

ASCENT

ADDENDUM NO. 6 to the
California State Polytechnic University
2004 Master Plan Environmental Impact Report
Energy Research and Sustainability Center Project

Prepared for:



California State Polytechnic
University, Humboldt
Facilities Management
Planning, Design &
Construction
1 Harpst Street
Arcata, CA 95521

October 2024

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CALIFORNIA STATE POLYTECHNIC UNIVERSITY 2004 MASTER PLAN
Environmental Impact Report
Energy Research and Sustainability Center Project

Prepared for:



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October 2024

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LIST OF ABBREVIATIONS

A&R	Academics & Research
AQMD	Air Quality Management District
BEF	Buildings, Energy & Fuels
BMP	Best Management Practices
Cal Poly Humboldt	California State Polytechnic University at Humboldt
CalEEMod	California Emissions Estimator Model
Campus Master Plan	Campus Master Plan Update
CAP	Climate Action Plan
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO ₂	carbon dioxide
CSO	Carbon Sequestration & Offset
CSU	California State University
EGU	electric generating units
EHS	Environmental Health and Safety Department
EIR	Final Environmental Impact Report
EO	Executive Order
EPA	US Environmental Protection Agency
ERSC	Energy Research and Sustainability Center
EV	electric vehicle
FHSZ	Fire Hazard Severity Zone
FTES	full-time-equivalent students
GHG	greenhouse gas
gsf	gross square feet
GWP	global warming potential
LCFS	Low Carbon Fuel Standard
LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design
MPO	metropolitan planning organizations
MTCO _{2e}	metric tons of carbon dioxide equivalent
NO _x	nitrogen oxides

NPDES	National Pollutant Discharge Elimination System Permit
OPR	Office of Planning and Research
PM ₁₀	particulate matter less than 10 micrometers in diameter
PM _{2.5}	particulate matter less than 2.5 micrometers in diameter
sf	square-foot
SO ₂	sulfur oxides
SRA	State Responsibility Area
SWP	Solid Waste & Purchasing
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TRA	Transportation
VOC	volatile organic compounds
ZEV	zero-emission vehicle
ZNE	zero net energy

1 INTRODUCTION

This document constitutes Addendum #6 to the Final Environmental Impact Report (EIR) for the California State Polytechnic University at Humboldt (Cal Poly Humboldt) Campus Master Plan Update (Campus Master Plan) (State Clearinghouse #2004052085), certified by the California State University (CSU) Board of Trustees in November 2004. The Campus Master Plan addresses all aspects of future physical development and land use on the campus to accommodate an enrollment increase to 12,000 full-time-equivalent students (FTES) from the previous enrollment estimate of 8,000 FTES.

This EIR Addendum has been prepared to address minor project changes to the Campus Master Plan associated with the Energy Research and Sustainability Center (ERSC) as currently proposed, as well as changed circumstances and new information since certification of the Master Plan EIR. This section of the EIR Addendum describes the purpose of the addendum, an overview of the Master Plan EIR, and an updated description of the project (including a discussion of changes to the project compared to what was evaluated in the Master Plan EIR).

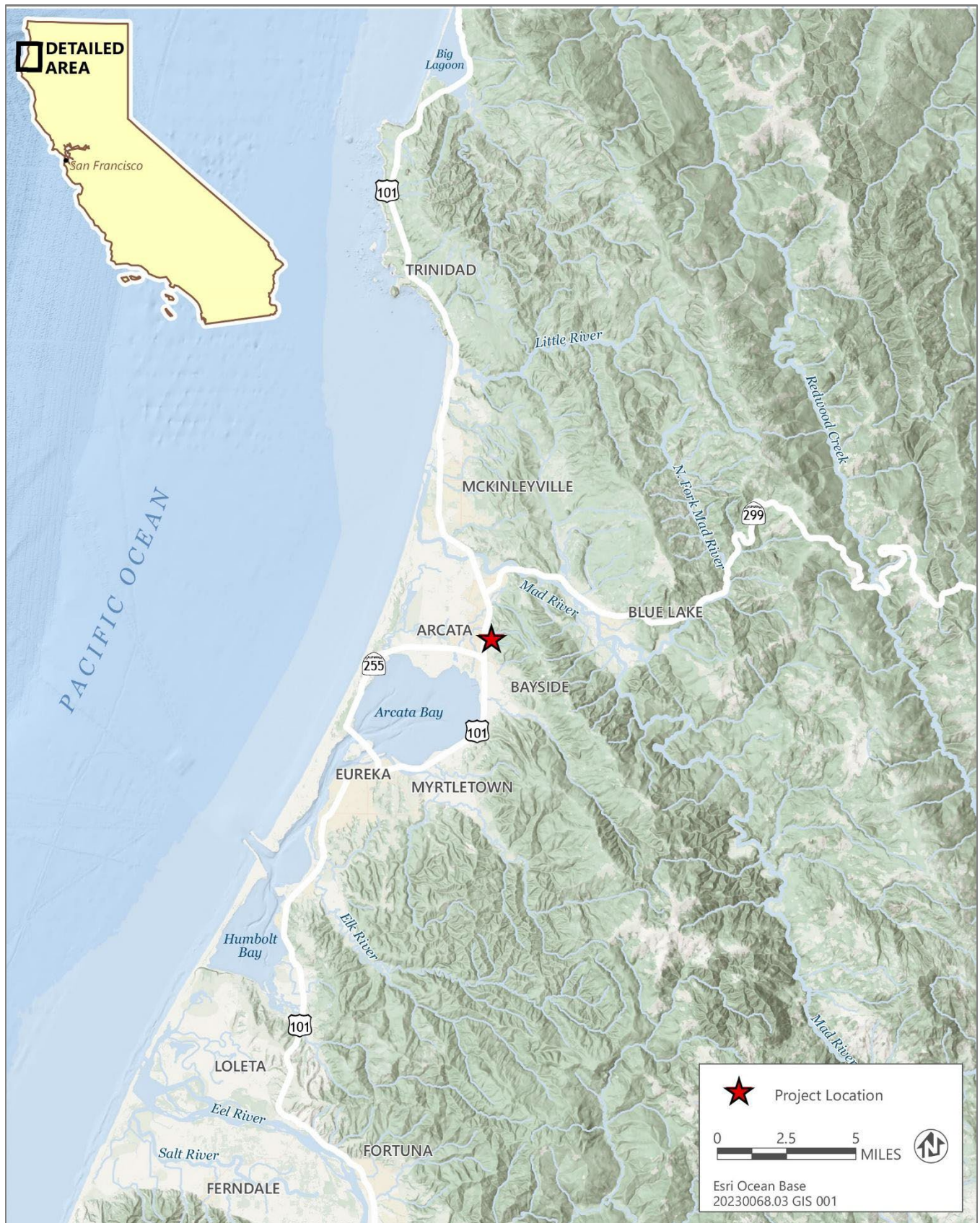
1.1 PURPOSE OF AN EIR ADDENDUM

Once an EIR or other California Environmental Quality Act (CEQA) document has been prepared and certified/adopted for a project, no additional environmental review is necessary unless certain conditions are met, at which point subsequent review under CEQA may be necessary. Sections 15162-15164 of the CEQA Guidelines define the standards for determining the appropriate level of subsequent environmental review and Section 15164 addresses the specific circumstances requiring the preparation of an addendum to an EIR. If new significant impacts or a substantial increase in the severity of impacts would result, then preparation and circulation of a Subsequent or Supplemental EIR for additional public review is required. However, when it can be determined that neither the proposed changes to the project, changed circumstances, or new information result in the identification of new significant impacts, or the substantial increase in the severity of significant impacts identified in the certified EIR, an addendum to the EIR may be prepared. Public review of an addendum is not required under CEQA.

An addendum to the certified Master Plan EIR has been determined to be the appropriate environmental documentation for the modified project. The Student Center South and the South Campus Parking Structure were previously contemplated for a portion of the project site in the Campus Master Plan and Master Plan EIR. This Addendum to the Master Plan EIR was prepared pursuant to CEQA Guidelines Section 15164 to address minor project changes, changed circumstances, and new information since certification of the Master Plan EIR.

1.2 PROJECT LOCATION

The Cal Poly campus is located within the City of Arcata in Humboldt County, California, as shown in Figure 1-1. Within the campus, the project site is located within 0.85 acres of the existing developed campus and currently contains the Toddler Center, Baiocchi House, Mary Warren House, and Walter Warren House (Figure 1-2). The project site is located northeast of the intersection of 14th Street and B Street, and is generally bounded by the Schatz Energy Research Center, General Parking Lot G15 to the east, 14th Street to the south, and the Marketing and Communications building to the west. Access to the site is available from 14th Street and B Street.



Source: Adapted by Ascent in 2023.

Figure 1-1 Regional Location



Source: Adapted by Ascent in 2023.

Figure 1-2 Project Location

1.3 OVERVIEW OF THE CAMPUS MASTER PLAN AND EIR

Cal Poly Humboldt's Campus Master Plan addresses the functional organization of the campus to accommodate enrollment up to 12,000 FTES within 144 acres east of State Route 101. The Campus Master Plan is intended to guide the physical development of the Cal Poly Humboldt campus through 2044 to accommodate the evolving needs of the university's future student and faculty housing, dining, and parking. In total, the Campus Master Plan includes approximately 756,000 gross square feet (gsf) of new construction for academic and support facilities, and the removal of approximately 460,000 gsf of buildings. The Master Plan EIR is considered a program-level EIR and a project-level EIR, and it evaluated (where possible) projects at enough detail to permit project-specific evaluation of potential environment impacts. The ERSC project would be located in the space currently occupied by the Toddler Center, Baiocchi House, Mary Warren House, and Walter Warren House, and programmed for the Student Center South (77) and the South Campus Parking Structure in the 2004 Master Plan.

Within the adopted Campus Master Plan and as evaluated in the Master Plan EIR (see Figure 1-3a and 1-3b), three laboratory buildings were contemplated for development. The fifth addendum to the Master Plan EIR addressed modifications to the location, size, and function of two of the three anticipated laboratory buildings. The previously anticipated laboratory uses were consolidated into a single building (hereafter referred to as the Engineering and Technology [E&T] building) within the center of campus (i.e., Phase 1, Building F and Phase II, Building M from the Campus Master Plan became the E&T building [Building 114 on the current Campus Master Plan Map]).

As approved under Addendum #5 to the Master Plan EIR, the combined floor area of Building F (34,000-square-foot (sf), four-story building on 0.7 acre) and Building M (58,000-sf, four-story building on approximately 0.8 acre) in the Campus Master Plan were consolidated in order to enable efficiencies in design and operations of Cal Poly Humboldt's academic programming. The E&T building was ultimately approved to support a reduced total square footage (a decrease of 34,000 sf) of programming within the Campus Master Plan.

The proposed ERSC project represents further improvements to academic facilities to meet the needs for energy research and sustainability programming at Cal Poly Humboldt. The ERSC project, as explained in further detail below, would be 17,355 sf, two stories high, and located on 0.85 acres. Staging areas for the project include parking lot G14, which consists of approximately 0.5 acres, and approximately 9.5 acres at 2000 Foster Avenue, a university-owned undeveloped property approximately one mile from the campus (see Figure 1-8). Taking into consideration the prior consolidation of academic programming needs, this development would not exceed the programmed square footage contemplated for Buildings F and M in the Campus Master Plan, inclusive of development approved as part of the E&T building (as addressed in Addendum #5 to the Master Plan EIR). That is, with approval of the ERSC project, the total combined academic programming would be below (16,645 sf less) what was anticipated in the 2004 Master Plan and evaluated in the Master Plan EIR through Addendum #5. Due to modifications to the overall programming of the campus and total square footage compared to the current approved Campus Master Plan, an addendum to the Master Plan EIR is considered appropriate to address the current proposed project.

1.4 PROJECT OBJECTIVES

The objectives of the ERSC project are to:

- ▶ develop flexible and adaptable academic programming space to provide interdisciplinary and hands-on learning with flexible laboratory and display opportunities;
- ▶ expand student engagement and community project spaces;
- ▶ site campus facilities adjacent to the campus core and adjacent to similar programming;
- ▶ advance campus-wide environmental sustainability; and
- ▶ develop campus buildings that are consistent with the Pacific Northwest region's architectural style.

California State Polytechnic University, Humboldt

Campus Master Plan Enrollment: 12,000 FTE

Campus Master Plan approved by the Board of Trustees: May 1965

Master Plan Revision approved by the Board of Trustees: January 1967, January 1977, July 1977, November 1977, May 1978, March 1981, May 1990, November 2004

LEGEND: Existing Facility / *Proposed Facility*

NOTE: Existing building numbers correspond with building numbers in the Space and Facilities Data Base (SFDB)

List Revised by Cal Poly Humboldt: December 20, 2023

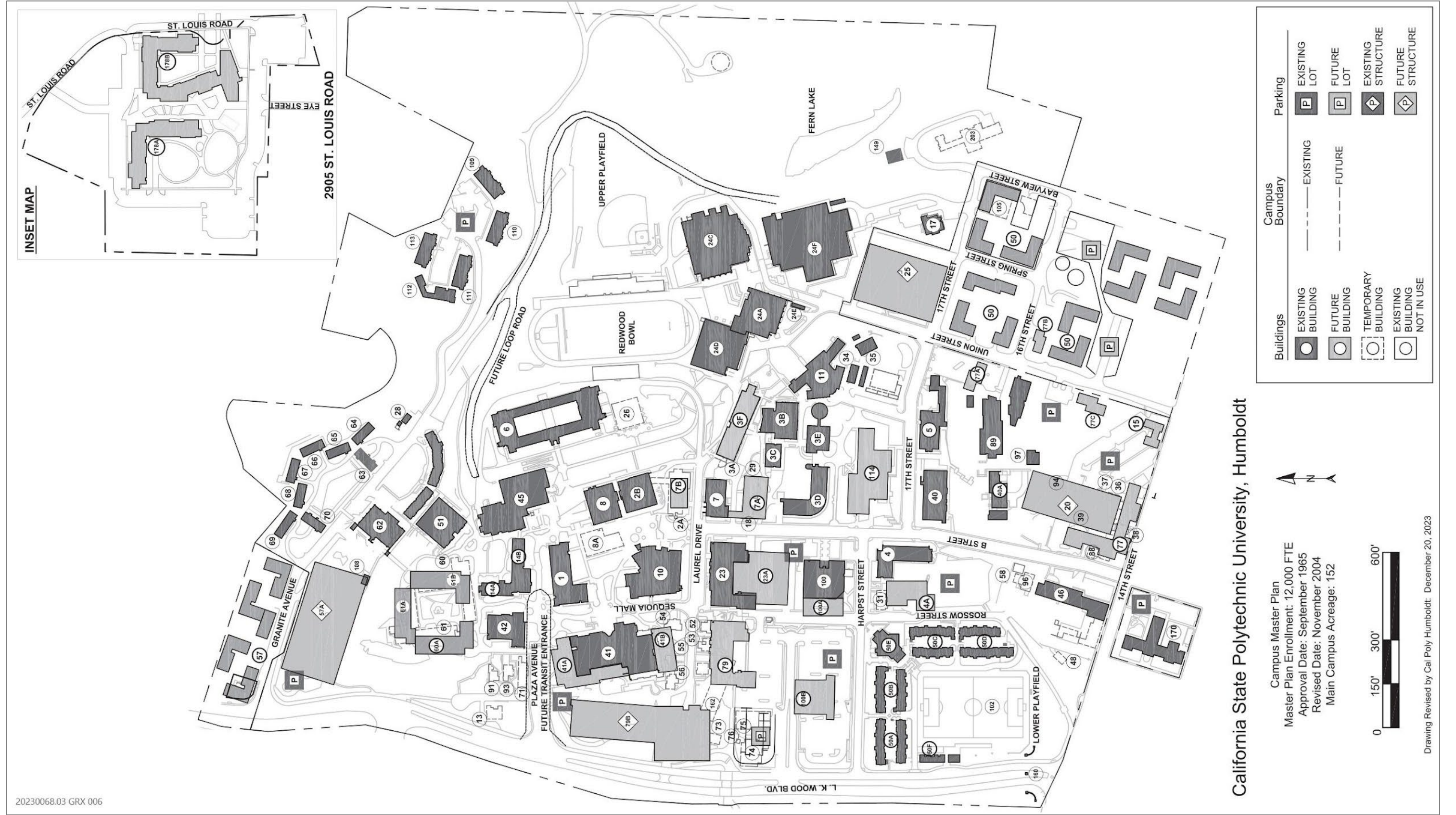
001. Siemens Hall	040. Natural Resources	077B. Student Activities
002A. Art A	040A. Schatz Energy Research Center	077C. Student Activities
002B. Art B	041. Library	079. Educational Service Buildings
003A. Science A	041A. Library Addition	079B. West Campus Parking Structure
003B. Science B	041B. Library Addition	082. Parking Kiosk
003C. Science C	042. Student Health & Counseling	088. Marketing & Communications
003D. Alistair McCrone Hall	045. Gutswurack Student Activities Center	089. Behavioral & Social Sciences
003E. Dennis K Walker Greenhouse	046. Facilities Management	091. Hagopian House
004. Harry Griffith Hall	048. Hazardous Waste Handling Facility	093. Brero House
004A. Classroom Building	049. Redwood Bowl	094. Jensen House
005. Forestry	049A. Redwood Bowl East Bleachers	096. Shipping & Receiving
006. Founders Hall	049B. Redwood Bowl West Bleachers	097. Buck House
007. Jenkins Hall	050. Student Housing	098. Upper Playing Field
007A. Jenkins Hall - Visual Art Renovation and Addition	050A. College Creek - Del Norte Residence Hall	100. Student & Business Services
007B. Jenkins Hall - Visual Art Renovation and Addition	050B. College Creek - Shasta Residence Hall	100A. Classroom Building
008A. Music A	050C. College Creek - Trinity Residence Hall	100B. Classroom Building
008B. Music B	050D. College Creek - Mendocino Residence Hall	102. College Creek Field
010. Theatre Arts	050E. College Creek Community Center	103. Campus Events Field
011. Wildlife & Fisheries	050F. College Creek Field Locker Room	105. Boat Facility
012. Observatory	051. Cypress Residence Hall	108. Housing Cogeneration Unit
013. Feuerwerker House	052. Bret Harte House	109. Creekview - Fern Residence Hall
014A. Nelson Hall West	053. Warren House	110. Creekview - Willow Residence Hall
014B. Nelson Hall East	054. Telonicher House	111. Creekview - Laurel Residence Hall
015. Figueiredo Building	055. Balabanis House	112. Creekview - Creekside Lounge
017. Marine Wildlife Care Center	056. Hadley House	113. Creekview - Juniper Residence Hall
018. Brookins House	058. Switchgear Building	114. Engineering & Technology
020. South Campus Parking Structure	060. Redwood Residence Hall	149. Wireless Communication Facility
023. Gist Hall	060A. Sunset Residence Hall Replacement	160. Entrance Gates
023A. Gist Hall - Theatre Arts Replacement and Addition	061. Sunset Residence Hall	162. Campus Apartments
024A. Forbes Gymnasium	061A. Redwood Residence Hall Replacement	163. Humboldt Bay Aquatic Center
024C. Student Recreation Center	061B. Redwood Residence Hall Replacement	170. Trinity Annex
024D. Recreation & Wellness Center	062. Jolly Giant Commons	175. Corporation Yard
024E. Cogeneration Unit	063. Pepperwood Residence Hall	176. Campus Store Arcata
024F. Kinesiology & Athletics	064. Tan Oak Residence Hall	177. Stewart Building
25. East Campus Parking Structure	065. Maple Residence Hall	178A. 2905 St. Louis Rd Student Housing I
26. Van Matre Hall	066. Madrone Residence Hall	178B. 2905 St. Louis Rd Student Housing II
27. Telonicher Marine Lab	067. Hemlock Residence Hall	206. Schatz Forestry Research Station
28. Housing Operations Building	068. Chinquapin Residence Hall	207. KHSU Kneeland Transmitter Site
29. Experimental Greenhouse	069. Alder Residence Hall	208. Third Street Property
031. Swetman Child Development Lab	070. Cedar Residence Hall	209. Campus Store Eureka
033. Wells Fargo Building	071. Little Apartments	210. Comfort Inn Housing
034. Wildlife Game Pens	073. Wagner House	300. Redwood Sciences Lab
035. Fish Hatchery	074. Ceramics Lab	302. Turner House
036. Mary Warren House	075. Sculpture Lab	303. Union Street Duplex Residence
037. Baiocchi House	076. Water Tower	304. 71 14th Street Residence
038. Walter Warren House	077. Student Center South	305. 570 Granite Avenue
039. Toddler Center	077A. Student Activities	

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Source: Cal Poly Humboldt.

Figure 1-3a Campus Master Plan Legend (Adopted)

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California State Polytechnic University, Humboldt

Campus Master Plan
Master Plan Enrollment: 12,000 FTE
Approval Date: September 1965
Revised Date: November 2004
Main Campus Acreage: 152

Source: Cal Poly Humboldt.

Figure 1-3b Campus Master Plan (Adopted)

1.5 PROJECT DESCRIPTION

The modified project would provide a single, two-story structure with 17,355 square feet of programmable space for teaching labs, offices, and research labs. The modified project would also involve demolition of the Toddler Center, Baiocchi House, Mary Warren House, Walter Warren House, and Jensen House. The area currently occupied by the Jensen House would not be redeveloped with academic uses as part of the modified project and would become open space and restored hillside. The proposed ERSC would occupy the area where the Toddler Center, Baiocchi House, Mary Warren House, Walter Warren House currently exist. Within the Campus Master Plan, the project site is currently designated as Student Center South (77) and the South Campus Parking Structure (20). As part of the modified project, the Campus Master Plan would be amended, as shown in Figures 1-4a and 1-4b, to reflect the modified project.

1.5.1 Demolition of Existing Buildings

To accommodate the ERSC building, the Toddler Center, Baiocchi House, Mary Warren House, and Walter Warren House would be removed/demolished. With the exception of Walter Warren House, these on-site buildings previously provided services for Humboldt's Children's Center, the university's on-campus daycare and preschool. However, the Children's Center moved operations to a purpose-built facility in the fall of 2023, and the buildings are now vacant. Walter Warren House currently houses the Indian Natural Resource Science & Engineering Program, which would move within the campus to available space at the Feuerwerker House. Table 1-1 provides an overview of the buildings planned for demolition.

Table 1-1 Buildings to be Demolished

Building	Year Constructed	Gross Square footage
Toddler Center	2001	970
Baiocchi House	Pre-1950	1,832
Mary Warren House	1931	3,002
Walter Warren House	1941	2,680
Jensen House	Pre-1950	1,273

Source: Cal Poly Humboldt in 2024.

1.5.2 Project Design

As noted previously and as shown in the site plan depicted in Figure 1-5, the proposed ERSC building would be 17,355 sf and two stories in height (approximately 28 feet tall). The interior layout of the building consists of public and user-activated spaces arranged around entrances. The building would include a seminar room, classroom, library, laboratory space, student workshop and workroom, meeting spaces, and nine offices. The building's appearance would be consistent with the prevalent campus style, characterized by flat-roof architecture, large windows, and earth-toned exterior materials, over a timber-framed structure with cold-formed steel stud non-bearing shear walls that would not contain reflective surfaces (see Figure 1-6 for a rendering of the building).

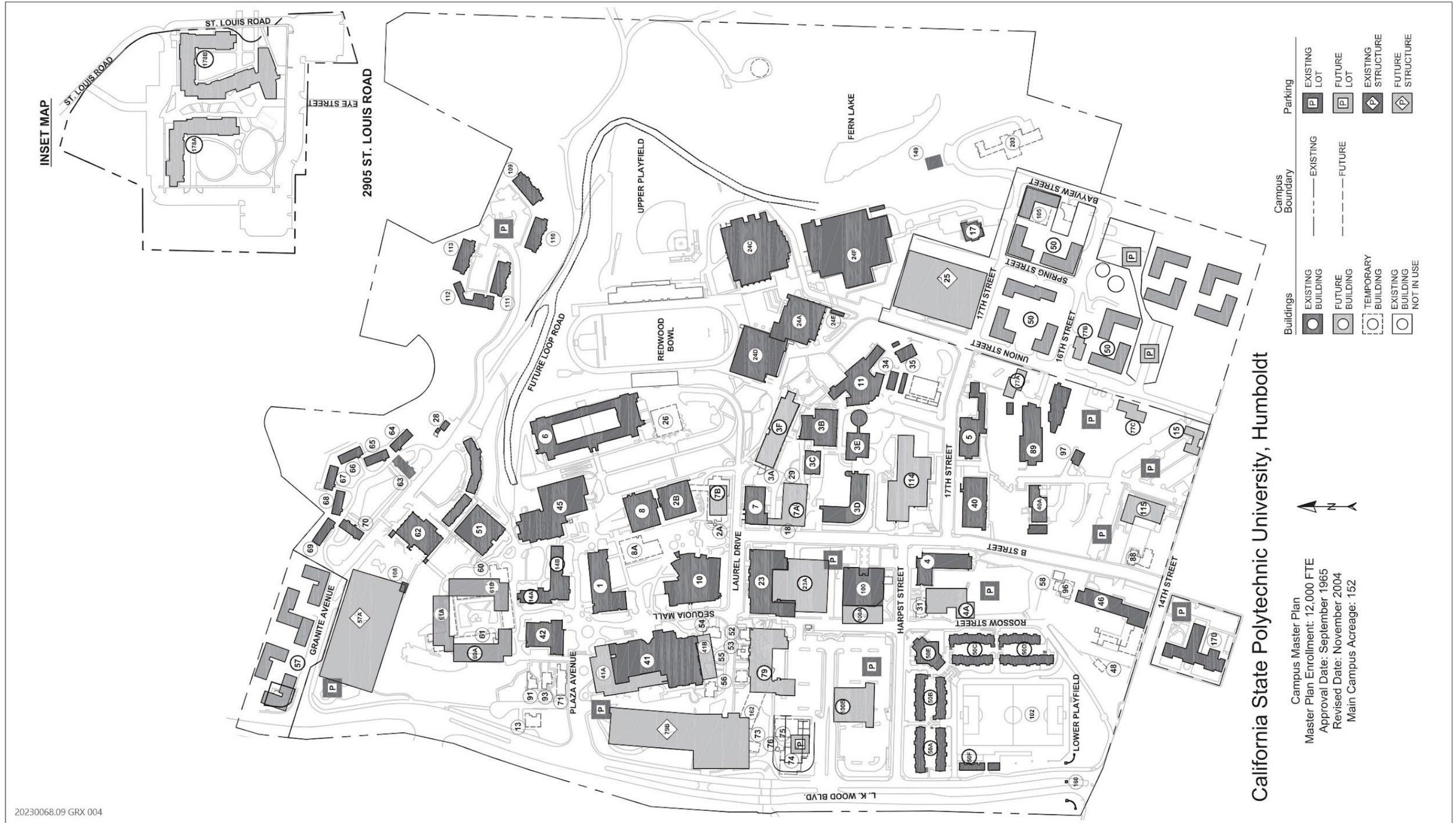
Because the project site slopes from the high side on the east end to a relatively flat area at the west end, primary entry to the building would be provided at the northwestern corner of the building. The majority of the building square footage would be located on the second floor with a 5,442-sf first floor and a 11,913-sf second floor. The differences in building floor areas reflects the sloped site, which a smaller first floor compared to the second floor.

001. Siemens Hall	040. Natural Resources	077B. Student Activities
002A. Art A	040A. Schatz Energy Research Center	077C. Student Activities
002B. Art B	041. Library	079. Educational Service Buildings
003A. Science A	041A. Library Addition	079B. West Campus Parking Structure
003B. Science B	041B. Library Addition	082. Parking Kiosk
003C. Science C	042. Student Health & Counseling	088. Marketing & Communications
003D. Alistair McCrone Hall	045. Gutswurak Student Activities Center	089. Behavioral & Social Sciences
003E. Dennis K Walker Greenhouse	046. Facilities Management	091. Hagopian House
004. Harry Griffith Hall	048. Hazardous Waste Handling Facility	093. Brero House
004A. Classroom Building	049. Redwood Bowl	096. Shipping & Receiving
005. Forestry	049A. Redwood Bowl East Bleachers	097. Buck House
006. Founders Hall	049B. Redwood Bowl West Bleachers	098. Upper Playing Field
007. Jenkins Hall	050. Student Housing	100. Student & Business Services
007A. Jenkins Hall - Visual Art Renovation and Addition	050A. College Creek - Del Norte Residence Hall	100A. Classroom Building
007B. Jenkins Hall - Visual Art Renovation and Addition	050B. College Creek - Shasta Residence Hall	100B. Classroom Building
008A. Music A	050C. College Creek - Trinity Residence Hall	102. College Creek Field
008B. Music B	050D. College Creek - Mendocino Residence Hall	103. Campus Events Field
010. Theatre Arts	050E. College Creek Community Center	105. Boat Facility
011. Wildlife & Fisheries	050F. College Creek Field Locker Room	108. Housing Cogeneration Unit
012. Observatory	051. Cypress Residence Hall	109. Creekview - Fern Residence Hall
013. Feuerwerker House	052. Bret Harte House	110. Creekview - Willow Residence Hall
014A. Nelson Hall West	053. Warren House	111. Creekview - Laurel Residence Hall
014B. Nelson Hall East	054. Telonicher House	112. Creekview - Creekside Lounge
015. Figueiredo Building	055. Balabanis House	113. Creekview - Juniper Residence Hall
017. Marine Wildlife Care Center	056. Hadley House	114. Engineering & Technology
018. Brookins House	058. Switchgear Building	115. Energy Research + Sustainability Center
023. Gist Hall	060. Redwood Residence Hall	149. Wireless Communication Facility
023A. Gist Hall - Theatre Arts Replacement and Addition	060A. Sunset Residence Hall Replacement	160. Entrance Gates
024A. Forbes Gymnasium	061. Sunset Residence Hall	162. Campus Apartments
024C. Student Recreation Center	061A. Redwood Residence Hall Replacement	163. Humboldt Bay Aquatic Center
024D. Recreation & Wellness Center	061B. Redwood Residence Hall Replacement	170. Trinity Annex
024E. Cogeneration Unit	062. Jolly Giant Commons	175. Corporation Yard
024F. Kinesiology & Athletics	063. Pepperwood Residence Hall	176. Campus Store Arcata
025. East Campus Parking Structure	064. Tan Oak Residence Hall	177. Stewart Building
026. Van Matre Hall	065. Maple Residence Hall	178A. 2905 St. Louis Rd Student Housing I
027. Telonicher Marine Lab	066. Madrone Residence Hall	178B. 2905 St. Louis Rd Student Housing II
028. Housing Operations Building	067. Hemlock Residence Hall	206. Schatz Forestry Research Station
029. Experimental Greenhouse	068. Chinquapin Residence Hall	207. KHSU Kneeland Transmitter Site
033. Wells Fargo Building	069. Alder Residence Hall	208. Third Street Property
034. Wildlife Game Pens	070. Cedar Residence Hall	209. Campus Store Eureka
035. Fish Hatchery	071. Little Apartments	210. Comfort Inn Housing
	073. Wagner House	300. Redwood Sciences Lab
	074. Ceramics Lab	302. Turner House
	075. Sculpture Lab	303. Union Street Duplex Residence
	076. Water Tower	304. 71 14th Street Residence
	077A. Student Activities	305. 570 Granite Avenue

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Source: Cal Poly Humboldt 2024

Figure 1-4a Campus Master Plan Legend (Modified)



Source: Cal Poly Humboldt 2024.

Figure 1-4b Campus Master Plan (Modified)



Source: Provided by Cal Poly Humboldt in 2023.

Figure 1-5 Site Plan



Source: Provided by Cal Poly Humboldt in 2024.

Figure 1-6 Building Rendering

Within the remainder of the project site, accessible paths of travel to the main building entry would be provided via sidewalks along B Street. Parking would also be provided on campus at parking lot G14, located east of the project site, and would include accessible stalls and an accessible path of travel. Exterior bike racks would be installed along the west side of the building. Lighting would include light-emitting diode (LED) wall packs above exterior doors and LED pole-mounted fixtures (approximately 12-15 feet in height) along pedestrian walkways. Light standards (approximately 20-25 feet tall) would also be installed along B Street and 14th Street. The building would comply with the CSU Sustainability Policy, Cal Poly Humboldt Campus Master Plan design guidelines, and currently adopted California Building Code Title 24 energy efficiency measures. Emergency access would be provided via the existing parking lot and adjacent streets and was determined to be sufficient by the Arcata Fire Protection District (Cal Poly Humboldt 2024).

1.5.3 Academic Programming

As noted above, the building would provide necessary space for Cal Poly Humboldt's Environmental Resources Engineering, Mechanical Engineering, Environmental Sciences, and Technology departments within the College of Natural Resources and Sciences. The ground floor of the ERSC would include a 1,444-sf seminar room, two 113-sf huddle spaces, a 243-sf student workroom, 10 open workspaces, restrooms, and a 586 sf library. The second story would include a 1,682-sf classroom, 386-sf student work space, 273-sf conference space, nine offices, and a 1,979-sf outdoor solar laboratory.

1.5.4 Utilities

The proposed ERSC would connect to existing campus infrastructure and would not require improvements outside of the immediate project area. The water supply pipelines would be connected to the water main located in B Street via a new 3-inch pipeline. Water for fire suppression purposes would be provided throughout the building in separate 6-inch pipelines that would connect to the aforementioned water main within B Street.

Sanitary sewer lines would connect to an existing 6-inch pipeline located in 14th Street to the south of the project site. A new storm drainage system would be installed to convey rainwater from the roof of the building expansion to a point of discharge at the exterior to the building. At the flat roof areas, primary roof drains would be piped within the building to below grade, where it would be routed to treatment planters. Secondary overflow drains would also be piped within the building and would daylight above grade. The storm drain system would feed into a retention basin located along the southern edge of the project site.

Electrical service for the building would be available via the existing medium voltage (MV) 12.47kV campus service, accessible via a manhole in B Street. Additionally and as of January 2023, Title 24 Section 140.10 code requires that all newly constructed buildings consisting of High-Rise Multi-Family Units, Offices, Schools, Auditoriums, and Libraries be provided with photovoltaic and battery storage systems. To meet the requirements of Title 24 Section 140.10 and separate from the contemplated development evaluated herein, Cal Poly Humboldt is in the process of building a campus-wide microgrid system, which would offset the solar electric generator system and battery storage system required by the ERSC. As a result and taking into account an exception to provision of solar facilities with individual projects under Section 140.1(b), the modified project would only provide a conduit pathway from the main electrical room to the roof for future PV. Natural gas utility services would not be provided to the building.

1.5.5 Project Construction

Construction of the ERSC would begin with site preparation, which would include site mobilization and demolition of Toddler Center, Baiocchi House, Mary Warren House, Walter Warren House, and Jensen House, followed by clearing and grubbing, site grading, and extension of utilities to the site. Several ornamental trees (up to 10, including three smaller redwoods) located along the eastern edge of the project site would also be removed as part of the proposed on-site development. Following completion of site preparation activities, the proposed ERSC would be constructed in a single phase.

Construction staging would occur in two locations due to space constraints and the need to maintain adequate parking within the campus. One construction staging area would be provided on the main campus within parking lot G14 at the corner of 17th Street and Union, and an additional off-campus staging area would be provided off-campus at 2000 Foster Avenue in Arcata (as shown in Figure 1-7). Parking lot G14 (approximately 0.5 acre in size) would be primarily used for temporary construction trailers and immediate building material needs and equipment storage. Some parking for construction workers would be provided.

The 2000 Foster Avenue staging area consists of 16 acres, of which approximately 9.5 acres would be used for temporary construction staging and the remainder of construction worker parking needs. Of the 9.5 acres, 3.7 acres would be used for contractor parking, and 5.8 acres to be used for temporary material storage and staging. To support temporary use of the 2000 Foster Avenue staging area, light grading, placement of geotechnical fabric, and installation of gravel would be necessary. Heavy equipment (e.g., loaders) at the 2000 Foster Avenue staging area would be limited to those associated with building materials movement and storage. Staging activities at the 2000 Foster Avenue staging area would not modify the existing drainages along Foster Avenue, and a minimum 100-foot buffer would be established between the riparian area and the staging area to avoid discharge to or other modification of McDaniel Slough, and stormwater controls consistent with a site-specific Stormwater Pollution Prevention Plan (SWPPP) for the 2000 Foster Avenue staging area would be implemented. A physical barrier would also be installed around the portion of 2000 Foster Avenue that would be used as the staging area to safely exclude reptiles and amphibians from the construction site.



Source: Cal Poly Humboldt.

Figure 1-7 Construction Worker Parking and Staging Areas

Project construction would begin in March 2025, be completed over an approximately 18-month period, and be ready for occupancy in Spring 2026. During construction, up to 70 construction workers would be on-site daily. Construction would generally occur Monday through Friday between the hours of 7:30 a.m. and 7:00 p.m., with the potential for weekend construction on Saturday between 9:00 a.m. and 7:00 p.m. Shuttle service would be provided between the 2000 Foster Avenue staging area and the project site for construction workers parking at the secondary (i.e., 2000 Foster Avenue) staging area. For the purposes of this analysis, it is assumed that up to 65 construction workers may park at the 2000 Foster Avenue staging area on a daily basis. No construction would occur on Sundays or holidays.

Construction Waste Management. The modified project would generate construction debris during on-site clearing and demolition activities. In accordance with Section 5.408 of CALGreen, the modified project would implement a construction waste management plan for recycling and/or salvaging for reuse of at least 65 percent of nonhazardous construction/demolition debris. Additionally, the modified project would be required to meet Leadership in Energy and Environmental Design (LEED) v4 requirements for waste reduction during construction.

Construction Traffic Control. As part of the modified project, Cal Poly Humboldt would prepare a construction traffic control plan that illustrates the location of the proposed work area; identifies areas where the public right-of-way would be closed or obstructed and the placement of traffic control devices necessary to perform the work; shows the proposed phases of traffic control; and identifies the periods when the traffic control would be in effect and, although not expected, periods when work might prohibit access to private property from a public right-of-way. The traffic control plan would also provide information on access for emergency vehicles to prevent interference with emergency response. A shuttle system for construction workers would be provided from the 2000 Foster Avenue staging area to the campus.

1.5.6 Summary of Project Modifications

As discussed above, the modified project involves planned demolition of the Jensen House, Mary Warren House, Baiocchi house, Walter Warren House, and the Toddler Center and development of the ERSC building in order to meet academic programming needs. The following list summarizes the proposed changes to the approved Campus Master Plan to reflect the proposed ERSC building:

- ▶ Provide consolidated academic building space within ERSC to meet the needs for energy research and sustainability programming instead of two separate Laboratory Buildings (Labs 2 and 3/Buildings F and M);
- ▶ Amend the Campus Master Plan to remove Student Center South (77) and the South Campus Parking Structure (20);
- ▶ Decrease in overall development height at the project site from 4 stories to 2 stories; and
- ▶ Temporary use of 2000 Foster Avenue for construction worker parking and staging.

1.6 PROJECT APPROVALS

This section describes discretionary actions required for project approval by state and regional agencies. Discretionary approval includes, but is not limited to, approval of the schematic designs for the modified project by the CSU Board of Trustees, as summarized in Table 1-2. Other approvals could also be necessary, as noted below.

Table 1-2 Project Approvals

Authorizing Jurisdiction or Agency	Action
CSU Capital Planning, Design, and Construction	
Schematic Plans for the Project and other related actions and approvals, as necessary	Approved December 2023
Division of the State Architect	
Accessibility Compliance	Approval
State Fire Marshal	
Facility Fire and Life Safety Compliance	Approval
Regional Water Quality Control Board	
National Pollutant Discharge Elimination System Permit (NPDES) –SWPPP and Notice of Intent (NOI) to Comply with NPDES Construction Permit	Approval/Enforcement

2 ENVIRONMENTAL ANALYSIS

As indicated in Section 1.1, "Introduction," an addendum to the certified Master Plan EIR has been determined to be the appropriate environmental documentation for the modified project. Programming space associated with the ERSC building was contemplated within campus as part of the Campus Master Plan and Master Plan EIR. This addendum to the Master Plan EIR was prepared pursuant to State CEQA Guidelines Section 15164 to address minor project changes, changed circumstances, and new information that have been identified since the EIR was certified.

This chapter evaluates the environmental implications of the minor project changes, changed circumstances, and new information. As demonstrated in each resource topic discussion in Sections 2.1 through 2.20, this chapter concludes that the project changes, changed circumstances, and new information would not result in new significant impacts or substantial increases in the severity of impacts previously identified in the Master Plan EIR. Overall, the modified project is within the scope of the project covered by the Master Plan EIR. A subsequent or supplemental EIR is not required.

Each environmental resource area analyzed in the Master Plan EIR is discussed in further detail below.

2.1 AESTHETICS

The Master Plan EIR analyzed aesthetics in Chapter 3.0. The Master Plan EIR concluded that the Campus Master Plan would have a less-than-significant impact on scenic vistas, scenic resources within a state scenic highway, visual character and quality, and lighting and glare with adherence, as described in Sections 1.6 and 1.7 of the Master Plan EIR, to the development requirements described in *Submittal Requirements and Procedure Guide for CSU Capital Projects* (pages 1-11 through 1-13 of the Master Plan EIR), as well as incorporation of the related mitigative elements of the Campus Master Plan—measures incorporated into the design and construction methods of Campus Master Plan projects to prevent and control potential environmental impacts (Humboldt State University 2004). The following mitigative elements were incorporated into the Campus Master Plan to reduce the impact on aesthetics:

1. New sources of light will be designed to protect nighttime views, including the night sky. This design goal will be satisfied using a variety of means as applicable, including fixture types, cut off angles, shields, lamp arm extensions, and pole heights. Specific design preferences include not directing light upward or to other properties, avoiding brightly illuminated vertical where feasible, such as walls and lamp poles, and not directing indoor lighting toward skylights. The most recent Recommended Practices (RPs) of the Illuminating Engineering Society of North America (IES) should be used for lighting levels and quality of light.
2. The removal of trees and tall brush that provide visual screening during construction will be avoided or lessened where feasible, and removed screening will be reestablished after construction where feasible. Landscaped areas should enhance the natural beauty of the site while accommodating the uses and functions of the facility.
3. Creating visual barriers inadvertently in the placement of structures and fencing will be avoided.
4. Buildings will be designed in an attractive and suitable architecture, and parking structures will be designed to lessen their appearance as stark parking structures and to appear more as architecturally suitable buildings. (Humboldt State University 2004)

This analysis evaluates potential impacts on scenic vistas, scenic resources within a state scenic highway, visual character and quality, and light and glare, based on the most recent update to Appendix G of the State CEQA Guidelines.

2.1.1 Scenic Vistas

As discussed in the Master Plan EIR, the campus is not located within a scenic vista. No scenic vistas have been identified at or near the project site, and the project would not significantly affect long-range public views as the

project site is not visible from outside the central portion of the Cal Poly Humboldt campus. Due to varying topography and levels of development, intermittent views of the hills east of US 101 are visible to motorists driving through Arcata on US 101. Generally, the landscape on campus would be considered an undulating mix of urban and rural uses. Visual quality ranges from moderately high to low depending on one's location and the particular scene. Views of the campus are blocked from many locations in the City Arcata by topography, buildings, and mature trees. The Master Plan EIR found that development of new structures on the campus under the Campus Master Plan would have a minor visual impact due to the varied topography and obstructed views of the campus (Humboldt State University 2004).

The project involves development of a consolidated academic building, the ERSC, which would meet the approved programming needs associated with Buildings F and M (included in the Campus Master Plan). As part of the approved Campus Master Plan, Buildings F and M were intended to provide 90,355 gross square feet (gsf) of laboratory space, of which 72,000 gsf were approved for development of the E&T building in Addendum #5 to the Master Plan EIR. The ERSC project consists of 17,355 sf, which would be within the remaining area approved for Buildings F and M in the Campus Master Plan (18,355 sf). In addition to the overall decrease in area associated with modifications to Buildings F and M, ERSC would rise to 2 stories rather than the approved 4-story buildings for these uses. To support the modification to the Campus Master Plan that would allow for development of the ERSC at its proposed location, two proposed but not yet constructed facilities, the Student Center South (22,000 gsf footprint/88,000 total gsf) and the South Campus Parking Structure (51,000 gsf footprint/306,000 total gsf), would be removed from the Campus Master Plan. These modifications represent an overall decrease in future development on campus in area and height, both through continuation of programmed laboratory space and removal of structures, compared to the Campus Master Plan. The proposed height of the on-site structure would be consistent with surrounding campus development and less than what was previously contemplated as part of the Campus Master Plan.

The 2000 Foster Avenue staging area is located along a two-lane rural road that provides access to the Arcata Bottom area. Use of this staging area would potentially affect the following views: 1) the rural agricultural views to the Arcata Bottom; 2) views of the McDaniel Slough riparian corridor; 3) views from adjacent public streets; and 4) distant views of the coastal dunes and horizon from nearby residential neighborhoods. Due to the surrounding topography, adjacent development, and existing vegetation, the site is not visible from areas designated by the City or County as a scenic vista or view area such as the Fickle Hill Ridge, Arcata Bay, or the Mad River (City of Arcata 2017). In addition, the 2000 Foster Avenue staging area would be restored to pre-project conditions, thus not substantially changing views of the site in the long-term.

Overall, the project would be designed in a manner consistent with current Campus Design Guidelines pertaining to architectural features, building form, and colors and would be consistent with nearby campus development and generally with the previously contemplated development under the Campus Master Plan. As discussed above, the project site and staging areas are not located within a scenic vista, and there would therefore be no adverse effects on a scenic vista during construction or operation of the modified project. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.1.2 Scenic Resources within a Scenic Highway

As discussed in the Master Plan EIR, there are no state-designated scenic highways in the project vicinity and the site is not located in a scenic resource area. While US 101, located approximately 0.2-mile west of the project site, is not a state-designated scenic highway, it is currently identified as an eligible scenic highway by the California State Scenic Highway System Map (Caltrans 2023), although it has not received an official designation as a state scenic highway. The Master Plan EIR states that construction projects on campus under the Campus Master Plan would not be expected to adversely affect campus views from the segments of coastal and noncoastal scenic highways identified in

the City of Arcata General Plan. The impact on scenic resources within a scenic highway was found to be less than significant (Humboldt State University 2004).

The project site is not visible from US 101 because it sits at a considerably higher elevation than the highway and is otherwise obscured by intervening vegetation and buildings. The 2000 Foster Avenue staging area is obscured from view from US 101, which is approximately XX miles away to the [direction] by intervening development and the relatively flat topography. Thus, there would be no adverse effect on scenic resources within a scenic highway. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.1.3 Visual Character and Quality

As discussed in the Master Plan EIR, phased construction activities lasting from several months to up to 2–3 years would be conducted at various locations within the Master Plan Area. Development under the Campus Master Plan would expose neighboring land uses to views of construction equipment, incomplete structures, stockpiled cut material, and areas in landscaping transition, resulting in impacts on views from surrounding uses. However, visual character/quality impacts as a result of Campus Master Plan implementation would be temporary and would occur incrementally over the 30- to 40-year implementation phase of the Campus Master Plan. As part of the Master Plan EIR, it was assumed that all construction equipment and debris would be removed, and, where appropriate, revegetation and landscaping would follow. Any security lighting would be oriented inwards to a development site and shielded to protect nighttime views (Humboldt State University 2004).

With respect to the modified project, construction would be completed over an approximately 18-month period, over a single phase and in a manner consistent with the assumptions made in the Master Plan EIR. Further, upon completion, the building would be approximately 28 feet in height and two floors tall, which would be consistent with surrounding campus development. Further, the aesthetic design of the proposed building would comply with current Campus Design Guidelines provided in the Campus Master Plan. Additionally, existing landscaping and trees along the periphery of the site would be maintained to the extent feasible and enhanced to provide additional screening of the proposed development. Where used, planting areas will use shrubs, perennials, and groundcovers that will remain low to maintain clear views throughout. Because the modified project design would be consistent with the current Campus Design Guidelines and Cal Poly Humboldt Campus Building Standards, substantial adverse changes in the visual character and quality of Cal Poly Humboldt are not anticipated beyond those already identified in the Campus Master Plan. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

The 2000 Foster Avenue staging area and the staging area located in parking lot G14 would accommodate construction staging and construction worker parking. Parking lot G14 is located adjacent to the ERSC project site and would appear consistent with other construction uses. Preparation of the 2000 Foster Avenue staging area would include light grading/grubbing of the site and installation of geotechnical fabric and gravel, and installation of exclusion fencing. During construction, the 2000 Foster Avenue staging area would be used for construction-worker parking and storage of construction equipment and materials. A wildlife exclusion fence would be established around the parking and staging area. In general, these uses would be temporary and largely obscured from nearby residential uses to the east due to heavy vegetation along McDaniel Slough. Upon completion of the modified project, the 2000 Foster Avenue staging area would return to the pre-project conditions of a vacant property similar to the existing conditions. The improvements made to support construction staging and parking would be minimal and would not substantially affect the overall visual character and quality of the site. For these reasons, no new impacts would be anticipated.

For the reasons described above, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.1.4 Light and Glare

As discussed in the Master Plan EIR, adequate design of night lighting would be necessary to avoid the potential for adverse light and glare impacts associated with outdoor lighting. As noted above, the Campus Master Plan includes lighting design guidelines that are implemented as appropriate with any development under the Campus Master Plan and are intended to facilitate safe nighttime use of the campus while limiting associated impacts on adjacent, non-University property. Specific features of these design guidelines include low energy light sources integrated with glare shields where possible and outdoor light fixtures with a minimum illumination level of one foot-candle. With incorporation of these guidelines, impacts were determined to be less than significant in the Master Plan EIR.

As described above in Section 1.5, "Project Description," lighting would include light-emitting diode (LED) wall packs above exterior doors and LED pole-mounted fixtures along pedestrian walkways (12-15 feet tall) and along roadway (20 – 25 feet tall along B Street and 14th Street). While this lighting would include elevated lights to facilitate safe nighttime use of the site, the modified ERSC would comply with the most current California Building Energy Efficiency Standards (Title 24 of the CCR) at the time of construction, which require the use of light-emitting diode (LED) fixtures with lighting controls. Moreover, and consistent with the Campus Master Plan design guidelines described above, lighting fixtures would be shielded and deliberately located to reduce the potential for spillover light onto adjacent properties. Additionally, removal of the Mary Warren, Baiocchi, Walter Warren, and Toddler Center would eliminate the associated outdoor lighting of these buildings, which are located in closer proximity to 14th street and the residences located to the south than where the ERSC building would be situated. With regards to glare, the ERSC would be constructed as a timber framed structure with cold formed steel stud non-bearing shear walls that would not contain reflective surfaces that could create a new substantial source of glare. Therefore, the modified project, consistent with the findings of the Master Plan EIR, would result in less-than-significant impacts to light and glare. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

The 2000 Foster Avenue staging area would require nighttime lighting for security purposes. All lighting would be downward facing and located along the periphery of the staging area to reduce the potential for spillover light onto adjacent properties. Equipment, materials, and vehicles stored at the 2000 Foster Avenue staging area would be typical for construction and would not create a substantial level of glare and would largely be obscured from view by existing vegetation to the south and east (McDaniel Slough) and fencing to the north. Furthermore, use of this site would be temporary, and the staging area would be restored to pre-project conditions once construction of the ERSC is completed. As such, no significant impacts are anticipated as a result of the temporary use of the 2000 Foster Avenue staging area.

Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.2 AGRICULTURE AND FORESTRY RESOURCES

As described in Chapter 4.0, "Agricultural Resources," of the Master Plan EIR, soils potentially supportive of farmlands do not exist on the ERSC project site or staging areas (Humboldt State University 2004, DOC 2024a). Therefore, the site does not contain any designated farmland, agricultural zoning, or Williamson Act contracts. In addition, the site was cleared and converted to residential uses before the campus was created, so there has been no timber production there for many decades. Therefore, no impact on agriculture or forestry resources would occur under either the Campus Master Plan (page 4-1) or the modified project. The modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR, and no substantial change from the previous conclusions in the Master Plan EIR would occur.

2.3 AIR QUALITY

Potential impacts related to air quality that would result from the construction and operation of new development envisioned under the Campus Master Plan are analyzed in Chapter 5.0 of the Master Plan EIR. The Humboldt County portion of the North Coast Air Basin (NCAB), in which the project site is located, is in attainment of (or was unclassified for) all state and federal ambient air quality standards with the exception of the state standard for particulate matter less than 10 micrometers in diameter (PM₁₀) (Cal Poly Humboldt 2022). Despite the nonattainment designation for PM₁₀, air quality in the air basin was generally regarded as good (Humboldt State University 2004). The Master Plan EIR estimated that PM₁₀ emissions associated with construction activities under the Campus Master Plan—specifically emissions from engine combustion products, dust from earthwork and building demolition and deconstruction, and emissions from the application of architectural coatings and asphalt—would total approximately 5 tons per year, or approximately 3 percent of the estimated PM₁₀ emissions in Humboldt County in 2003 of 0.48 ton per day. As a result, impacts associated with construction of new uses under the Campus Master Plan were determined to be less than significant. The Master Plan EIR also states that the project includes the following elements that would reduce air quality impacts associated with Campus Master Plan implementation (pages 1-14 and 1-15 of the Master Plan EIR) (Humboldt State University 2004), including the requirement that the university must comply with the air pollution control regulations of North Coast Unified Air Quality Management District (AQMD):

1. **Compliance with All Air Pollution Control Regulations.** It is legally required that the project remain at all times in compliance with AQMD, federal, and state-delegated regulations. Regulations affecting the project will include but not be limited to: AQMD Regulation 1, Rules 200, 400(a), 420, and 430; Regulation 2; and the federally delegated National Emissions Standards for Hazardous Air Pollutants. Two specific project requirements are included below to address common construction situations.
2. **Hazardous Air Pollutants.** Unless appropriate surveys have been completed or other documentation is sufficient, it will be assumed that the existing buildings and equipment could include asbestos-containing materials or lead-based paint. As a precaution against the inadvertent release of asbestos fibers or lead dust into the air, building materials and equipment that will be disturbed in ways that would release asbestos fibers or lead dust, if present, will be surveyed for the presence of asbestos and lead. If such materials are identified, proper removal and handling, or other suitable management technique, will be required to ensure that asbestos fibers or lead dust are not released.
3. **Fugitive Dust Emissions.** In manners consistent with AQMD Rule 430, fugitive dust emissions will be controlled to prevent unnecessary amounts of particulate matter to become airborne. Rule 430 is stated as follows:

Regulation 1

Air Quality Control Rules

North Coast Unified Air Quality Management District

Rule 430 - Fugitive Dust Emissions

- (a) The handling, transporting, or open storage of materials in such a manner which allows or may allow unnecessary amounts of particulate matter to become airborne, shall not be permitted.
- (b) Reasonable precautions shall be taken to prevent particulate matter from becoming airborne, including, but not limited to, the following provisions:
 - (1) Covering open bodied trucks when used for transporting materials likely to give rise to airborne dust.
 - (2) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Containment methods can be employed during sandblasting and other similar operations.
 - (3) Conduct agricultural practices in such a manner as to minimize the creation of airborne dust.
 - (4) The use of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.

- (5) The application of asphalt, oil, water or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts.
- (6) The paving of roadways and their maintenance in a clean condition.
- (7) The prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

With respect to operational air quality emissions associated with implementation of the Campus Master Plan, PM₁₀ emissions associated with operation of new uses within the campus, including the increase in vehicular traffic related to the increase in enrollment, would represent a small and less-than-significant contribution to PM₁₀ emissions in the region (Humboldt State University 2004). The Master Plan EIR identifies the following aspects of the campus (in and of itself) and the Campus Master Plan, which are considered consistent with particulate control strategies of the AQMD:

- ▶ Cal Poly Humboldt subsidizes the student cost of riding public buses.
- ▶ The proposed intermodal transit mall would facilitate carpooling; mass transit use; and the use of bicycles, skateboards, and rollerblades.
- ▶ The proposed parking structures would relieve congestion associated with parking on campus.
- ▶ There is no waste burning on campus and no fireplaces in student housing (Humboldt State University 2004).
- ▶ result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Construction of the modified project has the potential to create air quality impacts through the use of vehicles and equipment such as heavy-duty construction equipment, construction workers’ vehicle trips, material deliveries, and trips by heavy-duty haul trucks. In addition, earthwork activities would result in fugitive dust emissions, and paving operations would release volatile organic compounds (VOCs) during off-gassing of paved materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Construction and operational emissions of criteria air pollutants associated with the modified project were calculated using the California Emissions Estimator Model (CalEEMod) version 2022.1 computer program (CAPCOA 2023). Modeling was based on project-specific information (e.g., building square footage) where available, reasonable assumptions based on typical construction activities, and default values in CalEEMod that are based on the project site location and land use type. See Appendix A for detailed modeling assumptions and calculations. Construction-related emissions could result from the use of heavy equipment such as graders, backhoes, dump trucks, and excavators, as well as the use of on-road vehicles used for hauling, material delivery and worker commutes. Although some staging would occur within parking lot G14, construction staging and construction-worker parking was conservatively assumed to occur at the 2000 Foster Avenue staging area. Table 2.3-1 below provides an estimation of the construction-related emissions associated with implementation of the modified project. See Appendix A for detailed calculations and assumptions.

Table 2.3-1 Maximum Daily Construction-Generated Emissions

Construction Year	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SO _x (lb/day)	PM ₁₀ (lb/day)	PM _{2.5} (lb/day)
2024	2	26	20	<1	6	3
2025	10	20	12	<1	2	1
Maximum Daily Emissions	10	26	20	<1	6	3
NCUAQMD Threshold	50	50	500	80	80	50
Exceeds Threshold?	No	No	No	No	No	No

Notes: VOC = volatile organic compounds; NO_x = nitrogen oxides; CO = carbon monoxide; SO₂ = sulfur oxides; PM₁₀ = particulate matter less than 10 micrometers in diameter; PM_{2.5} = particulate matter less than 2.5 micrometers in diameter.

Source: Modeled by Ascent Environmental 2024. See Appendix A

As shown in Table 2.3-1, emissions from construction of the modified project would not exceed AQMD's thresholds of significance for any pollutant.

On-site uses associated with operation of the modified project could result in emissions associated with on-road vehicle trips generated by the modified project as well as emissions from building operation (e.g., the use of electricity to power lights and appliances, heating, and cooling). Table 2.3-2 below provides a summary of the operations-related emissions associated with implementation of the modified project. See Appendix A for detailed calculations and assumptions.

Table 2.3-2 Maximum Daily Operations-Generated Emissions

Operational Source	VOC (lb/day)	NO _x (lb/day)	CO (lb/day)	SO ₂ (lb/day)	PM ₁₀ (lb/day)	PM _{2.5} (lb/day)
Mobile Sources	1	1	7	<1	<1	5
Area Sources	1	1	7	<1	1	<1
Maximum Daily Emissions	1	1	7	<1	1	5
NCUAQMD Threshold	50	50	500	80	80	50
Exceeds Threshold?	No	No	No	No	No	No

Notes: VOC = volatile organic compounds; NO_x = nitrogen oxides; CO = carbon monoxide; SO₂ = sulfur oxides; PM₁₀ = particulate matter less than 10 micrometers in diameter; PM_{2.5} = particulate matter less than 2.5 micrometers in diameter.

Source: Modeled by Ascent Environmental 2024. See Appendix A

As shown in Table 2.3-2, emissions from operation of the modified project would not exceed AQMD's thresholds of significance for any pollutant.

As detailed above, emissions associated with construction and operation of the modified project would be less than significant, consistent with the conclusions of the Master Plan EIR. Overall, the modified project would reduce development compared to that approved under the Campus Master Plan, through an overall reduction in square footage of programmed uses associated with Buildings F and M and removal of the Student Center South and the South Campus Parking Structure. This would result in a reduced level of construction of building operation than approved under the Campus Master Plan. In addition, development and operation of the modified project would comply with the CSU Sustainability Policy, which was first adopted in 2014 and subsequently updated in 2019, 2020, and 2022. The CSU Sustainability Policy requires consideration of building operation, including water conservation and waste management strategies to reduce utility demands and zero natural gas use. Additionally, ERSC would be located within the main Cal Poly Humboldt campus, which would encourage the use of alternative modes of transportation, such as biking and walking. Therefore, operation of the modified project would not result in more severe impacts than those identified in the Campus Master Plan EIR.

Therefore, construction and operation of the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.4 BIOLOGICAL RESOURCES

Potential impacts from implementation of the Campus Master Plan on biological resources were analyzed in Chapter 6.0 of the Master Plan EIR. The Master Plan EIR identified two potential construction impacts related to biological resources. The first, soil erosion and the release of turbid water, which could adversely affect aquatic species, would be addressed by the erosion control mitigative element of the Campus Master Plan (Humboldt State University 2004):

Proper management of disturbed and exposed soils and implementation of effective Best Management Practices (BMPs) for erosion and sedimentation control will be implemented to prevent significant erosion during rains. Erosion control requirements will be included in the construction plans and specifications. The construction contractor will be required to comply with these plans for protecting exposed soils from runoff-producing rain and for the proper disposal of excess soils. For construction projects covering an acre or more, these types of controls

will be addressed in a Stormwater Pollution Prevention Plan (SWPPP) required by the Regional Water Quality Control Board. Erosion control requirements will be specific to each project and location, ensuring adequate protection for Jolly Giant Creek and other drainages. As appropriate, a project must have a suitable buffer between construction operations and Jolly Giant Creek and, as feasible, any wetland areas. A buffer of approximately ten feet will be established between earthworks and established riparian vegetation. Silt fencing will line the buffer edge. Equipment will remain on existing roadways or previously graded ground as much as feasible.

The Master Plan EIR concluded that this impact was less than significant, so no mitigation was required (Humboldt State University 2004). As analyzed in the Master Plan EIR, construction of the Energy Research and Sustainability Center and the resulting ground disturbance would result in soil erosion and the release of turbid water, which could adversely affect aquatic species. Mitigative elements addressing erosion control would apply to this project and reduce impacts to less than significant, and no additional mitigative measures are needed. The second construction impact related to biological resources in the Master Plan EIR addresses the potential impact on wetlands in Jolly Giant Creek and Fern Lake from constructing the Access Road and forest amphitheater. As the project site is not located near either feature and does not contain wetlands, this impact does not apply to the modified project with the exception of the temporary staging at 2000 Foster Avenue. The 2000 Foster Avenue staging area is adjacent to the McDaniel Slough, and mitigative elements addressing erosion control from the Master Plan EIR would be implemented in portions of the 2000 Foster Avenue staging area that occur adjacent to the slough to ensure that no impacts to the slough would occur.

The Master Plan EIR also identified Impact 6-2, involving the permanent loss of mature second-growth redwood forest habitats and a potential impact on associated wildlife species, as well as potential impacts on Jolly Giant Creek and associated aquatic wildlife. The Master Plan EIR concluded that this impact was significant (page 6-5). To address this impact, the Master Plan EIR identified Mitigation Measure 6-2, which requires agency consultation (and possibly various permits), wildlife surveys, possible tree avoidance to avoid disturbing an osprey nest, and replanting and revegetation.

The analysis below updates and refines the analysis of the Master Plan EIR, using 2023 results of California Natural Diversity Database and California Native Plant Society Rare Plant Inventory records searches of the Arcata South, Arcata North, Tyee City, Blue Lake, Eureka, Fields Landing, McWhinney Creek, Iaquia Buttes, and Korbel U.S. Geological Survey 7.5-minute quadrangles (CNDDDB 2024; CNPS 2024), as well as reported observations of special-status bird species on eBird (eBird 2024).

The ERSC project site and parking lot G14 were mapped in publicly available USFS landcover data as urban and redwood forest habitat. However, a review of aerial data confirms that the ERSC project site and Lot G14 are entirely developed or paved with scattered ornamental vegetation (Figure 1-2). The northern half of the ERSC site and parking lot G14 are incorrectly mapped as redwood forest in the USFS landcover data, but they are composed primarily of buildings, sidewalks, parking areas, and scattered ornamental landscaping. No natural redwood habitat is present in the modified project area or staging areas. Parking lot G14 is a paved parking lot with a small row of planted, ornamental redwood trees in the center. The ERSC project site is in a developed portion of the campus comprising five buildings, several rows of parking lot, a courtyard, sidewalks, and ornamental trees. The four central buildings are bordered on the north by parking, on the east by a row of ornamental vegetation and more parking, on the south by 14th street, and on the west by a lawn. The Jensen House is surrounded by ornamental trees and lawn grass, with a parking lot to the south. The project site is surrounded on all sides by busy roads, sidewalks, and parking areas, and these areas receive a high amount of pedestrian traffic and disturbance.

The 2000 Foster Avenue staging area was assessed during a biological reconnaissance and nesting bird survey conducted on February 1 and 2, 2024 (Ascent 2024a). An aquatic resources delineation was also conducted of the staging area and surrounding area on June 13 and 14, 2023 (Cal Poly Humboldt 2023). The 2000 Foster Avenue staging area supports ruderal/barren, nonnative/ornamental shrubland and ruderal grassland habitat cover, and it is bordered on the south and east by riparian woodland, freshwater emergent wetland, seasonal wetland, and riverine habitat. As shown in Figure 2-1, the central portion of the 2000 Foster Site, and the majority of the staging area is primarily colonized by ruderal grassland and nonnative ornamental shrubs, with some barren and graveled areas. Extensive vegetation removal was undertaken on these portions of the site in February 2024 to remove an

impenetrable stand of nonnative Himalayan blackberry (*Rubus armeniacus*). McDaniel Slough and associated riparian habitat runs generally north-south along the eastern edge of the 2000 Foster Avenue staging area. This slough, which roughly begins at Hilfiker Drive as part of Janes Creek and meanders southward toward Samoa Boulevard, is characterized by dense growth of English ivy (*Hedera helix*), Himalayan blackberry, and riparian trees, including red alder (*Alnus rubra*), black cottonwood (*Populus trichocarpa*), and coastal willow (*Salix hookeriana*). A roadside drainage ditch with freshwater emergent wetland vegetation runs along the northern edge of Foster Avenue, just inside the staging area. Private residences are located to the north of the 2000 Foster Avenue staging area and along Heather Lane, east of McDaniel Slough. A grassland field and a large pond that provides Northern red-legged frog (*Rana aurora*) breeding habitat is located in the parcel west of the 2000 Foster Avenue staging area. Project activities would be set back 100 feet from all riparian areas, and therefore would not modify or enter the roadside drainage ditch along Foster Avenue or the riparian corridor associated with McDaniel Slough.

The 38 special-status plant species known to occur in the nine-quadrangle search area have no potential to occur on the ERSC project site because they are restricted to particular soil types (e.g., serpentine or heavy clay) or other habitat types (e.g., coastal dune, coastal scrub, marshes, meadows and seeps, prairie, or riparian) that are not present within the site. In addition, there are no native plant communities or natural habitats present within the site, and the disturbed condition generally create unsuitable conditions for special-status plant species. Five plant species could potentially occur in portions of McDaniel Slough or the roadside ditches along Foster Avenue (near the 2000 Foster Avenue staging area): Lyngbye's sedge (*Carex lungbyei*), northern meadow sedge (*Carex praticola*), coast fawn lily (*Erythronium revolutum*), minute pocket moss (*Fissidens pauperculus*), and cylindrical trichodon (*Trichodon cylindrius*). However, the slough and roadside ditches would not be modified or otherwise affected by project activities. Therefore, if these species are present in the slough or roadside ditches, they would be avoided, and no adverse impacts would occur.

The CNDDDB nine-quadrangle search and a review of local eBird data, indicated that 35 special-status wildlife species are known to occur near to the site and staging areas. Two species, American peregrine falcon (*Falco peregrinus anatum*) and white-tailed kite (*Elanus leucurus*) have the potential to nest in the vicinity of the ERSC site and both staging areas. Six species have the potential to occur only in the vicinity of the 2000 Foster Avenue staging area: northern red-legged frog (*Rana aurora*), western pond turtle, (*Emys marmorata*), bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), yellow-breasted chat (*Icteria virens*), and yellow warbler (*Setophaga petechia*). Additionally, nine species have the potential to occur only in McDaniel Slough, which runs north-south adjacent to the 2000 Foster Avenue staging area. These species are foothill yellow-legged frog, North Coast DPS (*Rana boylei* pop. 1), coast cutthroat trout (*Oncorhynchus clarkia*), Coho salmon-- southern Oregon / northern California ESU (*Oncorhynchus kisutch* pop. 2), Eulachon (*Thaleichthys pacificus*), green sturgeon-- southern DPS (*Acipenser medirostris* pop. 1), Pacific lamprey (*Entosphenus tridentatus*), steelhead-- northern California DPS summer-run (*Oncorhynchus mykiss irideus* pop. 48), steelhead-- northern California DPS winter-run (*Oncorhynchus mykiss irideus* pop. 49), and western brook lamprey (*Lampetra richardsoni*). Seventeen species identified in the CNDDDB search were determined to no have potential to occur because they are restricted to habitat types that are not present within the project site or staging areas (e.g., canyons, old-growth forest, sand dunes, salt marsh, conifer forest), they require areas further from human disturbance than the project site and staging areas, or the project site and staging areas are outside of the species' known range.

The American peregrine falcon has been delisted from the ESA and CESA in recent years, meaning that they are recovered and are no longer considered threatened or endangered. This species was previously designated as fully protected under California Fish and Game Code Section 3511, however, in July 2023, this species was removed from the category of fully protected pursuant to Senate Bill 147 (Statutes of 2023). American peregrine falcon currently has no specific legal protected status, however, nesting peregrine falcons are still protected under the 1918 Migratory Bird Treaty Act and California Fish and Game Code Section 3503 and 3503.3, which addresses protection of bird nests and raptors. This species has been observed in the vicinity of Cal Poly Humboldt as recently as March 2024 (eBird 2024), and they have potential to nest on tall buildings in the Cal Poly campus. In the wild, they typically nest on cliff edges; however, in recent years this species has been documented extensively nesting on a variety of buildings in metropolitan centers, often with increased breeding success (White et. al. 2020). This species may nest in the vicinity of the ERSC project site or the parking lot G14 staging area.



Source: Data adapted from Cal Poly Humboldt, 2023; adapted by Ascent in 2024.

Figure 2-1 Land Cover at the 2000 Foster Avenue Staging Area

White-tailed kite, a California fully protected species, may use trees on the perimeter of and adjacent to the 2000 Foster Avenue staging area for nesting habitat. A nesting site for white-tailed kite was observed near the 2000 Foster Avenue staging area in the vicinity of McDaniel Slough in 2019 (CNDDDB 2024). Additionally, numerous observations of white-tailed kite on Cal Poly Humboldt campus indicate that they may nest nearby (eBird 2024), and a pair of white-tailed kites was observed mating near the 2000 Foster Avenue staging area during a survey of the area in February 2024, indicating that they may be currently nesting nearby (Ascent 2024). White-tailed kites nest near the tops of trees and forage in a variety of open areas. Nests may be placed within isolated trees or on the edge of or within a forest (Cornell University 2024). Tall trees surrounding the 2000 Foster Avenue staging area may provide nesting habitat for white-tailed kite. Ground-disturbance, tree removal, and other construction activities associated with the modified project could result in noise and direct disturbance to nesting white-tailed kites within the vicinity of project activities. Disturbance to nesting birds could result in nest abandonment by the adults and mortality of chicks and eggs. However, white-tailed kite is protected under Section 3503 of the Fish Game Code and the Migratory Bird Treaty Act (16 U.S.C. 703-712), which prohibit the take of white-tailed kite and the destruction of any nest or eggs. White-tailed kite would be avoided through compliance with the aforementioned, existing regulations related to nesting birds, which would entail conducting preconstruction surveys to identify active nests, and subsequent physical or seasonal avoidance if active nests are found. Therefore, there would be no new significant impacts to special status wildlife species. Although white-tailed kite may occur in the 2000 Foster Avenue staging area as described above, the ERSC site and parking lot G14 do not provide foraging habitat for white-tailed kite because they are developed and do not support grassland, meadow, or other vegetation types that this species forages within. In addition, there are a variety of open grassland and agricultural areas within three miles of the project site, which are larger in size and less frequented by human disturbance and thus would provide higher value foraging habitat for this species should it be nesting nearby. Therefore, construction of the modified project would not substantially reduce foraging habitat for white-tailed kite.

Northern red-legged frog and western pond turtle have potential to breed in the pond 350 feet west of the 2000 Foster Avenue staging area, on the adjacent property. Northern red-legged frogs and western pond turtles are semi-aquatic and may move overland to breed, disperse, forage, or estivate during the summer or winter to seek shelter from dry or cold weather. If these species are present in the pond west of the 2000 Foster Avenue staging area, the roadside drainage ditches along Foster Avenue could also serve as temporary habitat and/or a movement corridor. These species may also move overland across the grassland area into the proposed staging area, especially during wet weather conditions. However, prior to preparation for staging and parking at the 2000 Foster Avenue staging area, an exclusion fence would be constructed as part of the project along the outer margins of the staging area (Section 1.5.2 Project Construction). This would prevent staging activities from interfering with the function of the pond as breeding habitat, because the exclusion fence would prevent construction-related activities from affecting special-status reptiles and amphibians individuals.

Special-status nesting birds have the potential to breed in the vicinity of the 2000 Foster Avenue staging area. Two species of songbirds have the potential to nest in the area surrounding McDaniel Slough: yellow-breasted chat and yellow warbler. These California species of special concern breed in riparian vegetation near waterways. Although individuals may disperse or forage throughout the Cal Poly Humboldt campus and surrounding areas, they would only be sensitive to disturbance in their nesting habitat along riparian areas. The riparian vegetation associated with the McDaniel Slough would not be modified by project activities and all work activities would occur outside of the riparian area, with a minimum setback distance of 100 feet from the riparian canopy dripline, ensuring that nesting riparian birds are not disturbed. In addition, large trees and a substantial prey base within areas surrounding 2000 Foster Avenue staging area would support bald eagle and golden eagle breeding habitat. However, the modified project would comply with Section 3503 of the Fish Game Code and the Migratory Bird Treaty Act (16 U.S.C. 703-712), which would require preconstruction surveys to be conducted that would identify active nests, and subsequent physical or seasonal avoidance if found. Therefore, if these species are present, they would be avoided, and no adverse impacts would occur.

As noted above, aquatic species that have potential to occur in the McDaniel Slough include foothill yellow-legged frog, coast cutthroat trout, Coho salmon - southern Oregon / northern California ESU, Eulachon, green sturgeon - southern DPS, Pacific lamprey, steelhead - northern California DPS summer-run, steelhead - northern California DPS

winter-run, and western brook lamprey. Use of the 2000 Foster Avenue staging area would not adversely affect aquatic species because construction staging and construction-worker parking would occur beyond a 100-foot setback distance from the dripline of the riparian habitat where aquatic species may be present. Therefore, if these species are present, they would be avoided, and no adverse impacts would occur.

Therefore, for the reasons discussed above, there would be no new significant impacts to any special status wildlife species. The modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.5 CULTURAL RESOURCES

Impacts on cultural resources associated with implementation of the Campus Master Plan were analyzed in Chapter 7.0 of the Master Plan EIR. As described in the Master Plan EIR, no features in the project area are listed in the California Register of Historical Resources or in the National Register of Historic Places, and no records of previously recorded historic resources in the project area are possessed by the California Historical Resources Information System. As a result of the extensively developed condition of the campus, it is probable that any trace of two historic resources—the Preston School and the Jolly Giant Mill—if any existed at this site, has likely already been eliminated. Archival research has revealed five campus buildings—Founders Hall, Nelson Hall, Gist Hall, Wagner House, and Jenkins Hall—previously identified as individually eligible historic resources. Also identified was the former Trinity Hospital, now known as the University Annex, a privately owned parcel used by Cal Poly Humboldt and considered a potential expansion site for the campus. A Sacred Lands File search did not indicate the presence of Native American cultural resources within the campus. The three tribal organizations in Wiyot territory—Table Bluff Reservation, Blue Lake Rancheria, and Bear River Band of Rohnerville Rancheria—were contacted to request information. No Native American archaeological or cultural sites were identified. One of the mitigative elements of the Campus Master Plan addresses how to respond if cultural resources are discovered accidentally during construction. As described on page 1-15 of the Master Plan EIR (Humboldt State University 2004):

One of the mitigative elements of the Campus Master Plan addresses how to respond if cultural resources are discovered accidentally during construction. As described on page 1-15 of the Master Plan EIR (Humboldt State University 2004):

Cultural Resources Accidental Discovery:

The purpose of this provision is to avoid creating a significant impact in the event of accidental discovery of previously unidentified and unknown cultural resources or human remains during construction. During earthwork activities in the areas of development, construction personnel shall be notified of, and required to monitor for, signs of potential undiscovered paleontological, archaeological, ethnic, or religious resources. Particular attention should be paid to construction activities identified to be near the site of the former Jolly Giant Mill (1874) or the Preston School District.

In the event undiscovered paleontological, archaeological, ethnic, or religious resources are encountered during construction, ground-disturbing work will be halted in that area until a qualified cultural resources specialist evaluates the situation and recommends an appropriate course of action. Examples of prehistoric resources include obsidian or chert flakes and/or tools, projectile points, heat-affected rock, locally darkened midden, groundstone artifacts, deposits of shell, dietary bone, and human burials. Historic resources include stone foundations or walls, structures and remains with square nails, and refuse deposits, found often in old wells and privies. If human remains are discovered, the County Coroner must be contacted. Required procedures to be followed in the event of accidental discovery of cultural materials or human remains are described in sections 15064.5(e) and 15064.5(f) of the State CEQA Guidelines (California Code of Regulations, Title 14, Sec 15000–15387).

The potential for accidental damage to unknown cultural resources during construction of new land uses throughout the campus would be addressed through compliance with and implementation of the mitigative element of the Campus Master Plan described above. The Master Plan EIR concluded that implementation of the Campus Master Plan would affect potentially historical resources—in particular, Gist and Jenkins Halls and the University Annex, resulting in a significant impact (page 7-5 of the Master Plan EIR). The Master Plan EIR concluded that implementation of Mitigation Measures 7-1a through 7-1e, would reduce this impact but that the impact was significant and unavoidable (Humboldt State University 2004).

Because of the time elapsed between the Master Plan EIR's analysis and current conditions, a desktop review was conducted by Ascent. The desktop review consisted of a records search of the California Historical Resources Information System conducted at the Northwest Information Center and aerial images and topographic maps review (NETR 2024).

The result of the records search revealed that no cultural resources have been documented within the ERSC project site or staging areas. While earth-moving activities would be limited to grading and grubbing, which would not encounter areas below the 1.5 feet of imported fill material from prior use of the project site, and no documented archaeological sites or human remains have been previously recorded, it is possible that ground disturbing activities could result in accidental discovery of cultural resources. However, the Master Plan EIR included best management practices that would be implemented in the event of an accidental discovery. As described above, in the event that an accidental discovery of a cultural resource occurs, work would be halted in that area until a qualified archaeologist evaluates the situation and recommends an appropriate course of action.

A review of historic aerials (1956 to 2020) and topographic maps (1933 to 2021) indicates that the project site was largely developed by 1956 (NETR 2024). Three built environment features (Mary Warren House, Baiocchi House, and Walter Warren House), constructed between 1931 and 1950, were identified within the project site, and they continue to be present today. Mary Warren House, Baiocchi House, and Walter Warren House are of historic age but were all evaluated and recommended not eligible for the California Register of Historic Resources because all three lack integrity (Ascent 2024b). The Toddler Center was constructed in 2001 and is therefore not of historic age and does not require evaluation as a potential historic resource. Today, these four campus buildings are all currently still present and are proposed for demolition; however, none have been determined to be historical resources under CEQA.

Because the project site and staging areas have been disturbed many times over the past century, accidental discovery of unknown archeological resources is not expected. However, if an archeological resource is discovered during trenching or other earth-moving activities, the requirements set forth under Sections 15064.5(e) and 15064.5(f) of the State CEQA Guidelines, described above, would ensure that handling and treatment of these resources would not cause a significant adverse effect on an archaeological resource. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.6 ENERGY

The potential impact of the Campus Master Plan related to the consumption of energy was analyzed in Chapter 12.0, "Mineral and Energy Resources," of the Master Plan EIR. As stated in the Master Plan EIR, the energy consumption anticipated for construction of the Campus Master Plan projects was expected to be typical of ordinary construction, and the energy required to operate the campus is similar to that required to operate ordinary commercial uses. Overnight lighting is minimal, and no high energy-consuming processing facilities are included as part of the Campus Master Plan. In addition, CSU project development standards are strongly oriented toward energy conservation. Therefore, the Master Plan EIR concluded that this impact was less than significant (pages 12-1 and 12-2).

In 2018, Appendix G of the State CEQA Guidelines was modified to further disclose and consider the energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient, and unnecessary energy usage" (CEQA Section 21100[b][3]). Neither the law nor the State CEQA Guidelines establish criteria that define wasteful, inefficient, or unnecessary use. Compliance with the California Energy Code would result in energy-efficient

buildings. However, compliance with the California Energy Code does not address all potential energy impacts during construction and operation of the modified project.

Energy would be required to construct, operate, and maintain construction equipment as well as transport construction materials associated with construction of the modified project. The modified project would be constructed over an approximately 2-year period starting in Summer 2024 and finishing in Spring 2026 with occupancy occurring in the same year. The one-time energy expenditure required to construct the physical buildings and infrastructure associated with the modified project would be nonrecoverable. Most energy consumption would result from operation of construction equipment and vehicle trips associated with commutes by construction workers and haul trucks supplying materials.

The operation of the proposed building would result in the consumption of transportation-related fuel and electricity for lighting, space heating, water heating, and other electrical uses. No natural gas would be consumed, and all power needs would be met through electrical connections. Indirect energy use would include wastewater treatment; water pumping, treatment, and distribution; and solid waste removal. Cal Poly Humboldt, as part of the CSU system, aims to exceed the energy efficiency and sustainability requirements of both the CALGreen and the California Energy Code. The development would achieve Leadership in Energy and Environmental Design (LEED) Silver for Building Design.

Overall, the modified project would increase energy consumption for temporary construction activities related to vehicle use and material transport. However, construction activities would be temporary and would not increase long-term energy or fuel demand. Construction activities would consume the necessary amount of fuel/energy to complete work in an efficient and timely manner. Once operational, the modified project would increase transportation and building energy; however, the modified project would not consume natural gas and would promote energy conservation through the use of high efficiency fixtures. All project design features would meet or exceed CALGreen 2022 and Title 24 standards, where relevant, such as high-efficiency lighting and appliances in buildings and mandatory electric vehicle (EV) parking spaces.

Project construction would require consumption of approximately 17,604 gallons of gasoline and 38,915 gallons of diesel fuel. Operation of the modified project would result in an electricity demand of approximately 485,574 kilowatt hours (Kwh)/year (see Appendix A for detailed calculations and assumptions). According to Appendix F of the State CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall per capita energy consumption, decreasing reliance on oil, and increasing reliance on Renewable energy sources. Project energy consumption for building operation and transportation would support these goals due to the effects of existing State laws and requirements and project design that promotes energy conservation. For example, the modified project would comply with the minimum energy performance standards of the California Building Code, which decrease per capita energy consumption. The modified project (i.e., combination of the previously anticipated Buildings F and M into a single building) would also support per capita energy consumption decreases through its uses of grid electricity, which is required by State legislation (e.g., SB 100) to source at least 60 percent of its supplies from renewable energy sources by 2030 and 100 percent carbon-free sources by 2045. Transportation-related uses of energy would also be increasingly efficient during implementation of the modified project, for example due to the State's Advanced Clean Car Standards requiring vehicles sold in the State to be increasingly fuel efficient and use fuel sources other than gasoline and diesel (e.g., electricity). The modified project would not develop uses or involve activities that would conflict with goals of decreasing per capita energy consumption, reliance on oil (petroleum), or increasing uses of renewable energy sources, or that would result in wasteful, inefficient, or unnecessary consumption of energy.

As described above a detailed analysis of construction and operational energy demands was not provided in the Master Plan EIR. However, since adoption of the Campus Master Plan, numerous regulations have been implemented that set rigorous standards for energy efficiency as well as sustainability-focused electricity generation. Along with the numerous Federal and State regulations, the Cal Poly Humboldt Climate Action Plan (CAP) 2.0 mandates that projects be consistent with the goals and policies within the CAP to meet GHG reduction goals. Furthermore, the ERSC building would comply with the CSU Sustainability Policy, Cal Poly Humboldt Campus Master Plan design guidelines, and currently adopted California Building Code Title 24 energy efficiency measures. Additionally, there have been

substantial technological advancements since the adoption of the Master Plan EIR such as vehicle fuel efficiency, renewable energy generation, and building-design efficiencies—all of which increase overall project energy efficiencies. For these reasons, it is likely that the modified project is much more energy-efficient in all areas than was originally envisioned and analyzed in the Master Plan EIR. Therefore, no new or more severe impacts related to energy would occur with implementation of the modified project and the usage of energy for construction and operation of the modified project would not be considered wasteful, inefficient, or unnecessary. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.7 GEOLOGY AND SOILS

2.7.1 Soils and Geologic Hazards

Potential impacts of the Campus Master Plan related to geology and soils were analyzed in Chapter 8.0 of the Master Plan EIR. According to the Alquist-Priolo Earthquake Fault Zoning Map, no active faults are located under or adjacent to the campus, although the Fickle Hill Fault is in the vicinity. The area is prone to potentially prolonged and strong seismic ground shaking and moderate slope stability. Although faults in the region may induce strong ground shaking in the Arcata area, they are not adequately close to the campus to require more than standard earthquake engineering design. Soils on campus have been characterized as having a low expansion index and do not exhibit expansive qualities. Soils and geologic units on campus, in general, do not exhibit instability. Some slopes on the campus have exhibited instability and required corrective action or were being considered for corrective action. No septic tanks are proposed as part of implementation of the Campus Master Plan. The Master Plan EIR states that potential impacts related to soil erosion from construction and subsequent discharge to a water body and related to exposure of campus facilities to geologic hazards, including ground shaking and soil instability, which could cause major damage to facilities, would be addressed by the following mitigative elements of the Campus Master Plan (Humboldt State University 2004):

1. **Geologic Hazards.** Standard engineering design will lessen the probability that the new tower and building will be damaged by geologic hazards. All significant structures and improvements on the campus will be designed and constructed in accordance with the CSU Seismic Safety Standards and the California Building Codes, including the preparation of site-specific geotechnical and engineering reports.
2. **Erosion Control.** Proper management of disturbed and exposed soils and implementation of effective Best Management Practices (BMPs) for erosion and sedimentation control will be implemented to prevent significant erosion during rains. Erosion control requirements will be included in the construction plans and specifications. The construction contractor will be required to comply with these plans for protecting exposed soils from runoff-producing rain and for the proper disposal of excess soils. For construction projects covering an acre or more, these types of controls will be addressed in a Stormwater Pollution Prevention Plan required by the Regional Water Quality Control Board. Erosion control requirements will be specific to each project and location, ensuring adequate protection for Jolly Giant Creek and other drainages. As appropriate, a project must have a suitable buffer between construction operations and Jolly Giant Creek and, as feasible, any wetland areas. A buffer of approximately ten feet will be established between earthworks and established riparian vegetation. Silt fencing will line the buffer edge. Equipment will remain on existing roadways or previously graded ground as much as feasible.

The Master Plan EIR on page 8-3 concluded that geology and soils impacts associated with implementation of the Campus Master Plan would be less than significant (Humboldt State University 2004).

The modified project would involve the construction and operation of the ERSC on the existing area currently occupied by the Toddler Center, Mary Warren House, Baiocchi House, and Walter Warren House and use of staging areas to support demolition and development activities. As discussed in the Master Plan EIR and noted above, campus is not located within an Alquist-Priolo Earthquake Fault Zone, and no mapped active or potentially active

fault traces are known to traverse or project toward the project site. Construction and operation of new buildings and infrastructure would meet current building standards, including the 2024 (or as updated) California Building Code Title 24 energy efficiency measures, and would not exacerbate earthquake potential in the project vicinity. Additionally, as a construction project that would disturb at least 1 acre of land, the modified project would require coverage under the Construction Stormwater General Permit State Water Resources Control Board (SWRCB) Water Quality Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002 (as shown in Table 1-1 above). Compliance with the NPDES General Permit requires applicants to submit a notice of intent to SWRCB and to prepare a SWPPP. The SWPPP identifies BMPs that must be implemented to reduce construction effects on receiving water quality. The BMPs identified are directed at implementing both sediment and erosion control measures and other measures to control potential chemical contaminants. The permit also requires dischargers to consider the use of post-construction permanent BMPs that remain in service to protect water quality throughout the life of the modified project. All NPDES permits also have inspection, monitoring, and reporting requirements. Therefore, all geology- and soils-related impacts of the modified project would be less than significant. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.7.2 Paleontological Resources

Potential impacts associated with implementation of the Campus Master Plan to paleontological resources were analyzed in Chapter 7.0, "Cultural Resources," of the Master Plan EIR. The Master Plan EIR indicates that the potential for paleontological resources to occur within the campus is limited and that the opportunity to disturb paleontological resources that have not been disturbed by previous construction activities is minimal. For these reasons, the Master Plan EIR concluded that the impact on paleontological resources would be less than significant (Humboldt State University 2004).

The modified project would involve the construction and operation of the new ERSC on the existing area currently occupied by the Toddler Center, Mary Warren House, Baiocchi House, and Walter Warren House, and use of staging areas to support demolition and development activities. Based on a review of generalized rock types provided by the California Department of Conservation, the campus is underlain by marine and nonmarine sedimentary rocks, from the Pleistocene era (i.e., over than 10,000 old formations that may contain paleontological resources) (DOC 2024b). Because the site has been disturbed many times over the past century, accidental discovery of unknown paleontological resources is not expected. However, due to the presence of rock formations within the Cal Poly Humboldt campus that may be greater than 10,000 years old, the potential for a paleontological resource to be uncovered during earth-moving activities cannot be precluded. Consistent with the conclusions of the Master Plan EIR, if a paleontological resource is discovered during project construction at the project site, the requirements set forth under California's PRC Section 5097.5, would ensure that handling and treatment of these resources would not result in a significant adverse effect on a paleontological resource. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.8 GREENHOUSE GAS EMISSIONS

Since certification of the Master Plan EIR, increased awareness of greenhouse gas (GHG) emissions and their role in global climate change has resulted in promulgation of laws and regulations designed to curb emissions and reduce the inherently cumulative effect of GHG emissions. At the time the Master Plan EIR was prepared and certified, the State CEQA Guidelines did not identify GHG emissions and climate change as a resource area in Appendix G. Thus, the Master Plan EIR did not provide an environmental or regulatory setting to characterize climate change impacts, nor did the Master Plan EIR evaluate the Campus Master Plan's contribution of GHG emissions to anthropogenic climate change. However, in 2009, the Governor's Office of Planning and Research (OPR) amended Appendix G of the State CEQA Guidelines to include project-level analysis of GHG emissions.

This section presents a summary of the current state of climate change science and GHG emissions sources in California, applicable regulations, and the Cal Poly Humboldt GHG Inventory; discussion of potential GHG emissions that would occur as a result of the modified project and their potential contribution to global climate change. For the purposes of this analysis, GHG emissions are measured as metric tons of carbon dioxide equivalent (MTCO₂e). The atmospheric impact of a GHG is based on the global warming potential (GWP) of that gas. GWP is a measure of the heat-trapping ability of one unit of a gas over a certain timeframe relative to one unit of carbon dioxide (CO₂). The GWP of CO₂ is one. Consistent with the methodology used by CARB in estimating statewide GHG emissions, this analysis uses GWP values from the Fourth Assessment Report Values by the Intergovernmental Panel on Climate Change (IPCC).

2.8.1 Regulatory Setting

FEDERAL

Affordable Clean Energy Rule

In June 2019, EPA, under authority of the Clean Air Act Section 111(d), issued the Affordable Clean Energy rule which provides guidance to States on establishing emissions performance standards for coal-fired electric generating units (EGUs). Under this rule, States are required to submit plans to the US Environmental Protection Agency (EPA) that demonstrate the use of specifically listed retrofit technologies and operating practices to achieve CO₂ emission reductions through heat rate improvement (HRI). HRI is a measurement of power plant efficiency that EPA determined as part of this rulemaking to be the best system of emission reductions for CO₂ generated from coal-fired EGUs.

Federal Energy Policy and Conservation Act

Congress enacted the Federal Energy Policy and Conservation Act in 1975 which established fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2010, fuel economy standards were set at 27.5 miles per gallon (mpg) for new passenger cars and 23.5 mpg for new light trucks. Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Massachusetts vs. EPA

On April 2, 2007, in *Massachusetts v. EPA*, the Supreme Court directed the EPA Administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the EPA Administrator is required to follow the language of Section 202(a) of the federal Clean Air Act. On December 7, 2009, the Administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- ▶ The Administrator found that elevated concentrations of GHGs in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "Endangerment Finding."
- ▶ The Administrator further found the combined emissions of GHGs from new motor vehicles and new motor vehicle engines contribute to GHGs that endangers public health and welfare. This is referred to as the "Cause or Contribute Finding."
- ▶ These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Clean Power Plan and New Source Performance Standards for Electric Generating Units

On October 23, 2015, EPA published a final rule (effective December 22, 2015) establishing the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (80 FR 64510-64660), also known

as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO₂ emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel fired electric generating units: (1) fossil-fuel-fired electric utility steam-generating units, and (2) stationary combustion turbines. Concurrently, the EPA published a final rule (effective October 23, 2015) establishing Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (80 FR 64661–65120). The rule prescribes CO₂ emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units. The U.S. Supreme Court stayed implementation of the Clean Power Plan pending resolution of several lawsuits. Additionally, in March 2017, President Trump directed the EPA Administrator to review the Clean Power Plan in order to determine whether it is consistent with current executive policies concerning GHG emissions, climate change and energy.

On March 17, 2021, in accordance with Executive Order 13990 “Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis,” EPA asked the D.C. Circuit to vacate and remand the “significant contribution” final rule of the New Source Performance Standards. The rule was promulgated without public notice or opportunity to comment. On April 5, 2021, the D.C. Circuit vacated and remanded the January 2021 final rule (EPA 2024).

STATE

Executive Order S-3-05

In 2005, Executive Order (EO) S-3-05 was signed into law and proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California’s air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the State. Specifically, Statewide emissions are to be reduced to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

Statewide Emissions Targets

Assembly Bill 32

In September 2006, the California Global Warming Solutions Act of 2006, AB 32, was signed into law. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that “(a) the Statewide greenhouse gas emissions limit shall remain in effect unless otherwise amended or repealed. (b) It is the intent of the Legislature that the Statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020. (c) The State board [California Air Resources Board (CARB)] shall make recommendations to the Governor and the Legislature on how to continue reductions of greenhouse gas emissions beyond 2020” (California Health and Safety Code, Division 25.5, Part 3, Section 38551).

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, SB 32 and AB 197 were signed into law and serve to extend California’s GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a Statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State’s continued efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

Assembly Bill 1279

On September 16, 2022, the State legislature passed AB 1279 which codified stringent emissions targets for the State of achieving carbon neutrality and an 85 percent reduction in 1990 emissions level by 2045 (this superseded the previous GHG emissions reduction target set forth by EO S-3-05).

Senate Bill 375 of 2008

In September 2008, SB 375 was signed into law and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy, showing prescribed land use allocation in each MPO's Regional Transportation Plan. CARB, in consultation with the MPOs, is to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks for 2020 and 2035.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles (ZEVs), into a single package of regulatory standards for vehicle model years 2017–2025. The new regulations strengthened the GHG standards for 2017 models and beyond. In addition, the program's zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles (EVs) to account for up to 15 percent of California's new vehicle sales by 2025. In August 2022, CARB adopted the ACC II program, which sets sales requirements for ZEVs to ultimately reach the goal of 100 percent ZEV sales in the State by 2035.

California Renewables Portfolio Standard

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB 100 of 2018 sets a three-stage compliance period requiring all California utilities, including independently owned utilities, energy service providers, and community choice aggregators, to generate 52 percent of their electricity from renewables by December 31, 2027; 60 percent by December 31, 2030; and 100 percent carbon-free electricity by December 31, 2045.

Building Energy Efficiency Standards

Title 24, Part 6

The energy consumption of new residential and nonresidential buildings in California is regulated by the State's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy Code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring PV on new homes, providing significant GHG savings. The most recent is the 2022 California Energy Code which advances the onsite energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar PV system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. The CEC estimates that the 2022 California Energy Code will save consumers \$1.5 billion and reduce GHGs by 10 MMTCO_{2e} over the next 30 years (CEC 2021).

Title 24, Part 11

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 California Building Standards Code). The current version is the 2022 CALGreen Code, which took effect on January 1, 2023. As compared to the 2019 CALGreen Code, the 2022 CALGreen Code strengthened sections pertaining to EV and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CALGreen Code. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are adopted by local agencies that enforce building codes and used as guidelines by State agencies for meeting the requirements of EO B-18-12.

Low Carbon Fuel Standard

In January 2007, EO S-1-07 established a Low Carbon Fuel Standard (LCFS). The EO calls for a Statewide goal to be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 and for an LCFS for transportation fuels to be established for California. The LCFS applies to all refiners, blenders, producers, or importers (providers) of transportation fuels in California, including fuels used by off-road construction equipment (Wade, pers. comm., 2017). The LCFS is measured on the total fuel cycle and may be met through market-based methods. For example, providers exceeding the performance required by an LCFS receive credits that may be applied to future obligations or traded to providers not meeting the LCFS.

In Jun 2007, CARB adopted the LCFS as a Discrete Early Action item under AB 32 pursuant to Health and Safety Code Section 38560.5, and in April 2009, CARB approved the new rules and carbon intensity reference values with new regulatory requirements taking effect in January 2011. The standards require providers of transportation fuels to report on the mix of fuels they provide and demonstrate they meet the LCFS intensity standards annually. This is accomplished by ensuring that the number of "credits" earned by providing fuels with a lower carbon intensity than the established baseline (or obtained from another party) is equal to or greater than the "deficits" earned from selling higher-intensity fuels. After some disputes in the courts, CARB readopted the LCFS regulation in September 2015, and the LCFS went into effect on January 1, 2016.

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the State government for approximately two decades. GHG emission targets established by the State legislature include reducing Statewide GHG emissions to 1990 levels by 2020 (AB 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (SB 32 of 2016). EO S-3-05 calls for Statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. This target was superseded by AB 1279 which codifies a goal for carbon neutrality and reduce emissions by 85 percent below 1990 levels by 2045.

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlined the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" and mandated by SB 32 (CARB 2017). It identified the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste).

On September 16, 2022, the State legislature passed AB 1279 which codified stringent emissions targets for the State of achieving carbon neutrality and an 85 percent reduction in 1990 emissions level by 2045. CARB released the Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) on November 16, 2022, as also directed by AB 1279 (CARB 2022). The 2022 Scoping Plan traces the pathway for the State to achieve its carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045 using a combined top down, bottoms up approach using various scenarios. CARB adopted the 2022 Scoping Plan on December 16, 2022.

CARB and other State agencies also released the January 2019 Draft California 2030 Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal of EO B-55-18 (California Environmental Protection Agency et al. 2019).

Executive Order B-48-18: Zero-Emission Vehicles

In January 2018, EO B-48-18 was signed into law and requires all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 electric vehicle charging stations by 2025. It specifies that 10,000 of the electric vehicle charging stations should be direct current fast chargers. This EO also requires all State entities to continue to partner with local and regional governments to streamline the installation of ZEV infrastructure. The Governor's Office of Business and Economic Development is required to publish a *Plug-in Charging Station Design Guidebook* and update the *Hydrogen Station Permitting Guidebook* (Eckerle and Vacin 2020) to aid in these efforts. All State entities are required to participate in updating the *2016 Zero-Emissions Vehicle Action Plan* (CARB 2016) to help expand private investment in ZEV infrastructure with a focus on serving low-income and disadvantaged communities. Additionally, all State entities are

to support and recommend policies and actions to expand ZEV infrastructure at residential land uses, through the LCFS program, and to recommend how to ensure affordability and accessibility for all drivers.

California State University

California State University Sustainability Policy

In the Spring of 2022, The CSU Board of Trustees adopted an update to the CSU system-wide Sustainability Policy, which was first adopted in 2014 with subsequent updates in 2019 and 2020. The current update became effective March 23, 2022. The policy aims to reduce the environmental impact of construction and operation of buildings and to integrate sustainability across the curriculum. The CSU Sustainability Policy established the following goals related to GHG emissions:

- ▶ procure 60 percent of energy supply from renewable sources by 2030;
- ▶ reduce GHG emissions 80 percent below 1990 levels by 2040;
- ▶ increase on-site energy generation from 32 to 80 megawatts by 2030;
- ▶ reduce per-capita landfill waste by 50 percent by 2030 and 80 percent by 2040;
- ▶ reduce water use by 10 percent by 2030;
- ▶ promote use of alternative fuels and transportation programs;
- ▶ procure goods that are recycled, recyclable, or reusable; and
- ▶ integrate sustainability across the curriculum.

CSU Executive Order 987

EO 987 is the CSU Policy Statement on Energy Conservation, Sustainable Building Practices, and Physical Plant Management. CSUN operates under this EO, which sets minimum efficiency standards for new construction and renovations, and establishes operating practices intended to ensure CSU buildings are used in the most energy efficient and sustainable manner possible while still meeting the programmatic needs of the University.

Cal Poly Humboldt Climate Action Plan 2.0

The Cal Poly Humboldt CAP 2.0 intends to build upon the first CAP released by Cal Poly Humboldt in 2017, which targeted the reduction of greenhouse gas emissions to 1990 levels by 2020, and to become carbon neutral by 2045. Cal Poly Humboldt was successful in achieving the 2020 goal. The CAP 2.0 outlines strategies to achieve carbon neutrality by 2045, as well as to incorporate sustainability and climate action into the campus' research and academic operations through a variety of actions and strategies related to Buildings, Energy & Fuels (BEF); Transportation (TRA), Solid Waste & Purchasing (SWP); Carbon Sequestration & Offset (CSO); Academics & Research (A&R); and Resilience (RES). The goals and strategies of the CAP 2.0 that are relevant to GHG reductions for all sectors are as follows:

BEF GOAL 1: All buildings owned/operated by Cal Poly Humboldt will generate zero direct emissions by 2045.

- ▶ Strategy 1.1: By 2025, 50% of new major renovations of state buildings will be zero net energy (ZNE). By 2030, 50% of buildings will be retrofitted to ZNE and all new construction will be ZNE.
- ▶ Strategy 1.2: Adopt whole-building performance targets for campus buildings to further energy and water efficiency.
- ▶ Strategy 1.3: Reduce natural gas consumption below 2018-19 levels by 50% by 2030, by 75% by 2040, and by 100% by 2045.
- ▶ Strategy 1.4: Increase installation of solar photovoltaic energy systems on campus infrastructure to a minimum of 2.5 MW by 2025.

BEF GOAL 2: Build resilience into campus buildings and infrastructure to adapt to, and continue to provide functionality during, climate change impacts.

- ▶ Strategy 2.1: Ensure critical loads maintain power during power shut-off events utilizing low-carbon technologies.

BEF GOAL 3: Zero emissions fleet by 2045.

- ▶ Strategy 3.1: Adopt and implement a long-range plan for transitioning fleet and grounds equipment to zero emissions.

TRA GOAL 1: Reduce commute emissions 50% below 2015 levels by 2030, and to zero by 2045.

- ▶ Strategy 1.1: Develop and implement a Transportation Demand Management (TDM) Plan.
- ▶ Strategy 1.2: Adjust parking policies, programs and infrastructure to reduce number of personal, non-zero emission vehicles on campus.
- ▶ Strategy 1.3: Improve walkability and bikeability of campus and area surrounding campus.
- ▶ Strategy 1.4: Support and expand alternative transportation programs.
- ▶ Strategy 1.5 Support improvement of public transit services to the campus.
- ▶ Strategy 1.6: Adopt additional provisions to reduce employee trips to/from campus.

TRA GOAL 2: Reduce business air travel emissions by 50% of 2015 levels by 2030 Strategy.

- ▶ Strategy 2.1: Educate air travelers on their impact while enhancing alternatives to air travel.

SWP GOAL 1: Cal Poly Humboldt is a zero waste campus by 2045.

- ▶ Strategy 1.1: Develop and implement a Zero Waste Action Plan to achieve 50% below 2015 levels by 2030 and 80% below 2015 levels by 2040 for residential and commercial waste (measured in pounds per person per day, or PPD).
- ▶ Strategy 1.2: Reduce waste associated with campus resident move-out by 25% below 2019 levels by 2025.

SWP GOAL 2: Reduce non-hazardous construction and demolition waste going to the landfill.

- ▶ Strategy 2.1: Divert a minimum of 65% of non-hazardous construction and demolition waste; by 2030 increase diversion rate to 75%.

SWP GOAL 3: By 2030 prioritize the procurement and use of materials, goods, and supplies that are recycled, reused, repurposed or returned at the end of life.

- ▶ Strategy 3.1: Implement policies and procedures to maximize the use of suppliers and vendors with sustainable practices in campus contracting activities.

SWP GOAL 4: Reduce the embodied carbon of specified construction materials by 50% of 2022 levels by 2030.

- ▶ Strategy 4.1: Reduce Scope 4 emissions by only purchasing specified building materials with a global warming potential below the industry average.

CSO GOAL 1: By 2045, any remaining GHG emissions are mitigated through sequestration and carbon offset programs or purchases

- ▶ Strategy 1.1: Identify and manage for carbon sequestration on Humboldt managed properties.
- ▶ Strategy 1.2: Offset 25% of emissions from business air travel by 2025, and 100% of remaining emissions from air travel by 2045.
- ▶ Strategy 1.3: Offset 10% of emissions from commute by 2025, and 100% of remaining emissions from commute by 2045.
- ▶ Strategy 1.4: Develop community based small-scale carbon offset projects.

- ▶ Strategy 1.5: Develop a carbon reduction fund for purchasing carbon offsets through the traditional voluntary market and for funding small scale carbon projects.
- ▶ Objective 1.6: Integrate carbon sequestration into campus decision-making.

A&R GOAL 1: Further integrate sustainability into the curriculum.

- ▶ Strategy 1.1: Increase the percentage of courses with sustainability content to 25% by 2025 and to 40% by 2030. Increase the percentage of academic departments with sustainability course offerings to 85% by 2025 and to 90% by 2030.

A&R GOAL 2: Foster cross-disciplinary research and creative activities in sustainability

- ▶ Strategy 2.1: Increase the percentage of researchers that are engaged in sustainability research to 50% by 2025 and to 60% by 2030.
- ▶ Strategy 2.2: Support the increase and enhancement of creative activities in sustainability.

A&R GOAL 3: Firmly and publicly establish Cal Poly Humboldt as a hub for sustainability innovation, curriculum and research.

- ▶ Strategy 3.1: Support the establishment of a sustainability center by 2025

RES GOAL 1: Develop a campus and community that can withstand and thrive through climate change-driven disruptions.

- ▶ Strategy 1: Plan now for a future constrained by climate change impacts.
- ▶ Strategy 2: Educate the campus community about climate change vulnerabilities and adaptation strategies.
- ▶ Strategy 3: Reduce food and housing insecurity.
- ▶ Strategy 4: Improve ecosystem management to increase biodiversity, remove invasive species, and foster pollinator health.
- ▶ Strategy 5: Improve storm, wastewater and irrigation management.
- ▶ Strategy 6: Improve indoor and outdoor air quality.
- ▶ Strategy 7: Strengthen campus emergency operations and response.

2.8.2 Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The issue of global climate change is inherently a cumulative issue because the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the modified project's impact on climate change is addressed only as a cumulative impact.

State CEQA Guidelines Section 15064 and relevant checklist questions contained in Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Under Appendix G of the State CEQA Guidelines, implementing the modified project would result in a cumulatively considerable contribution to climate change if it would:

- ▶ generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- ▶ conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

State CEQA Guidelines give the lead agency the discretion to select the most appropriate tools based on substantial evidence. Neither NCUAQMD nor Cal Poly Humboldt have developed project-specific GHG emissions thresholds. Other agencies throughout the state, including multiple air districts, have adopted numerical thresholds that allow projects to demonstrate consistency with the 2030 statewide GHG reduction target codified by SB 32 (i.e., 40 percent below 1990 levels) and the 2045 carbon neutrality goal identified in EO B-55-15. Given that neither NCUAQMD nor Cal Poly Humboldt has developed project-specific GHG emissions thresholds, the assessment of GHG emissions in this analysis is based on the modified project's level of consistency with the CSU Sustainability Policy, statewide targets, and the Cal Poly Humboldt CAP 2.0.

IMPACT ANALYSIS

Generation of Greenhouse Gas Emissions

The modified project would generate GHG emissions during both construction and operation. Construction-related activities would generate GHG emissions from the use of heavy-duty off-road equipment, materials transport, and worker commute trips. Construction of the modified project would differ from the Campus Master Plan in that the proposed structure would represent a combination of previously proposed Buildings F and M in one site and within one building, thereby resulting in fewer GHG emissions due to the lesser scale of construction. Construction of the modified project would result in 647 MTCO_{2e} in 2024 and 733 MTCO_{2e} in 2025 (see Appendix A for detailed assumptions and calculations).

Operation of the modified project would result in mobile-source GHG emissions associated with vehicle trips to and from the project site, area-source emissions from the operation of landscape maintenance equipment, energy-source emissions from the utilization of electricity, water-related energy consumption associated with water use and the conveyance and treatment of wastewater, and waste-generated emissions from the transport and disposal of solid waste. In accordance with the CSU Sustainability Policy, the modified project would not include infrastructure to support on-site natural gas. Operation of the modified project would result in 217 MTCO_{2e}/yr (see Appendix A for detailed assumptions and calculations). As stated above, GHG emissions resulting from implementation of the Campus Master Plan were not analyzed in the Master Plan EIR and, therefore, no mitigation measures were identified in the Master Plan EIR. However, the modified project would be subject to the most recent federal, state, local, and CSU policies (see above) that dictate the inclusion of various project design features which reduce potential GHG emissions. These methods include encouraging alternate means of transportation, such as biking and walking, CALGreen-compliant building design features, renewable energy, and all-electric building design. Further, and as noted previously, the overall square footage of the proposed structure would be less than the previously envisioned square footage for Buildings F and M and can reasonably be inferred to result in fewer GHG emissions than the previously envisioned development. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

Consistency with Applicable Plans for Reducing GHG Emissions

Consistency with Cal Poly Humboldt Climate Action Plan 2.0

As stated above, in the absence of adopted thresholds by AQMD or Cal Poly Humboldt, the goals of the Cal Poly Humboldt CAP 2.0 are used in place of numerical thresholds to qualitatively assess the modified project's consistency with the applicable plans and policies. Table 2.8-1 below provides a comparison between the applicable goals and guiding policies identified in the Cal Poly Humboldt CAP 2.0 and the design features of the modified project.

Based on the comparison above, it can be determined that the modified project would be consistent with the goals of the Cal Poly Humboldt CAP 2.0 and would therefore not impede its implementation.

Table 2.8-1 Comparison of Cal Poly Humboldt Climate Action Plan 2.0 with the Modified Project

Cal Poly Humboldt Climate Action Plan 2.0	Project Consistency
BEF GOAL 1: All buildings owned/operated by Cal Poly Humboldt will generate zero direct emissions by 2045.	Consistent. The modified project would provide a state-of-the-art laboratory facility that would not include natural gas that would result in lesser emissions compared to existing uses and the previously envisioned development. The modified project would not impede the implementation of measures consistent with this goal.
BEF GOAL 2: Build resilience into campus buildings and infrastructure to adapt to, and continue to provide functionality during, climate change impacts	Consistent. The modified project would comply with current building code and CSU Sustainability Policy requirements and would not include natural gas. The modified project would not impede the implementation of measures consistent with this goal.
BEF GOAL 3: Zero emissions fleet by 2045	N/A. The modified project would not impede the implementation of measures consistent with this goal.
TRA GOAL 1: Reduce commute emissions 50% below 2015 levels by 2030, and to zero by 2045	Consistent. The modified project incorporates multiple design features which encourage alternate means of transportation such as public transport, walking and biking. Due to its central location within campus, the on-site provision of bike parking and accessibility to transit would be consistent with commute emission reduction goals.
TRA GOAL 2: Reduce business air travel emissions by 50% of 2015 levels by 2030 Strategy	N/A. The modified project would not impede the implementation of measures consistent with this goal.
SWP GOAL 1: Cal Poly Humboldt is a zero-waste campus by 2045	N/A. The modified project would not impede the implementation of measures consistent with this goal.
SWP GOAL 2: Reduce non-hazardous construction and demolition waste going to the landfill	Consistent. The modified project would involve the demolition or removal of on-site structures that could otherwise be disposed of at a landfill. To the extent feasible, non-hazardous construction and demolition waste would be recycled.
SWP GOAL 3: By 2030 prioritize the procurement and use of materials, goods, and supplies that are recycled, reused, repurposed or returned at the end of life.	N/A. The modified project would not impede the implementation of measures consistent with this goal.
SWP GOAL 4: Reduce the embodied carbon of specified construction materials by 50% of 2022 levels by 2030	Consistent. The modified project would adhere to building code and CSU Sustainability Policy requirements related to the manner in which construction is conducted. The project would achieve LEED Silver or better.
CSO GOAL 1: By 2045, any remaining GHG emissions are mitigated through sequestration and carbon offset programs or purchases	N/A. The modified project would not impede the implementation of measures consistent with this goal.
A&R GOAL 1: Further integrate sustainability into the curriculum	Consistent. The modified project would provide state-of-the-art academic and laboratory facilities within the central portion of campus.
A&R GOAL 2: Foster cross-disciplinary research and creative activities in sustainability	Consistent. The modified project would combine and share facilities in a collaborative and efficient manner so as to maximize the use of sustainability features of the proposed building.
A&R GOAL 3: Firmly and publicly establish Cal Poly Humboldt as a hub for sustainability innovation, curriculum and research	N/A. The modified project would not impede the implementation of measures consistent with this goal.
RES GOAL 1: Develop a campus and community that can withstand and thrive through climate change-driven disruptions	N/A. The modified project would not impede the implementation of measures consistent with this goal.

Consistency with CARB's Scoping Plan

The 2022 Scoping Plan lays out the framework for achieving the 85 percent reduction in 1990 emissions goal by 2045 and progress toward additional reductions. Appendix D of the 2022 Scoping Plan includes detailed GHG reduction measures and local actions that land use development projects can implement to support the Statewide goal. For

CEQA analyses, the 2022 Scoping Plan states that projects should implement feasible mitigation, preferably measures that can be implemented on-site. The modified project would include many on-site GHG emissions reduction features including campus electrification (ERSC would not have a natural gas utility connection) and energy-efficient lighting and appliances which would comply with the most recent version of CALGreen. As a result, the modified project would contribute towards the State's GHG reduction goal and would therefore be considered consistent with the 2022 Scoping Plan.

Consistency with CSU Sustainability Policy

The CSU Sustainability policy aims to reduce the environmental impact of construction and operation of buildings and to integrate sustainability across the curriculum. This includes the goals of reducing systemwide facility carbon emissions to 40 percent below 1990 levels consistent with SB 32, California's Global Warming Solutions Act of 2006 (Health and Safety Code Section 38566, effective January 1, 2017). As a component of further university-development within the CSU system, the modified project would be required to comply with all policies within the CSU Sustainability Policy (see Section 2.8.1, "Regulatory Setting," for details). Additionally, the modified project would not include natural gas utilities on-site. Regarding water usage, the modified project would be required to include highly efficient, water-saving features such as the utilization of recycled wastewater for landscaping purposes and high-efficiency watering features. Lastly, the modified project would divert waste from the landfill through various on-campus waste reduction strategies. Because of the implementation of the strategies and features listed above, the modified project would be consistent with the CSU Sustainability Policy.

SUMMARY

The modified project would be consistent with the Cal Poly Humboldt CAP 2.0, 2022 Scoping Plan, and the CSU Sustainability Policy due to the various design features of the modified project which reduce potential GHG emissions in a manner and to a degree which is consistent with the goals and policies of the applicable plans. Thus, the modified project would not conflict with an applicable plan adopted for the purpose of reducing the emissions of GHGs, and no significant impact would occur. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.9 HAZARDS AND HAZARDOUS MATERIALS

Impacts associated with implementation of the Campus Master Plan related to hazards and hazardous materials were analyzed in Chapter 9.0 of the Master Plan EIR. The Master Plan EIR states that existing operations on the campus, including operation of science laboratories and art studios, regularly involve the transport, use, and disposal of hazardous materials. These materials and the waste that is generated are managed by each of the departments and shop facilities with the assistance of Cal Poly Humboldt Environmental Health and Safety.

2.9.1 Transport, Use, Disposal, Upset, and Emission of Hazardous Materials

With respect to the handling of hazardous materials, the Master Plan EIR concludes that the potential for upset or accident conditions would not be substantial due to implementation of Cal Poly Humboldt's Hazardous Materials Business Plan and reliance on the Environmental Health and Safety Department (EHS) and the Arcata Fire Department for response to accidental release of hazardous materials.

Transportation of hazardous materials on area roadways is regulated by the California Highway Patrol and California Department of Transportation, whereas use of these materials is regulated by DTSC, as outlined in CCR Title 22. Cal Poly Humboldt would be required to use, store, and transport hazardous materials in compliance with local, State, and federal regulations during facility construction and operation. Any disposal of hazardous materials would occur in a manner consistent with applicable regulations and at an appropriate off-site disposal facility. Therefore, adverse

impacts related to the handling of potentially hazardous materials associated with the modified project are not anticipated (Humboldt State University 2004).

Currently on campus EHS, as part of Risk Management and Safety Services, works with the staff and faculty of Cal Poly Humboldt to provide a safe and healthful workplace. EHS develops and implements various programs aimed to minimize the risk of occupationally related injury or illness. This is accomplished through integrated steps of hazard identification, evaluation, and control, employee training and incident/accident investigation. EHS is a resource for information and technical guidance on occupational safety and environmental health information, work practices, and regulations. EHS supports a variety of programs including: hazardous waste management, medical waste management, hazardous materials inventory, and emergency response to hazardous materials releases. In addition, training classes are provided for employees and, at a minimum, include hazardous and medical waste management, bloodborne pathogens control, hazard communication, best chemical inventory management practices, emergency response to chemical releases and general lab safety. The division also acts as the liaison with various regulatory agencies to ensure campus wide compliance with federal, state and local environmental health regulations. Moreover, to promote compliance, EHS conducts routine inspections and notifies departments of required corrections. Thus, while operation of laboratory facilities on campus may include the use of hazardous materials, such as chemicals, implementation of these current programs would substantially minimize the risk of hazardous materials release or upset during operation of the modified project.

There are currently four schools located within 0.25 mile of the campus: Arcata Elementary School, Arcata High School, Northern United Charter School, and Arcata Christian School. Northern United Charter School and Arcata Christian School are located within 0.25 mile of the ERSC project site and parking lot G14, with Northern United Charter School being located approximately 0.25 mile west of the project site and Arcata Christian School being located approximately 0.20 mile northeast of the project site. Two schools, Fuente Nueva Charter School and Coastal Grove Charter School, are located within 0.25 mile of the 2000 Foster Avenue staging area. As stated above, hazardous materials generated by the modified project would be managed in accordance with campus programs administered through EHS that ensure proper collection, storage, and shipping of hazardous materials. Thus, there would not be a substantial risk of emissions of hazardous materials from campus, including within close proximity to schools.

The modified project includes space to accommodate the new ERSC by demolishing the Toddler Center, Baiocchi House, Mary Warren House, and Walter Warren House. Demolition of older buildings can also generate hazardous waste. Given the age of these buildings, hazardous materials including asbestos and lead-based paint may be present. However, the Master Plan EIR concluded that hazardous materials will be managed in accordance with the existing Hazardous Materials Business Plan. In addition, the proposed ERSC would not result in a change to the type or general construction requirements compared to that identified in the Campus Master Plan. For the reasons discussed above, and consistent with the analysis presented in the Master Plan EIR, the existing programs administered by EHS would reduce the potential risk of emission of hazardous materials during construction and operation of the modified project to a less-than-significant level. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.9.2 Hazardous Materials Sites

The Master Plan EIR concluded that the campus and project site are not located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and that no significant impacts would occur (Humboldt State University 2004). Due to the time elapsed from the Master Plan EIR and current conditions, an online records review was conducted on GeoTracker and EnviroStor. This review indicated that there are no current or historical hazardous material sites associated with the ERSC project site or parking lot G14 (SWRCB 2024; California Department of Toxic Substances Control 2024). A leaking underground storage tank cleanup site is associated with the 2000 Foster Avenue staging area, however cleanup activities have been completed, and the case is closed (SWRCB 2024). Based on this information and consistent with the conclusions presented in the Master Plan

EIR, the modified project would have a less-than-significant impact related to the creation of a significant hazard to the public or the environment associated with being located on a hazardous materials site.

2.9.3 Airport/Airstrip-Related Hazards

Because the project site and staging areas are not located within 2 miles of an airport or within the boundaries of an airport land use plan, there would be no impacts related to aircraft safety. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.9.4 Emergency Response Plans

The Master Plan EIR found that implementation of the Campus Master Plan would not substantially interfere with the campus's adopted emergency response procedures due to existing on-campus programs. These programs include emergency response/evacuation plans and coordination efforts between the Campus Police Department and the campus Department of Environmental Health and Safety to provide training exercises on campus. As noted in the Master Plan EIR, as the campus is developed in accordance with the Campus Master Plan, campus evacuation plans would be updated and revised, as needed, to reflect the changing traffic and access patterns throughout campus and to maintain adequate emergency access (Humboldt State University 2004).

The modified project would provide accessible paths of travel to the main building entry via sidewalks along B Street. Operational parking would be provided on campus, including at the parking lot located east of the ERSC project site, which includes accessible stalls and an accessible path of travel. Construction worker parking would be provided at the 2000 Foster Avenue staging area. Emergency access has been determined to be sufficient by the Arcata Fire Protection District for the project site (Cal Poly Humboldt 2024). Use of the 2000 Foster Avenue staging area would not include changes to roadways or access to the site such that emergency response or emergency vehicle access would be altered from existing conditions. Furthermore, Cal Poly Humboldt has adopted Emergency Operations Plan & Guidelines (Humboldt State University 2018), which provide an overview of the roles and responsibilities of staff, faculty, students, and the community during disasters such as tsunamis, earthquakes, fire, and hazardous materials spills and/or releases. The Emergency Operations Plan & Guidelines would be updated, as necessary, to ensure safe access and egress from the project site to support continued implementation of established emergency response procedures. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.9.5 Wildfire Risk

As noted in further detail below under Section 2.20, "Wildfire," the campus is situated between forestland on the east and urbanized areas on the west and south. Since certification of the Master Plan EIR, the California Department of Forestry and Fire Protection prepared new fire hazard severity zone maps in 2023. While the modified project and campus are not located within a State Responsibility Area (SRA) or on land classified as a very high Fire Hazard Severity Zone (FHSZ), the nearest point of land within an SRA is approximately 0.8-mile to the east where land is designated as having high and moderate wildfire risk. The 2000 Foster Avenue staging area is not located within an SRA (CalFire 2024).

The modified project would involve development of the ERSC on campus, in an area surrounded by existing development uses. The modified project would not expose people or structures to increased risks related to wildland fires. Therefore, no impacts related to risk, loss, or injury involving wildfires would occur. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.10 HYDROLOGY AND WATER QUALITY

Potential impacts of the Campus Master Plan related to hydrology and water quality were analyzed in Chapter 10.0 of the Master Plan EIR. As described below, implementing the Campus Master Plan was expected to have a limited potential for negative impacts on hydrology and water quality, and no significant effect on drainage was expected (Humboldt State University 2004).

2.10.1 Water Quality Standards and Waste Discharge Requirements

The Master Plan EIR found that implementation of the Campus Master Plan would result in a net increase in the amount of pervious surfaces of 33,000 square feet on the campus (i.e., a loss in paved surfaces). Replacing paved surface parking lots with parking structures would reduce the total surface area of impervious surface exposed to rainwater and consequently reduce the amount of automobile-related pollutants, such as gasoline, discharged by stormwater runoff into local and regional waterways. As described in Section 2.7, "Geology and Soils," above, the Campus Master Plan includes a mitigative element that addresses erosion control during construction on campus, including the requirement that the construction contractor comply with erosion control requirements to be included in construction plans and specifications. It also mentions the requirement that a SWPPP be prepared for all construction projects covering 1 acre or more. The Master Plan EIR states that implementation of the plan was not expected to violate any standards or waste discharge requirements. Therefore, the impact related to the Campus Master Plan's potential to violate any water quality standards or waste discharge requirements was found to be less than significant (Humboldt State University 2004).

The modified project would result in an overall decrease of the area developed on campus through the functional merging of Buildings F and M into the ERSC project and approved E&T building, as well as removal of the Student Center South (22,000 gsf footprint/ 88,000 total gsf) and the South Campus Parking Structure (51,000 gsf footprint/306,000 total gsf) from the Campus Master Plan. Overall, the modified project would result in a relative increase in managed open space areas, which would decrease the potential for runoff from impervious surfaces associated with campus.

Modification to the 2000 Foster Avenue staging area to support construction staging and construction-worker parking spaces would include placement of geotechnical fabric and gravel, which would not create impervious surfaces. Further, any materials stored on-site would be maintained/stored in accordance with applicable regulations to ensure that no temporary impacts to offsite drainages and groundwater would occur. To further ensure that the volume and rates of runoff do not increase as a result of project implementation, Cal Poly Humboldt would adhere to applicable NPDES requirements governing the retention of stormwater flows on-site, similar to development projects within the campus. As described below in Section 2.19, "Utilities and Service Systems," Cal Poly Humboldt would include stormwater drainage improvements that would route site runoff to the existing campus storm drainage system. As stated above under Section 2.7, "Geology and Soils," as a construction project that would disturb at least 1 acre of land, the modified project would require coverage under the Construction Stormwater General Permit SWRCB Water Quality Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002. Compliance with the NPDES General Permit requires applicants to submit a notice of intent to SWRCB and to prepare a SWPPP. The SWPPP identifies BMPs that must be implemented to reduce construction effects on receiving water quality. The BMPs identified are directed at implementing both sediment and erosion control measures and other measures to control potential chemical contaminants. The permit also requires dischargers to consider the use of post-construction permanent BMPs that remain in service to protect water quality throughout the life of the modified project. All NPDES permits also have inspection, monitoring, and reporting requirements. With adherence to applicable regulations, development of a SWPPP, and implementation of best management practices, the modified project would result in less than significant impacts related to violation of water quality standards or waste discharge requirements. In addition, to ensure that the volume and rates of runoff do not increase as a result of project implementation, Cal Poly Humboldt would adhere to applicable NPDES requirements governing the retention of stormwater flows on-site. As described below in Section 2.19, "Utilities and Service Systems," Cal Poly Humboldt would include stormwater drainage improvements that would route site runoff to the existing campus storm drainage

system. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.10.2 Groundwater

As described in the Master Plan EIR, all the water used on campus is delivered by the City of Arcata water system. The regional water supplier is the Humboldt Bay Municipal Water District, which supplies municipal water from collection wells in the Mad River between Arcata and Blue Lake. Other groundwater is not typically used to supply water on campus. The Master Plan EIR therefore found that there was no reason to expect that implementation of the Campus Master Plan would deplete groundwater. In addition, the Master Plan EIR states that the extent of permeable surfaces on campus would increase under the Campus Master Plan, which would improve groundwater recharge. Therefore, the impact related to groundwater supply and recharge was found to be less than significant (Humboldt State University 2004).

As discussed above, under Section 2.10.1, "Water Quality Standards and Waste Discharge Requirements," the modified project would result in an overall increase in managed open space on campus and modifications to the 2000 Foster Avenue staging area would not include establishment of impervious surfaces. Thus, because there would be an overall decrease in impervious surfaces on campus, groundwater recharge via surface water percolation would not be decreased due to project construction and operation. In addition, the modified project is within the development potential evaluated in the Master Plan EIR and would therefore not increase the campus's water demand, and thereby groundwater production. Thus, the modified project would not substantially interfere with groundwater recharge or substantially increase groundwater production. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.10.3 Drainage, Erosion, and Flooding

As described in the Master Plan EIR, the campus lies on the slopes of the coastal range, near the base of Fickle Hill, and is generally sloped toward the west. The degree of slope varies over the campus from steep slopes to nearly flat areas. The campus area has a mix of developed surfaces consisting of paved surfaces and buildings, as well as vegetated areas, ranging from natural redwood forest to lawns. All the surface water that accumulates on campus flows off-site in natural drainage features and in a stormwater collection system on campus that conveys stormwater to natural drainages or to the City of Arcata stormwater collection system. The Master Plan EIR notes that a recent infrastructure improvement project on campus made upgrades to the stormwater collection system to provide adequate drainage for the entire campus.

The entire campus is located outside the Federal Emergency Management Agency 500-year floodplain, in an area that contains a fully developed stormwater collection and conveyance system. In addition, the project site is outside of the Flood Hazard Area (FEMA 2017). As stated above, the Campus Master Plan includes a mitigative element to address erosion on campus during construction. The Master Plan EIR states that, overall, the general hydrologic properties of the campus are not expected to change substantially under the Campus Master Plan. Consequently, the opportunity for the Campus Master Plan to contribute to substantial erosion, siltation, or flooding on- or off-site was considered minimal. The Master Plan EIR concluded that this impact was less than significant (Humboldt State University 2004).

As with the entirety of the Cal Poly Humboldt campus, the project site is not located within a 100-year flood zone hazard. The project site is located within the Cal Poly Humboldt campus and would connect to the fully developed stormwater collection and conveyance system. The modified project would reduce the overall area of develop land on campus, as described above in Section 2.10.1, "Water Quality Standards and Waste Discharge Requirements." The reduced development area would result in a decrease in impervious surfaces and associated runoff that would be managed through the on-campus system.

The 2000 Foster Avenue staging area is located within Zone A, a FEMA-designated Special Flood Hazard Area without a base flood elevation level established (FEMA 2016). However, use of the 2000 Foster Avenue staging area would involve minor modifications (i.e., light grading and grubbing, and application of geotechnical fabric and gravel). Further, use of the site would be temporary. Because the modified project would disturb more than 1 acre of land as a result of the expanded square footage, the modified project would also be required to obtain coverage under the State Water Resources Control Board Construction General Permit, which requires development of a SWPPP. During project construction activities, SWPPP best management practices (e.g., erosion control, site stabilization, etc.) would be implemented at the site to prevent construction-related silt or debris from affecting areas outside the site boundary. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.10.4 Flood Hazards, Tsunami, and Seiche

As mentioned above, the campus is located outside the Federal Emergency Management Agency 500-year floodplain. Therefore, implementation of the Campus Master Plan would not place structures within a 100-year flood hazard area. The campus is located approximately 4 miles from the Pacific Ocean. The potential for mudflows or related natural disasters on campus would be low because the campus is not located in an area subject to such events. Therefore, the Master Plan EIR concluded that the risk of loss, injury, or death involving flooding was less than significant (Humboldt State University 2004).

As noted above, the project site is not the current 100-year flood hazard zone (FEMA 2017). Additionally, the Cal Poly Humboldt campus is outside of the State's Tsunami Hazard Area (DOC 2024c) and is not located with proximity to a body of water that could present a risk of seiche. The 2000 Foster Avenue staging area is located within Zone A, a FEMA-designated Special Flood Hazard Area without a base flood elevation level established (FEMA 2016). However, use of the 2000 Foster Avenue staging area would involve minor modifications (i.e., light grading and grubbing, and application of geotechnical fabric and gravel), and would be temporary. Thus, impacts related to flood hazards, tsunamis and seiche would remain less than significant, and no new or more severe impacts would occur beyond those analyzed in the Master Plan EIR. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.11 LAND USE AND PLANNING

The potential impacts of the Campus Master Plan related to land use and planning were analyzed in Chapter 11.0 of the Master Plan EIR. As discussed in the Master Plan EIR, the Campus Master Plan would continue the use of the entire campus as an educational institution with academic, research, administrative, student support, and student housing facilities, and all proposed facilities and improvements would be located on campus and therefore would not physically divide an established community. No natural community or habitat conservation plans are applicable to the campus. Therefore, the Master Plan EIR concluded that this impact was less than significant (Humboldt State University 2004).

The modified project would be constructed entirely on Cal Poly Humboldt property and therefore would be under the land use jurisdiction of the CSU Board of Trustees. There are no local ordinances or policies of the City of Arcata that would apply to projects on the Cal Poly Humboldt campus, as the City does not have jurisdiction over CSU lands. With regard to the 2000 Foster Avenue staging area, as part of the CSU, a statutorily and legislatively created, constitutionally authorized State entity, Cal Poly Humboldt is not subject to municipal regulations of surrounding local governments, such as the City of Arcata general plans or land use designations, for uses on property owned or controlled by Cal Poly Humboldt that are in furtherance of its education purposes. Nevertheless, the modified project does not propose a permanent change in land use on the site and is consistent with the City of Arcata's Residential Low Density zoning and General Plan land use designations (City of Arcata 2008). Therefore, the modified project

would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.12 MINERAL RESOURCES

Potential impacts of the Campus Master Plan related to mineral resources were analyzed in Chapter 12.0, "Mineral and Energy Resources," of the Master Plan EIR. As discussed in the Master Plan EIR, the campus is not located on a locally important mineral resource recovery site. In addition, implementation of the Campus Master Plan would not result in loss of availability of a known mineral resource that would be of value to the region and the residents of the state. The campus is already developed, and the site is not available for extraction of mineral resources. Further development of the campus would not result in the additional loss of important mineral resource recovery. Therefore, the Master Plan EIR concluded on pages 12-1 and 12-2 that this impact was less than significant (Humboldt State University 2004).

While the modified project would increase the area occupied by the building previously proposed in the Campus Master Plan, it is not located on a locally or regionally important area known to contain mineral resources. In addition, use of the 2000 Foster Avenue staging area would be temporary, and there are no mineral resources identified within the proposed off-site staging area (City of Arcata 2017). As a result, the modified project would not result in a loss of availability of a known mineral resource that would be of value to the region and the residents of the state or result in the additional loss of important mineral resource recovery. The modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.13 NOISE

The Master Plan EIR analyzed the noise impacts associated with the Campus Master Plan in Chapter 13.0. The Master Plan EIR evaluated short-term construction and long-term operational noise at nearby noise-sensitive receptors at a programmatic level. Because noise is a local issue, affecting the receptors closest to the noise-generating activities, this analysis is based on the anticipated location of project construction, as well as the operation characteristics of the modified project and site-specific considerations (e.g., vegetation and topography).

Regarding short-term construction noise, the Master Plan EIR found that implementation of the Campus Master Plan has the potential to expose people off-site to objectionable sound if loud construction activities occur during sensitive nighttime hours. To address objectionable sound, the Campus Master Plan includes the following mitigative element (Humboldt State University 2004):

The Project Specifications will include the following requirements:

1. Construction activities that generate intrusive sound offsite will be limited from 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 7 p.m. on weekends,
2. Construction equipment will be maintained in proper condition to prevent excessive noise,
3. Backup beepers will be used only when necessary and will be no louder than necessary.

The Master Plan EIR concluded that with adherence to these requirements, the temporary elevation of ambient sound levels associated with construction activities under the Campus Master Plan would be less than significant on page 13-4 (Humboldt State University 2004).

The modified project would involve the construction and operation of an academic facility within the central portion of campus. The nearest sensitive receptors to the project site are located approximately 350 feet to the west at College Creek. As noted on page 13-3 of the Master Plan EIR noise levels at a distance of 100 feet are anticipated to be 74 decibels (dBA) (Humboldt State University 2004). Based on the distance between the project site (and without accounting for potential attenuation afforded by intervening structures like Griffith Hall), construction activities may result in exterior noise levels ranging between 64 and 68 dBA, which would be consistent with the findings of the

2004 Master Plan EIR. At present, nighttime construction of the modified project is not anticipated, however, if it were to occur and taking into account exterior-to-interior attenuation of noise, construction noise levels would likely not exceed 45 dBA within College Creek residences, and construction noise would not be significant. Nonetheless, construction of the modified project would adhere to the adoptive elements of the Campus Master Plan, and no new significant construction noise impacts would occur with respect to on-campus construction. At the 2000 Foster Avenue staging area, construction activities would be limited to the movement of materials within the site and loading of trucks intended for the project site. There would be backup beepers and noise associated with material movement and loading, however, this would be intermittent and centrally located within the 2000 Foster Avenue staging area. Heavy construction equipment at the 2000 Foster Avenue staging area is anticipated to be 300-400 feet from nearby receptors, which would result in similar noise levels (64-68 dBA) to construction noise at the project site, and construction noise would not be significant.

With respect to vehicles using the 2000 Foster Avenue staging area, it is assumed that up to 4 truck trips per day to and from the 2000 Foster Avenue staging area to the project site may be necessary. In addition and as noted above, it is assumed that up to 65 construction workers would park at the 2000 Foster Avenue staging area and be shuttled to and from the project site. This would result in up to 150 vehicle trips per day along local roadways, including consideration of up to 6 shuttle trips in the morning and 6 in the afternoon for construction workers. Based on traffic volumes noted in the Creek Side Homes EIR that addressed the project site (City of Arcata 2017), average daily roadway volumes along Foster Avenue are anticipated to be approximately 750 – 800 daily vehicle trips. In general, a doubling of roadway volumes is necessary to result in a significant roadway noise impact, which would not occur as a result of use of the 2000 Foster Avenue staging area. As a result, no new significant construction noise impacts would occur with use of the 2000 Foster Avenue staging area.

The Master Plan EIR also evaluated the long-term impact associated with the increase in operational traffic noise on local roadways. Traffic noise levels on a given roadway are directly related to the volume of vehicles that travel along that roadway. In other words, an increase in traffic volume results in an increase in traffic noise. The Master Plan EIR states that the increase in traffic on local roadways associated with the increase in campus enrollment, when conservatively overestimated, would increase noise levels by 2 A-weighted decibels, which would be barely perceptible. Therefore, the Master Plan EIR concluded that the long-term noise impact was less than significant on page 13-4 (Humboldt State University 2004).

The modified project would result in an overall decrease of the area developed on campus through the functional merging of Buildings F and M into the ERSC project and approved E&T Building, as well as removal of the Student Center South and the South Campus Parking Structure from the Campus Master Plan. Thus, the modified project would not increase on-campus operations beyond that previously anticipated in the 2004 Master Plan EIR. While use of the 2000 Foster Avenue staging area would increase trips within the City of Arcata from that location and campus, its use would be limited to the construction schedule (Monday through Friday between the hours of 7:30 a.m. and 7:00 p.m., with the potential for weekend construction on Saturday between 9:00 a.m. and 7:00 p.m.). Construction worker trips between campus and the 2000 Foster Avenue staging area would be accommodated via a shuttle and transport of construction equipment would occur on an as-needed basis. Thus, trips associated with the modified project would be limited during construction and not substantially greater than under the existing conditions. Because the 2000 Foster Avenue staging area would be restored to pre-project conditions (i.e., use as an open space area), there would be no operational increase in trips to campus associated with the modified project. As a result, the modified project would not result in an increase in daily vehicle trips or associated traffic noise compared to estimated levels from the Master Plan EIR. No new or more severe impacts with respect to noise would occur with project implementation. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.14 POPULATION AND HOUSING

Potential population and housing impacts of the Campus Master Plan were analyzed in Chapter 14.0 of the Master Plan EIR. The Master Plan EIR found that out-of-area contractors and construction workers who are involved with construction on campus likely would reside in local hotels and motels during construction and would not affect housing availability and increase the need for additional housing in the area. The planning process for the Campus Master Plan identified the desire to increase the on-campus housing ratio as time progresses. The Campus Master Plan was designed to develop housing based on an escalating campus enrollment. Campus housing development through acquisition would result in a higher density of housing than currently exists at the prospective acquisition locations. The acquisitions would occur over a timeframe that would result in little if any short-term displacement of even small numbers of residents. Therefore, the Master Plan EIR concluded that the Campus Master Plan's short-term impact on population and housing was less than significant (Humboldt State University 2004).

The modified project would result in the construction and operation of the new ERSC, which would accommodate the programming needs of Buildings F and M in the Campus Master Plan. Because the modified project would not constitute a new campus program or use type, it would not increase the potential for campus enrollment above that contemplated in the Campus Master Plan. With regard to the potential for temporary population increases during construction, the construction workforce of up to 70 on-site workers would be available within the County's current construction workforce of 2,400 people (EDD 2024) and would not require contracting with individuals outside of the immediate area. Because the modified project would not support an increase in campus enrollment above what was projected in the Campus Master Plan and Master Plan EIR, and would be developed using the local construction workforce, it would not result in an increase in the local population or necessitate development of new housing. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.15 PUBLIC SERVICES

Potential impacts of the Campus Master Plan related to public services (fire protection service, police protection service, schools, parks) were analyzed in Chapter 15.0 of the Master Plan EIR. The increase in campus enrollment envisioned by the Campus Master Plan would increase demand on local public services, potentially requiring expanded staffing and facilities to maintain response times and service ratios. The Master Plan EIR describes Cal Poly Humboldt's Fire Safety Program, which funds fire protection upgrades on campus. The campus also has an arrangement to provide funding for fire services, and it is expected that funding would be available to allow the Arcata Fire Protection District to increase its staffing to address increased campus enrollment. Similarly, the increased enrollment would increase the number of necessary employees and support facilities at the campus police department. It is expected that campus police would be funded in accordance with CSU guidelines and practice; however, the availability of funds is subject to influence by state budget issues. In general, university students do not place a significant demand on primary school enrollment because most students are young, childless, single adults. Therefore, the considerable increase in Cal Poly Humboldt enrollment would not likely significantly increase the need for public education services. The Cal Poly Humboldt campus provides several acres of parks and recreation areas, playfields, communal areas, two gyms, an indoor swimming pool, bike and walking trails, and other recreational facilities. Together, they were considered adequate for the anticipated campus enrollment of 12,000 FTES. Therefore, implementing the Campus Master Plan was not expected to create a significant demand on local and regional parks. The Master Plan EIR concluded that the long-range planning presented by the Campus Master Plan, the normal practices included in campus development and cooperation with the City of Arcata, and the fact that the demand for public services would increase incrementally, along with campus enrollment, would result in a less-than-significant impact (Humboldt State University 2004).

As discussed above under Section 2.14, "Population and Housing," the modified project would not support an increase in campus enrollment beyond levels projected in the Campus Master Plan and would be developed using the local construction workforce. In addition, the modified project would provide accessible paths of travel to the

main building entry via sidewalks along B Street. Exterior bike racks and bike racks would be installed to the west side of the building. Therefore, the ERSC would not substantially decrease communal areas, open space, and event space within the campus as a whole. Thus, there would not be a substantial increase in demand for public services beyond that contemplated in the Campus Master Plan and Master Plan EIR. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.16 RECREATION

Potential impacts of the Campus Master Plan related to recreation were analyzed in Chapter 16.0 of the Master Plan EIR. The Master Plan EIR found that interruptions in access to recreational facilities during renovations on campus would be temporary and would be sufficiently addressed by providing alternatives, such as an alternative route when construction of the proposed Access Road would require trail closures. It also found that the additional demand for recreational resources created by the increase in campus enrollment would be met by existing campus facilities, as well as additional indoor and outdoor athletic and recreational facilities elsewhere on campus developed under the Campus Master Plan. Implementation of the Campus Master Plan was not expected to increase the use of neighborhood or regional parks or other recreational facilities in the project area, require the construction or expansion of recreational facilities that might have an adverse effect on the environment, or otherwise adversely affect existing recreational opportunities. Thus, the Master Plan EIR concluded that the impact on recreational resources was less than significant (Humboldt State University 2004).

The modified project would consolidate uses for Buildings F and M in the Campus Master Plan for use in the approved E&T building and the ERSC building. To support development of the ERSC, Student Center South and the South Campus Parking Structure would be removed from the Campus Master Plan. These modification represent an overall decrease in development on campus in area and height, both through continuation of programmed laboratory space and removal of structures from the Campus Master Plan. Due to these modifications, open space areas that could accommodate passive recreation uses would be increased within campus. In addition, the modified project would provide accessible paths of travel to the main building entry via sidewalks along B Street. As discussed above under Section 2.14, "Population and Housing," the modified project would not support an increase in campus enrollment beyond levels indicated in the Campus Master Plan and would not permanently or substantially affect nearby population levels. Use of the 2000 Foster Avenue staging area would be temporary, and the site would be restored to pre-project conditions upon completion of construction. Thus, there would not be a substantial increase in demand for recreation resources. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.17 TRANSPORTATION

The Master Plan EIR analyzed the potential for new development under the Campus Master Plan to affect traffic, circulation, and parking in Chapter 17.0, "Transportation." Construction traffic associated with various projects of the Campus Master Plan could substantially affect normal vehicular, pedestrian, and bicycle traffic circulation if it is not properly controlled. This impact would occur largely from disruptions to the flow of traffic by the movement of equipment, materials, and personnel into and out of construction sites. Without adequate controls, construction traffic could result in unnecessary congestion, impairment of access, and hazards to vehicles, bicycles, and pedestrians. To address these disruptions and hazards, the Campus Master Plan includes the following mitigative element (Humboldt State University 2004):

The construction contractor will be required to submit a traffic control plan to the University for approval. The approved plan must require that the contractor follow appropriate traffic safety guidelines, such as the Caltrans "Manual of Traffic Safety Controls for Construction and Maintenance Work Zones," and that work be conducted such that:

1. Effects on local circulation, parking, and hazards are minimized,
2. Emergency vehicles can pass through the construction zone at all times, and
3. Clearly marked and signed indicators of pedestrian, bicycle, and vehicle traffic areas to be closed or restricted during construction are provided and that affected traffic is directed to alternate routes where appropriate.

The Master Plan EIR concluded on page 17-4 that traffic-related impacts related to disruptions and hazards would be less than significant with implementation of the above-listed traffic-related mitigative elements (Humboldt State University 2004). The Master Plan EIR indicated that construction traffic control plan, described above, would relieve congestion, impairment of access, and hazards to vehicles, bicycles, and pedestrian during construction and operation.

The Master Plan EIR also examined the impact of the Campus Master Plan on pedestrian safety, concluding that the impact was less than significant (Humboldt State University 2004).

The modified project would include the installation of pathways for walking and bicycle parking, consistent with Campus Design Guidelines. Thus, there would not be conflicts with programs, plans, or policies addressing transit, roadway, bicycle, and pedestrian facilities. Emergency access has been determined to be sufficient by the Arcata Fire Protection District (Cal Poly Humboldt 2024); therefore, emergency access would be sufficient. These modifications would ensure that adequate emergency access is available from the site and that roadway design would not present a hazardous condition.

SB 743 and related 2018 updates to the State CEQA Guidelines in Section 15064.3 specify that VMT, the amount and distance of automobile travel due to a project, is the most appropriate measure of transportation impacts. The CEQA Guidelines changes also indicate that a project's effect on automobile delay would not constitute a significant environmental impact, except possibly when analyzing a transportation project (OPR 2017). The modified project would result in an overall decrease of the area developed on campus through the functional merging of Buildings F and M into the ERSC project and approved E&T building, as well as removal of the Student Center South and the South Campus Parking Structure from the Campus Master Plan. Thus, the modified project would not increase on-campus operations beyond that previously anticipated in the 2004 Master Plan EIR. While use of the 2000 Foster Avenue staging area would increase trips within the City of Arcata from that location and campus, its use would be limited to the construction schedule (Summer 2024 through Spring 2026, Monday through Friday between the hours of 7:30 a.m. and 7:00 p.m., with the potential for weekend construction on Saturday between 9:00 a.m. and 7:00 p.m.). Construction worker trips between campus and the 2000 Foster Avenue staging area would be accommodated via a shuttle and transport of construction equipment would occur on an as-needed basis. Thus, trips associated with the modified project would be limited during construction and not substantially greater than under the existing conditions. Because the 2000 Foster Avenue staging area would be restored to pre-project conditions (i.e., use as an open space area), there would be no operational increase in trips to campus associated with the modified project. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.18 TRIBAL CULTURAL RESOURCES

AB 52 (Chapter 532, Statutes of 2014) established a formal consultation process for California Native American tribes as part of CEQA and equates significant impacts on tribal cultural resources with significant environmental impacts (CEQA Section 21084.2). AB 52 consultation requirements went into effect on July 1, 2015, for all projects that had not already published a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration or published a Notice of Preparation of an Environmental Impact Report prior to that date (Section 11[c]). Specifically, AB 52 requires that "prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, the lead agency shall begin consultation" (21808.3.1[a]), and that "the lead agency may certify an environmental impact report or adopt a mitigated negative declaration for a project with a significant impact on an identified tribal cultural resource only if" consultation is formally concluded (21082.3[d]).

However, in the case of the modified project, the lead agency has prepared this addendum to the previously certified Master Plan EIR, in accordance with Section 15164 of the State CEQA Guidelines. An addendum was determined to be the most appropriate document because none of the conditions described in Section 15162, calling for preparation of a subsequent EIR, have occurred. The addendum addresses minor technical changes or additions and confirms that the modified project is consistent with were previously analyzed in the Master Plan EIR. As such, the addendum would not result in an additional certification; therefore, the AB 52 procedures specified in CEQA Sections 21080.3.1(d) and 21080.3.2 do not apply, and no tribal consultation under AB 52 is required. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.19 UTILITIES AND SERVICE SYSTEMS

2.19.1 Water Demand and Supply

The Master Plan EIR evaluated water supply and demand and concluded that existing and projected water supplies are sufficient to serve campus development up to 8,500 FTES (as assumed in the Arcata General Plan) but may not be sufficient to serve the 12,000 FTES ultimately anticipated under the Campus Master Plan. The Master Plan EIR concludes that there would not be a water supply impact for many years, if at all, and states that an evaluation of future water demand, which must consider possible water system improvements over the lengthy implementation phase of the Campus Master Plan, would be speculative (Humboldt State University 2004).

The modified project would result in an overall decrease of the area developed on campus through the functional merging of Buildings F and M into the ERSC project and approved Engineering and Technology building, as well as removal of the Student Center South and the South Campus Parking Structure from the Campus Master Plan. The modified project would not result in an increase in the local population or an increase in campus enrollment above what was projected in the Campus Master Plan and Master Plan EIR. Additionally, the modified project would connect to the existing campus infrastructure, receiving domestic, industrial, and potable water supplies from existing pipelines. As mentioned in the Master Plan EIR, any new connections to Arcata's water or sewer main would require coordination with Humboldt Bay Municipal Water District (HBMWD) to ensure that the connections are approved, properly implemented, and interruption of service is avoided or minimized to the greatest extent practicable. The ERSC would also be LEED certified, which would require the building to have water conservation measures. Therefore, the modified project is consistent with the amount of growth and utility demand analyzed in the Master Plan EIR, and with compliance of LEED certification water conservation measures, the modified project would continue to be sufficiently supported by the City. Impacts would remain less than significant for water demand and supply and no new or more severe impacts would occur with project implementation. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.19.2 Wastewater

The Master Plan EIR evaluated wastewater generation and wastewater treatment capacity. The Master Plan EIR concluded that the increase in wastewater flows from Cal Poly Humboldt would not exceed the level anticipated in the General Plan and that adequate capacity exists at the City's wastewater treatment facility to serve buildout of the Campus Master Plan. It also states that Cal Poly Humboldt will keep the City informed regarding projected wastewater flows as time passes. The Master Plan EIR concluded that the impact related to wastewater was less than significant (Humboldt State University 2004).

As discussed above, the modified project would not result in an increase in the local population or an increase in campus enrollment above what was projected in the Campus Master Plan and Master Plan EIR. Therefore, the modified project would be consistent with the amount of growth and utility demand analyzed within the Master Plan EIR. Impacts would remain less than significant for wastewater and no new or more severe impacts would occur with

project implementation. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.19.3 Stormwater Drainage Facilities

Stormwater drainage facilities are discussed in Chapter 10.0 of the Master Plan EIR. As described in Section 2.10.3, "Drainage, Erosion, and Flooding," above, the Master Plan EIR concluded that the impact related to stormwater drainage facilities was less than significant (Humboldt State University 2004).

The ERSC would connect to existing campus infrastructure, with the storm drain system of the proposed building collecting drainage into pipes and fed into the overall campus system at one connection point, which is along the edge of B Street. As discussed above, the modified project proposes development of the ERSC, which would comprise the function purpose of Buildings F and M proposed for the campus in the Campus Master Plan, and would not result in an increase in the local population or an increase in campus enrollment above what was projected in the Campus Master Plan and Master Plan EIR. Therefore, the modified project would be consistent with the amount of growth and utility demand analyzed within the Master Plan EIR. With respect to the 2000 Foster Avenue staging area and as noted above, the staging area would be maintained as a pervious surface and a SWPPP would be implemented to ensure that stormwater exiting the site would not increase in terms of rate such that stormwater drainage facilities, including on-site and off-site drainage ditches, would not have inadequate capacity. Impacts would remain less than significant for stormwater drainage facilities, and no new or more severe impacts would occur with project implementation. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.19.4 Solid Waste

The Master Plan EIR concluded that the additional quantity of waste generated by the increase in FTES on campus would be small in relation to the Eureka Transfer Station capacity and that the additional waste was not expected to create a significant impact on the Dry Creek Landfill, which is contractually bound to accept solid waste generated in Humboldt County and which is not restricted to a maximum capacity. The Master Plan EIR concluded that the impact related to solid waste was less than significant (Humboldt State University 2004).

As discussed above, the modified project would not result in an increase in the local population or an increase in campus enrollment above what was projected in the Campus Master Plan and Master Plan EIR. Arcata Garbage would continue to serve Cal Poly Humboldt and the modified project by collecting solid waste and transporting waste to the Humboldt Waste Management Authority's Eureka transfer station. Any accumulation of hazardous chemical wastes associated with laboratory operations would be disposed of according to authorized waste handling procedures implemented by EHS. Demolition debris associated with the demolition of the existing graveled areas of the modified project would be brought to permitted disposal sites or to recycling and reuse centers, as analyzed within the Master Plan EIR. Therefore, the modified project would be consistent with the amount of growth and utility demand analyzed in the Master Plan EIR. Impacts would remain less than significant for solid waste and no new or more severe impacts would occur with project implementation. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

2.20 WILDFIRE

Since the certification of the Master Plan EIR, the State CEQA Guidelines were updated to include a new section on wildfire. As described in Chapter 9.0, "Hazards and Hazardous Materials," of the Master Plan EIR, the campus is located adjacent to a redwood and fir forest, which has a moderate potential for wildland fire. Because the Campus

Master Plan does not propose structures in the forest designed for occupancy, the Master Plan EIR concluded that wildfire impacts would be less than significant (Humboldt State University 2004).

Since certification of the Master Plan EIR, the California Department of Forestry and Fire Protection prepared fire hazard severity zone maps in 2007. The project site and staging areas are located outside of an SRA or land classified as a very high FHSZ (CAL FIRE 2024).

As discussed above in Section 2.9.4, "Wildfire Risk," the ERSC project site, staging areas, and surrounding land uses are not defined/designated as a High Fire Hazard Severity Zone and are not located within a State Responsibility Area (CAL FIRE 2024). Due to the location of the project site within the existing developed campus and the location of the 2000 Foster Avenue staging area away from forested areas, the risk of wildfire is low. Therefore, the modified project would not result in more severe impacts than were identified in the programmatic analysis provided in the Master Plan EIR. No substantial change from the previous conclusions in the Master Plan EIR would occur.

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