

CHAPTER 6. CITY OF KUNA ANNEX

6.1. HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact

Jerry Coulter; Building Official
763 W Avalon/ PO Box 13
Kuna ID 83634
Telephone: 208-922-5274
e-mail Address: tracy@cityofkuna.com

6.2. JURISDICTION PROFILE

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

- **Date of Incorporation**—September 15, 1915
- **Current Population**-15,900 (estimated) as of 2009
- **Population Growth:** Based on information from the U.S. Census and Compass (Community Planning Association), Kuna has experienced rapid growth from 1990 to 2008 with an increase of approximately 12.5 percent annually.
- **Location and Description:** The City of Kuna’s business district is located approximately 18 miles southwest of Boise and about 8 miles south of Meridian’s business districts and is part of the Boise City-Nampa, Idaho Metropolitan Statistical Area. Kuna is located about 8 miles south of U.S. Interstate 84 and intersects with State Highway 69.
- Kuna is the gateway to the Birds of Prey, the Morley Nelson Snake River Birds of Prey National Conservation Area, which holds North America’s densest population of nesting raptors. The Western Heritage Historic Byway, designated as a national as well as a state scenic byway, travels around a number of historic sites in the area.
- **Brief History:** Kuna is located in the Ada County, which was established on December 22, 1864 by the Idaho Territorial Legislature. Kuna originated as a railroad stop with coach transport to Boise but after the branch line was complete, there was no need for a depot at Kuna and the settlement closed down. With the prospects of irrigation water, settlers were attracted to the area again.
- The principle industry was agricultural and in the early 1900s, over 700 acres were planted with vineyards, apples and prune orchards. Agricultural is still a major local industry today.
- **Climate:** Kuna’s climate is characterized as a semi-arid climate, with four distinct seasons. Kuna experiences hot and dry summers with highs exceeding 100 °F (38 °C) 5.6 days in a typical year and 90 °F (32 °C) on 46 days. Yet due to the aridity, even summer nights often offer significant and crisp cool-downs. Winters are cold, with a January average of 30.2 °F (–1.0 °C), and lows falling to 0 °F (–18 °C) or below on around 4 nights per year. Snowfall averages 19 inches (48 cm), but typically falls in bouts of 3 inches (8 cm) or less. Spring and fall are generally mild, with autumn being a quick transition period whereas spring is quite

gradual. Precipitation is usually infrequent and light, and especially more lacking during the summer months.

- **Governing Body Format:** The City of Kuna is governed by a mayor-city council form of government; with four-elected City Council members and the Mayor. The City consists of six departments: Finance; Engineering; Public Works; Planning & Zoning, Police and City Clerk. The city government structure also includes a planning & zoning commission and design review committee.
- **Development Trends:** Based on data from Compass (Community Planning Association) and Kuna’s Comprehensive Plan, Kuna remains one of the fastest growing cities in the Treasure Valley. Kuna’s population increased from 14,830 in 2007 to 15,900 in 2008. This represents a 7.2-percent increase in population growth from the prior year. This increase over the past year is nearly the same population increase that the City of Boise experienced during the same period and noting it is the 99th largest city in America. This provides some perspective of just how strong Kuna’s growth is even during times of economic conflict. Additionally, Kuna was a contender for *CNN/Money’s “Best Place to Live 2005”* list.

Kuna is transitioning from a rural community to a more complex suburban city, and residential development in Kuna has outpaced commercial development. Kuna has identified additional commercial areas as a component of the Comprehensive Land Use Plan and the next step is implementation of the plan through establishment of new zoning districts, rezoning property and the possible creation of an Urban Renewal District.

The City of Kuna adopted its updated Comprehensive Plan in October 2009. The plan focuses on the concerns of the Community. City actions, relating to land use allocations, annexations, zoning, subdivision and design review, redevelopment and capital improvements must be consistent with such a plan. Future growth and development will be managed according to the Comprehensive Land Use Plan and it will be reviewed and amended as necessary.

6.3. JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 6-1 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
- Number of Repetitive Flood Loss Properties that have been mitigated: None

6.4. HAZARD RISK RANKING

Table 6-2 presents the ranking of the hazards of concern.

6.5. CAPABILITY ASSESSMENT

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

6.6. HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED INITIATIVES

Table 6-7 lists the initiatives that make up the jurisdiction’s hazard mitigation plan. Table 6-8 identifies the priority for each initiative. Table 6-9 summarizes the mitigation initiatives by hazard of concern and the six mitigation types.

6.7. STATUS OF PREVIOUS PLAN INITIATIVES

Table 6-10 summarizes the status of initiatives that were adopted for the previous hazard plan. Those that are directly carried over as actions in this hazard plan are also indicated as such in Table 6-7.

6.8. FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

Aside from occasional severe storms and winds, the greatest threat facing the City is the possibility of wildland fires. The City of Kuna, along with the National Interagency Fire Center, Idaho Department of Lands and the Bureau of Land Management need to collaborate on defining wild land fire protection strategies that protect the City from wild land fires, protect the environment and are compatible with protection of the unincorporated areas in Ada County.

6.9. HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps for the City of Kuna 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.

Type of Event	Date	Preliminary Damage Assessment
Flood/Canal Failure	6-4-2006	\$50,000
Severe wind	03/29/2009	\$33,000 (county wide)
Severe wind	04/27/1995	\$50,000 (county wide)
Flooding	06/1983	\$147,000 (county wide)

Rank	Hazard Type	Risk Rating Score (Probability x Impact)
1	Severe Weather	(3x16) =48
2	Wildfire	(3x16) =48
3	Earthquake	(2x12) =24
4	Flood	(3x6) =18
5	Drought	(2x3) =6
6	Volcano	(1x6) =6
7	Dam Failure	(1x0) = 0
8	Landslide	(2x0)= 0

**TABLE 6-3.
LEGAL AND REGULATORY CAPABILITY**

	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Building Code	Y	N	N	N	Title 4, Chapter 1 Kuna Municipal Code (KMC), adopts the 2006 IBC (9-4-2007)
Zoning Code	Y	N	N	N	Title 5, KMC, Adopted 1996
Subdivisions	Y	N	N		Title 65, KMC, Adopted 1977
Post Disaster Recovery	N	N	N	N	
Real Estate Disclosure	N	N	N	N	
Growth Management	Y	N	N	N	Kuna Comprehensive Plan, adopted 2009
Site Plan Review	Y	N	N	N	Title 5, Chapter 4, KMC adopted 8/21/2007
Special Purpose (flood management, critical areas)	Y	N	N	N	Flood Damage Prevention-Title 4, Chapter 5 KMC. Adopted 8/11/2003
Planning Documents					
General Plan	Y	N	N	Y	Kuna Comprehensive Plan, adopted 2009
Floodplain or Basin Plan	N	N	N	N	
Stormwater Plan	Y	N	N	Y	Kuna City complies with the requirements as per EPA requirements in NPDES, and IDWR requirements. ACHD holds NPDES Permit. City is responsible for Stormwater Pollution Prevention associated with City Projects.
Capital Improvement Plan	N	N	N	N	
Habitat Conservation Plan	N	N	N	N	
Economic Development Plan	N	N	N	N	
Emergency Response Plan	Yes	No	Yes	No	ACCEN 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	N	N	N	N	
Post Disaster Recovery Plan	N	N	N	N	

**TABLE 6-4.
ADMINISTRATIVE AND TECHNICAL CAPABILITY**

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Y	On staff Planner and City Engineer
Engineers or professionals trained in building or infrastructure construction practices	Y	On staff Building Official/ City Engineer
Planners or engineers with an understanding of natural hazards	Y	On staff City Engineer/ Planning Director
Staff with training in benefit/cost analysis	Y	On Staff Planning Director/ Treasurer
Floodplain manager	N	None on staff: Contracted as required
Surveyors	N	None on staff: Contracted as required
Personnel skilled or trained in GIS applications	Y	On staff GIS Manager
Scientist familiar with natural hazards in local area	N	None on staff: Contracted as required
Emergency manager		
Grant writers	N	None on staff: Contracted as required

**TABLE 6-5.
FISCAL CAPABILITY**

Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Y
Capital Improvements Project Funding	Y
Authority to Levy Taxes for Specific Purposes	Y
User Fees for Water, Sewer, Gas or Electric Service	Y
Incur Debt through General Obligation Bonds	Y
Incur Debt through Special Tax Bonds	Y
Incur Debt through Private Activity Bonds	Y
Withhold Public Expenditures in Hazard-Prone Areas	N
State Sponsored Grant Programs	Y
Development Impact Fees for Homebuyers or Developers	Y
Other	

	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	10/10	N/A
Public Protection	Yes	3/9	N/A
Storm Ready	Yes	Participant	N/A
Firewise	No	—	—

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Included in Previous Plan?
Initiative #K1 —Standardized regulation of HVAC, and life safety codes							
New and existing	All hazards	All	Kuna City Council	Low	General Fund	Long term-on going	No
Initiative #K2 —Develop and maintain an inventory of City Critical facilities and infrastructure							
New	All hazards	All	Public Works/ City of Kuna	Medium	Public Works Fund	Long term-on going	No
Initiative #K3 —Open space preservation in identified high risk hazard area.							
New and existing	All Hazards	All	Planning and Zoning	Medium	General fund	Long term-on going	No
Initiative #K4 -- Maintain community’s compliance and good standing under the National Flood Insurance program							
New and Existing	Flood	2,4,5,6,9	Planning and Zoning	Low	General Fund	Short-term Ongoing	Yes 8.1.g
Initiative #K5 —Integrate Local Hazard Mitigation Plan into the Garden City Comprehensive Plan.							
New and existing	All Hazards	2,5,6	Planning and Zoning	Low	General Fund	Short term	No
Initiative #K6 —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	City of Kuna, ACCEM	High	FEMA Hazard Mitigation Grant Programs, ICC	Long-term	No

**TABLE 6-7.
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 #K7 —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	Planning and Zoning	Low	General Fund	Long-term	No
Initiative #K8 —Support County-wide initiatives identified in Volume 1.							
New and Existing	All Hazards	All	Kuna, ACCEM	Low	General Fund	Short term Ongoing	No
Initiative #K9 —Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Volume 1.							
New & Existing	All Hazards	All	ACCEM, Kuna	Low	Garden City, FEMA Mitigation Grant Funding for 5-year update	Short-Term, Ongoing	No

**TABLE 6-8.
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
K1	All	High	Low	Yes	No	Yes	High
K2	All	High	Medium	Yes	Yes	Yes	High
K3	All	High	Medium	Yes	Yes	Yes	High
K4	5	High	Low	Yes	No	Yes	High
K5	3	High	Low	Yes	No	Yes	High
K6	3	High	High	Yes	Yes	No	Medium
K7	2	High	Low	Yes	No	Yes	Medium
K8	10	Medium	Low	Yes	No	Yes	High
K9	10	Low	Low	Yes	Yes	Yes	High

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

**TABLE 6-9.
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
Drought	K1, K5, K7, K9	K3, K6	K8	K3,	K2, K8	
Wildfire	K1, K5, K7, K9	K3, K6	K8	K3	K2, K8	
Severe Storms	K1, K5, K7, K9	K3, K6	K8	K3	K2, K8	
Earthquake	K1, K5, K7, K9	K3, K6	K8	K3	K2, K8	
Landslide	K1, K5, K7, K9	K3, K6	K8	K3	K2, K8	
Volcano/Lahar	K1, K5, K7, K9	K3, K6	K8	K3	K2, K8	
Flood	K1, K4, K5, K7, K9	K3, K4, K6	K4, K8	K3, K4	K2, K4, K8	K4

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 6-10.
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.

**TABLE 6-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

Action #	Action Status			Comments
	Completed	Carry Over to Plan Update	Removed; No Longer Feasible	
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.
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

**TABLE 6-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

Action #	Action Status			Comments
	Completed	Carry Over to Plan Update	Removed; No Longer Feasible	
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
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.

**TABLE 6-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

Action #	Action Status			Comments
	Completed	Carry Over to Plan Update	Removed; No Longer Feasible	
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.
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.

**TABLE 6-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

Action #	Action Status			Comments
	Completed	Carry Over to Plan Update	Removed; No Longer Feasible	
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		ACCCEM coordinates with all local response agencies to create multi-year training plans. Training funds are available through ACCCEM 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.
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.

**TABLE 6-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS**

Action #	Action Status			Comments
	Completed	Carry Over to Plan Update	Removed; No Longer Feasible	
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.
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.

CITY OF KUNA

FIGURE X - X

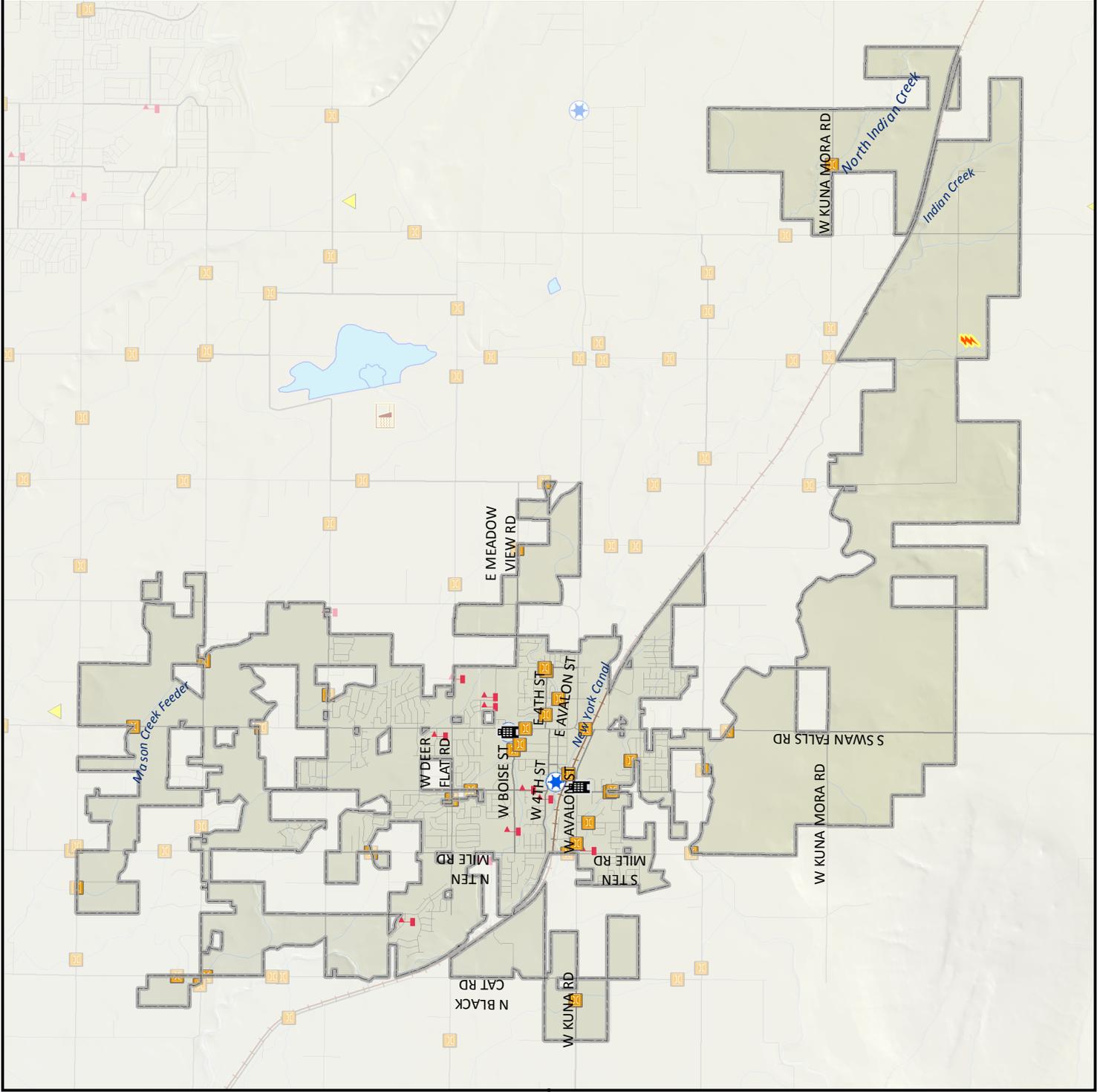
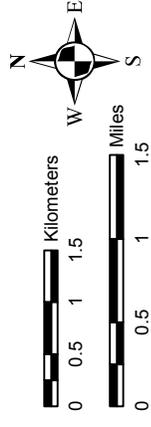
Critical Facilities

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



CITY OF KUNA

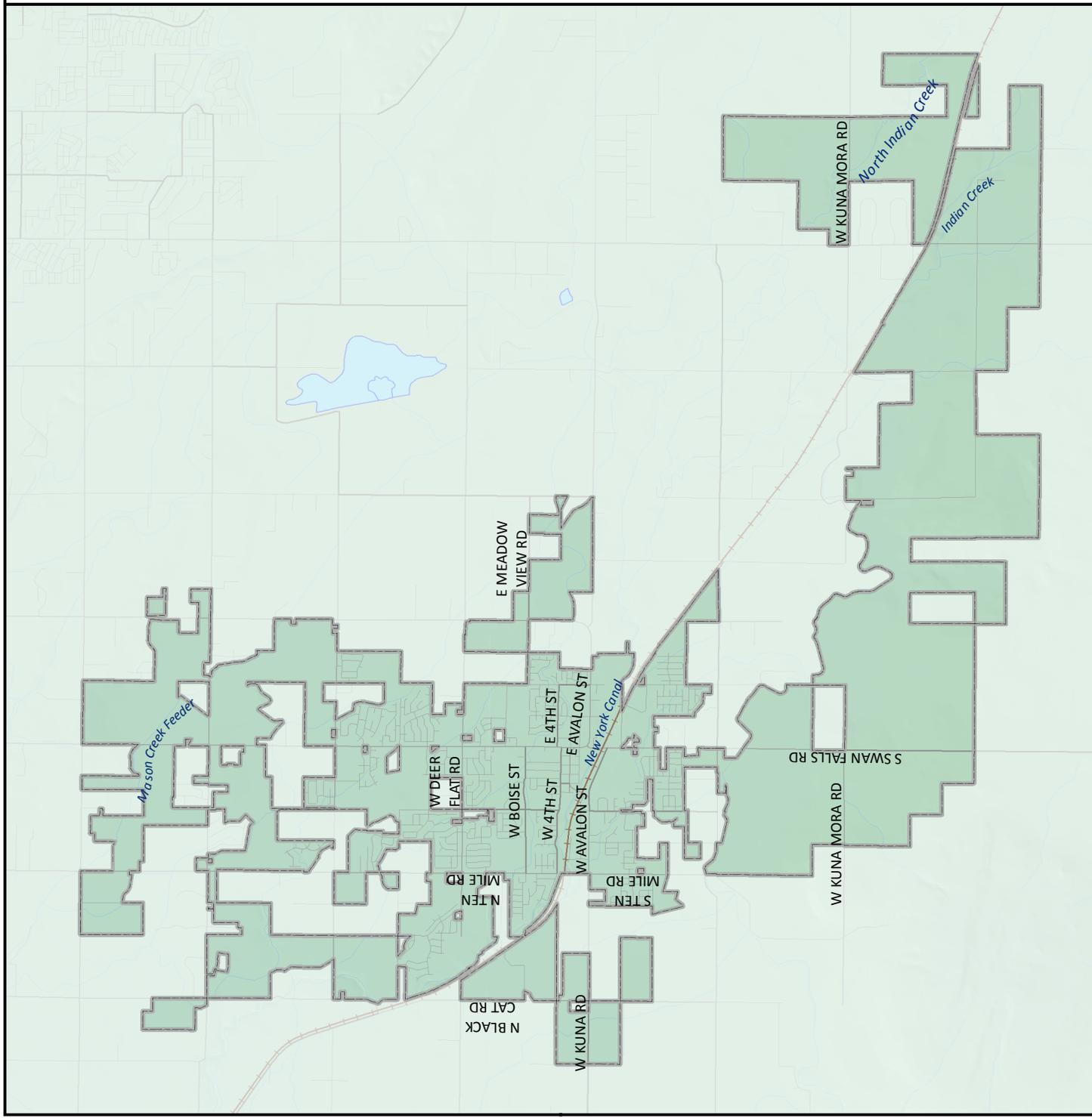
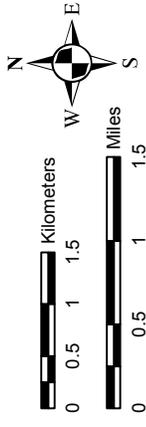
FIGURE X - X

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



CITY OF KUNA

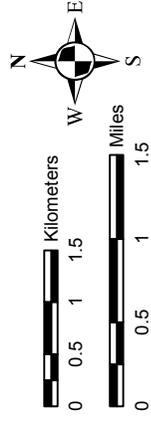
FIGURE X - X

Peak Ground Acceleration
USGS 500 Year
Probabilistic Event

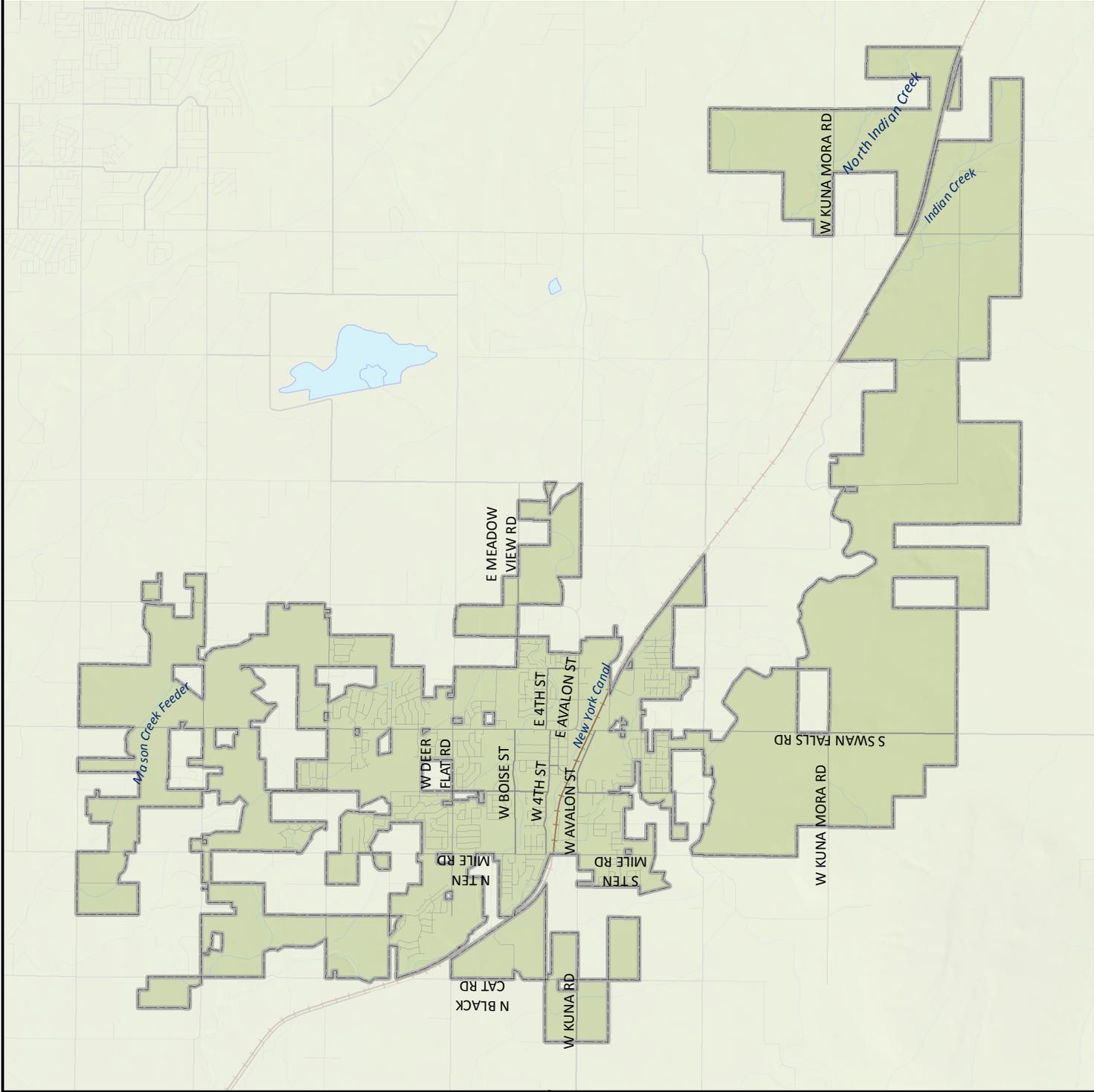
Mercalli Scale, Potential Damage

-  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



ACCEN
Ada City-County
Emergency Management



CITY OF KUNA

FIGURE X - X

Squaw Creek Fault Peak Ground Acceleration Magnitude 7.1 Scenario

Mercalli Scale, Potential Damage

- VI, Light
- VII, Moderate

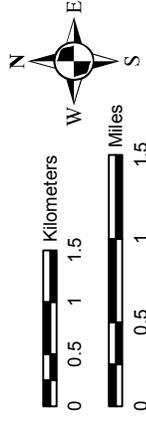
Magnitude: 7.1
Depth: 16.0km
Epicenter: N44.0927 W116.356
Appx. 40km N of Boise, ID

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, 2006).

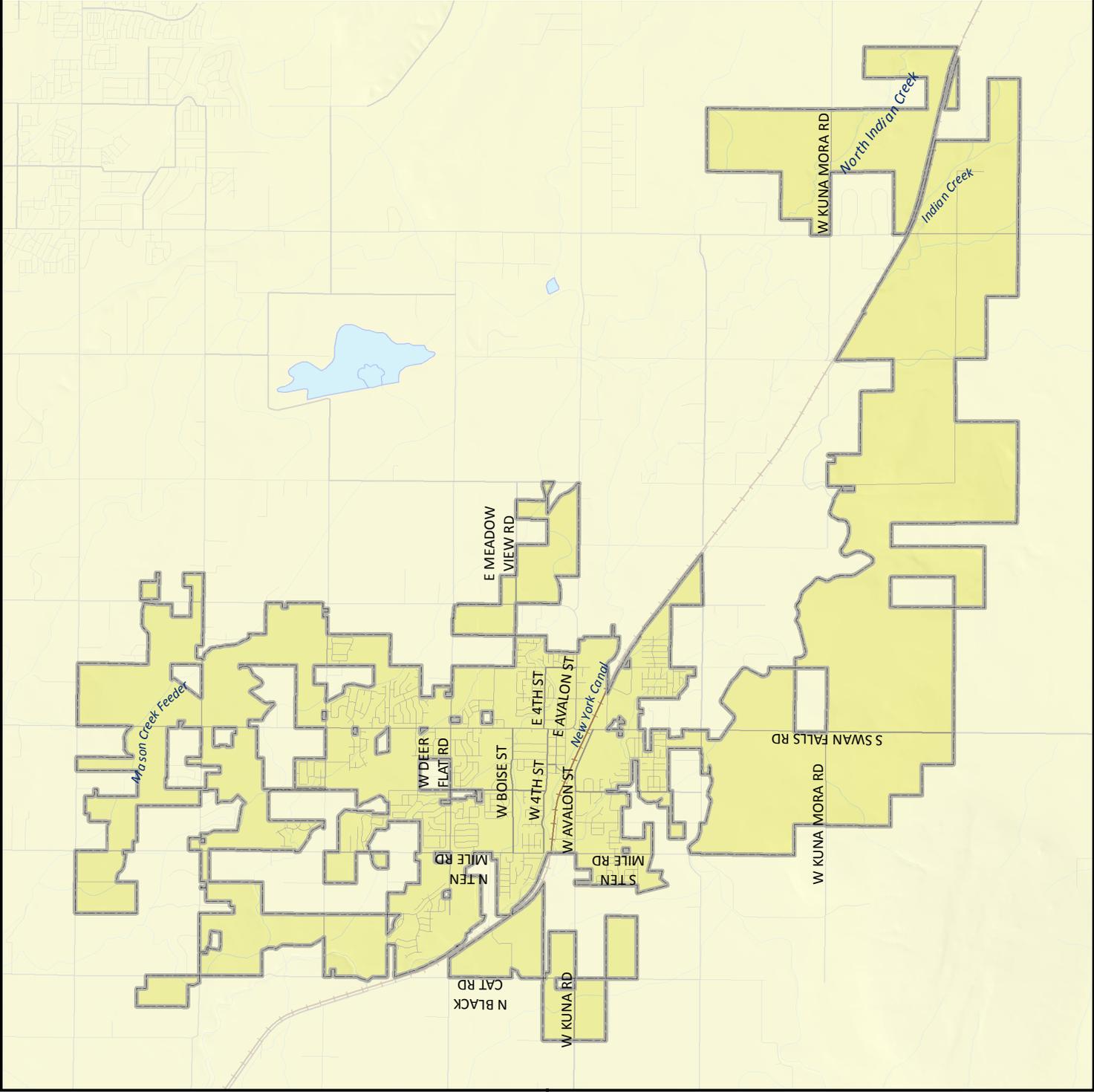
This information provided by:

"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



ACCEN
Ada City-County
Emergency Management



CITY OF KUNA

FIGURE X - X

Lucky Peak Dam Failure

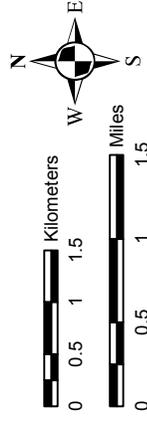


Maximum Pool Inundation Area

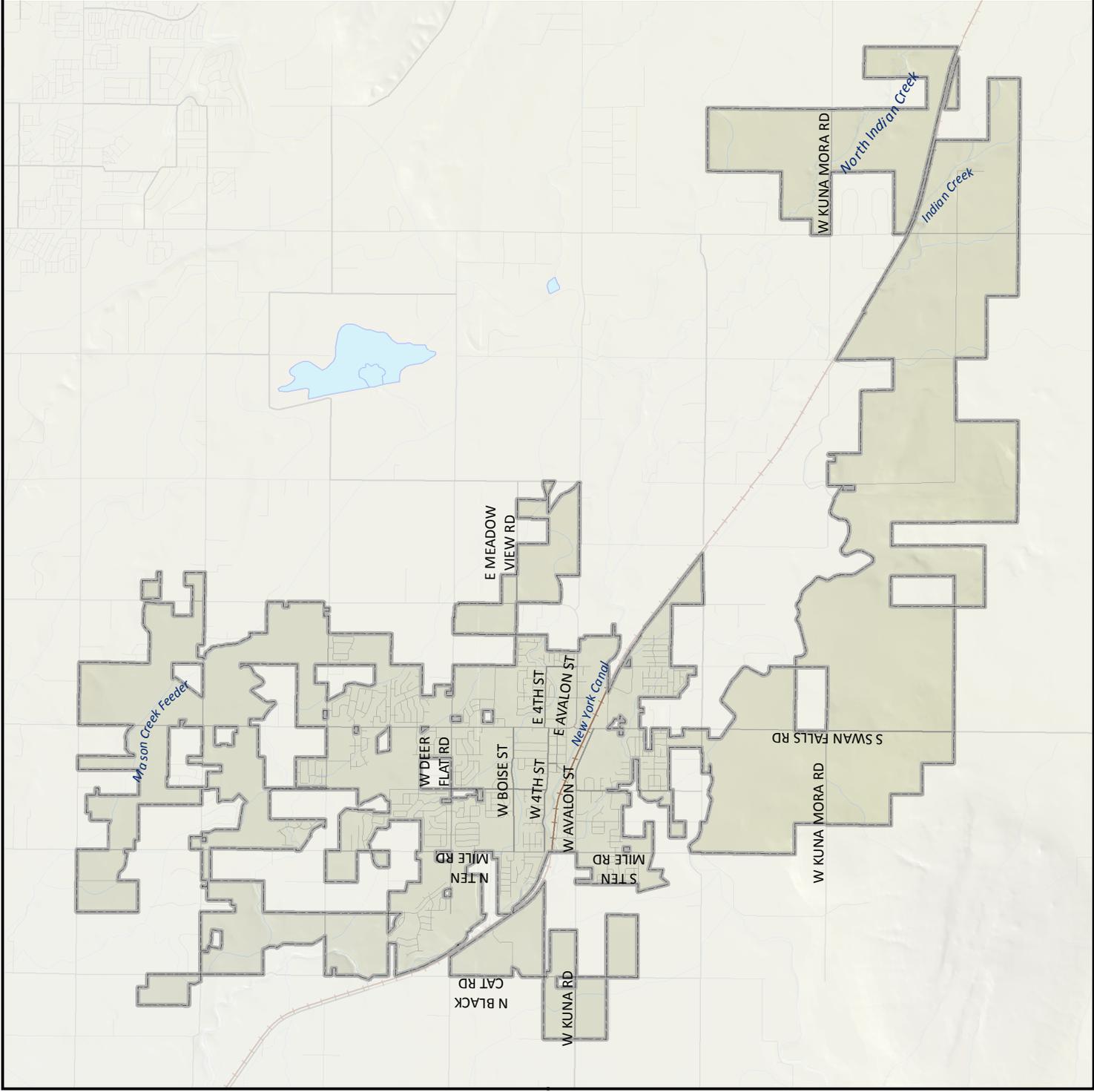
Area inundated by dam failure occurring when pool elevation is at the top of the impounding structure

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



ACCEN
Ada City-County
Emergency Management



CITY OF KUNA

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



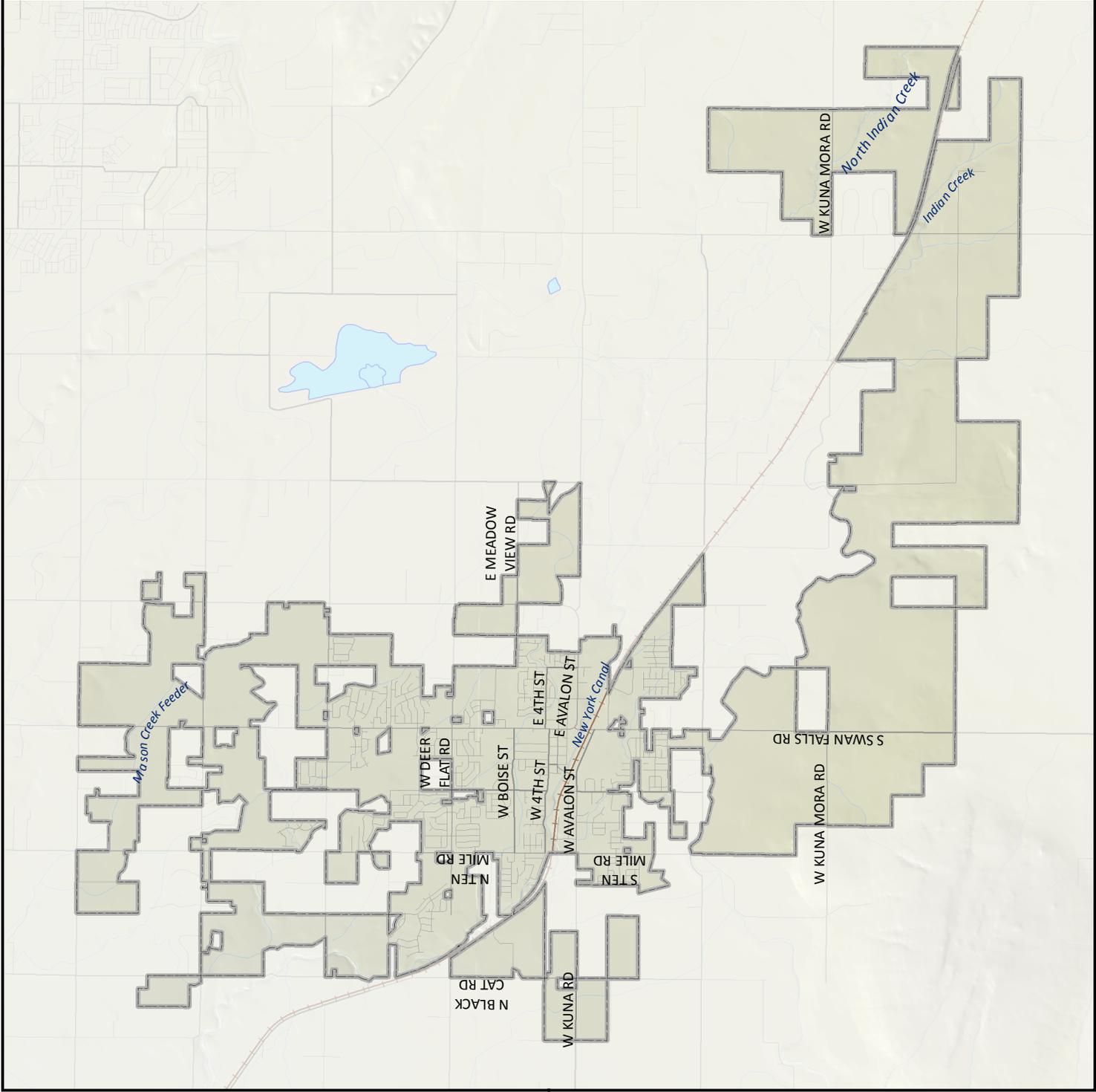
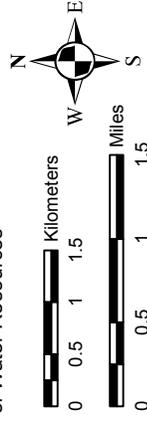
US Army Corps of Engineers
Boise River Flood Study
(100 Year)



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



CITY OF KUNA

FIGURE X - X

FEMA DFIRM Special Flood Hazard Areas

Flood Zones



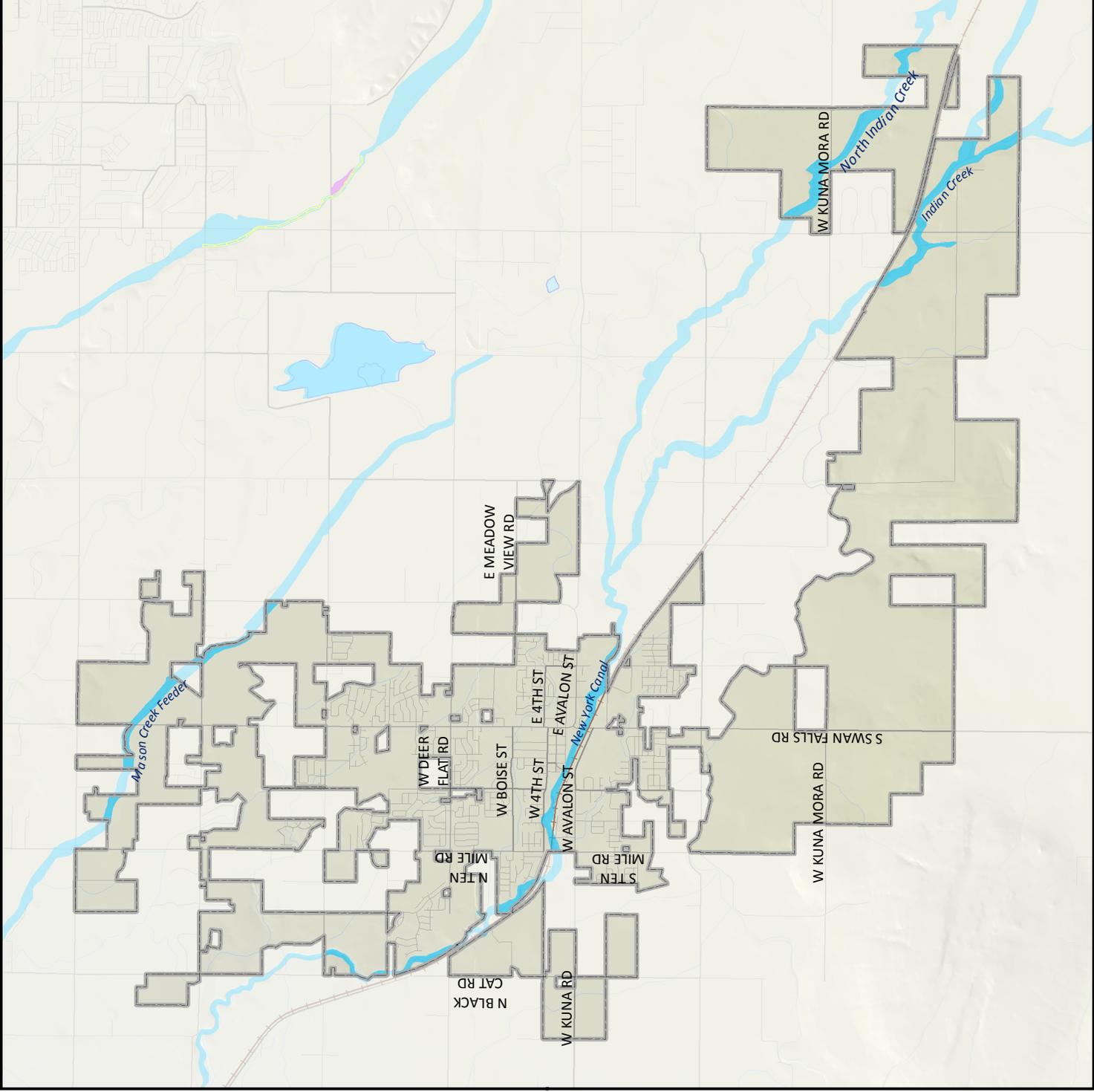
Floodway



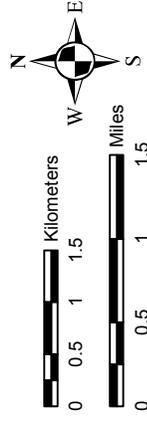
1 Percent Annual Chance
Special Flood Hazard Area
(100 Year)



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



ACCEN
Ada City-County
Emergency Management



CITY OF KUNA

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

