

Appendix L Mitigation Action Progress Report

Mitigation Action A-1 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-1 Emergency Preparedness Coordination Continue to participate in the Emergency Management Council by planning, implementing, and evaluating pre-event activities including ongoing training for county staff	
Responsible Agency	OES/OR3	
Contact Name	Michael Beaton/Karen Adler	
Contact Phone/Email	(831) 454-2210 michael.beaton@santacruzcounty.us (831) 454-2166 karen.adler@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The Emergency Management Council continues to meet every two months. All of the local emergency services partners are invited to attend or are voting members.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-2
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-2 Floodplain Management Continue to enforce floodplain management regulations on all permit applications. Create a policy interpretation for calculating “Substantial Improvement” more effectively in the floodplain	
Responsible Agency	Planning Department	
Contact Name	Leah MacCarter	
Contact Phone/Email	(831) 454-3164 / Leah.MacCarter@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The “Flood Zones –Substantial Improvements” interpretation became effective February 10, 2010. The interpretation effectively increased the substantial improvement dollar value per square foot to better reflect current actual construction costs.

The “Flood Zones –Substantial Improvements” interpretation was subsequently superseded by the new Substantial Improvement / Damage Review forms created in March 2013. These forms have simplified the permit requirements for applicants and reduced application review time for staff.

2. What obstacles, problems, or delays did the project encounter?

The “Flood Zones –Substantial Improvements” interpretation worked well for additions but proved to be more difficult to use for remodels. For that reason, the Substantial Improvement / Damage Review forms were created.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-3
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-3 Community Rating System Application Continue to participate in the Community Rating System to improve floodplain management	
Responsible Agency	Planning Department	
Contact Name	Leah MacCarter	
Contact Phone/Email	(831) 454-3164 / Leah.MacCarter@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Planning Department staff completed the application for participation in the CRS Program during the 2011-2012 fiscal year. The County of Santa Cruz was accepted into the program as a Class 8 Community effective October 1, 2012. Staff has maintained this rating since the effective date.

2. What obstacles, problems, or delays did the project encounter?

Although the application preparation and review process took over 2 years to complete, there were no major obstacles, problems, or delays.

3. Is the project still relevant?

Yes, ongoing participation in the program involves annual activities including, staff meetings, record-keeping, ordinance updates, and public outreach and education.

4. Should the project be changed or revised? No

5. Other comments:

The Class 8 rating qualifies homeowners for a 10% reduction in flood insurance premiums.

Mitigation Action A-4
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-4 Wildfire Hazard Abatement Reduce fire risk in wildland/urban interface (WUI) by advocating use of improved building materials and appropriate code enforcement, including defensible space and fuel break and reduction programs	
Responsible Agency	CalFire/Santa Cruz County Fire Marshall	
Contact Name	Chris Walters	
Contact Phone/Email	(831) 335-6748 chris.walters@fire.ca.gov	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Defensible space inspections are completed by inspectors from CAL FIRE, engine companies, and fire protection districts (Central and Aptos/La Selva). Educational materials are distributed to residents during inspections, through direct mailing, and at public events including a brief pamphlet focusing on defensible space and a document called Living With Fire in Santa Cruz County.

The Santa Cruz County Code requires new projects and construction to meet fire safety standards consistent with State law (PRC 4290). Chapter 7.92 of the County Code establishes requirements for fuel modification and emergency water supply, as well as minimum fire safe driveway and road standards. New structures built in Santa Cruz County must also comply with fire safety building regulations. These building codes require the use of ignition-resistant building materials in higher risk areas and establish design standards to improve the ability of a building to survive a wildfire.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-5
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-5 WUI Land Use Planning Promote land use planning which will reduce incidence of human caused wildfires especially in very high hazard areas	
Responsible Agency	Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173 david.carlson@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Amendment of the County’s General Plan Public Safety Element Fire Hazards section in 2020 incorporated the latest references to State law regarding development standards in the WUI including access, water supply, and fuels management and has brought alignment of the road and building standards. Local amendments of the Fire Code incorporate stricter standards for access for new land divisions.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-6
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-6 Emergency Personnel Road Access Advocate for creation of secondary road access improvement	
Responsible Agency	CalFire	
Contact Name	Chris Walters	
Contact Phone/Email	(831) 335-6748 chris.walters@fire.ca.gov	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Review of rural land division application for conformance with local access standards including secondary access where required. Amendment of the County’s General Plan Safety Element has brought alignment of the road and building standards.

The new 2019 fire and building code has been adopted by all County Fire agencies.

2. What obstacles, problems, or delays did the project encounter?

The County continues to enforce current fire and building codes, and the secondary access road standards in the Safety Element.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-7
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-7 Water Conservation Implement water conservation programs to maximize the use of existing water resources	
Responsible Agency	Environmental Health Services	
Contact Name	Sierra Ryan	
Contact Phone/Email	(831) 454-3133 sierra.ryan@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Long term water conservation measures have been implemented by major water agencies, resulting in declining total demand. During the recent drought, agencies reduced water use from 2013 to 2016 by 25%. The County has implemented additional prohibitions on wasteful water use practices (Chapter 7.69) and has implemented the Water Efficient Landscape Ordinance (Chapter 13.13). Water efficiency measures for large users are required as a condition of obtaining a well permit (Chapter 7.70). Small water systems will be required to install meters and report water use (Chapter 7.71). County staff continue to provide education and outreach on water conservation and respond to complaints of excessive water use.

2. What obstacles, problems, or delays did the project encounter?

It is challenging to determine effectiveness of programs in rural areas where users do not meters on their water sources.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-8
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-8 Develop Additional Water Supplies Support the development of additional water supplies and promote more effective use of groundwater storage through increased groundwater recharge and conjunctive use among agencies	
Responsible Agency	Environmental Health	
Contact Name	Sierra Ryan	
Contact Phone/Email	(831) 454-3133 sierra.ryan@santacruzcounty.us	
Project Status	Substantial progress. Project is ongoing. Water agencies were pursuing a desalination project, but this has been delayed or stopped indefinitely due to community concerns over impacts of the proposed project.	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Recycled Water and Groundwater Storage. There are currently three water recycling plants in the County, all focusing on tertiary treatment for irrigation: one operated by the City of Scotts Valley, one by the Pasatiempo Golf Course, and one by the City of Watsonville and Pajaro Valley Water Management Agency. The first potable recycled water is in the final development stages with construction expected to start in 2021. The Pure Water Soquel project is being spearheaded by Soquel Creek Water District in partnership with the City of Santa Cruz who will provide the source water. The project will purify 1500 acre-feet of water per year, which will be injected into the Mid-County Groundwater Basin for use as both a supply and for seawater intrusion prevention. The City of Santa Cruz is investigating the use of the Mid-County Basin as a place to store excess surface water through an Aquifer Storage and Recovery program. The City is currently piloting the feasibility of using surplus winter flows and injecting them into the Basin for future use. They are also in the process of updating their water rights to allow flexibility in the use of their surface water sources. The County is considering investigating the feasibility of septic consolidation and centralized sewage treatment in a portion of the San Lorenzo Valley, which would make recycled water available to mitigate water supply constraints and/or for fire suppression.

2. What obstacles, problems, or delays did the project encounter? Cost and public acceptance have delayed project implementation.

3. Is the project still relevant? The project is still very relevant and will be further refined as more information is made available for public review.

4. Should the project be changed or revised? No

Mitigation Action A-9
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-9 Drought Protection Promote more effective use of groundwater storage through increased groundwater recharge	
Responsible Agency	Environmental Health	
Contact Name	Sierra Ryan	
Contact Phone/Email	(831) 454-3133 sierra.ryan@santacruzcounty.us	
Project Status	Substantial progress. Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Water Transfers, Recharge and Conjunctive Use. County staff are supporting the efforts of the water agencies to evaluate more possibilities for water exchanges and conjunctive use options which would have the potential to utilize more surface water during wet periods, increase use of recycled water, increase groundwater storage, increase stream baseflow, and potentially make more groundwater available to surface water users during drought periods. County staff is also pursuing various methods to increase groundwater recharge through projects and policies to restore and maintain storm water infiltration. City of Santa Cruz, San Lorenzo Valley Water District, Scotts Valley Water District and Soquel Creek Water District are all actively evaluating conjunctive use options and negotiations are underway for transfer of surface water to reduce groundwater use. In particular, the City of Santa Cruz and Soquel Creek Water District have been actively transferring water since 2019 and just negotiated a 5-year extension of that program. The County has received Integrated Regional Water Management grant funds to implement a stormwater recharge project at the Seascape Golf Course. The Resource Conservation District is continuing to develop projects to capture and recharge groundwater from agricultural areas of South County. Stormwater regulations have been amended to require maintaining infiltration rates at pre-development levels for new development and redevelopment. The Pajaro Valley Water Management Agency has recently certified two water supply project EIRs. One is for their College Lake Project which will supply approximately 1,800 to 2,300 acre-feet per year of water to growers in the Pajaro Valley. The other is for their Watsonville Slough Managed Aquifer Recharge project which temporarily stores excess surface water underground for use as irrigation water during the dry season (A-9).

2. What obstacles, problems, or delays did the project encounter? Much recharge has already been lost by development in recharge areas. Financing to restore recharge has been made available for grants, but ongoing funding for recharge restoration is limited.

3. Is the project still relevant? Project is relevant as is.

4. Should the project be changed or revised? No

Mitigation Action A-10
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-10 Early Notification\ Warning Systems Continue to coordinate communication system and upgrades with other agencies and the cities of Santa Cruz, Watsonville, and Capitola, including evacuation operations, for homes and businesses in specific hazard areas	
Responsible Agency	OES/OR3	
Contact Name	Michael Beaton/Karen Adler, OES	
Contact Phone/Email	(831) 454-2210 michael.beaton@santacruzcounty.us (831) 454-2166 karen.adler@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Continue to meet quarterly with Long Range Radio Infrastructure Management Planning Group to strategically consider interoperability and coordination of communications systems development and change out.

Continue to seek grant funding opportunities for emerging technologies and enhancements.

The narrow banding communications project has been completed for all county emergency services partners.

It is relevant to note here that communications with the public during the CZU Lightning Complex Fire in the form of press releases were issued in both English and Spanish.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-11
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-11 Promote Alarm and Fire-Retardant Systems Promote installation, inspection, and testing of built-in fire alarm and sprinkler systems	
Responsible Agency	CalFire	
Contact Name	Chris Walters	
Contact Phone/Email	(831) 335-6748 chris.walters@fire.ca.gov	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The new 2019 fire and building code has been adopted by all County Fire agencies.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-12

Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-12 Fire Protection and Prevention Establish and maintain fire protection and prevention agreements with other agencies	
Responsible Agency	CalFire, OES	
Contact Name	Michael Beaton, OES	
Contact Phone/Email	(831) 454-2210 michael.beaton@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Updated existing MOU with Cal Fire to run the County Fire Program.

2. What obstacles, problems, or delays did the project encounter? None

3. If uncompleted, is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-13
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-13 Reduction of Emergency Response Times Improve road signage visibility and address markings	
Responsible Agency	Public Works	
Contact Name	Steve Wiesner, Dept. of Public Works	
Contact Phone/Email	(831) 454-2794 steve.wiesner@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Approximately \$57,600 worth of warning guide signs meeting current state specifications were purchased through a federal Highway Safety Improvement Project (HSIP) grant and were installed by the County road crews.

County road crews continuously clear vegetation from around traffic control signs to maintain sign visibility.

In addition, Public Works installed tsunami warning signs along the coastal areas in cooperation with Emergency Services.

2. What obstacles, problems, or delays did the project encounter? None.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-14
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-14 Communications Interoperability Enhance support for interoperability of communications system with local, state, and federal emergency services	
Responsible Agency	OES/OR3, CalFire	
Contact Name	OES/OR3 staff	
Contact Phone/Email	(831) 454-2210 michael.beaton@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

All communications systems have been changed to comply with the FCC narrow banding requirement.

2. What obstacles, problems, or delays did the project encounter?

Availability of funding

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-15
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-15 Minimize Landslide Risk Continue to require that the county geologist review development in areas of suspected landsliding and require engineering reports when landsliding is identified or suspected	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Staff does review all development for slope instability including landsliding.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-16
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-16 Landslide Regulations Continue to require that an engineering geologist and/or geotechnical engineer investigate the site of any proposed construction near landsliding and require mitigation of landslide hazards before issuing any building or grading permits	
Responsible Agency	Planning Dept.	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Sites near landsliding are (were) investigated by engineering geologist and/or geotechnical engineers, and mitigations are required (where necessary) to prevent damage to development.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-17
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	A-17 Landslide Inspections Continue to require that an engineering geologist and/or a geotechnical engineer investigate any landslide damage to homes or roadways before repair of the landslide and reuse of the homes or roadways	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Engineering geologic and geotechnical engineering investigations and reports have been required for all homes and habitable structures damaged by landsliding.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action A-18
 Progress Report Form

Progress Report Period	From Date: 2021	To Date: 2026
Action/Project Title	A-18 Evacuation Plans Continue to refine and improve our evacuation management plans and tools using Zonehaven	
Responsible Agency	Calfire, Sheriff, OES/OR3	
Contact Name	OES/OR3 staff	
Contact Phone/Email	(831) 454-3407, david.reid@santacruzcounty.us	
Project Status	This is a new action item that will be reported on for the next update of the LHMP.	

Mitigation Action A-19
 Progress Report Form

Progress Report Period	From Date: 2021	To Date: 2026
Action/Project Title	A-19 Community Organizations Assisting in Disaster (COAD) Re-establish and support Community Organizations Assisting in Disaster (COAD)	
Responsible Agency	OES/OR3	
Contact Name	OES/OR3 staff	
Contact Phone/Email	(831) 454-3407, david.reid@santacruzcounty.us	
Project Status	This is a new action item that will be reported on for the next update of the LHMP.	

Mitigation Action A-20
 Progress Report Form

Progress Report Period	From Date: 2021	To Date: 2026
Action/Project Title	A-20 Hazardous Fuel Reduction Reduction of fire risk in the urban/wildland interface (WUI) through hazardous fuel reduction projects including but not limited to indigenous land use practices of controlled burns, hazardous fuel removal, other shaded fuel break burn strategies.	
Responsible Agency	Fire agencies, partners	
Contact Name	Fire agencies, partners	
Contact Phone/Email	Fire agencies, partners	
Project Status	This is a new action item that will be reported on for the next update of the LHMP.	

Mitigation Action A-21
 Progress Report Form

Progress Report Period	From Date: 2021	To Date: 2026
Action/Project Title	A-21 CZU Fire Recovery Support CZU Fire Recovery for survivors utilizing best practices for improving overall safety of rebuild	
Responsible Agency	OES/OR3, Planning	
Contact Name	OES/OR3 staff	
Contact Phone/Email	(831) 454-3407, david.reid@santacruzcounty.us	
Project Status	This is a new action item that will be reported on for the next update of the LHMP.	

Mitigation Action A-22
 Progress Report Form

Progress Report Period	From Date: 2021	To Date: 2026
Action/Project Title	A-22 Early Warning Systems Enhance our early warning, and rainfall monitoring capacity in the high debris flow risk areas of the County following the CZU fires of 2020.	
Responsible Agency	OES/OR3, Planning, Public Works	
Contact Name	Various	
Contact Phone/Email	Various	
Project Status	This is a new action item that will be reported on for the next update of the LHMP.	

Mitigation Action A-23
 Progress Report Form

Progress Report Period	From Date: 2021	To Date: 2026
Action/Project Title	A-23 Debris Flow Hazard Mitigation Identify, monitor, and mitigate where feasible the hazards and risks associated with post fire debris flows.	
Responsible Agency	Planning	
Contact Name	Jeff Nolan, County Geologist	
Contact Phone/Email	(831) 454-3175, jeff.nolan@santacruzcounty.us	
Project Status	This is a new action item that will be reported on for the next update of the LHMP.	

Mitigation Action A-24

Progress Report Form

Progress Report Period	From Date: 2021	To Date: 2026
Action/Project Title	<p>A-24 Emergency Shelters</p> <p>Expand use and functionality of targeted shelters County Wide to serve as “All Hazard Resiliency Centers” which can serve as an all-hazard resource for community members in events including but not limited to: earthquakes, fires, floods, Public Safety Power Shut-off events, extreme weather events, poor air quality days. Building resiliency centers may include but is not limited to back-up power generation capacity, air filtration, air conditioning, kitchen facilities, shelter capacity.</p>	
Responsible Agency	OES/OR3	
Contact Name	OES/OR3 staff	
Contact Phone/Email	(831) 454-3407, david.reid@santacruzcounty.us	
Project Status	This is a new action item that will be reported on for the next update of the LHMP.	

Mitigation Action B-1
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-1 Infrastructure Upgrades Upgrade roadways, sewer, water, and other infrastructure to withstand seismic shaking	
Responsible Agency	Dept. of Public Works	
Contact Name	Matt Machado	
Contact Phone/Email	(831) 454-2160 Matt.Machado@santacruzcounty.us	
Project Status	Project partially completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Continue prioritizing vulnerable infrastructure such as roads, bridges, and drainages structures.

2. What obstacles, problems, or delays did the project encounter? Funding

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-2
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-2 Review Stormwater Runoff Regulations Review and revise California Environmental Quality Act (CEQA) Initial Study checklist to ensure that storm water runoff is fully considered and mitigated to the extent possible	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173 david.carlson@santacruzcounty.us	
Project Status	Project completed	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The Initial Study Checklist used by County staff has been updated to ensure that storm water runoff is fully considered and mitigated to the extent possible.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-3
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-3 Fire Safety and Prevention Programs Implement additional fire prevention programs in schools, institutions, and commercial buildings through inspections and education	
Responsible Agency	Santa Cruz County Fire Marshall	
Contact Name	Chris Walters	
Contact Phone/Email	(831) 335-6748 chris.walters@fire.ca.gov	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

County Fire puts on education programs for schools and businesses in the unincorporated areas of the County.

Additional school programs have been added as part of the County Fire Prevention and Education program. All schools in County Fire are inspected annually. Commercial Business inspections are ongoing.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-4
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-4 Adequate Staffing Maintain adequate Fire Suppression and Prevention staffing levels to meet the needs of the county	
Responsible Agency	Santa Cruz County Fire Marshall	
Contact Name	Chris Walters	
Contact Phone/Email	(831) 335-6748 chris.walters@fire.ca.gov	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

In spite of long-term funding challenges resulting in systematic cuts over the last several years, including reduction of personnel staffing, the County Fire fund balance has been maintained by careful fiscal management for extreme necessity. Grants, CAL FIRE contract saving, and economic recovery have contributed to this preservation. The County Fire’s structural budget deficit continues to be the administrative priority. In January 2020, a new assessment was approved by voters in CSA 48, the County Fire Department operating area, that would provide a higher level of fire protection and emergency response service by increasing staffing levels to nationally recognized standards and providing for improved apparatus and equipment replacement.

2. What obstacles, problems, or delays did the project encounter? See above.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-5
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-5 Geologic Hazards Ordinance Update Seek funds to update and revise the Geologic Hazards Ordinance	
Responsible Agency	Planning Department	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Completed	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Funding was obtained for updating the Geologic Hazards Ordinance. A revised ordinance was adopted by the Board of Supervisors on October 6, 2020.

2. What obstacles, problems, or delays did the project encounter?

The public hearing process was lengthy due to public controversy over the portion of the ordinance regulating development on coastal bluffs and beaches.

3. If uncompleted, is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-6
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-6 Elevation of Structures in Floodplain Continue to pursue elevation of structures above level of 100-year flood	
Responsible Agency	Planning, OES	
Contact Name	Leah MacCarter, Planning Department	
Contact Phone/Email	(831) 454-3164 / Leah.MacCarter@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Per the Geologic Hazards Ordinance, the Planning Department continues to evaluate incoming building and development permit applications for structures in flood hazard areas to determine if the work will meet or exceed the threshold for a substantial improvement. Structures for which substantial improvements are proposed are required to be elevated. For those projects that do not exceed substantial improvement, the applicant is advised of the benefits of elevation of the structure. During the reporting period, the Planning Department has issued 10 permits for elevated structures and received 8 elevation certificates for newly elevated structures.

2. What obstacles, problems, or delays did the project encounter?

Applicants continue to keep the size of renovation projects below the substantial improvement threshold in order to avoid the elevation requirement.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-7
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-7 Stormwater Management Continue to enforce requirements for on-site retention of storm water	
Responsible Agency	Planning and Public Works	
Contact Name	Rachel Fatoohi, Dept. of Public Works	
Contact Phone/Email	454-2160, Rachel.fatoohi@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Public Works Stormwater Management staff continues to require on site mitigations to control runoff volume and rates from new or redeveloped impervious areas where feasible throughout Santa Cruz County.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-8
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-8 Stormwater Policy and Ordinance Evaluation The County shall evaluate the effectiveness of current policies and ordinances designed to limit storm water runoff and flooding and, if needed, recommend revisions to improve effectiveness of these policies and codes	
Responsible Agency	Public Works	
Contact Name	Rachel Fatoohi, Dept. of Public Works	
Contact Phone/Email	(831) 454-2160, Rachel.fatoohi@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

On 3/6/12, the Board of Supervisors adopted Ordinance No. 5117 adding Chapter 7.79 Runoff and Pollution Control to the Santa Cruz County Code. The adoption of the ordinance was supplemented by changes to the County Design Criteria on the same day.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-9
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-9 Drainage Plan Evaluation The county shall evaluate the effectiveness of the current drainage plan requirements to ensure that storm water runoff from impervious surfaces does not contribute to flooding and, if needed, revise permit conditions of approval	
Responsible Agency	Public Works	
Contact Name	Rachel Fatoohi	
Contact Phone/Email	(831) 454-2160, Rachel.fatoohi@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

What was accomplished for this project during this reporting period?

As part of developing the 2012 Ordinance, requirements for both new and redeveloped sites have been generated to minimize impervious area impacts to flooding and water quality.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

4. Other comments:

Stormwater mitigation requirements apply to new and redevelopment type of projects. Work is needed to develop quantifiable criteria for minimizing impervious areas required by both the Design Criteria and the General Plan

Mitigation Action B-10
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-10 Stormwater Control Implement the “Stormwater Facilities Master Plan” for Flood Control Districts 5 & 6	
Responsible Agency	Dept. of Public Works	
Contact Name	Rachel Fatoohi	
Contact Phone/Email	(831) 454-2160, Rachel.fatoohi@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The Master Plan for Zones 5 and 6, the most urbanized areas of the county, was completed in August 2013. The Master Plan identified recommended improvements that Public Works and the Flood Control Districts will consider in prioritizing the drainage improvements within these zones. Zone 5 is in the process of updating the Zone Drainage Master Plan to assess the condition and capacity of the larger conveyances within the Zone, to estimate the cost of comprehensive maintenance and CIP program. The goal of this update is also to seek sustainable funding source to maintain and upgrade the drainage facilities within the zone. Also, one of the tasks in the Zone 5 Master Plan update will be about “limited” modeling for climate change and sea level rise. One iteration of climate change impacts will be modeled on the CIP pipe and creek models. The climate change iteration will include tidal boundary change due to sea level rise and increased runoff due to precipitation change.

2. What obstacles, problems, or delays did the project encounter?

Condition assessment was completed for a limited number of pipes because of lack of funding. Lack of funding continues to be an issue.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

5. Other comments:

New sustainable sources of funding are needed to complete comprehensive condition assessment of the drainage facilities as well as to implement improvements to address the identified capacity and condition restrictions. Following the completion of the Zone 5 Master Plan Update, Zone 5 will seek additional sustainable funding, based on the options to be recommended by the Master Plan consultants.

Mitigation Action B-11
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-11 Drainage system Infrastructure Integrity Continue to inspect and maintain drainage system infrastructure	
Responsible Agency	Public Works	
Contact Name	Rachel Fatoohi	
Contact Phone/Email	(831) 454-2160, Rachel.fatoohi@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The Department of Public Works continued to inspect and maintain drainage system infrastructure. Approximately 3000 junction structures, 2262 minor culverts, and 160 bridges and major culverts are maintained. From 2014 through present the Public Works Department has replaced approximately 116 culverts.

2. What obstacles, problems, or delays did the project encounter?

Public Works continues to struggle to maintain the County’s existing drainage infrastructure due to the continued shortfall of State and Federal funds and declining gas tax revenues. The lack of available funding affects our staffing levels and our ability to perform necessary maintenance and repairs.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

5. Other comments:

Public Works maintenance of the County’s drainage infrastructure is ongoing.

Mitigation Action B-12
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-12 Flood Mitigation Education Develop public education materials by working collaboratively with community groups, non-governmental organizations, and the local media	
Responsible Agency	Planning	
Contact Name	Leah MacCarter	
Contact Phone/Email	(831) 454-3164, leah.maccarter@santacruzcounty.us	
Project Status	Project is completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Distribution of a flood hazard brochure is required as a condition of participation within the CRS Program. The brochure is sent out annually to properties within flood hazard areas. The brochure is also provided annually to real estate offices, mortgage companies, and insurance providers within the County.

In addition, the Santa Cruz County Stream Care Guide was updated in August 2013.

2. What obstacles, problems, or delays did the project encounter?

The flood hazard brochure gets sent to over 4700 addresses every year. This requires significant staff resources to print, fold and tape the brochures.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? See below.

5. Other comments:

In 2017, the County will be required to update the CRS program to conform to the guidelines in the revised CRS Coordinator’s Manual. The brochure at that time will likely be replaced with a postcard that directs the property owner or resident to an online resource with the required information.

Mitigation Action B-13
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-13 Open Space in Flood Zones Regulate development in flood zones to optimize preservation of open space	
Responsible Agency	Planning	
Contact Name	Leah MacCarter	
Contact Phone/Email	831-454-3164, leah.maccarter@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The existing Geologic Hazards Ordinance and Riparian Corridor and Wetland Protection Ordinance have been effective at preserving open space for most development. The Planning Department continues to improve on understanding the relationship between the two and enforcing them cohesively. The new Flood Hazard Ordinance has been adopted based on the State model ordinance and will further optimize preservation of open space through clarification of the existing ordinance. Revisions to the Riparian Corridor and Wetland Protection Ordinance have been postponed due to limited staff resources.

2. What obstacles, problems, or delays did the project encounter?

Revisions to the Riparian Corridor and Wetland Protection Ordinance have been postponed due to limited staff resources.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

5. Other comments:

The Floodplain Regulations were updated in 2020 using the State model code as a template.

Mitigation Action B-14
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-14 Flood Zone Development Regulation Limit development and monitor conditions of development and grading permits near natural channels and wetlands to prevent sedimentation	
Responsible Agency	Planning, Public Works	
Contact Name	Leah MacCarter	
Contact Phone/Email	831-454-3164, leah.maccarter@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The Riparian Protection ordinance prohibits development within riparian corridors and buffers. The Planning Department actively works with developers to reduce the need for Riparian Exceptions when they can be avoided. In addition, the new Runoff and Pollution Control ordinance authorizes Public Works staff to inspect stormwater mitigation practices for development projects once every five years (or more often if necessary).

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-15
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-15 Promote Drought Planning Promote drought planning by the 130 small water systems under county jurisdiction	
Responsible Agency	Environmental Health	
Contact Name	Sierra Ryan	
Contact Phone/Email	(831) 454-3133 sierra.ryan@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

We have been in touch with water systems during the recent drought to provide water saving suggestions and technical assistance as needed. The state has offered funding assistance for emergency assistance. Metering and reporting of total water use will be required of small water systems.

2. What obstacles, problems, or delays did the project encounter?

Systems have limited resources. Only a few have experienced any problems during the recent 4-year drought and most do not have an incentive to invest time and effort into developing a drought plan. Most have made water saving recommendations to their users in the absence of a formal plan.

3. Is the project still relevant? Yes

4. Should the project be changed or revised?

Ongoing support and encouragement are warranted, but a higher level of effort is probably not needed.

Mitigation Action B-16
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-16 Protection of Critical Structures Promote seismic safety upgrade of all emergency use and critical structures	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

County staff applies the current seismic design standards to all projects with a view to upgrade emergency uses and critical structures. As critical structures renovated modern Building Code standards are applied to each renovation by both the design and review staff.

The County has also developed new policy with regards to Climate Change set strict standards for new critical structure and identifying the types of hazards that could affect both existing and proposed safety infrastructure and critical structures.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised?

Improving existing emergency infrastructure and critical structures is continuous and ongoing process.

Mitigation Action B-17
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-17 Critical Structural Safety Require all new and replacement critical structures be designed to standards of the California building code and the county's Geologic Hazards Code	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

All Critical structures have been designed and review to assure compliance with the California Building Code and the County's Geologic Hazards Code.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-18

Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-18 Training for Planning Staff Train appropriate plan check staff on seismic requirements for structures	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Plan review staff and the building inspectors undergo continuous education courses through CALBO that include training in current seismic construction standards.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action B-19

Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	B-19 Seismic Zoning Encourage zoning in geologically constrained areas that reflect the nature and extent of the seismic hazard	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is pending	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The County's zoning has not been revised during the reporting period. The County's permit review process already requires identification and assessment of geologic constraints.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

5. Other comments:

Updating zoning designations to reflect geologic constraints may be helpful but is not a high priority action at this time because the permit review process already requires identification and assessment of geologic constraints.

Mitigation Action B-20
 Progress Report Form

Progress Report Period	From Date: 2021	To Date: 2026
Action/Project Title	B-20 Pajaro River Flood Risk Management Project Implement the Pajaro River Flood Risk Management Project to reduce the probability and consequences of flooding in the City of Watsonville, the Town of Pajaro, and surrounding agricultural lands.	
Responsible Agency	Flood Control and Water Conservation District – Zone 7	
Contact Name	Mark Strudley	
Contact Phone/Email	(831) 454-2807, mark.strudley@santacruzcounty.us	
Project Status	This is a new action item that will be reported on for the next update of the LHMP.	

Mitigation Action C-1
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-1 Management of Early Warning System Define public information process including establishing a reverse 911 system that will notify all homes and businesses within tsunami inundation areas and develop media protocol for evacuation notices	
Responsible Agency	OES	
Contact Name	Michael Beaton	
Contact Phone/Email	(831) 454-2210 michael.beaton@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Continue to use Code Red EWS. Also added IPAWS. In addition, Public Works installed tsunami warning signs along the coastal areas in cooperation with Emergency Services.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-2
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-2 Minimize Risk from Tsunami Update tsunami inundation maps	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454- 3173, david.carlson@santacruzcounty.us	
Project Status	Project pending	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The County uses the latest tsunami inundation maps referenced in this plan.

2. What obstacles, problems, or delays did the project encounter?

The existing maps will be updated when new information becomes available.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-3
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-3 Protect and Preserve Coastline Protect and preserve coastline through permit review process	
Responsible Agency	Planning, Dept. of Public Works	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454- 3173, david.carlson@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Continue to administer the land use permit and building permit process with the objective to reduce, minimize to an acceptable level, and internalize costs of private property investments, the risks to life, property, and public infrastructure from coastal hazards, including projected hazards due to sea level rise, wave run-up and coastal erosion, and to minimize impacts on coastal resources from developments granted coastal development permits and granted extensions to monitoring, maintenance, and repair programs for shoreline protection structures.

The Safety Element of the General Plan and Local Coastal Plan (GP/LCP) has been amended to incorporate sea level rise into policies addressing coastal bluff and beach hazards and floodplain management.

2. What obstacles, problems, or delays did the project encounter?

The public hearing process for the Safety Element amendments was lengthy.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-4
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-4 Protect Coastline and Infrastructure Encourage replacement of existing seawalls with shoreline protection structures which meet current engineering standards	
Responsible Agency	Planning, Public Works	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454- 3173, david.carlson@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

This action item has been incorporated in the Safety Element amendments and related amendments of the Geologic Hazards ordinance recently adopted by the Board of Supervisors.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-5
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-5 Minimize Risk from Dam Failure Develop an event protocol with the State Division of Safety of Dams	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454- 3173, david.carlson@santacruzcounty.us	
Project Status	Project is pending	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

This project has not been implemented during the reporting period.

2. What obstacles, problems, or delays did the project encounter?

With additional funding and staff resources, and prioritization from both County and State sources, this project may occur during the next reporting period.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-6
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-6 Minimize Risks from Expansive soils Continue to require soils reports as part of the building permit process	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Planning staff continues to require soils reports as part of the building permit process.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-7
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-7 New Regulations in Tsunami Inundation Areas Encourage investigation of the tsunami threat to the county and update development regulations based upon this investigation	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is pending	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The County uses the latest tsunami inundation maps referenced in this plan.

2. What obstacles, problems, or delays did the project encounter?

The existing maps will be updated when new information becomes available.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-8
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-8 Restoration of Coastline Protect and preserve the coastline and infrastructure through restoration efforts	
Responsible Agency	Dept. of Public Works	
Contact Name	Steve Wiesner	
Contact Phone/Email	(831) 454-2794 steve.wiesner@santacruzcounty.us	
Project Status	Project completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Construction of the East Cliff Drive, 32nd Avenue to 36th Avenue and 41st, Bluff Protection Project completed on March 21, 2011. Continued maintenance of existing coastal protection structures as needed.

2. What obstacles, problems, or delays did the project encounter?

Public Works continues to struggle to maintain its existing coastal protection infrastructure due to the continued shortfall of State and Federal funds and declining gas tax revenues. The lack of available funding also affects the Departments ability to plan, design, and construct new coastline protection infrastructure.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

5. Other comments:

Protection, preservation, and restoration of the coastline is an ongoing project.

Mitigation Action C-9
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-9 Update Inundation Maps Update dam inundation maps	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is pending	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

This project was not implemented during the reporting period.

2. What obstacles, problems, or delays did the project encounter?

With additional funding and staff resources, and prioritization, this project may occur during the next reporting period.

3. If uncompleted, is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-10

Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-10 Review Dam Hazards Review dam evaluation files to determine the extent of potential dam failures	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is pending	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

This project was not implemented during the reporting period.

2. What obstacles, problems, or delays did the project encounter?

With additional funding and staff resources, and prioritization, this project may occur during the next reporting period.

3. If uncompleted, is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-11
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-10 Minimize Damage from Expansive Soils Develop design criteria for areas of known expansive soils	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project completed	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The permit review process uses design criteria based on the State building code and local amendments.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-12
 Progress Report Form

Progress Report Period	From Date: 2021	To Date: 2026
Action/Project Title	C-12 Reduce Per-Capita Water Consumption Adopt General Plan and County Code amendments to implement the Sustainable Santa Cruz County Plan to support higher density development along major transit corridors.	
Responsible Agency	Planning	
Contact Name	David Carlson	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	This is a new action item that will be reported on for the next update of the LHMP.	

Mitigation Action C-13
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-13 Climate Change Address climate change in Public Health Preparedness Plan Update, General Plan Update, and other pertinent plans in order to implement policies and programs to reduce impact of climate change	
Responsible Agency	Public Health, Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Project is ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The County has adopted a Climate Action Strategy that provides recommendations for addressing climate change in the updates of other pertinent plans. In 2020 the Safety Element has been updated accordingly. The County Health Services Agency staff has completed the Public Health Hazard and Vulnerability Assessment Tool to identify the top ten public health hazards facing the community which includes hazards related to and exacerbated by climate change impacts.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-14
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-14 Climate Change Develop a forum for ongoing engagement with coastal private property owners and the California Coastal Commission to discuss frameworks for land use policies that respond to expected future losses.	
Responsible Agency	Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

Planning Department staff conducted a series of public hearings and community meetings to discuss frameworks for land use policies that respond to sea level rise. In 2020, the project resulted in adoption by the Board of Supervisors of an amended Safety Element and related implementing ordinances.

2. What obstacles, problems, or delays did the project encounter?

The public hearing process was lengthy.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-15
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-15 Climate Change Consider relocating coastal development away from areas that will be inundated to eliminate the risk of damage and the need for coastal protection.	
Responsible Agency	Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

County land use policies and regulations include thresholds and requirements to relocate structures if feasible based on-site conditions and project scope.

2. What obstacles, problems, or delays did the project encounter?

Property owner's will design their projects to remain below the thresholds for relocation.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-16
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-16 Climate Change Consider limiting new engineered protection structures to infill in locations where the back beach is currently fixed.	
Responsible Agency	Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

This action item is addressed in the recently amended Public Safety Element containing an updated section on coastal hazards.

2. What obstacles, problems, or delays did the project encounter?

The public hearing process was lengthy.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-17
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-17 Climate Change Consider a program to identify those areas where managed retreat should replace engineered protection structures, based on public benefit.	
Responsible Agency	Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

In 2020 the Board of Supervisors adopted the updated Public Safety Element that includes policies establishing areas of the County coastline where managed retreat will be required, and new engineered protection will be prohibited.

2. What obstacles, problems, or delays did the project encounter?

The public hearing process was lengthy.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-18
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-18 Climate Change Work with the engineering community to define a standard increment of additional height that should be added to the FEMA 100-year wave run up, storm surge, and flood levels when analyzing hazards in specific locations.	
Responsible Agency	Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

In 2020 the Board of Supervisors adopted an amended Safety Element and related implementing ordinances containing increased freeboard requirements for development in both alluvial flood hazard areas and coastal high hazard areas.

2. What obstacles, problems, or delays did the project encounter?

The public hearing process was lengthy.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-19
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-19 Climate Change In consultation with the California Coastal Commission, consider revising regulations that address rebuilding structures that are repeatedly damaged by SLR and coastal storms.	
Responsible Agency	Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

In 2020 the Board of Supervisors adopted an amended Safety Element and related implementing ordinances containing a new repetitive loss policy with the intent of reducing future flood losses on repetitive loss properties

2. What obstacles, problems, or delays did the project encounter?

The public hearing process was lengthy.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-20
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-20 Climate Change Amend the Public Safety Element of the General Plan and revise implementing regulations to increase the efficacy of the damage prevention and flood protection aspects of the National Flood Insurance Program.	
Responsible Agency	Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Partially complete	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

In 2020 the Board of Supervisors adopted an amended Public Safety Element and related implementing ordinances addressing flood hazards. The County adopted new Floodplain Regulations using the State model code as a template. The new regulations include increased freeboard requirements for development in flood hazard areas. The Public Safety Elements amendments have been submitted to the California Coastal Commission for certification expected in 2021-2022 timeframe.

2. What obstacles, problems, or delays did the project encounter?

The public hearing process was lengthy.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-21
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-21 Climate Change Work with the County Office of Emergency Services to refine FEMA flood hazard mapping to account for climate change, as maps are the basis for evacuation notification in the event of anticipated flooding and/or a tsunami.	
Responsible Agency	Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

In 2017 FEMA completed an updated Flood Insurance Study and revised maps for the County. However, the study and map updates do not account for sea level rise. This is the reason the County adopted local regulations that require increased freeboard above mapped flood elevations to account in part for future sea level rise.

2. What obstacles, problems, or delays did the project encounter?

FEMA flood hazard mapping along the coast does not account for sea level rise.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-22
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-22 Climate Change Consider evaluating unprotected developed coastal bluff areas subject to future erosion, and develop plans and timeline for either armor placement, or retreat and relocation of existing public structures and/or infrastructure.	
Responsible Agency	Planning	
Contact Name	David Carlson, Planning Dept.	
Contact Phone/Email	(831) 454-3173, david.carlson@santacruzcounty.us	
Project Status	Completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

In 2020 the Board of Supervisors adopted an amended Safety Element and related implementing ordinances containing policies that plan for future conditions along the coast that are likely to exist as a result of sea level rise. Policies require as part of future development projects an evaluation of unprotected developed coastal bluff areas subject to future erosion, and development of plans and timeline for either armor placement, or retreat and relocation of existing public structures and/or infrastructure.

2. What obstacles, problems, or delays did the project encounter?

The public hearing process was lengthy.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-23
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-23 Climate Change Consider designing and siting all future County projects and infrastructure to account for sea level rise projections, considering projected life span of project.	
Responsible Agency	Planning Dept., Dept. Of Public Works	
Contact Name	David Carlson	
Contact Phone/Email	(831)454-3173 david.carlson@santacruzcounty.us	
Project Status	Completed and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

These types of projects in the Coastal Zone require review for consistency with both County policy and California Coastal Commission Guidance. It is standard practice currently to incorporate sea level rise analysis in project designs. An example of this involves the update of the Stormwater Facilities Master Plan for Zone 5. One of the tasks in the Zone 5 Master Plan update will be about “limited” modeling for climate change and sea level rise. One iteration of climate change impacts will be modeled on the CIP pipe and creek models. The climate change iteration will include tidal boundary change due to sea level rise and increased runoff due to precipitation change.

2. What obstacles, problems, or delays did the project encounter? None

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-24
Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-24 Climate Change Consider securing federal grant funding for the drainage improvements within the Rio Del Mar Esplanade necessary to protect against a 10-year storm	
Responsible Agency	Dept. Of Public Works	
Contact Name	Rachel Fatoohi	
Contact Phone/Email	(831) 454-2160, Rachel.fatoohi@santacruzcounty.us	
Project Status	Partially complete	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The project has been designed and permitted. The Dept. Of Public Works has received federal grant funding but continues to seek the balance of the funding to construct the project. Funding from FEMA and the State has been secured to pay a total 87.5% of the construction cost. Public Works is working on securing sustainable funding source for the on-going maintenance cost of the drainage improvements when/if the improvements get constructed. The improvements will protect the Rio Del Mar flats against 10-year storms.

2. What obstacles, problems, or delays did the project encounter?

Lack of funding.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-25
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-25 Climate Change Continue to improve wastewater collection system to reduce infiltration by groundwater or surface water	
Responsible Agency	Dept. Of Public Works	
Contact Name	Kent Edler	
Contact Phone/Email	(831) 454-2791 kent.edler@santacruzcounty.us	
Project Status	Partially complete and ongoing	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

The Dept. Of Public Works continues to implement a program to upgrade wastewater collection infrastructure as funding allows.

2. What obstacles, problems, or delays did the project encounter?

Lack of funding.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No

Mitigation Action C-26
 Progress Report Form

Progress Report Period	From Date: 2016	To Date: 2021
Action/Project Title	C-26 Climate Change Consider coordinating with the City of Santa Cruz on programs to minimize vulnerabilities at the Neary Lagoon plant.	
Responsible Agency	Santa Cruz County Sanitation District	
Contact Name	Matt Machado, District Engineer	
Contact Phone/Email	(831) 454-2160 DPW.LateralProgram@santacruzcounty.us	
Project Status	Pending	

Summary of Project Progress for this Report Period

1. What was accomplished for this project during this reporting period?

This project has not been implemented.

2. What obstacles, problems, or delays did the project encounter?

Lack of funding and physical site limitations.

3. Is the project still relevant? Yes

4. Should the project be changed or revised? No