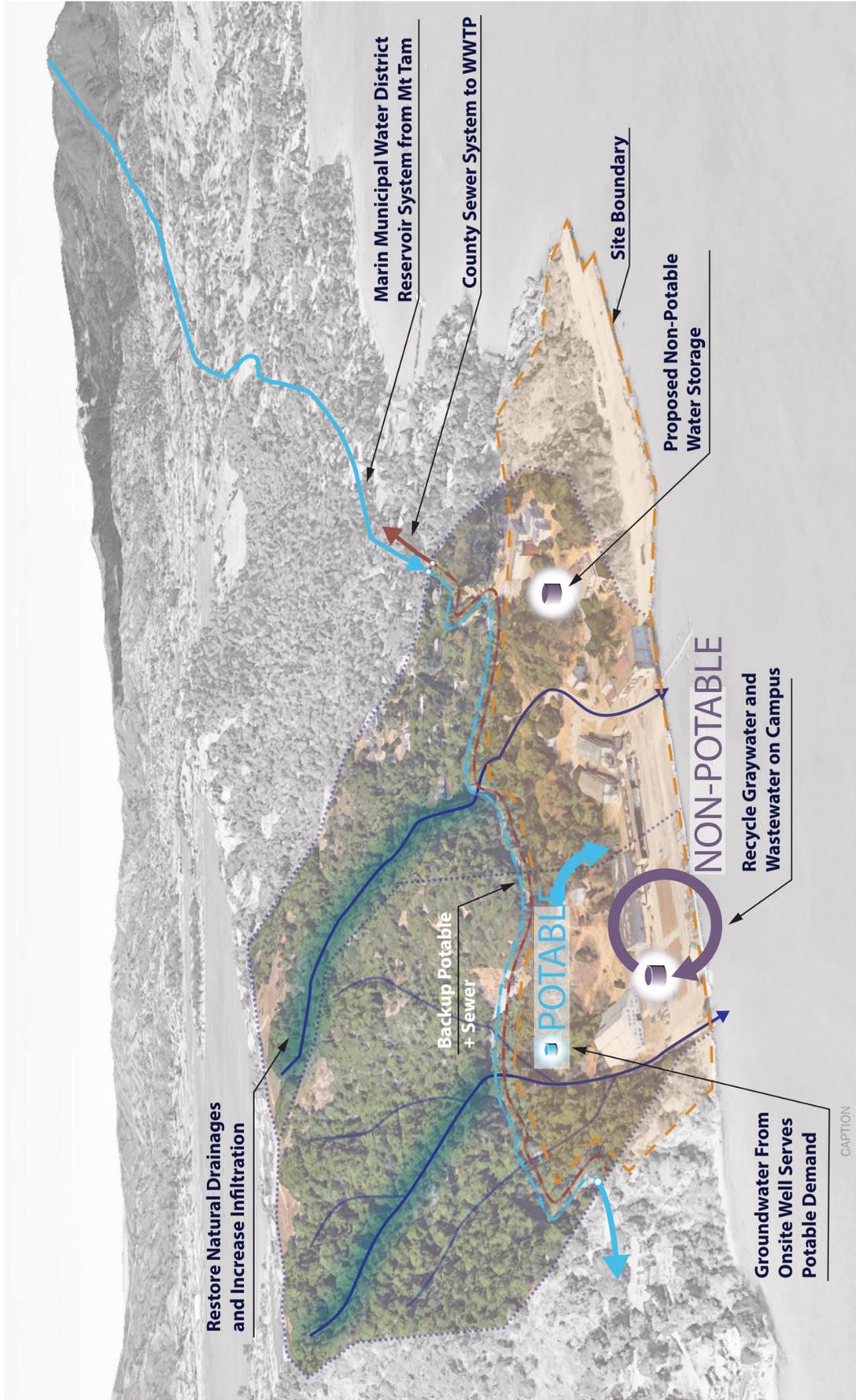
### SITE CONDITIONS - ECOLOGY AND SEA LEVEL RISE



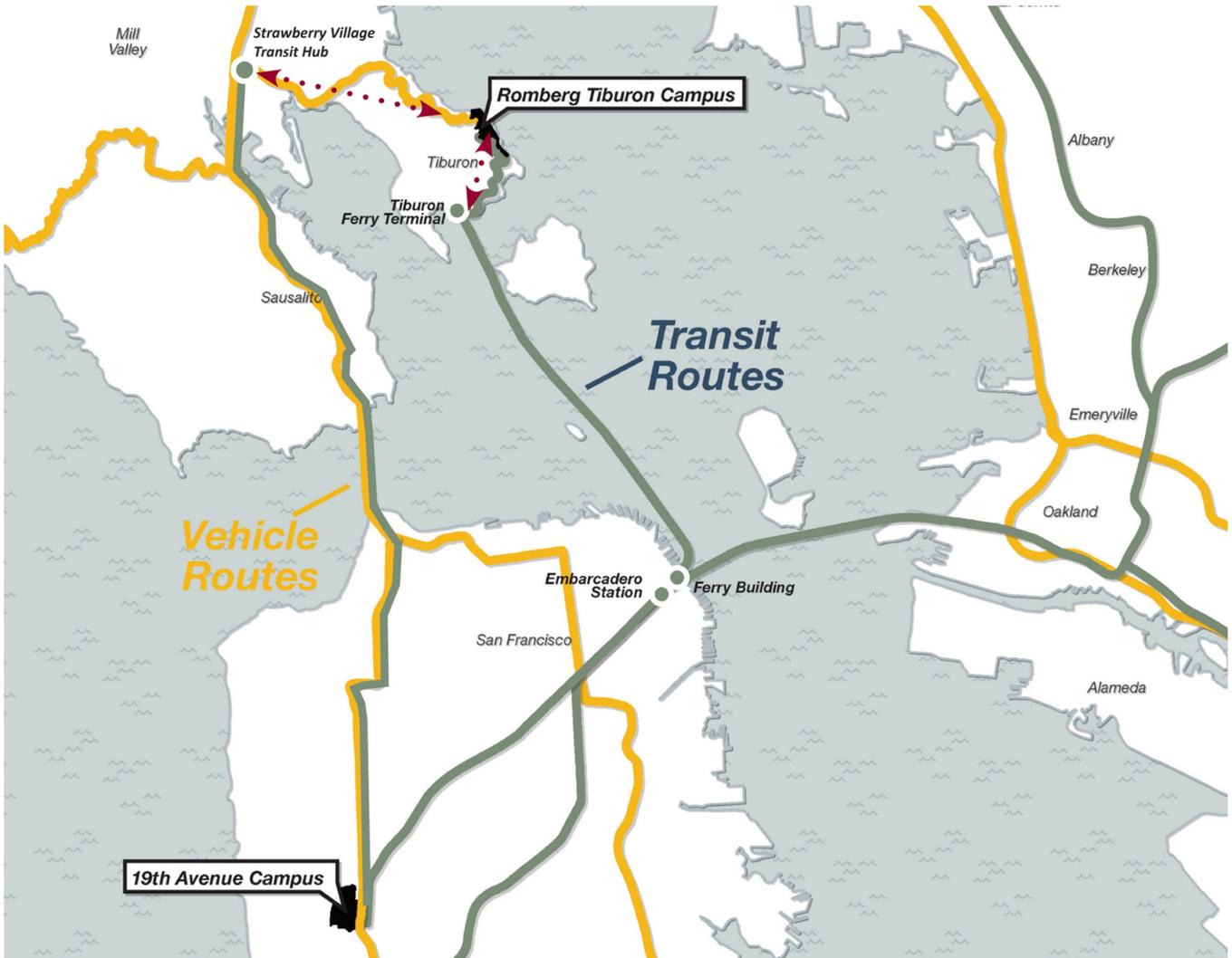
Sources: 2016 DigitalGlobe Aerial, WRA | Prepared By: smortensen, 1/10/2019



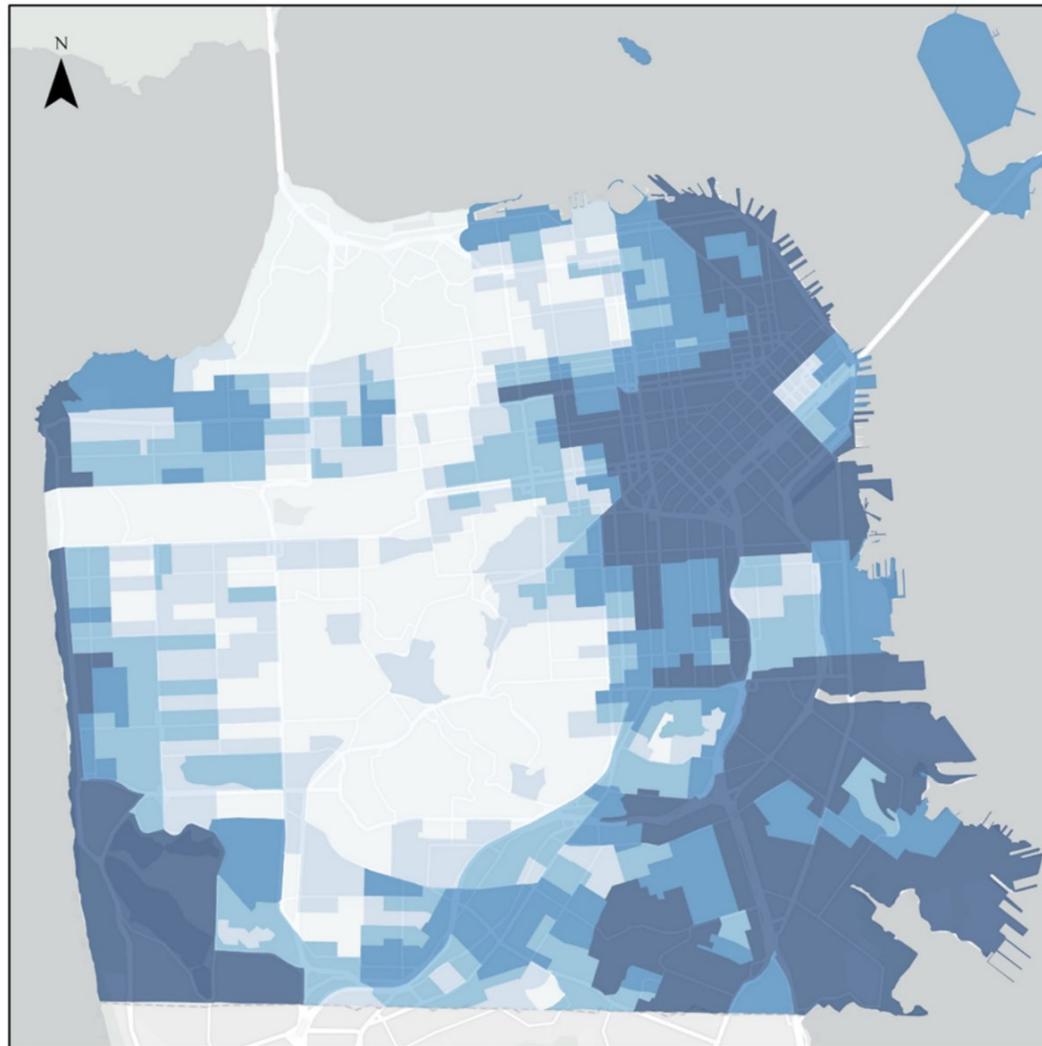
**SITE WATER SYSTEMS DIAGRAM**



CAPTION



**FIGURE 4-21  
FLOOD VULNERABILITY INDEX**



0 0.5 1 2 Miles

**Vulnerable Populations**

- Flood Health Vulnerability
- Very Low Vulnerability
  - Low Vulnerability
  - Medium Vulnerability
  - High Vulnerability
  - Very High Vulnerability

Data Sources:  
San Francisco Department of Public Health, Climate and Health Program (2015)



This map provides general information related to hazard potential, planning areas, and impact severity. It is not intended for permitting, regulatory, or other legal uses. Risk zones are based on model outputs, and site specific conditions may not be fully represented.

Figure 4-21 from the City of San Francisco’s Hazards and Climate Resilience Plan (2020).

**FIGURE 4-25**  
**100-YEAR STORM FLOOD RISK HAZARD MAP**

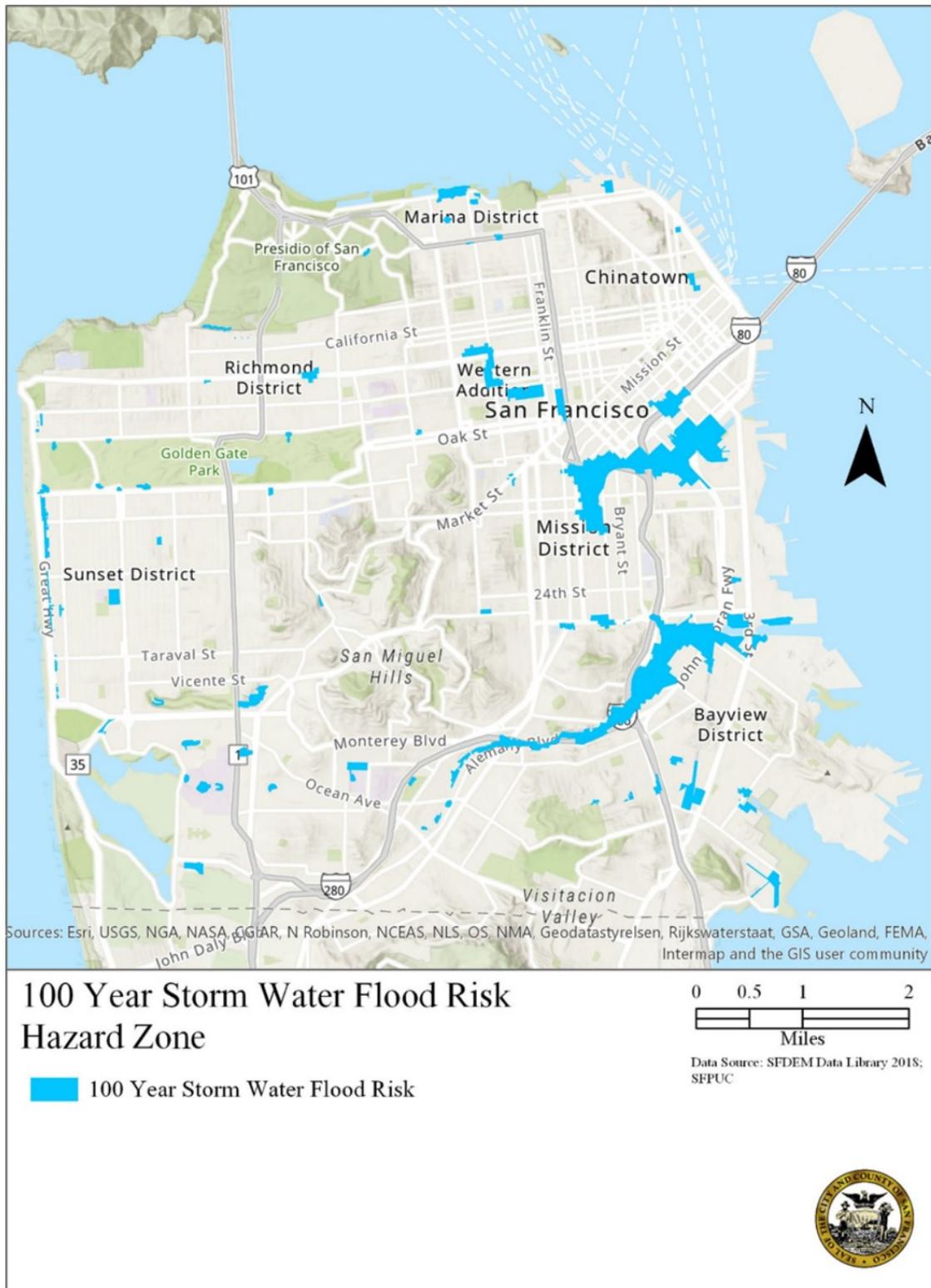


Figure 4-25 from the City of San Francisco’s Hazards and Climate Resilience Plan (2020).



[www.CommunityResilienceBuilding.org](http://www.CommunityResilienceBuilding.org)