

Urban Avalanche Atlas

Subapplicant information

Name of federal agency

FEMA

Type of submission

Application

WASHOE COUNTY

1001 E 9TH ST
RENO, NV 89512 United States

State	UEI-EFT	DUNS #	EIN #
NV	GPR1NY74XPQ5	073786998	886000138

Subapplicant type

Local Government

Is the subapplicant subject to review by Executive Order 12372 Process?

Yes-This Pre-application/application was made available to the Executive Order 12372 Process for review on.

Enter date

2026-07-23

Is the subapplicant delinquent on any federal debt?

No

Continue

Urban Avalanche Atlas

**Status: Submitted to
recipient**

Contact information

Subrecipient Authorized Representative (SAR)

Kelly Echeverria	Primary phone	Mailing address
kecheverria@washoecou		

Point(s) of contact

Francisco Ceballos Program Coordinator	Primary phone	Additional phones	Mailing address
FCeballos@washoecount	7752244109 Work	7753994811 Work	5195 Spectrum Blvd Reno NV 89512
	Fax		

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Community

Please provide the following information. If the Congressional district number for your community does not display correctly, please contact your State NFIP coordinator.

Add Communities

Please find the community(ies) that will benefit from this mitigation activity by clicking on the Find communities button. If needed, modify the Congressional District number for each community by entering the updated number under the U.S. Congressional District column for that community. When finished, click the Continue button. NOTE: You should also notify your State NFIP coordinator so that the updated U.S. Congressional District number can be updated in the Community Information System (CIS) database.

Community name	County code	CID number	CRS community	CRS rating	U.S. Congressional District
WASHOE COUNTY*	031	320019	Y	6	1

Please provide any additional comments below (optional).

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
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Mitigation plan

Please provide your plan information below.

Is the Subapplicant entity that will benefit from the proposed activity covered by the current FEMA approved multi-hazard mitigation plan in compliance with 44 CFR Part 201?

Yes

Please provide plan detail

Plan name	Plan type	Plan approval
Washoe County Regional Hazard Mitigation Plan	Local Multijurisdictional Multi-Hazard Mitigation Plan	date 09/24/2025

Proposed activity description
Create an avalanche atlas for urban avalanche areas at Lake Tahoe. A comprehensive, structured catalog mapping known avalanche paths, historically active zones, and terrain features for specific areas where critical infrastructure is at risk.

Please provide any additional comments below (optional).

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Scope of work

The project Scope of Work (SOW) identifies the eligible activity, describes what will be accomplished and explains how the mitigation activity will be implemented. The mitigation activity must be described in sufficient detail to verify the cost estimate. All activities for which funding is requested must be identified in the SOW prior to the close of the application period. FEMA has different requirements for project, planning and management cost SOWs.

Subapplication title (include type of activity and location)	Urban Avalanche Atlas
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Activities

Primary activity type	Planning related activities
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Secondary activity type (Optional)

Geographic areas description	Crystal Bay and Incline Village in Washoe County are the only urban avalanche areas at Lake Tahoe. Each one contains critical infrastructure supporting the community.
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Hazard sources

Primary hazard source	Landslide/Debris flow
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Secondary hazard source (optional)	Severe storm
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Tertiary hazard source (optional)

Implementation process description	Grant award acceptance, vendor selection, project launch, data acquisition, stakeholder engagement, Avalanche path mapping, hazard and vulnerability integration, atlas development, review, and completion, and grant closeout.
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Primary sources description	Known and historic urban avalanche zones.
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Staff and resources description	The regional emergency management team, Nevada Department of Transportation, Washoe
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County Roads, North Lake Tahoe Fire Protection District, Mt. Rose Ski Resort, Sierra Avalanche Center, and Incline Village General Improvement District.

Additional comments (optional)

Attachments

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Schedule

Specify the work schedule for the mitigation activities.

Add tasks to the schedule

Please include all tasks necessary to implement this mitigation activity; include descriptions and estimated time frames.

Task Name Grant award acceptance	Start Month 1	Task Duration (in Months) 1 months	Task Description Receive the award, take the award to the Board of County Commissioners to accept, and sign the award.
Task Name Select a Vendor	Start Month 1	Task Duration (in Months) 1 months	Task Description Complete a Request for Proposals (RFP), publish the RFP, select a vendor, and sign a contract.
Task Name Project Kickoff	Start Month 2	Task Duration (in Months) 1 months	Task Description Meet with the vendor, determine a timeline, and schedule/hold a kickoff meeting with stakeholders.
Task Name Data Collection	Start Month 2	Task Duration (in Months) 2 months	Task Description Provide the vendor with past avalanche reports, the hazard mitigation plan, and data related to historical incidents. Assist the vendor in collecting any additional data they need.

Task Name Field Assessments	Start Month 3	Task Duration (in Months) 1 months
Task Description Perform site visits to high-priority avalanche paths. Validate terrain features, runout zones, and control structures. Document observations and capture photographs/GPS tracks.		
Task Name GIS Analysis and Modeling	Start Month 5	Task Duration (in Months) 2 months
Task Description Map avalanche starting zones, tracks, runouts. Perform terrain analysis (slope angle, aspect, elevation ranges). Apply avalanche modeling tools to estimate frequency and magnitude.		
Task Name Draft Avalanche Atlas Development	Start Month 6	Task Duration (in Months) 2 months
Task Description Create draft maps (digital and printable). Write descriptive sections for each avalanche path. Compile hazard ratings, historical summaries, and notes. Develop metadata and technical documentation.		
Task Name Review and Stakeholder Feedback	Start Month 8	Task Duration (in Months) 1 months
Task Description Submit draft to Washoe County, NDOT, fire districts, search and rescue partners. Facilitate one or more review workshops. Collect and consolidate feedback.		
Task Name Revisions and Finalization	Start Month 9	Task Duration (in Months) 1 months
Task Description		

	Update maps and content based on stakeholder input. Finalize GIS layers, digital atlas format, and documentation. Produce final printable atlas.
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Task Name Delivery and Training	Start Month 10	Task Duration (in Months) 1 months
	Task Description Deliver final Avalanche Atlas (digital and hard copy). Provide GIS files, metadata, and versioned datasets. Conduct training session for county staff on using and updating the atlas.	

Estimate the total duration of your proposed activities (in months). **10**

Proposed project start and end dates

Start Date **2027-01-11**

End Date **2027-10-22**

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Budget

Budget cost estimate and management cost (optional) should directly link to your scope of work and work schedule. You must add at least one item(s) greater than \$0 for your cost estimate. Once you have added item(s) for your cost estimate, you may then add the item(s) for management cost (optional). As necessary, please adjust your federal/non-federal cost shares and add the non-federal funding source(s) you are planning to use this project. Once you have completed this section, please click the Continue button at the bottom of this page to navigate to the next section.

Add budget cost types and item(s)

Click the Add cost type button below to add cost type cost estimate and then click the Add item(s) button to add the item(s) for the cost estimate. After adding items to your cost estimate, you may then select Add cost type button again to add management costs (optional) and applicable items.

Grand total: \$200,000.00

Budget type: Non construction

►	Cost type: Cost estimate	\$200,000.00
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Program income (optional)

Cost share

Cost share or matching means the portion of project costs not paid by federal funds.

Proposed federal vs. non-federal funding shares

Hazard Mitigation Assistance (HMA) funds may be used to pay up to 75% federal share of the eligible activity costs. For Building Resilient Infrastructure and communities (BRIC), small impoverished communities may be eligible for up to 90% federal share. For Flood Mitigation Assistance (FMA), and severe repetitive loss (SRL) properties may be eligible for up to 100% federal share. Repetitive loss (RL) properties may be eligible for up to 90% federal share.

Cost estimate

	% Percentage	\$ Dollar amount

Is this a small impoverished community? ⓘ This determines your federal/non-federal share ratio. No	Proposed federal share	75.00	150000.00
	Proposed non-federal share	25.00	50000.00
	Based on total budget cost: \$200,000.00		

Non-federal funding sources here

That portion of the total costs of the program provided by the non-federal entity in the form of in-kind donations or cash match received from third parties or contributed by the agency. In-kind contributions must be provided and cash expended during the project period along with federal funds to satisfy the matching requirements.

Funding source	% Non-federal share by source	Funding amount
▶ Funding source: Employee Payroll	100.00%	\$50,000.00

Additional comments.

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
Match Commitment Letter.pdf	07/06/2026	kecheverria@washoecounty.gov	Budget Attachments	No description given.	

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Evaluation

Is the applicant participating in the Community Rating System (CRS) ?	Yes
Select rating.	6
Is the applicant a Cooperating Technical Partner (CTP) ?	Yes
Was this application generated from a previous FEMA HMA Advance Assistance or Project Scoping award or any other federal grant award, or the subapplicant is a past recipient of Building Resilient Infrastructure and Communities (BRIC) non-financial Direct Technical Assistance?	No
Has the applicant adopted building codes consistent with the international codes ?	Yes
Year of building code	2024
Please provide the building code.	https://www.washoecounty.gov/building/getting_started/building_
Have the applicant's building codes been assessed on the Building Code Effectiveness Grading Schedule (BCEGS) ?	Yes
Select rating.	5
Describe involvement of partners to enhance the mitigation activity outcome.	Engagement of transportation agencies (e.g., NDOT and local public works) to provide historic avalanche data, roadway impact information, and operational insights that refine hazard identification. Collaboration with fire districts and emergency response agencies to integrate response considerations, access challenges, and incident history into the atlas. Coordination with local search and rescue organizations to incorporate field-level knowledge of terrain hazards, recreation patterns, and past avalanche events. Partnership with the U.S. Forest Service and other land management agencies to share terrain, vegetation, and snowpack data and to assist with cross-jurisdictional accuracy. Input from ski areas and professional avalanche practitioners to strengthen technical modeling, validate terrain assessments, and ensure accurate interpretation of snow and avalanche behavior. Outreach to community groups and homeowner associations to improve public awareness, gather local knowledge, and increase usability of the final atlas. Engagement with universities and research institutions to review methodologies, support advanced modeling, and enhance scientific rigor.
Describe how this planning activity benefits your community and how the plan/data will be used to promote resiliency.	The Avalanche Atlas provides Washoe County with a single, comprehensive source of avalanche hazard information, improving awareness for planners, emergency managers, and responders while identifying high-risk corridors, neighborhoods, infrastructure, and recreation areas. By integrating this data into development review, capital planning, and permitting, the county can make more

informed land-use decisions and strengthen winter operations planning. The shared, science-based dataset enhances coordination across agencies and supports proactive mitigation efforts that reduce long-term costs, future disruptions, and emergency response needs—ultimately improving public safety and community resilience. The Avalanche Atlas strengthens Washoe County’s overall resilience by integrating avalanche risk data into key planning documents, supporting future mitigation grant applications with validated and geographically precise information, and enabling scenario modeling to guide effective mitigation strategies. It also provides a foundation for public education, helping residents and visitors make safer decisions during winter conditions. As an updatable baseline dataset, it allows the county to track changing conditions over time and improves preparedness, coordination, and risk reduction before, during, and after avalanche events.

Additional comments (optional)

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
62280 Washoe Co NV Final Letter 12R.pdf	07/06/2026	kecheverria@washoecounty.gov	Evaluation Attachments	No description given.	

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