

The hazard identification and profiling in the hazard mitigation plan addresses the following natural hazards considered to be of significant importance within the Ada County planning area:

- Dam/canal failure
- Drought
- Earthquake
- Extreme Weather
- Flood
- Landslide
- Volcano (ash fall)
- Wildfire

Ada County Emergency Management & Community Resilience (EMCR) secured funding for developing the hazard mitigation plan and was the lead coordinating agency for this multi-jurisdictional effort. All participating local jurisdictions have been responsible for assisting in the development of the hazard and vulnerability assessments and the mitigation action strategies for their respective jurisdictions and organizations. Meridian's hazard mitigation planning team consists of members from Fire, Planning and Public Works.

The overall plan update process was overseen by a 19-member, stakeholder Steering Committee with Meridian represented by Jason Korn. In addition, residents were asked to contribute by sharing local knowledge of their individual area's vulnerability to natural hazards based on past occurrences. Public involvement has been solicited via a multi-media campaign that included public meetings, web-based information, questionnaires, and progress updates via the news media.

NEXT STEPS

Why adopt this Plan?

Once the hazard mitigation plan has been approved by IOEM and FEMA and adopted by all of the jurisdictional partners, the partnership will collectively and individually become eligible to apply for hazard mitigation project funding from the suite of grant programs under FEMA's Hazard Mitigation Assistance (HMA) program. The Plan needs to be adopted as the final step in the process.

Where do we go from here?

Meridian will need to adopt Volume 1 and respective annex by resolution to be eligible to apply for funding sources including grants. Grant funds are made available to local governments and states and can be used to implement the various hazard mitigation measures specified in the respective annexes. Meridian currently has a grant application under review for Ninemile Creek Mitigation. Due to the previous plan being expired, the Ninemile Creek application received an extraordinary circumstances extension to remain eligible as long as the new plan is adopted according to schedule.

The Hazard Mitigation Plan is considered a living document, such that as awareness of additional hazards develop and new strategies and projects are conceived to offset or prevent loss due to natural hazards, the Plan will be evaluated and revised on an annual basis during the 5 year plan timeframe.

Attachments:

- Ada County Multi-Hazard Mitigation Plan Volume 2, Meridian Annex
- Resolution

Link: Ada County Multi-Hazard Mitigation Plan Volume 1

https://adacounty.id.gov/emergencymanagement/wp-content/uploads/sites/39/2022-07_AdaCoHazMitPlanVol1_PublicReviewDraft.pdf

6. CITY OF MERIDIAN

6.1 LOCAL HAZARD MITIGATION PLANNING TEAM

Primary Point of Contact

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This annex was developed by the local hazard mitigation planning team, whose members are listed in Table 6-1.

Table 6-1. Local Hazard Mitigation Planning Team Members

Name	Title
Caleb Hood	Planning Division Manager
Joe Bongiorno	Deputy Chief
Jason Korn	Environmental Programs Coordinator
Joanna Hopson	Business Programs Coordinator

6.2 JURISDICTION PROFILE

6.2.1 Location and Features

Meridian is not only geographically located in the center of the Treasure Valley, but it also is the population center of the Treasure Valley; people are evenly distributed in all directions from Meridian. Downtown Meridian is approximately 10 miles from the heart of Boise.

Meridian is favored by a mild, arid climate. July is the hottest month, with the average high temperature of 90° F. January is the coldest month with an average low temperature of 22° F. The normal precipitation pattern in the Meridian area shows a winter high of 1.2 inches of precipitation per month and a very pronounced summer low of about 0.1 inches. Typically, there are 12 inches of annual precipitation.

6.2.2 History

The City of Meridian was incorporated in August 1903. Meridian has transformed from a sagebrush-filled mail drop located on the Oregon Trail in the 1880s, to a small fruit orchard center after the turn of the century through the 1930s, to a dairy-based farming community in the 1940s. Meridian is named for Idaho's principle meridian

used for the initial survey of the state which coincides with Meridian Road at the center of the City. Its character as a small farming community continued until approximately 1990, when its population was still about 10,000.

6.2.3 Governing Body Format

Meridian uses the Mayor-Council form of local government. In Meridian, the Council, which includes the Mayor, possesses both legislative and executive authority. Departments include: City Clerk, Community Development, Finance, Fire, Human Resources, Legal, Mayor’s Office, Parks & Recreation, Police, and Public Works.

The City Council is responsible for the adoption of this plan, City Departments are responsible for its implementation.

6.3 CURRENT TRENDS

6.3.1 Population

According to COMPASS, the population of the City of Meridian as of April 2022 was 133,470. Since 2017, the population has grown at an average annual rate of 7.2 percent.

6.3.2 Development

As of November 2021, single family housing is the predominant development in Meridian, accounting for 82% of all dwelling units. Additionally, at the end of 2021, Meridian provided 21% of available jobs in Ada County, or 53,035. Meridian seeks to offer a diversity of housing products, create strong and sustainable jobs, improve infrastructure, and support diversified modes of transportation.

Identifying previous and future development trends is achieved through a comprehensive review of permitting since completion of the previous plan and in anticipation of future development. Tracking previous and future growth in potential hazard areas provides an overview of increased exposure to a hazard within a community. Table 6-2 summarizes development trends in the performance period since the preparation of the previous hazard mitigation plan, as well as expected future development trends.

Table 6-2. Recent and Expected Future Development Trends

Criterion	Response
<p>Has your jurisdiction annexed any land since the preparation of the previous hazard mitigation plan? <i>If yes, give the estimated area annexed and estimated number of parcels or structures.</i></p>	<p>Yes 1,876 acres; 10,500 parcels</p>
<p>Is your jurisdiction expected to annex any areas during the performance period of this plan? <i>If yes, describe land areas and dominant uses.</i> <i>If yes, who currently has permitting authority over these areas?</i></p>	<p>Yes Agricultural Ada County</p>
<p>Are any areas targeted for development or major redevelopment in the next five years? <i>If yes, briefly describe, including whether any of the areas are in known hazard risk areas</i></p>	<p>Yes West Meridian including the Fields Area west of McDermott (north of I-84 south of Chinden. This area includes Tenmile and Fivemile Creek SFHA. South East Meridian south of Amity and generally north of Columbia, between Eagle and Meridian roads. No known hazard risk areas. South West Meridian, south of I-84 west of Tenmile Rd. No know hazard risk areas.</p>

Criterion	Response					
	2016	2017	2018	2019	2020	
How many permits for new construction were issued in your jurisdiction since the preparation of the previous hazard mitigation plan?	Single Family	1368	1428	1812	2109	1867
	Multi-Family	45	86	110	104	111
	Other	66	79	79	110	52
	Total	1569	1692	2171	2273	2076
Provide the number of new-construction permits for each hazard area or provide a qualitative description of where development has occurred.	<ul style="list-style-type: none"> • Special Flood Hazard Areas: 5 new structures since 2016. 1 Mobile Home and 4 Commercial buildings all elevated above BFE. Development on Ninemile, Eightmile and Fivemile Creek floodplains. • Landslide: 0 • High Liquefaction Areas: 0 • Wildfire Risk Areas: 0 					
Describe the level of buildout in the jurisdiction, based on your jurisdiction’s buildable lands inventory. If no such inventory exists, provide a qualitative description.	Total area of Meridian area of annexed is 60.3% with 39.7% not annexed Land use breakdown of area currently annexed compared to area not yet annexed: Residential: 56% annexed / 44% not annexed Mixed Use: 17% annexed / 83% not annexed Employment: 71% annexed / 29% not annexed Civic: 84% annexed / 16 % not annexed					

6.4 CAPABILITY ASSESSMENT

This section describes an assessment of existing capabilities for implementing hazard mitigation strategies. The introduction at the beginning of this volume of the hazard mitigation plan describes the components included in the capability assessment and their significance for hazard mitigation planning.

Findings of the capability assessment were reviewed to identify opportunities to expand, initiate or integrate capabilities to further hazard mitigation goals and objectives. Where such opportunities were identified and determined to be feasible, they are included in the action plan. The “Analysis of Mitigation Actions” table in this annex identifies these as community capacity building mitigation actions. The findings of the assessment are presented as follows:

- An assessment of planning and regulatory capabilities is presented in Table 6-3.
- Development and permitting capabilities are presented in Table 6-4.
- An assessment of fiscal capabilities is presented in Table 6-5.
- An assessment of administrative and technical capabilities is presented in Table 6-6.
- An assessment of education and outreach capabilities is presented in Table 6-7.
- Information on National Flood Insurance Program (NFIP) compliance is presented in Table 6-8.
- Classifications under various community mitigation programs are presented in Table 6-9.

Table 6-3. Planning and Regulatory Capability

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
Codes, Ordinances, & Requirements				
Building Code <i>Comment: Meridian City Code Title 10, Chapter 1; Adopted 1/12 2020; Ord. #20-1905</i>	Yes	No	Yes	No
Zoning Code <i>Comment: Meridian City Code Title 11, Chapter 2; Adopted 7/8/2008; Ord. #08-1372</i>	Yes	No	No	No
Subdivisions <i>Comment: Meridian City Code Title 11, Chapter 6; Adopted 7/8/2008; Ord. #08-1372</i>	Yes	No	No	No
Stormwater Management <i>Comment: ACHD owns and operates storm drain system on public roadways. City of Meridian Design Standards Section 7, Grading and Drainage Standards.</i>	No	Yes	No	No
Post-Disaster Recovery <i>Comment:</i>	No	No	No	No
Real Estate Disclosure <i>Comment:</i>	No	No	No	No
Growth Management <i>Comment: City of Meridian Comprehensive Plan; Adopted 12/17/2019; Resolution #19-2179</i>	Yes	No	No	No
Site Plan Review <i>Comment: Multiple City Ordinances and Departments.</i>	Yes	No	No	No
Environmental Protection <i>Comment: Multiple City Ordinances and Departments.</i>	Yes	No	No	No
Flood Damage Prevention <i>Comment: Meridian City Code Title 10, Chapter 6; Adopted 5/12/2020; Ord. #20-1879</i>	Yes	No	No	No
Emergency Management <i>Comment: Emergency Management for the City of Meridian is done in partnership with ACCEM. Meridian participates through the EMCR Board as well as representation on TAG (Technical Advisory Group).</i>	Yes	Yes	No	Yes
Climate Change <i>Comment:</i>	No	No	No	No
Planning Documents				
General Plan <i>Is the plan equipped to provide linkage to this mitigation plan? No</i> <i>Comment: City of Meridian Comprehensive Plan; Adopted 12/17/2019; Resolution #19-2179</i>	Yes	No	No	Yes
Capital Improvement Plan <i>How often is the plan updated? Every year, 10-year time frame.</i> <i>Comment: Capital Improvement Plan has been integrated into Comprehensive Financial Plan for FY23-FY32</i>	Yes	No	No	No
Disaster Debris Management Plan <i>Comment: Draft Debris Management Annex awaiting adoption in EOP.</i>	No	Yes	No	Yes
Floodplain or Watershed Plan <i>Comment: The 2022 Ada County Multi-Hazard Mitigation Plan qualifies as a flood hazard management plan under CRS criteria upon its completion and adoption</i>	Yes	No	No	Yes
Stormwater Plan <i>Comment: ACHD owns and operates storm drain system on public roadways and maintains a Stormwater Management Plan. Private Property runoff managed by City of Meridian Design Standards Section 7, Grading and Drainage Standards.</i>	No	Yes	No	No
Urban Water Management Plan <i>Comment:</i>	No	No	No	No
Habitat Conservation Plan <i>Comment:</i>	No	No	No	No

	Local Authority	Other Jurisdiction Authority	State Mandated	Integration Opportunity?
Economic Development Plan <i>Comment: Meridian has economic development staff and an Urban Renewal Agency, Meridian Development Corp. (MDC). MDC has development plans for various districts including those with flood hazard concerns.</i>	Yes	Yes	No	No
Shoreline Management Plan <i>Comment:</i>	No	No	No	No
Community Wildfire Protection Plan <i>Comment:</i>	No	No	No	No
Forest Management Plan <i>Comment:</i>	No	No	No	No
Climate Action Plan <i>Comment:</i>	Yes	No	No	No
Comprehensive Emergency Management Plan <i>Comment: The City has adopted a Comprehensive Emergency Operations Plan utilizing Emergency Support Functions.</i>	Yes	Yes	No	No
Threat & Hazard Identification & Risk Assessment (THIRA) <i>Comment: Ada County THIRA – September 2018</i>	No	Yes	No	No
Post-Disaster Recovery Plan <i>Comment:</i>	No	No	No	No
Continuity of Operations Plan <i>Comment: Individual Departments have updated COOP plans 2021</i>	Yes	No	No	No
Public Health Plan <i>Comment: Central District Health Department Emergency Operations Plan, 2020. Fire Department does have input on Public Health planning via the ACCESS EMS system.</i>	No	Yes	No	No

Table 6-4. Development and Permitting Capability

Criterion	Response
Does your jurisdiction issue development permits? <i>If no, who does? If yes, which department?</i>	Yes Community Development, Building Services
Does your jurisdiction have the ability to track permits by hazard area?	Yes
Does your jurisdiction have a buildable lands inventory?	No

Table 6-5. Fiscal Capability

Financial Resource	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service <i>If yes, specify: Water and sewer utilities</i>	Yes
Incur Debt through General Obligation Bonds	No
Incur Debt through Special Tax Bonds	No
Incur Debt through Private Activity Bonds	No
Withhold Public Expenditures in Hazard-Prone Areas	Yes
State-Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes

Table 6-6. Administrative and Technical Capability

Staff/Personnel Resource	Available?
Planners or engineers with knowledge of land development and land management practices <i>If Yes, Department /Position:</i> Community Development, Public Works; several positions	Yes
Engineers or professionals trained in building or infrastructure construction practices <i>If Yes, Department /Position:</i> Community Development, Public Works; several positions	Yes
Planners or engineers with an understanding of natural hazards <i>If Yes, Department /Position:</i> Community Development, Public Works; several positions	Yes
Staff with training in benefit/cost analysis <i>If Yes, Department /Position:</i> Community Development, Public Works; several positions	Yes
Surveyors	No
Personnel skilled or trained in GIS applications <i>If Yes, Department /Position:</i> Information Technology, Community Development, Public Works, several positions	Yes
Scientist familiar with natural hazards in local area <i>If Yes, Department /Position:</i> Planning partners available through universities and Idaho Department of Homeland Security	No
Emergency manager <i>If Yes, Department /Position:</i> No dedicated Emergency Manager for the City of Meridian.	No
Grant writers <i>If Yes, Department /Position:</i> Ability to contract for service	Yes

Table 6-7. Education and Outreach Capability

Criterion	Response
Do you have a public information officer or communications office?	Yes – Mayor’s Office Communications Manager
Do you have personnel skilled or trained in website development?	Yes – Information Technology
Do you have hazard mitigation information available on your website? <i>If yes, briefly describe:</i> Links to Ada County Mitigation websites	Yes
Do you use social media for hazard mitigation education and outreach? <i>If yes, briefly describe:</i> Flood Safety Awareness Week posts	Yes
Do you have any citizen boards or commissions that address issues related to hazard mitigation? <i>If yes, briefly describe:</i>	No
Do you have any other programs in place that could be used to communicate hazard-related information? <i>If yes, briefly describe:</i> Annual CRS mailings to property owners in floodplain, Social Media and in person outreach events such as Public Works Week.	Yes
Do you have any established warning systems for hazard events? <i>If yes, briefly describe:</i> Code Red – residents may sign up to receive emergency notifications and critical community alerts. Ada County EMCR developed a Joint Information System Plan that delineates the processes with developing a regional joint information system and center for coordinating public information messaging.	Yes

Table 6-8. National Flood Insurance Program Compliance

Criterion	Response
What local department is responsible for floodplain management?	Community Development, Public Works
Who is your floodplain administrator? (department/position)	Public Works; City Engineer or Appointee
Are any certified floodplain managers on staff in your jurisdiction?	Yes
What is the date that your flood damage prevention ordinance was last amended?	5/12/2020
Does your floodplain management program meet or exceed minimum requirements? <i>If exceeds, in what ways?</i> Several (Low Floor 2' freeboard, Crawlspace 1' freeboard, added buffer of mapped boundaries, etc.)	Exceed
When was the most recent Community Assistance Visit or Community Assistance Contact?	11/6/2017
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	No
Are any RiskMAP projects currently underway in your jurisdiction?	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? Many Zone A hazard areas remain on Tenmile Creek and Fivemile Creek that require additional analysis. Many areas are mis-aligned and far from the actual waterway channel.	No
Does your floodplain management staff need any assistance or training to support its floodplain management program? Need ongoing training for CFM certification and cross training backup floodplain management staff	Yes
Does your jurisdiction participate in the Community Rating System (CRS)? <i>If yes, is your jurisdiction interested in improving its CRS Classification?</i> No	Yes
How many flood insurance policies are in force in your jurisdiction? ^a <i>What is the insurance in force?</i> \$32,569,900 <i>What is the premium in force?</i> \$87,637	120
How many total loss claims have been filed in your jurisdiction? ^a <i>What were the total payments for losses?</i> \$-	1

a. According to FEMA statistics as of March 31, 2022

Table 6-9. Community Classifications

	Participating?	Classification	Date Classified
FIPS Code	Yes	1600152120	N/A
DUNS #	Yes	028451367	N/A
Community Rating System	Yes	8	7/25/2016
Building Code Effectiveness Grading Schedule	Yes	5	10/19/2020
Public Protection	Yes	ISO Class 3	2020
Storm Ready	Yes	Blue	N/A
Firewise	No	N/A	N/A

6.5 INTEGRATION REVIEW

For hazard mitigation planning, “integration” means that hazard mitigation information is used in other relevant planning mechanisms, such as general planning and capital facilities planning, and that relevant information from those sources is used in hazard mitigation. This section identifies where such integration is already in place, and where there are opportunities for further integration in the future. Resources listed at the end of this annex were used to provide information on integration. The progress reporting process described in Volume 1 of the hazard

mitigation plan will document the progress of hazard mitigation actions related to integration and identify new opportunities for integration.

6.5.1 Existing Integration

Some level of integration has already been established between local hazard mitigation planning and the following other local plans and programs:

- **City of Meridian Comprehensive Plan**—The Comprehensive Plan for Meridian currently includes mitigation related policies as they related to the protection of human life and property from flood events. Additionally, the Comprehensive plan addresses the need for natural resource protection and the identification of known hazards within the County.
- **Meridian Flood Damage Prevention Ordinance**—Ordinance integrates with Ada County Multi-Hazard Mitigation Plan goals and objectives.
- **COOP** – The COOP plan for the City of Meridian was completed in 2012 and adopted by City Council.

6.5.2 Opportunities for Future Integration

The capability assessment presented in this annex indicates opportunities to integrate this mitigation plan with other jurisdictional planning/regulatory capabilities. Capabilities were identified as integration opportunities if they can support or enhance the actions identified in this plan or be supported or enhanced by components of this plan. The capability assessment identified the following plans and programs that do not currently integrate hazard mitigation information but provide opportunities to do so in the future:

- **Comprehensive Plan Existing Conditions Report (ECR)**—Integrate mitigation plan risk assessment into hazardous areas section and reference mitigation actions in specific hazard sections.
- **Comprehensive Financial Plan (CFP)**—Mitigation may be funded, in part, through the City CFP plan and if grant funds are awarded for mitigation they need to be programmed into the CFP.

Taking action to integrate each of these programs with the hazard mitigation plan was considered as a mitigation action to include in the action plan in this annex.

6.6 RISK ASSESSMENT

6.6.1 Jurisdiction-Specific Natural Hazard Event History

Table 6-10 lists past occurrences of natural hazards for which specific damage was recorded in this jurisdiction. Other hazard events that broadly affected the entire planning area, including this jurisdiction, are listed in the risk assessments in Volume 1 of this hazard mitigation plan.

6.6.2 Hazard Risk Ranking

Table 6-11 presents a local ranking of all hazards of concern for which this hazard mitigation plan provides complete risk assessments. As described in detail in Volume 1, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property and the economy. Mitigation actions target hazards with high and medium rankings.

Table 6-10. Past Natural Hazard Events

Type of Event	FEMA Disaster #	Date	Damage Assessment
Thunderstorm/Microburst	N/A	6/22/2021	Tree broken in half due to thunderstorm outflow winds. Estimated 60MPH wind gusts
Cloudburst Rain Event	N/A	Sept 2013	Unknown
Cloudburst Rain Events	N/A	Aug 2010	Unknown
Wildfires	N/A	Sept 2000	Unknown
Rain & Flooding	N/A	Dec 1964	Unknown

Table 6-11. Hazard Risk Ranking

Rank	Hazard	Risk Ranking Score	Risk Category
1	Extreme Weather	33	High
2	Flood	18	Medium
3	Earthquake	16	Medium
4	Drought	9	Low
5	Dam/Canal Failure	6	Low
6	Landslide	6	Low
7	Volcano	6	Low
8	Wildfire	0	Low

6.6.3 Jurisdiction-Specific Vulnerabilities

Volume 1 of this hazard mitigation plan provides complete risk assessments for each identified hazard of concern. This section provides information on a few key vulnerabilities for this jurisdiction. Available jurisdiction-specific risk maps of the hazards are provided at the end of this annex.

Repetitive Loss Properties

Repetitive loss records are as follows:

- Number of FEMA-identified Repetitive-Loss Properties: 0
- Number of FEMA-identified Severe-Repetitive-Loss Properties: 0
- Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: N/A

Other Noted Vulnerabilities

The following jurisdiction-specific issues have been identified based on a review of the results of the risk assessment, public involvement strategy, and other available resources:

- Canal failure is a potential vulnerability. Refer to local irrigation districts for vulnerability assessments.

Mitigation actions addressing these issues were prioritized for consideration in the action plan in this annex.

6.7 STATUS OF PREVIOUS PLAN ACTIONS

Table 6-12 summarizes the actions that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

Action Item from Previous Plan	Completed	Removed; No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action # in Update
<p>Action M-1—Conduct a survey of water, sewer, fire, and police infrastructure including power generation equipment, wastewater treatment plant facilities, communications, and Supervisory Control and Data Acquisition (SCADA) equipment to analyze vulnerability to severe weather and earthquake, then design and execute improvements to mitigate.</p> <p>Comment: <i>Wastewater treatment plant installed new switch for backup generator and has moved above ground power lines underground in 2021. Added new item to address backup power availability at other critical facilities.</i></p>	✓			
<p>Action M-2—Become a “Firewise Community”</p> <p>Comment: <i>Becoming a Firewise community is still a goal of the Meridian Fire Department as the City expands into more wildfire prone areas.</i></p>			✓	M-8
<p>Action M-3—Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include but are not limited to: enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.</p> <p>Comment: <i>City of Meridian maintains good standing under the NFIP and continues to enforce flood damage prevention ordinance through floodplain administration program.</i></p>			✓	M-4
<p>Action M-4—Maintain, and improve where beneficial, participation rating in the Community Rating System (CRS)</p> <p>Comment: <i>City of Meridian currently maintains a CRS Rating of 8 and underwent Cycle Verification in 2020.</i></p>			✓	M-15
<p>Action M-5—Evaluate surface water protection program, including surface water restoration, stormwater management, capital improvement program integration, and potential regulatory and fee impacts.</p> <p>Comment: <i>The Ada County Highway District operates the storm drain system and maintains a Stormwater Management Plan in the City of Meridian. Potential stream restoration and flood mitigation projects are listed as separate mitigation actions.</i></p>		✓		
<p>Action M-6—Partner with ACHD to implement a culvert replacement program for approximately 15 crossings of Fivemile, Ninemile, and Tenmile Creeks including design and construction.</p> <p>Comment: <i>Culverts that have yet to be replaced are carried over to new plan.</i></p>			✓	M-14
<p>Action M-7—Partner with Idaho Transportation Department (ITD) to design and construct culvert improvements on Fivemile Creek at Eagle Rd and the I-84 / Eagle Road Interchange according to recommendations of “Fivemile Creek at Interstate 84—Eagle Road to Wells Street” Hydraulic Report, November 2008.</p> <p>Comment: <i>ITD completed culvert improvements, LOMR effective November 2, 2018</i></p>	✓			
<p>Action M-8—Assist local irrigation districts with vulnerability assessments on the Ridenbaugh and New York Canal systems in the Meridian Area of Impact.</p> <p>Comment: <i>Project is considered no longer feasible, remove from plan.</i></p>		✓		
<p>Action M-9—Perform an assessment to determine housing areas that would benefit from foundation elevation projects; and where appropriate, support and assist in grant funding opportunities for retrofitting, purchase or relocation projects.</p> <p>Comment: <i>This action has been re-worded to include all high or medium risk hazard areas.</i></p>		✓		

Action Item from Previous Plan	Completed	Removed; No Longer Feasible	Carried Over to Plan Update	
			Check if Yes	Action # in Update
<p>Action M-10—Integrate Multi-Hazard Mitigation Plan into the City of Meridian’s Comprehensive Plan.</p> <p><i>Comment:</i> The Meridian City Council adopted a new Comprehensive Plan by resolution 19-2179 on December 17th, 2019. Multi-Hazard Mitigation Plan is integrated and referenced in the new comp plan. Sections Livable/Public Safety address hazards and coordination.</p>	✓			
<p>Action M-11—Consider appropriate higher regulatory standards that prevent or reduce risk to the built environment from the known hazards of concern.</p> <p><i>Comment:</i> To date, flood standards are consistent with community needs. Standards higher than the NFIP minimum remain in the new flood damage prevention ordinance effective 6/19/20. Other standards will be evaluated on on-going basis.</p>	✓			
<p>Action M-12—Support County-wide initiatives identified in Volume 1.</p> <p><i>Comment:</i> The city continues to support County-wide initiatives</p>			✓	M-19
<p>Action M-13—Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Volume 1.</p> <p><i>Comment:</i> Meridian continues to support the Ada County Multi-Jurisdictional Hazard Mitigation Plan planning process. Annual progress reporting using BATool.</p>			✓	M-3
<p>Action M-14—Provide fire safety, fire prevention and Firewise education to neighborhoods, schools and community via the internet, social media and direct public outreach.</p> <p><i>Comment:</i> Fire safety and prevention education and outreach program is an ongoing effort of the Meridian Fire Department.</p>			✓	M-7
<p>Action M-15—Whenever possible, coordinate with local experts and employ natural environmental processes in mitigation activities that increase ecosystem resilience and reduce the impacts of flooding on the built environment.</p> <p><i>Comment:</i> Continue to evaluate projects as opportunity arises.</p>			✓	M-18

6.8 HAZARD MITIGATION ACTION PLAN

Table 6-13 lists the identified actions, which make up the hazard mitigation action plan for this jurisdiction. Table 6-14 identifies the priority for each action. Table 6-15 summarizes the mitigation actions by hazard of concern and mitigation type.

Table 613. Hazard Mitigation Action Plan Matrix

Benefits New or Existing Assets	Objectives Met	Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline ^a
<p>Action M-1—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.</p> <p><i>Hazards Mitigated:</i> Wildfire, Extreme Weather, Flood, Earthquake, Dam/Canal Failure, Landslide</p>						
Existing	3, 8, 9	City of Meridian	N/A	High	HMGP, BRIC, FMA	Short-term
<p>Action M-2— Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including Flood Damage Prevention Ordinance, Community Risk Assessment and Comprehensive Plan.</p> <p><i>Hazards Mitigated:</i> Wildfire, Extreme Weather, Flood, Earthquake, Dam/Canal Failure, Landslide, Drought</p>						
New & Existing	2, 5, 6	City of Meridian	Ada County	Low	Staff Time, General Funds	Ongoing

Benefits New or Existing Assets	Objectives Met	Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline ^a
<p>Action M-3—Actively participate in the plan maintenance protocols outlined in Volume 1 of this hazard mitigation plan.</p> <p><u>Hazards Mitigated:</u> Wildfire, Extreme Weather, Flood, Earthquake, Dam/Canal Failure, Landslide, Drought, Volcano</p>						
New & Existing	All	City of Meridian	Ada County	Low	Staff Time, General Funds	Short-term
<p>Action M-4—Continue to maintain good standing and compliance under the NFIP through 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. <p><u>Hazards Mitigated:</u> Flood</p>						
New & Existing	2, 3, 4, 6, 8, 9	City of Meridian	N/A	Low	Staff Time, General Funds, Enterprise Funds	Ongoing
<p>Action M-5— Coordinate with community stakeholders in both the public and private sectors to identify and pursue adaptive capacity strategies that could improve community resilience in relation to future climate conditions.</p> <p><u>Hazards Mitigated:</u> Drought, Flood, Extreme Weather, Wildfire</p>						
New & Existing	New & Existing	City of Meridian	N/A	Low	Staff Time, General Funds	Short-term
<p>Action M-6— Identify and install the most suitable backup power solution for critical facilities and infrastructure that lack adequate backup power. Solutions may vary based on circumstances and could include but are not limited to generators, switches, battery storage, and solar systems.</p> <p><u>Hazards Mitigated:</u> Flood, Extreme Weather, Earthquake</p>						
Existing	1, 3, 10	City of Meridian	N/A	Medium	General Funds, Enterprise Funds, BRIC, HMGP	Long-term
<p>Action M-7— Provide fire safety, fire prevention and Firewise education to neighborhoods, schools and community via the internet, social media and direct public outreach.</p> <p><u>Hazards Mitigated:</u> Wildfire</p>						
New & Existing	4, 5, 7, 8, 9	City of Meridian	N/A	Low	Staff Time	Ongoing
<p>Action M-8— Become a “Firewise Community”</p> <p><u>Hazards Mitigated:</u> Wildfire</p>						
New & Existing	4, 5, 7, 8, 9	City of Meridian	N/A	Low	Staff Time	Long-term
<p>Action M-9— Update the Black’s Creek Reservoir breach analysis and the resulting downstream flood inundation map using the most recent, highest resolution GIS data available. The model suggested for use should be HEC-RAS or an equivalent two-dimensional model that can satisfactorily recognize and address the hydrologic interactions with all natural and constructed geographic features that are located downstream of the facility. The breach analysis will model the reservoir at a full pool condition and will include two (2) scenarios consisting of (1) a non-flood failure (aka “sunny day”), and (2) a flood event failure during the 1% inflow design flood (aka 100-year flood).</p> <p><u>Hazards Mitigated:</u> Flood, Dam/Canal Failure</p>						
New & Existing	2, 6, 7, 8, 9	City of Meridian	N/A	Medium	BRIC, FMA, HMGP	Short-term
<p>Action M-10— Ensure adequate water supply in drought conditions through purchasing space in new surface water storage projects.</p> <p><u>Hazards Mitigated:</u> Drought, Dam/Canal Failure</p>						
New & Existing	1, 9, 10	City of Meridian	IDWR	High	Enterprise Funds, Federal Grants	Long-term
<p>Action M-11— Increase community capability for drought resilience by developing a water conservation plan</p> <p><u>Hazards Mitigated:</u> Drought</p>						
New & Existing	1, 2, 5, 6, 8	City of Meridian	N/A	Low	Staff Time, Grants	Short-term

Benefits New or Existing Assets	Objectives Met	Lead Agency	Support Agency	Estimated Cost	Sources of Funding	Timeline ^a
Action M-12 — Increase community capability for mitigating landslide risk by developing hillside grading/drainage policies that provide adequate protections in steep topography.						
<u>Hazards Mitigated:</u> Landslide, Flood						
New	2, 4, 5	City of Meridian	N/A	Low	Staff Time	Long-term
Action M-13 — Construct Ninemile Creek Flood Mitigation Project as designed to eliminate flood risk to people, property and critical lifelines. The proposed improvements include constructing storm drain infrastructure and pipeline from Story Park to the outlet into the existing Ninemile Creek Channel north of the Union Pacific Railroad tracks. (Coordinates with the Meridian Development Corporations Action MDC-4.)						
<u>Hazards Mitigated:</u> Flood						
Existing	1, 3, 9, 10	City of Meridian	MDC	\$4.5 Million	HMGP, BRIC, MDC, FMA	Short-term
Action M-14 — Partner with ACHD to facilitate the replacement of roadway culverts to include design and construction of crossings on Fivemile, Ninemile, Eightmile and Tenmile Creeks. (Coordinates with Ada County Highway District Action ACHD-5)						
<u>Hazards Mitigated:</u> Flood, Extreme Weather						
Existing	1, 3, 9, 10	ACHD	City of Meridian	High	ACHD, General Funds, BRIC, FMA, HMGP	Long-term
Action M-15 — Continue to maintain/enhance the City’s classification under the Community Rating System.						
<u>Hazards Mitigated:</u> Flood						
New & Existing	3, 4, 5, 6, 8	City of Meridian	N/A	Low	Staff Time, General Funds, Enterprise Funds	Ongoing
Action M-16 — Correct alignment issues on the National Flood Hazard Layer to correctly align with creek channels on Fivemile and Tenmile Creeks to more accurately reflect flood risk.						
<u>Hazards Mitigated:</u> Flood						
New & Existing	2, 9	City of Meridian	FEMA	Low	General Funds, Enterprise Funds, Federal Grants	Long-Term
Action M-17 —Conduct detailed hydraulic analysis on remaining FEMA Flood Zone A areas on Fivemile and Tenmile Creeks. Update maps through LOMR to accurately reflect flood risk.						
<u>Hazards Mitigated:</u> Flood						
New & Existing	2, 9	City of Meridian	FEMA	Low	General Funds, Enterprise Funds, Federal Grants	Long-Term
Action M-18 — Whenever possible, coordinate with local experts and employ natural environmental processes in mitigation activities that increase ecosystem resilience and reduce the impacts of flooding on the built environment						
<u>Hazards Mitigated:</u> Flood						
New & Existing	2, 5, 9	City of Meridian	N/A	Medium	General Funds, BRIC, FMA, HMGP	Long-Term
Action M-19 — Support County-wide initiatives identified in Volume 1.						
<u>Hazards Mitigated:</u> All hazards						
New & Existing	All	City of Meridian	EMCR	Low	Staff Time, General Funds	Short-term

a. Short-term = Completion within 5 years; Long-term = Completion within 10 years; Ongoing= Continuing new or existing program with no completion date

Acronyms used here are defined at the beginning of this volume.

Table 6-14. Mitigation Action Priority

Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Cost?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Implementation Priority ^a	Grant Pursuit Priority ^a
1	3	High	High	Yes	Yes	No	Medium	High
2	7	Medium	Low	Yes	No	Yes	High	Low
3	3	Low	Low	Yes	No	Yes	High	Low
4	6	Medium	Low	Yes	No	Yes	High	Low
5	7	Medium	Low	Yes	No	Yes	High	Medium
6	3	High	Medium	Yes	Yes	No	Medium	High
7	5	Low	Low	Yes	No	Yes	Medium	Low
8	5	Low	Low	Yes	No	Yes	Medium	Low
9	5	Medium	Medium	Yes	Yes	No	Medium	High
10	3	High	High	Yes	Yes	No	Medium	Medium
11	5	Medium	Low	Yes	Yes	Yes	Medium	Low
12	3	Medium	Low	Yes	No	Yes	Medium	Low
13	4	High	High	Yes	Yes	No	High	High
14	4	High	High	Yes	Yes	No	Medium	Medium
15	5	Medium	Low	Yes	No	Yes	High	Low
16	2	Medium	Low	Yes	Yes	No	Medium	Medium
17	2	High	Medium	Yes	Yes	No	Medium	Medium
18	3	High	Medium	Yes	Yes	No	Medium	Medium
19	10	Low	Low	Yes	No	Yes	High	Low

a. See the introduction to this volume for explanation of priorities.

Table 6-15. Analysis of Mitigation Actions

Hazard Type	Action Addressing Hazard, by Mitigation Type ^a							
	Prevention	Property Protection	Public Education & Awareness	Natural Resource Protection	Emergency Services	Structural Projects	Climate Resilience	Community Capacity Building ^b
High-Risk Hazards								
Extreme Weather	M-2	M-1	M-5		M-6	M-14	M-5	M-3, 5, 19
Medium-Risk Hazards								
Flood	M-2, 4, 12, 15, 16, 17	M-1	M-4, 5, 9	M-18	M-6	M-13, 14	M-5, 18	M-3, 4, 5, 9, 12, 15, 16, 17, 18, 19
Earthquake	M-2	M-1			M-6			M-3, 19
Low-Risk Hazards								
Drought	M-2, 11		M-5	M-10		M-10	M-5	M-3, 5, 10, 11, 19
Dam/Canal Failure	M-2	M-1	M-9	M-10		M-10		M-3, 9, 10, 19
Landslide	M-2, 12	M-1						M-3, 12, 19
Volcano								M-3, 19
Wildfire	M-2	M-1	M-5, 7, 8				M-5	M-3, 5, 8, 19

a. See the introduction to this volume for explanation of mitigation types.

b. In addition to the community capacity building actions listed in this table, this jurisdiction is expanding its financial capabilities through its participation in and adoption of this hazard mitigation plan, which establishes grant-funding eligibility.

6.9 PUBLIC OUTREACH

Table 6-16 lists public outreach activities for this jurisdiction.

Table 6-16. Local Public Outreach		
Local Outreach Activity	Date	Number of People Involved
Social Media share of Ada County survey posts	12/8/2021	unknown
Meridian Public Works Week – Floodplain Booth HMP information	6/8/2022	unknown

6.10 INFORMATION SOURCES USED FOR THIS ANNEX

The following technical reports, plans, and regulatory mechanisms were reviewed to provide information for this annex.

- **2017 Ada County Multi-Hazard Mitigation Plan** – The previous HMP was reviewed to update this annex.
- **City of Meridian Municipal Code**—The municipal code was reviewed for the full capability assessment and for identifying opportunities for action plan integration.
- **City of Meridian Flood Damage Prevention Ordinance**—The flood damage prevention ordinance was reviewed for compliance with the National Flood Insurance Program.

The following outside resources and references were reviewed:

- **Hazard Mitigation Plan Annex Development Toolkit**—The toolkit was used to support the identification of past hazard events and noted vulnerabilities, the risk ranking, and the development of the mitigation action plan.

CITY OF MERIDIAN



STAR

W Moon Valley Rd

S Star Rd

W Duck Alley Rd

S Artesian Rd
S Trout Rd

W Joplin Rd

N Star Rd

N Linder Rd

N Meridian Rd

N Eagle Rd

W McMillan Rd

W Ustick Rd

W Ustick Rd

N Cloverdale Rd

N Five Mile Rd

BOISE

N Hampton Rd

N McDermott Rd

N Black Cat Rd

N Ten Mile Rd

W Franklin Rd

NW 8th St

NW 4th St

N Main St

NE 3rd St

NE 5th St

E Franklin Rd

E Watertower St

N Locust Grove Rd

N Eagle Rd

W Franklin Rd

W Overland Rd

W Lamont Rd

W Victory Rd

E Overland Rd

S Eagle Rd

Victory Rd

W Amity Rd

E Amity Rd

S Five Mile Rd

Blacks Creek Dam Failure Inundation Area

Legend

Maximum Pool Inundation Area

Area inundated by dam failure occurring when pool elevation is at the top of the impounding structure.

Study Area

Ada County Boundary

City Boundary

County Boundary

Interstate

Major Roads

Rail

Waterbody

Data Sources: Ada County, COMPASS, Esri, USGS, NOAA, IDWR

KUNA

W Columbia Rd

E Columbia Rd

W Hubbard Rd

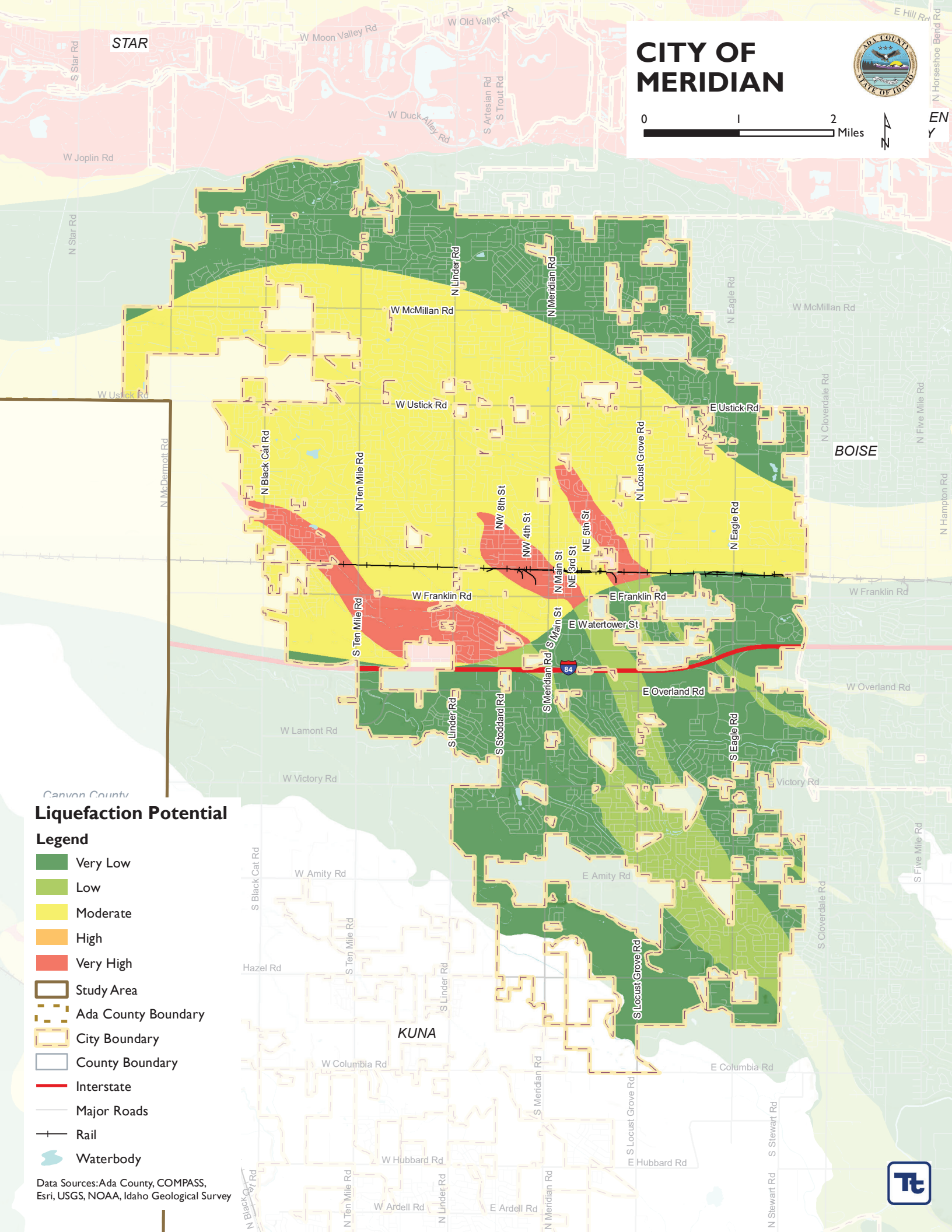
Hubbard Rd

W Ardell Rd

E Ardell Rd



CITY OF MERIDIAN



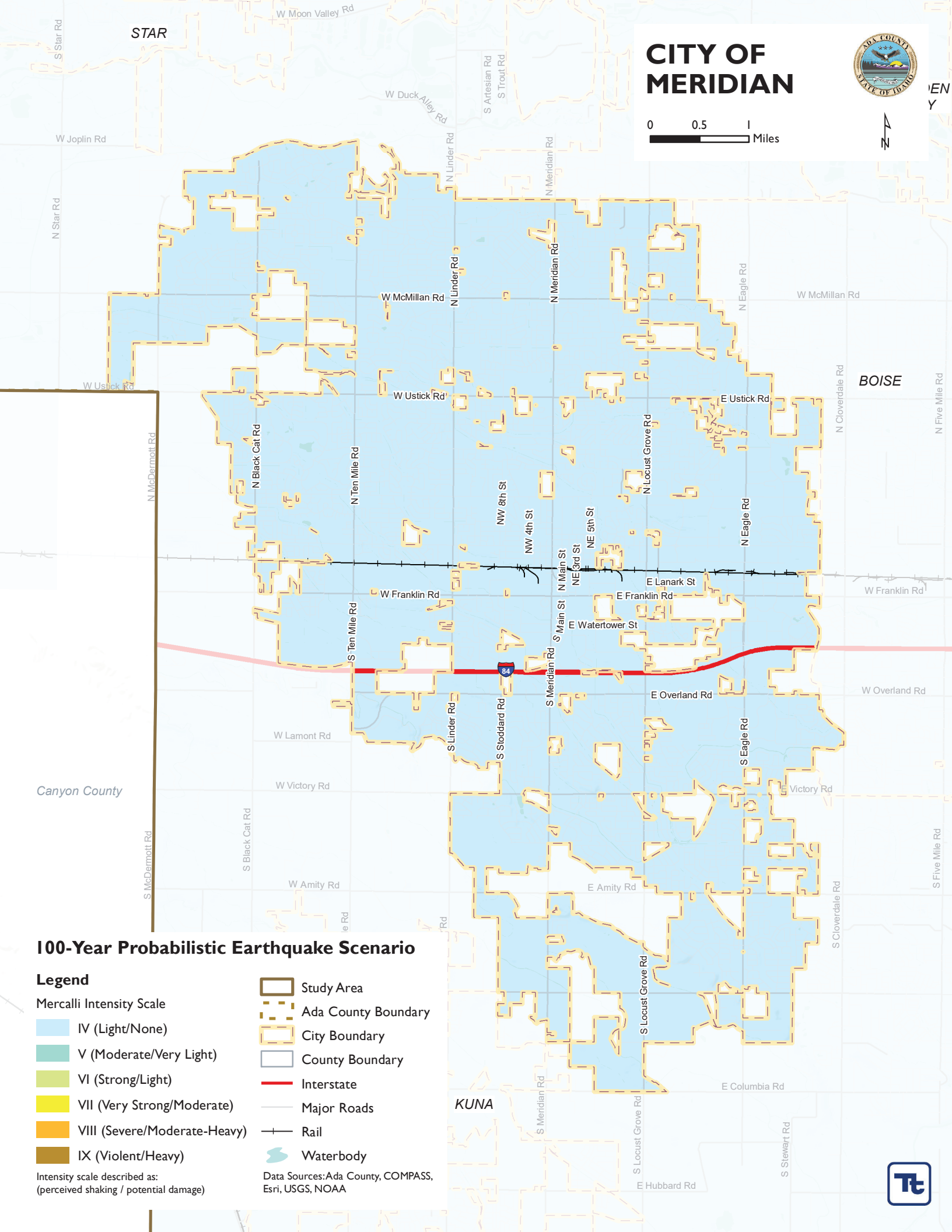
Liquefaction Potential

- Legend**
- Very Low
 - Low
 - Moderate
 - High
 - Very High
 - Study Area
 - Ada County Boundary
 - City Boundary
 - County Boundary
 - Interstate
 - Major Roads
 - Rail
 - Waterbody

Data Sources: Ada County, COMPASS, Esri, USGS, NOAA, Idaho Geological Survey



CITY OF MERIDIAN



100-Year Probabilistic Earthquake Scenario

Legend

Mercalli Intensity Scale

- IV (Light/None)
- V (Moderate/Very Light)
- VI (Strong/Light)
- VII (Very Strong/Moderate)
- VIII (Severe/Moderate-Heavy)
- IX (Violent/Heavy)

Intensity scale described as:
(perceived shaking / potential damage)

- Study Area
- Ada County Boundary
- City Boundary
- County Boundary
- Interstate
- Major Roads
- Rail
- Waterbody

Data Sources: Ada County, COMPASS, Esri, USGS, NOAA



CITY OF MERIDIAN



GARDEN CITY

BOISE

Canyon County

500-Year Probabilistic Earthquake Scenario

Legend

Mercalli Intensity Scale

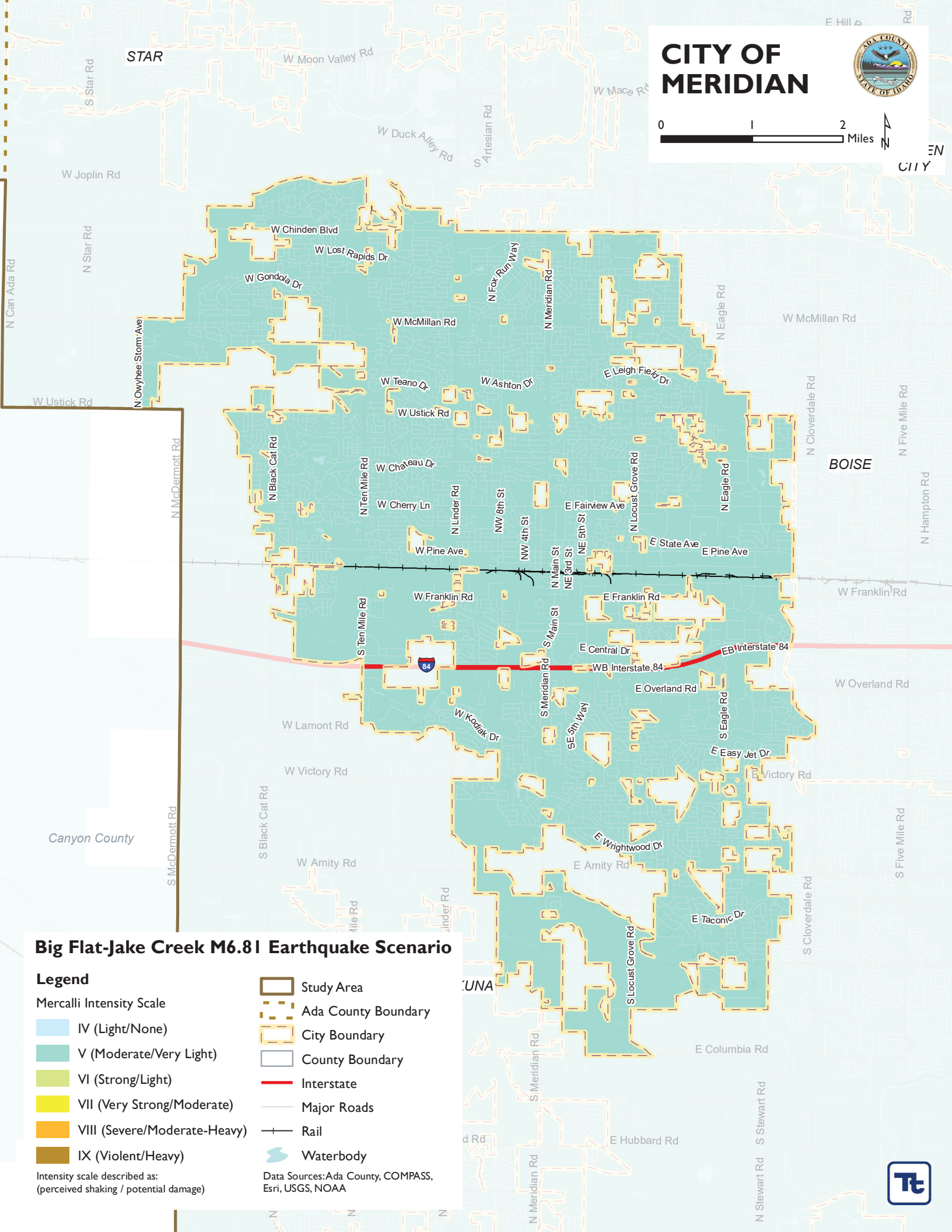
- IV (Light/None)
- V (Moderate/Very Light)
- VI (Strong/Light)
- VII (Very Strong/Moderate)
- VIII (Severe/Moderate-Heavy)
- IX (Violent/Heavy)

Intensity scale described as:
(perceived shaking / potential damage)

- Study Area
- Ada County Boundary
- City Boundary
- County Boundary
- Interstate
- Major Roads
- Rail
- Waterbody

Data Sources: Ada County, COMPASS, Esri, USGS, NOAA





Big Flat-Jake Creek M6.81 Earthquake Scenario

Legend

- Mercalli Intensity Scale
- IV (Light/None)
 - V (Moderate/Very Light)
 - VI (Strong/Light)
 - VII (Very Strong/Moderate)
 - VIII (Severe/Moderate-Heavy)
 - IX (Violent/Heavy)

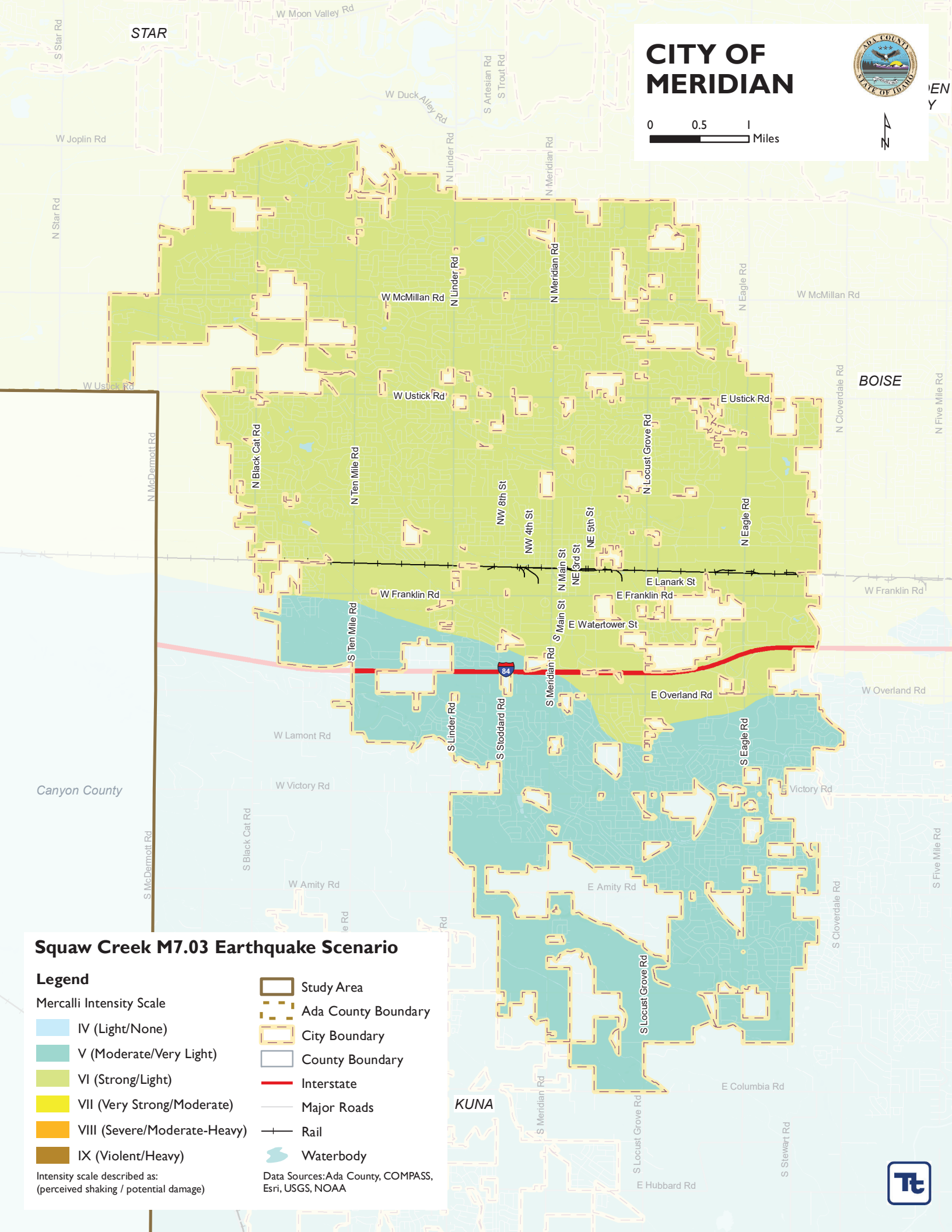
- Study Area
- Ada County Boundary
- City Boundary
- County Boundary
- Interstate
- Major Roads
- Rail
- Waterbody

Intensity scale described as:
(perceived shaking / potential damage)

Data Sources: Ada County, COMPASS, Esri, USGS, NOAA



CITY OF MERIDIAN



Squaw Creek M7.03 Earthquake Scenario

Legend

Mercalli Intensity Scale

IV (Light/None)

V (Moderate/Very Light)

VI (Strong/Light)

VII (Very Strong/Moderate)

VIII (Severe/Moderate-Heavy)

IX (Violent/Heavy)

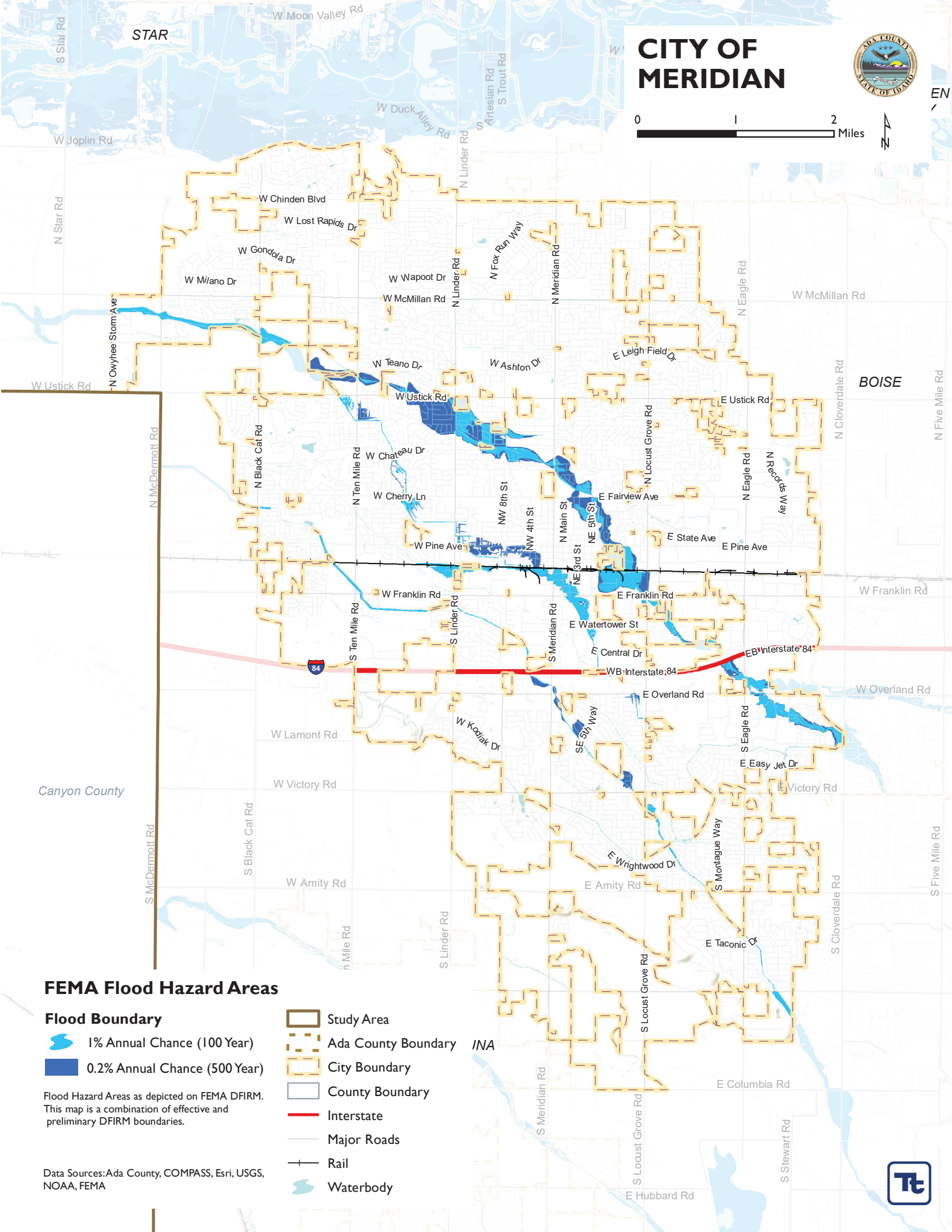
Intensity scale described as:
(perceived shaking / potential damage)

- Study Area
- Ada County Boundary
- City Boundary
- County Boundary
- Interstate
- Major Roads
- Rail
- Waterbody

Data Sources: Ada County, COMPASS, Esri, USGS, NOAA





CITY OF MERIDIAN











FEMA Flood Hazard Areas

Flood Boundary

-  1% Annual Chance (100 Year)
-  0.2% Annual Chance (500 Year)

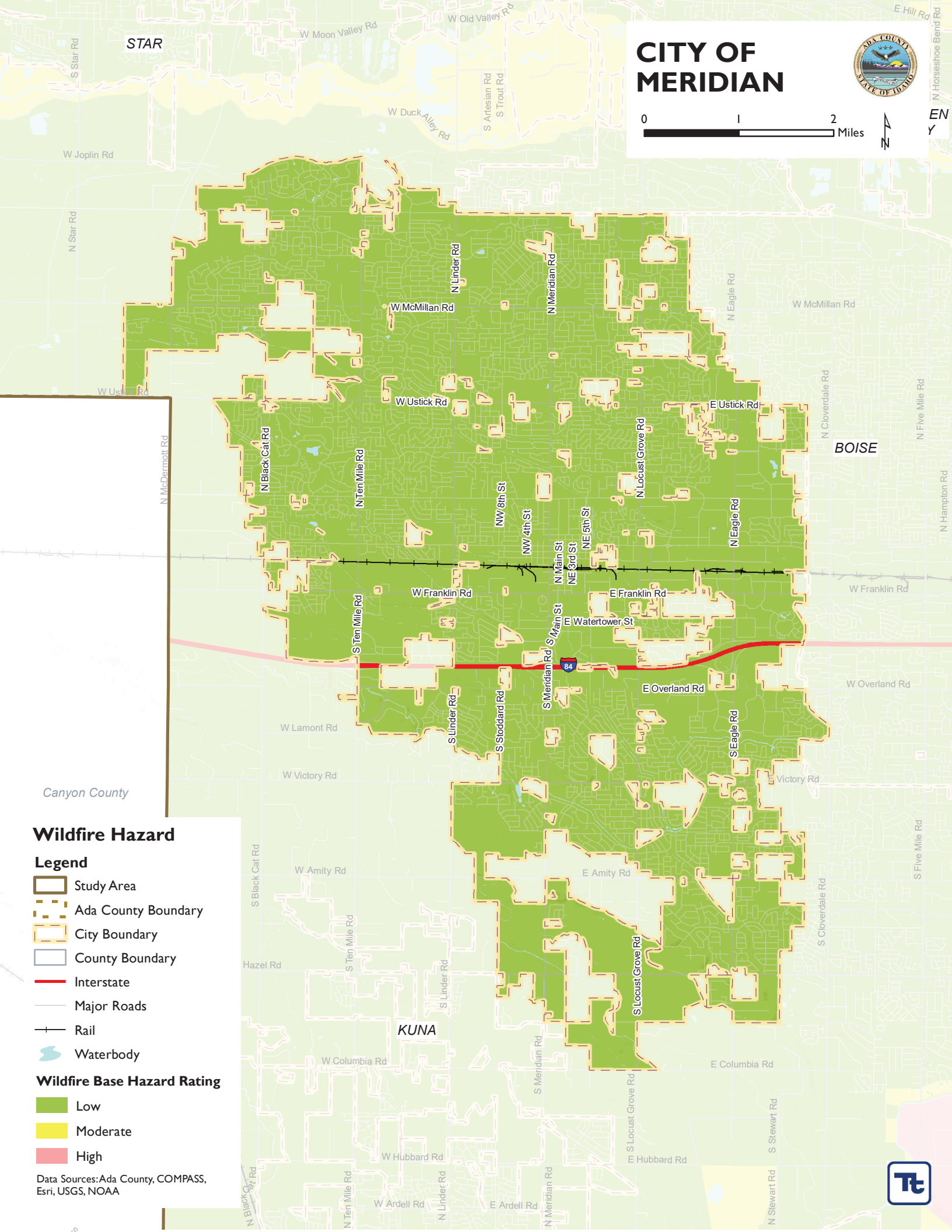
Flood Hazard Areas as depicted on FEMA DFIRM. This map is a combination of effective and preliminary DFIRM boundaries.

-  Study Area
-  Ada County Boundary
-  City Boundary
-  County Boundary
-  Interstate
-  Major Roads
-  Rail
-  Waterbody

Data Sources: Ada County, COMPASS, Esri, USGS, NOAA, FEMA



CITY OF MERIDIAN



Wildfire Hazard

Legend

- Study Area
- Ada County Boundary
- City Boundary
- County Boundary
- Interstate
- Major Roads
- Rail
- Waterbody

Wildfire Base Hazard Rating

- Low
- Moderate
- High

Data Sources: Ada County, COMPASS, Esri, USGS, NOAA

