

The Plan was submitted to FEMA for review and comment in July of 2021, and on August 17, 2021, FEMA notified the City that the Plan is eligible for final approval by FEMA, meaning FEMA intends to approve the Plan once the Board of Supervisors formally adopts it.

Applicable Statute, Code, Policy, Rule or Regulation

42 U.S.C. § 5165; 44 C.F.R. Part 201

Financial Information

Is there a fiscal impact? No

If yes, account name/number:

Is it currently budgeted?

Explanation of Fiscal Impact:

Alternatives

Do not approve the Plan and resolution, and provide alternative direction to staff.

Attachments:

[Proposed Resolution Adopting 2021 HMP.docx](#)

[APA Carson City HMP 8-17-2021.pdf](#)

[BOSMeeting_Presentation_202109-07_ea.pdf](#)

Board Action Taken:

Motion: _____	1) _____	Aye/Nay
	2) _____	_____

(Vote Recorded By)

RESOLUTION NO. 2021-R-_____

A RESOLUTION ADOPTING THE 2021 CARSON CITY HAZARD MITIGATION PLAN AND REQUESTING THAT THE FEDERAL EMERGENCY MANAGEMENT AGENCY APPROVE THAT PLAN

WHEREAS, Carson City Charter § 2.090(1) vests with the Carson City Board of Supervisors (“Board of Supervisors”) the power to make and pass resolutions necessary to manage the affairs and government of Carson City; and

WHEREAS, the Board of Supervisors recognizes the threat that natural and human-caused hazards pose to people and property within Carson City; and

WHEREAS, since 2005, Carson City has implemented Hazard Mitigation Plans, consistent with the Disaster Mitigation Act of 2000, 42 U.S.C. § 5165, and 44 C.F.R. Part 201; and

WHEREAS, the Board of Supervisors adopted Carson City’s last Hazard Mitigation Plan in 2016 through Resolution No. 2016-R-21 (“2016 Plan”); and

WHEREAS, 44 CFR § 201.6(d)(3) requires Carson City to revise and resubmit its Hazard Mitigation Plan for approval by the Federal Emergency Management Agency (“FEMA”) every five years to maintain eligibility for federal mitigation project grant funding; and

WHEREAS, Carson City has worked with its staff, community members, and other material stake-holders to develop the 2021 Carson City Hazard Mitigation Plan (“2021 Plan”), which, among other things, reflects changes in development, progress in mitigation efforts, and changes in priorities since the 2016 Plan’s adoption; and

WHEREAS, the 2021 Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Carson City from the impacts of future hazards and disasters; and

WHEREAS, FEMA has reviewed the 2021 Plan and determined that it is eligible for final approval, once the Board of Supervisors formally adopts the 2021 Plan; and

WHEREAS, 44 CFR § 201.6(c)(5) requires that the Board of Supervisors adopt the 2021 Plan and request that FEMA formally approve it; and

///

WHEREAS, the Board of Supervisor’s adoption of the 2021 Plan demonstrates Carson City’s commitment to hazard mitigation and achieving the goals outlined in the 2021 Plan.

NOW, THEREFORE, the Board of Supervisors resolves that:

1. The 2021 Plan is adopted and requests that FEMA formally approve it;
2. The respective Carson City officials identified in the mitigation strategy of the 2021 Plan are hereby requested to pursue implementation of the recommended actions, subject to the availability of resources; and
3. Future revisions and amendments to the 2021 Plan which are required by FEMA or the Disaster Mitigation Act of 2000 are hereby adopted as part of this resolution for a period of five years from the date of this resolution.

ADOPTED this ____ day of _____ 2021.

AYES: Supervisors _____

NAYS: Supervisors _____

ABSENT: Supervisors _____

ABSTAIN: Supervisors _____

LORI BAGWELL
Mayor

ATTEST:

AUBREY ROWLATT
Clerk-Recorder



FEMA

August 17, 2021

Jason Danen
Deputy Emergency Manager
Carson City Fire Department
777 S. Stewart Street
Carson City, NV 89701

Dear Mr. Danen:

The Federal Emergency Management Agency (FEMA) has completed its review of the *Carson City Hazard Mitigation Plan 2021* and has determined that this plan is eligible for final approval pending its adoption by the City of Carson City.

Formal adoption documentation must be submitted to FEMA Region 9 within one calendar year of the date of this letter, or the entire plan must be updated and resubmitted for review. FEMA will approve the plan upon receipt of the documentation of formal adoption.

If you have any questions regarding the planning or review processes, please contact the FEMA Region 9 Hazard Mitigation Planning Team at fema-r9-mitigation-planning@fema.dhs.gov.

Sincerely,

Alison Kearns
Risk Analysis Branch Chief
Mitigation Division
FEMA Region 9

Enclosure (1)

Carson City Plan Review Tool, dated August 17, 2021

cc: Susan Coyote, Recovery and Mitigation Supervisor, Nevada Division of Emergency Management
Janell Woodward, Grants and Projects Analyst II, Nevada Division of Emergency Management

of Hazards
12

Appendices
7

Mitigation
Actions
60

Carson City Hazard Mitigation Plan Update

Words
78,536

Pages
306

Pages in Appendices
681

New Mitigation Actions
12

“Mitigation is any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event.”

Overview of the Hazard Mitigation Plan Update Process

1. **Get Organized:** Collect Documents, Team Members, and Stakeholders, determine the planning area
2. **Assess Risk:** Review and Rank Hazards & ID Vulnerability
3. **Assess Capability:** Review current admin, tech, legal/regulatory, and fiscal
4. **Update Mitigation Strategies:** Goals, objectives, actions, integration, and progress
5. **Update Plan Maintenance Process:** Public involvement, tracking hazard events and costs, meetings

1. Get Organized



Collect documents about hazard events, previous meetings



Local Emergency Planning Committee (LEPC)

- Single jurisdictional
- Multi-jurisdictional



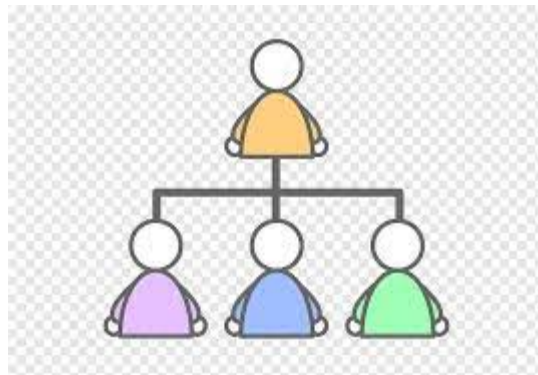
Subject Matter Experts



Local & Regional Stakeholders



Members of the public



2. Assess Risk - Risk and Vulnerability

Risk

- Chance of damage or loss



Vulnerability

- Weakness that makes us Susceptible to damage or loss





2.1 Assess Risk – Identify potential new, update existing hazards

High

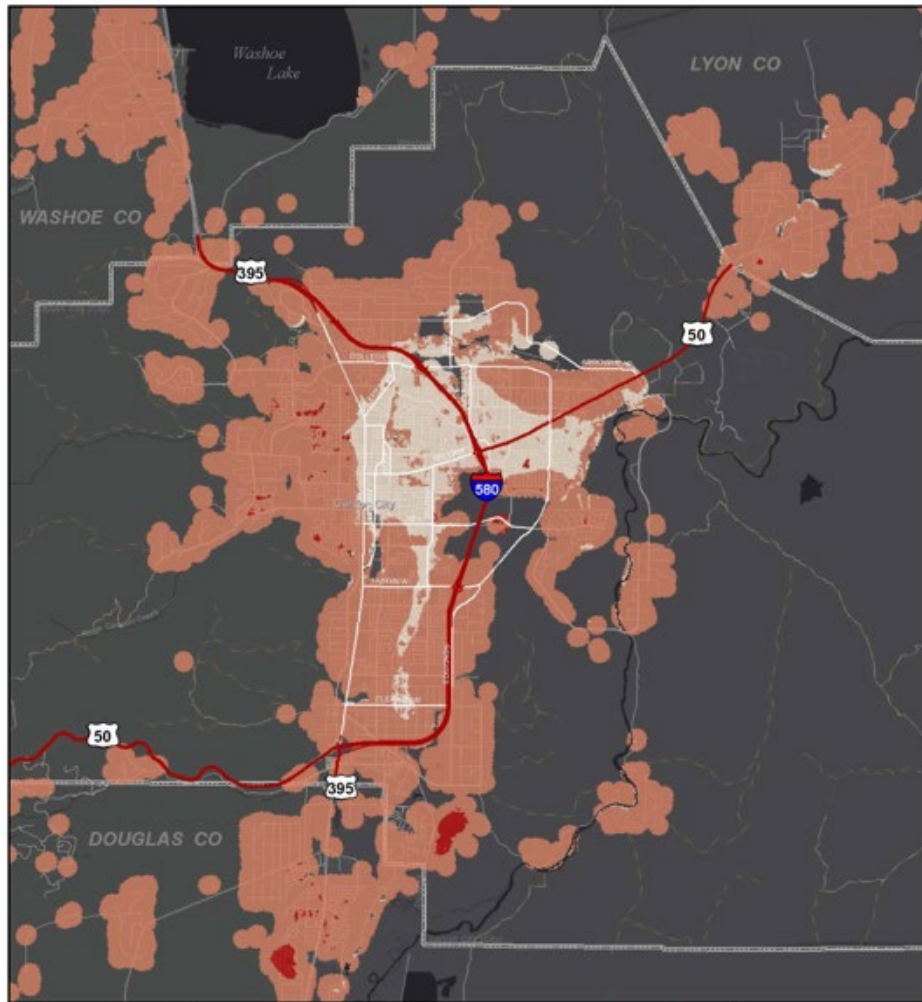
Earthquake
Wildfire
Flood
Severe Weather
Acts of Violence

Moderate

Infectious Disease
Drought
Hazardous Materials
Climate Change (New)
Landslides

Low

Avalanche
Volcano



5.2.13 Wildland Fire

5.2.13.1 Planning Significance – High

5.2.13.2 Hazard/Problem Description

5.2.13.3 Location and Extent

5.2.13.4 Previous Occurrences

5.2.13.5 Probability of Future Events

5.2.13.6 Future Frequency of Events Due to...

5.2.13.7 Cascading Hazards

5.2.13.8 Utility Loss

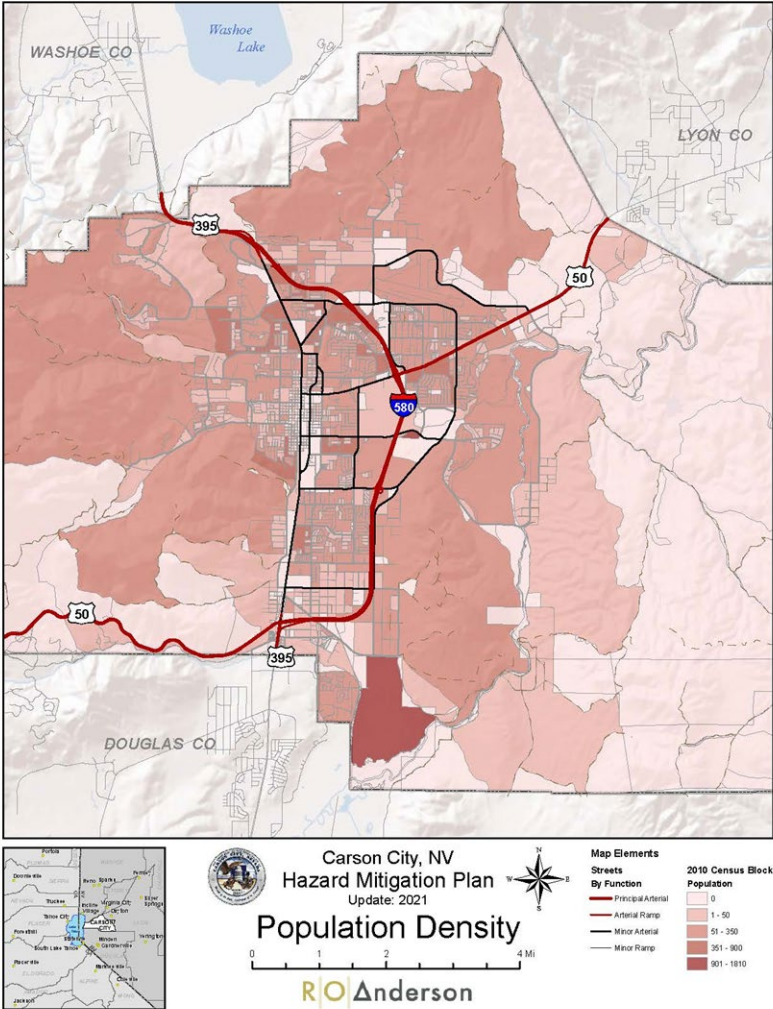
2.1.1 Assess Risk - Describe & map

FIGURE 6-6: MAP OF CARSON CITY'S WILDFIRE RISK

2.2 Vulnerability - Identify and value assets

Population: 55,916

AMENDMENT



Land Use_Group	Parcel Sum	Value	Content Value	Total Value
Vacant Total	1424	\$28,623,687	\$14,311,844	\$42,935,531
Single Family Total	16212	\$2,034,692,450	\$1,017,346,225	\$3,052,038,675
Multi residential Total	870	\$234,061,421	\$117,030,711	\$351,092,132
Commercial Total	1325	\$692,266,164	\$346,133,082	\$1,038,399,246
Industrial Total	205	\$138,645,052	\$69,322,526	\$207,967,578
Rural Total	96	\$4,650,302	\$2,325,151	\$6,975,453
Utilities Total	52	\$269,361	\$134,681	\$404,042
Public Use Total	56	\$68,038,798	\$34,019,399	\$102,058,197
Grand Total	20240	\$3,201,247,235	\$1,600,623,618	\$4,801,870,853

2.2.1 Vulnerability – Historical notes on previous plan

Hazard Loss Estimate

NOAA weather event data documented 43 severe weather events between January 2014 and June 2021 due to heavy rain, high wind, heavy snow, winter weather, and strong wind events.

The events resulted in \$333,500 in property damage and \$2500 in crop damage.

One indirect death was reported.

Based on the frequency of these events and the documented damages, the estimated impact of severe weather events is presented as 5% for damages to the building envelope.

Impacts on the community, including road closures or other inconveniences or hazards related to these events are also calculated as 5% of the population, or 2,796 people.

2.2.2 Vulnerability – estimated potential losses

TABLE 6-7: EXPOSURE FOR WEATHER EVENTS

Structure Type by Land Use Code	# of Assets	5% of # of Assets	Building Replacement Value	Total Value of Exposure	5% of Total Value of Exposure
Vacant Total	1424	71	\$28,623,687	\$28,623,687	\$1,431,184.35
Single Family Total	16212	811	\$2,034,692,450	\$2,034,692,450	\$101,734,622.50
Multi-Residential	870	44	\$234,061,421	\$234,061,421	\$11,703,071.05
Commercial Total	1325	66	\$692,266,164	\$692,266,164	\$34,613,308.20
Industrial Total	205	10	\$138,645,052	\$138,645,052	\$6,932,252.60
Rural Total	96	5	\$4,650,302	\$4,650,302	\$232,515.10
Utilities Total	52	3	\$269,361	\$269,361	\$13,468.05
Public Use Total	56	3	\$68,038,798	\$68,038,798	\$3,401,939.90
Grand Total	20240	1012	\$3,201,247,235	\$3,201,247,235	\$160,062,361.75

3. Assess Capabilities

3.1 National Flood Insurance Program & Community Rating System

3.2 Administrative & Technical

3.3 Education and Outreach

3.4 Financial

3.5 Planning & Regulatory (Integration)

*3.1 National
Flood Insurance
Program (NFIP)
&
Community
Rating System
(CRS)*

Carson City is more flood-resilient than 20 years ago (pg. 6-12).

- Decreased the area of the floodplain (NFIP)
- Earned 20% cost reduction of flood insurance for homeowners (CRS)

3.1 National Flood Insurance Program (NFIP) & Community Rating System (CRS) *(Continued)*

TABLE 7-4: NATIONAL FLOOD INSURANCE PROGRAM PARTICIPATION WORKSHEET

NFIP Topic	Access/Eligibility (Yes/No)	Comments from Floodplain Manager, Carson City, June, 2021
Insurance Summary		
How many NFIP policies are in the community? What is the total premium and coverage?		As of 2021: Policies in Force: 322 Insurance in Force: \$99,429,900.00
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?		No. of Paid losses: 92 Total Losses Paid: \$578,249.98 Substantial Damage Claims Since 1978: 2
How many structures are exposed to flood risk within the community?		836 Structures in the SFHA as of Sept 2020
Describe any areas of flood risk with limited NFIP policy coverage		Areas in the City where zone AH exists and areas where street grades are less than 1%
Staff Resources		
Is the Community FPA or NFIP Coordinator certified?	No	

NOTE
Annual presentations to the Board of Supervisors about the Plan will result in additional points toward increasing rating (CRS)—reducing the cost of flood insurance for homeowners.

4. Mitigation Strategy - goals

Promote increased and ongoing Carson City involvement in hazard mitigation projects

Build and support local capacity to enable the community to prepare for, respond to, and recover from disasters

Reduce the possibility of damage and losses due to earthquakes

Reduce the possibility of damage and losses due to infectious disease

Reduce the possibility of damage and losses due to floods

Reduce the possibility of damage and losses due to severe weather

Reduce the possibility of damage and losses due to terrorist events

Reduce the possibility of damage and losses due to wildland fires

Reduce the possibility of damage and losses due to drought

Reduce the possibility of damage and losses due to landslide

Reduce the possibility of damage and losses due to hazardous materials

TABLE 8-3: MITIGATION STRATEGY



Goal #. Action Letter Existing = <i>e</i> or New = <i>n</i>	Hazard Description	Action Description	Lead Dept. or Division — Timeline	Estimated Cost (\$)	Potential Funding Source	Primary Reviewer for the City	Status Not Started, Continuing, Completed, No longer relevant	2021 Priority
<i>Goal 1: Promote increased and ongoing Carson City involvement in hazard mitigation planning and projects.</i>								
1.A - <i>e</i> LPR	ALL	Review and update the Master Plan to be consistent with the hazard area maps and implementation strategies developed in the HMP in 2022 and 2023. Review & update ordinances & code every three years.	Planning — 2 Years	Staff Time \$5,000	Local Gen. Fund	Hope Sullivan	Continuing	Medium
1.B – <i>e</i> E&O	ALL	Identify & educate Carson City personnel on high hazard areas.	LEPC Planning Committee / Emergency Mgmt. — Annually	Staff time \$16,000	Local Gen. Fund, BRIC	Jason Danen & Rachael Schneider	Continuing	Medium
1.C – <i>e</i> P&R	ALL	Coordinate existing Geographic Information Systems (GIS) capabilities to identify hazards through the City.	Public Works — Ongoing	Staff Time \$5,000	Local Gen. Fund	Dan Stucky	Continuing	Medium

5. Plan Maintenance

Schedule

A proposed timeline for managing plan maintenance over the next five years is outlined below.

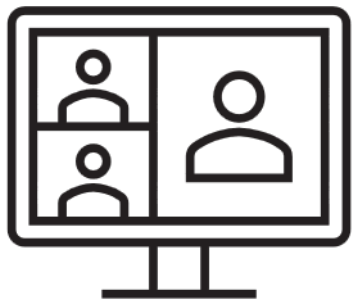
Proposed Schedule	Year 1	Year 2	Year 3	Year 4	Year 5
Annual PT Meeting	~	11/2022	11/2023	11/2024	11/2024
Collect Public Input Forms*	~	9/2022	9/2023	9/2024	9/2024
Collect Mitigation Action Updates	~	9/2022	9/2023	9/2024	9/2024
Present Mitigation Action Updates	~	11/2022	11/2023	11/2024	11/2024
Present Mitigation Action Results	~	~	11/2023	11/2024	11/2024
Present Status/Results to BOS	~	01/2022	01/2023	01/2024	01/2025
Annual Report to City Manager	03/2022	03/2023	03/2024	03/2025	HMP Update
Draft RFP for 2025 Update**	~	~	06/2023	~	~
Circulate RFP**	~	~	10/2023	~	~
Initiate 2025 Update efforts	~	~	~	01/2024	~
*Present comments at annual meeting					
**These items do not apply if the City chooses to complete the update independently.					

Carson City Hazard Mitigation Plan – 2021 Update
Mitigation Action Progress Report Tracking Sheet

5.1 Plan Maintenance tools

- Continued public involvement
- Tracking hazard events
- Monitoring progress

Goal #. Action Letter Existing = e or New = n	Hazard Description	Action Description	Lead Dept. Division Timeline	or –	Estimated Cost (\$)	Potential Funding Source	Primary Reviewer for the City	Status Not Started, Continuing, Completed, No longer relevant	Progress Report Sent DATE	Progress Report Received DATE
<i>Goal 1: Promote increased and ongoing Carson City involvement in hazard mitigation planning and projects.</i>										
1.A - e LPR	ALL	Review and update the Master Plan to be consistent with the hazard area maps and implementation strategies developed in the HMP in 2022 and 2023. Review & update ordinances & code every three years.	Planning — 2 Years		Staff Time \$5,000	Local Gen. Fund	Hope Sullivan			
1.B - e E&O	ALL	Identify & educate Carson City personnel on high hazard areas.	LEPC Planning Committee / Emergency Mgmt. — Annually		Staff time \$16,000	Local Gen. Fund, BRIC	Jason Danen & Rachael Schneider	Continuing		
1.C - e P&R	ALL	Coordinate existing Geographic Information Systems (GIS) capabilities to identify hazards through the City.	Public Works — Ongoing		Staff Time \$5,000	Local Gen. Fund	Dan Stucky	Continuing		



?

Q & A