



Community Development Department
675 Wildwood Avenue
Rio Dell, CA 95562
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For the Meeting of September 16, 2025

☐ Consent Item; ☒ Public Hearing Item

To: City Council

From: Kevin Caldwell, Community Development Director

Through: Kyle Knopp, City Manager

Date: September 8, 2025

Subject: Safety Element Amendment – Local Hazard Mitigation Plan

Recommendation:

That the City Council:

1. Receive a brief staff presentation regarding amending the Safety Element to incorporate the County Local Hazard Mitigation Plan (LHMP) by reference and to include the Rio Dell element of the LHMP in the Safety Element; and
2. Open the public hearing, receive public input, close the public hearing; and
3. Adopt Resolution No. 1647-2025 amending the Safety Element to incorporate the 2025 Local Hazard Mitigation Plan.

Summary

The Safety Element of a General Plan is a mandated component designed to reduce risks from various hazards like floods, fires, and earthquakes. It was last amended in February 2023 following the December 2022 and January 2023 earthquakes. The 2023 amendments included

incorporating the 2020 County Local Hazard Mitigation Plan (LHMP) including the Rio Dell element of the LHMP, which is key to local disaster risk reduction.

The Local Hazard Mitigation Plan (LHMP)

The LHMP is updated every five years to maintain eligibility for FEMA funding and to help guide policies and projects that reduce the impact of natural disasters. The City of Rio Dell is one of 23 local jurisdictions that participated in the 2025 Multi-Jurisdiction LHMP for Humboldt County. The collaborative process for this plan involved local governments, stakeholders, and public outreach. The plan's objectives include:

- **Risk Assessment:** Identify natural disaster risks and vulnerabilities.
- **Mitigation Strategies:** Develop long-term strategies to protect people and property.
- **Implementation:** Formulate plans to put mitigation strategies into action.

FEMA and Multi-Jurisdictional Planning

FEMA encourages multi-jurisdictional planning for hazard mitigation to leverage resources and meet federal requirements. To qualify for FEMA funding, participating jurisdictions must have an officially adopted and FEMA-approved mitigation plan. The Humboldt County LHMP, with its various planning partners and jurisdiction-specific annexes (like the City of Rio Dell's), is an example of this collaborative approach. The city's annex is included in Volume 2 of the Humboldt County Operational Area Hazard Mitigation Plan and is incorporated into the City's Safety Element as Appendix A.

Discussion

Safety Element - The Safety Element was presented and approved by the Planning Commission on September 27, 2016 – Resolution No. 102-2016.

The Safety Element is one of seven mandated elements of the General Plan. The purpose of the Safety Element is to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, earthquakes, landslides, and other

hazards. The safety element overlaps topics also mandated in the land use, conservation, and open-space elements.

The Safety Element must identify hazards and hazard abatement (mitigation) provisions to guide local decisions related to zoning, subdivisions, and entitlement permits. The element contains general hazard and risk reduction strategies and policies supporting hazard mitigation measures. Policies address the identification of hazards and emergency response, as well as mitigation through avoidance of hazards by new projects and reduction of risk in developed areas. The Safety Element was last amended in February 2023 to reflect the earthquakes of December 2022 and January of 2023 that caused more than 30 million dollars' in damage. It was also amended incorporate the 2020 County Local Hazard Mitigation Plan (LHMP) by reference and to include the Rio Dell element of the LHMP.

Local Hazard Mitigation Plan

The Local Hazard Mitigation Plan is updated every five (5) years. The City of Rio Dell is one of 23 local jurisdictions that participated in the development in the 2025 Multi-Jurisdiction Local Hazard Mitigation Plan (LHMP) for Humboldt County. The City, the Humboldt County Office of Emergency Services and our planning partners worked with IEM Consultants in developing the LHMP.

The Humboldt County Multi-Jurisdiction Local Hazard Mitigation Plan (LHMP) 2025 serves as an update to the local agencies and districts ongoing efforts in hazard mitigation planning. The initial plan, developed in 2007, identified resources, information, and strategies to reduce risks from natural hazards and called for regular updates. The plan was last updated in 2020, and the 2025 LHMP fulfills this ongoing update requirement.

The 2025 update continues to comply with the federal Disaster Mitigation Act (DMA), ensuring that Humboldt County and its partners remain eligible for Federal Emergency Management Agency (FEMA) funding. The plan encompasses the entire Humboldt County Operational Area, including twenty-five cities and special-purpose districts, and aims to guide policies, programs, and projects that reduce the impacts of natural disasters on life, property, and infrastructure.

The planning process for the 2025 HMP involves a collaborative effort among local governments, stakeholders, and the public. It included a comprehensive risk assessment, the development of mitigation strategies, and the formulation of implementation plans. Public outreach was conducted through various channels, including social media, surveys, meetings, and a dedicated website, to ensure community involvement and input.

Overall, the 2025 update of the Humboldt County Operational Area Hazard Mitigation Plan reflects the county's continued commitment to reducing the impacts of natural hazards through comprehensive planning, collaboration, and community involvement.

Hazard mitigation planning reduces loss of life and property by minimizing the impact of disasters. It begins with state, tribal and local governments identifying natural disaster risks and vulnerabilities that are common in their area. After identifying these risks, they develop long-term strategies for protecting people and property from similar events. Mitigation plans are key to breaking the cycle of disaster damage and reconstruction. The City's Safety Element of the General Plan is a key local tool in reducing risks associated with disasters, including flooding, earthquakes and fire.

It is impossible to predict exactly when and where all disasters will occur or the extent to which they will impact an area, but with careful planning and collaboration among public agencies, stakeholders and citizens, it is possible to minimize losses.

Jurisdictions with FEMA-approved and formally adopted mitigation plans are eligible to apply for funding under FEMA's hazard mitigation assistance programs, including Hazard Mitigation Grant Program, Pre-Disaster Mitigation and Flood Mitigation Assistance grant programs.

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for hazard mitigation. All participating jurisdictions must meet the requirements of Chapter 44 of the Code of Federal Regulations (44 CFR):

*"Multi-jurisdictional plans (e.g. watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and **has officially adopted the plan.**" (Section 201.6(a)(4)).*

For the Humboldt County Hazard Mitigation Plan, a planning partnership was formed to leverage resources and to meet requirements of the federal Disaster Mitigation Act for as many eligible local governments as possible. The Disaster Mitigation Act defines a local government as follows:

"Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity."

Two types of planning partners participated in this process for the Humboldt County Hazard Mitigation Plan, with distinct needs and capabilities:

- Incorporated municipalities
- Special districts

Each participating planning partner prepared a jurisdiction-specific annex to the LHMP. The City of Rio Dell's annex is included in Volume 2 of the Humboldt County Operational Area Hazard Mitigation Plan and is incorporated into the City Safety Element and is included as Appendix A.

Procedures for Plan Amendments

California Government Code § 65350-65362 contains the following procedural requirements to amend a general plan:

- The Planning Commission shall hold at least one public hearing before approving a recommendation on the amendment;
- The Planning Commission shall make a written recommendation on the amendment;
- Prior to amending the general plan, the City Council shall hold at least one public hearing;
- The City Council shall amend the general plan by resolution, which shall be adopted by not less than a majority of the legislative body;

- City Council may approve, modify, or disapprove the Planning Commission recommendations, however any substantial modifications not previously considered by the Planning Commission shall first be referred to the Planning Commission for its recommendation;
- Copies of the adopted general plan amendment shall be made available for inspection by the public one working day following adoption;
- Within two working days after a request, copies shall be furnished to those so requesting;
- Any specific plan or other plan of the City that is applicable to the same areas or matters affected by a general plan amendment shall be reviewed and amended as necessary to make the specific or other plan consistent with the General Plan.

Plan Amendment Required Findings:

1. The proposed amendment(s) are deemed to be in the public interest.

The State has determined that the preparation and adoption of a Safety Element is in the public interest in that it identifies hazards and hazard abatement (mitigation) provisions to guide local decisions related to zoning, subdivisions, and entitlement permits. The element contains general hazard and risk reduction strategies and policies supporting hazard mitigation measures. Policies address the identification of hazards and emergency response, as well as mitigation through avoidance of hazards by new projects and reduction of risk in developed areas.

Adopting a Local Hazard Mitigation Plan (LHMP) is also in the public interest for a variety of critical reasons, serving as a proactive and cost-effective approach to community safety and resilience. Here's a summary of the key benefits:

- **Protects Public Safety and Property:** The primary goal of an LHMP is to reduce the potential for loss of life, injuries, and property damage from natural hazards like earthquakes, floods, and wildfires. It does this by identifying risks and vulnerabilities and then developing long-term strategies to mitigate those risks. This moves a community beyond simply reacting to disasters and into a planned, prepared stance.

- **Breaks the Cycle of Damage and Reconstruction:** Without a mitigation plan, communities can get caught in a costly cycle of disaster damage, followed by federal aid-funded reconstruction, only to be damaged again by a subsequent event. The LHMP helps communities invest in long-term solutions that make them more resilient, thereby reducing the need for costly post-disaster recovery efforts.
- **Ensures Eligibility for Federal Funding:** Under the Disaster Mitigation Act of 2000, having a FEMA-approved LHMP is a mandatory prerequisite for local jurisdictions to receive certain federal non-emergency disaster assistance and mitigation grants. This includes programs like the Hazard Mitigation Grant Program (HMGP) and the Flood Mitigation Assistance (FMA) grant program. Without a plan, a community cannot access these vital funds for protective projects.
- **Informs and Guides Community Development:** An LHMP provides a detailed risk assessment that can be integrated into other local planning documents, such as a city's General Plan (specifically the Safety Element), land-use plans, and zoning ordinances. This ensures that future development decisions are made with hazard risks in mind, preventing new construction in vulnerable areas and encouraging safer building practices.
- **Fosters Community Collaboration and Awareness:** The planning process for an LHMP is collaborative and involves a wide range of stakeholders, including government officials, businesses, community organizations, and the public. This process builds partnerships, increases public awareness of local hazards, and ensures that mitigation strategies have broad community buy-in. It also provides a public forum to prioritize mitigation actions that best suit the community's unique needs and resources.

In essence, adopting an LHMP is a fundamental and proactive step for any community. It not only secures critical funding but also provides a framework for saving lives, protecting property, and building a more resilient and sustainable future.

2. The proposed amendments are consistent and compatible with the rest of the General Plan and any implementation programs that may be affected.

Section 1.4 of the Land Use Element of the General Plan includes a policy, P1.4-2 that requires the preparation of "...additional General Plan Elements to refine and improve the Plan." In addition, Section 1.5 of the Land Use Element of the General Plan calls for the preparation and adoption of the Safety Element. Therefore, the proposed General Plan Amendment (Circulation Element) is consistent with the General Plan.

3. The proposed amendments have been processed in accordance with the applicable provisions of the California Government Code and the California Environmental Quality Act (CEQA).

State law requires that any amendment of a general plan comply with the California Environmental Quality Act (CEQA). The primary purpose of CEQA is to inform the decision makers and the public of potential environmental effects of a proposed project. The adoption of the LHMP and amendment of Safety Element does not include any new mitigation measures.

A Local Hazard Mitigation Plan (LHMP) is a planning document that identifies natural hazards and outlines strategies to reduce the risks from those hazards. The act of adopting or incorporating this plan into the Safety Element of a city's general plan is typically considered a **planning-level activity** that does not directly cause any physical changes to the environment. The plan itself doesn't authorize or fund any specific construction projects.

The CEQA Guidelines provide for a "common sense exemption" (CEQA Guidelines § 15061(b)(3)) for projects where it can be seen with certainty that there is **no possibility** that the activity will have a significant effect on the environment. The adoption of an LHMP and its incorporation into the Safety Element are frequently viewed this way because they are administrative and policy-oriented in nature.

As such, staff believes based on the nature of the project, staff has determined that the project is Statutorily Exempt pursuant to Section 15061(b) (3) of the CEQA Guidelines, Title 14, Chapter 3 of the California Code of Regulations. Pursuant to Section 15061(b) (3) of the CEQA Guidelines this exemption is covered by the general rule that CEQA applies only to projects

STATE OF CALIFORNIA
City of Rio Dell

ATTEST:

I, Karen Dunham, City Clerk for the City of Rio Dell, State of California, hereby certify the above and foregoing to be a full, true and correct copy of Resolution No. 1647-2025 approved and adopted by the City Council of the City of Rio Dell on September 16, 2025.

Karen Dunham, City Clerk, City of Rio Dell

RESOLUTION NO. 1647-2025



RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RIO DELL AMENDING THE SAFETY ELEMENT TO INCORPORATE THE COUNTY LOCAL HAZARD MITIGATION PLAN (LHMP) BY REFERENCE AND TO INCLUDE THE RIO DELL ELEMENT OF THE LHMP IN THE SAFETY ELEMENT

WHEREAS, in 2016 the City approved the current Safety Element; and

WHEREAS, the purpose of the Safety Element is to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, earthquakes, landslides, and other hazards; and

WHEREAS, the City of Rio Dell is one of 23 local jurisdictions that participated in the development in the 2025 Local Hazard Mitigation Plan (LHMP) for Humboldt County; and

WHEREAS, hazard mitigation planning reduces loss of life and property by minimizing the impact of disasters; and

WHEREAS, each participating planning partner prepared a jurisdiction-specific annex to the LHMP; and

WHEREAS, the City of Rio Dell's annex is included in Chapter 7 of Volume 2 of the Humboldt County Operational Area Hazard Mitigation Plan and is incorporated into the City Safety Element and is included as Appendix A; and

WHEREAS the proposed Safety Element amendments have been processed pursuant to California Government Code § 65350-65362.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Rio Dell finds:

1. The proposed amendment(s) are deemed to be in the public interest.

The State has determined that the preparation and adoption of a Safety Element is in the public interest in that it identifies hazards and hazard abatement (mitigation) provisions to guide local decisions related to zoning, subdivisions, and entitlement permits. The element contains general hazard and risk reduction strategies and policies supporting hazard mitigation measures. Policies address the identification of hazards and emergency response, as well as mitigation through avoidance of hazards by new projects and reduction of risk in developed areas.

2. The proposed amendments are consistent and compatible with the rest of the General Plan and any implementation programs that may be affected.

Section 1.4 of the Land Use Element of the General Plan includes a policy, P1.4-2 that requires the preparation of "...additional General Plan Elements to refine and improve the Plan." In addition, Section 1.5 of the Land Use Element of the General Plan calls for the preparation and adoption of the Safety Element. Therefore, the proposed General Plan Amendment (Circulation Element) is consistent with the General Plan.

3. The proposed amendments have been processed in accordance with the applicable provisions of the California Government Code and the California Environmental Quality Act (CEQA).

State law requires that any amendment of a general plan comply with the California Environmental Quality Act (CEQA). The primary purpose of CEQA is to inform the decision makers and the public of potential environmental effects of a proposed project. The amendment of Safety Element does not include any new mitigation measures. As such, staff believes based on the nature of the project, staff has determined that the project is Statutorily Exempt pursuant to Section 15061(b) (3) of the CEQA Guidelines, Title 14, Chapter 3 of the California Code of Regulations. Pursuant to Section 15061(b) (3) of the CEQA Guidelines this exemption is covered by the general rule that CEQA applies only to projects which have the potential for causing a *significant* effect on the environment. Where it can be seen with

certainty that there is no possibility that the project in question may have a significant effect on the environment, the project is not subject to CEQA.

A Local Hazard Mitigation Plan (LHMP) is a planning document that identifies natural hazards and outlines strategies to reduce the risks from those hazards. The act of adopting or incorporating this plan into the Safety Element of a city's general plan is typically considered a **planning-level activity** that does not directly cause any physical changes to the environment.

The plan itself doesn't authorize or fund any specific construction projects.

The CEQA Guidelines provide for a "common sense exemption" (CEQA Guidelines § 15061(b)(3)) for projects where it can be seen with certainty that there is **no possibility** that the activity will have a significant effect on the environment. The adoption of an LHMP and its incorporation into the Safety Element are frequently viewed this way because they are administrative and policy-oriented in nature.

Based on the nature of the proposed amendment and the discussion above, staff believes there is no evidence to suggest that the amendment will have a significant effect on the environment.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the City Council of the City of Rio Dell approves the proposed amendments to the Safety Element.

PASSED and ADOPTED at a regular meeting of the City Council of the City of Rio Dell on September 16, 2025 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Mayor Debra Garnes

STATE OF CALIFORNIA
City of Rio Dell

ATTEST:

I, Karen Dunham, City Clerk for the City of Rio Dell, State of California, hereby certify the above and foregoing to be a full, true and correct copy of Resolution No. 147-2025 approved and adopted by the City Council of the City of Rio Dell on September 16, 2025.

Karen Dunham, City Clerk, City of Rio Dell

Chapter 6

SAFETY ELEMENT

Chapter 6 Safety Element

6.1 Introduction



The purpose of the safety element is to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, earthquakes, landslides, and other hazards. The safety element overlaps topics also mandated in the land use, conservation, and open-space elements. The components of this Element include:

- Geologic/Seismic Hazards
- Flood Hazards
- Fire Hazards
- Airport Safety
- Industrial Hazards
- Hazardous Materials
- Emergency Management

The safety element must identify hazards and hazard abatement provisions to guide local decisions related to zoning, subdivisions, and entitlement permits. The element contains general hazard and risk reduction strategies and policies supporting hazard mitigation measures. Policies address the identification of hazards and emergency response, as well as mitigation through avoidance of hazards by new projects and reduction of risk in developed areas.

6.2 Hazard and Risk Reduction

Land development is subject to a number of hazards to life and property, including seismic and non-seismic land instability, flooding, fire, and dangers from airport operations.

The degree of risk associated with these hazards can only be measured in relative terms. What

constitutes 'acceptable risk' varies with the type of development involved. For instance, a hospital should meet very strict earthquake standards in order to ensure that it is able to function in the event of a serious earthquake. A warehouse, on the other hand, would not need to be designed to the same rigorous standards because its functions during an earthquake would not be critical to the community's response to the emergency, nor would it pose serious risk to large numbers of people should it fail.

The General Plan manages risk through the use of land use designations to limit exposure to hazardous areas and through policies tailored to specific hazardous conditions. The goals, policies and implementation measures of this Element are many of the same existing policies found in Chapter 5, the Open Space and Conservation Element. All of the goals, policies and implementation measures are designed to proactively improve overall safety conditions within the City.

6.3 Local Hazard Mitigation Plan

The City of Rio Dell is one of 23 local jurisdictions that participated in the development in the 2020 2025 Local Hazard Mitigation Plan (LHMP) for Humboldt County. The City, the Humboldt County Office of Emergency Services and our planning partners worked with bay area consultant Tetra Tech IEM in developing the LHMP.

Hazard mitigation planning reduces loss of life and property by minimizing the impact of disasters. It begins with state, tribal and local governments identifying natural disaster risks and vulnerabilities that are common in their area. After identifying these risks, they develop long-term strategies for protecting people and property from similar events. Mitigation plans are key to breaking the cycle of disaster damage and reconstruction. The City's Safety Element of the General Plan is a key local tool in reducing risks associated with disasters, including flooding, earthquakes and fire.

It is impossible to predict exactly when and where all disasters will occur or the extent to which they will impact an area, but with careful planning and collaboration among public agencies, stakeholders and citizens, it is possible to minimize losses.

Jurisdictions with FEMA-approved and formally adopted mitigation plans are eligible to apply for

funding under FEMA's hazard mitigation assistance programs, including Hazard Mitigation Grant Program, Pre-Disaster Mitigation and Flood Mitigation Assistance grant programs.

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for hazard mitigation. All participating jurisdictions must meet the requirements of Chapter 44 of the Code of Federal Regulations (44 CFR):

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For the Humboldt County Hazard Mitigation Plan, a planning partnership was formed to leverage resources and to meet requirements of the federal Disaster Mitigation Act for as many eligible local governments as possible. The Disaster Mitigation Act defines a local government as follows:

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Two types of planning partners participated in this process for the Humboldt County Hazard Mitigation Plan, with distinct needs and capabilities:

- Incorporated municipalities
- Special districts

Each participating planning partner prepared a jurisdiction-specific annex to the LHMP. The City of Rio Dell's annex is included in Chapter 7 19 of Volume 2 of the Humboldt County Operational Area Hazard Mitigation Plan and is incorporated into the City Safety Element and is included as Appendix A.

~~The Humboldt County Operational Area Hazard Mitigation Plan was approved by the California Governor's Office of Emergency Services (Cal OES) on 10/24/2019 and submitted to the Federal Emergency Management Agency (FEMA) for approval. On 1/2/2020, FEMA determined the Hazard Mitigation Plan is eligible for approval pending adoption by participating jurisdictions. A copy of the approved Hazard Mitigation Plan can be found here:
<https://humboldt.gov/3011/County-Emergency-Plans>.~~

The California Governor's Office of Emergency Services (Cal OES) and the Federal Emergency Management Agency (FEMA) have determined the Hazard Mitigation Plan is eligible for approval pending adoption by participating jurisdictions. A copy of Volume 1 of the Hazard Mitigation Plan can be found here:

<https://humboldt.gov/DocumentCenter/View/138104/Humboldt-County-Hazard-Mitigation-Plan---Volume-1> A copy of Volume 2 which includes Rio Dell's Annex can be found here:
<https://humboldt.gov/DocumentCenter/View/138105/Humboldt-County-Hazard-Mitigation-Plan---Volume-2>

6.4 Seismic and Geologic Hazards



Seismicity: Humboldt County is located within the two highest of five seismic risk zones specified by the California Building Code, and offshore Cape Mendocino has the highest concentration of earthquake events anywhere in the continental United States. The area near Cape Mendocino is a complex, seismically active region, where three crustal

plates, the Pacific Plate, the Gorda Plate, and North American Plate intersect to form the Mendocino Triple Junction.

The subducting Gorda and Juan de Fuca Plates form the "Cascadia Subduction Zone," which runs north offshore of Humboldt, Del Norte, Oregon, and Washington. Recent investigations have shown that this system has moved in unison in a series of great earthquakes (magnitude 8 to 9) over the last 20,000 years, most recently about 300 years ago, with events occurring at 300–500 year intervals.

Seismic shaking poses a potentially significant hazard to Rio Dell and vicinity. An array of strong motion sensors (part of the California Strong Motion Instrumentations Program) are mounted on the Painter Street overpass. These sensors recorded seismic shaking during the 1992 Petrolia earthquakes that occurred on April 25th and 26th. These earthquakes had magnitudes of 7.1, 6.6 and 6.7. Acceleration rates were measured from 0.55 g (acceleration of gravity) up to 1.23 g. However, acceleration rates near the epicenter were close to 2 g, indicating the potential for very strong ground shaking throughout the northcoast region.



On December 20, 2022, a magnitude 6.4 earthquake occurred approximately 8 miles west of Ferndale and at a depth of approximately 10 miles. The initial earthquake was followed by multiple aftershocks, with the largest being a magnitude 5.4 that occurred about nine (9) miles southeast of Rio Dell on January 1, 2023. These two earthquakes resulted in over 250 structures “yellow tagged”

(requiring repairs), over 90 structures “red tagged” (unsafe to enter), and over 90 households displaced.

For the initial 6.4 magnitude earthquake on December 20, 2022, more than 5,900 people have responded on the United States Geological Survey's (USGS) “Did You Feel It?” report. More than half of those reports came in within an hour of the earthquake. Respondents in Eureka, the closest city to the epicenter, reported very strong shaking, but people hundreds of miles away in San Jose, CA, Reno, NV, and Klamath Falls, OR also reported weak shaking.

This region has a history of abundant seismic activity; a sequence of overlapping earthquakes of magnitude 6.2 and 5.7 occurred nearby almost exactly a year ago on December 20, 2021. Earthquakes are common in this area because it's close to where the Pacific, North America, and Juan de Fuca plates meet; a spot known as the



Mendocino Triple Junction. In the past century, there have been at least 40 other earthquakes of magnitude 6 or larger, including six earthquakes magnitude 7 or larger, that have occurred within roughly 150 miles of the Ferndale earthquake

Surface fault rupture is a particular type of seismic hazard that is specifically addressed by state legislation, the Alquist-Priolo Earthquake Fault Zoning Act. This act generally requires disclosure and avoidance. Humboldt County has a number of fault zones mapped under this law. The Little Salmon fault zone is the closest mapped Alquist-Priolo fault hazard zone to Rio Dell, approximately six (6) miles northeast. The Little Salmon fault hazard zone extends from Hydesville northwesterly towards Humboldt Hill near Eureka.

Ground-shaking gives rise to two secondary natural hazards, liquefaction and landsliding. Liquefaction involves a sudden loss in strength of a water-saturated soil, and results in temporary transformation of the soil into a fluid mass. Recent alluvial flood plain soils and coastal sand deposits exhibit the highest liquefaction hazard. To mitigate this hazard, soils engineering investigations can assess the potential for liquefaction and specify appropriate foundation and building design. Based on the County's Hazard mapping, Rio Dell is not within a high area of potential liquefaction. Ground-shaking can induce landslides, especially under saturated conditions. Again, soils engineering investigations can evaluate the seismic stability of slopes and prescribe appropriate setbacks. Figure 6-1 identifies slope stability and historic landslides.

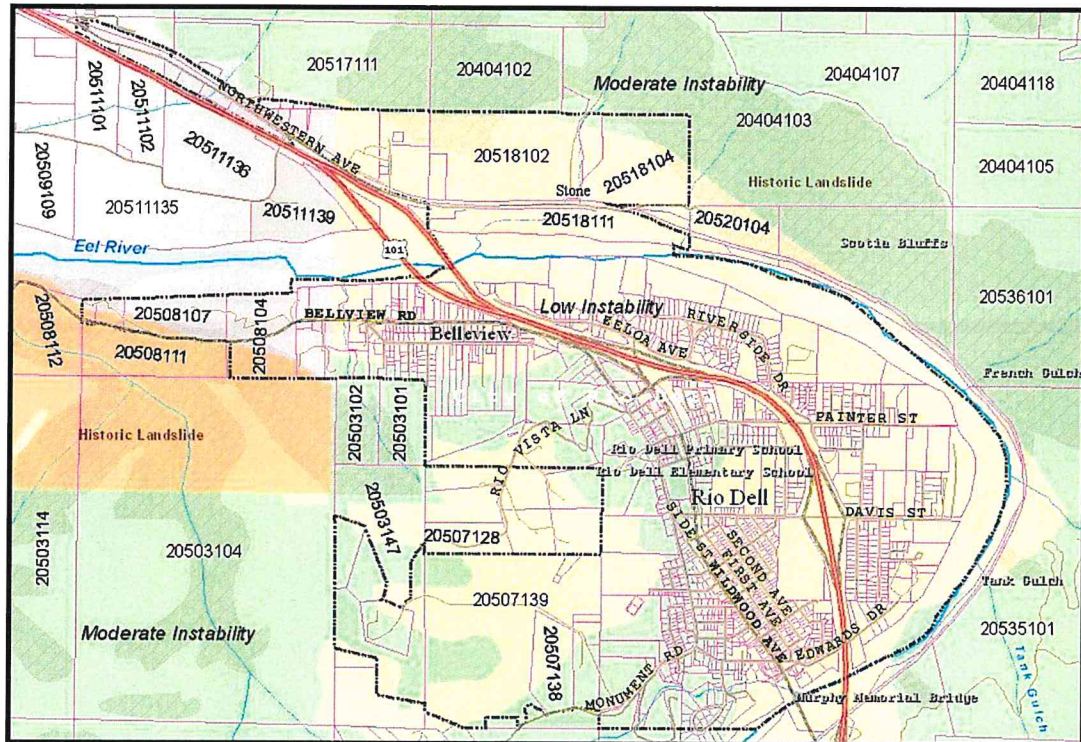


Figure 6-1 Slope Stability and Historic landslides

Source: Humboldt County GIS August 2016

Bedrock Geology: The bedrock geology of the county is divided generally into two provinces: the Klamath Mountains province in the northeast, and the Coast Ranges province in the central and southwest portion of the county. The dividing line between the two provinces is the South Fork Mountain Ridge, which separates the Trinity River basin from the Mad River and Redwood Creek drainages.

Rio Dell is within the Coast Range province. The Coast Ranges province is the dominant geologic province in the county, trending northwest and drained by the Mad, Eel, and Mattole River drainages. The Franciscan and Yager complexes dominate inland, with sand and other alluvial deposits dominating in the lower reaches of the river basins and the area surrounding Humboldt Bay.



The Franciscan complex can be divided into two distinct units: Franciscan sandstone and Franciscan mélange. Rio Dell is bisected by the Franciscan mélange and younger alluvial deposit formations. Franciscan mélange consists of rubble of sheared sandstone and siltstone in which occur more competent blocks of volcanic rock, chert, and schist.

Mélange terrain is generally unstable and characterized by rolling hummocky slopes that are highly susceptible to mass movement. Younger alluvial deposits are found in the lower reaches of the river basins and in the area surrounding Humboldt Bay, alluvial sediments dominate. These unconsolidated to partially consolidated sediments have been mildly folded and faulted, but when forested or gently sloped, are generally stable. Figure 6-2 identifies the location of the Franciscan mélange, Unit C and younger alluvial deposit formations, Unit D.

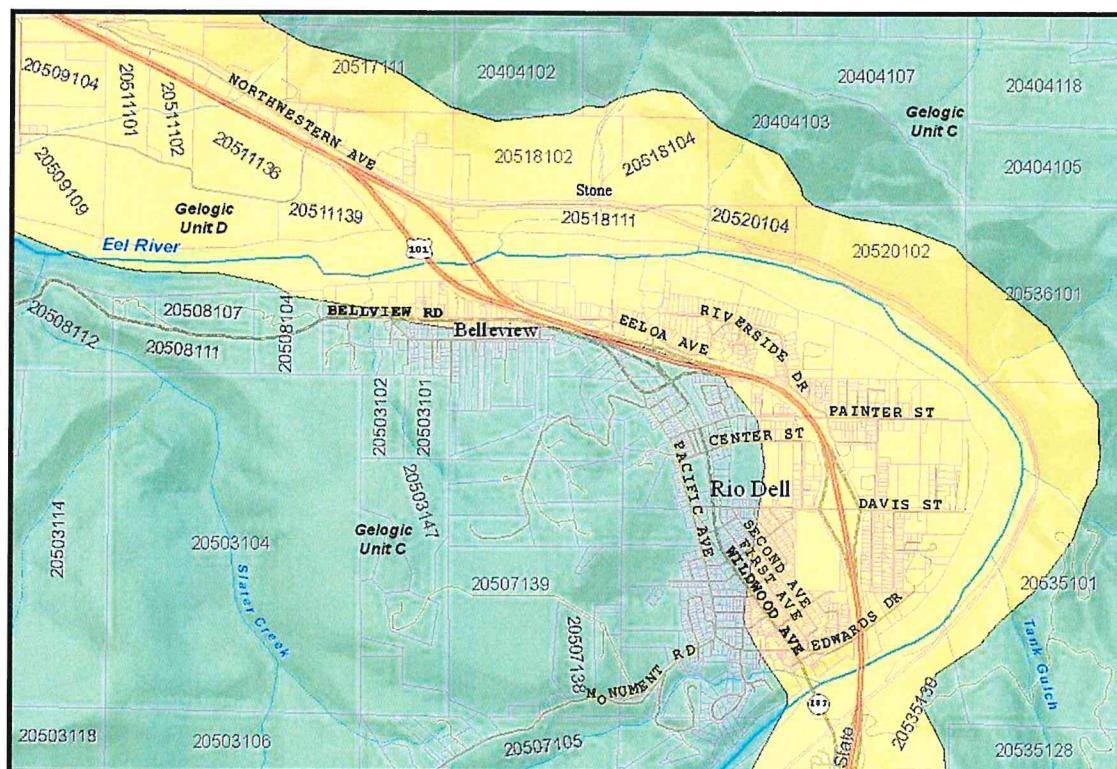


Figure 6-2 Bedrock Geology; Unit C: Franciscan Mélange; Unit D: Alluvial
Source: Humboldt County GIS August 2016

Below are existing General Plan policies and implementation measures regarding soils and geologic hazards:

Soils and Geologic Resources Policies

- Update the Conservation and Safety Element to include the most current soil stability

and geologic hazard mapping.

- Make soils and geologic resources information publicly available.
- Update the Conservation and Safety Element to require that minimum parcel sizes be increased in areas greater than 15 per cent slopes.
- Require that geo-technical reports be prepared by qualified professionals for developments in areas of potential slope stability to ensure that slope and soil stability measures are incorporated into project design.

Soils and Geologic Resources Implementation Measures

- The City shall prepare and adopt a Conservation and Safety Element of the General Plan to expand soil stability and geologic hazard information and develop specific implementation measures.
- The City shall develop a Geographic Information System (GIS) that contains data on slope stability and geologic hazards and maintain large-scale hazard maps.
- The City shall prepare Development Regulations that require soil and geological investigations of proposed development on slopes of 15% or greater. Information obtained should be used to continually update the GIS database.
- The City shall prepare a Grading Ordinance.
- The City shall prepare Hillside Development Regulations to control the density and location of development on parcels that include slopes of 15% or greater

In addition, the Safety Element contains the following goals policies and implementation measures (action plan) regarding soil and geologic hazards:

Goal S 6.4-1

Minimize risks to life and property due to soils and/or geologic hazards.

Policy S 6.4-1

Continue to utilize all available data on geologic hazards and related risks from the appropriate agencies.

Implementation S 6.4-1.a. Utilize geologic maps to identify those areas of instability to require soils/geologic reports.

Responsibility: Community Development Department

Timeframe: Ongoing
Resources: Project Proponents.

Goal S 6.4-2

Maintain unstable and hillside areas exceeding 15% as open space within the City.

Policy S 6.4-2

Adopt a Hillside Development Regulations within the Zoning Ordinance to implement hillside development provisions. Benches or flats on hillside areas may be developed when demonstrated that access roads and building site are geologically stable.

Implementation S 6.4-2.a. Prior to adoption of Hillside Development Regulations, any development on slopes exceeding 15% shall require a Geologic Report demonstrating the area is stable and suitable for the proposed development.

Responsibility: Community Development Department
Timeframe: Ongoing
Resources: Project Proponents.

Policy S 6.4-3

Roads serving hillside development shall follow natural contours, with minimum disruption to hills or forests.

Implementation S 6.4-3.a. Adopt road standards minimizing alterations to natural contours accessing hillside development.

Responsibility: Community Development Department, Public Works Department and City Engineer
Timeframe: Ongoing
Resources: General Fund

6.5 Flood Hazards



The 1955 and 1964 floods caused extensive damage throughout the northcoast. Damages from the 1964 flood alone totaled more than \$100 million dollars. Most of the City is outside the mapped 100 year flood zones. All development within the 100 year flood zone is subject to the requirements of the Federal Emergency Management Agency's (FEMA's) National Flood Insurance Program. The County maintains a Geographic Information System (GIS) which identifies flood zones and dam failure inundation zones for the entire County.

One of the major issues in floodplain management and flood protection is how much encroachment of human development should be allowed into 100-year flood zones. The closer to the river that development is sited, the higher a barrier to floodwaters will have to be erected, as greater limitations on the horizontal expanse of a waterway will require a vertical increase in the water level in order to maintain a similar cross-section. (Federal standards require that encroachment cannot occur within an area that will impose a vertical increase of more than one foot, or increasing water velocity will become hazardous.) Otherwise, floodwaters will spill over into developed areas.

Lands within special flood hazard zones "A" and "V" as delineated by the Federal Emergency Management Agency (FEMA) are typically required to have flood insurance. FEMA as part of the National Flood Insurance Program publishes Flood Insurance Rate Maps. These maps identify various flood hazard zones for flood insurance and land use purposes. Lands within Flood Zone "A" and "V" are located within a 100-year flood plain.

Zone A is for inland areas and Zone V is for coastal areas. A 100-year flood event has an **average** occurrence of once in 100 years. There are instances where lands and or structures within mapped zones "A" or "V" may actually be located outside or above the mapped flood

zone. A property owner is typically required to provide a Flood Elevation Certificate in order to get a Letter of Map Revision (LOMR) or a Letter of Map Amendment (LOMA) from the National Flood Insurance Program.



Dam Failure: While providing some degree of flood control, dams also present a possible hazard in the event of failure. In Humboldt County the Trinity Dam (Trinity and Klamath rivers) and the Ruth Dam (Mad River) pose the most substantial risk, with their large volumes and, in the event of a failure, short downstream warning times. The Scott Dam is near the headwaters of the Eel

River. The Scott dam was built in 1922 for hydroelectric power. It is 130' high, forms Lake Pillsbury and holds 80,560 acre-feet of water.

Hazards from dam failure are those associated with the downstream inundation that would occur given a major structural failure of a nearby impoundment. Such failures would most likely be caused by geologic phenomena, including seismic events and slope stability problems. For the most part the dam failure inundation area within or adjacent to the City is limited to the channel of the river. Figure 5-5 identifies the 100-flood zone and the dam failure inundation zone.

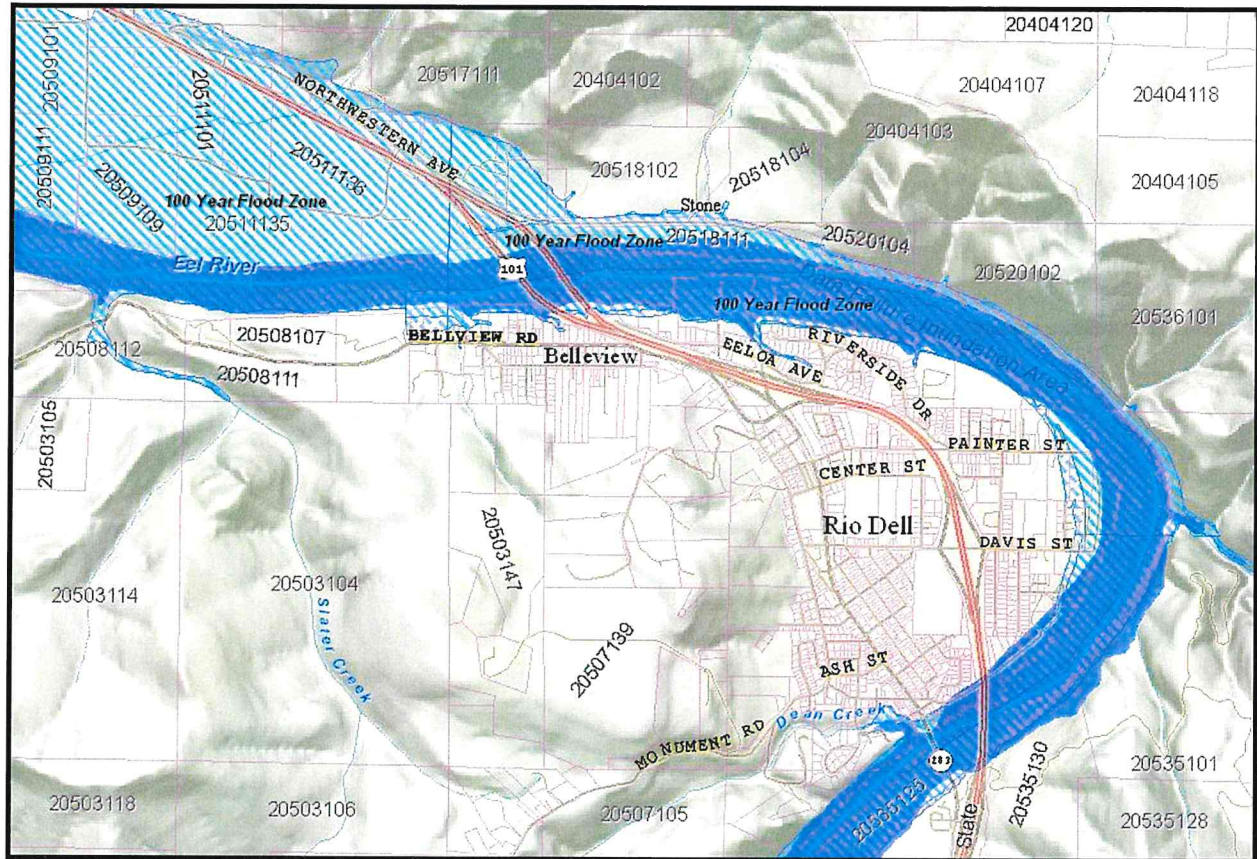


Figure 6-3 100 Year Flood and Dam Failure Inundation Zones

Source: Humboldt County GIS August 2013

Local Flooding: The City experiences local flooding during larger storm events. The Bellevue/Ogle and Riverside neighborhoods have the most significant drainage problems. The City recently made application for a Community Development Block Grant (CDBG) for a drainage/hydraulics study of the Bellevue/Ogle and Riverside neighborhoods.



Subdivisions and new development subject to the California Environmental Quality Act (CEQA) are required to submit drainage/hydraulics reports when deemed necessary. In addition, pursuant to Section 17.30.180(12)(a)(iii) of the Rio Dell Municipal Code (RDMC) multifamily, commercial and industrial ministerial projects are required to incorporate Low Intensity Development (LID) techniques including on-site retention, detention of stormwater runoff.

The current General Plan contains a number of policies and implementation measures regarding flooding and drainage issues. Below is a copy of the existing policies and implementation measures. Again, many of the recommended policies and implementation measures are also addressed in the Open Space and Conservation Element and the Safety Element.

Hydrology and Water Resources Policies

- Update the Conservation and Safety Element to include the most current information regarding flood and drainage conditions.
- Identify improvements that can be made to municipal drainage facilities so they can better convey runoff and minimize flood impacts.
- Require new development projects to incorporate on-site drainage features such as retention and infiltration systems to reduce runoff and maximize infiltration.
- Use a combination of incentives, educational programs, and ongoing system audits to promote water conservation.

Hydrology and Water Resources Implementation Measures

- The City shall prepare and adopt a Conservation and Safety Element of the General Plan to expand hydrologic information and develop specific implementation measures.
- The City shall utilize the County's GIS data on stream and drainage channels and identified flood plains and make available to the public large-scale hazard maps.
- The City shall pursue funding for a detailed study of the conditions of the municipal drainage system. The study should include an assessment of drainage improvements required for build-out of this General Plan.
- The City shall require Drainage Plans for proposed development to show on-site retention or improvements to the municipal drainage system.

Goal S 6.5-1

Minimize risks to life and property due to flooding hazards.

Policy S 6.5-1.a

Continue to utilize all available data on flooding hazards and related risks from the appropriate agencies.

Implementation S 6.5-1.a. Utilize Flood Insurance Rate Maps to identify those areas subject to flooding.

Responsibility: Community Development Department

Timeframe: Ongoing

Resources: Flood maps.

Policy S 6.5-1.b

Coordinate flood hazard analysis and management activities with the Army Corps of Engineers, Federal Emergency Management Agency (FEMA) and other responsible agencies. Request changes in FEMA maps where appropriate to reflect new data or analyses.

Implementation S 6.5-1.b. Review flood elevation information provided by project proponents and when appropriate request changes in the FEMA maps.

Responsibility: Community Development Department, Army Corps of Engineers, City Engineer.

Timeframe: Ongoing

Resources: Project proponents and General Fund.

Policy S 6.5-1.c

Continue to utilize all available data on dam failure inundation and related risks from the appropriate agencies.

Implementation S 6.5-1.c. Utilize Dam Failure Inundation Maps to identify those areas subject to flooding as a result of the potential failure of the Scott Dam on the Eel River.

Responsibility: Community Development Department

Timeframe: Ongoing

Resources: Dam Failure Inundation maps.

Goal S 6.5-2

Minimize drainage impacts associated with new development.

Policy S 6.5-2

Require project proponents to incorporate Low Intensity Development (LID) techniques including on-site retention and detention of stormwater runoff.

Implementation S 6.5-2.a. Review projects and require hydraulics/drainage studies where deemed appropriate.

Responsibility: Community Development Department, Public Works Department and City Engineer.

Timeframe: Ongoing

Resources: Project proponents.

6.6 Fire Hazards

The safety element must identify urban and rural-residential areas that are prone to wildland fire hazards. Fire hazards fall into two general categories: wildland fires, which emanate from forest, grassland, or coastal scrub; and structural fires, which damage homes and workplaces. Both bring risk of spreading to other areas. In general, structural fire protection is the responsibility of local agencies, such as fire protection districts and volunteer fire companies; wildland fire protection is the responsibility of federal and state agencies.



The Rio Dell Fire Protection District was originally formed on January 12th, 1941 under the name of "Wildwood" Fire Protection District. The name was officially changed to the Rio Dell Fire Protection District on December 19th, 1961. The district operates with a five member commission of elected officials.



The Rio Dell Fire Protection District, in conjunction with the Rio Dell Volunteer Fire Department (RDVFD), serves the City of Rio Dell and surrounding areas of Monument Rd, and Blueslide Rd. Under the direction of the Fire Chief, they consist of two assistant chiefs and three fire companies. Rio Dell Fire responds to an average of 350 calls per year, including fires, vehicle accidents, and medical aid calls. The RDVFD is known to be the most active all volunteer fire department in Humboldt County.

The Sawmill Annexation area north of the Eel River is within the Fortuna Fire Protection District. Fortuna's Fire Department is operated totally by volunteers with the exception of the Fire Chief.

The Fire Protection District provides the Department with six fire engines, a 100' aerial, a 55' ladder truck, 2 water tenders, 1 light duty rescue truck, 1 medium duty rescue truck and three command vehicles.

A Board of Commissioners governs the Fire District. A Fire Chief and two Assistant Chiefs direct Department operations. The Department works closely with the Rio Dell Volunteer Fire Department.

The active powers of the RDVFD include structural fire protection and suppression, rescue, and emergency medical services. The RDVFD states that it can respond to all calls within the City limits within three minutes. The maximum response time to incident calls within the Rio Dell Plan Area is between five and seven minutes. On average, 7 firefighters are available to respond to calls during the day time. Most of the houses within the City limits are located within 1,000 feet of a fire hydrant.

While the RDVFD is responsible for structural fire protection and emergency medical responses, CDF retains responsibility for grass and forest fires. The RDVFD has joint responsibility for grass and forest fires within the District through a mutual aid agreement with the California Department of Forestry and Fire Protection (CAL FIRE). The RDVFD also has mutual aid agreement with the Fortuna Fire Protection District. Mutual aid agreements allow the districts to enter into agreements for services, including emergencies which have the potential to overwhelm the resource capabilities within a single district. This enables the RDVFD to maintain preparedness for a disaster beyond their capacity, without the need to expand and create an additional facility.

The State Board of Forestry has adopted the *California Fire Plan*, which describes the environment at risk for fire and the state's activities to reduce that risk. It has also adopted fire safe regulations for counties with State Responsibility Areas (SRAs) as a means of reducing pre-fire fuel loads (Title 14, § 1270, et seq., California Code of Regulations). Although most of these regulations are too specific and regulatory in nature to include in a general plan, they offer useful ideas for local policies and can be adapted into local fire safe ordinances and regulations outside of SRAs. The statewide fire safe regulations include:

- ♦ Road standards, including width, surface, and grade, for emergency access and evacuation.
- ♦ Standards for signs identifying streets, roads, and buildings.
- ♦ Minimum water supply reserves for emergency fire use.
- ♦ Fuel breaks (i.e., defensible space) around structures and greenbelts around new subdivisions.

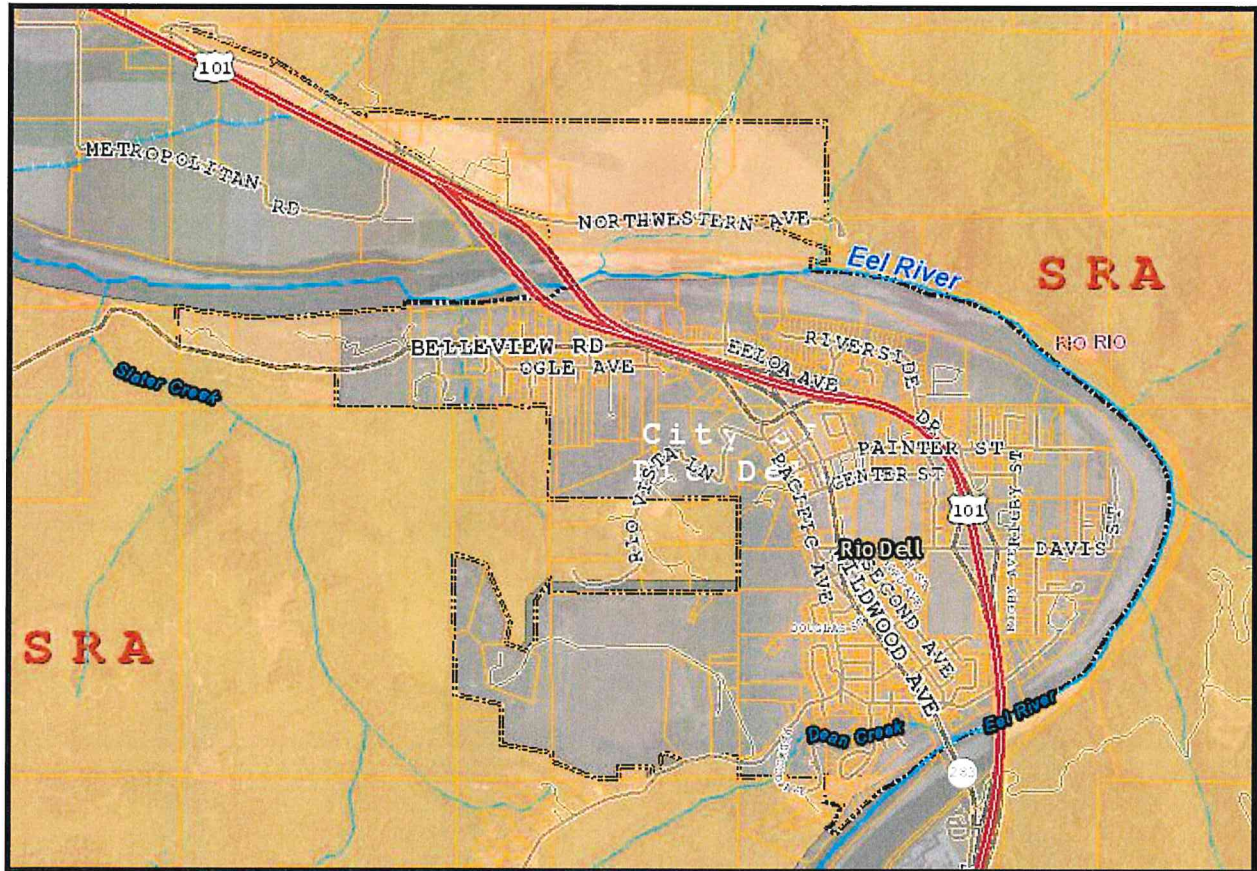


Figure 6-4 100 State Responsibility Areas

Source: Humboldt County GIS September 2016

Goal S 6.6-1

Minimize risks to life and property due to fire hazards.

Policy S 6.6-1

Development designed to reduce the risk of structural and wildland fires supported by fire protection services that minimize the potential for loss of life, property, and natural resources.

Implementation S 6.6-1.a. Review projects and require appropriate access, defensible space access to emergency water supplies, including flows and locations of fire hydrants

Responsibility: Community Development Department, Public Works Department and City Engineer.

Timeframe: Ongoing

Resources: Project proponents.

Implementation S 6.6-1.b. The City shall plan collaboratively with the RDVFD, Fortuna's Fire Department, the County and CAL FIRE, on fire prevention and response strategies.

Implementation shall be coordinated to maximize efficiency and ensure efforts are complimentary.

6.7 Airport Safety

The closest airport to the City is the Rohnerville Airport located in Fortuna. The County Public Works Department operates six county airports: California Redwood Coast-Humboldt County Airport in McKinleyville, Murray Field, Dinsmore Airport, Garberville Airport, Kneeland Airport and Rohnerville Airport. The Board of Supervisors has adopted Airport Master Plans for each of the County maintained airports. In addition, the Board of Supervisors adopted the Airport Land Use Compatibility Plan, which outlines policies for land uses surrounding the airports. The City of Rio Dell is not affected by the Rohnerville Airport Land Use Compatibility Plan.

APPENDIX A

2025 Local Hazard Mitigation Plan

It is impossible to predict exactly when and where all disasters will occur or the extent to which they will impact an area, but with careful planning and collaboration among public agencies, stakeholders and citizens, it is possible to minimize losses.

Jurisdictions with FEMA-approved and formally adopted mitigation plans are eligible to apply for funding under FEMA's hazard mitigation assistance programs, including Hazard Mitigation Grant Program, Pre-Disaster Mitigation and Flood Mitigation Assistance grant programs.

~~The Humboldt County Operational Area Hazard Mitigation Plan was approved by the California Governor's Office of Emergency Services (Cal OES) on 10/24/2019 and submitted to the Federal Emergency Management Agency (FEMA) for approval. On 1/2/2020, FEMA determined the Hazard Mitigation Plan is eligible for approval pending adoption by participating jurisdictions. Contact the Humboldt County Office of Emergency Services with any questions about this plan or the adoption process, at 707-268-2500.~~

Rio Dell Element

2025 Humboldt County Hazard Mitigation Plan

<https://humboldt.gov/DocumentCenter/View/138104/Humboldt-County-Hazard-Mitigation-Plan---Volume-1>
<https://humboldt.gov/DocumentCenter/View/138105/Humboldt-County-Hazard-Mitigation-Plan---Volume-2>

~~PREPARED FOR~~

~~Humboldt County Office of Emergency Services
620 Fourth Street
Eureka, CA 95501~~

~~PREPARED BY~~

~~Tetra Tech
1000 Hamilton Street
Suite 600
Oakland, CA 94612
Phone: 510.309.6300
Fax: 510.466.0000
www.tetra.tech.com~~

19. City of Rio Dell Annex

This section presents the jurisdictional annex for the City of Rio Dell. The jurisdiction's governing body passed a formal resolution to participate in this multijurisdictional hazard mitigation plan update.

19.1. Planning Process

19.1.1. Contact Information

A key part of hazard mitigation planning is engaging the whole community. This plan was developed by the planning consultant IEM, with input from the participating jurisdictions, including the City of Rio Dell, the stakeholders and the public. The City of Rio Dell was represented during the planning process by the following individuals listed in Table 335.

Table 335: City of Rio Dell Point of Contact

Name (First, Last)	Job Title	Jurisdiction/Agency	Preferred Contact Info (Email and/or Phone)
Kyle Knopp	City Manager	City of Rio Dell	knoppk@cityofriodell.ca.gov

19.1.2. Stakeholder Engagement

Stakeholders, including local and regional agencies, neighboring communities, representatives of businesses and academia, private organizations, nonprofit organizations and community-based organizations that work directly with and/or provide support to underserved communities and vulnerable populations, were invited to be involved in the planning process and are recognized in Table 336. Stakeholders were invited to the stakeholder meetings through emails, calendar invites and phone calls. Additionally, they were encouraged to complete and share a public survey to gather more information. Lastly, all stakeholders were provided the opportunity to review the draft plan and provide feedback.

Table 336: Stakeholders Invited to Participate

Name (First, Last)	Job Title	Agency or Organization	Preferred Contact Info (Email and/or Phone)
Kevin Caldwell	Community Development Director	City of Rio Dell	Caldwellk@cityofriodell.ca.gov
Shane Wilson	Fire Chief	Rio Dell FPD	shawil22@aol.com

19.1.3. Public Outreach

Continued public involvement was imperative to the overall success of the plan's implementation. The update process provided an opportunity to solicit participation from new and existing stakeholders, publicize mitigation success stories, and seek additional public comment. The plan's maintenance and update will include continued public and stakeholder involvement and input through attendance at designated committee meetings, web postings, press releases to local media, and public hearings. Figure 31 illustrates how the public was encouraged to participate in the survey. The City of Rio Dell utilized the city hall to share public notices.

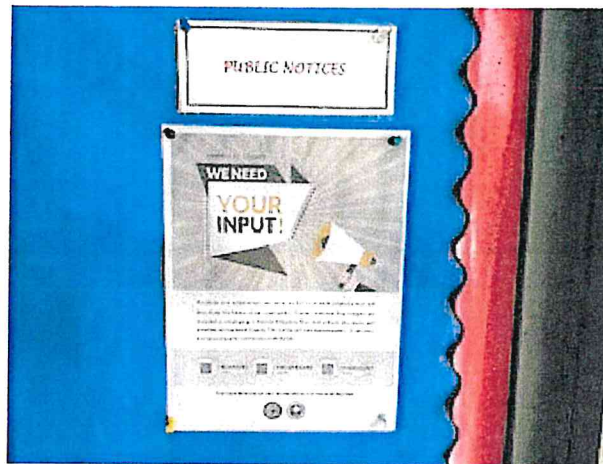


Figure 31: Public Outreach Methods

19.1.3.1. VULNERABLE POPULATION OUTREACH

Some Rio Dell residents may be disproportionately affected by natural hazard events for reasons other than proximity to high-risk areas. Vulnerable and underserved residents in Rio Dell may have less access to information and resources to help mitigate risk and increase preparedness for emergencies. To better understand the risks and vulnerabilities the city residents face, this planning update developed a bilingual public survey that collectively

identified ways to support, enhance and broaden capacity and resilience at the individual and social network level. Figure 32 displays how the city advertised the survey specifically to vulnerable populations. Some of outreach methods included resources such city calls and kiosks located around the City of Rio Dell.

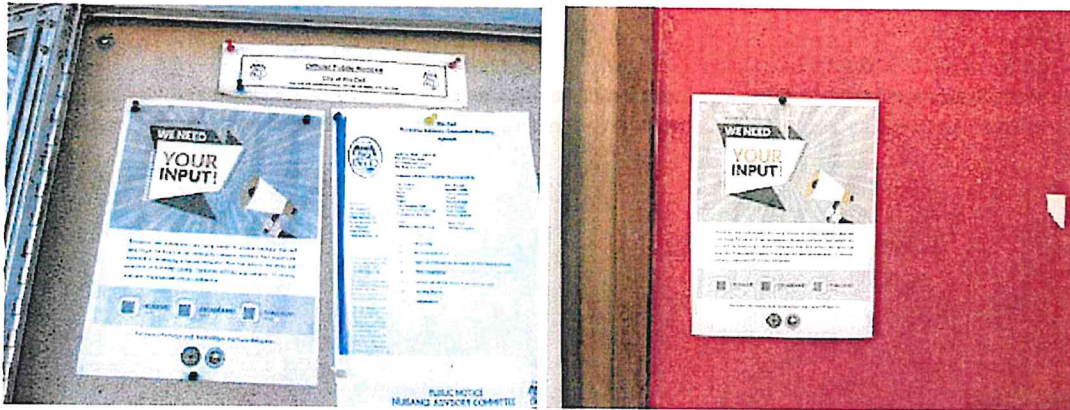


Figure 32: Public Outreach to Vulnerable Populations

19.1.4. Plan Integration

19.1.4.1. INTEGRATION INTO LOCAL PLANNING MECHANISMS

This section identifies where such integration is already in place and where there are opportunities for further integration in the future. The successful implementation of this plan will require constant and vigilant review of existing plans and programs for coordination and multi-objective opportunities that promote a safe, sustainable community. Existing planning mechanisms into which this plan has been integrated are listed in Table 337.

Table 337: Previous Plan Integration for the City of Rio Dell

Plan Name	Description
Safety Element of the General Plan	The City of Rio Dell recently updated the General Plan. This plan directly referenced the last mitigation plan's summary of the hazards the city faced and incorporated mitigation actions from the last hazard mitigation plan, including all the high-priority actions.

The plan must also identify the local planning mechanisms where the updated hazard mitigation information and actions may be integrated in the future. The plan must describe each participant's process for integrating information from the mitigation strategy into their identified planning mechanisms. Table 338 displays how each community will integrate the hazard mitigation plan into other planning mechanisms in the future.

Table 338: Future Types of Plan Integration for the City of Rio Dell

Type of Plan	Integration Method
Climate Action Plan (Regional)	This plan will align with the priorities identified in the updated hazard mitigation plan.

19.2. Risk Assessment

This plan must develop a comprehensive risk assessment to systematically identify the specific hazards and vulnerabilities that are of the most concern for each jurisdiction, as displayed in Table 339 and Table 340. For further information about these hazards, including extent, please refer to Volume 1 of this HMP.

Table 339: City of Rio Dell Hazards

Type of Hazard Event	Jurisdiction Impact? (Yes/No)	If Not, What Is the Rationale for Omitting Hazard?
Dam Failure	Yes	N/A
Drought	Yes	N/A
Earthquake	Yes	N/A
Extreme Temperatures	Yes	N/A
Flooding	Yes	N/A
Landslide	Yes	N/A
Tsunami	No	Outside of Tsunami Zone
Wildfire	Yes	N/A
Wind	Yes	N/A
Winter Weather	Yes	N/A

Table 340: City of Rio Dell Risk Assessment

Type of Hazard Event	Probability of Future Occurrence	People Impact	Property Impact	Economy Impact	Category
Dam Failure	Medium	Low	Low	Low	Low
Drought	High	High	High	High	High
Earthquake	High	High	High	High	High

Type of Hazard Event	Probability of Future Occurrence	People Impact	Property Impact	Economy Impact	Category
Extreme Temperatures	Medium	Low	Low	Low	Low
Flooding	High	Low	Low	High	Medium
Landslide	High	Low	Low	Low	Medium
Wildfire	Medium	High	High	High	High
Wind	High	High	High	Low	High
Winter Weather	Medium	Low	Low	Low	Low

Note: The process used to assign risk rankings is described in Volume 1.

19.2.1. Historical Events and Impacts

The following section lists past occurrences of natural hazards for which specific impacts and damages were recorded in the City of Rio Dell. Other hazard events that broadly affected the entire planning area, including the City of Rio Dell, are listed in the risk assessments in Volume 1.

19.2.1.1. HISTORICAL EVENTS

Table 341 presents a summary of the storm events that have occurred in the City of Rio Dell from Nov. 1, 2019 to Dec. 31, 2024, from the National Centers for Environmental Information (NCEI). Rio Dell has experienced a relatively calm weather pattern in recent times, with one recorded storm event directly affecting it. However, the broader southern Humboldt region has faced several storm events, as documented by the NCEI. While Rio Dell itself may have avoided the brunt of these storms, neighboring areas have seen varying impacts, ranging from high winds to winter weather.

Table 341: NCEI Storm Event Database for the City of Rio Dell (2019-2024)

Location	Date	Event Type	Deaths	Injuries	Property Damage	Crop Damage
Rio Dell	02/19/2024	Thunderstorm wind	0	0	\$0	\$0

The NCEI database does not always capture localized hazard data. To address this gap, the City of Rio Dell has documented additional significant events, with their impacts detailed below.

DAM FAILURE

- No events have occurred related to this hazard. However, Scott Dam is 60 miles upriver and Scotia dam is 0.5 mile upriver; therefore, preparedness is key if one of the dams fails.

DROUGHT

- **2020:** The Water Shortage Contingency Plan was activated. There was an arbitrary state curtailment of water rights to the minimum necessary for public health. A near failure of the water infiltration gallery led to the redevelopment of the backup well site using Integrated Regional Water Management Planning grant dollars and USDA funding. There was no help from FEMA.

EARTHQUAKE

- **Dec. 6, 2024:** There was minor damage to roads.
- **Dec. 20, 2022:** A 6.4-magnitude earthquake and its aftershocks struck the town and caused over 300 structures to be initially deemed unsafe for occupation. Repairs needed by the community exceeded the \$500,000 allocated, and \$50,000 was spent on administrative costs at that time. The water system failed for a week, and 94 domiciles were red-tagged. Damage occurred to roads, wastewater, and water public infrastructure. Despite \$35 million in damage, there was no FEMA declaration.

EXTREME TEMPERATURES

- Extreme temperatures occur annually and leave the unhoused population exposed to freezing temperatures.

FLOODING

- **Nov. 20, 2024:** The area experienced slip-outs, sanitary sewer overflows, evacuations at the RV park, and trail flooding.
- **Mar. 13, 2023:** The City of Rio Dell issued a flood warning in the morning and said that portions of State Route 211 between Fernbridge and Ferndale (see Figure 33), as well as much of the Eel River Valley — including areas northwest of Loleta and the western portion of Cannibal Island Road — could go underwater.



Figure 33: Ferndale Bottoms Flooding

LANDSLIDE

- **2017:** There was residential damage, roadway damage, and damage to water and sewer infrastructure. A slip-out on Monument Road was a declared disaster at the federal level; however, FEMA was extremely difficult to work with and put a cap on the amount they would fund for the project.

WILDFIRE

- **April 16, 2020:** A sun blackout occurred with minimal direct impact to Rio Dell. However, resources were exhausted to assist with mutual aid.

WIND

- **Feb. 19, 2024:** The area experienced downed trees, power outages, and blocked roads.

WINTER WEATHER

- Annual winter weather caused slip-outs, power outages, and water disruptions.

19.2.2. Jurisdiction-Specific Vulnerabilities

Table 342 provides information on a few key vulnerabilities for the jurisdiction.

Table 342: City of Rio Dell Vulnerabilities

Hazard	Vulnerabilities
Dam Failure	Scotia Pond and Scott Dam. Infiltration gallery and backup wells could be impacted.
Drought	Arbitrary actions by the Governor to unnecessarily curtail water rights. Possible water production issues in severe situations.
Earthquake	FEMA threshold issue for federal declaration poses existential risk. Vulnerable infrastructure.
Flooding	Loss of electricity, contamination of water supply, loss of property, structure and infrastructure damage, displace residents, increase of mosquitos, debris and emergency response delays.
Landslide	Injury of death to vulnerable residences, increased risk to emergency personnel, displaced residents, and loss of vegetation, leading to erosion.
Tsunami	Systems: Emergency services taxed by being an unimpacted jurisdiction responding for mutual aid purposes.
Wildfire	Rio Dell is noticing an increased risk due to the WUI.
Wind	Extended power outages and competition for limited backup fuel resources.
Winter Weather	People: Unhoused population vulnerable.

19.2.2.1.DEVELOPMENT CHANGES

Table 343 summarizes the development trends in the City of Rio Dell that have emerged since the preparation of the previous hazard mitigation plan, as well as the expected future development trends.

Table 343: Recent and Expected Future Development Trends

Type of Development	Recent Development	Future Development	Overall Vulnerability (Increased, Decreased, No Change)
Residential	25-unit permanent supportive housing	2-3 new developments per year	Slight increase
Commercial	None	New CAL FIRE Regional Headquarters	No Change

Type of Development	Recent Development	Future Development	Overall Vulnerability (Increased, Decreased, No Change)
Industrial	Northwestern Avenue near flood zone	1-2 per year possible	Slight increase

19.3. Capability Assessment

Local mitigation capabilities are essential for reducing the impact of hazards on communities. Local authorities can effectively mitigate hazards by leveraging existing authorities, policies, programs and resources. The City of Rio Dell performed an assessment of its existing capabilities for implementing hazard mitigation actions. The capability assessment is evaluated upon a multi-faceted approach, including:

- Planning and Regulatory capabilities
- Administrative and Technical capabilities
- Financial capabilities
- Education and Outreach capabilities

19.3.1. Planning and Regulatory Capabilities

Table 344 and Table 345 summarize the City of Rio Dell's planning and regulatory capabilities, including plans, policies, codes and ordinances that prevent and reduce the impacts of hazards.

Table 344: Plans

Plans	Does the Plan Address Hazards? (Y/N)	How Can the Plan Be Used to Implement Mitigation Actions?	When Was It Last Updated? When Will It Next Be Updated?
General Plan	Yes Assembly Plan: Yes	When evaluating new discretionary development.	Last Update: 03/2025 Next Update: 03/2027

CITY OF RIO DELL ANNEX

Plans	Does the Plan Address Hazards? (Y/N)	How Can the Plan Be Used to Implement Mitigation Actions?	When Was It Last Updated? When Will It Next Be Updated?
Recovery Plan	Yes	The city's Emergency Handbook and the Local Hazards Mitigation Plan include procedures for restoring essential services.	Last Update: 01/2023 Next Update: 01/2026
Capital Improvement Plan	No	N/A	N/A
Climate Change Adaptation Plan	Yes	When evaluating new discretionary development.	Last Update: 08/2025 Next Update: 08/2025
Community Wildfire Protection Plan	No	N/A	N/A
Economic Development Plan	No	Acquiring grants for infrastructure.	N/A
Land Use Plan	Yes	Add new potential requirements/mitigation measures related to risks identified in the HMP.	Last Update: 03/2025 Next Update: 12/2027
Local Emergency Operations Plan	Yes	The EOP is a component of the Local Hazard Mitigation Plan.	Last Update: 12/2003 Next Update: 12/2026
Stormwater Management Plan	No	N/A	N/A
Transportation Plan	No	N/A	N/A
Substantial Damage Plan	No	N/A	N/A

Plans	Does the Plan Address Hazards? (Y/N)	How Can the Plan Be Used to Implement Mitigation Actions?	When Was It Last Updated? When Will It Next Be Updated?
Debris Management Plan	No	N/A	N/A

Table 345: Regulations and Ordinances

Regulation or Ordinance	Does This Effectively Reduce Hazard Impacts?	Is It Adequately Administered and Enforced?	When Was It Last Updated? When Will It Next Be Updated?
Building Code	Yes	Yes	Last Update: 01/2023 Next Update: 01/2026
Flood Insurance Rate Maps	Yes	Yes	Last Update: 07/2017 Next Update: Unknown
Floodplain Ordinance	Yes	Yes	Last Update: 07/2018 Next Update: As needed per FIRM
Subdivision Ordinance	Yes	Yes	Last Update: 07/2014 Next Update: As needed
Zoning Ordinance	Yes	Yes	Last Update: 02/2025 Next Update: As needed
Natural Hazard Specific Ordinance	N/A	N/A	N/A
Acquisition of Land for Open Space and Public Recreation Use	N/A	N/A	N/A
Prohibition of Building in At-Risk Areas	No	N/A	N/A

19.3.2. Administrative and Technical Capabilities

Table 346 and Table 347 summarize the City of Rio Dell's administrative and technical capabilities, including the staff members and their respective skills and the tools available to support mitigation actions.

Table 346: Administrative Capabilities

Administrative Capability	Status (Non-Vacant, Vacant)	Is Staffing Adequate?	Is Staff Trained on Hazards?	Is Coordination Effective?
Chief Building Official	Non-Vacant	Yes	Yes	Yes
Grant Writer	Vacant	N/A	N/A	N/A
Civil Engineer	Non-Vacant	Yes	Yes	Yes
Community Planner	Non-Vacant	No	Yes	No
Emergency Manager	Non-Vacant	No	Yes	No
Floodplain Administrator	Non-Vacant	Yes	Yes	Yes
Geographic Information System (GIS) Coordinator	Non-Vacant, part-time	No	No	No
Planning Commission	Non-Vacant	Yes	No	No
Fire Safe Council	Vacant	N/A	N/A	N/A
Community Emergency Response Team (CERT)	Non-Vacant	Yes	Yes	Yes
Active Organizations Active in Disaster	Vacant	N/A	N/A	N/A

Table 347: Technical Capabilities

Technical Capability	Utilized? (Y/N)	How Has the Capability Been Used to Assess or Mitigate Risk in the Past?	How Can the Capability Be Used to Assess or Mitigate Risk in the Future?
Hazard Data and Information	Yes	Soils, geologic, and hydraulic reports and flood elevation certificates are required when appropriate.	By implementing the recommendations in the reports.

Technical Capability	Utilized? (Y/N)	How Has the Capability Been Used to Assess or Mitigate Risk in the Past?	How Can the Capability Be Used to Assess or Mitigate Risk in the Future?
GIS	Yes	Public Works was utilized to identify infrastructure.	Hazard identification, risk and vulnerability assessments.
Mutual Aid Agreements	Yes	The PD has a Memorandum of Agreement (MOA) with the County Sheriff and collaborates with the cities of Fortuna and Ferndale on mutual aid as needed.	Emergency shelter opportunities.

19.3.3. Financial Capabilities

Table 348 summarizes the City of Rio Dell's financial capabilities, which refer to the resources to fund mitigation actions. Discussing the funding and financial capabilities of the city is important to determine the kinds of projects that are feasible given their cost.

Table 348: Financial Capabilities

Funding Resource	Utilized? (Y/N)	What Types of Activities?	Can Be Used to Fund Future Mitigation Actions?	Can Be Used as a Local Match for a Federal Grant?
Capital Improvement Project Funding	Yes	Backup water wells	Yes	Yes
General Funds	Yes	Upgrade water wells	Yes	Yes
Hazard Mitigation Grant Program (HMGP/404)	Yes	Seismic upgrades to the cross-river connection to the backup wells	Yes	No
Building Resilient Infrastructure and Communities (BRIC)	No	N/A	Yes	No
Flood Mitigation Assistance (FMA)	No	N/A	N/A	N/A

Funding Resource	Utilized? (Y/N)	What Types of Activities?	Can Be Used to Fund Future Mitigation Actions?	Can Be Used as a Local Match for a Federal Grant?
Community Development Block Grant (CDBG)	Yes	ADA Access, Owner Occupied Rehabilitation	Yes	Yes
Natural Resources Conservation Services (NRCS) Programs	No	N/A	N/A	N/A
U.S. Army Corps of Engineers (USACE) Programs	No	N/A	N/A	N/A
Property, Sales, Income or Special Purpose Taxes	Yes	No	Yes	Yes
Stormwater Utility Fee	No	N/A	N/A	N/A
Fees for Water, Sewer, Gas or Electric Services	Yes	Yes, water and wastewater systems	Yes	Yes
Impact Fees from New Development and Redevelopment	No	N/A	N/A	N/A
General Obligation or Special Purpose Bonds	No	N/A	N/A	N/A
Federal-Funded Programs	Yes	Emergency Community Water Assistance Grant (USDA)	N/A	N/A

Funding Resource	Utilized? (Y/N)	What Types of Activities?	Can Be Used to Fund Future Mitigation Actions?	Can Be Used as a Local Match for a Federal Grant?
State-Funded Programs	Yes	State Water Resources Control Board, Clean California	Yes	No
Private Sector or Nonprofit Programs	Yes	Long-term recovery group, disaster case management, unmet needs funding for when the federal government did not show up for the December 2022 earthquake	Yes	Yes

19.3.4. Education and Outreach Capabilities

Table 349 summarizes the City of Rio Dell's education and outreach capabilities, which refer to programs and actions that can communicate information about and encourage risk reduction.

Table 349: Education and Outreach

Education and Outreach Capability	Used? (Y/N)	Does It Incorporate Hazard Mitigation?	Notes
Community Newsletter(s)	Yes	Yes	N/A
Hazard Awareness Campaigns (such as Firewise, Storm Ready, Severe Weather Awareness Week and School Programs)	Yes	Yes	N/A
Public Meetings/Events	No	N/A	N/A
Emergency Management Listserv	Yes	No	Mass alerting system to share information with residents
Local News	Yes	Yes	None

Education and Outreach Capability	Used? (Y/N)	Does It Incorporate Hazard Mitigation?	Notes
Distributing Hard Copies of Notices (e.g., Public Libraries, Door-to-Door Outreach)	Yes	No	N/A
Insurance Disclosures/Outreach	No	N/A	N/A
Organizations that Represent, Advocate for, or Interact with Underserved and Vulnerable Communities	Yes	No	Rio Dell Community Assistance Center (Providence)
Social Media	No	N/A	N/A
Every Door Direct Mailers	Yes	No	N/A

19.3.5. Opportunities to Expand and/or Improve Capabilities

The capability assessment findings were reviewed to identify opportunities to expand, initiate or integrate capabilities to further hazard mitigation goals and objectives. These opportunities are included in Table 350. Where such opportunities were identified and determined to be feasible, they are included in the action plan.

Table 350: Opportunities to Expand and/or Improve

Capability Type	Opportunity to Expand and/or Improve
Planning and Regulations	The city would like to develop a City Economic Development Strategy (CEDS) and now, with the latest LRA maps from CAL FIRE, a new Community Wildfire Protection Plan.
Administrative and Technical	Additional training is always needed. The city lacks funding for a dedicated and consistent GIS effort.
Financial	Rio Dell is a severely economically disadvantaged community. Most grants require a local match, and the city is often unable to afford one, let alone a dedicated grant writer.
Education and Outreach	Education and outreach are currently available on an as-needed basis. The city is always open to additional education and outreach, but funding and capacity are limited.

19.4. National Flood Insurance Program

The City of Rio Dell has been a participant in the NFIP since 1982. Details of NFIP policies within the City of Rio Dell are provided in Table 351. Additional NFIP information is in Table 352 through Table 354. Continued compliance with NFIP standards is expected for the City of Rio Dell.

Table 351: City of Rio Dell NFIP Details

Community Name	Community Number	Total Premium + FPF ²⁶	Total Policy Count	Total Coverage	Total Losses
Rio Dell, City of	060064	\$0	0	\$0	5

Table 352: Floodplain Management

Question	Response
Who is the floodplain manager? Is this their primary or secondary role?	Community Development Director. Secondary.
Does the floodplain manager have adequate training and capacity for their role? If not, what else is needed?	Yes
How does the community enforce its floodplain rules? Does enforcement include monitoring compliance and acting to correct violations?	Through permit process and inspections.
When was the community's most recent Community Assistance Visit (CAV)?	07/2021
Were any violations noted on the community's most recent CAV?	No
Is there an upcoming CAV? If no, is one needed?	Upcoming CAV: No Is one needed: No
When was the most recent floodplain management ordinance adopted?	07/2015

²⁶ FPF: Federal Policy Fee

Question	Response
Does your community participate in the Community Rating System (CRS)? If so, describe the steps the community has taken to achieve the CRS goals.	No
Does the community's floodplain management ordinance include any higher standards? If so, please list.	Yes, flood-resistant materials are required.
Who is responsible for permitting?	Planning and Building Department
How does the community issue development permits in the special flood hazard area?	Through the building permit process. It must be a foot above BFE. FEC is required for any proposed development in the floodplain. A surveyor is required to determine the BFE. A letter is then issued to confirm the findings.
Does the community maintain elevation certificates?	Yes
Does the community track the number of buildings in the special flood hazard area? If yes, are there any trends?	Yes Describe: No trends
How many repetitive loss (RL) structures does the community have?	None
How many severe repetitive loss (SRL) structures does the community have?	None
Have any RL/SRL properties been mitigated since the last plan update?	No
Who is responsible for making substantial damage/substantial improvement determinations?	Building division coordinates with the county assessor.
How does the substantial damage/substantial improvement process work in your community?	Building division coordinates with the county assessor. If more than 50% of the value is improved, then they need to comply with all new floodplain regulations.
Is there sufficient staff and training to make substantial damage/improvement determinations?	Yes

Question	Response
How are substantial damage/substantial improvement requirements messaged to the public before and after an event?	We have utilized Every Door Direct Mailer (EDDM), newsletters, and our LED messaging system. Rio Dell uses a mass alerting system to share information when needed. Local media is also utilized to share requirements after an event.
Have any substantially damaged/substantially improved structures been mitigated since the last plan update?	No
How will the community remain in compliance with the NFIP moving forward?	Work with FEMA/NFIP to identify and implement necessary changes. Continue to follow floodplain ordinance and pursue ongoing training and education.

Table 353: Floodplain Mapping

Question	Response
How does the community support map change requests? This could be requests during the Risk MAP process or through Letters of Map Amendment or Revision.	The city or members of the public have not requested any map changes.
When did the latest Flood Insurance Rate Map (FIRM) become effective?	05/2017
When was the latest FIRM adopted?	2017
Is the FIRM and Flood Insurance Study (FIS) report in an accessible location? How would the public get access to their flood map information?	Yes Request to review
Does the community use any Risk MAP products? If so, describe.	No
Does the community collect updated floodplain data or modeling? Is this shared with partners and with FEMA?	Yes

Table 354: Flood Insurance and Outreach

Question	Response
How does the community educate the public on floodplain management and the availability of flood insurance, in and out of the floodplain?	As needed, based on inquiry
How does the community engage with insurance agents on flood insurance?	As needed, based on inquiry
Does the community (or state) have flood hazard disclosure laws?	Yes
How familiar is the public with their flood insurance options?	Not sure
How many properties have flood insurance in the community?	0
Are there any areas where flood insurance is lacking?	Unknown

19.5. Mitigation Strategy

The City of Rio Dell has adopted the same goals and prioritization process as those adopted by Humboldt County, which is described in Volume 1 of this plan. Previous mitigation actions and their statuses are in Table 355, while new mitigation action items and those carried forward from the previous plan are in Table 356.

19.5.1. Previous Mitigation Actions

Table 355: Previous Mitigation Actions

Mitigation Action	Description	Status
RIO1	Where appropriate, support retrofitting, purchase or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are located in high- or medium-risk hazard areas.	This has been deferred until time and resources are appropriate and available.

Mitigation Action	Description	Status
RIO2	Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including the city's Safety Element.	This has been deferred until time and resources are appropriate and available.
RIO3	Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.	This has been deferred until time and resources are appropriate and available.
RIO4	<p>Continue to maintain good standing and compliance under the NFIP through the implementation of floodplain management programs that, at a minimum, meet the NFIP requirements:</p> <ul style="list-style-type: none"> • Enforce the flood damage prevention ordinance. • Participate in floodplain identification and mapping updates. • Provide public assistance/information on floodplain requirements and impacts. 	Completed. However, we do not have a certified flood plain manager.
RIO5	Identify and pursue strategies to increase adaptive capacity to climate change, including, but not limited to the following: The participation, preparation and adoption of a Regional Climate Action Plan.	Carry forward- In active process.
RIO6	Purchase generators for critical facilities and infrastructure that lack adequate backup power, including the City's Fire and School facilities. The City hopes to install an emergency generator for City Hall, Police Department, Fire District and School District in the near future pending the availability of funds through LHMP.	Completed. New power backup systems were installed at City Hall, Corporation Yard and Wastewater Lift stations. In addition, a mobile backup generator was installed for the water system. No FEMA assistance was ever provided to accomplish these tasks. The status of the Fire District and School District is unknown.

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Mitigation Action	Description	Status
RIO7	Plan to upgrade Radio equipment and towers to Interoperable Digital P25 infrastructure for the City Hall and Fire District.	Completed
RIO8	Retrofit/installation of undersized culverts and drainages to prevent flooding and erosion/ landslide damage.	This has been deferred until time and resources are appropriate and available.
RIO9	Installation of fire sprinklers at City Hall and Fire Station.	This has been deferred until time and resources are appropriate and available.
RIO10	Perform public education and outreach.	Completed. Newsletters have provided disaster-related educational outreach.
RIO11	Establish Joint Public Safety Dispatch and EOC.	This has been deferred until time and resources are appropriate and available.

19.5.2. Updated Mitigation Actions

Table 356: 2025 Mitigation Actions²⁷

#	Action Description	Priority	Lead Agency	Hazards Mitigated	Potential Funding Source(s)	Estimated Cost	Estimated Timeline	New and/or Existing Asset	Vulnerable Population Benefit?	Community Lifelines Benefit?
RIO1	Identify the location, acquire the site and construct a fuel storage facility for the Corporation Yard backup generator, as well as for public safety and allied agencies.	High	City of Rio Dell	Earthquake, winter weather, wind, wildfire, landslide	HMGP, BRIC, PDM, CDBG, enterprise funds, general fund	\$500,000	Medium-term	New	Yes	Yes
RIO2	Identify the location, acquire the site and construct a multipurpose community center with the capacity for sheltering, aid distribution, supplies and serving as an assistance center when needed.	High	City of Rio Dell	Dam failure, drought, earthquake, extreme temperatures, flooding, landslide, wildfire wind, winter weather	HMGP, BRIC, PDM, CDBG, enterprise funds, general fund	\$7,000,000	Long-term	New	Yes	Yes
RIO3	Carry out a citywide stormwater evaluation study and develop a master plan to identify vulnerabilities and maintenance needs.	High	City of Rio Dell	Dam failure, flooding, landslide, winter weather	HMGP, BRIC, PDM, CDBG, general fund	\$500,000	Long-term	Both	Yes	Yes

²⁷ BRIC: Building Resilience Infrastructure and Communities, CDBG: Community Development Block Grant, FMA: Flood Mitigation Assistance, HMGP: Hazard Mitigation Grant Program, PDM: Pre-Disaster Mitigation, STIP: State Transportation Improvement Program, SWRCB: State Water Resources Control Board

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#	Action Description	Priority	Lead Agency	Hazards Mitigated	Potential Funding Source(s)	Estimated Cost	Estimated Timeline	New and/or Existing Asset	Vulnerable Population Benefit?	Community Lifelines Benefit?
RI04	Update the emergency operations plan.	High	City of Rio Dell	Dam failure, drought, earthquake, extreme temperatures, flooding, landslide, wildfire wind, winter weather	HMGP, BRIC, PDM, general fund	\$20,000	Short-term	Existing	Yes	Yes
RI05	Support the development of a Firewise Community program, and implement defensible space requirements, including education and outreach.	High	City of Rio Dell	Drought, earthquake, extreme temperatures, wildfire	General fund	\$20,000	Medium-term	New	Yes	Yes
RI06	Expand the infiltration gallery to reduce risk from low flow and landslides.	High	City of Rio Dell	Drought, flooding, landslide	SWRCB HMGP, water fund	\$3,000,000	Long-term	Existing	Yes	Yes
RI07	Improve the wastewater collection system mains, laterals and manholes.	High	City of Rio Dell	Flooding, winter weather	HMGP, SWRCB, enterprise fund	\$5,000,000	Long-term	Existing	Yes	Yes

#	Action Description	Priority	Lead Agency	Hazards Mitigated	Potential Funding Source(s)	Estimated Cost	Estimated Timeline	New and/or Existing Asset	Vulnerable Population Benefit?	Community Lifelines Benefit?
RIO8	Install fire sprinklers at City Hall.	Low	City of Rio Dell	Earthquake, wildfire	CDBG, general and enterprise funds	\$180,000	Long-term	Existing	No	Yes
RIO9	Implement slip-out and slide protections on Monument Road.	Medium	City of Rio Dell	Earthquake, flooding, landslide, wildfire, winter weather	HMGP, BRIC, PDM, CDBG, road funds, general fund	\$3,000,000	Long-term	Existing	Yes	Yes
RIO10	Continue to support countywide initiatives identified in this plan.	High	City of Rio Dell	Earthquake, floods, dam failure, drought, extreme temperatures, landslide, wildfire, wind, winter weather	HMGP, BRIC, district funds	\$100,000	Short-term and ongoing	Both	Yes	All
RIO11	Establish a joint public safety dispatch and EOC.	High	City of Rio Dell	Earthquake, floods, dam failure, drought, extreme temperatures, landslide, wildfire, wind, winter weather	HMGP, PDM, BRIC	\$3,000,000	5+ years	New	Yes	Safety and Security

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#	Action Description	Priority	Lead Agency	Hazards Mitigated	Potential Funding Source(s)	Estimated Cost	Estimated Timeline	New and/or Existing Asset	Vulnerable Population Benefit?	Community Lifelines Benefit?
RIO12	Retrofit and install undersized culverts and drainage systems to prevent flooding and erosion/landslide damage.	Medium	City of Rio Dell	Landslide, flooding, wind, winter weather	HMGP, PDM, FMA	\$1,000,000	5+ years	Existing	Yes	Transportation
RIO13	Identify and pursue strategies to increase adaptive capacity to climate change, including but not limited to, participating in, preparing and adopting a Regional Climate Action Plan.	Medium	City of Rio Dell	All	Staff time and general funds	\$15,000	3-5 years	Both	Yes	All
RIO14	Where appropriate, support the retrofitting and the purchase or relocation of structures in hazard areas, prioritizing those that have experienced repetitive losses and/or are located in high- or medium-risk hazard areas.	High	City of Rio Dell	Earthquake, flooding, landslide, wildfire	HMGP, PDM, FMA	\$2,000,000	3-5 years	Existing	Yes	All
RIO15	Integrate the hazard mitigation plan into other plans, ordinances and programs — including the City's Safety Element — that dictate land use decisions in the community.	Low	City of Rio Dell	Dam failure, drought, earthquake, flooding, landslide, wildfire	Staff time, general funds	\$10,000	1-3 years	Both	No	All
RIO16	Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.	Low	City of Rio Dell	All hazards	Staff time, general funds	\$2,000	1-3 years	Both	Yes	All

#	Action Description	Priority	Lead Agency	Hazards Mitigated	Potential Funding Source(s)	Estimated Cost	Estimated Timeline	New and/or Existing Asset	Vulnerable Population Benefit?	Community Lifelines Benefit?
RIO17	Hire GIS personnel to assist in hazard identification and vulnerability assessments.	High	City of Rio Dell	All hazards	Staff time, general funds	\$50,000	1-3 years	Both	Yes	All
RIO18	Make physical improvements to the Avenues (Specifically first and Second Avenue) neighborhood to ensure emergency vehicles can access it.	High	City of Rio Dell	All hazards	HMGP, BRIC, city road funds, STIP, CDBG	\$1,500,000	3-5 years	Both	Yes	Safety and Security
RIO19	Evaluate the placement of fire hydrants against the new CAL FIRE Fire Hazard Zone Severity Mapping process for identifying priority areas for placing or replacing fire hydrants.	Medium	City of Rio Dell	Earthquake, wildfire	HMGP, BRIC, CDBG	\$500,000	3-5 years	Both	Yes	Safety and Security
RIO20	Develop a second access route to Dinsmore Plateau via Rio Vista Lane.	Medium	City of Rio Dell	Earthquake, landslide, wildfire, wind, winter weather	HMGP, BRIC, CDBG	\$500,000	3-5 years	New	Yes	Transportation