

CHAPTER 3. CITY OF BOISE ANNEX

3.1. HAZARD MITIGATION PLAN POINT OF CONTACT

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3.2. JURISDICTION PROFILE

The following is a summary of key information about the jurisdiction and its history:

- **Date of Incorporation**—1864
- **Current Population**—205,707 as of 2009
- **Population Growth**—In the past 20 years Boise has grown from a 1990 population of 125,738 to 205,707 in 2009. The annual rate of growth has fluctuated from as high as 5% during the peak growth periods of the 1990s to a low of .04% during the current economic recession. Boise expects to return to a more moderate 1.5% annual growth rate as the economy recovers.
- **Location and Description**—The City of Boise is located in southwestern Idaho and northeastern Ada County in a region coined as the Treasure Valley. It is situated within the Boise River Valley at the base of the foothills of the Salmon River Mountains to the north and east. The Boise River traverses the city and is an aesthetic and recreational focal point of the community. The City is also crossed from east to west by a series of geological benches that step up in elevation from the Boise River, each bench representing a previous location of the Boise River floodplain in historic geologic time. A series of major irrigation canals generally follow the contours of the benches, bringing water from the Boise River to outlying farm fields. The extensive irrigation canal system represents a major physical reminder of Boise's agricultural past and the continuing agricultural economy in the western portion of the Treasure Valley. The southernmost portions of Boise extend into the high desert of the Snake River Plain and are characterized by basaltic soils and formations.
- **Brief History**—When trappers and fur traders first began visiting the Boise area in the early 1800s, Indian villages already existed along the Boise River. Fur trading continued as the prominent activity in the area until about 1835. Fort Boise was constructed by the Hudson Bay Company as a stockade in 1834. The original Fort Boise was abandoned in 1855 due to the decline of fur trading in the area.

The discovery of gold in the Boise Basin in 1862 instigated an immediate influx of prospectors and other settlers into the area. As a result of renewed growth, Fort Boise was re-established in 1863 as an American Military post to protect the settlers. In 1863, a group of early citizens laid out a town-site that included a main road running north of and parallel to

the Boise River with several blocks on each side. At this time, Boise was first suggested as the name of the growing community.

The Idaho territory was created by the federal government in 1863. Though Lewiston was initially designated as the territorial capital; that function was relocated to Boise in 1864. This was also the year Boise incorporated as a City. Idaho became the 43rd state in 1890, which further stimulated settlement in the Boise Valley. By 1900, Boise was a thriving community of 6,000 people. The completion of Arrowrock Dam in 1915 opened the valley irrigated farming and helped build the economic base of the community.

Boise continued to grow as a center for farming and mining activities in the region. In the early days, most employment was in retail trade, wholesaling and supply, services and agriculture. Employment in manufacturing and government increased slowly during the first few decades of the 20th century. The population of Boise grew from 6,000 in 1900 to over 205,000 in 2010, with high rates of growth occurring in the 1960s, 1970s, 1990s and the mid-2000s. The expansion of manufacturing and government fueled much of the growth in the 1970s through early 1990s with Hewlett Packard Company and Micron constructing major electronics manufacturing facilities. Migration from other states, both for jobs and for lifestyle purposes, was a large part of the growth.

In the mid-1980s, downtown redevelopment projects, construction of the regional mall, and a booming housing industry were signs of strong and sustained growth leading into the 1990s. Boise continued to grow quickly throughout the 1990s with annual growth rates as high as 5%. The city experienced a decline in growth rate in the early 2000s with the technology market crash and 9/11, and then rebounded with extremely rapid growth at mid-decade. Along with the rest of the country, growth in Boise all but stopped in 2008 and is only slowly beginning to recover.

- **Climate**—Boise is approximately 350 miles east of the Pacific Ocean, but local climate is shaped in part by maritime influences. In general, the Boise area has a relative mild climate for its northerly latitude. Summers are hot and winters cold, but below zero weather occurs infrequently. The growing season in Boise is 159 day, which again is substantial in relation to latitude. However, even the growing season can vary locally depending upon location within the valley, bench or foothills areas. On average, Boise receives approximately 13-inches of precipitation annually, mostly in the form of winter snow.
- **Governing Body Format**—Boise City has a strong Mayor and City Council form of government. The Mayor presides over City Council meetings, has the power to appoint, and serves as the City Manager. All legislative actions are adopted by the City Council. Other boards and commissions are appointed to decide non-legislative items and/or make recommendations to the City Council.
- **Development Trends**—Boise has long been the largest city in Idaho and prior to the last 20-years dominated growth and development in Southwest Idaho. Over the past 20-years, other local cities including Meridian, Eagle and Nampa have grown dramatically and increasingly share in regional economic development with Boise.

For many years, Boise has concentrated on making efficient use of its land and infrastructure resources. This has meant providing incentives for infill development and attempting to minimize outward expansion. In fact, over the past 20-years Boise has only very marginally expanded its Area of Impact (the area into which it intends to annex and provide services). Consequently, Boise is more densely developed than the other cities in the region and has been able to maintain and even modestly expand a transit system.

As the State Capitol of Idaho and the economic and cultural hub of the Treasure Valley, Boise has historically captured the majority of jobs in the region. At the same time, the outlying communities have increasingly captured a greater share of the residential housing market, primarily that portion related to single family detached housing. Due to higher land values in Boise and a concentration on more compact forms of housing, Boise has seen its average household population size drop well below that of the remainder of the valley, further reinforcing the need and demand for smaller housing and attached housing products.

In recent years, demand for urban housing in the downtown area has increased and several significant multistory housing developments have been constructed. At the same time, multistory office development has also continued to occur in the downtown area and the central business district now has many of the physical characteristics of other major cities in the western United States with high-rise construction, densely mixed uses and congested roadways.

Over the next 20-years Boise is forecasted to add an additional 75,000 residents, 30,000 new homes and 80,000 new jobs. Boise's new Comprehensive Plan calls for continued emphasis on compact and mixed use forms of development, with the expectation that public transit will play an increasing role in meeting the transportation needs of the city and the region. Single family home construction will continue to occur in the outlying portions of the City, but lot size will typically be smaller than in other adjacent cities. Inner neighborhoods will continue to experience infill development of modern small lot and attached housing product types. In particular, Boise anticipates promoting the recycling of many aging retail shopping strips located along arterial roadways into modern mixed use, multistory transit oriented developments. The downtown area will continue to develop with mid-rise to high-rise development. The foothills will continue to experience slow and limited development of larger lot single family homes.

The Barber Valley north of the Boise River in northeastern Boise is a large planned growth area that over the next 20-years will build out with over a million square feet of office and retail space as well as thousands of residential units in a variety of product types.

Significant industrial and technological development will continue to occur south and east of the Boise Airport, and the Union Pacific Rail Line will continue to play a role in moving goods and services to and from those industrial users. Additional retail services will be added, often in the form of local neighborhood activity centers throughout Boise City. The centrally located Townsquare Mall area will continue to infill with regional and community serving retail uses and may also take on more of the characteristics of mixed use development, including dense residential housing. Office and industrial uses will continue to fill in along the Emerald Industrial Corridor in the western half of the City.

In far southwest Boise, development will continue to occur with a combination of medium to low density single family housing and supporting retail services. Future expansion of the Boise Area of Impact is most likely to occur in the southwest area, though the rate of expansion may be limited by annexation capability.

3.3. JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 3-1 lists all past occurrences of natural hazards in the county. Repetitive loss records are as follows:

- Number of FEMA Identified Repetitive Flood Loss Properties: None

3.4. HAZARD RISK RANKING

Table 3-2 presents the ranking of the hazards of concern.

3.5. CAPABILITY ASSESSMENT

The assessment of the jurisdiction’s legal and regulatory capabilities is presented in Table 3-3. The assessment of the jurisdiction’s administrative and technical capabilities is presented in Table 3-4. The assessment of the jurisdiction’s fiscal capabilities is presented in Table 3-5. Classifications under various community mitigation programs are presented in Table 3-6.

3.6. HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED INITIATIVES

Table 3-7 lists the initiatives that make up the jurisdiction’s hazard mitigation plan. Table 3-8 identifies the priority for each initiative. Table 3-9 summarizes the mitigation initiatives by hazard of concern and the six mitigation types.

3.7. STATUS OF PREVIOUS PLAN INITIATIVES

Table 3-10 summarizes the current status of initiatives that were adopted by the County for the previous hazard plan. Those that are directly carried over as actions in this hazard plan are also indicated as such in Table 3-7.

3.8. FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

Additional data is needed on the following hazards to have a better understanding on risk within the planning area:

- Earthquake—NEHRP soils data as well as USGS “shake maps” for scenario events most likely to impact the planning area.
- Landslide—Soils data for landslide susceptibility Analysis.
- Wildfire—Enhanced wildfire mapping that will better support risk ranking and the measurement of risk reduction activities. Mapping similar to California’s Fire and Resource Assessment Program (FRAP).
- Flood—A consistent data set on flood risk that is both publically and politically supported that accurately reflects the true flood risk is desperately needed within the planning area.

3.9. HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps for the City of Boise are included at the end of this chapter. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.

**TABLE 3-1.
NATURAL HAZARD EVENTS**

| Type of Event | Date | Preliminary Damage Assessment |
|---------------|------------|-------------------------------|
| Severe wind | 03/29/2009 | \$33,000 (county wide) |
| Wildfire | 08/25/2008 | \$1.66 million |
| Flooding | 09/11/1997 | \$57,000 |
| Wildfire | 1996 | \$3.3 million |
| Severe wind | 04/27/1995 | \$50,000 (county wide) |
| Flooding | 02/1986 | \$20,000 |
| Flooding | 06/1983 | \$147,000 (county wide) |
| Earthquake | 10/28/1983 | Minimal local damage |
| Landslide | 11/1980 | Unknown |
| Flooding | 01/12/1979 | Unknown |

**TABLE 3-2.
HAZARD RISK RANKING**

| Rank | Hazard Type | Risk Rating Score (Probability x Impact) |
|------|--------------------|--|
| 1 | Earthquake | (2x15) = 30 |
| 2 | Flood | (3x7) = 21 |
| 3 | Severe Storm | (3x6) = 18 |
| 4 | Wildland Fire | (3x6) = 18 |
| 5 | Dam Failure | (1x18) = 18 |
| 6 | Landslide | (2x6) = 12 |
| 7 | Drought | (3x3) = 9 |
| 8 | Volcano (Ash Fall) | (1x6) = 6 |

**TABLE 3-3.
LEGAL AND REGULATORY CAPABILITY**

| | Local Authority | State or Federal Prohibitions | Other Jurisdictional Authority | State Mandated | Comments |
|--|-----------------|-------------------------------|--------------------------------|----------------|---|
| Codes, Ordinances & Requirements | | | | | |
| Building Code | Yes | No | No | No | 2009 International Building Code (IBC)/Title 4, Building Regulations: adopted 11/9/2010 |
| Zoning | Yes | No | No | No | Title 11, Zoning |
| Subdivisions | Yes | No | No | No | Title 9, Chapter 20, Boise City Subdivisions |
| Stormwater Management | Yes | No | No | Yes | Title 8, Chapter 15, Boise City Storm Water Title 8, Chapter 17, Construction Site Erosion Boise shares responsibility with ACHD and others for the National Pollutant Discharge Elimination System (NPDES) program |
| Post Disaster Recovery | No | No | No | No | |
| Real Estate Disclosure | No | No | No | No | |
| Growth Management | Yes | No | No | No | 20-year Comprehensive Plan- 1997 (2011 update pending) |
| Site Plan Review | Yes | No | No | No | Requirement of Title 11, Zoning |
| Special Purpose (flood management, critical areas) | Yes | No | No | No | Title 11, Chapter 12, Floodplain Development Regulations Title 11, Chapter 16, Boise River System Ordinance Title 7, Section 7-01-69, Wildland Urban Interface Code |
| Planning Documents | | | | | |
| Comprehensive Plan | Yes | No | No | No | 1997 (2011 Update Pending) |
| Floodplain or Basin Plan | No | No | No | No | Note: once complete, the Ada County All Hazards Mitigation Plan-update will become the floodplain management plan of record for all communities within the planning area that participate in the CRS program. |
| Stormwater Plan | No | No | No | No | |
| Capital Improvement Plan | Yes | No | No | No | Five-Year Plan for Parks, Fire, Police and Public Works, reviewed and updated annually. |
| Habitat Conservation Plan | No | No | No | No | |

| TABLE 3-3. LEGAL AND REGULATORY CAPABILITY | | | | | |
|---|-----------------|-------------------------------|--------------------------------|----------------|--|
| | Local Authority | State or Federal Prohibitions | Other Jurisdictional Authority | State Mandated | Comments |
| Economic Development Plan | Yes | No | No | No | City of Boise Economic Development Strategic plan (2007-2010) |
| Emergency Response Plan | Yes | No | No | No | ACCEM: Ada County Flood Response Plan. Adopted: January, 2006 Ada County Mass Casualty Incident Plan. Adopted: 12/16/2010 Ada County HAZMAT Response Plan. Adopted: April 2011 Ada County Wildfire Response Plan. Adopted: May 2010 |
| Shoreline Management Plan | No | No | No | No | |
| Post Disaster Recovery Plan | No | No | No | No | |

| TABLE 3-4. ADMINISTRATIVE AND TECHNICAL CAPABILITY | | |
|---|------------|--|
| Staff/Personnel Resources | Available? | Department/Agency/Position |
| Planners or engineers with knowledge of land development and land management practices | Y | City Planning Staff and Public Works Engineers |
| Engineers or professionals trained in building or infrastructure construction practices | Y | City Building Staff and Public Works Engineers |
| Planners or engineers with an understanding of natural hazards | Y | City Planning Staff and Public Works Engineers |
| Staff with training in benefit/cost analysis | Y | City Budget Staff |
| Floodplain manager | Y | Planning Director |
| Surveyors | Y | City Public Works Staff |
| Personnel skilled or trained in GIS applications | Y | City Planning, Public Works Staff and IT Staff |
| Scientist familiar with natural hazards in local area | N | |
| Emergency manager | Y | Ada City-County Emergency management (ACCEM) |
| Grant writers | Y | City Police and Fire Staff |

| TABLE 3-5. FISCAL CAPABILITY | |
|--|--------------------------------|
| Financial Resources | 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 | Yes |
| Incur Debt through General Obligation Bonds | Yes |
| Incur Debt through Special Tax Bonds | Yes |
| Incur Debt through Private Activity Bonds | Yes |
| Withhold Public Expenditures in Hazard-Prone Areas | Yes |
| State Sponsored Grant Programs | Yes |
| Development Impact Fees for Homebuyers or Developers | Yes |
| Other | N/A |

| TABLE 3-6. COMMUNITY CLASSIFICATIONS | | | |
|---|----------------|----------------|-----------------|
| | Participating? | Classification | Date Classified |
| Community Rating System | Yes | 6 | 2010 |
| Building Code Effectiveness Grading Schedule | Yes | 3/3 | 2011 |
| Public Protection | Yes | 3/9 | N/A |
| Storm Ready | Yes | Blue | N/A |
| Firewise | No | N/a | N/A |

**TABLE 3-7.
HAZARD MITIGATION ACTION PLAN MATRIX**

| Applies to new or existing assets | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
|---|-------------------|----------------|---|----------------|----------------------------------|------------|----------------------------|
| Initiative #B-1 —City Hall Structural Seismic Retrofit; structural upgrade of the City Hall facility to bring it into compliance with current seismic building code standards. | | | | | | | |
| Existing | Seismic | 1,2,3,10 | Boise Public Works | Medium | HMGP grant, local | Short term | No |
| Initiative #B-2 —Esther Simplot Flood Channel (joint project with Boise City and Garden City); a flood study of the Boise River between Main St. and Veteran’s Memorial Park bridges is underway and expected to result in a project to construct side channels / channel modifications to greatly reduce flood potential in both Garden City and in Boise City | | | | | | | |
| Existing and new | Flood | 1,2,5,9 | Boise Public Works, Boise Parks, Garden City Public Works | Medium | HMGP grant, local | Short term | No |
| Initiative #B-3 —Identify the Wildland-Urban Interface (WUI) do a risk assessment (a GIS exercise looking at vegetation in the undeveloped area and age of homes) of this area. In addition conduct a multi-year effort to do Red Zone surveys of the homes in this area. This analysis would then lead into a pilot program (an anchor point) involving restoring native vegetation on public lands and incentivizing neighbors to alter vegetation on their property. Also see North Ada County Fire & Rescue (NACFR) Initiative #3. | | | | | | | |
| Existing and new | Wildfire | 1,2,3,4,5,6,8 | Boise Fire, Boise Planning, Boise Parks, NACFR | Medium | Bureau of Land Management, local | Short term | No |
| Initiative #B-4 —Wildland Fire Prevention Programs/Education and Outreach (Implementation of the WUI Standards). Focus on fuel reduction on private property around new and existing homes via incentivizing homeowners, providing free debris pick-up and replacement fire wise vegetation at a discount. | | | | | | | |
| Existing and new | Wildfire | 1,5,8 | Boise Fire, Boise Planning, Boise Parks | Low | Bureau of Land Management, local | Short-term | No |
| Initiative #B-5 —Fire Station Seismic Upgrades: Boise Fire has already identified two buildings with major seismic problems (including the Logistics/Maintenance building) at a cost of two million dollars. This project will perform a vulnerability assessment on 16 other Fire facilities and initiate upgrades. Also see N. Ada County Fire & Rescue Initiative #2. | | | | | | | |
| Existing and new | Seismic | 1,2,3,10 | Boise Fire | High | HMGP grant, local | Long term | No |

| TABLE 3-7. HAZARD MITIGATION ACTION PLAN MATRIX | | | | | | | |
|---|----------------------|---------------------|---|-------------------|---|-----------------------|-------------------------------------|
| Applies to new or existing assets | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
| Initiative #B-6 —Flood Containment Facility Maintenance: Continue to maintain foothills flood containment facilities such as the Cottonwood flood ponds and flume, etc. | | | | | | | |
| Existing | Flood | 1,2,7,10 | Boise Public Works | Low | Local | Short term | No |
| Initiative #B-7 —Update Floodplain Ordinance: Evaluate existing floodplain ordinance to look for opportunities to strengthen requirements, decrease risks and promote/support the city’s “no adverse impact” floodplain management policy. | | | | | | | |
| New and Existing | Flood | 2,4,5,6,8 | Boise Planning | Low | Local | Short term | No |
| Initiative #B-8 —Maintain Boise’s compliance and good standing under the National Flood Insurance Program (NFIP). | | | | | | | |
| New and existing | Flood | 2, 3, 4, 6, 8, 9 | Boise Planning | Low | Local | Short Term | Yes 8.1.g |
| Initiative #B-9 —Continue to maintain/enhance the City’s classification under the Community Rating System | | | | | | | |
| New and existing | Flood | 3,4,5,6 | Boise Planning | Low | Local | Short term Ongoing | No |
| Initiative #B-10 —Integrate Local Hazard Mitigation Plan into the City of Boise Comprehensive Plan. | | | | | | | |
| New and Existing | All Hazards | 2,5,6 | Boise Planning | Low | Local | Long term | No |
| Initiative #B-11 —Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with properties with exposure to repetitive losses as a priority. | | | | | | | |
| Existing | All Hazards | 3,8,9 | Boise Planning, Public Works, ACCEM | High | FEMA Hazard Mitigation Grant Programs, ICC | Long Term | No |
| Initiative #B-12 —Consider appropriate higher regulatory standards that prevent or reduce risk to the built environment from the known hazards of concern. | | | | | | | |
| New and Existing | All hazards | 4, 6 | Boise Planning | Low | Local | Short Term | No |
| Initiative #B-13 —Support County-wide initiatives identified in Volume 1. | | | | | | | |
| New and Existing | All Hazards | All | Boise Public Works/ Planning ACCEM | Low | Local | Short term Ongoing | No |

| TABLE 3-7. HAZARD MITIGATION ACTION PLAN MATRIX | | | | | | | |
|--|----------------------|-------------------|--|-------------------|--|------------------------|-------------------------------------|
| Applies to new or existing assets | Hazards Mitigated | Objectives Met | Lead Agency | Estimated Cost | Sources of Funding | Timeline | Included in Previous Plan? |
| Initiative #B-14 —Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Volume 1. | | | | | | | |
| New & Existing | All Hazards | All | Boise Public Works/ Planning ACCEM | Low | Local FEMA Mitigation Grant Funding for 5-year update | Short-Term, Ongoing | No |

| TABLE 3-8. MITIGATION STRATEGY PRIORITY SCHEDULE | | | | | | | |
|---|---------------------------|----------|--------|--|-----------------------------------|--|-----------------------|
| Initiative # | # of Objectives Met | Benefits | Costs | Do Benefits Equal or Exceed Costs? | Is Project Grant- Eligible? | Can Project Be Funded Under Existing Programs/Budgets? | Priority ^a |
| B-1 | 4 | High | Medium | Yes | Yes | Possibly | High |
| B-2 | 4 | High | Medium | Yes | Yes | Possibly | High |
| B-3 | 7 | Medium | Medium | Yes | Yes | Possibly | High |
| B-4 | 3 | High | Low | Yes | Yes | Possibly | High |
| B-5 | 4 | High | High | Yes | Yes | Possibly | High |
| B-6 | 4 | High | Low | Yes | No | Yes | High |
| B-7 | 5 | High | Low | Yes | No | Yes | High |
| B-8 | 6 | Medium | Low | Yes | No | Yes | High |
| B-9 | 4 | Medium | Low | Yes | No | Yes | High |
| B-10 | 3 | Medium | Low | Yes | No | Yes | Medium |
| B-11 | 3 | High | High | Yes | Yes | No | Medium |
| B-12 | 2 | Medium | Low | Yes | No | Yes | High |
| B-13 | 10 | Low | Low | Yes | No | Yes | High |
| B-14 | 10 | Low | Low | Yes | Yes | Yes | High |

a. See Section 1.3 for definitions of high, medium and low priorities.

**TABLE 3-9.
ANALYSIS OF MITIGATION INITIATIVES**

| Hazard Type | Initiative Addressing Hazard, by Mitigation Type | | | | | |
|----------------|--|-------------------------------|-----------------------------------|--------------------------------|-----------------------|------------------------|
| | 1. Prevention | 2. Property Protection | 3. Public Education and Awareness | 4. Natural Resource Protection | 5. Emergency Services | 6. Structural Projects |
| Dam Failure | B-10, B-12, B-14 | B-11 | B-13, B-14 | B-10 | B-13 | |
| Drought | B-10, B-12, B-14 | B-11 | B-13, B-14 | B-10 | B-13 | |
| Earthquake | B-10, B-12, B-14 | B-1, B-5, B-11 | B-13, B-14 | B-10 | B-1, B-5, B-13 | B-1, B-5 |
| Flood | B-6, B-7, B-8, B-9, B-10, B-12, B-14 | B-2, B-6, B-7, B-8, B-9, B-11 | B-8, B-9, B-13, B-14 | B-2, B-9, B-10 | B-6, B-9, B-13 | B-2, B-9 |
| Landslide | B-10, B-12, B-14 | B-11 | B-13, B-14 | B-10 | B-13 | |
| Severe Weather | B-10, B-12, B-14 | B-11 | B-13, B-14 | B-10 | B-13 | |
| Wildfire | B-3, B-4, B-10, B-12, B-14 | B-3, B-4, B-11 | B-3, B-4, B-13, B-14 | B-3, B-4, B-10 | B-13 | |
| Volcano | B-10, B-12, B-14 | B-11 | B-13, B-14 | B-10 | B-13 | |

1. Prevention: Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. Includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
2. Property Protection: Modification of buildings or structures to protect them from a hazard or removal of structures from a hazard area. Includes acquisition, elevation, relocation, structural retrofit, storm shutters, and shatter-resistant glass.
3. Public Education and Awareness: Actions to inform citizens and elected officials about hazards and ways to mitigate them. Includes outreach projects, real estate disclosure, hazard information centers, and school-age and adult education.
4. Natural Resource Protection: Actions that minimize hazard loss and preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
5. Emergency Services: Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities.
6. Structural Projects: Actions that involve the construction of structures to reduce the impact of a hazard. Includes dams, setback levees, floodwalls, retaining walls, and safe rooms.

**TABLE 3-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

| Action # | Action Status | | | Comments |
|----------|---------------|---------------------------|-----------------------------|---|
| | Completed | Carry Over to Plan Update | Removed; No Longer Feasible | |
| 8.1.a | | X | | This is now addressed by Objective #8 |
| 8.1.b | | X | | This is now addressed by Objective #6. |
| 8.1.c | | X | | This is now addressed by Objective #5. |
| 8.1.d | | X | | This is now addressed by Objective #2 |
| 8.1.e | | X | | This is now addressed by Objective #6. |
| 8.1.f | | X | | This is now addressed by Objective #5. |
| 8.1.g | | X | | This is now addressed by action item AC 6 |
| 8.1.h | | | X | This action does not apply to the County. |
| 8.1.i | | X | | This action will be carried over for review by planning and development services and its purpose and function is now addressed by Objectives 5 and 6 |
| 8.1.j | | | X | This action is now addressed by plan maintenance strategy found in Chapter 7. |
| 8.1.k | X | | | ACCEM and Red Cross coordinate these functions. |
| 8.2.a | | | X | Red Cross Shelter sites are not owned by the County. |
| 8.2.c | X | | | All Ada County residents are encouraged to own NOAA radios as part of their personal all hazard preparedness. This information is included in all public presentations, the website and appears periodically in an electronic newsletter. |
| 8.2.d | | X | | This is now addressed by Objective #2 |
| 8.2.e | X | | | The revised format of the plan update provides for measurable actions that can be recommended and implemented at an individual jurisdiction or district level. |
| 8.2.f | | X | | This is now addressed by Objective #10 |
| 8.1.e | | X | | This is now addressed by Objective #6. |
| 8.2.g | | X | | The process of risk evaluation is ongoing as is the creation of mitigation strategies based on the most recent data. This objective was written with multiple actions that may not all be implemented at once. Its concept and purpose are now covered by Objectives 2,3,4,5 and 6. |
| 8.2.h | | | X | (Well Intakes) This infrastructure is not County property; it will be addressed in the appropriate jurisdictional annex. |

**TABLE 3-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

| Action # | Action Status | | | Comments |
|-----------------------------------|---------------|---------------------------|-----------------------------|---|
| | Completed | Carry Over to Plan Update | Removed; No Longer Feasible | |
| 8.2.i | | | | This action is now covered by Objective 3 |
| 8.2.j | | | X | More modern early warning systems are being investigated that will capitalize on current available technologies. |
| 8.3.a | | X | | This is now addressed by Objective #2 |
| 8.3.b | | X | | This is now addressed by Objective #2 |
| 8.3.c | | X | | This is now addressed by Objective #2 |
| 8.3.d | | X | | The statement contains more than one action. The multiple actions that are contained are now addressed by Objectives 2 and 10 |
| 8.3.e | | | X | This action will be addressed in the appropriate jurisdictional annex (ACHD) |
| 8.3.f | | X | | This is now addressed by Objective #7 |
| 8.3.g | | | X | This action will be addressed in the appropriate jurisdictional annex (ACHD) |
| 8.4.h | | | X | This action will be addressed in the appropriate jurisdictional annex (ACHD) |
| 8.4.j | | | X | Action is currently not viable. Requires Irrigation District Planning Partners |
| 8.4.k | | | X | This action will be addressed in the appropriate jurisdictional annex (ACHD) |
| 8.4.a | | | X | Generators will be incorporated into larger projects that improve resiliency. These types of improvements are now addressed by Objectives 1 and 10 |
| 8.4.b | | | X | This action will be addressed in the appropriate jurisdictional annex (Kuna) |
| 8.4.c | X | | | Completed—ACHD has placed Opticom on traffic signals for First Responders to control signals. Each City has an evacuation plan along with the contra-flow plan. |
| 8.4.d | | X | | This is now addressed by Objective #10 |
| 8.4.e | | | X | This is a basic service provided by ACHD and does not need to be addressed in the Mitigation Plan |
| Fire Mitigation Activities | | | | |
| 5.1.a | | X | | Ongoing activity that is now addressed by Objective 6. |
| 5.1.b | | X | | This is now addressed by Objective #6 |

**TABLE 3-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

| Action # | Action Status | | | Comments |
|----------|---------------|---------------------------|-----------------------------|---|
| | Completed | Carry Over to Plan Update | Removed; No Longer Feasible | |
| 5.1.c | | X | | This is now addressed by Objective #6 |
| 5.1.d | X | | | Ordinance # 760 bans fireworks in the threatened areas of the unincorporated County. |
| 5.2.a | | | X | Wildfire Steering Committee is now comprised solely of jurisdictions with direct involvement in firefighting activities. |
| 5.2.b | | X | | Ongoing activity that is now addressed by Objective 8. |
| 5.2.c | | | X | This activity will be addressed in the annexes of appropriate fire jurisdictions. |
| 5.2.d | | | X | This activity will be addressed in the annexes of appropriate fire jurisdictions. |
| 5.2.e | | | X | This activity will be addressed in the annexes of appropriate fire jurisdictions. |
| 5.2.f | | | X | This activity will be addressed in the annexes of appropriate fire jurisdictions. |
| 5.2.g | | | X | This activity will be addressed in the annexes of appropriate fire jurisdictions. |
| 5.2.h | | | X | This activity will be addressed in the City of Boise annex. |
| 5.2.i | | X | | Evacuation plans are complete. Public outreach is ongoing and is now addressed by Objective 8. |
| 5.2.j | | | X | This activity will be addressed in the annexes of appropriate fire jurisdictions. |
| 5.2.k | | | X | This activity will be addressed in the annexes of appropriate fire jurisdictions. |
| 5.3.a | | X | | This activity is now addressed by Objective 7. |
| 5.3.b | | X | | This activity is now addressed by Objective 9. |
| 5.3.c | | X | | This activity is now addressed by Objective 9. |
| 5.3.d | | X | | This is an ongoing activity regulated by County Ordinance #769. |
| 5.3.e | | X | | This is an ongoing activity that involves multiple jurisdictions and districts. Its purpose and intent are now addressed by Objectives 5 and 9. |
| 5.3.f | | | X | This activity is a response action and will be addressed by the jurisdictions in Emergency Operations Plans. |
| 5.3.g | | X | | This activity is now addressed by Objective 5. |

**TABLE 3-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

| Action # | Action Status | | | Comments |
|----------|---------------|---------------------------|-----------------------------|---|
| | Completed | Carry Over to Plan Update | Removed; No Longer Feasible | |
| 5.3.h | | | X | This activity will be addressed in the ACHD annex. |
| 5.4.a | | X | | This activity is now addressed by Objective 5. |
| 5.4.b | | X | | This activity is now addressed by Objectives 8 and 9. |
| 5.4.c | | X | | This activity is now addressed by Objectives 8 and 9. |
| 5.4.d | | | X | This activity will be addressed in the annex of appropriate fire jurisdiction. |
| 5.4.e | | | X | This activity will be addressed in the annex of appropriate fire jurisdiction. |
| 5.4.f | | | X | This activity will be addressed in the annex of appropriate fire jurisdiction. |
| 5.4.g | | | X | This activity will be addressed in the annex of appropriate fire jurisdiction. |
| 5.4.h | | | X | This activity will be addressed in the annex of appropriate fire jurisdiction. |
| 5.4.i | | | X | This activity will be addressed in the annex of appropriate jurisdiction. |
| 5.4.j | | | X | This activity will be addressed in the annex of appropriate jurisdiction. |
| 5.4.k | | | X | This activity is being removed from the Mitigation Plan as it is a direct function of the Interoperable Communications Initiatives being funded through IBHS. |
| 5.4.l | | | X | This activity is being removed from the Mitigation Plan as it is a direct function of the Interoperable Communications Initiatives being funded through IBHS. |
| 5.4.m | | | X | This activity will be addressed by the policies of the fire jurisdictions that have volunteer staff. |
| 5.4.n | | X | | ACCEM coordinates with all local response agencies to create multi-year training plans. Training funds are available through ACCEM or directly through IBHS depending on the scope. |
| 5.5.a | | X | | This activity is now addressed by Objective 5. |
| 5.5.b | | X | | This activity is now addressed by Objectives 5 and 9. |
| 5.5.c | | X | | This activity is now addressed by Objective 8. |

**TABLE 3-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

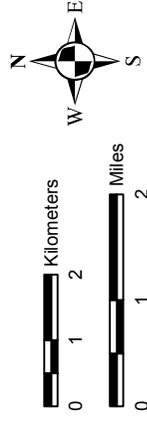
| Action # | Action Status | | | Comments |
|----------|---------------|---------------------------|-----------------------------|--|
| | Completed | Carry Over to Plan Update | Removed; No Longer Feasible | |
| 5.5.d | | X | | This activity is now addressed by Objective 5. |
| 5.5.e | | X | | This activity is now addressed by Objective 9. |
| 5.5.f | | | X | This is a program that will be implemented by the Bureau of Land Management on an as needed basis. |
| 5.5.g | | | X | This is a program that will be implemented by the Bureau of Land Management on an as needed basis. |
| 5.5.h | | X | | This activity is now addressed by Objective 9. |

CITY OF BOISE

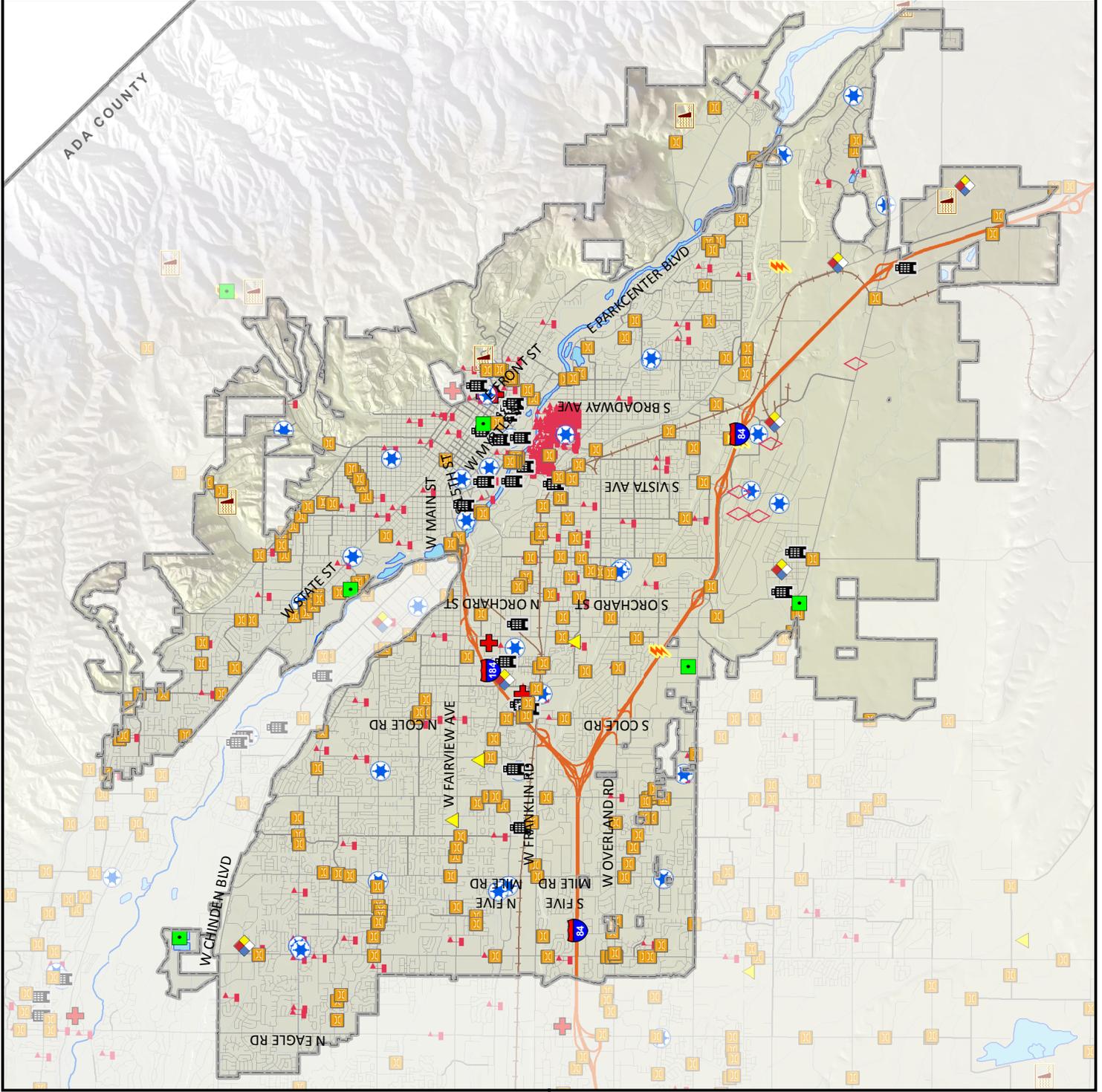
FIGURE X - X Critical Facilities

- Critical Facilities**
- Bridge
 - Communication
 - Dam
 - Government
 - Hazmat
 - Hospital
 - Power
 - Protective
 - School
 - Wastewater
 - Other

Data Sources:
Ada County
Base Data: Ada County, Idaho Department
of Water Resources



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FIGURE X - X

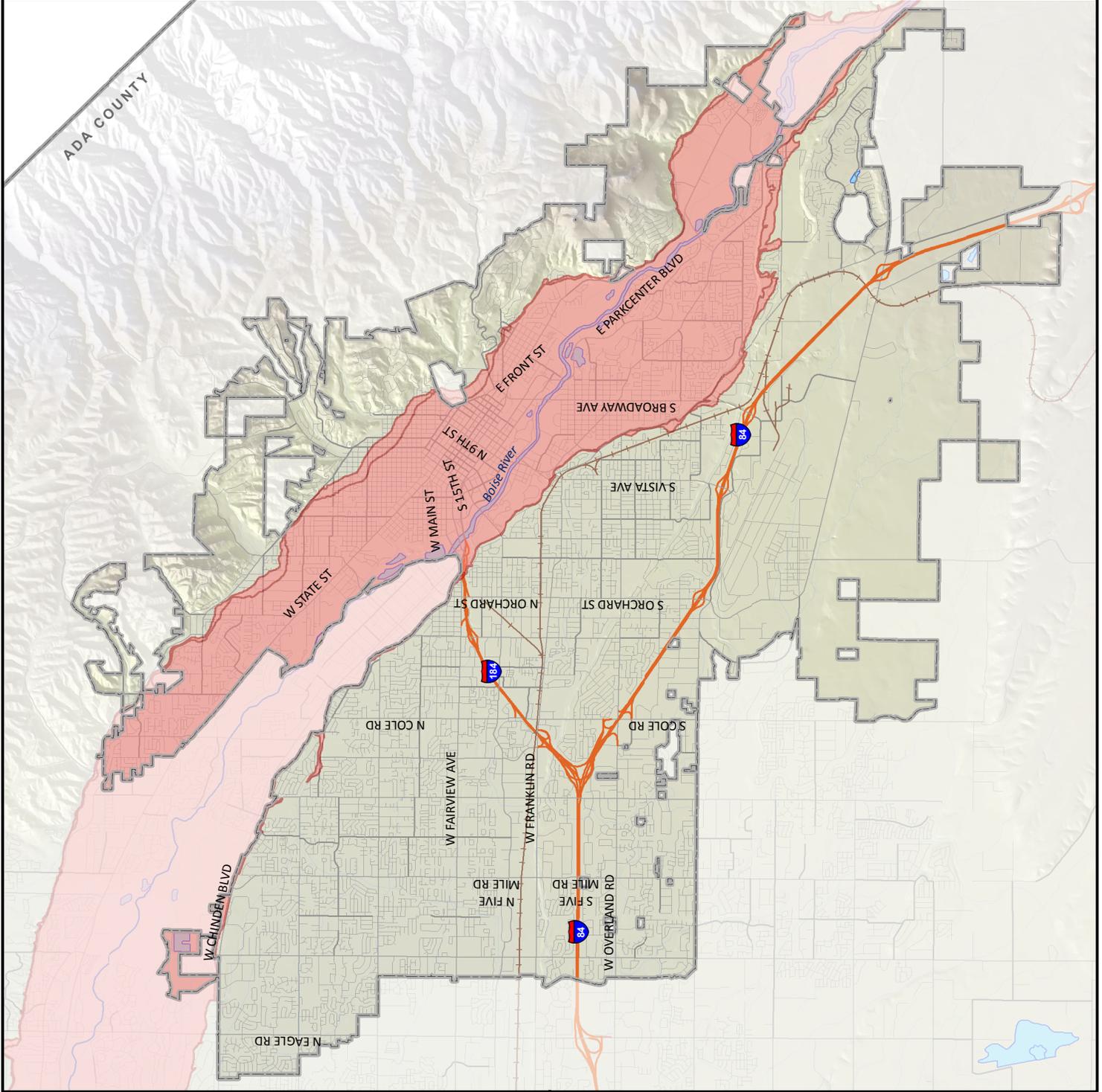
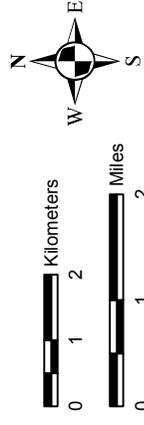
Lucky Peak Dam Failure

Maximum Pool Inundation Area

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

This map has been compiled using the best information available and is believed to be accurate, however, its preparation required many assumptions. Actual conditions during a failure may vary from those assumed, so the accuracy cannot be guaranteed. The limits of flooding shown and the temporal data should only be used as a guideline for emergency planning and response actions. Actual areas inundated and inundation timing will depend on specific flooding and failure conditions and may differ from the areas shown on the maps.

Data Sources: US Army Corps of Engineers
Base Data: Ada County, Idaho Department of Water Resources



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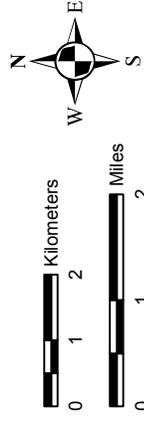
FIGURE X - X

Peak Ground Acceleration
USGS 100 Year
Probabilistic Event

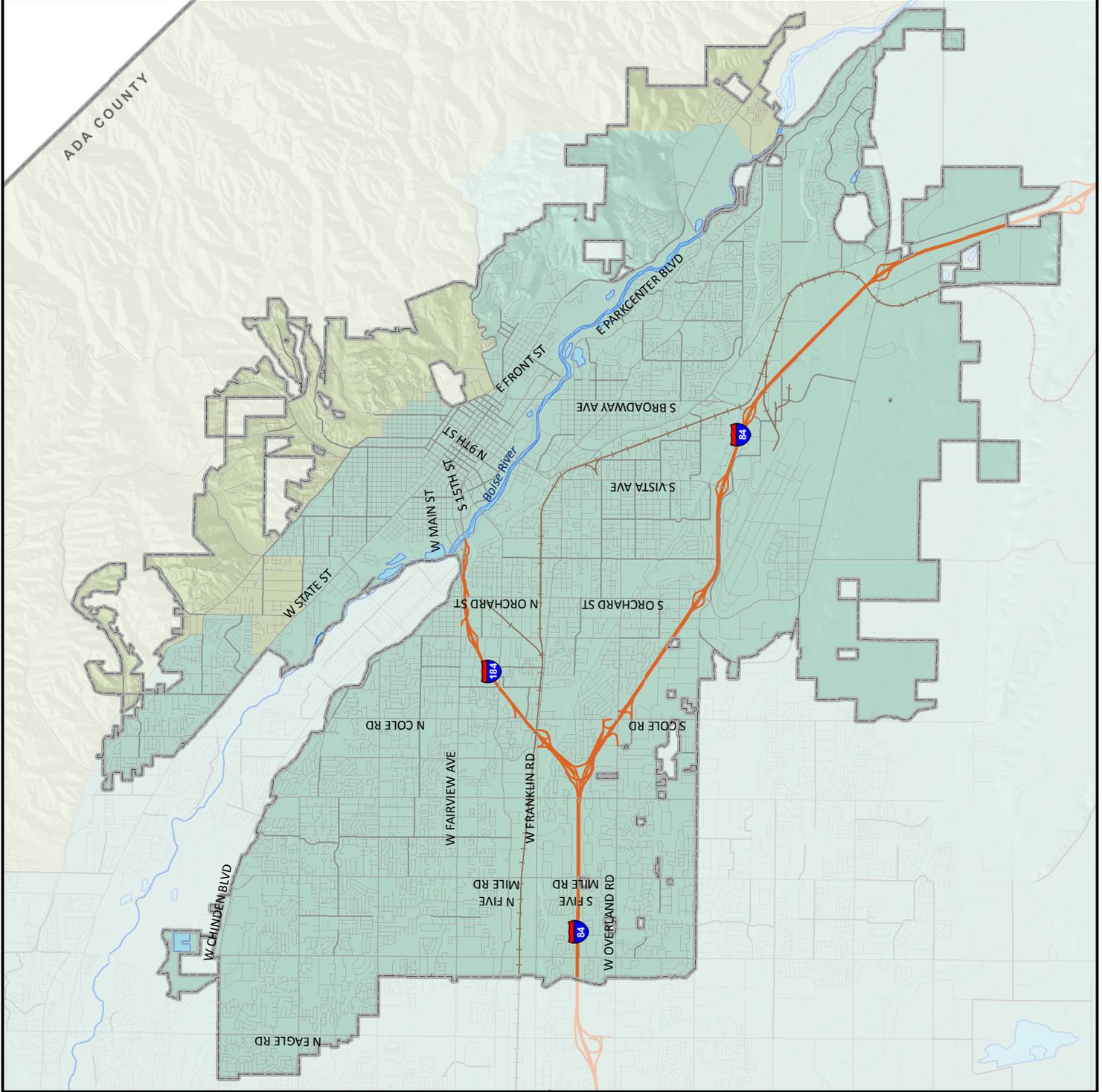
Mercalli Scale, Potential Damage

-  IV, None
-  V, Very Light
-  VI, Light
-  VII, Moderate
-  VIII, Moderate to Heavy

Data Sources: HAZUS-MH MR4 Output,
US Geological Survey
Base Data: Ada County, Idaho Department
of Water Resources



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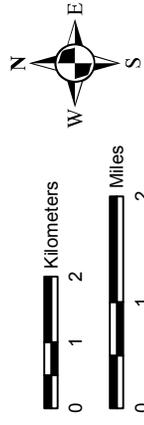
FIGURE X - X

Peak Ground Acceleration
USGS 500 Year
Probabilistic Event

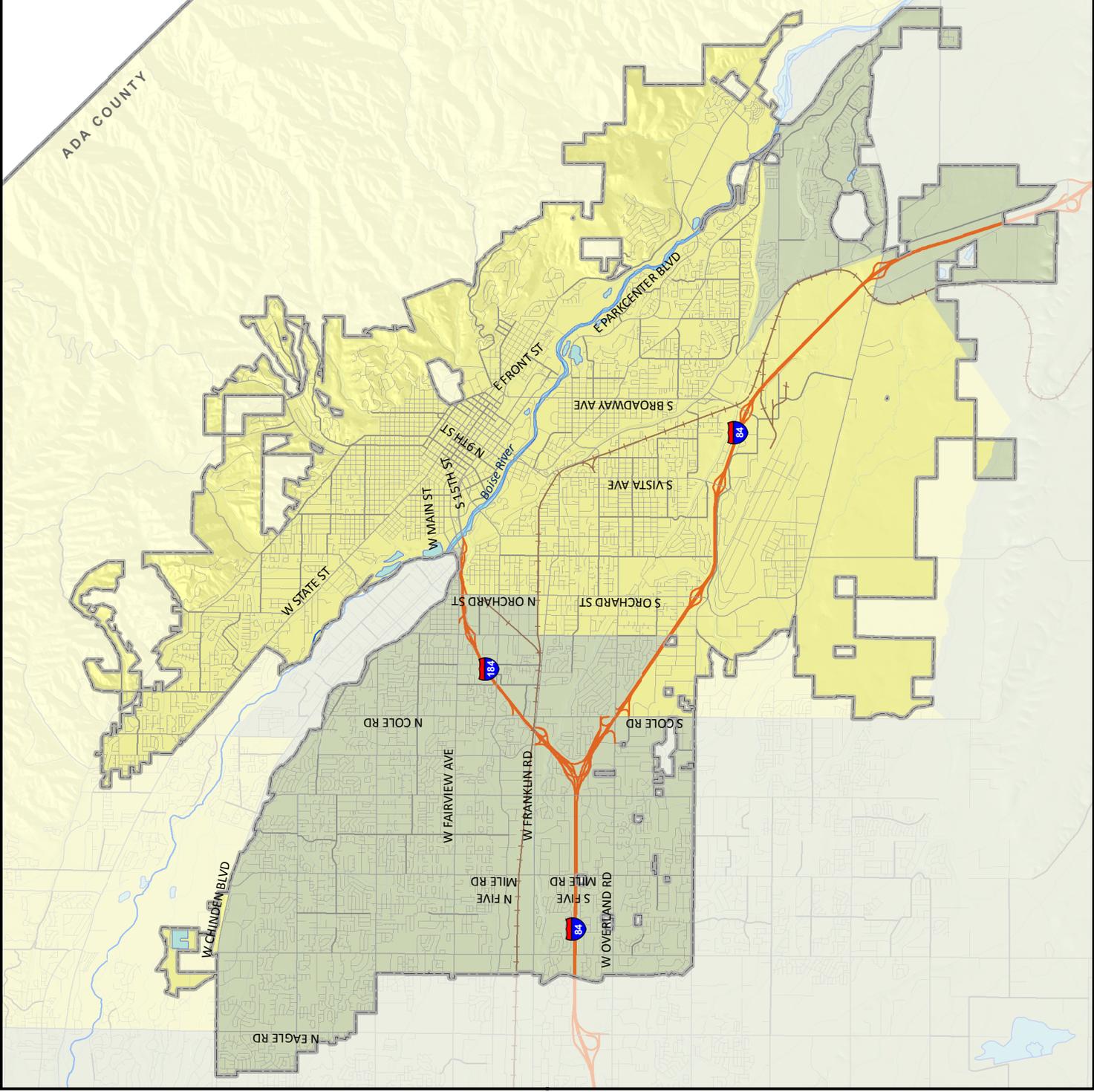
Mercalli Scale, Potential Damage

- IV, None
- V, Very Light
- VI, Light
- VII, Moderate
- VIII, Moderate to Heavy

Data Sources: HAZUS-MH MR4 Output,
US Geological Survey
Base Data: Ada County, Idaho Department
of Water Resources



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FIGURE X - X

Squaw Creek Fault Peak Ground Acceleration Magnitude 7.1 Scenario

Mercalli Scale, Potential Damage

- VI, Light
- VII, Moderate

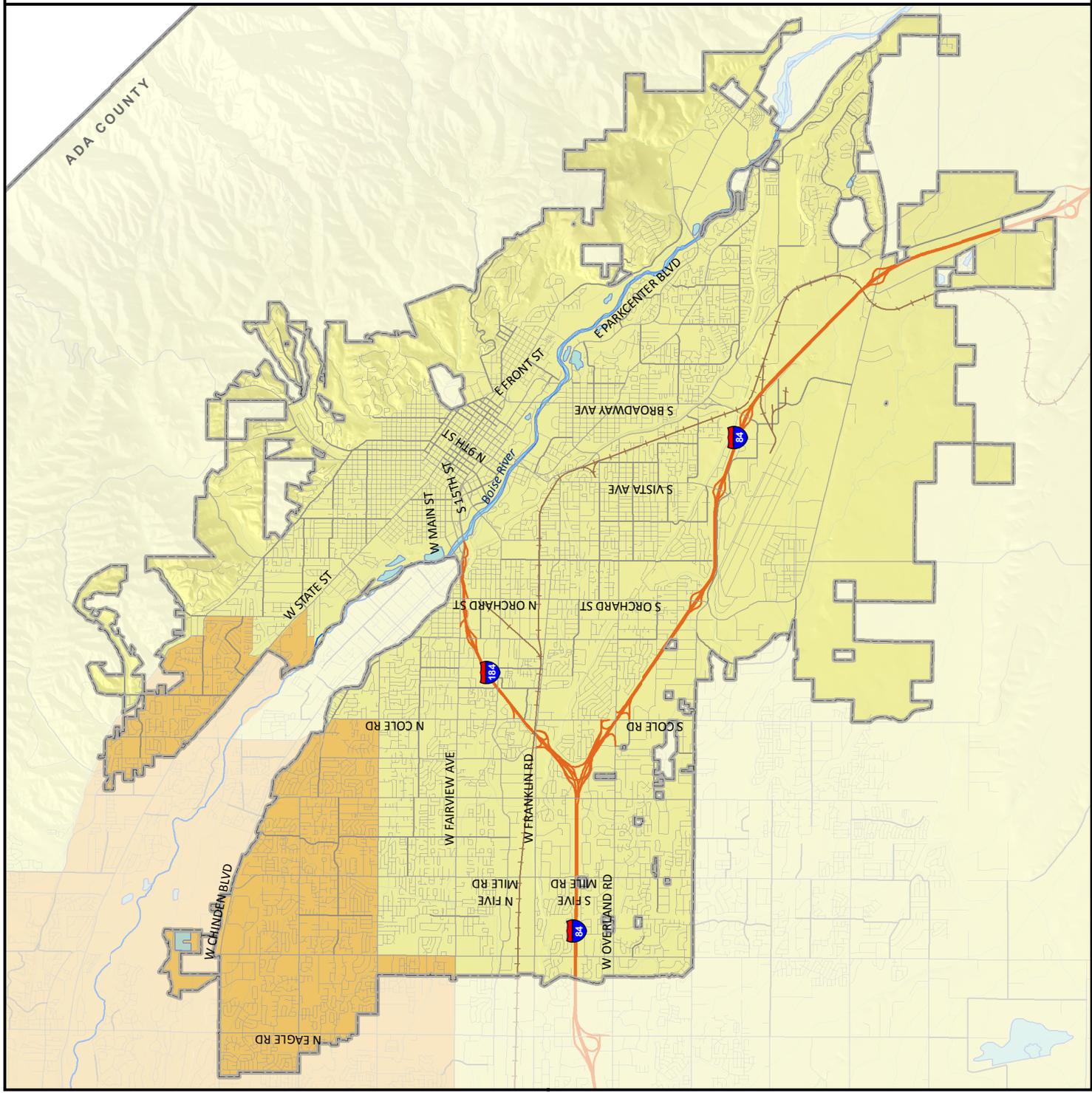
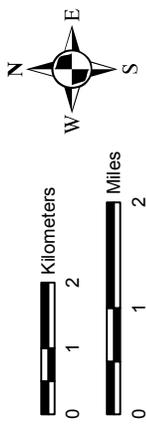
Magnitude: 7.1
Depth: 16.0km
Epicenter: N44.0927 W116.356
Appx. 40km N of Boise, ID

The most important of these is the Squaw Creek fault, about 40 km from Boise (see Field Trip Stop 5 and 7). Last movement on the Squaw Creek fault was post-7000 years (Gilbert and others, 1989). This fault is assigned a maximum credible earthquake (MCE) of magnitude 7.0 at an epicentral distance of 5 km and a focal depth of 7 km (Gilbert and others, 1983). An intensity of VIII is expected in Boise from this MCE (Zollweg, 2005).

This information provided by:

"Field Trip Guide to the Natural Hazards of the Boise Area, Idaho" January 2007, William M. Phillips, Geologist, Idaho Geologic Survey

Data Sources: United States Geological Survey
Base Data: Ada County, Idaho Department of Water Resources



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FIGURE X - X

Flood Studies:

Idaho Department of
Water Resources &
US Army Corps of Engineers

Flood Zones



Idaho Department of
Water Resources Eagle Island
100 Year Flood Study



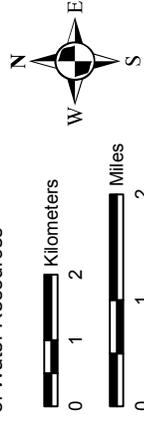
US Army Corps of Engineers
Boise River Flood Study
(100 Year)



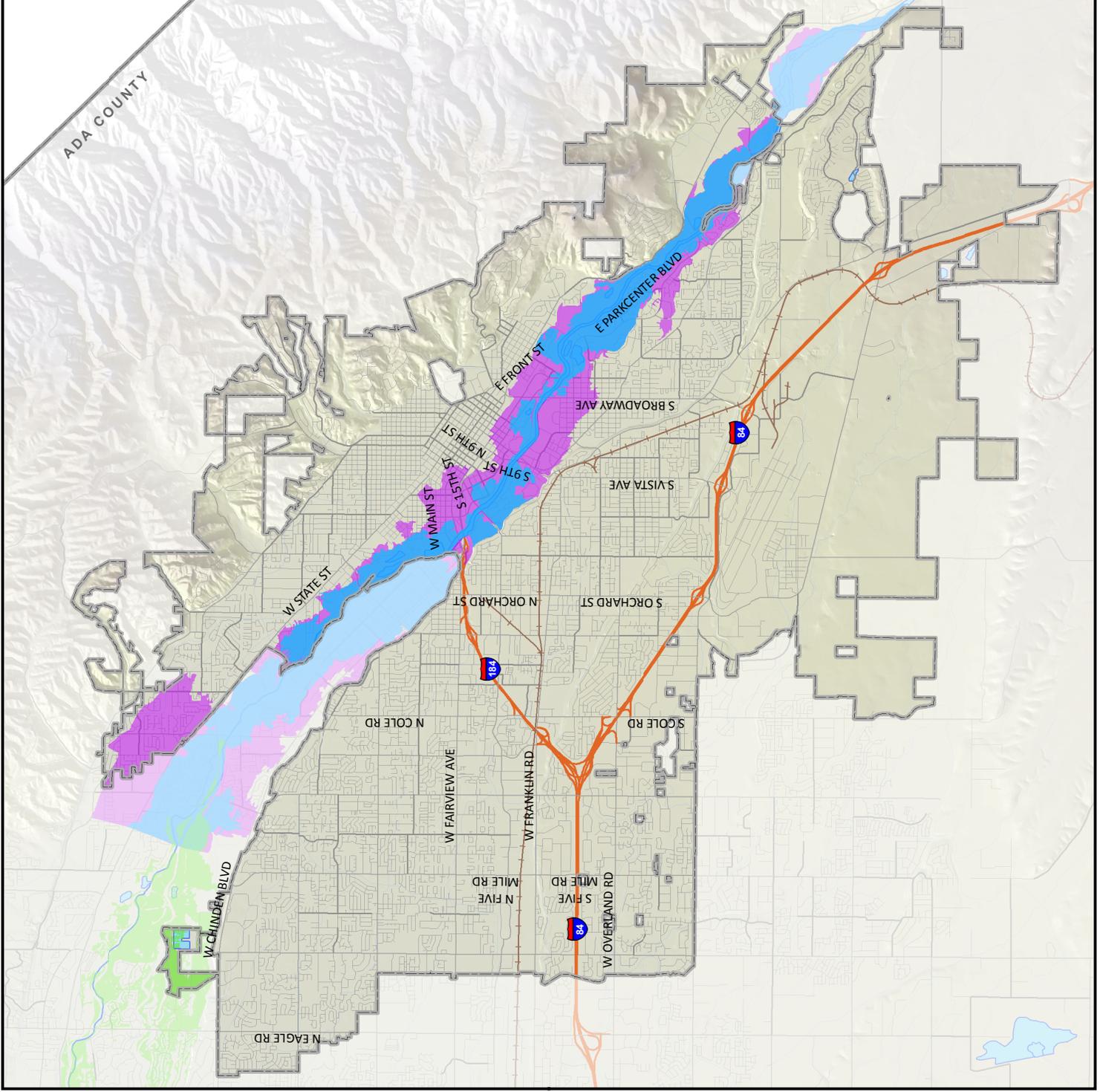
US Army Corps of Engineers
Boise River Flood Study
(500 Year)

Data Sources:

Eagle Island 100 Year Flood Study -
Idaho Department of Water Resources
Boise River Flood Study (100 & 500 Year) -
US Army Corps of Engineers
Base Data: Ada County, Idaho Department
of Water Resources



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FIGURE X - X

FEMA DFIRM Special Flood Hazard Areas

Flood Zones



Floodway

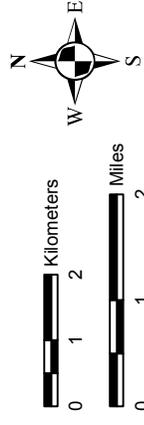


1 Percent Annual Chance
Special Flood Hazard Area
(100 Year)

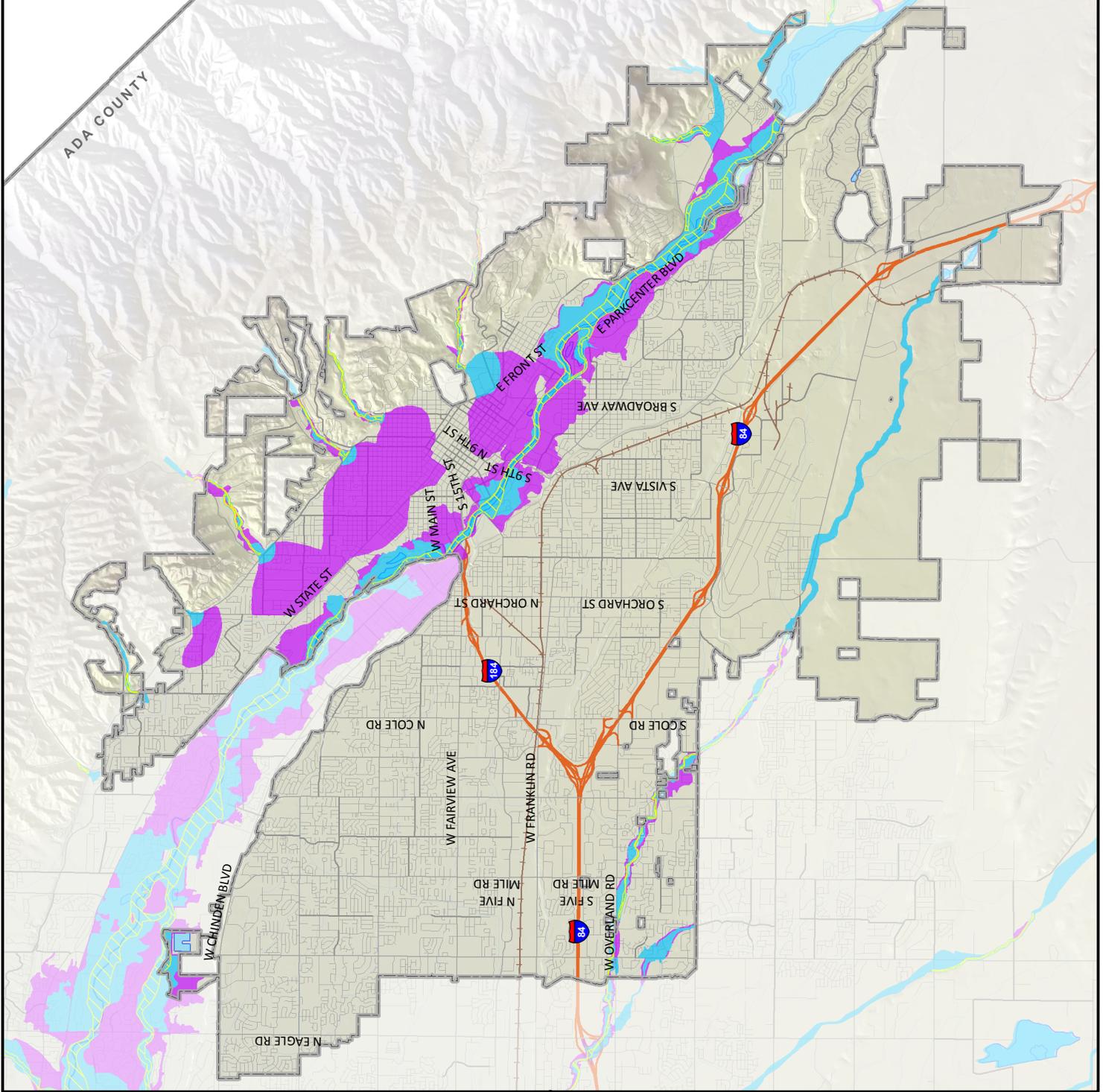


0.2 Percent Annual Chance
Special Flood Hazard Area
(500 Year)

Data Sources:
FEMA Digital Flood Insurance Rate Maps
Base Data: Ada County, Idaho Department
of Water Resources



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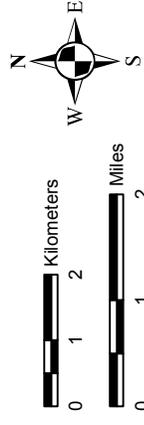
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FIGURE X - X

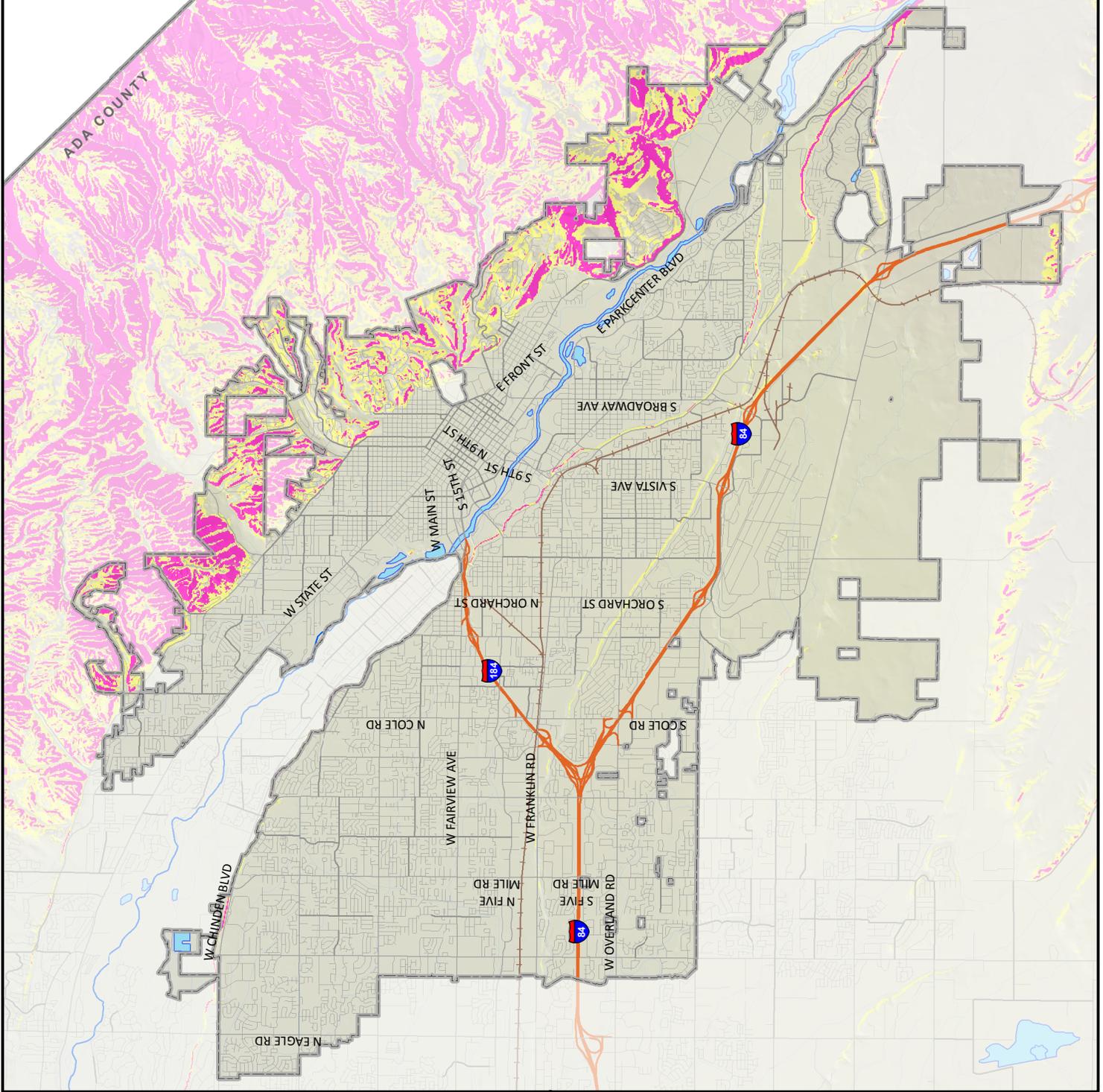
Areas of Steep Slope

- Percent Slope**
- 15 - 30% Slope
 - > 30% Slope

Data Sources:
Percent Slope developed with USGS 10m DEM
Base Data: Ada County, Idaho Department
of Water Resources



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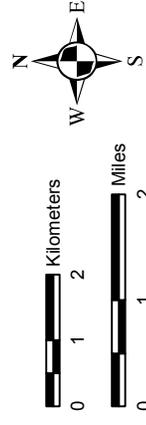
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FIGURE X - X

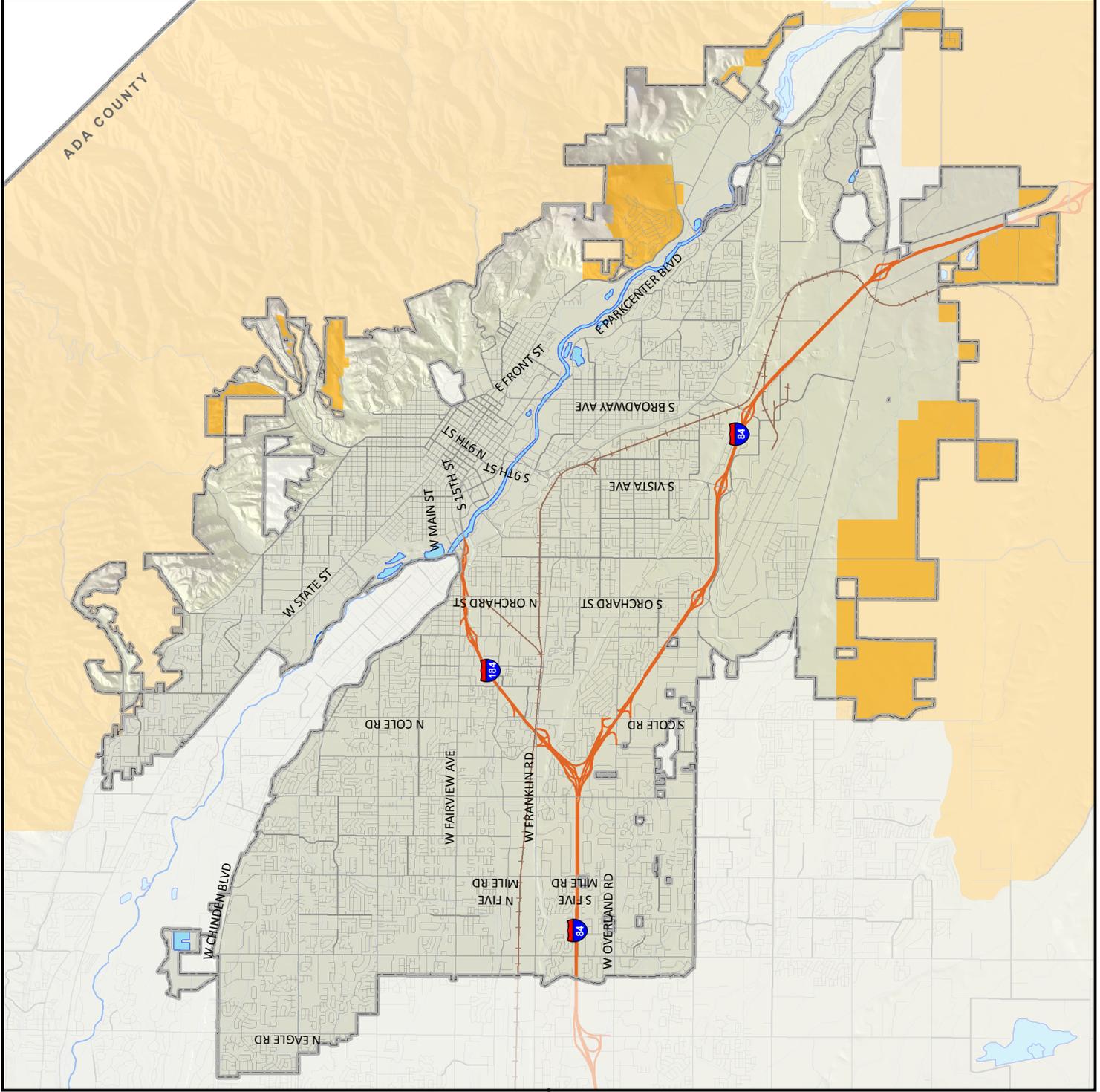
Wildfire Hazard Planning Areas

 Wildfire Planning Area

Data Sources:
 Ada County
 Base Data: Ada County, Idaho Department
 of Water Resources



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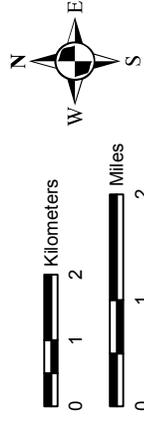
CITY OF BOISE

FIGURE X - X Relative Risk to Communities from Wildland Fire

Relative Wildland Fire Risk

- Low
- Low-Moderate
- Moderate
- Moderate-High
- High

Data Sources:
Idaho Bureau of Land Management
Base Data: Ada County, Idaho Department
of Water Resources



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