11. TOWN OF WINDSOR

This jurisdictional annex to the Sonoma County Hazard Mitigation Plan (HMP) provides information to assist public and private sectors in the Town of Windsor with reducing losses from future hazard events. This annex is not guidance for what to do when a disaster occurs; the focus is actions that can be implemented prior to a disaster to reduce or eliminate damage to the people, property, environment, or economy of the Town. The annex presents a general overview of Windsor, describes who participated in the planning process, assesses local risk, vulnerability, and capabilities, and outlines a strategy for achieving a more resilient community.

11.1 HAZARD MITIGATION PLANNING TEAM

The Town of Windsor identified primary and alternate HMP points of contact and developed this plan over the course of several months, with input from many Town departments. The Planning Division represented the community on the Sonoma County HMP Planning Partnership and Hazard Mitigation Working Group and supported the local planning process by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

The Town officials who participated in the development of the annex are listed below and shown in Table 11-1. Additional documentation of the Town's planning activities through Planning Partnership meetings is included in Volume I.

Primary Point of Contact: Kim Jordan, Planner III

Address: 9291 Old Redwood Highway, Windsor, California 95492

Phone Number: 707-838-5331

Email: kjordan@townofwindsor.ca.gov

Alternate Point of Contact: Kristina Owens, Government Operations Manager

Address: 9291 Old Redwood Highway, Windsor, California 95492

Phone Number: 707-838-1100

Email: kmowens@townofwindsor.ca.gov

NFIP Administrator: Doug Hughes, Building Official

Address: 9291 Old Redwood Highway, Building 400, Windsor, California 95492

Phone Number: 707-838-5341

Email: dhughes@townofwindsor.ca.gov

Table 11-1. Additional Contributors

Name	Department	Position	HMP Contribution
Kim Jordan	Community Development	Planner III	Project Manager, All Aspects of Annex
Kristina Owens	Town Manager	Government Operations Manager	Project Manager, All Aspects of Annex
Mike Cave	Public Works	Deputy Director of Operations	All Aspects, except outreach,
Carl Euphrat	Public Works	Deputy Director of Engineering	All Aspects, except outreach,
Garrett Broughton	Public Works	Senior Civil Engineer	All Aspects, except outreach,
Olivia Lemen	Parks and Facilities	Director	Outreach, Mitigation Actions
Tim Ricard	Town Manager	Economic Development Manager	Outreach, Mitigation Actions
Doug Hughes	Community Development	Building Official	Mitigation Actions, Capability Assessment, Flood-related Sections, Adaptive Capacity, Hazard Ranking
Skye Barnett	Community Development	Senior Building Inspector	Growth and Development Trends
Patrick Streeter	Community Development	Community Development Director	Annex review, Mitigation Actions
Jon Davis	Town Manager	Town Manager	Changes in Community Priorities, Hazard Ranking, Adaptive Capacity
Greg Piccinini	Police Department	Police Chief	Mitigation Actions, Annex Review
Cyndi Foreman	Sonoma County Fire District	Fire Marshal	Mitigation Actions, Annex Review

11.2 COMMUNITY PROFILE

The Town of Windsor spans 7.4 square miles of mostly flat terrain bordered by hills and located 5 miles north of Santa Rosa. U.S. Highway 101 runs through the town, providing direct access to San Francisco (58 miles south) and Sacramento (72 miles east). Low hills separate the Town from the Russian River 2 miles to the west. The town is 20 miles from the Pacific Ocean.

Windsor's cultural history dates back thousands of years to early inhabitation by the Pomo people. European exploration began in the early 1800s, with permanent settlement by 1851. The arrival of a railroad in 1872 spurred agricultural growth, and the area continued to evolve with the establishment of a nearby air base during World War II and a housing boom in the 1980s. Windsor officially incorporated as a town in 1992.

Today, Windsor is governed by a Town Council consisting of a mayor and four district-elected council members. The mayor is elected at large for a two-year term, while council members serve four-year terms. The Town Manager, appointed by the Council, oversees daily operations.

According to the U.S. Census, the 2020 population of Windsor was 26,344, a 1.72 percent decrease from the 2010 Census. The 2023 American Community Survey estimated that the 2023 population of Windsor was 26,179; this estimate is used throughout the HMP.

Some populations are at greater risk from hazard events because of decreased resources or physical abilities for responding during a hazard, and the location and construction quality of their housing. Data from the 2023 American Community Survey indicates that 4.7 percent of residents are 5 years of age or younger, 17.1 percent are 65 years of age or older, 2.8 percent are non-English speaking, 4.7 percent live below the poverty threshold, 10.4 percent have disabilities, 2.6 percent live in a single parent household, and 3.6 percent have no vehicle access.

In 2024, the total homeless population in the Town of Windsor was reported as 26 individuals, all of them unsheltered (Sonoma County 2024).

11.3 PUBLIC ENGAGEMENT

Volume I of this HMP describes the outreach to the public that was undertaken on behalf of all participating jurisdictions to prepare this HMP update. In addition to that work, the Town of Windsor completed specific activities to collect input on hazards and vulnerability from the people the Town serves. The public was invited to participate in the plan by responding to the public survey, attending a virtual Hazard Mitigation Working Group meeting, attending an in-person meeting, and reviewing the draft plan.

During the public review process, the Town held multiple meetings with commissions and the Town Council to gather input and ensure transparency. Most feedback involved minor edits, but key recommendations included adding a mitigation action for wildfire smoke and air quality, equipping warming and cooling centers with proper filtration, and improving evacuation information. The Town collaborated with the County and consultants on revisions. Other suggestions, such as posting evacuation details and sharing information with businesses and hotels, were noted for implementation through ongoing capabilities. Overall, the Town demonstrated a structured approach to addressing concerns and integrating meaningful changes.

Public engagement efforts are summarized below and shown in Figure 11-1 through Figure 11-6.

Figure 11-1. Flyers



Figure 11-2. Presentation

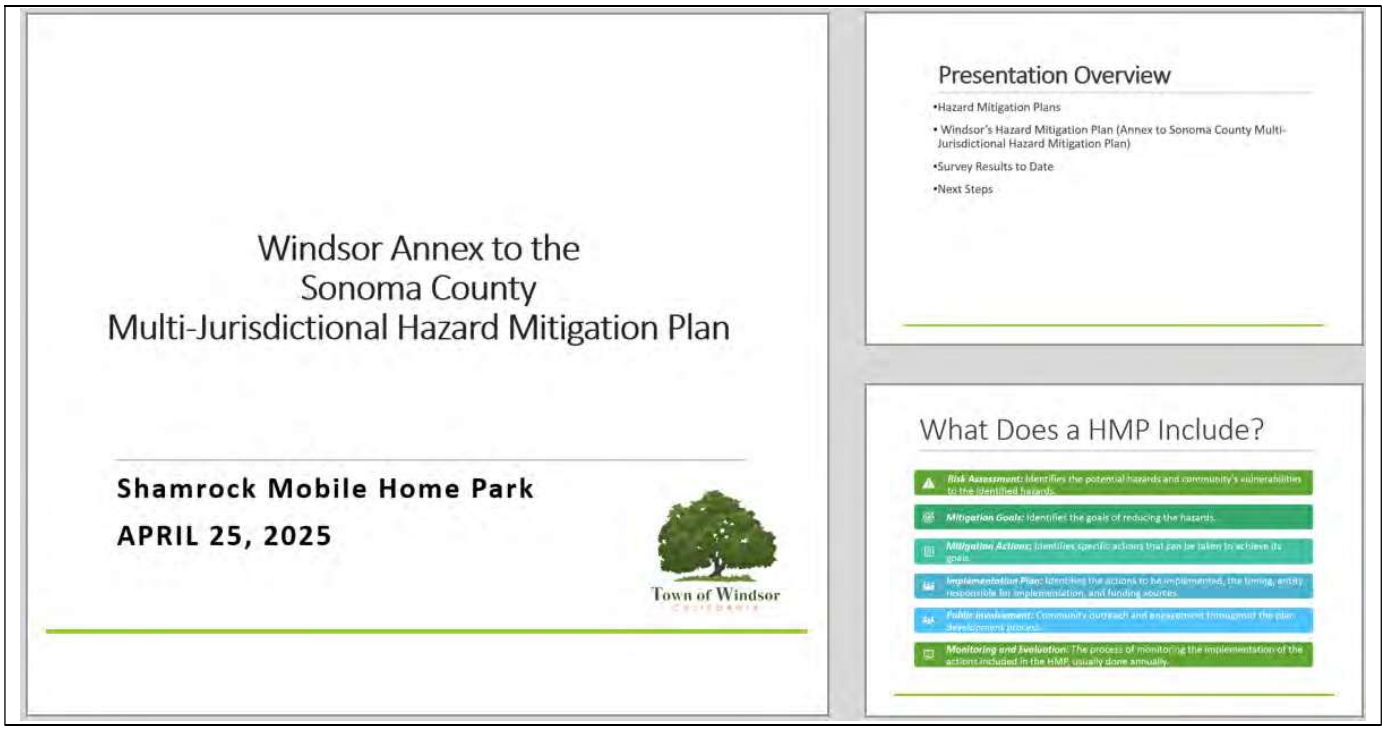
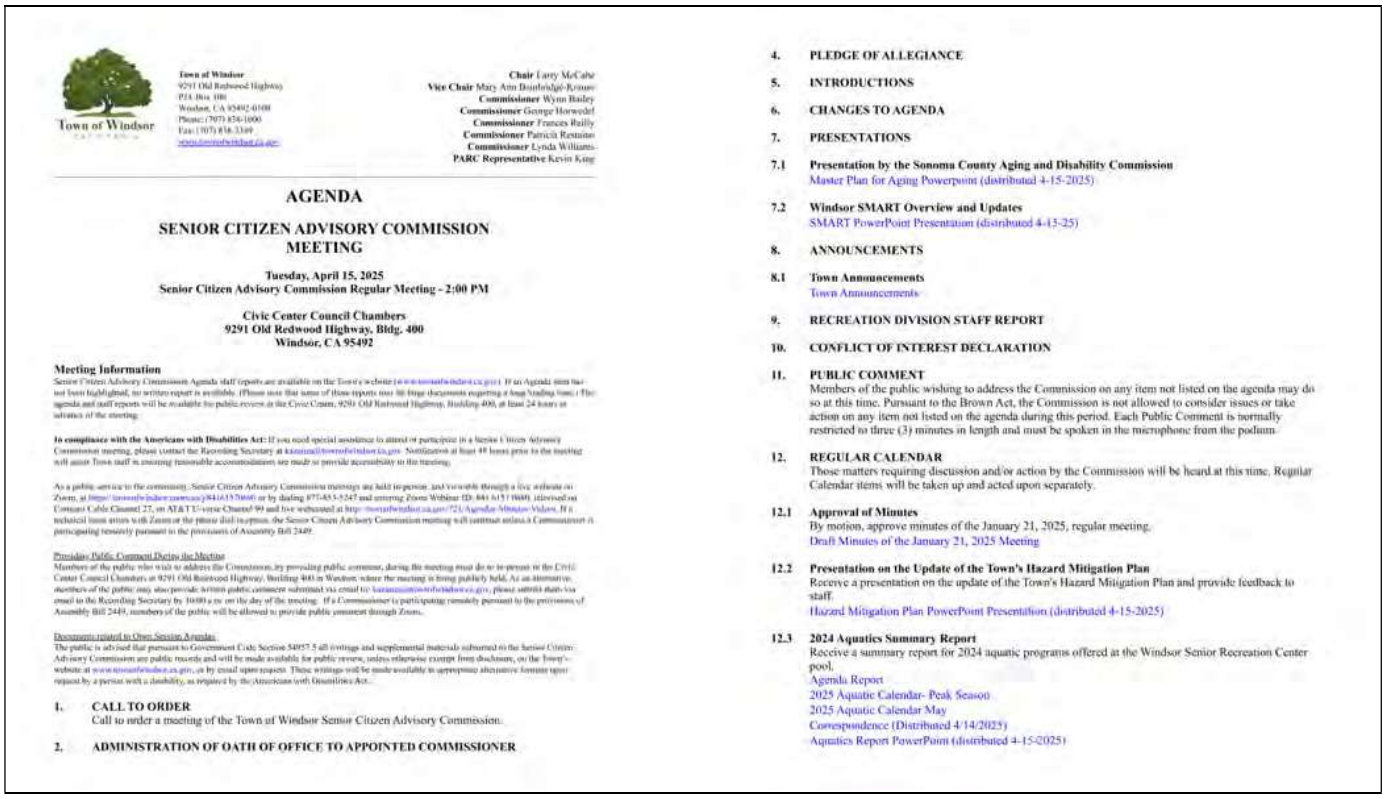


Figure 11-3. Senior Citizen Advisory Presentation Agenda



Town of Windsor

Town of Windsor
9291 Old Redwood Highway
P.O. Box 100
Windsor, CA 95492-0100
Phone: (707) 838-1000
Fax: (707) 838-3349

Chair Larry McCabe
Vice Chair Mary Ann Bombridge-Krause
Commissioner Wynn Bailey
Commissioner George Horwedel
Commissioner Frances Reilly
Commissioner Patricia Rentsio
Commissioner Lynda Williams
PARC Representative Kevin King

AGENDA

SENIOR CITIZEN ADVISORY COMMISSION MEETING

Tuesday, April 15, 2025
Senior Citizen Advisory Commission Regular Meeting - 2:00 PM

Civic Center Council Chambers
9291 Old Redwood Highway, Bldg. 400
Windsor, CA 95492

Meeting Information

Senior Citizen Advisory Commission Agenda staff reports are available on the Town's website at www.townofwindsor.ca.gov. If no Agenda item has not been highlighted, no written report is available. (Please note that some of these reports may be large documents requiring a long loading time.) The agenda and staff reports will be available for public review at the Civic Center, 9291 Old Redwood Highway, Building 400, at least 24 hours in advance of the meeting.

In compliance with the Americans with Disabilities Act: If you need special assistance to attend or participate in a Senior Citizen Advisory Commission meeting, please contact the Recording Secretary at ksimms@townofwindsor.ca.gov. Notification at least 48 hours prior to the meeting will assist Town staff in ensuring reasonable accommodations are made or provide accessibility to the meeting.

As a public service to the community, Senior Citizen Advisory Commission meetings are held in-person, and viewable through a live webcast on Zoom, at https://townofwindsor.zoom.us/j/84161570660 or by dialing 877-853-5247 and entering Zoom Webinar ID: 841 6157 0660, televised on Comcast Cable Channel 27, on AT&T U-verse Channel 99 and live webcasted at http://townofwindsor.ca.gov/72/Agendas-Minutes-Videos. If a technical issue arises with Zoom or the phone dial-in option, the Senior Citizen Advisory Commission meeting will continue unless a Commissioner is participating remotely pursuant to the provisions of Assembly Bill 2449.

Providing Public Comment During the Meeting

Members of the public who wish to address the Commission by providing public comment during the meeting must do so in-person in the Civic Center Council Chambers at 9291 Old Redwood Highway, Building 400 in Windsor, where the meeting is being publicly held. As an alternative, members of the public may also provide written public comment submitted via email to: karamcommission@windsor.ca.gov, please submit them via email to the Recording Secretary by 10:00 a.m. on the day of the meeting. If a Commissioner is participating remotely pursuant to the provisions of Assembly Bill 2449, members of the public will be allowed to provide public comment through Zoom.

Documents related to Open Session Agendas

The public is advised that pursuant to Government Code Section 54957.5 all writings and supplemental materials submitted to the Senior Citizen Advisory Commission are public records and will be made available for public review, unless otherwise exempt from disclosure, on the Town's website at www.townofwindsor.ca.gov, or by email upon request. These writings will be made available in appropriate alternative formats upon request by a person with a disability, as required by the Americans with Disabilities Act.

1. **CALL TO ORDER**
Call to order a meeting of the Town of Windsor Senior Citizen Advisory Commission.

2. **ADMINISTRATION OF OATH OF OFFICE TO APPOINTED COMMISSIONER**

4. **PLEDGE OF ALLEGIANCE**

5. **INTRODUCTIONS**

6. **CHANGES TO AGENDA**

7. **PRESENTATIONS**

7.1 **Presentation by the Sonoma County Aging and Disability Commission**
Master Plan for Aging Powerpoint (distributed 4-15-2025)

7.2 **Windsor SMART Overview and Updates**
SMART PowerPoint Presentation (distributed 4-15-25)

8. **ANNOUNCEMENTS**

8.1 **Town Announcements**
Town Announcements

9. **RECREATION DIVISION STAFF REPORT**

10. **CONFLICT OF INTEREST DECLARATION**

11. **PUBLIC COMMENT**
Members of the public wishing to address the Commission on any item not listed on the agenda may do so at this time. Pursuant to the Brown Act, the Commission is not allowed to consider issues or take action on any item not listed on the agenda during this period. Each Public Comment is normally restricted to three (3) minutes in length and must be spoken in the microphone from the podium.

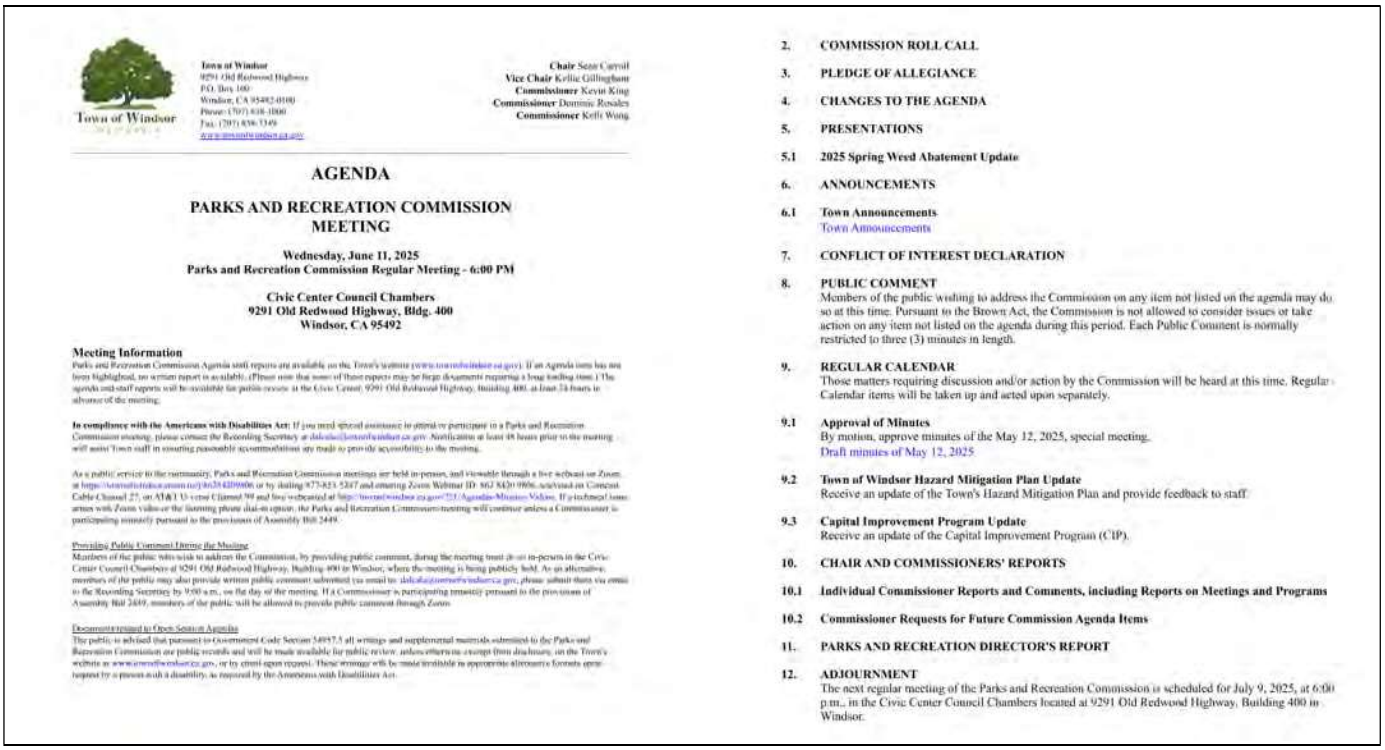
12. **REGULAR CALENDAR**
Those matters requiring discussion and/or action by the Commission will be heard at this time. Regular Calendar items will be taken up and acted upon separately.

12.1 **Approval of Minutes**
By motion, approve minutes of the January 21, 2025, regular meeting.
Draft Minutes of the January 21, 2025 Meeting

12.2 **Presentation on the Update of the Town's Hazard Mitigation Plan**
Receive a presentation on the update of the Town's Hazard Mitigation Plan and provide feedback to staff.
Hazard Mitigation Plan PowerPoint Presentation (distributed 4-15-2025)

12.3 **2024 Aquatics Summary Report**
Receive a summary report for 2024 aquatic programs offered at the Windsor Senior Recreation Center pool.
Agenda Report
2025 Aquatic Calendar- Peak Season
2025 Aquatic Calendar May
Correspondence (Distributed 4/14/2025)
Aquatics Report PowerPoint (distributed 4-15-2025)

Figure 11-4. Parks and Recreation Commission Meeting Agenda



Town of Windsor

Town of Windsor
9291 Old Redwood Highway
P.O. Box 100
Windsor, CA 95492-0100
Phone: (707) 838-1000
Fax: (707) 838-7349
www.townofwindsor.ca.gov

Chair Sean Carroll
Vice Chair Kellie Gillingham
Commissioner Kevin King
Commissioner Dominic Rosales
Commissioner Keffi Wong

AGENDA

PARKS AND RECREATION COMMISSION MEETING

Wednesday, June 11, 2025
Parks and Recreation Commission Regular Meeting - 6:00 PM

Civic Center Council Chambers
9291 Old Redwood Highway, Bldg. 400
Windsor, CA 95492

Meeting Information
Parks and Recreation Commission Agenda staff reports are available on the Town's website (www.townofwindsor.ca.gov). If an Agenda item has not been highlighted, no written report is available. (Please note that some of these reports may be large documents requiring a long loading time.) The agenda and staff reports will be available for public review at the Civic Center, 9291 Old Redwood Highway, Building 400, at least 24 hours in advance of the meeting.

In compliance with the Americans with Disabilities Act: If you need special assistance to attend or participate in a Parks and Recreation Commission meeting, please contact the Recording Secretary at dalcala@townofwindsor.ca.gov. Notification at least 48 hours prior to the meeting will assist Town staff in ensuring reasonable accommodations are made to provide accessibility to the meeting.

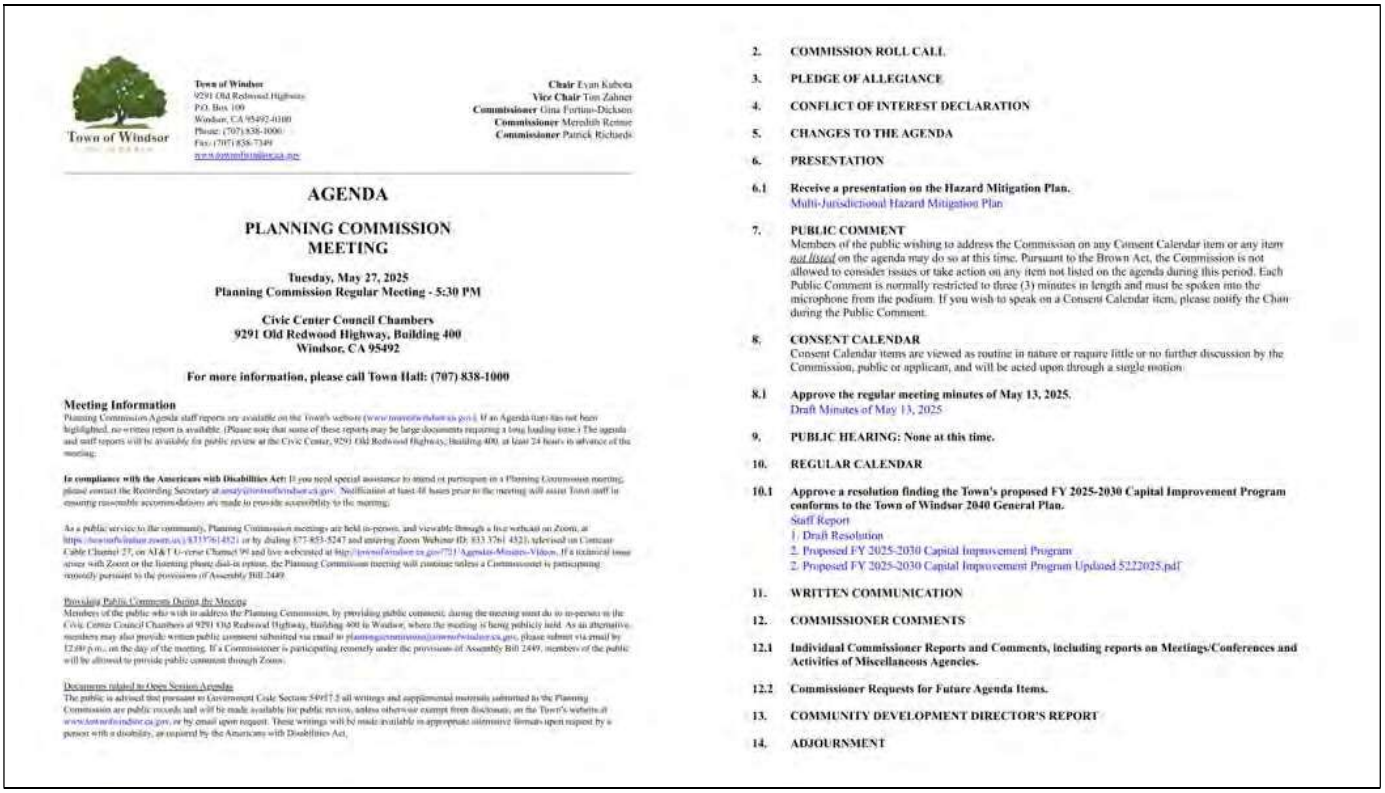
As a public service to the community, Parks and Recreation Commission meetings are held in-person, and viewable through a live webcast on Zoom at https://townofwindsor-zoom.us/j/86284209606 or by dialing 877-853-5247 and entering Zoom Webinar ID: 862 8420 9606, televised on Comcast Cable Channel 27, on AT&T U-verse Channel 99 and live webcasted at http://townofwindsor.ca.gov/721/Agendas-Minutes-Videos. If a technical issue arises with Zoom video or the listening phone dial-in option, the Parks and Recreation Commission meeting will continue unless a Commissioner is participating remotely pursuant to the provisions of Assembly Bill 2449.

Providing Public Comment During the Meeting
Members of the public who wish to address the Commission, by providing public comment, during the meeting must do so in-person in the Civic Center Council Chambers at 9291 Old Redwood Highway, Building 400 in Windsor, where the meeting is being publicly held. As an alternative, members of the public may also provide written public comment submitted via email to dalcala@townofwindsor.ca.gov, please submit them via email to the Recording Secretary by 9:00 a.m., on the day of the meeting. If a Commissioner is participating remotely pursuant to the provisions of Assembly Bill 2449, members of the public will be allowed to provide public comment through Zoom.

Documents related to Open Session Agendas
The public is advised that pursuant to Government Code Section 54957.5 all writings and supplemental materials submitted to the Parks and Recreation Commission are public records and will be made available for public review, unless otherwise exempt from disclosure, on the Town's website at www.townofwindsor.ca.gov, or by email upon request. These writings will be made available in appropriate alternative formats upon request by a person with a disability, as required by the Americans with Disabilities Act.

2. **COMMISSION ROLL CALL**
3. **PLEDGE OF ALLEGIANCE**
4. **CHANGES TO THE AGENDA**
5. **PRESENTATIONS**
5.1 **2025 Spring Weed Abatement Update**
6. **ANNOUNCEMENTS**
6.1 **Town Announcements**
Town Announcements
7. **CONFLICT OF INTEREST DECLARATION**
8. **PUBLIC COMMENT**
Members of the public wishing to address the Commission on any item not listed on the agenda may do so at this time. Pursuant to the Brown Act, the Commission is not allowed to consider issues or take action on any item not listed on the agenda during this period. Each Public Comment is normally restricted to three (3) minutes in length.
9. **REGULAR CALENDAR**
Those matters requiring discussion and/or action by the Commission will be heard at this time. Regular Calendar items will be taken up and acted upon separately.
9.1 **Approval of Minutes**
By motion, approve minutes of the May 12, 2025, special meeting.
Draft minutes of May 12, 2025
9.2 **Town of Windsor Hazard Mitigation Plan Update**
Receive an update of the Town's Hazard Mitigation Plan and provide feedback to staff.
9.3 **Capital Improvement Program Update**
Receive an update of the Capital Improvement Program (CIP).
10. **CHAIR AND COMMISSIONERS' REPORTS**
10.1 **Individual Commissioner Reports and Comments, including Reports on Meetings and Programs**
10.2 **Commissioner Requests for Future Commission Agenda Items**
11. **PARKS AND RECREATION DIRECTOR'S REPORT**
12. **ADJOURNMENT**
The next regular meeting of the Parks and Recreation Commission is scheduled for July 9, 2025, at 6:00 p.m., in the Civic Center Council Chambers located at 9291 Old Redwood Highway, Building 400 in Windsor.

Figure 11-5. Planning Commission Meeting Agenda



Town of Windsor

Town of Windsor
9291 Old Redwood Highway
P.O. Box 100
Windsor, CA 95492-0100
Phone: (707) 838-1000
Fax: (707) 838-7349
www.townofwindsor.ca.gov

Chair Evan Kubota
Vice Chair Tim Zahner
Commissioner Gina Fortino-Dickson
Commissioner Meredith Rennie
Commissioner Patrick Richards

AGENDA

PLANNING COMMISSION MEETING

Tuesday, May 27, 2025
Planning Commission Regular Meeting - 5:30 PM

Civic Center Council Chambers
9291 Old Redwood Highway, Building 400
Windsor, CA 95492

For more information, please call Town Hall: (707) 838-1000

Meeting Information
Planning Commission Agenda staff reports are available on the Town's website (www.townofwindsor.ca.gov). If an Agenda item has not been highlighted, no written report is available. (Please note that some of these reports may be large documents requiring a long loading time.) The agenda and staff reports will be available for public review at the Civic Center, 9291 Old Redwood Highway, Building 400, at least 24 hours in advance of the meeting.

In compliance with the Americans with Disabilities Act: If you need special assistance to attend or participate in a Planning Commission meeting, please contact the Recording Secretary at ansty@townofwindsor.ca.gov. Notification at least 48 hours prior to the meeting will assist Town staff in ensuring reasonable accommodations are made to provide accessibility to the meeting.

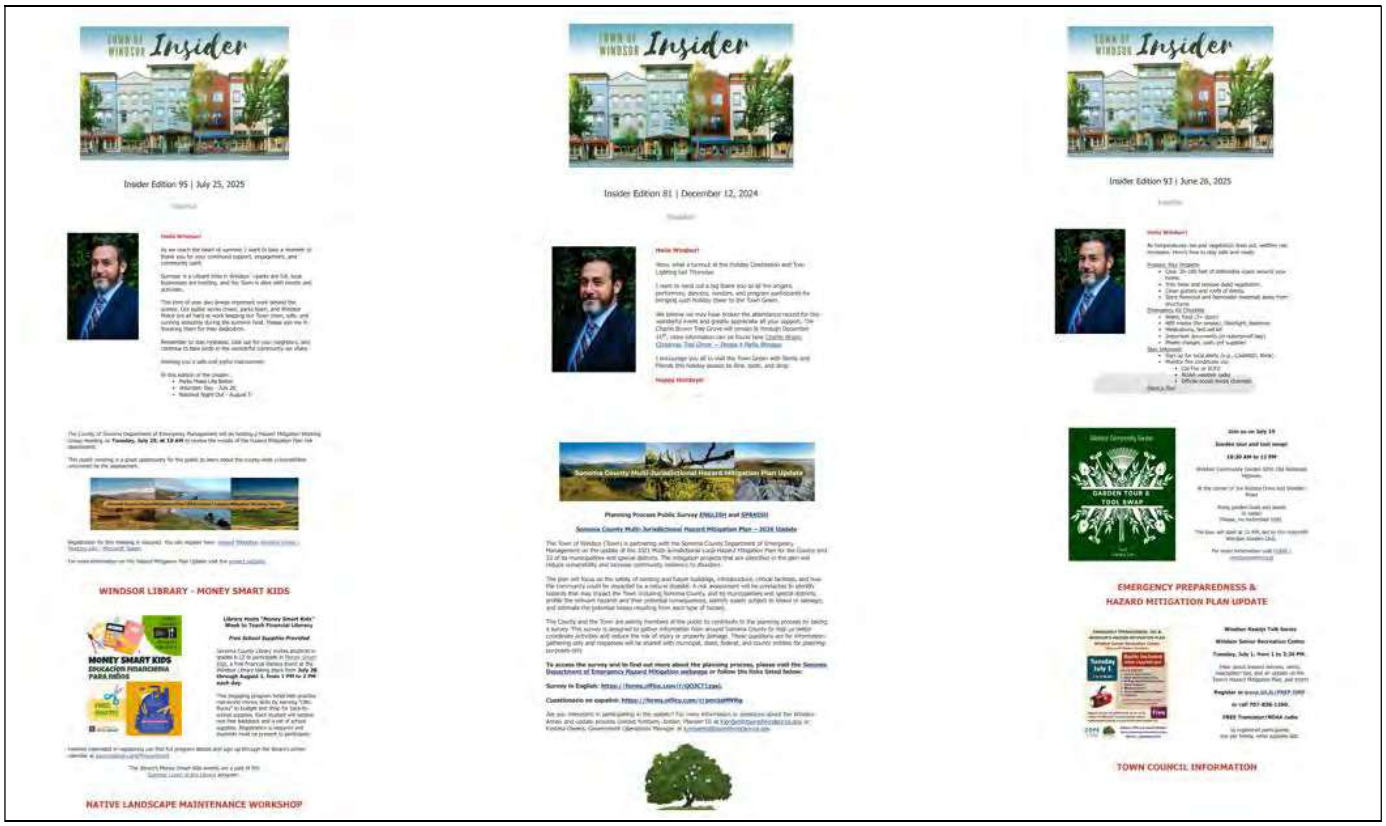
As a public service to the community, Planning Commission meetings are held in-person, and viewable through a live webcast on Zoom, at https://townofwindsor-zoom.us/j/83378614821 or by dialing 877-853-5247 and entering Zoom Webinar ID: 833 7861 4821, televised on Comcast Cable Channel 27, on AT&T U-verse Channel 99 and live webcasted at http://townofwindsor.ca.gov/721/Agendas-Minutes-Videos. If a technical issue arises with Zoom or the listening phone dial-in option, the Planning Commission meeting will continue unless a Commissioner is participating remotely pursuant to the provisions of Assembly Bill 2449.

Providing Public Comments During the Meeting
Members of the public who wish to address the Planning Commission, by providing public comment, during the meeting must do so in-person in the Civic Center Council Chambers at 9291 Old Redwood Highway, Building 400 in Windsor, where the meeting is being publicly held. As an alternative, members may also provide written public comment submitted via email to planningcommission@townofwindsor.ca.gov, please submit via email by 12:00 p.m., on the day of the meeting. If a Commissioner is participating remotely under the provisions of Assembly Bill 2449, members of the public will be allowed to provide public comment through Zoom.

Documents related to Open Session Agendas
The public is advised that pursuant to Government Code Section 54957.5 all writings and supplemental materials submitted to the Planning Commission are public records and will be made available for public review, unless otherwise exempt from disclosure, on the Town's website at www.townofwindsor.ca.gov, or by email upon request. These writings will be made available in appropriate alternative formats upon request by a person with a disability, as required by the Americans with Disabilities Act.

2. **COMMISSION ROLL CALL**
3. **PLEDGE OF ALLEGIANCE**
4. **CONFLICT OF INTEREST DECLARATION**
5. **CHANGES TO THE AGENDA**
6. **PRESENTATION**
6.1 **Receive a presentation on the Hazard Mitigation Plan.**
Multi-Jurisdictional Hazard Mitigation Plan
7. **PUBLIC COMMENT**
Members of the public wishing to address the Commission on any Consent Calendar item or any item *not listed* on the agenda may do so at this time. Pursuant to the Brown Act, the Commission is not allowed to consider issues or take action on any item not listed on the agenda during this period. Each Public Comment is normally restricted to three (3) minutes in length and must be spoken into the microphone from the podium. If you wish to speak on a Consent Calendar item, please notify the Chair during the Public Comment.
8. **CONSENT CALENDAR**
Consent Calendar items are viewed as routine in nature or require little or no further discussion by the Commission, public or applicant, and will be acted upon through a single motion.
8.1 **Approve the regular meeting minutes of May 13, 2025.**
Draft Minutes of May 13, 2025
9. **PUBLIC HEARING: None at this time.**
10. **REGULAR CALENDAR**
10.1 **Approve a resolution finding the Town's proposed FY 2025-2030 Capital Improvement Program conforms to the Town of Windsor 2040 General Plan.**
Staff Report
1. Draft Resolution
2. Proposed FY 2025-2030 Capital Improvement Program
2. Proposed FY 2025-2030 Capital Improvement Program Updated 5222025.pdf
11. **WRITTEN COMMUNICATION**
12. **COMMISSIONER COMMENTS**
12.1 **Individual Commissioner Reports and Comments, including reports on Meetings/Conferences and Activities of Miscellaneous Agencies.**
12.2 **Commissioner Requests for Future Agenda Items.**
13. **COMMUNITY DEVELOPMENT DIRECTOR'S REPORT**
14. **ADJOURNMENT**

Figure 11-6. Town of Windsor Insider Newsletter



11.3.1 Planning Commission Presentation and Public Review Draft Notification

A PowerPoint presentation was delivered at the Planning Commission meeting on October 28, 2025. The same presentation was utilized for additional outreach sessions, including the November 5 Town Council Meeting, the November 12 Parks and Recreation Commission Meeting, and the November 10 presentation at the Senior Recreation Center.

To ensure broad awareness of the public review draft of the HMP, multiple notification channels were used:

- The draft was posted on the Town's project webpage.
- An announcement was distributed via the Town's Water Smart email list, reaching all utility billing customers (over 5,500 emails).
- The Town's Business Newsletter shared the notice with more than 850 businesses.
- Notifications were sent to the Interested Parties List, compiled during earlier outreach phases from individuals who signed up for email updates.
- All Town boards and commissions received the announcement.
- Property managers and contacts for mobile home parks and affordable housing locations previously visited were notified.

- The notice was shared with WeAct, a local community organization.
- The availability of the public review draft HMP for public comment was announced during the Senior Citizens Advisory Commission meeting on October 21, as timing constraints prevented inclusion on the formal agenda.

These efforts reflect a multi-channel approach designed to maximize community engagement and ensure equitable access to information about the HMP review process. These outreach efforts can be found in Appendix D (Outreach Documentation).

The Town combined outreach for all of these areas with information on Citizens Organized to Prepare for Emergencies (COPE) and disaster preparedness through the Town's Windsor Ready! series to encourage greater attendance. Additionally, giveaways of NOAA emergency radios, with hand crank, USB, and solar charging capabilities, were included while supplies lasted.

11.3.2 Outreach to Underserved Communities and Vulnerable Populations

The following targeted outreach was made to underserved communities and vulnerable populations:

- **Disabled residents—**Some people with disabilities reside in the Town's mobile home parks and affordable housing developments. The Town provided information to the owners and managers of mobile home park and low-income housing developments to share with residents. The information was available in English and Spanish. The Town visited each mobile home park and low-income housing development to make a presentation if possible.
- **Multi-cultural Spanish-speaking community**—Information was made available in Spanish, as well as English. The Town identified people and organizations to work with for reaching out to the Hispanic community. Town staff engaged these people and organizations to determine the most effective way to reach out to and gather input from this community.
- **Low-income residents—**The Town made information about the HMP update available at affordable housing developments in the Town by contacting property managers and/or owners of affordable housing projects. When/if possible, the Town made a presentation to residents at these housing developments.
- **Mobile home park residents—**The Town's mobile home parks include lower-income, senior, veterans, and disabled residents. The Town has done presentations of its Windsor Ready! emergency preparedness series at mobile home parks. The Town included information about the HMP update in Windsor Ready! presentations and provided information about the update to mobile home park managers and leaders to share with the greater mobile home park community.
- **Native American communities—**The Town provided information on the HMP to the leaders of each tribe for which Windsor has received information from the Native American Heritage Commission (NAHC) as being connected with Windsor, as well as Native-led nonprofits. This included tribes that have or will have housing developments in or near the Town. One of the housing developments that will be built in the near future is for low-income tribal members.

- **Senior citizens—**The Town has a Senior Citizen Advisory Commission (SCAC) and a Senior Center. Town staff gave a presentation to the SCAC on the HMP update. The SCAC meets quarterly, and the intent was to provide two presentations to this group during the HMP process. SCAC commissioners reached out to other seniors to spread the word about the HMP update. The Town also visited the two low-income senior apartment developments to provide information to the manager about the HMP, and presented about the HMP update to the residents. Information on the HMP was also made available at the Senior Center.
- **Veterans—**The Town has an affordable housing project for low-income veterans. The Town conducted a presentation at Windsor Veterans Village and distributed go bags and radios.
- **Faith-based organizations—**The Town has several churches that provide support services to the community, such as food pantries, clothing, and access to medical services. The Town reached out to these churches to provide information on the HMP and to see how to best reach their members and the residents they support.

11.3.3 Outreach Results

Through its outreach efforts, the Town identified the following community concerns related to natural hazards, to be integrated into the plan as appropriate:

- Wildfire is the hazard of greatest concern. Wildfire smoke is also a concern.
- Earthquake is increasing as a hazard of concern.
- Single points of access at some locations (such as at some mobile home parks), which cause delays in evacuation (such as occurred during the Kincade Fire), are a concern. Residents asked if there are plans to provide public transit during evacuations.
- Evacuation for people that do not have a vehicle, that do not drive, or that have limited mobility is a concern. A request was made that SMART and/or bus service be made available and be free for evacuation.
- Reducing traffic delays and creating greater road capacity for evacuations (as is done in some areas for hurricane evacuations) to reduce the delays that were experienced during the evacuations for the Kincade Fire was recommended.
- Evacuating with pets is a concern, since people do not want to leave without their pets.
- There is a need to provide more information on evacuation routes by posting at Town-wide locations and providing QR codes
- Evacuation and hazard notifications for people with limited or no technology is a challenge because many people, especially low-income seniors in affordable housing, do not have a SMART phone or do not have a habit of carrying it with them or having it turned on.
- There is localized flooding that results in partial or complete road closures (e.g., at Cali Calmecac School on Starr Road, Conde Lane by Windsor Mobile Country Club, Old Redwood Hwy and Shiloh Road by Windsor Redwoods Apartments).
- Fire hazards and flooding are created in the county by not being able to remove brush in culverts and creek beds. Some of this results in flooding in the Town, such as in the area of Old Redwood Highway and Shiloh Road.

- Center medians on Old Redwood Highway impede evacuation.

11.4 STAKEHOLDER ENGAGEMENT

Volume I of this HMP describes the outreach to stakeholders that was undertaken on behalf of all participating jurisdictions to prepare this HMP update. In addition to that work, the Town of Windsor invited stakeholders relevant to the planning process to participate by attending a Hazard Mitigation Working Group meeting, responding to the stakeholder survey, contributing information and expertise to the plan, and reviewing the draft plan. The following sections outline the organizations invited by the Town to participate in the 2026 HMP update.

11.4.1 Local and Regional Agencies Involved in Hazard Mitigation Activities

The planning process included active participation from the Sonoma County Fire District (SCFD), which plays a critical role in hazard mitigation and emergency response, since SCFD provides fire service within the Town. The district contributed valuable insights into wildfire risk, evacuation planning, and coordination with water infrastructure for fire suppression. Its involvement helped shape mitigation strategies that align with operational capabilities and existing emergency response protocols, ensuring a more resilient and prepared community.

11.4.2 Agencies that Have the Authority to Regulate Development

Agencies with regulatory authority over land use and development were engaged to ensure that mitigation strategies could be effectively integrated into local planning frameworks. This included the Town of Windsor's Town Council, Planning Commission, Administrative Hearing Officer, Community Development Department, Public Works Department, and Building Official.

11.4.3 Neighboring Communities

Neighboring jurisdictions and institutions were invited to participate in the planning process to promote regional coordination and address shared risks. This included the County, adjacent cities, and tribal nations.

- County of Sonoma
- City of Healdsburg
- City of Santa Rosa
- Lytton Rancheria
- Kashia
- Graton Rancheria
- Dry Creek Rancheria Band of Pomo Indians

- Mishewal-Wappo Tribe of Alexander Valley
- Cloverdale Rancheria of Pomo Indians
- Middletown Rancheria
- Guidiville Indian Rancheria

11.4.4 Representatives of Business, Academia, and Other Private Organizations

The planning team engaged key representatives from the local business community, property management, and educational institutions to ensure a well-rounded perspective on hazard mitigation.

The Windsor Chamber of Commerce, Eugene Burger Property Management (representing downtown merchants and the Town Green Village Association), and the Hispanic Chamber of Commerce were invited to participate in the hazard mitigation planning process. The Town's Economic Development Manager proved information to the Windsor Chamber of Commerce about the update to the HMP.

The Windsor Unified School District was invited to participate in the hazard mitigation planning process. This collaboration helped ensure the plan reflects the priorities of both the private and public sectors and supports ongoing community-wide mitigation efforts.

11.4.5 Nonprofit Organizations and Community-Based Organizations

Nonprofit and community-based organizations were included to ensure that the needs of vulnerable populations were considered in the planning process.

- Pastor Laurie Bayen, Windsor Community United Methodist Church
- Reverend Mary Beene, Windsor Presbyterian Church
- Our Lady of Guadalupe Church
- Pastor Brandon Philpott, New Song Church
- Pastor Greg Martinez, Vid Verdadera
- Nuestra Comunidad
- Somos Windsor
- Circuit Riders

11.4.6 Other Stakeholders

The local historical society and a local climate action group were invited to participate in the hazard mitigation planning process.

- Windsor Historical Society
- WeAct, Windsor

11.5 CHANGES IN COMMUNITY PRIORITIES

The Town is focusing on actions that reduce the impacts of drought, flooding, and wildfire. This may result in changes to priorities for individual mitigation actions. The current plan implemented many actions that were related to preparedness, such as the evacuation zones and routes, the Windsor Ready! series, and the identification of shelter locations. These are now considered part of the Town's ongoing capabilities. The Town also designated all properties in Town limits that were not designated as High or Moderate on the Fire Hazard Severity Zones (FHSZ) Map from the State Fire Marshal as a Moderate fire hazard severity zone, in order to implement requirements for building hardening, and amended the Zoning Code to include firesafe landscaping and fencing requirements. The priorities are now shifting to structure and infrastructure projects as funding allows and the preparation of plans, such as a Continuity of Operations Plan, Dam Failure Annex to the EOP, and Debris Management Plan.

11.6 JURISDICTIONAL CAPABILITY ASSESSMENT AND INTEGRATION

Windsor performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume I describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment for this annex includes analyses of the following:

- Planning and regulatory capabilities
- Development and permitting capabilities
- Administrative and technical capabilities
- Fiscal capabilities
- Education and outreach capabilities
- Classification under various community mitigation programs
- Adaptive capacity to withstand hazard events

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into day-to-day government operations. For the hazard mitigation analysis, planning and policy documents were reviewed and each jurisdiction was surveyed to obtain a better understanding of its progress toward plan integration. Development of an updated mitigation strategy provided an opportunity for Windsor to identify opportunities for integrating mitigation concepts into ongoing Town procedures.

11.6.1 Planning and Regulatory Capability and Integration

Planning and regulatory capabilities include the plans, policies, codes, and ordinances that help prevent or reduce the impacts of hazards. The sections below outline the relevant planning documents, codes, and regulations that were reviewed and considered for updates based on new data or insights gained during the HMP update process. Additionally, the HMP Team evaluated existing plans against a comprehensive list of hazard mitigation-related capabilities. The absence of certain types of plans,

policies, codes, or ordinances was not interpreted as a gap in local capabilities. For a comprehensive list of state codes relevant to hazard mitigation in California, please refer to the capability assessment in Volume I.

Codes, Ordinances, and Regulations

Table 11-2 summarizes the codes, ordinances, and regulations available to the Town of Windsor.

Table 11-2. Town of Windsor Codes, Ordinances, and Regulations

Capability Type	Citation and Date	HMP Integration and Risk Reduction	Authority	Responsible Department or Agency
Building Code	Windsor Municipal Code, Title 7, Building and Housing, Chapter 2, California Code of Regulations The Town adopted an amended map from the State Fire Marshal that designates all areas in Town Moderate that were not identified as High or Moderate on the FHSZ map from the State Fire Marshal.	The Town's building code includes provisions designed to strengthen and elevate construction to withstand various hazard forces, such as flooding, wind, and seismic activity. These codes meet or exceed the standards outlined in the National Flood Insurance Program (NFIP), ensuring safe building practices in flood-prone areas. Additionally, the Town has adopted development standards that address storm surge, wind damage, and earthquakes. As part of its hazard mitigation efforts, the Town has also designated all areas not designated High or Moderate on the FHSZ Map from the State Fire Marshal (February 24, 2025) as Moderate in order to retain the current requirements for compliance with specific state building standards that harden buildings and, thereby, reducing wildfire risk. These integrated code requirements play a critical role in enhancing community resilience and reducing vulnerability to natural hazards by hardening new buildings and substantial additions to better resist wildfire.	Municipal	Building Official
Flood Damage Prevention Ordinance	Windsor Municipal Code Title 9, Chapter 1 (Floodplain Management)	The Zoning Map includes a Flood Hazard Overlay Zone (-FH) and the Zoning Code includes a Flood Hazard Overlay District (Zoning Code Section 17.18.040) that generally corresponds with the 100-year floodplain with specific requirements for development in the 100-year flood plain. The 2040 General Plan Health and Safety Element includes policies that address flooding. Municipal Code Title IX – Flood Damage, Flood Control and Drainage includes requirements for development in the floodplain and prohibits development in the floodplain and floodway. The Building Official is the Floodplain Administrator. The Building Official and Public Works engineers work together to implement the requirements of the ordinance.	Municipal	Community Development Department, Public Works Department

Capability Type	Citation and Date	HMP Integration and Risk Reduction	Authority	Responsible Department or Agency
Zoning/Land Use Code	Windsor Zoning Code, Municipal Code Title 17	The Town's Zoning Code demonstrates partial alignment with the comprehensive plan in discouraging development within natural hazard areas. It includes a Floodplain Overlay Zone, which sets specific conditions for land use in flood-prone areas, helping to manage risk and guide safer development. The recently adopted Zoning Code (effective December 20, 2024) also incorporates hazard mitigation actions related to firesafe landscaping and fencing, further supporting resilience goals. However, the ordinance does not currently prohibit development within, or the filling of, wetlands, floodways, or floodplains—representing an area for potential improvement. Additionally, while the zoning code does not offer density bonuses to encourage development outside of hazard areas, the General Plan includes policies that allow for clustering and density transfers in environmentally sensitive areas. These policies, though environmentally focused, could be expanded to more directly address hazard avoidance in future updates.	Municipal	Community Development Department
Subdivision Code	Windsor Subdivision Ordinance, Municipal Code Title 16, Chapter 8	The current subdivision ordinance was adopted in 2009. It is in need of updating, but there is currently no timeline for updating it. When the Subdivision Ordinance is updated, there would be an opportunity to integrate the HMP.	Municipal	Public Works, Community Development Department
Site Plan Code	Zoning Ordinance, Title 17, Article 5, Chapter 17.56 (Site Plan and Design Review) and Article 3, Chapter 17.22 (Environmental Preservation Standards)	The Zoning Code has requirements for creek side development, tree preservation and protection, but no requirements related to site planning to avoid hazards. The Zoning Code also requires Site Plan and Design Review approval for certain types of approvals, but does not require hazard avoidance or minimization.	Municipal	Community Development Department
Stormwater Management Code	Municipal Code Title 9, Chapter 4 (Stormwater Quality) 2020 Storm Drainage Master Plan (approved by Town Council 3/4/2020)	While the requirements of this code do not specifically address hazards, the requirements do help address flooding by addressing stormwater.	Municipal	Public Works Department
Growth Management	Municipal Code Title 16, Chapter 4 (Growth Control). Voter approved Urban Growth Boundary (UGB) that is in place until 2040.	The Growth Control Ordinance does not address development in hazard areas. The UGB does avoid agricultural and "open space" lands and community separators. This buffers the Town from wildland fires and avoids hillside development and areas of potential landslide.	Municipal	Community Development Department

Capability Type	Citation and Date	HMP Integration and Risk Reduction	Authority	Responsible Department or Agency
Environmental Protection Ordinance	Zoning Code, Title 17, Article 3, Chapter 27.22 (Environmental Standards)	The Zoning Code includes requirements related to creek side development and tree protection and preservation. There is an opportunity to include other requirements for environmental protection. The 2040 General Plan includes policies to protect public health and safety in the Health and Safety Element and for the protection of natural resources and the environment in the Environmental Resources Element.	Municipal	Community Development Department
Wellhead Protection	Porter Cologne Act 1969	The Town of Windsor complies with the Porter Cologne Act requirements. The County regulates, permits, and inspects wells in Windsor.	State and County	Sonoma County
Emergency Management Ordinance	Windsor Municipal Code, Title 3, Chapter 19, Civil Defense and Disaster	The Emergency Management Ordinance section of the Municipal Code was originally adopted in 1992, when the Town was incorporated and needs to be updated to current best practices for emergency management.	Municipal	Town Manager's Office
Climate Change Ordinance	Climate Emergency Resolution (Resolution 3548-19); General Plan Policy ER-5.21 incorporating Municipal Climate Action Plan by reference. Municipal Climate Action Plan	The Town does not have a climate change ordinance. The 2040 General Plan, including the Public Health and Safety Element, includes policies that address Climate Change Adaptation, GHG Emissions, Flood, Earthquake, Drought, Extreme Heat, and Wildfire. In 2019, the Town Council adopted a Climate Emergency Resolution (Resolution 3548-19) that identifies specific measures that are currently being undertaken to address climate change and additional measures that the Town should implement. The 2040 General Plan includes a Qualified Greenhouse Gas Emissions Reduction Plan. The Town does not have a town-wide Climate Action Plan. The Town has a Greenhouse Gas Reduction Plan for Town operations. The Town has a Climate Adaptation Plan (Windsor Ready!). The Town has a Municipal Climate Action Plan that is a policy document, but it does not include objective standards, quantified standards or actions, or requirements.		Public Works Department, Community Development Department
Other	Climate Resilience Plan Vulnerability Assessment	The Vulnerability Assessment included as part of the Town's Climate Resilience Plan is not a code but is used as a reference to understand the hazards that affect vulnerable "assets" (People, Buildings, Infrastructure, Natural Systems, Economy) of a given area of Town.		Community Development (Planning), Public Works (Sustainability Coordinator)

Planning Documents

Table 11-3 summarize the planning documents available to the Town of Windsor.

Table 11-3. Town of Windsor Planning Documents

Capability Type	Citation and Date	HMP Integration and Risk Reduction	Authority	Responsible Department or Agency
General Plan	2040 Windsor General Plan	The Town has integrated the Hazard Mitigation Plan (HMP) into its General Plan through Policy PHS-1.1, which ensures the HMP remains FEMA-approved and addresses climate change and adaptation strategies. This integration aligns with Assembly Bill 2140 and helps reduce risk by embedding hazard mitigation into land use planning. Although the General Plan Land Use Diagram does not show natural hazard areas, the Health and Safety Element includes figures that do, including Seismic Shaking Potential (Figures PHS-4 and PHS-5, Faults and Liquefaction Zones (Figures PHS-6 and PHS-7), Flood Hazard Zones (PHS-8), Dam Inundation (Figure PHS-9) Wildfire Hazard Severity Zones (PHS-10), as well as Residential Parcels with Evacuation Constraints (PHS-1), Evacuation Zones (PHS-2), and Evacuation Routes (PHS-3). Policies discourage development in hazard zones. Policy LU-2.7 (Clustering Residential Development) allows residential uses to be clustered when environmentally sensitive areas are present on a site. This policy could be applied to areas that include hazards. An additional policy could be added, or this policy could be amended to specifically identify hazard areas in addition to environmentally sensitive areas. This is a potential area of improvement. While developable land is limited, most of what remains lies outside hazard areas, allowing for some future growth with reduced risk exposure.	Municipal	Community Development
Capital Improvement Plan	5-Year Capital Improvement Projects	CIP projects have included projects that address hazards, such as flooding. However, the HMP is not explicitly integrated into the CIP. The CIP is a 5-year plan that is reviewed and updated every 2 years as part of the Town's biennial budget process. Each year the budget is reviewed and adjusted as needed, including CIP projects to be undertaken in that budget year. Town departments review the hazard mitigation measures included in the hazard mitigation plan as part of the CIP and budget process and identify measures to include in the budget.	Municipal	Public Works, Parks and Recreation
Stormwater Management Plan	2020 Storm Drainage Master Plan, approved by Town Council 3/4/2020	The SDMP evaluates the Town's storm drain system, models stormwater flows, and identifies projects to address deficiencies. The SDMP addresses impacts related to flooding. The Town has a 5-year Storm Drain CIP. While the SDMP does not specifically integrate the HMP, it does address flooding impacts by identifying areas of potential flooding and identifying projects that remedy the potential impacts.	Municipal	Public Works
Stormwater Pollution Prevention Plan (SWPPP)	Municipal Code Title 9, Chapter 4 (Storm Water Quality), Article 3 Regulations and Requirements	The Municipal Code requirements for storm water quality are not currently integrated with the HMP. The Town of Windsor follows state regulations for each development project. Municipal Code Section 9-4-300 Requirements for Reducing Pollutants in Storm Water implements the requirement for a SWPPP.	Municipal	Public Works

Capability Type	Citation and Date	HMP Integration and Risk Reduction	Authority	Responsible Department or Agency
Open Space Plan	2040 General Plan Environmental Resources Element Open Space Section	The General Plan Land Use Diagram includes an Open Space designation, which applies to creeks, the golf course, and similar areas. The Environmental Resources Element of the General Plan includes the Open Space section, which includes the Goal ER-1: Preserve open space land for the continuation of commercial agricultural and productive uses, the protection and use of natural resources, the enjoyment of scenic beauty and recreation, and the protection from natural hazards. The General Plan includes the following Environmental Resources policies: ER-1.1 Open Space Preservation. The Town shall seek to preserve open space resources (i.e., productive farmlands, outdoor recreation areas, biological habitats, visually prominent landforms, Alquist-Priolo Special Study Zones, and flood hazard areas) through avoidance of development in these areas. ER-1.3 Reducing Development in Significant Threat Areas. The Town shall ensure that areas that pose significant threats to public health and safety, such as steep slopes, regulatory floodways, and the Alquist-Priolo Special Study Zone, are predominantly maintained as open space. There are no policies in the General Plan Health and Safety Element to avoid development in hazard areas. This could be an opportunity to integrate the HMP. The General Plan includes policies and requirements to address hazards. The General Plan does not prioritize open green spaces, particularly in areas with high impervious surface coverage. Similarly, it lacks a comprehensive approach to increasing tree cover to mitigate the urban heat island effect, though a few policies address this issue in limited contexts. For example, Policy M-6.3 and Policy ER-5.16 encourage and require shade trees in parking lots to reduce heat, but implementation lacks specific standards for coverage. Policy ER-5.17 proposes planting 500 urban shade trees, and Policy ER-5.18 supports tree preservation in parking lots and public rights-of-way, though these efforts are not backed by enforceable zoning requirements. While the Zoning Code includes tree preservation provisions, most developments opt to pay an in-lieu fee rather than retain existing trees or plant replacement mitigation trees. Although there is a tree planting program for public property, it currently lacks available locations for new plantings, and no targeted efforts are planned for high-heat areas.	Municipal	Community Development Department
Urban Water Management Plan	2015 UWMP, finalized June 2016 (State regulations require an updated UWMP every 5 years). The 2020 UWMP is being updated now.	The Town is currently working with a consultant on the scope of work to determine a new update. Any new updates will be added to the Town's existing adopted plan.	Municipal	Public Works

Capability Type	Citation and Date	HMP Integration and Risk Reduction	Authority	Responsible Department or Agency
Economic Development Strategy	New Economic Development Strategic Plan (EDSP) was adopted May 2025.	EDSP includes objectives related to business resilience, supporting diverse industries, and ensuring economic continuity in the face of disruption. While these goals align with principles of hazard preparedness, they do not directly address mitigating for natural hazards. This represents a gap in planning that could be addressed in future updates to strengthen the community's overall resilience.	Municipal	Economic Development Manager/Town Manager's Office
Community Wildfire Protection Plan	Sonoma County Community Wildfire Protection Plan	The Community Wildfire Protection Plan (CWPP) is incorporated into the County's Hazard Mitigation Plan. The CWPP identifies wildfire risks and mitigation measures across the County, and lists community-driven Risk Reduction Priorities and specific project recommendations that agencies and community groups can use to develop projects to reduce wildfire risk.	County	Permit Sonoma
Transportation Plan	The Town does not have one. County of Sonoma Transportation Plan	The County of Sonoma is currently developing a Transportation Plan for countywide emergency response during an emergency.	County	County of Sonoma
Climate Action/ Resilience/ Sustainability Plan	Climate Emergency Resolution; Municipal CAP; Windsor Ready! Plan (Climate Adaptation Plan and Vulnerability Assessment) accepted by Town Council February 2022	The 2040 General Plan Health and Safety Element includes policies that address Climate Change Adaptation. In 2019, the Town Council adopted a Climate Emergency Resolution (Resolution 3548-19) that identifies specific measures that are currently being undertaken to address climate change and additional measures that the Town should implement. The 2040 General Plan includes a Qualified Greenhouse Gas Emissions Reduction Plan. The Town does not have a town-wide Climate Action Plan. The Town has a Greenhouse Gas Reduction Plan for Town operations. The Town has a Climate Adaptation Plan (Windsor Ready!). The Town has a Municipal CAP that includes objectives but is not quantified and does not include any required actions. The Climate Adaptation Plan and the General Plan Health and Safety Element identify areas at high risk of natural disasters, such as wildfire-prone areas. However, the plan does not include specific actions for post-disaster recovery, aside from provisions in the Zoning Code for temporary housing. Some updates in the new Zoning Code and the updated Public Health and Safety Element align with mitigation actions from the Local Hazard Mitigation Plan (HMP), particularly those related to wildfire. These plans do not identify socially vulnerable or underserved communities at high risk, nor does it align actions to address their needs with the HMP. Regarding climate goals, the General Plan includes measurable carbon emission reduction targets, and the Municipal Greenhouse Gas (GHG) Reduction Plan outlines actionable strategies. However, the Municipal Climate Action Plan and the Climate Emergency Resolution lack specific, implementable measures.	Municipal	Sustainability Coordinator, Public Works, Community Development

Capability Type	Citation and Date	HMP Integration and Risk Reduction	Authority	Responsible Department or Agency
Agriculture Plan	Zoning Code; General Plan, Environmental Resources Element (Agricultural Resources)	The Zoning Code includes Section 17.22.010 (Agricultural Preservation), which requires buffers between agricultural uses and development to protect the agricultural use. The General Plan includes policies to protect agricultural uses (ER-2.1: Agricultural Uses and ER-2.4: Agricultural and Open Space Preservation), requires a buffer between development and agricultural uses (ER-2.2: Agricultural Buffers), and requires a disclosure for development close to agricultural uses (ER-2.3: Disclosure of Agricultural Activity). The intent of this is to protect agricultural uses, not to address hazards. These buffers do create separation between development and wildland areas that could help mitigate wildfire spread.	Municipal	Community Development

Response and Recovery Planning Documents

Table 11-4 summarizes the response and recovery planning documents for the Town of Windsor.

Table 11-4. Town of Windsor Response and Recovery Plans

Capability Type	Citation and Date	HMP Integration and Risk Reduction	Authority	Responsible Department or Agency
Emergency Operations Plan	Adopted October 16,2024 Town Council Resolution No. 3969-24	The EOP integrates the HMP. The EOP specifically references the current HMP, including referring to the hazard assessment, mitigation actions identified, and the Town's ongoing mitigation projects.	Municipal	Town Manager's Office
Threat Hazard Identification and Risk Assessment	Disaster Preparedness Assessment Report and Action Plan for Windsor Water District Wastewater Treatment, Reclamation, and Disposal Facility (WRF) July 27, 2023	This plan includes a risk assessment for the Wastewater Treatment facility, including identifying potential risks to the facility, including natural hazards. However, the plan does not specifically integrate the Hazard Mitigation Plan.	Municipal	Public Works

Integration

The Town of Windsor has made meaningful progress in integrating hazard mitigation into its planning framework, particularly through the 2040 General Plan. Policy PHS-1.1 formally incorporates the HMP into the Public Health and Safety Element, ensuring alignment with FEMA requirements and Assembly Bill 2140. This integration embeds hazard mitigation into land use planning and climate adaptation strategies. The General Plan also includes policies discouraging development in hazard-prone areas and identifies natural hazard zones through figures in the Health and Safety Element, though the Land Use Diagram itself does not.

The Zoning Code, Building Code, and Flood Damage Prevention Ordinance (Windsor Municipal Code Title 9, Chapter 1- Floodplain Management) further support hazard mitigation. These codes include overlays and standards for floodplains, seismic zones, and wildfire-prone areas. The Town's designation as a High and Moderate Fire Severity Zone requires compliance with certain state building standards, enhancing wildfire resilience. However, the Subdivision Ordinance and Zoning Code lack direct hazard mitigation provisions. The Subdivision Ordinance is due for an update. The Zoning Code

Environmental Preservation Standards (Chapter 17.22) and the Site Plan and Design Review (Chapter 17.56) could be updated to integrate the HMP.

The Capital Improvement Plan (CIP) includes projects that address hazards such as flooding, and Town departments review HMP measures during the budget process. However, the HMP is not explicitly integrated into the CIP, representing an opportunity for stronger alignment. Similarly, the Storm Drainage Master Plan helps manage flood risk but is not directly tied to the HMP.

The Open Space Plan, embedded in the General Plan's Environmental Resources Element, supports hazard mitigation by preserving areas such as floodplains and steep slopes. However, it lacks enforceable mechanisms to prevent development in hazard zones. The Climate Emergency Resolution, Municipal Climate Action Plan, and Windsor Ready! Climate Adaptation Plan identify climate-related risks and goals but fall short of including measurable, enforceable actions. The Urban Water Management Plan and Economic Development Strategic Plan are not currently integrated with the HMP, and the latter does not address economic resilience to natural hazards.

The Town's Emergency Management Ordinance (included in the Municipal Code) is outdated (1992) and needs revision to reflect current emergency response practices. The Zoning Code includes Environmental Preservation Standards for Agricultural Preservation, Creekside Development, and Tree Preservation and Protection. The Town regulates and tracks growth through its Growth Management Ordinance. While the Environmental Preservation Standards and Growth Management Ordinance contribute indirectly to hazard mitigation, they could be strengthened to more explicitly support HMP goals.

While the Town of Windsor has made progress in aligning several planning documents and regulatory tools with the HMP there remain key opportunities to strengthen this integration and enhance community resilience through targeted updates and policy enhancements:

- Update the Subdivision Ordinance and Zoning Code to include hazard avoidance standards, such as siting restrictions in floodplains, wildfire zones, and landslide-prone areas.
- Revise the Emergency Management Ordinance to align with modern emergency planning and recovery frameworks.
- Strengthen the Zoning Code by avoiding development in high-risk areas and promoting development in safer zones.
- Integrate the HMP into the Capital Improvement Plan by formally linking mitigation priorities to infrastructure investments.
- Enhance the Municipal Climate Action Plan with measurable targets, enforceable standards, and alignment with HMP mitigation strategies.
- Incorporate hazard mitigation into the Economic Development Strategic Plan, particularly to address economic resilience and recovery.
- Expand the General Plan Open Space policies and the Zoning Code Environmental Preservation Standards and Site Plan and Design Review Standards to include enforceable protections for hazard-prone areas.

- Improve coordination across departments to ensure consistent application of hazard mitigation policies in planning, permitting, and capital projects.

11.6.2 Development and Permitting Capability

Table 11-5 summarizes the capabilities of the Town of Windsor to oversee and track development. To expand these capabilities, the Town could identify permits issued in hazard areas through new permitting software, if it has the capability.

Table 11-5. Development and Permitting Capability

	Yes/No	Comment
Do you issue development permits? • **If you issue development permits, what department is responsible?** • **If you do not issue development permits, what is your process for tracking new development?**	Yes	The Planning Division (Community Development Department) oversees entitlement approvals (use permit, site plan and design review, subdivisions, etc.).
Are permits tracked by hazard area? (For example, floodplain development permits.)	No.	When reviewing permits, the Town determines whether the site is in the floodplain or floodway to ensure compliance with these requirements. The Town's permit tracking system is not able to track permits by hazard area. The Town is in the process of getting a new permit tracking system and would like to include the hazard areas as a layer(s)
Do you have a buildable land inventory? • **If you have a buildable land inventory, please describe**	Yes	The inventory needs to be updated.
Describe the level of buildout in your jurisdiction.	N/A	The Town is mostly built out. There are opportunities within Town limits to redevelop and add development to existing sites. The Town annexed land in the northwestern part of Town in 2020. This area provides the greatest opportunity for new development. There are areas that are able to be annexed to the Town. The Town currently has no plan to annex any areas. Annexation is typically initiated by the property owner.

11.6.3 Administrative and Technical Capability

Table 11-6 summarizes the administrative bodies and programs available to support mitigation initiatives in the Town. To expand and improve these capabilities, the Town could explore the creation of a mitigation planning committee, environmental commission, open space board, or economic development commission.

Table 11-6. Administrative Capabilities

Resources	Available?	Comment
Planning Board	Yes	Planning Commission
Zoning Board of Adjustment	Maybe	Community Development Director serves as the Town's Administrative Hearing Officer.
Planning Department	Yes	Planning Division, Community Development Department
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	Public Works Department
Construction/Building/Code Enforcement Department	Yes	Building Division, Community Development Department The Town contracts for code enforcement services.
Emergency Management/Public Safety Department	Yes/No	The Town Manager serves as the Town's Emergency Management Director while Public Safety is contracted with Sonoma County Sheriff Department. The Town does not have its own fire department because it is served by Sonoma County Fire District.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes/	Public Works / Parks Tree trimming for Town property and public right-of-way
Mutual aid agreements	Yes	Shelter – EMMA (County, WUSD, American Red cross, and Nuestra Comunidad) Transportation Training – SCFD PGE - PSPS
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	H/R policies and procedures, but no manual. Job descriptions do not include hazard identification or mitigation functions.
Other	N/A	-

Table 11-7 summarizes potential staff and personnel resources available to the Town and their current responsibilities that contribute to hazard mitigation.

Table 11-7. Technical/Staffing Capabilities

Resources	Available?	Comment
Planners or engineers with knowledge of land development and land management practices	Yes	Staff planners and engineers. Contract for services when subject matter expertise is needed.
Engineers or professionals trained in building or infrastructure construction practices	Yes	Staff professionals. Contract for services when needed, such as structural engineers, surveyors, and inspection.
Planners or engineers with an understanding of natural hazards	Yes	Staff professionals. Contract for services when needed.
Staff with expertise or training in benefit/cost analysis	Yes	Staff professionals. Contract for services when needed.
Professionals trained in conducting damage assessments	Yes	Building Division staff is Safety Analysis Program (SAP) trained. Training "updated" every three years.
Personnel skilled or trained in GIS and/or Hazus applications	Yes	Staff in Public Works, Community Development, and Parks and Facilities utilize GIS. Public Works and Community Development contract for GIS services. No specific staff are assigned to this function. The Town is in the process of consolidating its GIS systems and may have the capacity to include the County's hazard layers for the Town into its GIS.
Staff that work with socially vulnerable populations or underserved communities	Yes	Town Manager's Office staff Parks and Recreation staff Nuestra Comunidad non-profit
Environmental scientists familiar with natural hazards	Yes	Geologist in Public Works. Contract for services when needed.
Surveyors	Yes	Contract through Public Works when needed.
Emergency manager	Yes	The Town Manager functions as the Town's Emergency Manager. The Government Operations Manager coordinates emergency management throughout the Town and with other agencies.
Grant writers	Yes	Town staff looks for grant opportunities and writes grant applications. Contract for assistance when needed.
Resilience Officer	Yes	Sustainability Coordinator, Public Works Department
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	There are engineers that deal with stormwater, but not a position with this title. Public Works has staff that may fall under "environmental specialist." Government Operations Manager

11.6.4 Fiscal Capability

Table 11-8 summarizes financial resources available to Windsor.

Table 11-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvement project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes (water and sewer)
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Likely only through grants
Open Space Acquisition funding programs	Sonoma County Agricultural and Open Space District grants have been used. These include a requirement for a Town match.
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Unknown

11.6.5 Education and Outreach Capability

Table 11-9 summarizes the education and outreach resources available to Windsor.

Table 11-9. Education and Outreach Capabilities

Outreach Resources	Available?	Comment
Public information officer or communications office	Yes	Town Clerk serves as PIO
Personnel skilled or trained in website development	Yes	Town contracts with Civic Plus with department champion for administrative duties. Administrators upload and remove content on the Town's website.
Hazard mitigation information available on your website	Yes	The Town's current Local Hazard Mitigation Plan is available on the Town's website as a document but not a dedicated page.
Social media for hazard mitigation education and outreach	Yes	Facebook, Nextdoor, and Instagram, are the Town's social media platforms. Each Town department has a social media champion that will write and post. There is no specific department designated to social media for hazard mitigation education and outreach.
Citizen boards or commissions that address issues related to hazard mitigation	Yes	Town Emergency Council as required by Municipal Code Title III, Chapter 19 (Civil Defense and Disaster), includes one member of the public.

Outreach Resources	Available?	Comment
Warning systems for hazard events	Yes	Town website – Emergency Alert, SoCo Alerts, Nixle, social media, Town Electronic banner, SCFD electronic banner, Windsor Library electronic banner, Wireless Emergency Alert (WEA) System. On Red Flag days, Red Flags are flown outside fire stations. During evacuations, Hi-Lo sirens are used by the Police Department to notify residents of the need to evacuate.
Natural disaster/safety programs in place for schools	Yes	WUSD is incorporating: https://docs.google.com/document/d/1Y0ELvbh-EvmadnFQyqGTNrtTaurF23Mo/edit
Organizations that conduct outreach to socially vulnerable populations and underserved populations	Yes	Nuestra Comunidad
Public outreach mechanisms / programs to inform the public on natural hazards, risk, and ways to protect themselves during such events	Yes	Windsor COPE, Northern Sonoma County COPE, CERT, Windsor Ready! Talk Series, Windsor Ready! Emergency Guide, Emergency Prep Help, WaterSmart, Nuestra Comunidad, electronic banners located at Windsor Central Exit, SCFD and Windsor Library.

11.6.6 Community Classifications

Table 11-10 summarizes classifications for community programs available to Windsor.

Table 11-10. Community Classifications

Program	Participating?	Classification	Date Classified
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule	Yes	3	December 23, 2019
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	1	March 27, 2023
National Weather Service StormReady Certification	No	-	-
Firewise Communities classification	No	-	-
Other: Organizations with mitigation focus (advocacy group, non-government)	No	-	-

11.6.7 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2022). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. Table 11-11 summarizes the adaptive capacity for each identified hazard of concern and the Town’s capability to address related actions using the following classifications:

- Strong adaptive capacity means the jurisdiction does have the capability to effectively respond, plans/policies exceed minimum requirements; deployable resources all of which decreases vulnerability.
- Moderate adaptive capacity means minimum requirements are in place; moderate capabilities; mitigation measures are identified but not implemented widespread; jurisdiction can recover but needs outside resources.
- Weak adaptive capacity means the jurisdiction does not have the capability to effectively respond, which leads to an increase in vulnerability. Examples include weak, outdated, or inconsistent plans, policies, codes, or ordinances in place; no redundancies; limited to no deployable resources; limited capabilities to respond; long recovery.

Table 11-11. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Dam Failure	Moderate
Drought	Moderate
Earthquake	Moderate
Extreme Cold	Moderate
Extreme Heat	Moderate
Extreme Wind	Moderate
Flood	Moderate
Landslide	Moderate
Sea Level Rise	Not Applicable
Tsunami	Not Applicable
Wildfire	Moderate

11.7 NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the National Flood Insurance Program (NFIP). The floodplain administrator listed in Section 11.1 is responsible for maintaining this information.

The Town has adopted the NFIP minimum floodplain management criteria via local regulation. The Town's Muni Code Section 9-1-305 adopted the Flood Insurance Rate Map (FIRM) dated April 2, 1991, and all amendments and/or revisions are adopted by reference and made a part of the chapter. The Building Official is responsible for implementing the requirements of the NFIP by requiring permits for all development within SFHAs shown on the latest FIRM. The Building Official reviews proposed development for compliance with applicable floodplain standards, including elevation or floodproofing, floodway restrictions, and certification requirements. Compliance is enforced through permit conditions, inspections, and documentation, with enforcement actions taken as necessary to address non-compliant development and maintain consistency with NFIP.

The Town implements the substantial improvement/substantial damage provisions of its floodplain management regulations by requiring property owners, following a damaging event or proposed improvement, to submit a detailed cost estimate prepared by a licensed contractor, along with documentation of the structure's pre-event market value, typically based on an appraisal or local tax-assessed value. Cost estimates are reviewed and evaluated in accordance with FEMA P-758, which defines costs that must be included and excluded when determining substantial improvement or substantial damage. The Chief Building Official uses this documentation to determine whether the cost of repairs or improvements equals or exceeds 50 percent of the structure's market value. If that threshold is met, the structure is classified as substantially damaged or substantially improved and must be brought into full compliance with current floodplain management standards as a condition of permit approval. The jurisdiction documents the determination and enforces compliance through its permitting authority.

While the Town participates in the NFIP, it does not participate in the CRS. Table 11-12 provides a summary of NFIP compliance in Windsor.

Table 11-12. NFIP Compliance

Question	Comments
What local department is responsible for floodplain management?	Community Development, Public Works
Are any certified floodplain managers on staff in your jurisdiction?	Yes Deputy Director of Water and Environmental Management, Public Works Department
Do you have access to resources to determine possible future flooding conditions from climate change?	No. These would likely be obtained through consultant services or through online resources like FEMA, ABAG/MTC, Cal OES, etc.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	No Private property flooding is currently not an issue for Windsor. Most flooding is related to public property/open space areas (such as the golf course) and roadways.
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Town staff review permits for compliance with the Town's floodplain management ordinance and identify FIRM designations for property owners.
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Substantial improvement is defined by the Town's Municipal Code regulations in Title IX – Flood Damage, Flood Control, and Drainage. The Building Official determines whether a proposed structure meets the definition of a substantial improvement.
What are the barriers to running an effective NFIP program in the community, if any?	Private property flooding is not a significant enough hazard issue compared to others. The Town can better use resources elsewhere. There has not been interest/request for this.
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	2019

Question	Comments
What is the local law number or municipal code of your flood damage prevention ordinance?	Municipal Code Title IX – Flood Damage, Flood Control, and Drainage Floodplain Management became part of the Town's Municipal Code in 2008 (Ord. No. 2008-235). It was previously a standalone ordinance, separate from the Municipal Code.
What is the date that your flood damage prevention ordinance was last amended?	Ordinance was amended in 2008 (Ord. No. 2008-249) to add Storm Water Quality (Chapter 4).
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	The Zoning Code includes a Flood Hazard Overlay zoning district – Section 17.18.040 Flood Hazard Overlay Zone (-FH).
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	The Town is not part of the CRS program. Staff are not aware of community interest in the CRS program.

11.7.1 Repetitive Loss

The OpenFEMA NFIP Multiple Loss Properties dataset was analyzed to gain an understanding of repetitive flood loss in the Town. The dataset provides information on structures that have had multiple NFIP claims across the history of the program. Table 11-13 summarizes the repetitive loss and severe repetitive loss properties in the Town.

Table 11-13. Repetitive Loss Summary

Type of Repetitive Loss	Residential	Non-Residential
Repetitive Loss Properties (NFIP definition)	1	1
Repetitive Loss Properties (FMA definition)	0	0
Severe Repetitive Loss Properties (NFIP definition)	1	0
Severe Repetitive Loss Properties (FMA definition)	2	0

Source: (FEMA 2024)
Note: See Appendix C for definitions of repetitive loss types presented in this table.

11.7.2 Flood Vulnerability Summary

Table 11-14 provides a summary of flood vulnerability in the Town.

Table 11-14. Flood Vulnerability Summary

NFIP Topic	Comments
Describe areas prone to flooding in your jurisdiction.	Table 11-18 identifies area within the Town that have flooded over the past five years and are a good indicator for flood prone areas. Flooding tends to be in public right-of-way and roadways, rather than private property.
Do you maintain a list of properties that have been damaged by flooding?	No. Private structures are not typically damaged by flooding in Windsor.
Do you maintain a list of property owners interested in flood mitigation?	No. Staff are not aware of property owners requesting flood mitigation assistance.
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	The Town is not aware of any requests from property owners for assistance with mitigation.
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	No
How do you make Substantial Damage determinations?	Substantial damage is defined by the Town's Municipal Code regulations in Title IX – Flood Damage, Flood Control, and Drainage. The Building Official would make this determination.
How many Substantial Damage determinations were declared for recent flood events in your jurisdiction?	None
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	Yes

11.8 GROWTH/DEVELOPMENT TRENDS

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction's overall risk to its hazards of concern. Recent and expected future development trends, including major residential/commercial development and major infrastructure development, are summarized in Table 11-15 through Table 11-17.

As part of implementing one of the mitigation actions in the 2021 HMP, the Town has applied the Moderate Fire Hazard Severity Zone designation to all areas within the town limits that are not designated by the State Fire Marshal as Moderate or High on the Fire Hazard Severity Zone Map (February 24, 2025). As part of this designation, projects are required to implement certain state fire standards, which are identified in the Town's adopted Building Code. This applies to all new construction, including major additions.

Table 11-15. Number of Building Permits for New Construction Issued Since the Previous HMP

Year and Permit Issued	Single Family	Multi-Family	Other (commercial, mixed-use, etc.)	Total
2020 New Construction Permits Issued	32	0	1	33
2020 Permits Issued within SFHA	0	0	0	0
2021 New Construction Permits Issued	12	3	0	15
2021 Permits Issued within SFHA	0	0	0	0
2022 New Construction Permits Issued	22	14	1	37
2022 Permits Issued within SFHA	0	0	0	0
2023 New Construction Permits Issued	26	2	3	31
2023 Permits Issued within SFHA	0	0	0	0
2024 New Construction Permits Issued	24	3	1	28
2024 Permits Issued within SFHA	3	0	0	3

SFHA = Special Flood Hazard Area

Table 11-16. Recent Major Development and Infrastructure from 2019 to Present

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones[a]	Description / Status of Development
Storage Pro	Commercial Mini-storage	0/8	5855 Pruitt Ave. 059-271-110	Partial Flood Hazard Zone (Pruitt Creek)	Completed 2020
Veterans Village	Residential Multi-family	60/10	9500 Oak Park St. 066-060-070	No	Completed 2021
Kittyhawk Warehouse	Commercial	0/1	1145 Kitty Hawk Blvd. 164-240-016	No	Completed 2021
Encore Events	Commercial /Industrial	0/1	1001 American Way 164-550-018	No	Completed 2023
280 and 330 Arata Lane Subdivisions	Residential SFDs	12/12	10021 Los Amigos Rd/161-500-036; 10015 Los Amigos Rd; 161-500-035; 339 Graciela Dr/161-500-033; 345 Graciela Dr/161-500-034; 351 Graciela Dr/161-500-041; 357 Graciela Dr/161-500-042; 363 Graciela Dr/161-500-043; 340 Graciela Dr/161-500-031; 346 Graciela Dr/161-500-032; 352 Graciela Dr/161-500-038; 358 Graciela/161-500-039; 364 Graciela Dr/161-500-040	No	Completed 2023
Redwood Views	Residential	52/3	8470 Old Redwood Hwy. 164-050-050	No	Completed 2024
Shiloh Terrace	Residential	134/2	65 Shiloh Rd. 163-171-043	No	Under Construction Estimated completion 2025

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones[a]	Description / Status of Development
Shiloh Crossing	Mixed Use 173 multi-family units with small commercial component	173/2	295 Shiloh Rd. 163-171-039	No	Under Construction Estimated completion 2025
Portello (aka Victoria Oaks) Subdivision	Residential Detached and attached SFD	89/89	Del Roble Ln Victory Ln Portello Ln Pool Creek Ln Spanish Oak Dr Atascadero Dr Calabazas Dr Acorn Wy	Partial Flood Hazard Zone (Pool Creek)	Completed Spring 2025
Shiloh Mixed Use	Mixed Use 29 multi-family units and neighborhood market	29/4	1180 and 1200 Shiloh Rd. APNs164-150-012 and -064	No	Under Construction Estimated completion 2025
19th Hole Subdivision	Residential Detached SFD	11/11	0 19th Hold Dr. 164-570-001 through -011	Flood Hazard Zone (Pool Creek)	Under Construction
Old Redwood Hwy Village	Residential	29/29	0, 6114 and 6122 Old Redwood Hwy. 163-172-019, -020, -021	No	Under Construction Estimated completion 2025
Maywood Subdivision	Residential 8 Detached SFD	8/8	6500 and 6516 Old Redwood Hwy. 163-012-016 and -017	No	Under Construction Estimated completion 2025

a. *Only location-specific hazard zones or vulnerabilities identified.*

Table 11-17. Known or Anticipated Major Development and Infrastructure in the Next Five Years

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones[a]	Description / Status of Development
Overlook Subdivision Phases 1 and 2	Residential	14/14	164-560-001 through -013	No	Approved
Shiloh Apartments	Mixed Use 60 multi-family units and small commercial component	60/6	164-350-001 0 Gold Course Dr	Partial Flood Hazard Zone (Pool Creek)	Approved
Heritage Park Apartments	Residential Multi-family	33/3	8685 Old Redwood Hwy. 164-100-023	No	Under Construction
Richardson Street Mixed-Use (aka Windsor Place)	Mixed-Use Commercial and Residential	30/1	9100 Richardson St. 066-100-068	No	Approved
McClelland Hotel	Commercial	160/1	550 McClelland Dr. 066-010-067	No	Approved
Shiloh Business Park	Industrial	0/3	5937 Pruitt Ave. 059-271-095	Flood Hazard Zone (Pruitt Creek)	Approved

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones[a]	Description / Status of Development
Clearwater Senior Living	Mixed Use Senior Living (141 senior apartments, 71 assisted living, 34 memory care), 10 apartments and commercial	256/6	059-271-059	Flood Hazard Zone (Pool Creek)	Approved
Estates at Ross Ranch	Residential	31/31	1295 Jensen Ln. 162-020-004	No	Approved
Mill Creek	Residential	360/16	8703, 8711, 8713, 8777 Bell Rd., 8820 Larsen Wy 164-010-020, 164-020-005, 164-020-006, 164-020-007, 164-020-008, 164-020-041, 066-170-013, & 066-170-033	Flood Hazard Zone (Windsor Creek) 164-020-041 only	Approved
Duncan Village	Residential	16/13	484 Wall St. 066-081-092	No	Approved
Redwood Glen Apartments	Residential	43/1	8550 and 8560 Old Redwood Hwy. 164-080-038 and -002	No	Approved
Kashia	Residential	54/5	10221 Old Redwood Hwy. 164-040-008	No	Approved
DenBeste Warehouse	Commercial	0/1	700 American Way 163-270-002	No	Approved
Chevron Gas Station	Commercial	0/2	9120 Old Redwood Hwy. 161-070-066	No	Approved
Shell Gas Station	Commercial	0/2	9033 Old Redwood Hwy. 066-100-062	No	Approved
Windsor Gardens Apartments	Residential	12/12	6100 Old Redwood Hwy 13-172-017	No	Approved
Sherlock Homes Subdivision	Residential	7/7	260 Arata Ln. 161-050-060	No	Approved
Hembree Lane Oaks Subdivision	Residential	24/24	7842 Hembree Ln. 163-080-047	No	Approved
Quail Acres Subdivision	Residential	301/301	325 Arata Ln./161-020-053 259 Arata Ln./161-020-060 0 Arata Ln./ 161-020-058	No	Approved
The Artesian of Windsor Assisted Living and Memory Care	Residential/ Commercial	64/3	6675 Old Redwood Hwy. 163-011-066	No	Approved
The Mews at Pool Creek	Residential	29/25	6405 Old Redwood Hwy. 163-011-036	Flood Hazard Area (Pool Creek)	Under Review
Cora Creek	Residential	106/2	8975 Conde Ln. 164-020-023	Flood Hazard Area (Windsor Creek)	Approved

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zones[a]	Description / Status of Development
BoDean Company Asphalt Plant	Industrial	0/1	470 Caletti Ave. 059-271-103	No	Under Review
Windsor Hotel	Commercial	115/1	160 Arata Ln. 161-050-069	No	Under Review
Los Amigos Cottages	Residential	32/32	263 Arata Ln. 162-020-049	No	Under Review
Arata North Subdivision	Residential	55/55	161-020-064 and -065	No	Under Review

a. *Only location-specific hazard zones or vulnerabilities identified.*

As noted above, three building permits were issued in SFHAs over the past five years, and about 100 units are currently under construction in known flood areas. Development within the SFHAs associated with Pool, Pruitt, and Windsor Creeks will continue within the next 5 years. Therefore, the overall vulnerability has increased since the previous plan was adopted.

11.9 JURISDICTIONAL RISK ASSESSMENT

The hazard profiles in Volume I provide detailed information regarding each planning partner's vulnerability to the identified hazards, including summaries of Windsor's risk assessment results and data used to determine the hazard ranking. Key local risk assessment information is presented below.

11.9.1 Hazard Area

Maps of probable hazard areas in the Town are shown in Figure 11-7 and Figure 11-8. These maps are based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps are provided only for hazards that can be identified clearly using mapping techniques and technologies and for which Windsor has significant exposure.

Figure 11-7. Flood, Dam Inundation, Tsunami, and Sea Level Rise Hazard Area

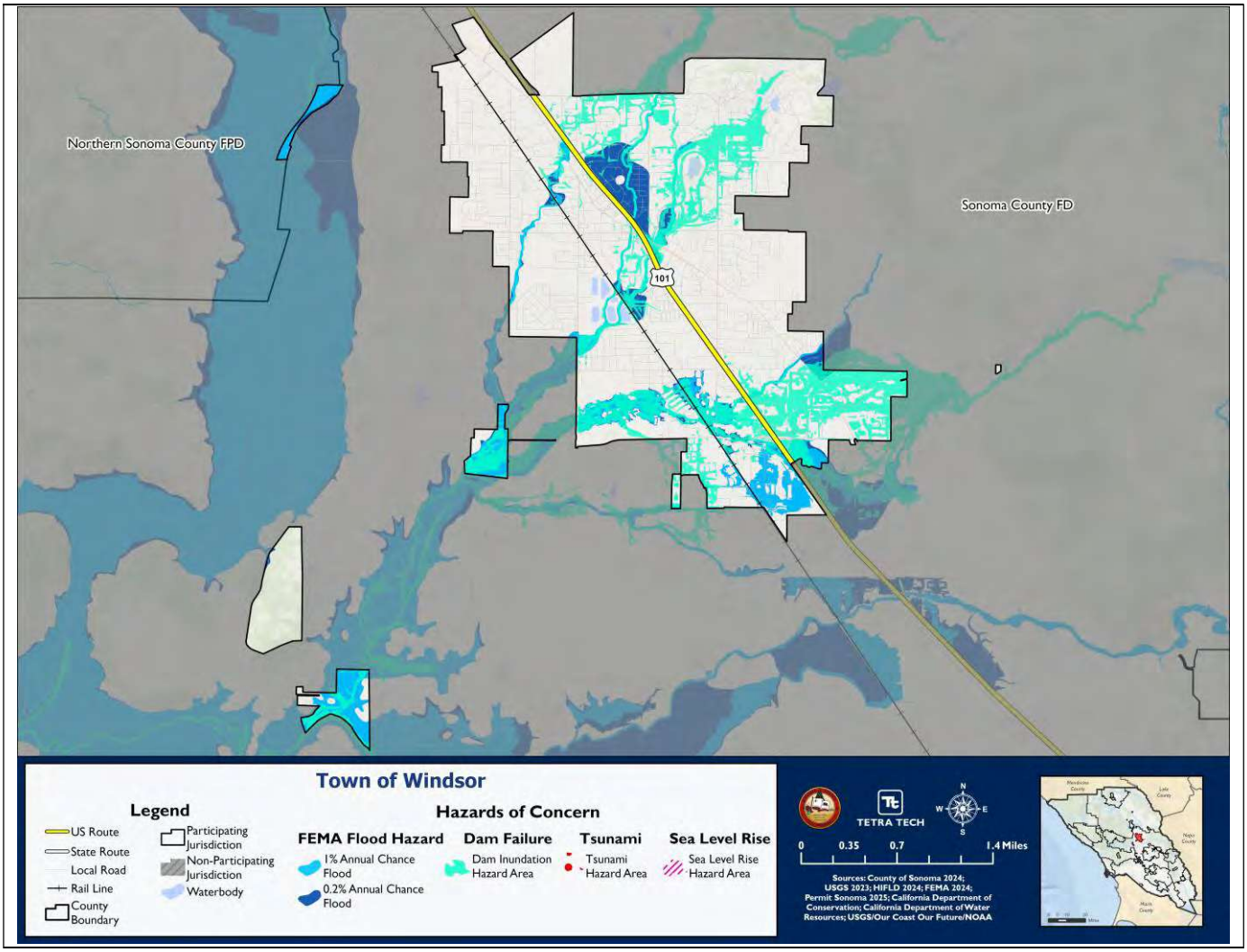
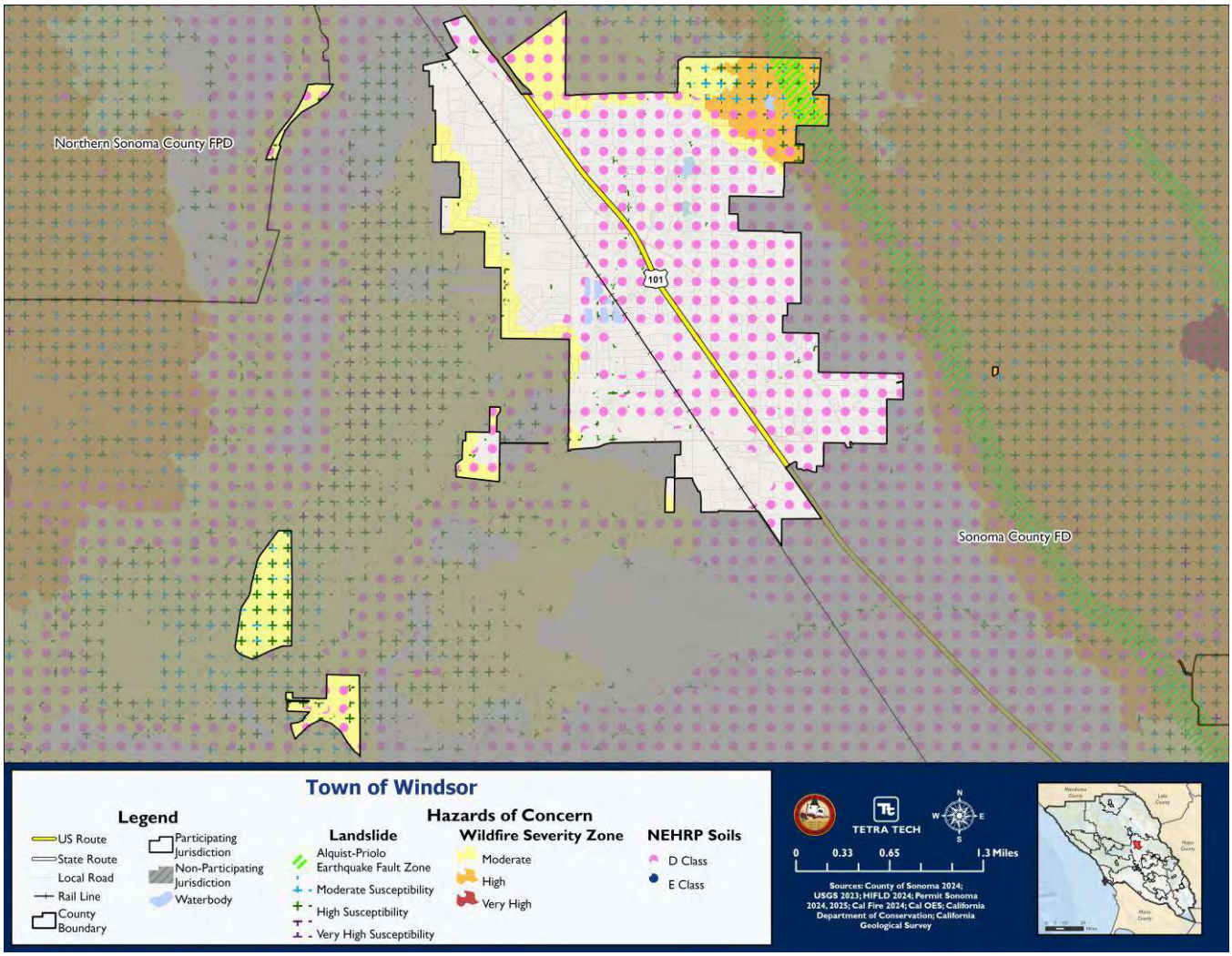


Figure 11-8. Wildfire Severity Zone, NEHRP Soils, and Landslide Hazard Area



11.9.2 Hazard Event History

The history of natural and non-natural hazard events in the Town of Windsor is detailed in Volume I, where each hazard profile includes a chronology of historical events that have affected the County and its municipalities. Table 11-18 provides details on loss and damage for the Town during hazard events since the last hazard mitigation plan update.

Table 11-18. Hazard Event History for the Town of Windsor, 2021-2025

Dates of Event	Event Type	Summary of Event	Summary of Damage and Losses in Windsor
January 26-29, 2021	Flood and Debris Flow	A plume of moisture from the tropical Pacific brought an Atmospheric River to the Bay Area, roadway flooding at US-101 N and E Washington St on ramp, and a mudslide on SR-1 and Fort Ross Rd.	The Town experienced residual road flooding, downed trees, and temporary road closures. Storm summary: Road Flooding • Old Redwood Hwy @ Dawn Way • Arata Ln @ HWY 101 offramp • Old Redwood Hwy @ Pleasant Ave • Pleasant Ave @ Sugar Maple Ln • Road Closed • Polaris Drive No expenses reported to Cal OES.
March 10, 2021	Hail	A cold upper low moved through the region in early March bringing widespread showers and isolated thunderstorms to the Greater Bay Area. The Santa Rosa Fire Department reports multiple vehicle accidents on US-101 due to accumulating small hail.	The Town experienced residual road flooding, downed trees, and temporary road closures. Storm summary: Road Flooding • Old Redwood Hwy @ Dawn Way • Arata Ln @ HWY 101 offramp • Old Redwood Hwy @ Pleasant Ave • Pleasant Ave @ Sugar Maple Ln • Road Closed • Polaris Drive No expenses reported to Cal OES.
August 19,2021	Public Safety Power Shutoff (PSPS)	A low-pressure system will continue to exit the Central Rockies today and any remaining north to northeast winds will diminish across Northern California during the first half of the day. The National Weather Service still have Red Flag Warnings in effect for a large portion of northern California, and they will expire later today.	No impact to the Town of Windsor Link to PG&E documentation HazMat-Prog - PSPS - All Documents PG&E Community Wildfire Program

Dates of Event	Event Type	Summary of Event	Summary of Damage and Losses in Windsor
November 8, 2021	Flood	A weak to moderate atmospheric river event impacted the SF Bay Area, bringing moderate to locally heavy rain and gusty winds. Heavy rain caused roadway flooding.	The Town experienced residual road flooding, downed trees, and temporary road closures. Storm summary: Road Flooding • Old Redwood Hwy @ Dawn Way • Arata Ln @ HWY 101 offramp • Old Redwood Hwy @ Pleasant Ave • Pleasant Ave @ Sugar Maple Ln • Road Closed • Polaris Drive Down Trees • Judit Court • Pleasant Park – Pleasant Avenue • Shiloh Road No expenses reported to Cal OES.
December 13, 2021	Flood	A low pressure system descended from the Gulf of Alaska southward along the entire Pacific Coast and tapped into sub-tropical moisture originating from the Central Pacific to drop heavy rain throughout the state. Heavy rain caused flooding on Labath Ave and the closure of SR 12 between Route 116 and 8th St.	The Town experienced residual road flooding, downed trees, and temporary road closures. Storm summary: Road Flooding • Old Redwood Hwy @ Dawn Way • Arata Ln @ HWY 101 offramp • Old Redwood Hwy @ Pleasant Ave • Pleasant Ave @ Sugar Maple Ln • Road Closed • Polaris Drive No expenses reported to Cal OES.
January 9, 2023	Flood DR-4683-CA EM-3591-CA CA23-1	A strong atmospheric river led to widespread flooding across the San Francisco Bay Area and Central Coast. Roadway flooding was reported along Mark West Creek near the communities of Forestville and Trenton. A 43-year old woman from Ukiah was recovered on the 10th after her car got stuck in floodwaters.	The Town declared a local emergency adopting Resolution 3813-23. The Town experienced residual road flooding, downed trees, and temporary road closures with reported damages. Summary • Windsor Rd flooded at Pool creek • Windsor Rd from Mitchell to Shiloh is closed The Town submitted expenses of $40k, of which $10k was allocated to Emergency Protective Measures for a rented generator for the water reclamation plant, and $30k for a downed tree resulting in damage to Shiloh/Mayacama Tank Sight 3, the removal of the tree and replacement of fencing surrounding the tank sight. Town Manager/Director of Emergency Services Proclamation Declaring a Local Emergency (Resolution No. 3813-23).

Dates of Event	Event Type	Summary of Event	Summary of Damage and Losses in Windsor
February 17-20, 2023	Flood/Wind	National Weather Service issued a hazardous weather alert for heavy rain, winds, lighting, and beach/marine hazards. The weather pattern had two systems, System 1 bringing wind, rain, and beach concerns for February 17 and then System 2 bringing rain, wind and thunder storms from February 18 to 20, 2023. NWS upgraded to an Atmospheric River between Category 2 to 5 resulting in significant runoff, local flooding, and down trees. Per the National Weather Service (NWS), the ongoing storm system has a small chance of causing Wireless Emergency Alerts (WEA) to be sent to residents of Sonoma County. Wireless Emergency Alerts (WEAs) A WEA may be sent by NWS to residents of Sonoma County beginning at 11pm 2.18 and extending through 8am 2.19 WEAs may be sent for any of the following threats: Flash Flooding (<15% chance) Severe Thunderstorm (<10% chance) Tornado (<3% chance)	The Town's emergency services partner Sonoma County Fire District had no power resulting in the SCFD DOC to run off generator for over 48 hours. The Town experienced residual road flooding, downed trees, and temporary road closures. Summary: Flooding • Caletti Avenue @ Shiloh Road • Conde Lane @ Oakfield • Old Redwood Highway @ Dawn Way • Arata Lane east of Marcella Lane • Shiloh Road east of Hembree Ln. Westbound lane only • Windsor Road @ Pool Creek ROAD CLOSED due to flooding • Windsor Road @ Shiloh Road • Windsor Road @ Mitchell Lane No expenses reported to Cal OES.
March 9, 2023	Flood DR-4699-CA EM-3592-CA CA23-3	Sub-tropical jet stream aided in advecting sub-tropical moisture plume from over the Central Pacific into the California Coast. CHP reported a mud slide moving debris on California Highway 116.	The Town experienced residual road flooding, downed trees, and temporary road closures. Summary of events: • Flooding resulting in closing Highway 101 at Shiloh Northbound offramp due to flooding. • Windsor Road between Shiloh Road and Mitchell Lane due to flooding at Pool Creek. • Old Redwood Highway at Dawn Way. • Highway 101 at Arata Lane Northbound offramp has standing water. • Northbound Old Redwood Highway at county line. • Roadside flooding on Eastbound Shiloh Road. No expenses reported to Cal OES.

Dates of Event	Event Type	Summary of Event	Summary of Damage and Losses in Windsor
January 31, 2024	Flood	A quick-moving cold front came through California on January 31, bringing widespread rain and high winds. A water rescue occurred on Mark West Station Road at Starr Road.	The Town experienced residual road flooding, downed trees, and temporary road closures. Summary: Flooding resulting in closing • Windsor Road @ Pool Creek from Mitchell Ln to Shiloh Road • Eastbound Shiloh Road between Conde Lane and Highway 101 • Starr Road @ Indiana • Southbound Conde Lane, south of Oakfield Lane. • Flooded: Merner Lane @ Old Redwood Highway – all lanes flooded, encroaching into Old Redwood Highway – road signs out. • Flooded: Eastbound Reiman Lane at Oak Way – flooded with road signs • Flooded: Westbound Shiloh Road @ Hembree Lane – right lane flooded with road signs. • Flooded: Southbound Conde Lane, south of Oakfield lane – road signs out. • Flooded: Merner Lane @ Old Redwood Highway – all lanes flooded, encroaching into Old Redwood Highway – road signs out. • Flooded: Eastbound Reiman Lane at Oak Way – flooded with road signs • Flooded: Westbound Shiloh Road @ Hembree Lane – right lane flooded with road signs. No expenses reported to Cal OES.

Dates of Event	Event Type	Summary of Event	Summary of Damage and Losses in Windsor
February 4, 2024	Flood	A quickly-moving cold front came through the region on the 17th, causing minor nuisance flooding and gusty winds. A second, deeper but slower moving, system followed the next day with widespread rain and gusty winds. A warm front associated with this low came through the region late on Sunday the 18th, followed by the associated cold front and associated thunderstorms on Monday the 19th. Roadway flooding was reported at California Route 1 and Kruse Ranch Road; a vehicle was stuck in mud on the right hand side of the road. Standing water was reported halfway across Occidental Road in two different spots between Mill Street and California Highway 116. Approximately 3 inches of water rushed across Calistoga Road before and after Alpine Road. Roadway flooding was reported at Arnold Drive and Boyes Blvd. Water flooded the roadway at northbound Olivet Road at Piner Road. Roadway flooding was reported at eastbound California Highway 116 and Bloomfield Road. A landslide blocked eastbound lanes of Mark West Springs Road. A vehicle was stuck in a flooded roadway on Valley Ford Road. California Route 12 was closed until 8 AM due to flooding from Fremont Drive to Watmaugh Road. Creek flowing over Mark West Station Road after heavy rainfall. Mud, dirt, and rock blocking Los Alamos Road.	The Town experienced residual road flooding, downed trees, and temporary road closures. The Town experienced residual road flooding, downed trees, and temporary road closures. Summary: FLOODED ROADWAYS • Starr Road North of Woody Creek • Reiman Lane @ Oak Way • Westbound Shiloh Road @ Hembree Lane • Old Redwood Highway @ Pleasant Avenue • Arata Lane @ Brooks Road South HAZARDOUS CAUTIONS – Debris in roadways, cleanup underway. • Lakewood Drive • Hembree Lane • Foothill Drive The Town's Parks department was impacted significantly with damages to the following: East Division • Robbins Park *1 large tree down "tree company will be scheduled", 1 large manzanita down, 1 large limb. • PO Park 1 limb • Esposti Park 1 large Eucalyptus limb • Emerson In multiple medium limbs • Pleasant Ave 2 medium trees with resident fence damage • 1 medium pear tree down Leaf Haven X Hembree Blocking sidewalk completely. Dan will handle this today • Small to medium limbs in the areas of Shade Tree, Vinecrest, Billington, skylark and the Soundwall. West Division • Fence down on starburst wind related • Starr Creek Park 1 medium tree down • Los Robles Park lots of medium limbs • South Division • Trione Circle Large redwood limb into resident fence. No damage to fence. Being mitigated and in contact with resident • Trione Circle medium/large Eucalyptus limb down North Division • Hiram Lewis Park large Willow tree from resident down with fence damage. The tree has a Beehive inside we are attempting to save. Currently in communication with resident and beekeepers. Trail is closed until we hear the Bee plan then will proceed with tree company • Multiple limbs down in Lakewood Islands • Fractured limb hazard on Los Amigos x Pallard currently being mitigated. The event also impacted roadways due to debris and a power pole snapped.

Dates of Event	Event Type	Summary of Event	Summary of Damage and Losses in Windsor
			The Town experienced significant power outages with the following being reported: • Widespread Power Outages affecting traffic signals. Road signs have been deployed. Proceed with caution! • Shiloh Road @ Old Redwood Highway • Shiloh Road Northbound Highway 101 offramp • Shiloh Road Southbound Highway 101 onramp • Shiloh Road @ Skylane Blvd No expenses reported to Cal OES.
July 2, 2024	Public Safety Power Shutoff (PSPS)	Winds associated with the second period of north winds have tapered off and all clear has been declared for every area impacted by the PSPS event. Crews are patrolling lines now to ensure they are safe to reenergize. As a result, we have removed the PSPS warning from the forecast today. Temperatures are extremely hot today with widespread temperatures to 110+ in interior valleys. The heat event will ease slightly on the 4th of July for areas near the coast as a sea breeze and some marine cloudiness returns, but extremely hot conditions continue for the next week or longer across the interior. In fact, temperatures in Redding, Red Bluff, Fresno and Bakersfield may exceed 110 for a solid week in a row. The extreme heat wave is rapidly drying out fuels, leading to a swift increase in the fire potential and potential for spread on any new ignitions or existing incidents.	No reported impacts on the Town of Windsor Link to PG&E documentation HazMat-Prog - PSPS - All Documents -PG&E Community Wildfire Program
November 20 – 23, 2024	Flood	A strong atmospheric river made landfall in Sonoma County on Wednesday, November 20. Heavy rain persisted through Friday, November 23, with record rainfall of approximate 13 inches. National Weather Service issued a Wind Advisory, Flood Advisory, and Flood Watch during this period. The Sonoma County OA reported 2 deaths due to the event with creek, stream and river flooding. Mudslides occurred in unincorporated areas with flooding trapping individuals in commercial establishments. The Russian River crested at 34.68ft at Moderate flood stage and Mark West Creek at Mirabel Heights crested at 64.75 ft at Moderate/Major flood stage on Friday. The County declares local emergency ratified by the County Board of Supervisors on December 3, 2024.	Roadside flooding in Windsor started by noon on Old Redwood Highway at Merner Drive, Pleasant Avenue, and Bluebird Drive at the Palms Center, and Reiman Way. The Town had a total of 5 total road closures by Thursday that included Highway 101 Northbound exit at Shiloh Road. Impacts included storm drainage blockage resulting in Brianne Court to flood with residential properties having limited access. The Sonoma County OA reported 2 deaths due to the event with creek, stream and river flooding. Mudslides occurred in unincorporated areas with flooding trapping individuals in commercial establishments. The Russian River crested at 34.68ft at Moderate flood stage and Mark West Creek at Mirabel Heights crested at 64.75 ft at Moderate/Major flood stage on Friday. No expenses reported to Cal OES.

Dates of Event	Event Type	Summary of Event	Summary of Damage and Losses in Windsor
December 13 - 16, 2024	Flood	A strong atmospheric river made landfall in Sonoma County on Friday, December 13. Multiple advisories and warnings were issued for the event that ended on December 15. Flood advisory remains in effect for interior Sonoma County until Monday, 12.16 due to lingering small stream and urban flooding. Rainfall: 5.98 inches High Wind Warning and Advisory was issued with a Coastal Flood Advisory resulting in Minor coastal flooding expected due to high tides. Flooding of lots, parks, and roads with only isolated road closures along the SF Bay. An additional High Surf Advisory was in effect as well.	Roadside flooding in Windsor started by noon on Old Redwood Highway at Pleasant Avenue at 10PM. Additional locations were impacted and road closures occurred on December 14 Windsor Road @ Pool Creek between Mitchell Lane & Shiloh Road No damage or expenses reported to Cal OES.

Dates of Event	Event Type	Summary of Event	Summary of Damage and Losses in Windsor
February 4 - 7, 2025	Flood	An emergency proclamation was issued in response to the impacts from the storms. Evacuation orders have been issued for low-lying areas around the Russian River due to an anticipated crest of 36.6 feet. Excessive rainfall has caused landslides and flooding throughout the County. A Frost Advisory has been issued for expected low overnight temperatures over the next two days. **Emergency Proclamation:** The County Executive issued an emergency proclamation in response to the winter storms on February 4 at 6:00 PM. **Evacuation Orders:** Sonoma County Sheriff's Office has issued an Evacuation Order for low lying areas along the Russian River. Everyone along the Russian River from unincorporated Healdsburg to Jenner located at 36 feet or below is under the evacuation order. https://socoemergency.org/ A Temporary Evacuation Point (TEP) has been established at Garrett Hall at the Sonoma County Fairgrounds for evacuees. **EOC Activation:** The Sonoma County EOC will be opening at 6:00 AM on February 5th in response to the ongoing issues across the County. **Rainfall/Flooding Updates** **Flood Warning** A Flood Warning is in effect from this evening until further notice for the Russian River at Guerneville and points downstream. Moderate stream flooding is continuing. **Flood Watch** A Flood Watch remains in effect through 4:00 AM Wednesday morning for the rest of the County. Excessive runoff may result in flooding of rivers, creeks, streams, and other low-lying areas. Flooding may occur in areas with poor drainage or urban areas. **Additional Rainfall:** Additional rainfall is expected through Friday, with an additional 1-2" possible and another atmospheric river Thursday into Friday.	Impacts to Windsor were extensive and not all locations could be identified with major corridors being closed. A summary of all locations reported to 2/4/25 at 3:45pm: Both PG&E and Sonoma County Fire District activated their own DOC to respond to calls and emergencies being reported. **Closed and reopened** • Arata Lane between Biggs Lane to Marciella Lane • Old Redwood Highway @ Dawn Way • Camelot Drive @ Jane Drive • 7014 & 7015 Edenburgh Court **Road CLOSURE – Flooded** • Bell Road – behind Windsor Mobile Country Club • Conde Lane @ American Wy to Shiloh Road • Camelot Drive @ Jane Drive • Northbound Hwy 101 offramp @ Shiloh Road • Eastbound Shiloh Road @ Conde Lane to SB Hwy 101 onramp • Windsor Road @ Pool Creek between Mitchell Lane & Shiloh Road • Northbound Hwy 101 offramp @ Arata Lane – vehicle stranded waiting on tow **Flooding – Road Open** • 13th Hole @ Eagle Drive • Eaton Ct • Hastings Ct @ North Hampton • 8109 Conde Lane @ Windsor Mobile Country Club • Polaris Drive @ Orion Drive • Foothill @ Valley Vista St to Espana Wy • Hembree Lane @ Skylark St • Starr Road @ Buckingham Drive • Gumview Road @ Kidd Road **Other** • Starr Road – Traffic Control down to 1 lane The Town experienced damage to Hiram Lewis Tennis courts at $31k but wasn't reported to Cal OES. Additional nuisance was worked at Edinburgh Court with residual mud creeping into the roadway from a local creek (Pool Creek) located behind the homes. No damages were reported or submitted through DEM or Cal OES.

Dates of Event	Event Type	Summary of Event	Summary of Damage and Losses in Windsor
		Frost Advisory: A Frost Advisory has been issued for from 11:00 PM tonight until 9:00 AM Wednesday. Expected overnight temperatures will be in the low 30's across the Interior Valleys, with coldest locations expected in Sonoma Valley. Expected Impacts: • 32 ft - Flood stage. Minor flooding. Lower Mill Street in Guerneville and Old Bohemian Highway in Monte Rio are expected to flood. • 32.5 ft - In Guerneville the intersection of HWY 116 and Neeley Rd is closed. Mays Canyon Rd by the old rodeo grounds is closed. A Wind Advisory was issued and expanded with gusts to reach 60mph with chances of thunderstorms with continued rain to Friday, February 7. Widespread gusty winds of 25 to 35 mph • Locally stronger (35+ mph) gusts are possible across the interior North Bay Mountains with some potential for isolated strong gusts to mix down into the valleys • Monitoring winds on Monday afternoon/evening around the time of cold frontal passage • Temperatures in the low to mid 30s across the valleys and mid to upper 30s in the higher terrain • Temperatures drop further next weekend into the low to mid 30s The rain overnight over-preformed expectations and caused minor to moderate urban and stream flooding with several reports of landslides across the North Bay. Notably, the Russian River at Guerneville is now expected to reach minor flood stage early Wednesday morning. The main band of rain will move very slowly across the rest of the Bay Area today, with increasing intensity as the cold front moves through in the afternoon. This will also bring strong southerly winds and an increasing chance for thunderstorms, especially for areas south and east of San Francisco.	

Dates of Event	Event Type	Summary of Event	Summary of Damage and Losses in Windsor
		With potential thunderstorms and strong winds, there is an outside chance for storms to start rotating, and, while unlikely, a landfalling waterspout or weak tornado cannot be ruled out. A break on Wednesday before more moderate rain and wind return Thursday. Cold weather sets in for the weekend, with most inland areas dropping into the low 30s. Once it arrives, the cold weather will persist into early next week.	

11.9.3 Hazard Ranking and Vulnerabilities

The hazard profiles in Volume I have detailed information regarding each planning partner's vulnerability to the identified hazards. The following presents key risk assessment results for the Town of Windsor.

Hazard Ranking

The participating jurisdictions have differing degrees of vulnerability to the hazards of concern, so each jurisdiction ranked its own degree of risk to each hazard. The community-specific hazard ranking is based on problems and impacts identified by the risk assessment presented in Volume I. The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; community capabilities to address the hazard; and changing future climate conditions.

Table 11-19 shows the Town of Windsor's final hazard rankings for the identified planning area hazards of concern. Hazards ranked as "No exposure" are not considered to be hazards of local concern and are excluded from the vulnerability assessment, potential impacts assessment, and mitigation strategy. Mitigation actions outlined below address all hazards of local concern, targeting high and medium hazards especially.

Table 11-19. Hazard Ranking

Hazard	Rank
Dam Failure	Low
Drought	Medium
Earthquake	High
Extreme Cold	Medium
Extreme Heat	Medium
Extreme Wind	Medium
Flood	Low
Landslide	Low

Hazard	Rank
Sea Level Rise	No exposure to this hazard
Tsunami	No exposure to this hazard
Wildfire	Medium

Note: The scale is based on the hazard rankings established in Volume I, modified as appropriate based on review by the jurisdiction.

Because the Town is inland, tsunamis and sea level rise are not expected to have an impact on the people, buildings, or critical facilities in Windsor .

Vulnerability to Hazards of Local Concern

Based on the above jurisdiction-specific information, this section describes vulnerability of community assets to the hazards of local concern to the Town of Windsor.

Table 11-20 summarizes the percentage of the jurisdiction's general buildings and community lifelines located in the mapped hazard areas for the hazards of local concern. Table 11-21 shows the percentage of the jurisdiction's total population and socially vulnerable populations in each of these hazard areas. Additional details on these results are provided in the hazard profiles in Volume I.

Table 11-20. Vulnerability of Community Assets to Mapped Hazards of Local Concern

Mapped Hazard Area[a]	Number of Buildings	Value of Buildings	Community Lifelines
Dam Failure High and Extremely High Inundation Area	6.2%	6.2%	13.3%
NEHRP D & E Soils	63.6%	62.0%	69.3%
1% Annual Chance Floodplain	1.3%	2.0%	14.7%
0.2% Annual Chance Floodplain	6.2%	6.8%	21.3%
Geologic Hazard Area	0.0%	0.0%	0.0%
Moderate Landslide Susceptibility Area	0.4%	0.6%	0.0%
High Landslide Susceptibility Area	2.7%	2.9%	10.7%
Very High Landslide Susceptibility Area	0.0%	0.0%	0.0%
Sea Level Rise	0.0%	0.0%	0.0%
Tsunami	0.0%	0.0%	0.0%
Moderate Fire Hazard Severity Zone	11.1%	10.6%	8.0%
High Fire Hazard Severity Zone	2.4%	2.7%	2.7%
Very High Fire Hazard Severity Zone	0.0%	0.0%	0.0%

a. *See the hazard profiles in Volume I for definitions of each mapped hazard area.*

Table 11-21. Populations Living in Mapped Hazard Areas

Mapped Hazard Area[a]	Total Population	People Under 5	People Over 65	Non-English Speakers	People With Disabilities	People Living in Poverty	Single Parent Household	No Vehicle Access
Dam Failure High and Extremely High Inundation Area	5.0%	4.9%	5.0%	4.9%	4.9%	4.9%	5.0%	4.9%
NEHRP D & E Soils	67.8%	67.8%	67.8%	67.8%	67.8%	67.8%	67.7%	67.5%
1% Annual Chance Floodplain	0.8%	0.7%	0.8%	0.7%	0.8%	0.7%	0.7%	0.6%
0.2% Annual Chance Floodplain	6.2%	6.1%	6.2%	6.1%	6.2%	6.1%	6.1%	6.1%
Geologic Hazard Area	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Moderate Landslide Susceptibility Area	0.4%	0.3%	0.4%	0.3%	0.4%	0.3%	0.3%	0.0%
High Landslide Susceptibility Area	2.6%	2.5%	2.6%	2.4%	2.6%	2.5%	2.5%	2.5%
Very High Landslide Susceptibility Area	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sea Level Rise	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Tsunami	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Moderate Fire Hazard Severity Zone	11.5%	11.4%	11.5%	11.4%	11.5%	11.4%	11.4%	11.0%
High Fire Hazard Severity Zone	2.8%	2.8%	2.8%	2.7%	2.8%	2.8%	2.8%	2.5%
Very High Fire Hazard Severity Zone	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

a. See the hazard profiles in Volume I for definitions of each mapped hazard area.

There are 724 buildings in the Town that are located in the high hazard **dam failure** inundation area; 416 residential buildings, 292 commercial buildings, seven industrial buildings, and nine buildings in the government, religion, agriculture, and education category. There are 10 critical facilities in the high hazard dam inundation area: a bank, local bridges, Brooks Elementary School, a state bridge, and a water well. There are 1,303 people living in the high hazard dam inundation area, including 222 people over age 65.

Drought is unlikely to cause physical changes to buildings, facilities, or infrastructure. However, certain community lifelines are vulnerable to collapse if water is unavailable, such as the water systems lifeline. Two municipal water tanks and a municipal water well are identified as critical facilities vulnerable to drought. The total population of the Town (26,179 people) could be impacted by a drought if water rationing is implemented. In particular, the 4,471 people over age 65 are vulnerable to dehydration in drought conditions.

Buildings located on National Earthquake Hazards Reduction Program (NEHRP) Class D and E soils are more likely to be damaged during an **earthquake.** Almost two-thirds of the buildings in Windsor (63.6 percent) are located on NEHRP Class D and E soils. In addition, 52 community lifeline facilities

are located on Class D and E soils. This includes banks, daycares, Sonoma County Fire District Headquarters, Windsor Regional Library, local bridges, the Civic Center, Windsor Post Office, schools, shelters, solar arrays, state bridges, Providence Urgent Care, veterinary offices, and a water well. Two-thirds of the Town's residents (67.8 percent) live on Class D and E soils, including 3,033 people over age 65.

Extreme heat is unlikely to cause physical damage to buildings, facilities, or infrastructure. The Town has two municipal water tanks that are water system community lifelines. During an extreme heat event, the evaporation of water inside the tanks could increase. Individuals who do not have access to air conditioning are vulnerable to health complications during extreme heat episodes. In particular, the 4,471 people above age 65 and 1,223 individuals living below the poverty line could be at risk for heat stroke, especially those who fall into both categories.

Extreme cold is unlikely to cause physical damage to buildings and facilities, although it has the potential to freeze and burst building infrastructure that contains liquids or gases. Extreme cold also presents a risk to populations that do not have access to heating, such as the 26 people experiencing homelessness.

Extreme wind may cause superficial damage to buildings, especially when the wind triggers falling trees or branches that land on roofs, windows, or doors. In addition, the 2,728 people with disabilities or the 4,471 people over age 65 may experience difficulty walking through strong gusts of wind.

The Town has low exposure to **flooding**, with 150 buildings in the 1 percent annual chance floodplain and 729 buildings in the 0.2 percent annual chance floodplain. There are 11 critical facilities (local bridges and a bank) located in the 1 percent annual chance floodplain and five critical facilities (banks, a daycare, a local bridge, and a veterinary hospital) located in the 0.2 percent chance annual floodplain. There are 203 people living in the 1 percent annual chance floodplain, including 21 people living with a disability. There are1,616 people living in the 0.2 percent annual chance floodplain, including 168 people living with a disability. Table 11-22 identifies critical facilities in the community located in the 1 percent and 0.2 percent annual chance floodplains.

Table 11-22. Critical Facilities Flood Vulnerability

Name	Type	1% Annual Chance Event	0.2% Annual Chance Event
Pool Creek – Old Redwood Hwy	Local Bridge (20C0086)	X	X
Pool Creek – Windsor Rd	Local Bridge (20C0337)	X	X
Pool Creek – Hembree Lane	Local Bridge (20C0053)		
East Windsor Creek – Old Redwood Hwy	Local Bridge (20C0502)	X	X
Windsor Creek – Conde Ln	Local Bridge (20C0506)	X	X
Windsor Creek – Windsor Rd	Local Bridge (20C0540)	X	X
Pruitt Creek – Conde Ln	Local Bridge (20C0550)	X	X
Windsor Creek – Natalie Dr	Local Bridge (20C0577)	X	X
East Windsor Creek – Bell Rd	Local Bridge 20C0578)	X	X

Name	Type	1% Annual Chance Event	0.2% Annual Chance Event
Pool Creek – Golf Course Dr	Local Bridge (20C0579)	X	X
Pool Creek – Conde Ln	Local Bridge (20C0580)	X	X
Exchange Bank	Bank	X	X
RRFW 8-11	River wells	X	X
Pruitt Creek – Shiloh Rd	Local Bridge (20C0575)	-	X
Wells Fargo Bank, National Association	Bank	-	X
Wine Country Veterinary Hospital	Veterinary	-	X
Redwood Credit Union	Bank	-	X
Kinder Club and Children's Circle Preschools	Daycare	-	X

Source: County of Sonoma; California Energy Commission; Caltrans; HIFLD; USACE NID

The Town has low exposure to **landslide**, with 44 buildings in the moderate landslide susceptibility hazard area and 318 buildings in the high landslide susceptibility hazard area. There are eight critical facilities in the high landslide susceptibility hazard area (Foothill Regional Park Dam, a daycare, local bridges, and water tanks). There are 103 people living in the moderate landslide susceptibility hazard area and 673 people living in the high landslide susceptibility hazard area.

The Town has moderate exposure to **wildfires**, with 1,300 buildings in the moderate fire hazard severity zone and 278 buildings in the high fire hazard severity zone. There are six critical facilities in the moderate fire hazard severity zone (local bridges, a shelter, a state bridge, and a water tank) and two critical facilities in the high fire hazard severity zone (Lakewood Tank Site and Shiloh Tank Site). There are 3,011 people living in the moderate fire hazard severity zone and 730 people living in the high fire hazard severity zone.

Potential Impacts from Hazards of Local Concern

Table 11-23 summarizes available quantitative estimates of potential impacts on community assets for the dam failure, flood, and earthquake hazards. In the event of a dam failure, 2,113 people could be displaced, 303 people may require shelter, and 1,090 tons of debris could be generated. In the event of a 500-year earthquake, 303 households could be displaced, 142 people may require shelter, 8.1 percent of the buildings in the Town could be damaged, and 193,356 tons of debris could be generated. In the event of a 2,500-year earthquake, 1,129 households could be displaced, 531 people may require shelter, 19.0 percent of the buildings in the Town could be damaged, and 472,156 tons of debris could be generated. In the event of a one-percent annual chance flood, as many as 286 people could be displaced, 129 people may require shelter, and 208 tons of debris could be generated.

For all other hazards of local concern, the potential impacts were qualitatively evaluated. Table 11-24 summarizes additional risks specific to the Town. The qualitative assessments in the hazard profiles in Volume I are equally applicable to the Town.

Table 11-23. Hazus-Determined Impacts for Hazards of Local Concern

Impact	Dam Failure	500-Year Earthquake Probabilistic Event	2,500-Year Earthquake Probabilistic Event	1% Annual Flood Chance Event
Displaced Population	2,113 people	303 households	1,129 households	286 people
Population Requiring Shelter	303 people	142 people	531 people	129 people
General Building Damage as % of RCV	0.1%	8.1%	19.0%	<0.1%
Total Debris Generated (tons)	1,090	193,356	472,156	208

Table 11-24. Qualitative Assessment of Impacts for Hazards of Local Concern

Hazard	Qualitative Local Impacts
Dam Failure	Windsor could experience localized flooding and property damage if a nearby dam were to fail, posing risks to low-lying areas and infrastructure.
Drought	The Town is susceptible to drought conditions that can significantly impact local water supply and agricultural activities.
Earthquake	Located within an active seismic region, the Town is at risk of experiencing earthquakes that could cause disruption to services and structural damage specifically to older buildings constructed prior to current building standards.
Extreme Cold	Extreme cold events are rare and typically have minimal impact on the Town's population and infrastructure.
Extreme Heat	Periodic heat waves pose health risks, especially to vulnerable populations, and can strain energy and water resources.
Extreme Wind	The Town may occasionally experience strong winds that can cause property damage, power outages, and hazardous conditions.
Flood	Flooding from heavy rains and overflow of local waterways can affect neighborhoods, critical infrastructure, and transportation routes in the Town of Windsor.
Landslide	Some areas, particularly those with steeper terrain, may be prone to landslides during heavy rain or seismic activity.
Wildfire	The Town faces significant wildfire risk, given riparian corridors through the Town which can spread wildfire, and the surrounding vegetation and climate, which can threaten homes, air quality, and safety.

11.9.4 Identified Issues

After review of hazard event history, hazard rankings, hazard location, and current capabilities, Windsor identified the following risk-related issues for the community:

- Community members, especially seniors, low-income residents, and the unhoused, are vulnerable to extreme heat, cold, and poor air quality events, including wildfire smoke, which can impact health and safety.
- Exterior building materials and certain construction methods, wood fencing, and certain types of landscaping can spread wildfire within the Town. This can result in the loss of lives and homes, and damage to property and natural systems.

- Local businesses, especially businesses that serve as community lifelines, need to be able to respond to and quickly recover from disasters in order to continue operations which will support recovery of the greater community.
- Critical facilities need to remain operational in an emergency.
- The Town is exposed to a variety of hazards and needs to be able to avoid and/or reduce the impact of the hazard and recover from these hazards.
- There are areas that are subject to flooding (roadways, including evacuation routes, critical facilities, vulnerable populations, private property, etc.), even during smaller storm events. As weather events become more extreme, this flooding could become more severe, and flooding could occur in new areas. Documentation of where this occurs and the severity would assist in planning and prioritizing improvements to reduce the impacts of this hazard.
- Loss of power and cellular infrastructure to critical facilities, services, and infrastructure could result in delayed response and recovery, which could compromise life safety, the environment (treatment plant impacts related to wastewater treatment), emergency response, and evacuation.
- Critical facilities, services, and infrastructure need to quickly recover from and continue to operate in a disaster in order to reduce impacts on people, property and natural systems.
- Dam failure could result in the flooding of large areas of the Town, including critical facilities and vulnerable populations. The community is less aware of the potential impacts of dam failure than other disasters that are more frequent, such as wildfire, extreme heat, and flooding.
- An adequate supply of potable water needs to be available during droughts, especially droughts that span multiple years.
- The Town needs to ensure that potable water is available in the event of a hazard event or disaster.
- The Town experiences areas of localized flooding that affect roadways, including evacuation routes, and property and that have the potential to affect critical facilities (such as the Town's Russian River wells, wastewater treatment plant, and lift stations) and lifelines.
- Development in areas at risk of landslides could place people, property, and critical facilities at risk.
- The roadway network is limited at the north, east and west edges of Town, especially in the North of Arata Lane and Jensen Lane areas (Vinecrest Road to Old Redwood Hwy), which impedes emergency access and evacuation. Wildfire and associated ember cast are more likely to approach the Town from the east and north. During the Kincade Fire in 2019, there were spot fires in the North of Arata Lane and Jensen Lane areas. Firefighters used Arata Lane as a staging area, and properties on the eastern edge of Town suffered fire damage. New roadways are needed in these areas to improve emergency access, evacuation and general circulation. These roadways also have the ability to serve as fire breaks and staging areas for firefighting.
- There are two-lane bridges within Town, including on roads identified as evacuation routes (Conde Lane, Hembree Lane, and Old Redwood Hwy), that could impact emergency access and evacuation.

- Overhead utilities that come down during a disaster can result in the loss of power, endanger people, damage property and critical facilities, add to wildfire risk, and impede emergency access and evacuation.
- The Town's Emergency Management Ordinance (Municipal Code Title 3, Chapter 19 Civil Defense and Disaster), which was adopted in 1992 when the Town was incorporated, is outdated and needs to be updated to be to current emergency management best practices.
- Parcel specific information about natural hazards is not easily accessible to Town staff or the public and the Town is not able to track development applications or building permits by hazard area.
- There are people who have access and functional needs, lack their own transportation, or live in areas with a single-point of access that may need assistance evacuating.
- Development in hazard areas exposes people and structures to natural hazards and can be reduced by avoiding these areas and developing in ways that minimize the potential impacts of hazards.
- Key roadways leading out of Windsor, particularly those connecting to hospital facilities in neighboring jurisdictions, may be vulnerable to damage or blockage during natural disasters. This could hinder emergency response and evacuation efforts, especially during high-impact events like wildfires or earthquakes.
- The existing wastewater system may be undersized or outdated in certain areas, leading to the risk of overflows during periods of intense rainfall or flooding. These overflows can result in environmental contamination, property damage, and public health risks.

11.10 MITIGATION STRATEGY AND PRIORITIZATION

This section discusses the status of mitigation actions from the previous HMP, describes proposed hazard mitigation actions, and prioritizes actions to address over the next five years.

11.10.1 Past Mitigation Action Status

Table 11-25 indicates progress on the Town's mitigation strategy identified in the 2021 HMP. Actions that are still recommended but not completed or that are in progress are carried forward and combined with new actions as part of the mitigation strategy for this plan update. Previous actions that are now ongoing programs and capabilities are indicated as such and are presented in the capability assessment earlier in this annex.

Table 11-25. Status of 2021 Mitigation Actions for Windsor

Mitigation Actions	Status
Project Number	WIN-1
Hazards Addressed	Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Where appropriate, support retro-fitting, purchase or relocation of structures located in high hazard areas, prioritizing those structures that have experienced repetitive losses and/or are located in high or medium ranked hazard areas.
Status	Complete
Narrative describing progress or obstacles that have prevented implementation	This was a mitigation action for all agencies included in the current 2021 HMP. There are older repetitive loss properties related to flooding. However, these losses are not recent. Staff are not aware of any structures that are in need of retrofitting or relocation, including any requests from property owners.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	The Town has not had any recent repetitive loss properties and has not had any requests from property owners for this type of assistance.
Project Number	WIN-2
Hazards Addressed	Earthquake
Lead Agency	Town of Windsor
Mitigation Action Description	Inspect critical facilities and infrastructure, identify those that are recommended to be retrofitted or relocated, and retrofit or relocate as appropriate, prioritizing structures and infrastructure located in high or medium ranked hazard areas.
Status	In Progress
Narrative describing progress or obstacles that have prevented implementation	Lack of funding has prevented progress.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Inspect and conduct investigations (such as geotechnical) of critical facilities and infrastructure, identify those that are recommended to be retrofitted or relocated, and retrofit or relocate as appropriate, prioritizing structures and infrastructure located in high or medium ranked hazard areas.
If discontinue, explain why	Not Applicable. This is included as Windsor-04 Retrofit/Relocate Critical Facilities.

Mitigation Actions	Status
Project Number	WIN-3
Hazards Addressed	Dam failure, drought, earthquake, flooding, landslide, severe weather, wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions within the community including the General Plan, Building Code, Zoning Ordinance, Municipal Code, Emergency Operations Plan, Climate Adaptation Plan., Riparian Corridor Wildfire Fuel Management Plan, etc.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	The Town continues to integrate the HMP as staff resources and funding allow.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use and development decisions within the community including the General Plan, Building Code, Zoning Code, Municipal Code, Emergency Operations Plan, Riparian Corridor Wildfire Fuel Management Plan, Storm Drainage Master Plan, Water Master Plan, and Groundwater Sustainability Plan, etc. and implement the mitigation actions included in these plans and ordinances.
If discontinue, explain why	Not Applicable. This is included as Windsor-05 Integrate HMP.
Project Number	WIN-4
Hazards Addressed	Flooding
Lead Agency	Town of Windsor
Mitigation Action Description	Develop and implement a program to capture perishable data after significant events (e.g. highwater marks, preliminary damage estimates, damage photos) to support future mitigation efforts including the implementation and maintenance of the hazard mitigation plan.
Status	In Progress
Narrative describing progress or obstacles that have prevented implementation	Limited staff resources. The Town's IT has multiple tools for Business Continuity and Disaster Recovery, including data backups.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	No change needed to current Mitigation Action Description. Windsor-06 Data from Significant Events
If discontinue, explain why	Not Applicable. This is included as Windsor-06 Data from Significant Events.

Mitigation Actions	Status
Project Number	WIN-5
Hazards Addressed	Dam failure, earthquake, flooding, landslide, severe weather, wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Support the County-wide initiatives identified in Volume I of the hazard mitigation plan
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Not Applicable
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	It is the Town's practice to support this type of action.
Project Number	WIN-6
Hazards Addressed	All Hazards
Lead Agency	Town of Windsor
Mitigation Action Description	Actively participate in the plan maintenance protocols outlined in Volume I of the hazard mitigation plan.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Not Applicable
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Ongoing Capability
If discontinue, explain why	It is the Town's practice to support this type of action. The Town also holds annual meetings to review its Annex. Last Town HMP maintenance meeting was in March 2024. Status of HMP actions were also reviewed as part of this update.

Mitigation Actions	Status
Project Number	WIN-7
Hazards Addressed	Severe weather, flooding
Lead Agency	Town of Windsor
Mitigation Action Description	Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements: Enforcement of the flood damage prevention ordinance; Participate in floodplain identification and mapping updates; and Provide public assistance/information on floodplain requirements and impacts.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	This is part of the Town's regular practice. The Town reviews permits for projects in the floodplain for compliance with the Town's floodplain ordinance.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability
Project Number	WIN-8
Hazards Addressed	Dam failure, drought, earthquake, flooding, landslide, severe weather, wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Implement plans and ordinances that include measures that avoid or reduce the impacts of hazards and increase resiliency, such as the 2040 General Plan, Municipal Code, Building Code, Riparian Corridor Wildfire Fuel Management Plan, Storm Drainage Master Plan, Water Master Plan, Ground Water Sustainability Plan, Windsor Resiliency Plan (Windsor Ready!), Urban Water Management Plan, Collection System Master Plan
Status	In Progress
Narrative describing progress or obstacles that have prevented implementation	The Town has amended the Building Code and Zoning Code to include actions to mitigate wildfire impacts.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Add in language from Windsor-05: Support the County-wide initiatives identified in Volume I of the hazard mitigation plan.
If discontinue, explain why	Not Applicable. This is included as Windsor-05 Integrate HMP.

Mitigation Actions	Status
Project Number	WIN-9
Hazards Addressed	Dam failure, earthquake, flooding, landslide, severe weather, wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Purchase a minimum of two permanent generators for critical facilities and infrastructure that lack adequate backup power, including for the water reclamation facility and river wells that are 1 to 1.5 MW each and natural gas or diesel.
Status	Complete
Narrative describing progress or obstacles that have prevented implementation	-
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	This action has been completed
Project Number	WIN-10
Hazards Addressed	Dam failure, earthquake, flooding, landslide, severe weather, wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Purchase eight portable generators and ten switch gear for critical infrastructure and facilities to maintain water and wastewater services and to allow critical facilities to remain operational during hazard events.
Status	In progress
Narrative describing progress or obstacles that have prevented implementation	Need to determine type of additional backup power is needed and gather additional information.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Provide backup power, energy storage, and satellite internet to critical facilities, services, and infrastructure, such as back-up generators, switch gear, micro grids, on-site renewable energy generation with storage, etc. Encourage residents and businesses to install energy generation and storage systems on their properties.
If discontinue, explain why	Not Applicable. This is included as Windsor-07 Critical Facilities - Backup Power.

Mitigation Actions	Status
Project Number	WIN-11
Hazards Addressed	Dam failure, earthquake, flooding, landslide, severe weather, wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Develop a post-disaster recovery plan, continuity of operations, and a debris management plan.
Status	In progress
Narrative describing progress or obstacles that have prevented implementation	The Town updated its EOP in 2024 (Reso No. 3969-24) Funding, staff resources, and other priorities affect the ability to implement this action.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Develop plans that improve the Town's and community's ability to continue operations, respond to, and recover from a disaster, such as a post disaster recovery plan, continuity of operation plan (COOP), debris management plan, and dam failure annex to the Town's EOP that includes communication protocols.
If discontinue, explain why	Not Applicable. This is included as Windsor-08 Plan Development.
Project Number	WIN-12
Hazards Addressed	Earthquake, flooding, landslide, severe weather, wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Participate in programs such as the Community Rating System and the ISO's Building Code Effectiveness Grading Schedule and Public Protection.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	The Town does not initiate this action but does provide information.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing Capability

Mitigation Actions	Status
Project Number	WIN-13
Hazards Addressed	Dam failure, earthquake, flooding, landslide, severe weather, wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Work with building officials to identify ways to improve the jurisdiction's Building Code Effectiveness Grading Schedule classification.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Not Applicable
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing Capability
Project Number	WIN-14
Hazards Addressed	Dam failure
Lead Agency	Town of Windsor
Mitigation Action Description	Establish protocols for regular communications with the owners/operators of dams that have the potential to impact Windsor, request current emergency response plans, and maintain communication consistent with these protocols.
Status	In progress
Narrative describing progress or obstacles that have prevented implementation	The Town has received updated Emergency Operation Plans from Foothill Regional Park, County of Sonoma, and the Shiloh Ranch Dam with current contact information for all entities involved. The Town will follow protocols to communicate with the Town's Emergency Management Team and establish a local emergency. Should an emergency occur regardless of severity, the Town will publish communication through the Town's website, social media, local partners, and SoCo Alert warning system.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Develop plans that improve the Town's and community's ability to continue operations, respond to, and recover from a disaster, such as a post disaster recovery plan, continuity of operation plan (COOP), debris management plan, and dam failure annex to the Town's EOP that includes communication protocols.
If discontinue, explain why	Not Applicable. This is included as Windsor-08 Plan Development.

Mitigation Actions	Status
Project Number	WIN-15
Hazards Addressed	Dam failure
Lead Agency	Town of Windsor
Mitigation Action Description	Create an emergency warning link between the dam's alerting system and the Town.
Status	Complete
Narrative describing progress or obstacles that have prevented implementation	Within the Emergency Operations Plans for both Foothill Regional Park and Shiloh Ranch Dam each plan provides a protocol of communication to each member responsible for action. The organizational chart within each plan will provide the link necessary to communicate should an emergency occur. Still need to address other dams.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Combine WIN-14 through WIN-16 into one action which would likely be part of a dam failure annex to the EOP. Action to be to develop a dam failure annex to EOP that addresses these items.
If discontinue, explain why	This action is complete but will be combined per above comments.
Project Number	WIN-16
Hazards Addressed	Dam failure
Lead Agency	Town of Windsor
Mitigation Action Description	Develop a public outreach plan to educate residents on dam failure and response.
Status	In progress
Narrative describing progress or obstacles that have prevented implementation	The Town of Windsor and each entity with the responsibility of monitoring and assessing an emergency will provide communication. The Town will follow protocols to communicate with the Town's Emergency Management Team and establish a local emergency. Should an emergency occur regardless of severity, the Town will publish communication through the Town's website, social media, local partners, and SoCo Alert warning system.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	No change
If discontinue, explain why	Not Applicable. This is included as Windsor-09 Public Outreach - Emergency Preparedness.

Mitigation Actions	Status
Project Number	WIN-17
Hazards Addressed	Dam failure
Lead Agency	Town of Windsor
Mitigation Action Description	Incorporate a dam failure annex as part of the Town's emergency operations plan (EOP).
Status	No progress
Narrative describing progress or obstacles that have prevented implementation	Other priorities, including preparation and adoption of updated Emergency Operations Plan
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	No Change
If discontinue, explain why	Not Applicable. This is included as Windsor-08 Plan Development.
Project Number	WIN-18
Hazards Addressed	Drought
Lead Agency	Town of Windsor
Mitigation Action Description	Expand opportunities to use recycled water and graywater in Windsor, including storage, supporting the use of dual-pipe systems in new and substantially retrofitted structures.
Status	In progress/Ongoing
Narrative describing progress or obstacles that have prevented implementation	Ongoing Capability – This is done through requiring private developments to install certain improvements. In Progress – There will likely be the need for the Town to construct improvements and will need to plan, design and secure funding with at least part of this being from grants.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Expand opportunities to use recycled water, including water storage, and grey water, to reduce the demand for potable water.
If discontinue, explain why	Not Applicable. This is included as Windsor-10 Recycled Water Use.

Mitigation Actions	Status
Project Number	WIN-19
Hazards Addressed	Drought, earthquake, flooding, severe weather, wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Increase redundancy in the Town's water distribution network through multiple backup connections, particularly across fault lines.
Status	No progress
Narrative describing progress or obstacles that have prevented implementation	This action is costly and resource intensive.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Identify and construct improvements that: improve the supply of potable water; provide alternative sources for potable water, including new Town wells to offset use of water from the Russian River, expansion of the recycled water system, and improvements of the distribution system; and provide redundancy in the Town's water distribution network through a looped distribution system (particularly across fault lines). Where appropriate, include these improvements in the Town's Water Master Plan.
If discontinue, explain why	Not Applicable. This is included as part of Windsor-05. Integrate HMP and Windsor-11. Potable Water Supply Improvement.
Project Number	WIN-20
Hazards Addressed	Drought, Flooding
Lead Agency	Town of Windsor
Mitigation Action Description	Construct improvements that improve the supply of potable water and that provide alternative sources for potable water, including new Town wells to offset use of water from the Russian River, expansion of the recycled water system, and improvements of the distribution system.
Status	In progress
Narrative describing progress or obstacles that have prevented implementation	Lack of funding
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Identify and construct improvements that: improve the supply of potable water; provide alternative sources for potable water, including new Town wells to offset use of water from the Russian River, expansion of the recycled water system, and improvements of the distribution system; and provide redundancy in the Town's water distribution network through a looped distribution system (particularly across fault lines). Where appropriate, include these improvements in the Town's Water Master Plan.
If discontinue, explain why	Not Applicable. This is included as part of Windsor-05. Integrate HMP and Windsor-11. Potable Water Supply Improvement.

Mitigation Actions	Status
Project Number	WIN-21
Hazards Addressed	Flooding, Severe Weather
Lead Agency	Town of Windsor
Mitigation Action Description	Implement the Storm Drainage Master Plan, including the construction of improvements that reduce flooding events.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	One project completed in 2023 (Michael Hall Park detention basin). Second project in process. Additional projects may be needed. Include in HMP to assist with grant applications.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Implement the Storm Drainage Master Plan, including the construction of improvements that reduce flooding events, such as new storm drains, detention basins, and other system enhancements.
If discontinue, explain why	Not Applicable. This is included as part of Windsor-12 Implement Storm Drainage Master Plan.
Project Number	WIN-22
Hazards Addressed	Flooding, Severe Weather
Lead Agency	Town of Windsor
Mitigation Action Description	Construct improvements to the wastewater system to ensure adequate sizing to prevent overflow during severe weather or flooding.
Status	No progress
Narrative describing progress or obstacles that have prevented implementation	Staff working on other priorities. Funding needed.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	No Change
If discontinue, explain why	Not Applicable. This is included as Windsor-22 Wastewater System Improvements.

Mitigation Actions	Status
Project Number	WIN-23
Hazards Addressed	Flooding, Severe Weather
Lead Agency	Town of Windsor
Mitigation Action Description	Identify areas that experience frequent localized flooding during intense precipitation events. In areas with frequent localized flooding construct improvements to reduce flooding, including upgrading storm drains, and installing additional drains.
Status	In progress
Narrative describing progress or obstacles that have prevented implementation	The areas have been identified as part of the Storm Drainage Master Plan. The Town also photographs areas that flood during rain events and has a mitigation action to create a program to capture data from significant flood events.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Implement the Storm Drainage Master Plan, including the construction of improvements that reduce flooding events, such as new storm drains, detention basins, and other system enhancements.
If discontinue, explain why	Not Applicable. This is action is implemented through Windsor-05. Integrate HMP and Windsor-12. Implement Storm Drainage Master Plan
Project Number	WIN-24
Hazards Addressed	Flooding, Severe Weather
Lead Agency	Town of Windsor
Mitigation Action Description	Identify areas that experience frequent riparian flooding during intense precipitation events. In areas with frequent riparian flooding evaluate and construct improvements to reduce flooding impacts where practical, including detention areas, moving infrastructure out of flood plain or raising it above frequent flood elevation, increasing flow capacity of riparian channels to minimize upstream and downstream flood impacts.
Status	In progress
Narrative describing progress or obstacles that have prevented implementation	The areas have been identified as part of the Storm Drainage Master Plan. The Town also photographs areas that flood during rain events and has a mitigation action to create a program to capture data from significant flood events.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Implement the Storm Drainage Master Plan, including the construction of improvements that reduce flooding events, such as new storm drains, detention basins, and other system enhancements.
If discontinue, explain why	Not Applicable This is action is implemented through Windsor-05. Integrate HMP and Windsor-12. Implement Storm Drainage Master Plan

Mitigation Actions	Status
Project Number	WIN-25
Hazards Addressed	Flooding, Severe Weather
Lead Agency	Town of Windsor
Mitigation Action Description	Conduct storm drain maintenance regularly to ensure systems are operating at peak capacity, especially in advance of and during the rainy season.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Every year, the Town's Street Division cleans at least one-quarter to one-half the storm drain inlets by vacuuming up trash, leaves and sediment debris, so every 2 or 3 years, all inlets are cleaned. The Streets Division also walks the creeks throughout the Town to remove any encountered debris dams and large blockages to lower the risk of flooding. The Streets Division also removes debris blockages before and during rain events to ensure peak capacity.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability
Project Number	WIN-26
Hazards Addressed	Flooding, Severe Weather
Lead Agency	Town of Windsor
Mitigation Action Description	Require that new development projects, including infrastructure, will not change local hydrology and cause an increase in flood risks for surrounding properties
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	All new development projects are required to provide a drainage report and mitigate f flood impacts. Project designs are not allowed to adversely impact downstream or neighboring properties. The Town has developed Flood Design Criteria and Hydraulic Design Requirements for development projects. This was completed in June 2023 and is available on the Town's website.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability

Mitigation Actions	Status
Project Number	WIN-27
Hazards Addressed	Flooding, Severe Weather
Lead Agency	Town of Windsor
Mitigation Action Description	Develop passive detention basins to better collect and manage stormwater flows.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	This is occurring as part of development applications, depending on project size and needs. Town is also constructing these improvements on Town property. This is also part of the Town's Stormwater Management Plan.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability
Project Number	WIN-28
Hazards Addressed	Severe Weather
Lead Agency	Town of Windsor
Mitigation Action Description	When developing or retrofitting public spaces such as bus stops, public parks and other public landscaped areas, provide shade through the use of shade structures, sail cloth, trees, or similar methods.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Shade structures have been installed based on the prioritization outlined in the Parks and Recreation Master Plan. Additional public landscaping shade enhancements are on-going and completed as necessary.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability

Mitigation Actions	Status
Project Number	WIN-29
Hazards Addressed	Landslide
Lead Agency	Town of Windsor
Mitigation Action Description	Work with Sonoma County and CAL FIRE to replant and stabilize recently burned slopes from wildfires.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	-
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability
Project Number	WIN-30
Hazards Addressed	Landslide
Lead Agency	Town of Windsor
Mitigation Action Description	Require any development in landslide hazard zones to use minimal grading and to site development in locations with the least exposure to unstable slopes, to the greatest extent feasible.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Implemented through requirement for Geotechnical report, which may not require the same as this mitigation action (avoidance and minimization). This action has been revised to reflect the Town's practice.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Require development projects, including those within designated landslide hazard zones, to design per the recommendations in the project geotechnical report and comply with any required setbacks along waterways.
If discontinue, explain why	Not Applicable. This is included as Windsor-13 Landslide Design Requirements

Mitigation Actions	Status
Project Number	WIN-31
Hazards Addressed	Dam Failure, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Design and construct roadway improvements and extensions that improve or maintain emergency vehicle access and evacuation and that provide staging areas and fire breaks, including the Eastside Connector Road (aka North-South Jensen Lane in 2040 General Plan), the extension of Los Amigos Road, and US 101 northbound onramp.
Status	In progress
Narrative describing progress or obstacles that have prevented implementation	Some design has occurred for the Los Amigos Road extension, which was funded through grants. Actual construction would occur as part of development projects or with grant funding.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Design and construct roadway improvements and extensions that improve or maintain emergency vehicle access and evacuation and that provide staging areas and fire breaks, including the Eastside Connector Road (aka North-South Jensen Lane), extension of Los Amigos Road, and US 101 northbound onramp from Arata Lane as shown in the 2040 General Plan (Figure M-1).
If discontinue, explain why	Not Applicable. This is included as Windsor-14 Roadway Improvements.
Project Number	WIN-32
Hazards Addressed	Dam Failure, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Design and construct bridge improvements, including widening, that improve or maintain emergency vehicle access and evacuation, prioritizing bridges in areas with a single point of access or that are too narrow to allow for adequate emergency access.
Status	No progress
Narrative describing progress or obstacles that have prevented implementation	Cost prohibitive. Town continues to seek grant funding. Two bridges on Old Redwood Hwy in Town's 5-year CIP.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Design and construct bridge improvements that improve or maintain emergency access and evacuation, prioritizing bridges in areas with a single point of access, along evacuation routes, and in hazard areas.
If discontinue, explain why	Not Applicable. This is included as Windsor-15 Bridge Improvements.

Mitigation Actions	Status
Project Number	WIN-33
Hazards Addressed	Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Adopt measures to require landscaping and fencing that meet recommendations from the Sonoma County Fire Protection District to prevent the spread of wildfire, such as the location and type of materials allowed proximate to structures.
Status	Complete
Narrative describing progress or obstacles that have prevented implementation	The Zoning Code was amended to include firesafe fencing and landscape standards.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	This action has been completed.
Project Number	WIN-34
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Identify and map neighborhoods in Windsor, especially neighborhoods or areas comprised of vulnerable populations and individuals, who may need assistance in the event of a disaster (elderly, disabled, limited mobility, lack of transportation, non-English speaking) and establish a vulnerable population support network, working closely with community organizations and assisted care centers to foster informal support networks through a program to encourage people to check in with and provide assistance to elderly and disabled neighbors.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	These areas have been identified but not mapped. The Town is updating its GIS and should have the capability of including this information in the updated GIS. Fostering informal support networks is an ongoing capability as part of the Town's Windsor Ready! series and COPE outreach efforts.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	The Town should be able to include this information in the update of its GIS. Outreach encouraging informal support networks is an ongoing capability through the Town's Windsor Ready! program and COPE.

Mitigation Actions	Status
Project Number	WIN-35
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Identify and map properties owned or operated by the Town, Water District, Windsor Unified School District, other public agencies, and religious and service organizations that can be used for RVs, trailers, etc. and large animals in the event of an evacuation and establish relationships and enter into MOA or MOU with these entities for the use of these properties in the event of an evacuation.
Status	Complete
Narrative describing progress or obstacles that have prevented implementation	Town has identified one location – Keiser Park (Town-Owned). Not mapped, since there is one location.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	
If discontinue, explain why	Not Applicable
Project Number	WIN-36
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Identify and map potential shelter locations and the features of each location (e.g. type of parking, singles, families, large animal, small animal, etc.) on properties owned or operated by the Town, Water District, Windsor Unified School District, other public agencies, and religious and service organizations and establish partnerships with these entities to educate and distribute this information to residents and businesses prior to and during an emergency requiring evacuation and to provide assistance in the event of an emergency. Enter MOAs or MOUs as applicable.
Status	Complete
Narrative describing progress or obstacles that have prevented implementation	Town has identified one location – Windsor High School Gym and has an MOA with the School District. Not mapped, since there is one location. Need to determine as part of this process if an additional location on the opposite side of Hwy 101 is needed.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	
If discontinue, explain why	The Town has identified one shelter location. If another location should be identified, the Town can identify the location as part of its ongoing capabilities.

Mitigation Actions	Status
Project Number	WIN-37
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Develop a GIS system that includes infrastructure, critical facilities, Town assets, hazards, and land use information and train staff in the use and maintenance of the system.
Status	Partial Progress
Narrative describing progress or obstacles that have prevented implementation	Cost, staff resources, priorities The Town has GIS with land use, Town assets and infrastructure. Hazard layers need to be added. A new GIS is part of the Town's IT Master Plan. It may be possible to add hazard layers as part of the new GIS.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Integrate natural hazard layers from the County's GIS into the Town's GIS and incorporate this information into the Town's new permitting software as feasible.
If discontinue, explain why	Not Applicable. This is included as Windsor-18 Hazard Layer in GIS System and Permitting.
Project Number	WIN-38
Hazards Addressed	Dam Failure, Flooding, Landslide, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Develop and implement a system to track permits issued in hazard areas.
Status	No progress
Narrative describing progress or obstacles that have prevented implementation	Cost, staff resources, other priorities The Town is implementing a new permit system and will integrate its GIS with the system if feasible in order to track permits and development in hazard areas.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Integrate natural hazard layers from the County's GIS into the Town's GIS and incorporate this information into the Town's new permitting software as feasible.
If discontinue, explain why	Not Applicable. This is included as Windsor-18 Hazard Layer in System and Permitting.

Mitigation Actions	Status
Project Number	WIN-39
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Establish and provide training for a staff-based emergency response program (Community Emergency Response Team [CERT]).
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	The Town has executed a CERT MOU between Northern Sonoma County CERT in 2023. This MOU will allow the Town to utilize the CERT program during an emergency providing the support necessary to respond and recover. Do not need a Town specific action.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability
Project Number	WIN-40
Hazards Addressed	Flooding
Lead Agency	Town of Windsor
Mitigation Action Description	Have the appropriate Building Division and Public Works staff obtain certification as floodplain managers.
Status	Completed
Narrative describing progress or obstacles that have prevented implementation	The Town's newly hired Deputy Director of Water and Environmental Management in Public Works is a certified flood plain manager. The Town does not need more than one staff person with this certification.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	
If discontinue, explain why	Completed

Mitigation Actions	Status
Project Number	WIN-41
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Train the appropriate staff in post disaster safety assessment.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Certification completed by Building staff, who will renew the certification as needed.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	
If discontinue, explain why	Ongoing capability
Project Number	WIN-42
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Support and promote the expansion of Citizens Organized to Prepare for Emergencies (COPE) and work with COPE to educate and inform the community.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Lack of people signing up to be a COPE leader for their neighborhood. The Town continues to coordinate with the Windsor COPE leader on outreach to encourage people to become COPE leaders through information available through the Town and COPE and joint outreach through the Town's Windsor Ready! series and COPE presentations to the community.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability

Mitigation Actions	Status
Project Number	WIN-43
Hazards Addressed	Dam Failure, Drought, Earthquake, Flooding, Landslide, Severe weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Continually expand and improve community outreach and education related to all hazards facing Windsor and climate resiliency, including through the use of the Town's website, social media platforms, COPE, community meetings, and neighborhood, business, and community groups. Conduct Spanish-language outreach as part of this effort.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	-
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability
Project Number	WIN-44
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Develop and provide information on evacuation zones, evacuation routes, preparedness, and responding to hazard events.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	The Town created Windsor Ready! Emergency Guide and talk series promoting resources before, during, and after an emergency. The Windsor Ready! Emergency Guide was created both in English and Spanish. The guides are available in all Town offices, Windsor Library, Chamber of Commerce, and issued to Town partners such as Windsor Police Department, Sonoma County Fire District, Windsor COPE, and Nuestra Comunidad.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability

Mitigation Actions	Status
Project Number	WIN-45
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Continue to require the undergrounding of utilities as part of the development projects and seek funding for the undergrounding of utilities in areas where redevelopment or new development is unlikely to occur that are located on evacuation routes, in proximity to moderate or high severity zones, or critical facilities.
Status	In progress
Narrative describing progress or obstacles that have prevented implementation	Private development projects are requesting to not underground utilities due to cost, even on project sites located on evacuation routes. For areas not likely to be developed/redeveloped, the Town would undertake undergrounding, which would be costly. Also, may not have an inventory of all of these locations, which is where the Town may need to start.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Continue to require the undergrounding of utilities as part of the development projects and seek funding for the undergrounding of utilities in areas where redevelopment or new development is unlikely to occur that are located on evacuation routes, in proximity to moderate or high fire severity zones, or critical facilities.
If discontinue, explain why	Not Applicable. This is included as Windsor-16 Underground Overhead Utilities.
Project Number	WIN-46
Hazards Addressed	Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Work with other agencies, residents, and homeowner associations to reduce fuel loads, such as the removal of vegetation in Foothill and Shiloh Ridge parks.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	-
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability

Mitigation Actions	Status
Project Number	WIN-47
Hazards Addressed	Earthquake
Lead Agency	Town of Windsor
Mitigation Action Description	Require new development in liquefaction-prone areas to conduct a geotechnical analysis and to include features that decrease the risk of damage from liquefaction events.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	General Plan includes Policy PHS-2.7: Geotechnical Hazards Report and Figure PHS-2.5, which identifies liquefaction areas. Areas in moderate or high liquefaction areas are required to provide a Geotechnical Report as part of the entitlement application and conditions of approval are included requiring building permit and improvement plans to comply with recommendations included in the Geo Tech Report. Soils report is required for new construction, which will identify whether there is a risk related to liquefaction. If there is a risk that needs to be mitigated, the report is required to include recommendations that must be incorporated into the construction plans. Compliance with the recommendations is implemented through the building permit process, including inspections.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability
Project Number	WIN-48
Hazards Addressed	Drought, Earthquake, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Identify and pursue alternate water sources, as part of the Town's Water Master Plan, to provide backup water sources in case primary source(s) fail or are unavailable and make these sources available.
Status	In progress
Narrative describing progress or obstacles that have prevented implementation	Cost and availability of staff
Include in the 2026 HMP or Discontinue?	Continue
If include, revise/reword as appropriate	This is included as part of Windsor-05. Integrate HMP and Windsor-11. Potable Water Supply Improvement
If discontinue, explain why	Not Applicable. This is included as part of Windsor-05 and Windsor-11.

Mitigation Actions	Status
Project Number	WIN-49
Hazards Addressed	Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Participate in mutual aid agreements to provide wildfire protection services in Foothill Regional Park.
Status	Ongoing Capability
Narrative describing progress or obstacles that have prevented implementation	-
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	This is an ongoing capability
Project Number	WIN-50
Hazards Addressed	Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Ensure compliance with vegetation management standards and other County fire safe standards to reduce wildfire risk within Windsor and the area surrounding Windsor, working with private property owners, the County of Sonoma, and the Sonoma County Fire District.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Fire services in the Town of Windsor are provided by Sonoma County Fire District, which enforces compliance with vegetation management standards. The Town's Zoning Code was amended to include firesafe fencing and landscape standards that were created in coordination with Sonoma County Fire District.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability

Mitigation Actions	Status
Project Number	WIN-51
Hazards Addressed	Drought
Lead Agency	Town of Windsor
Mitigation Action Description	Work with other agencies to develop and implement a rainwater catchment program, including a program to provide rainwater barrels for existing residential development.
Status	Complete
Narrative describing progress or obstacles that have prevented implementation	Sonoma County has an ongoing Rainwater Harvesting Rebate Program that began in 2022, which allows any Windsor resident to participate in. The rebate is $0.50/gallon, up to $5,000 and includes technical assistance and a webinar for do-it-yourself assistance.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Completed
Project Number	WIN-52
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Improve the resiliency of key roadways leading out of Windsor, particularly those connecting to hospital facilities by working with the City of Santa Rosa, Sonoma County, and Caltrans.
Status	No progress
Narrative describing progress or obstacles that have prevented implementation	The Town has been focusing on other actions. Also, it is unclear whether this action refers to streets in Town (where the Town has regulatory authority), outside of Town, or both. The action was revised to provide greater clarity and to reflect community concerns.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Improve the resiliency and capacity during a hazard event of evacuation routes leading out of Windsor, prioritizing routes that provide access to hospital facilities.
If discontinue, explain why	Not Applicable. This is included as Windsor-21 Improve Resiliency of Key Evacuation Routes Connecting Windsor to Hospital Facilities.

Mitigation Actions	Status
Project Number	WIN-53
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Construct on-site renewable energy generation and storage systems at Town-owned facilities to support continued operations in the event of a power outage. Encourage residents and businesses to install energy generation and storage systems on their properties.
Status	No progress
Narrative describing progress or obstacles that have prevented implementation	Other priorities. Analysis of needs and costs needed.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Provide backup power, energy storage, and satellite internet to critical facilities, services, and infrastructure, such as back-up generators, switch gear, micro grids, on-site renewable energy generation with storage, etc. Encourage residents and businesses to install energy generation and storage systems on their properties.
If discontinue, explain why	Not Applicable. This is included as Windsor-07-Critical Facilities-Backup Power.
Project Number	WIN-54
Hazards Addressed	Dam Failure, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Identify transportation options and potential ways to provide the transportation identified for people who do not drive or have limited mobility.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Sonoma County Department of Emergency Management has established a Transportation Community with all transportation partners within the County. The goal is to have resources available to jurisdictions during an emergency.
Include in the 2026 HMP or Discontinue?	Include
If include, revise/reword as appropriate	Identify transportation options for people with access and functional needs, those who do not drive, and for areas with limited evacuation routes (such as those on a single point of access). Conduct public outreach on the transportation options available as they are developed.
If discontinue, explain why	Not Applicable. This is included as Windsor-19-Evacuation Transportation and Outreach.

Mitigation Actions	Status
Project Number	WIN-55
Hazards Addressed	Dam Failure, Drought, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Identify and implement communication methods for people with limited/no technology.
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	The Town has a database of communication outlets for those that have limited communication resources. Sonoma County Department of Emergency Management has identified 2 radio stations within the County that will broadcast emergency communications while identifying KBBF as the Hispanic radio station as well. The Town's Windsor Ready! Emergency Guide provides resources for those needing information on communication while identifying the HI-LO siren option should communication fail. Depending on the emergency the Town's options for communication include social media, website, press release, local radio and television stations, NOAA radios, Wireless Emergency Alert (WEA)- FEMA, Town's e-banner, Sonoma County Fire District e-banner, and Windsor Library e-banner, Chamber of Commerce, Windsor Library, and community noticing location around Town.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability
Project Number	WIN-56
Hazards Addressed	Dam Failure, Drought, Earthquake, Flooding, Landslide, Severe Weather, Wildfire
Lead Agency	Town of Windsor
Mitigation Action Description	Regularly review and apply for available funding opportunities to implement hazard mitigation activities. Prioritize hazard mitigation retrofits and other construction activities in Windsor’s Capital Improvement Program (CIP).
Status	Ongoing
Narrative describing progress or obstacles that have prevented implementation	Town staff pursue grant opportunities as they become available and the Town has the ability to manage the grant and provide matching funds (if required). The Town has the ability to request consultant assistance as needed.
Include in the 2026 HMP or Discontinue?	Discontinue
If include, revise/reword as appropriate	Not Applicable
If discontinue, explain why	Ongoing capability

11.10.2 Additional Mitigation Efforts

In addition to the mitigation actions listed as complete in Table 11-25, Windsor identified the following mitigation efforts completed since the previous HMP:

- The Town identified neighborhoods comprised of vulnerable populations and individuals who may need assistance in the event of an emergency.
- The Town completed a Climate Resilience Plan in February of 2022. The Plan identifies areas that are evacuation constrained.
- The Town updated its Emergency Operations Plan. This was not included as a mitigation action in the Town's HMP Annex.

11.10.3 Proposed Hazard Mitigation Actions for the HMP Update

Windsor participated in the mitigation strategy workshop for this HMP to identify appropriate actions to include in a local hazard mitigation strategy. Its comprehensive consideration of all possible activities to address hazards of concern included review of the following FEMA documents:

- FEMA 551 "Selecting Appropriate Mitigation Measures for Floodprone Structures" (March 2007)
- FEMA "Mitigation Ideas—A Resource for Reducing Risk to Natural Hazards" (January 2013).

The action worksheets included at the end of this annex list the mitigation actions that Windsor would like to pursue in the future to reduce the effects of hazards. The actions are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in Town priorities.

Table 11-26 indicates how the proposed mitigation actions fall within the four FEMA mitigation action categories and six CRS mitigation action categories (these categories are described in Appendix D).

Volume I identifies evaluation criteria for prioritizing the mitigation actions. To assist with rating each mitigation action as high, medium, or low priority, a numeric rank is assigned for each of the evaluation criteria. Table 11-27 provides a summary of the prioritization of all proposed mitigation actions for the HMP update.

Table 11-26. Analysis of Mitigation Actions by Hazard and Category

Hazard	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Dam Failure	X	X	-	X	X	X	X	-	X	X
Drought	X	X	-	-	X	X	-	-	X	X
Earthquake	X	X	-	X	X	X	X	-	X	X
Extreme Cold	X	X	-	X	X	X	X	-	X	X
Extreme Heat	X	X	-	X	X	X	X	-	X	X
Extreme Wind	X	X	-	X	X	X	X	-	X	X
Flood	X	X	-	X	X	X	X	-	X	X
Landslide	X	X	-	X	X	X	X	-	X	X
Sea Level Rise	-	-	-	-	-	-	-	-	-	-
Tsunami	-	-	-	-	-	-	-	-	-	-
Wildfire	X	X	-	X	X	X	X	-	X	X

Note: Mitigation category codes as follows (see Appendix D for descriptions): LPR = Local Plans and Regulations; SIP = Structure and Infrastructure Project; NSP = Natural Systems Protection; EAP = Education and Awareness Programs; PR = Preventative Measures; PP = Property Protection; PI = Public Information; NR = Natural Resource Protection; SP = Structural Flood Control Projects; ES = Emergency Services

Table 11-27. Summary of Prioritization of Actions

Project Name	Cost	Benefit	Objectives	Time Frame	Score	Priority
Public Outreach – Emergency Preparedness	Low	Medium	4	1-5 years	7.308	High
Warming and Cooling Centers	Low	Medium	3	1-5 years	7.231	High
Public Information – Wildfire	Low	Medium	3	1-5 years	7.231	High
Local Business Outreach	Low	Medium	2	1-5 years	7.154	High
Evacuation Transportation and Outreach	Medium	High	2	1-5 years	7.154	High
Plan Development and Updates	Medium	High	4	1-5 years	7.308	High
Emergency Management Ordinance	Low	Low	8	1-5 years	6.616	Medium
Data from Significant Events	Medium	Medium	5	1-5 years	6.385	Medium
Landslide Design Requirements	Medium	Medium	4	1-5 years	6.308	Medium
Integrate HMP	High	Medium	8	1-5 years	5.616	Medium
Improve Resiliency of Key Evacuation Routes Connecting Windsor to Hospital Facilities	High	Medium	5	1-5 years	5.385	Medium
Wastewater System Improvements	High	Medium	5	1-5 years	5.385	Medium
Critical Facilities – Backup Power	High	High	4	1-10 years	5.308	Medium
Potable Water Supply Improvement	Medium	Medium	3	1-10 Years	5.231	Medium
Retrofit/Relocate Critical Facilities	High	High	3	1-10 years	5.231	Medium
Plan Development	High	Medium	3	1-5 years	5.231	Medium
Bridge Improvements	High	High	2	1-10 Years	5.154	Medium
Roadway Improvements	High	Medium	2	1-5 years	5.154	Medium
Hazard Layer in GIS System and Permitting Software	High	Medium	1	1-5 years	5.077	Medium
Implement Storm Drainage Master Plan	High	Medium	5	1-10 Years	4.385	Low
Recycled Water Use	High	Medium	3	1-10 years	4.231	Low
Underground Overhead Utilities	High	Medium	2	1-10 Years	4.154	Low

Note: Volume I provides guidance on prioritizing mitigation actions. Low (0-5), Medium (5-7), High (7-9).

Action 2026-Windsor-01.Warming and Cooling Centers

Lead Agency:	Town of Windsor Parks and Facilities Department, Town Managers Office
Supporting Agencies:	-
Hazards of Concern:	Extreme Cold, Extreme Heat
Description of the Problem:	Community members, especially seniors, low-income residents, and the unhoused, are vulnerable to extreme heat, cold, and poor air quality events, including wildfire smoke, which can impact health and safety
Description of the Solution:	Identify Town warming and cooling centers, ensure they are equipped with adequate air filtration, make them accessible during extreme heat, cold, and poor air quality events, and inform the public about their availability.
Estimated Cost:	Low
Potential Funding Sources:	General Fund (staff time); HMA grant funding; EPA grant funding
Implementation Timeline:	Short-term
Objectives Met:	5, 6, 13
Benefits:	This action protects vulnerable populations.
Impact on Socially Vulnerable Populations:	This action protects vulnerable populations, such as senior citizens, low-income residents, and the unhoused who may not have access to adequate heating and cooling of housing or may not have housing.
Impact on Future Development:	None
Impact on Critical Facilities/Lifelines:	None
Impact on Capabilities:	This will help protect people and could reduce the need for emergency response.
Climate Change Considerations:	Extreme heat and cold events are likely to increase in frequency due to climate change.
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	High

Action 2026-Windsor-02. Public Information – Wildfire

Lead Agency:	Town of Windsor Town Manager's Office (Government Operations Manager), Community Development Department
Supporting Agencies:	Sonoma County Fire District
Hazards of Concern:	Wildfire
Description of the Problem:	Exterior building materials and certain construction methods, wood fencing, and certain types of landscaping can spread wildfire within the Town. This can result in the loss of lives and homes, and damage to property and natural systems.
Description of the Solution:	Develop materials and educate the public about the Town's firesafe landscaping, fencing requirements, and fire Building Code requirements and other methods that can reduce the spread of wildfire. Make the information available on the Town's website, through the Town's Windsor Ready! program, and social media.
Estimated Cost:	Low
Potential Funding Sources:	General Fund (staff time)
Implementation Timeline:	Short-term
Objectives Met:	5, 6, 13
Benefits:	This action protects vulnerable populations and the entire community by reducing the spread of wildfire.
Impact on Socially Vulnerable Populations:	This action protects vulnerable populations, as well as the entire community, by making the Town more resistant to the spread of wildfire.
Impact on Future Development:	This action makes future development more resistant to wildfire, by making new landscaping and fencing more resistant to wildfire.
Impact on Critical Facilities/Lifelines:	This action should reduce the spread of wildfire thereby reducing the impact on and protecting critical facilities and lifelines.
Impact on Capabilities:	This will help protect people and should reduce the need for emergency response.
Climate Change Considerations:	Climate change is likely to increase the frequency and severity of wildfires, including the spread of embers and spot fires due to increased winds.
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	High

Action 2026-Windsor-03. Local Business Outreach

Lead Agency:	Town of Windsor Town Manager's Office (Economic Development Manager and Government Operations Manager), Community Development Department
Supporting Agencies:	-
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Cold, Extreme Heat, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	Local businesses, especially businesses that serve as community lifelines, need to be able to respond to and quickly recover from disasters in order continue to operations which will support recovery of the greater community.
Description of the Solution:	Prepare educational materials for the local business community on how to prepare for, respond to, and recover from a disaster, conduct outreach to the business community, and make the information available on the Town's website and through the chamber of commerce and other local business associations.
Estimated Cost:	Low
Potential Funding Sources:	General Fund (staff time)
Implementation Timeline:	Short-term
Objectives Met:	5, 6
Benefits:	This action improves the preparedness, recovery and/or continued operations of businesses that provide needed lifelines and resources to the Town and community.
Impact on Socially Vulnerable Populations:	This action allows goods and services to remain available or to be made available soon after a disaster to support the community, including vulnerable populations.
Impact on Future Development:	None
Impact on Critical Facilities/Lifelines:	Businesses that provide lifelines, such as food, water, and fuel and that act as community gathering places will be able to continue operations or reopen and recover more quickly.
Impact on Capabilities:	Less support and response will be needed from the Town, including emergency services, if businesses are prepared for and have a plan to respond to and recover from a disaster. This allows resources to be focused in other areas.
Climate Change Considerations:	Not Applicable
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	High

Action 2026-Windsor-04. Retrofit/Relocate Critical Facilities

Lead Agency:	Town of Windsor Town Manager's Office, Public Works Department, Parks and Facilities Department, Police Department
Supporting Agencies:	
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Cold, Extreme Heat, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	Critical facilities need to remain operational in an emergency.
Description of the Solution:	Inspect and conduct investigations (such as geotechnical) of critical facilities and infrastructure, identify those that are recommended to be retrofitted or relocated, and retrofit or relocate as appropriate, prioritizing structures and infrastructure located in high or medium ranked hazard areas.
Estimated Cost:	High
Potential Funding Sources:	General Fund, HMGP, BRIC, FMA
Implementation Timeline:	1-10 Years The first phase is the inspection and preparation of a geotechnical report for Town Hall.
Objectives Met:	3, 4, 6
Benefits:	This action allows the Town to gather information, develop a plan, and make improvements to existing facilities or relocate facilities as needed to make the Town's critical facilities resistant to hazards.
Impact on Socially Vulnerable Populations:	None
Impact on Future Development:	None
Impact on Critical Facilities/Lifelines:	This action would improve the functionality of critical facilities and ensure that the Town is aware of the facilities in need of retrofit or relocation.
Impact on Capabilities:	This action could allow the Town to take the actions needed to ensure Town facilities can remain open and operational when a hazard occurs.
Climate Change Considerations:	Improvements to existing facilities and relocation will need to consider the impacts of climate change.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection
Priority	Medium

Action 2026-Windsor-05. Integrate HMP

Lead Agency:	Town of Windsor Town Manager's Office, Public Works Department, Community Development Department, Parks and Facilities Department,
Supporting Agencies:	Sonoma County Fire District
Hazard(s) of Concern:	Dam Failure, Drought, Earthquake, Extreme Cold, Extreme Heat, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	The Town is exposed to a variety of hazards and needs to be able to avoid and/or reduce the impact of the hazard and recover from these hazards.
Description of the Solution:	Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use and development decisions within the community including the General Plan, Building Code, Zoning Code, Subdivision Ordinance, Municipal Code, Emergency Operations Plan, Climate Adaptation Plan, Riparian Corridor Wildfire Fuel Management Plan, Storm Drainage Master Plan, Water Master Plan, and Groundwater Sustainability Plan, etc. and implement the mitigation actions included in these plans and ordinances.
Estimated Cost:	High
Potential Funding Sources:	General Fund, Enterprise Fund, CIP
Implementation Timeline:	1-5 Years
Objectives Met:	1, 3, 4, 5, 6, 7, 8, 10
Benefits:	This action reduces the impact of hazards, locates development in places that avoid hazards, and improves the resilience of critical facilities and lifelines.
Impact on Socially Vulnerable Populations:	Making the improvements included in certain Town plans protect the Town, including vulnerable populations.
Impact on Future Development:	Implementing the plans results in a safer and more resilient community, making future development safer and more resilient.
Impact on Critical Facilities/Lifelines:	This action improves the resiliency of critical facilities and lifelines.
Impact on Capabilities:	This action should improve capabilities by making resilience of development and critical facilities and lifelines.
Climate Change Considerations:	Climate change could increase the severity of certain hazards and plans should take this into consideration when determining the actions needed.
Mitigation Category	Local Plans and Regulations, Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection, Structural Flood Control Projects
Priority	Medium

Action 2026-Windsor-06. Data from Significant Events

Lead Agency:	Town of Windsor Town Manager's Office, Public Works Department, Police Department
Supporting Agencies:	-
Hazard(s) of Concern:	Flood
Description of the Problem:	There are areas that are subject to flooding (such as roadways, including evacuation routes, critical facilities, vulnerable populations, private property, etc.), even during smaller storm events. As weather events become more extreme, this flooding could become more severe, and flooding could occur in new areas. Documentation of where this occurring and the severity would assist in planning and prioritizing improvements to reduce this hazard.
Description of the Solution:	Develop and implement a program to capture perishable data after significant events (e.g., high water marks, preliminary damage estimates, damage photos) to support future mitigation efforts including the implementation and maintenance of the hazard mitigation plan.
Estimated Cost:	Medium
Potential Funding Sources:	General Fund (staff time) Enterprise Fund
Implementation Timeline:	Short-term
Objectives Met:	1, 4, 5, 8, 10
Benefits:	Allow the Town to understand and confirm the location of flooding and severe wind, so that improvements can be identified to address the impacts.
Impact on Socially Vulnerable Populations:	Reduce impacts to areas that experience hazards, especially flooding, and focus actions on areas of the most vulnerable.
Impact on Future Development:	None
Impact on Critical Facilities/Lifelines:	This action should improve the resilience of critical facilities and lifelines by reducing flooding impacts.
Impact on Capabilities:	Understanding where these impacts occur could assist Town staff, including first responders, in knowing the areas typically impacted, including emergency access and evacuation routes.
Climate Change Considerations:	Climate change could result in more severe events and result in flooding in new areas.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	Medium

Action 2026-Windsor-07. Critical Facilities – Backup Power

Lead Agency:	Town of Windsor Town Manager's Office Public Works Department, Parks and Facilities Department,
Supporting Agencies:	-
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Cold, Extreme Heat, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	Loss of power and cellular infrastructure to critical facilities, services, and infrastructure could result in delayed response and recovery, which could compromise life safety, the environment (treatment plant impacts related to waste treatment), emergency response, and evacuation.
Description of the Solution:	Provide backup power, energy storage, and satellite internet to critical facilities, services, and infrastructure, such as back-up generators, switch gear, micro grids, on-site renewable energy generation with storage, etc. Encourage residents and businesses to install energy generation and storage systems on their properties.
Estimated Cost:	High
Potential Funding Sources:	General Fund, CIP, Enterprise Funds, Bureau of Reclamation (matching funds from the Town), HMGP
Implementation Timeline:	1-10 Years
Objectives Met:	2, 4, 6, 9
Benefits:	Critical facilities and infrastructure would be more resilient and be able remain operational and/or continue operations more quickly.
Impact on Socially Vulnerable Populations:	Critical facilities and services would be able to be open and available to the community, including vulnerable populations.
Impact on Future Development:	N/A
Impact on Critical Facilities/Lifelines:	Critical facilities and lifelines would be able to continue operating or be able to recover and restore operations more quickly.
Impact on Capabilities:	This would improve the ability to respond and remain operational.
Climate Change Considerations:	Climate change could increase hazard events, resulting in more frequent loss of power and a greater reliance on backup power.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection, Emergency Services
Priority	Medium

Action 2026-Windsor-08. Plan Development

Lead Agency:	Town of Windsor Town Manager's Office, Police Department
Supporting Agencies:	County of Sonoma, Sonoma County Fire District
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Cold, Extreme Heat, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	Critical facilities, services, and infrastructure need to quickly recover from and continue to operate in a disaster event in order to reduce impacts to people, property and natural systems.
Description of the Solution:	Develop plans that improve the Town's and community's ability to continue operations, respond to, and recover from a disaster, such as a post disaster recovery plan, continuity of operation plan (COOP), debris management plan, and dam failure annex to the Town's EOP that includes communication protocols.
Estimated Cost:	High
Potential Funding Sources:	General Fund (staff time)
Implementation Timeline:	1-5 Years
Objectives Met:	1, 3, 6
Benefits:	These plans will allow the community to respond and recover more quickly.
Impact on Socially Vulnerable Populations:	None
Impact on Future Development:	None
Impact on Critical Facilities/Lifelines:	This action should reduce the impact since there would be plans in place that would provide information as to how to respond.
Impact on Capabilities:	This action will increase post-disaster capabilities, since procedures will be in place for how to respond, recover, and continue operations.
Climate Change Considerations:	Climate change may result in more frequent and severe disaster events requiring the implementation of the adopted Continuity of Operations Plan, Debris Management Plan, Disaster Recovery Plan, and Dam Failure Annex.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures, Emergency Services
Priority	Medium

Action 2026-Windsor-09. Public Outreach – Emergency Preparedness

Lead Agency:	Town of Windsor Town Manager's Office
Supporting Agencies:	-
Hazard(s) of Concern:	Dam Failure
Description of the Problem:	Dam failure could result in the flooding of large portions of the Town, including critical facilities and vulnerable populations. The community is less aware of the potential impacts of dam failure than other disasters that are more frequent, such as wildfire, extreme heat, and flooding.
Description of the Solution:	Develop public information on the potential impacts of, how to prepare for, and the warning system for dam failure and provide this information as part of the Town's Windsor Ready! Emergency preparedness information and outreach and make this information available to the public.
Estimated Cost:	Low
Potential Funding Sources:	General Fund (staff time)
Implementation Timeline:	Short-term
Objectives Met:	1,6,8,10
Benefits:	This action would improve the community's awareness of dam failure, how to prepare, and how to respond in the event of this disaster event.
Impact on Socially Vulnerable Populations:	This action would allow the community, including vulnerable populations, to be able to better respond to dam failure.
Impact on Future Development:	None
Impact on Critical Facilities/Lifelines:	This information would make information available on the likely areas of flooding due to dam failure and the streets affected, including evacuation routes.
Impact on Capabilities:	None
Climate Change Considerations:	Climate change could increase extreme weather events, especially flooding, which could make dam failure more likely.
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	High

Action 2026-Windsor-10. Recycled Water Use

Lead Agency:	Town of Windsor Public Works Department
Supporting Agencies:	-
Hazard(s) of Concern:	Drought
Description of the Problem:	An adequate supply of potable water needs to be available during droughts, especially droughts that span multiple years.
Description of the Solution:	Expand opportunities to use recycled water, including water storage, and grey water, to reduce the demand for potable water.
Estimated Cost:	High
Potential Funding Sources:	Bureau of Reclamation Funding, Enterprise Funds, Loan (Water Infrastructure Finance and Innovation Act), Bonds, Developer Funded (developers required to install recycled water facilities, e.g. purple pipe)
Implementation Timeline:	1-10 Years
Objectives Met:	1, 4, 6
Benefits:	Providing an adequate and safe water supply for the community and for firefighting.
Impact on Socially Vulnerable Populations:	Vulnerable communities would have a safe and reliable water supply.
Impact on Future Development:	Future development would construct recycled water and grey water improvements as part of projects, if required by the Town, and would benefit from a safe and reliable water supply.
Impact on Critical Facilities/Lifelines:	This action ensures continued availability of a safe and reliable source of potable water for the community and firefighting.
Impact on Capabilities:	Firefighters would have water available when needed.
Climate Change Considerations:	Climate change could result in droughts lasting multiple years, reducing the amount of water available.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures, Emergency Services
Priority	Low

Action 2026-Windsor-11. Potable Water Supply Improvement

Lead Agency:	Town of Windsor Public Works Department
Supporting Agencies:	
Hazard(s) of Concern:	Dam Failure, Drought, Earthquake, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	The Town needs to ensure that potable water is available in the event of a hazard event or disaster.
Description of the Solution:	Identify and construct improvements that: improve and protect the supply of potable water; provide alternative sources for potable water, including new Town wells to offset use of water from the Russian River, expansion of the recycled water system, and improvements of the distribution system; and provide redundancy in the Town's water distribution network through a looped distribution system (particularly across fault lines). Where appropriate, include these improvements in the Town's Water Master Plan.
Estimated Cost:	Medium
Potential Funding Sources:	CIP, Enterprise Funds, Bureau of Reclamation, HMGP,FMA
Implementation Timeline:	1-10 Years
Objectives Met:	1, 4, 6
Benefits:	This action improves the Town's water system and supply of water, making the community more resilient.
Impact on Socially Vulnerable Populations:	This action ensures water is available to the community, including socially vulnerable populations.
Impact on Future Development:	This action makes water available for future development.
Impact on Critical Facilities/Lifelines:	This action ensures that potable water is available for the community and for firefighting.
Impact on Capabilities:	None
Climate Change Considerations:	Climate change could increase the occurrence and severity of disaster events affecting the availability of potable water.
Mitigation Category	Local Plans and Regulations, Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection, Emergency Services
Priority	Medium

Action 2026-Windsor-12. Implement Storm Drainage Master Plan

Lead Agency:	Town of Windsor Public Works Department
Supporting Agencies:	-
Hazard(s) of Concern:	Flood
Description of the Problem:	The Town experiences areas of localized flooding that affect roadways, including evacuation routes, and property and that have the potential to affect critical facilities (such as the Town's Russian River wells, wastewater treatment plant, and lift stations) and lifelines.
Description of the Solution:	Implement the Storm Drainage Master Plan, including the construction of improvements that reduce flooding events, such as new storm drains, detention basins, and other system enhancements.
Estimated Cost:	High
Potential Funding Sources:	General Fund, CIP, Development Impact Fees, HMGP, FMA
Implementation Timeline:	1-10 Years
Objectives Met:	1, 4, 6, 10, 11
Benefits:	These actions will reduce flooding impacts and protect vulnerable populations, critical facilities and infrastructure.
Impact on Socially Vulnerable Populations:	This action would reduce the impact of flooding throughout Town, including in areas with vulnerable populations.
Impact on Future Development:	This action will reduce impacts from flooding.
Impact on Critical Facilities/Lifelines:	This action will make it less likely that critical lifelines will be affected by flooding.
Impact on Capabilities:	This action would improve the ability to address/reduce the impacts of flooding.
Climate Change Considerations:	Climate change could result in more extreme weather, which could increase rainfall and the frequency and severity of flooding.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection
Priority	Low

Action 2026-Windsor-13. Landslide Design Requirements

Lead Agency:	Town of Windsor Community Development Department, Public Works Department
Supporting Agencies:	-
Hazard(s) of Concern:	Landslide
Description of the Problem:	Development in areas at risk of landslides could place people, property, and critical facilities at risk.
Description of the Solution:	Require development projects, including those within designated landslide hazard zones, to design per the recommendations in the project geotechnical report and comply with any required setbacks along waterways.
Estimated Cost:	Medium
Potential Funding Sources:	Developer funded (since the developer would pay for the geotechnical report and construct the improvements recommended in the report)
Implementation Timeline:	1-5 Years
Objectives Met:	1, 7, 9, 11
Benefits:	This action allows development to occur, while addressing the potential risks associated with landslides.
Impact on Socially Vulnerable Populations:	None
Impact on Future Development:	This action would allow development to occur in a manner that allows improvements to be better able to withstand a landslide.
Impact on Critical Facilities/Lifelines:	This action could have a positive impact on critical facilities by making them better able to withstand a landslide.
Impact on Capabilities:	This action could improve capabilities by making development better able to withstand landslides, reducing the need for emergency response.
Climate Change Considerations:	Climate change could result in worsening wildfires and flooding, which could increase the risk of landslides.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection
Priority	Medium

Action 2026-Windsor-14. Roadway Improvements

Lead Agency:	Town of Windsor Public Works Department, Police Department
Supporting Agencies:	Sonoma County Fire District
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	The roadway network is limited at the edges of Town, especially in the North of Arata and Jensen Lane areas, which impedes emergency access and evacuation. Wildfire and associated ember cast are more likely to approach the Town from the east and north. During the Kincade Fire in 2019, there were spot fires in the North of Arata and Jensen Lane areas. Firefighters used Arata Lane as a staging area, and properties on the eastern edge of Town suffered fire damage. New roadways are needed in these areas to improve emergency access, evacuation and general circulation. These roadways also have the ability to serve as fire breaks and staging areas for firefighting.
Description of the Solution:	Design and construct roadway improvements and extensions that improve or maintain emergency vehicle access and evacuation and that provide staging areas and fire breaks, including the Eastside Connector Road (aka North-South Jensen Lane), extension of Los Amigos Road, and US 101 northbound onramp from Arata Lane as shown in the 2040 General Plan (Figure M-1).
Estimated Cost:	High
Potential Funding Sources:	CIP, Developer funded (improvements as part of development project), SB 1 and Measure M, General Fund, HMGP, Caltrans (Highway 101 on-ramp)
Implementation Timeline:	1-5 Years
Objectives Met:	4, 6
Benefits:	Improves emergency access and evacuation, especially in areas identified as evacuation constrained in the Town's General Plan Public Health and Safety Element and Climate Resilience Plan.
Impact on Socially Vulnerable Populations:	This action improves emergency access and evacuation in areas that may include socially vulnerable people.
Impact on Future Development:	This action will improve circulation and provide additional emergency access and evacuation routes, making future development easier and providing the emergency access and evacuation needed in these areas.
Impact on Critical Facilities/Lifelines:	This action will improve emergency access supporting firefighting and public safety. This action will also extend existing roads identified as evacuation routes and provide opportunities for new evacuation routes.
Impact on Capabilities:	This action would improve capabilities by providing better access, locations for staging areas, and providing firebreaks between developed areas and undeveloped areas where wildfire is likely to from (east and north of Town).
Climate Change Considerations:	Climate change could result in more extreme and frequent severe wind, flooding, and wildfire which could impact roadways, including those designated as evacuation routes and used for emergency access.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Property Protection, Emergency Services
Priority	Medium

Action 2026-Windsor-15. Bridge Improvements

Lead Agency:	Town of Windsor Public Works Department, Police Department
Supporting Agencies:	Sonoma County Fire District
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	There are two-lane bridges within Town, including on roads identified as evacuation routes (Conde Lane, Hembree Lane, and Old Redwood Hwy), that could impact emergency access and evacuation.
Description of the Solution:	Design and construct bridge improvements that improve or maintain emergency access and evacuation, prioritizing bridges in areas with a single point of access, along evacuation routes, and in hazard areas.
Estimated Cost:	High
Potential Funding Sources:	CIP, General Fund, SB 1 Measure M, HMGP
Implementation Timeline:	Long-Term
Objectives Met:	4, 6
Benefits:	Improve emergency access and evacuation and improve capacity on roadways designated as evacuation routes.
Impact on Socially Vulnerable Populations:	Not Applicable
Impact on Future Development:	This action would improve circulation, emergency access, and evacuation routes which would support future development.
Impact on Critical Facilities/Lifelines:	This action would prevent roadways from being closed due to bridge failure and would maintain or improve emergency access and evacuation.
Impact on Capabilities:	Emergency vehicles and first responders would have better and more reliable access to areas to render aid.
Climate Change Considerations:	Climate change could result in increased and more severe flooding which could further impact the condition of these bridges. Climate change could also result in more severe disasters that require evacuation and emergency access, including the use of roadways where these bridges are located.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection, Emergency Services
Priority	Medium

Action 2026-Windsor-16. Underground Overhead Utilities

Lead Agency:	Town of Windsor Public Works Department
Supporting Agencies:	-
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Cold, Extreme Heat, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	Overhead utilities that come down during a disaster can result in the loss of power, endanger people, damage property and critical facilities, add to wildfire risk, and impede emergency access and evacuation.
Description of the Solution:	Continue to require the undergrounding of utilities as part of the development projects and seek funding for the undergrounding of utilities in areas where redevelopment or new development is unlikely to occur that are located on evacuation routes, in proximity to moderate or high severity zones, or critical facilities.
Estimated Cost:	High
Potential Funding Sources:	Developer funded (The Town's Subdivision Ordinance and Municipal Code require undergrounding of utilities), Rule 20 (PG&E funded)
Implementation Timeline:	1-10 Years
Objectives Met:	6, 11
Benefits:	Improves or maintains emergency access and evacuation routes and allows utility services to continue.
Impact on Socially Vulnerable Populations:	Not applicable
Impact on Future Development:	Requiring utilities to be placed underground makes development safer and increases the cost of development.
Impact on Critical Facilities/Lifelines:	Emergency access and evacuation routes will not be blocked by downed utilities, first responders and the public will be safer because they will not be exposed to downed power lines, and power will continue to be available to critical facilities and lifelines.
Impact on Capabilities:	Access for first responders will be maintained and responding will be safer because there is not a danger of encountering downed powerlines.
Climate Change Considerations:	Climate change could result in more severe flooding, wind, and wildfires making it more likely that aboveground utilities would be impacted.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures, Property Protection, Emergency Services
Priority	Low

Action 2026-Windsor-17. Emergency Management Ordinance

Lead Agency:	Town of Windsor Town Manager's Office, Police Department
Supporting Agencies:	County of Sonoma, Sonoma County Fire District
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Cold, Extreme Heat, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	The Emergency Management section of the Town's Municipal Code (Title 3, Chapter 19, Civil Defense and Disaster) was adopted in 1992 when the Town was incorporated and needs to be updated to current emergency management best practices.
Description of the Solution:	Update the Town's emergency management ordinance and integrate hazard mitigation principles during the update process.
Estimated Cost:	Low
Potential Funding Sources:	General Fund, Staff Time
Implementation Timeline:	1-5 years
Objectives Met:	1, 3, 4, 5, 6, 7, 8, 10
Benefits:	Updating the ordinance will permit the Towns to integrate new plans, policies, capabilities, and hazard assessments.
Impact on Socially Vulnerable Populations:	The section overview portion of the ordinance covers a discussion of a variety of topics, including population distribution and locations, including any concentrated populations of individuals with disabilities, others with access and functional needs, or individuals with limited English proficiency.
Impact on Future Development:	Future development will be protected by the actions which the Town Manager performs following the ordinance.
Impact on Critical Facilities/Lifelines:	The section overview portion of the ordinance covers a discussion of a variety of topics, including vulnerable critical facilities (e.g. nursing homes, schools, hospitals, infrastructure).
Impact on Capabilities:	This action will update an already existing planning capability of the Town.
Climate Change Considerations:	Climate change could result in more severe flooding, wind, and wildfires making it more likely that aboveground utilities would be impacted.
Mitigation Category	Local Plans and Regulations
CRS Category	Preventative Measures
Priority	Medium

Action 2026-Windsor-18. Hazard Layer in GIS System and Permitting Software

Lead Agency:	Town of Windsor Public Works Department, Community Development Department, Administrative Services Department
Supporting Agencies:	County of Sonoma
Hazard(s) of Concern:	Dam Failure, Earthquake, Flood, Landslide, Wildfire
Description of the Problem:	Parcel specific information about natural hazards is not easily accessible to Town staff or the public and the Town is not able to track development applications or building permits by hazard area.
Description of the Solution:	Integrate natural hazard layers from the County's GIS into the Town's GIS and incorporate this information into the Town's new permitting software as feasible.
Estimated Cost:	High
Potential Funding Sources:	General Fund, Enterprise Fund
Implementation Timeline:	1-5 years
Objectives Met:	1
Benefits:	This would allow the Town to link addresses and parcel information to hazard areas, making it easier to track development in hazard areas.
Impact on Socially Vulnerable Populations:	None
Impact on Future Development:	This would make it easier to avoid development in hazard areas.
Impact on Critical Facilities/Lifelines:	This information could assist in avoiding locating critical facilities in hazard areas and/or ensuring they are built to better withstand the hazard(s).
Impact on Capabilities:	This would consolidate hazard information in one location and make it easier for staff and the public to access information on natural hazards.
Climate Change Considerations:	The hazard locations will change and layers will need to be updated as climate change affects hazard locations.
Mitigation Category	Local Plans and Regulations
CRS Category	Public Information
Priority	Medium

Action 2026-Windsor-19. Evacuation Transportation and Outreach

Lead Agency:	Town of Windsor
Supporting Agencies:	County of Sonoma
Hazard(s) of Concern:	Dam Failure, Earthquake, Extreme Cold, Extreme Heat, Extreme Wind, Flood, Landslide, Wildfire
Description of the Problem:	There are people with access and functional needs, lack their own transportation, and/or are located in areas with a single-point of access that may need assistance evacuating.
Description of the Solution:	Identify transportation options for people with access and functional needs, those without access to their own transportation, and for areas with limited evacuation routes (such as those on a single point of access). Conduct public outreach on these transportation options available as they are developed.
Estimated Cost:	Medium
Potential Funding Sources:	General Fund
Implementation Timeline:	1-5 years
Objectives Met:	1,2
Benefits:	This would assist in evacuating people during hazard events.
Impact on Socially Vulnerable Populations:	This would assist vulnerable populations in evacuating in the event of an emergency once transportation options have been established.
Impact on Future Development:	Not Applicable
Impact on Critical Facilities/Lifelines:	Not Applicable
Impact on Capabilities:	This could improve capabilities by having plans in place to evacuate people, making emergency personnel available to respond to the emergency rather than to assist with evacuating residents.
Climate Change Considerations:	Evacuations may become more frequent as hazards occur more frequently and become more severe due to climate change.
Mitigation Category	Education and Awareness Programs
CRS Category	Public Information
Priority	High

Action 2026-Windsor-20. Plan Development and Updates

Lead Agency:	Town of Windsor Community Development Department, Public Works Department
Supporting Agencies:	-
Hazard(s) of Concern:	Dam Failure, Earthquake, Flood, Landslide, Wildfire
Description of the Problem:	Development in hazard areas exposes people and structures to natural hazards and can be reduced by avoiding these areas and developing in ways that minimize the potential impacts of hazards.
Description of the Solution:	Update the General Plan, Subdivision Ordinance, Zoning Code, and other plans and other ordinances that influence development to discourage development in hazard areas and to encourage development outside of hazard areas.
Estimated Cost:	Medium
Potential Funding Sources:	General Fund
Implementation Timeline:	1-5 years
Objectives Met:	1, 4,7,11
Benefits:	Reduce risk to life and property
Impact on Socially Vulnerable Populations:	This would reduce impacts on the population, including socially vulnerable, by discouraging development in hazard areas and encouraging development in non-hazard areas.
Impact on Future Development:	This would encourage development in non-hazardous areas and discourage development in hazard areas.
Impact on Critical Facilities/Lifelines:	This would encourage development in non-hazardous areas and discourage development in hazard areas.
Impact on Capabilities:	This would increase capabilities, since fewer people, critical facilities, and building would be exposed to hazards.
Climate Change Considerations:	As certain hazards become more severe and frequent due to climate change, the impact of these hazards could become more frequent and severe.
Mitigation Category	Local Plans and Regulations
CRS Category	Public Information
Priority	High

Action 2026-Windsor-21. Improve Resiliency of Key Evacuation Routes Connecting Windsor to Hospital Facilities

Lead Agency:	Town of Windsor Community Development Department, Public Works Department
Supporting Agencies:	City of Santa Rosa, Sonoma County Transportation, Caltrans
Hazard(s) of Concern:	Wildfire, Earthquake, Flood
Description of the Problem:	Key roadways leading out of Windsor, particularly those connecting to hospital facilities in neighboring jurisdictions, may be vulnerable to damage or blockage during natural disasters. This could hinder emergency response and evacuation efforts, especially during high-impact events like wildfires or earthquakes.
Description of the Solution:	Collaborate with regional partners to assess the vulnerability of critical roadways and implement improvements such as seismic retrofitting, vegetation management, drainage upgrades, and traffic flow enhancements. Prioritize routes that connect Windsor to hospitals and emergency services in Santa Rosa and surrounding areas.
Estimated Cost:	High
Potential Funding Sources:	General Fund
Implementation Timeline:	1-5 years
Objectives Met:	2,4,6,11,13
Benefits:	Strengthened regional transportation resilience.
Impact on Socially Vulnerable Populations:	Ensures safer evacuation and access to healthcare for seniors, low-income residents, and individuals with mobility challenges.
Impact on Future Development:	Encourages resilient infrastructure planning and supports safe growth in Windsor and surrounding areas.
Impact on Critical Facilities/Lifelines:	Ensures continued access to hospitals, emergency services, and evacuation routes.
Impact on Capabilities:	Builds interagency coordination and enhances local transportation planning and emergency management capabilities.
Climate Change Considerations:	Supports adaptation to increased wildfire and flood risks due to climate change by improving infrastructure durability and access.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Emergency Services
Priority	Medium

Action 2026-Windsor-22. Wastewater System Improvements

Lead Agency:	Town of Windsor Community Development Department, Public Works Department
Supporting Agencies:	-
Hazard(s) of Concern:	Flood
Description of the Problem:	The existing wastewater system may be undersized or outdated in certain areas, leading to the risk of overflows during periods of intense rainfall or flooding. These overflows can result in environmental contamination, property damage, and public health risks.
Description of the Solution:	Construct improvements to the wastewater infrastructure, including upsizing pipes, adding overflow storage capacity, and upgrading pump stations. These improvements will ensure the system can handle increased volumes during severe weather events and reduce the risk of sanitary sewer overflows.
Estimated Cost:	High
Potential Funding Sources:	FEMA HMGP, General Fund
Implementation Timeline:	1-5 years
Objectives Met:	4,6,10,11,13
Benefits:	Reduces risk of wastewater overflows and associated health hazards.
Impact on Socially Vulnerable Populations:	Reduces exposure to health hazards in neighborhoods that may be more susceptible to flooding or lack resources for recovery.
Impact on Future Development:	Supports safe and sustainable growth by ensuring infrastructure can accommodate increased demand and climate-related stressors.
Impact on Critical Facilities/Lifelines:	Wastewater systems are essential lifelines; improvements ensure continued service during emergencies.
Impact on Capabilities:	Enhances local engineering, planning, and emergency response capabilities related to infrastructure resilience.
Climate Change Considerations:	Addresses increased rainfall intensity and frequency due to climate change by improving system capacity and adaptability.
Mitigation Category	Structure and Infrastructure Project
CRS Category	Preventative Measures
Priority	Medium