

**MIDVALE CITY, UTAH  
RESOLUTION NO. 2015-R-55**

**A RESOLUTION APPROVING AND IMPLEMENTING THE  
MIDVALE CITY HAZARD MITIGATION PLAN**

**WHEREAS**, the City Council understands the importance of being prepared for any emergency situations or disasters; and

**WHEREAS**, the City Council desires to approve and implement the Midvale City Hazard Mitigation Plan (HMP); and

**WHEREAS**, the HMP complies with existing federal, state and local statutes; and

**WHEREAS**, the HMP is intended to promote sound public policy and protect or reduce the vulnerability of the citizens, critical facilities, infrastructure, private property and natural environment within the city; and


**WHEREAS**, the City Council desires to increase public awareness, documenting resources for risk reduction and loss prevention and identifying activities to guide the development of a less vulnerable and more sustainable community;

**NOW THEREFORE BE IT RESOLVED**, based on the foregoing, the Midvale City Council does hereby approve and implement the Midvale City Hazard Mitigation Plan attached herewith as Exhibit A.

**APPROVED AND ADOPTED** this 17<sup>th</sup> day of November, 2015.

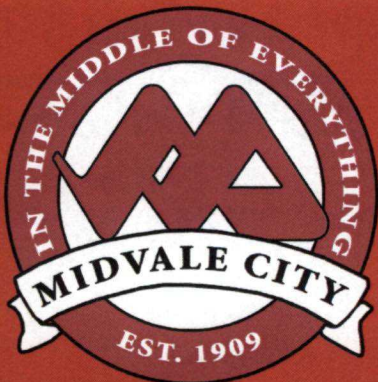
  
JoAnn B. Seghini, Mayor

ATTEST:

  
Rori L. Andreason, MMC  
City Recorder



Voting by the City Council	"Aye"	"Nay"
Stephen Brown	<input checked="" type="checkbox"/>	_____
Paul Glover	<input checked="" type="checkbox"/>	_____
Paul Hunt	<input checked="" type="checkbox"/>	_____
Wayne Sharp	<input checked="" type="checkbox"/>	_____
Quinn Sperry	<input checked="" type="checkbox"/>	_____



2015

Developed by:

MIDVALE CITY

EMERGENCY MANAGER, JESSE VALENZUELA

AND

GRANT PRO GROUP L.L.C, LIZ KINNE

## [HAZARD MITIGATION PLAN]

2015 Hazard Mitigation Plan is to identify policies and actions that can be implemented over the long term to reduce risk and future losses. The purpose of this plan is to form the foundation for Midvale City's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage.

## APPROVAL AND IMPLEMENTATION

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Effective date: \_\_\_\_\_

This document is the updated integrated Hazard Mitigation Plan (HMP) for Midvale City. This HMP supersedes any previous hazard mitigation plans promulgated by Midvale City. This plan provides a framework for Midvale City departments and agencies to plan and perform their respective hazard mitigation functions. This HMP recognizes the need for ongoing hazard mitigation planning by all Midvale City departments and agencies. This plan addresses the four steps identified by the Federal Emergency Management Administration (FEMA):

Step 1: From the start, communities should focus on the resources needed for a successful mitigation planning process. Essential steps include identifying and organizing interested members of the community as well as the technical expertise required during the planning process.

Step 2: Next, communities need to identify the characteristics and potential consequences of hazards. It is important to understand how much of the community can be affected by specific hazards and what the impacts would be on important community assets.

Step 3: Armed with an understanding of the risks posed by hazards, communities need to determine what their priorities should be and then look at possible ways to avoid or minimize the undesired effects. The result is a hazard mitigation plan and strategy for implementation.

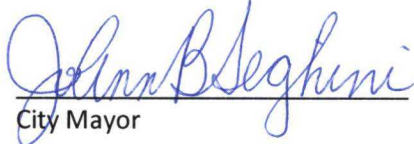
Step 4: Communities can bring the plan to life in a variety of ways, ranging from implementing specific mitigation projects to changes in day-to-day organizational operations. To ensure the success of an ongoing program, it is critical that the plan remains relevant. Thus, it is important to conduct periodic evaluations and make revisions as needed.

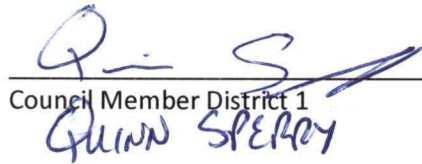
This HMP complies with existing federal, state, and local statutes. It has been approved by the Mayor and City Council, and will be revised and updated as required. All recipients are requested to advise Midvale City Emergency Management of any changes that might improve or increase the usefulness of this HMP.

The HMP is intended to promote sound public policy and protect or reduce the vulnerability of the citizens, critical facilities, infrastructure, private property and the natural environment within the City of Midvale. This can be achieved by increasing public awareness, documenting resources for risk reduction and loss-prevention and identifying activities to guide the development of a less vulnerable and more sustainable community.


**Midvale City Corporation: Mayor and City Council**

We, as the Midvale City Council, support the planning principles used to develop this document and accept the responsibilities outlined in this plan.

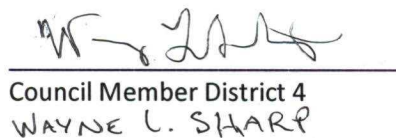
  
City Mayor

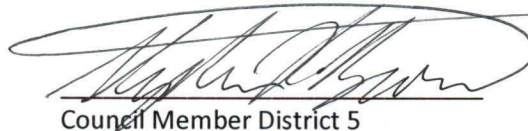
  
Council Member District 1

  
Council Member District 2  
Paul C. Glover

  
Council Member District 3  
Paul Hunt

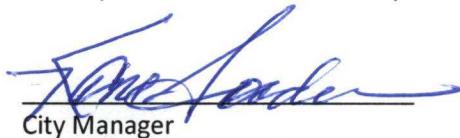


  
Council Member District 4  
WAYNE L. SHARP

  
Council Member District 5

**Midvale City Corporation: Administration and Departmental Leaders**

We, as the departmental leaders of the Midvale City Corporation, support the planning principles used to develop this document and accept the responsibilities outlined in this plan.

  
City Manager

  
Finance Director  
Assistant City Manager

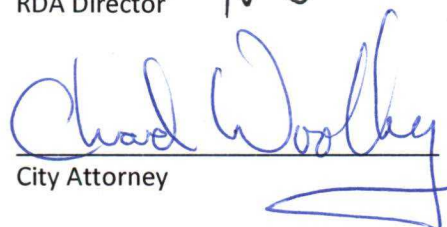
  
Director, CED  
Assistant City Manager

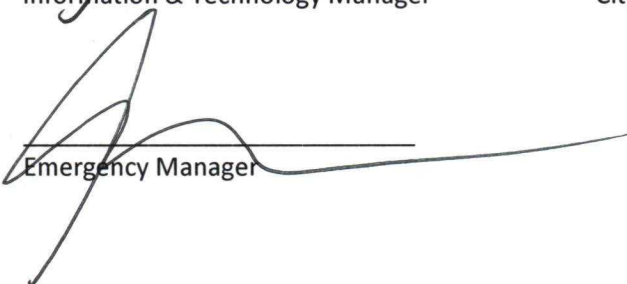
  
Public Works Director

  
Human Resource Director

  
RDA Director

  
Information & Technology Manager

  
City Attorney

  
Emergency Manager

## ANNEX Q: CITY OF MIDVALE

### 1 Introduction

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#### 1.1 Community Profile

Midvale is a city in Salt Lake County, Utah, United States. It is part of the Salt Lake City, Utah Metropolitan Statistical Area. The population was 30,764 at the 2014 census.

According to the United States Census Bureau, the city has a total area of 5.8 square miles (15.1 km<sup>2</sup>), all of it land. This climatic region is typified by large seasonal temperature differences, with warm to hot (and often humid) summers and cold (sometimes severely cold) winters. According to the Köppen Climate Classification system, Midvale has a humid continental climate, abbreviated "Dfb" on climate maps. Midvale City has a nonpartisan mayor-council form of government. The mayor and five councilors are elected to four-year terms. The current Mayor of Midvale is Dr. JoAnn B. Seghini. Midvale Fire and Police are furnished by arrangement with the Unified Police and Fire of Salt Lake County. Midvale no longer fields its own police or fire departments.

**Midvale Demographics:** 68.3% Caucasian, 1.4% Black or African American, 2.3% Asian, 0.8% American Indian or Alaska Native, 0.7% Native Hawaiian or Pacific Islander, 1.8% Two or More Races, 24.7% Hispanic or Latino<sup>1</sup>. Other demographic data for the targeted area reports 17.2% below poverty level.

**Population Increase:** In 2010, the population of Latinos in Midvale more than doubled since previous US Census. Also noted, 30% of Latinos in Salt Lake County live in Midvale; 51% of that population is under the age of 25.

**Poverty:** Midvale Elementary School has a Free & Reduced lunch rate of 90.1 %. The majority of Hispanics in Midvale had income in the past 12 months, yet still most report living at or below state poverty standards. Hispanic occupations in Midvale are generally to perform hard physical labor in and out of the community. These jobs do not offer health insurance. This includes seasonal and year round work in agriculture and service occupations. The average pay is generally \$8 - \$10 per hour.

**Language and Cultural Barriers:** English is a second language for the majority of Latinos in Midvale City over 18 with 54.3% of Midvale Elementary students come from Spanish speaking households.

**Low Levels of Education:** 61% of Hispanics in Midvale City have less than a high school diploma (Census.gov).

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<sup>1</sup> <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>

The myriad of struggles that face our community are wide and deep. The lack of preventative health care combined with the socio-economic struggles of many citizens in Midvale creates a unique array of barriers that is preventing our community from being as healthy as it can be. Breast Cancer, Diabetes, STD's, Heart Disease, Stroke, and Chronic Respiratory illnesses burden the Midvale community. Without the programs and services that the CBC provides, like our Primary Care Health Center, then these problems will continue to persist and illnesses will be taking the lives of brothers, sisters, mothers and fathers while at the same time destroying our economy, culture and future.

Midvale Community Building Community (CBC) was founded in 1998 by Mayor JoAnn Seghini in response to the federal declaration of Midvale City as medically underserved by the U.S. Department of Health and Human Services. Midvale City began the Community-Building-Community Initiative (CBC) in 1998 to improve the general well-being of Midvale residents. The CBC is a collaborative effort that brings together the stakeholders in the Midvale community, including the residents, in the planning process.

The CBC has set five goals and committees. Each committee is comprised of community members and service providers who identify barriers, problems, resources, and solutions.



**1- HEALTH. Promotes health access for Midvale City Residents.**

- Mobile Dental Clinic
- GKSD Dental for children
- Mobile Medical Clinic (UPFH)
- MEDICAID/CHIP application Assistance
- Midvale Health Fair
- Diabetes Outreach

**2- STABLE FAMILIES. Promotes stable family life, thru prevention classes and workshops.**

- Soccer4Parenting/Soccer for college
- Parenting Classes-Valley Mental Health

- Voices – Cornerstone/VOA (11-15)
- Living Skills – Cornerstone/VOA(7-11)
- Circle of friends-PPHAU (girls 14-18)
- Wise Guys-PPHAU(boys 12 to 18)
- Teen Connection
- Community Garden

3- EDUCATION. Promotes education and academic achievement among children and adults.

- ESL Classes
- Early Intervention Program “La Escuelita”
- Summer Reading Program
- Ballet Classes
- Civil Engagement classes

4- SAFETY. Promote solidarity in the neighborhood, thru workshops of codes of safety behavior.

- CERT (Spanish)
- Emergency Preparedness
- Neighborhood watch
- Car seat classes
- CPR/ First aid

5-INCOME. Provide classes and workshops to help families obtain economic independence.

- Club de Madres - Sewing for Profit
- Financial/ Budgeting classes

## 1.2 Purpose

The purpose of this plan is to enumerate hazards which could affect the City of Midvale, describe mitigation strategies for each of those hazards, and provide a framework for revision of hazard mitigation strategies. This document was created by City of Midvale staff with significant guidance from Salt Lake County Emergency Management staff, and it is based on guidelines for local hazard mitigation strategies prescribed by the Federal Emergency Management Agency (FEMA). This plan will be submitted alongside similar documents from other municipalities in Salt Lake County to the State of Utah, which will submit all county documents to FEMA. Completing a pre-hazard mitigation plan allows Salt Lake County as well as local jurisdictions to receive financial disaster assistance from the federal government.



Midvale City border on a relief map produced by Midve GIS staff (view is facing east; I-15 shown in red)

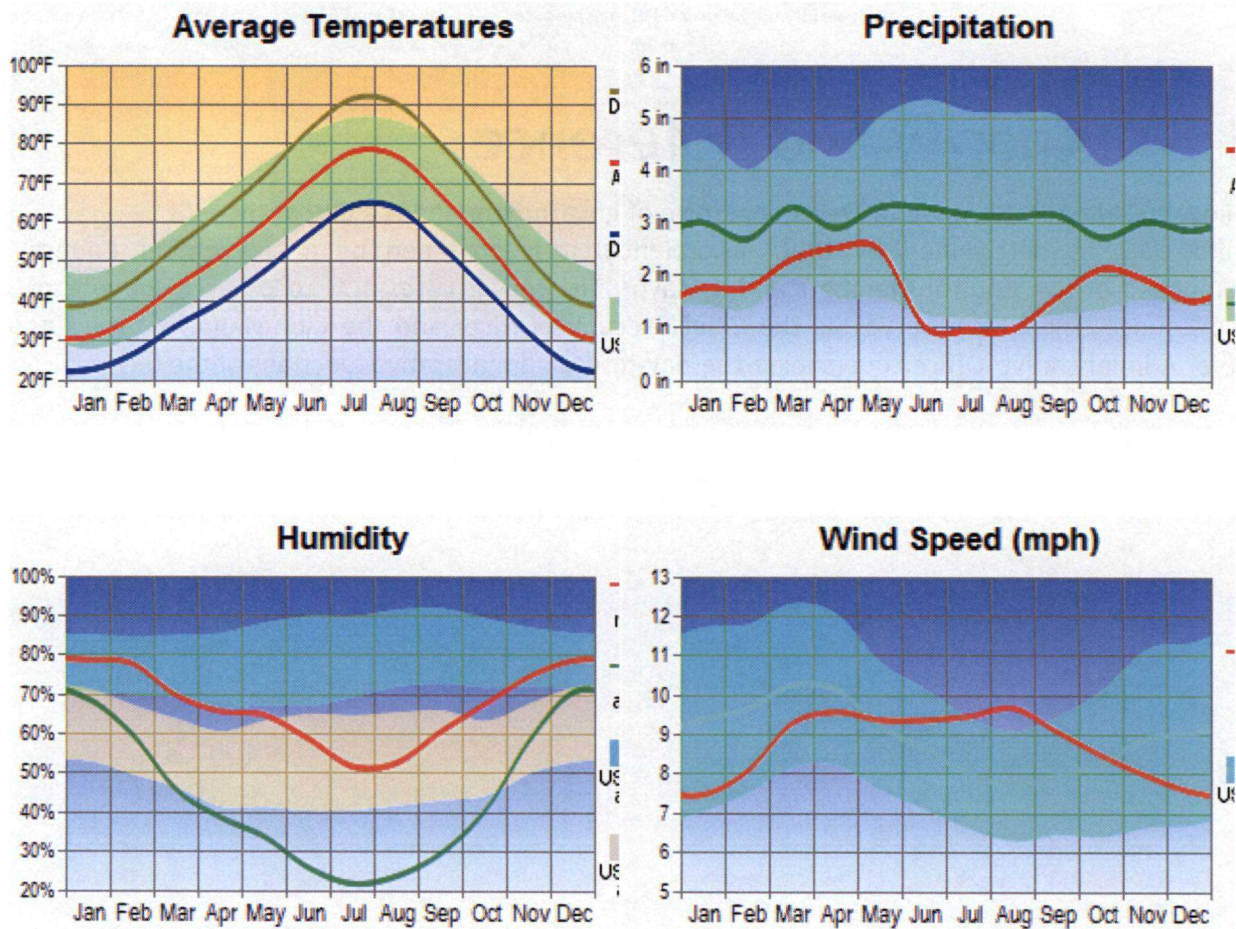
## 1.3 Authority and Reference

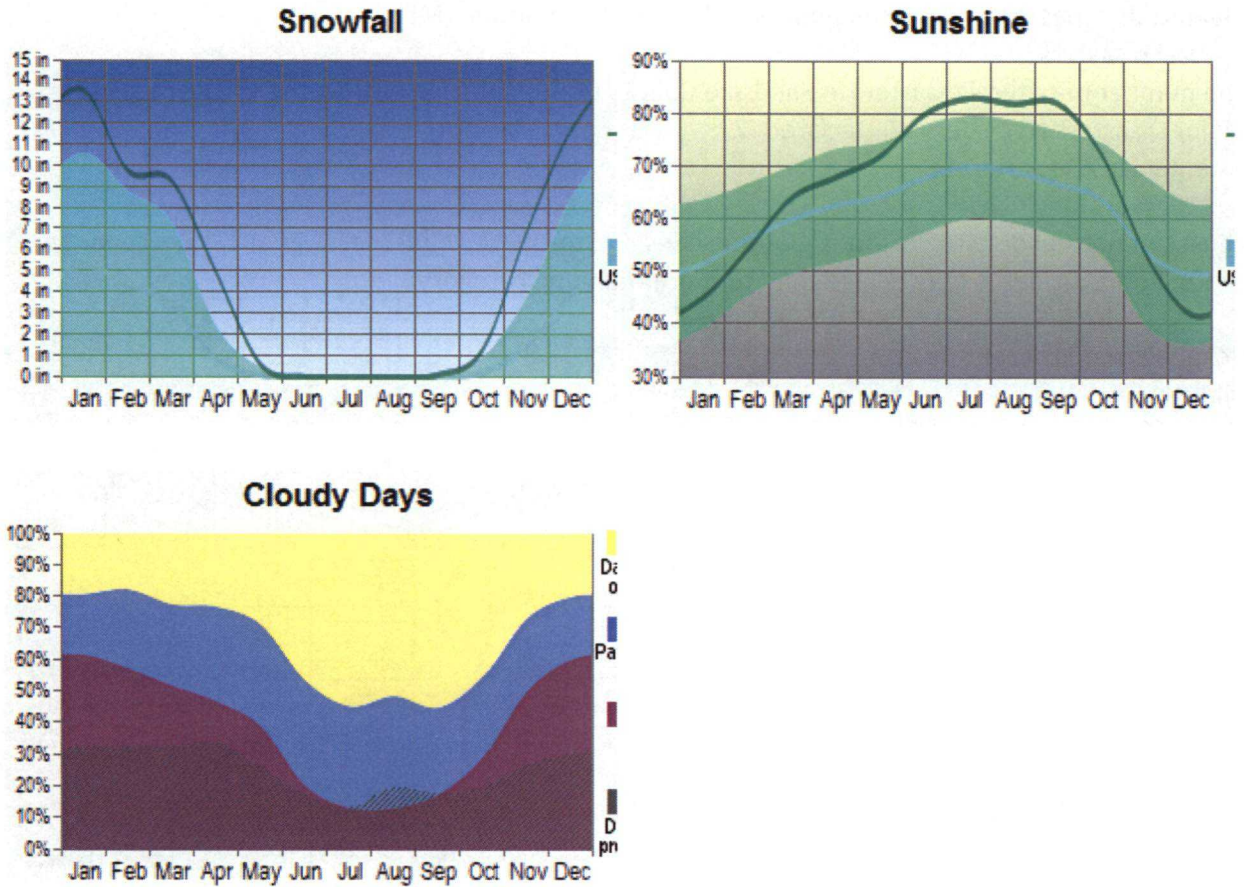
Midvale City operates under a Traditional form of government and is a City of the third class as determined by Utah law. Hence, it is governed by a six-member Council comprised of five Council Members and a Mayor. The Mayor votes only to break a tie-vote of the Council. The Mayor serves as the Chief Executive Officer and the City Manager serves as Chief Administrative Officer overseeing the day-to-day administrative functions of the City.

## 2 Community Profile

### 2.1 Geography, Environment & Climate

Population in 2012: 30,229 (100% urban, 0% rural). Population change since 2000: +11.8%





### Earthquake activity:

Midvale-area historical earthquake activity is below Utah state average. It is 1% smaller than the overall U.S. average.

On 4/17/2003 at 01:04:19, a magnitude 4.7 (4.7 MB, 4.4 ML, Depth: 0.2 mi, Class: Light, Intensity: IV - V) earthquake occurred 76.0 miles away from the city center

On 3/16/1992 at 14:42:49, a magnitude 4.4 (4.4 MB, 4.2 ML, Depth: 7.6 mi) earthquake occurred 13.1 miles away from Midvale center

On 3/7/2000 at 02:16:04, a magnitude 4.3 (4.3 MB, 4.2 ML, Depth: 1.1 mi) earthquake occurred 81.5 miles away from the city center

On 11/4/1992 at 18:22:09, a magnitude 4.3 (4.3 MB, Depth: 6.2 mi) earthquake occurred 96.0 miles away from the city center

On 8/6/2007 at 08:48:40, a magnitude 4.2 (4.2 MB, 3.9 ML, Depth: 1.0 mi) earthquake occurred 86.6 miles away from Midvale center

On 6/30/1999 at 15:27:32, a magnitude 3.7 (3.5 MB, 3.7 ML, Depth: 7.3 mi, Class: Light, Intensity: II - III) earthquake occurred 16.6 miles away from the city center

Magnitude types: body-wave magnitude (MB), local magnitude (ML)

Natural disasters:

The number of natural disasters in Salt Lake County (4) is a lot smaller than the US average (12).

Major Disasters (Presidential) Declared: 2

Emergencies Declared: 1

Causes of natural disasters: Floods: 2, Landslides: 2, Storms: 2, Mudslide: 1, Fire: 1, Hurricane: 1  
(Note: Some incidents may be assigned to more than one category).

Hospitals/medical centers in  
Midvale:

SUN BROOK HOME HEALTH, LLC

(Home Health Center, 193 EAST  
FORT UNION BLVD, SUITE 100)

CHARTER SUMMIT HOSPITAL

(Hospital, provides emergency  
services, 175 WEST 7200 SOUTH)

CNS COMMUNITY HOSPICE

(Hospital, 6949 SOUTH HIGH TECH  
DRIVE)

Colleges/universities with over 2000  
students nearest to Midvale:

University of Phoenix-Utah Campus  
(about 3 miles; Salt Lake City, UT;  
Full-time enrollment: 3,097)

Salt Lake Community College (about 5 miles; Salt Lake City, UT; FT enrollment: 11,080)

Western Governors University (about 5 miles; Salt Lake City, UT; FT enrollment: 15,870)

Westminster College (about 9 miles; Salt Lake City, UT; FT enrollment: 2,451)

University of Utah (about 11 miles; Salt Lake City, UT; FT enrollment: 20,534)

Utah Valley University (about 26 miles; Orem, UT; FT enrollment: 15,072)

Brigham Young University (about 29 miles; Provo, UT; FT enrollment: 30,109)

Public high schools in Midvale:

HILLCREST HIGH (Students: 1,532; Location: 7350 SOUTH 900 EAST; Grades: 10 - 12)

MIDVALE MIDDLE (Students: 795; Location: 7852 SOUTH PIONEER ST; Grades: 07 - 12)

JORDAN RESOURCE HS (Location: 332 WEST CENTER; Grades: 10 - 12)

Biggest public elementary/middle schools in Midvale:

MIDVALE SCHOOL (Students: 678; Location: 362 WEST CENTER; Grades: KG - 06)

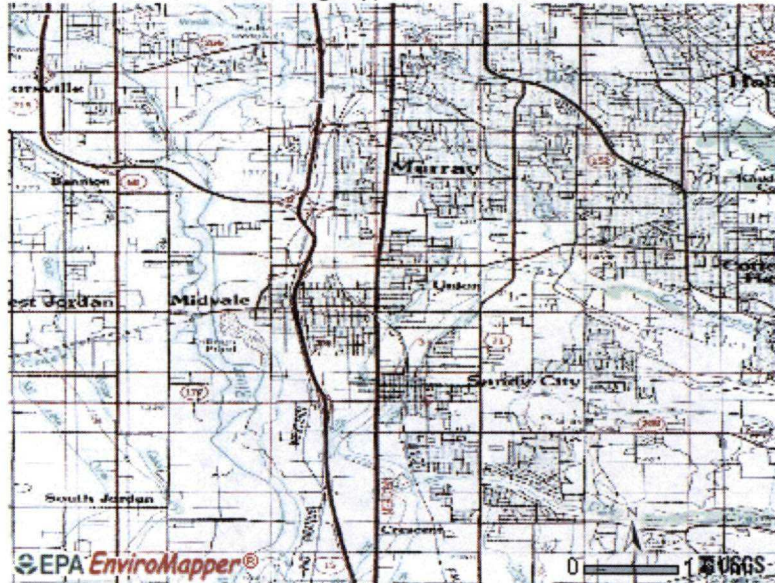
EAST MIDVALE SCHOOL (Students: 664; Location: 6990 SOUTH 300 EAST; Grades: KG - 06)

COPPERVIEW SCHOOL (Students: 562; Location: 8449 SOUTH 150 WEST; Grades: KG - 06)

MIDVALLEY SCHOOL (Students: 560; Location: 217 EAST 7800 SOUTH; Grades: KG - 06)

PRESCHOOL (SP ED) (Students: 397; Location: 7501 SOUTH 1000 EAST; Grades: PK - KG)

PRESCHOOL (SP ED) (Students: 214; Location: 7501 SOUTH 1000 EAST; Grades: 06 - 06)



JORDAN VALLEY SCHOOL 🌐 (Students: 114; Location: 7501 SOUTH 1000 EAST; Grades: KG - 12)

JORDAN RESOURCE CENTER 🌐 (Students: 41; Location: 332 WEST CENTER; Grades: 05 - 12)

JORDAN RESOURCE MIDDLE 🌐 (Location: 332 WEST CENTER; Grades: 06 - 09)

VALLEY MENTAL HEALTH ARTEC SOUTH (YIC) 🌐 (Location: 175 WEST 7200 SOUTH; Grades: KG - 12)

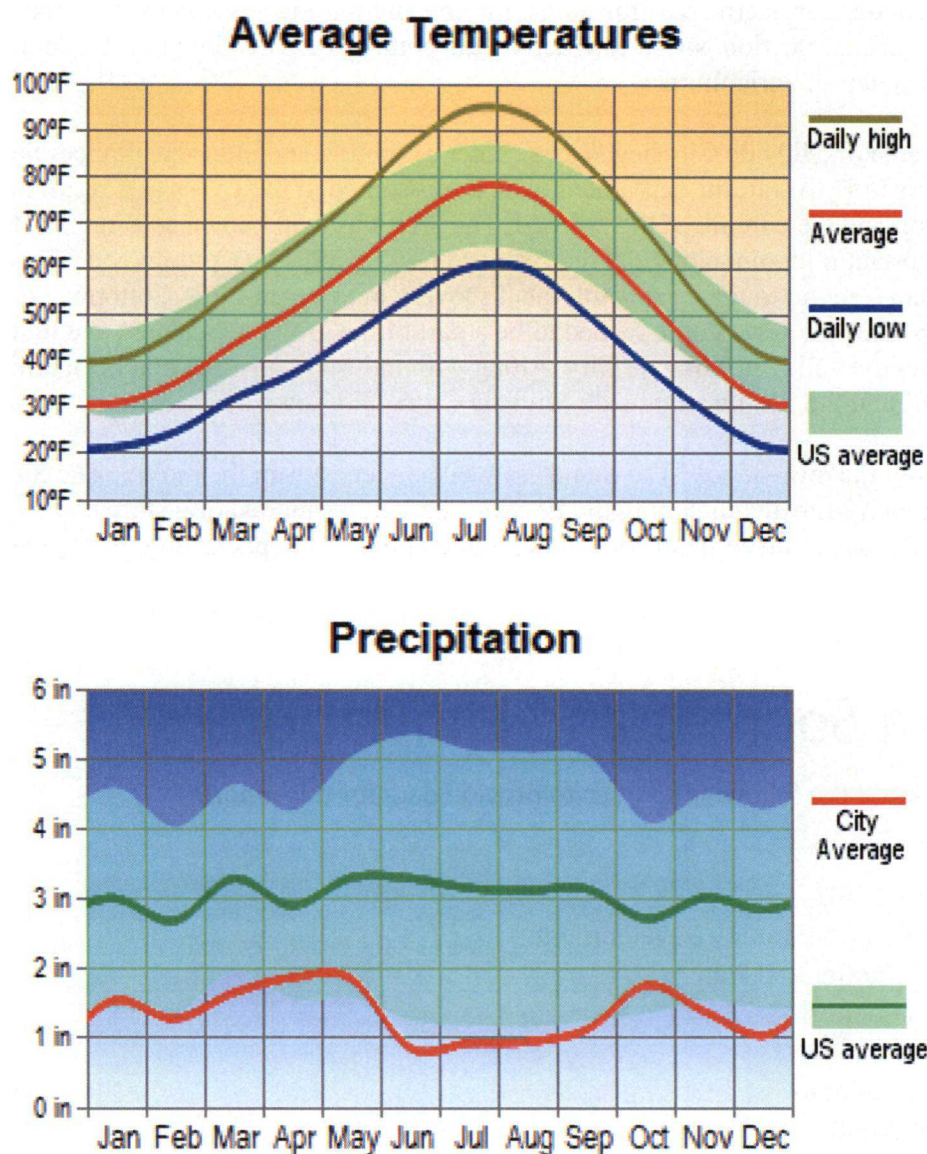


Figure 2 The City of Midvale's Average Temperatures and Precipitation

## 2.2 Community Facts and History

Just like the wandering Ute bands before them, Utah's Pioneer settlers began with a dependence on the land and the landscape; thus, early pioneers were quick to recognize the richness inherent in the Salt Lake Valley. They saw the abundant creeks and the grassy valley and envisioned farmlands and fields. They discovered the minerals and ores that envisioned thriving communities of commerce and industry. They came to stay, and their mark was soon upon the landscape.

Such was the beginning of Midvale City. The eastern part of the city forming agricultural neighborhoods, and the western areas forming a mining and milling settlement, each relying on the other for sustenance, protection, social interaction and commerce. The Union Fort area of Midvale City began as a center of agriculture.

The Old Town area of Midvale City began as a center of mining and industry. Pioneer families began arriving in 1851 to start the settlement, which blossomed in the 1870s as a result of mining in Bingham Canyon and the coming of the railroad. The area was then known as Bingham Junction, and was an important midpoint along the rail between mining in Little Cottonwood Canyon to the east and Bingham Canyon to the west. With the discovery of silver in Little Cottonwood Canyon and in Bingham Canyon, new people rushed to be a part of the growing business and industry located in the middle valley in Midvale City. Along with industry came the hotels, boarding houses, saloons, schools, and the people who made Midvale City's Old Town a center of the community.

Some scenes from the mini-series "The Stand" as well as scenes from the movie "The Sandlot" were filmed in downtown Midvale, including the interior of an old fashioned drugstore by the name of Vincent Drug. The store stayed in business and retained products in packaging over 50 years old for this type of display purpose. Vincent Drug was finally shut down in 2003.

## 2.3 Data Sources and Limitations

Midvale City utilized the following sources to provide data for this report:

- Midvale City GIS
- Midvale City Community Development
- Midvale City General Plan
- Salt Lake County
- State of Utah
- US Census Bureau
- National Weather Service

## 3 Planning Process

### 3.1 Update Process and Participation Summary

Midvale City plans to make updates to this Hazard Mitigation Plan and defines the processes by which continued public participation will be guaranteed in the sections below.

#### 3.1.1 Preparation of the Plan - The Planning Process

The Midvale Hazard Mitigation Update was produced over two (2) years by taking the previous Wasatch Front Hazard Mitigation Plan from 2009 and reviewing what was promised by Midvale. The plan was produced with cooperation of the County Hazard Mitigation Specialist and in cooperation with the best practices of other jurisdiction that were shared at the many meetings that were held over the two (2) years. Although Jesse Valenzuela, the Midvale Emergency Manager was the main contact, the plan was completed with the cooperation of the entire Midvale City Staff, the Public, and other agencies listed throughout this and the County's documents.

### 3.2 The Planning Team

Members of the Midvale City Mitigation Planning Team are listed in the table below.

Jesse Valenzuela	Midvale City Emergency Manager
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Members of the Salt Lake County Mitigation Planning Team are listed in the table below.

Kate Smith	Salt Lake County Emergency Management, Mitigation Planner
Cathy Bodily	Salt Lake County Emergency Management, Grant applicant and Planner
Roger Kehr	Salt Lake County Emergency Management, Mitigation Planner
Steve Sautter	Salt Lake County Emergency Management, Public Outreach
Matt Morrison	Salt Lake County Emergency Management, Planner
Bret Fossum	Salt Lake County Emergency Management, Mitigation Planner
Val Greensides	Unified Fire Authority, administrative support

Joan Welch	Unified Fire Authority, administrative support
Clint Mecham	Unified Fire Authority
Aaron Nelson	Unified Fire Authority
Dirk Andersen	Taylorsville City
Mike Barrett	Salt Lake County Emergency Services
Brent Beardall	Salt Lake County Flood Control
Leon Berrett	Salt Lake County
Dawn Black	Cottonwood Heights
Jesse Valenzuela	Midvale City
Eldon Farnsworth	South Salt Lake City
Bob Fitzgerald	West Valley City
Sheril Garn	Riverton City
Tina Giles	Herriman City
Jeff Graviat	Salt Lake County Emergency Services
Jon Harris	Murray City
Matt Jarman	South Jordan City
Connie Jones	Bluffdale City
Scott Jones	Salt Lake Community College
Jeff King	Jordan Valley Water Conservancy District
Bart LeCheminant	Draper City
Dustin Lewis	South Jordan City
Cory Lyman	Salt Lake City
Kade Moncur	Salt Lake County Flood Control
Reed Scharman	West Jordan City
Ben Gustafson	Taylorsville
Marty Shaub	University of Utah
Garth Smith	Draper City
Jared Smith	Midvale City
Justin Stoker	Salt Lake City Flood Control
Claire Woodman	City of Midvale

### 3.3 Public Meetings, Agency meetings, and Documentation

The Mitigation Planning document was discussed in a public Community Coalition where the general public is invited to attend. The meetings are held every 2 weeks.

Year	Date	Activity	Purpose
2012	September	Utah Division of Emergency Management designates Salt Lake County Emergency Management/Unified Fire Authority as sub-grantees of the state to revise the Pre Disaster Mitigation Plan.	
	August 7	Memorandum of Understanding	An MOU was signed by participating jurisdictions committing to participate in the planning process.
	September-October	Phone conferences with UDEM and FEMA Region VIII to discuss the planning process, Risk MAP.	Identified planning team and available resources.
	November 7	Risk MAP Discovery, Mitigation Kickoff	Kick-off to introduce RiskMAP and Mitigation projects to reduce risk from natural hazards and increase disaster resiliency in the Jordan River Watershed/Salt Lake County
	November-December	Identifying Planning Team Members	Establish a contact person from each jurisdiction to participate in the planning process.
	December		Meeting with Salt Lake County Emergency Services to discuss cooperation with other county agencies and participation in mitigation planning process.
2013	January-May	Gather information.	Data collection.
	January 22	Mitigation Planning Team Meeting	Introduce project scope, identified team responsibilities, key terminology, requirements of the planning process, timeline.
	February 11	Mitigation Planning Team Meeting	Review of hazard maps for earthquake, landslide, and dam failure. Worksheets to gather information of areas of concern. Subject matter experts available to answer questions.
	February 27	Sandy City BCDM (Business Continuity Development Meeting)	Outreach effort, presentation/overview of

Year	Date	Activity	Purpose
			mitigation plan to Sandy City business partners and emergency managers
	March 7	Salt Lake County Council of Government (COG)	Outreach presentation to elected officials to give overview of mitigation planning project.
	March 11	Mitigation Planning Team Meeting	Discussion with subject matter experts on severe weather and wildfire.
	April 8	Mitigation Planning Team Meeting	Presentation on pandemic flu and wildfire public education programs.
	May 16	Mitigation Planning Team, Risk MAP Joint Meeting	Presentation of flood and earthquake risk analysis from FEMA Region VIII, presentation from UDEM regarding community Risk MAP meetings to be held over summer, Mitigation team given Capabilities Assessment worksheets and hazard matrix.
	June-Aug	Community Risk MAP Meetings and Work on Worksheets	Risk MAP representatives met with individual communities to discuss flood study needs and areas of concern.
	Sept 11	Mitigation Team Meeting	Recap of Capabilities Assessment, preparing for next stages of plan.
	Oct 21	Salt Lake County Emergency Manager's meeting	Planner reported on mitigation plan progress to emergency managers. Encouraged completion of capabilities assessment worksheets. Provided copy of 2009 mitigation strategies to review and comment on progress.
	Oct-Nov	Risk Assessment Draft and Mitigation Strategies Preparation	Planner reviewed and summarized Capabilities Assessment and Hazard worksheets. Continued Revising Risk Assessment. Summarized responses to 2009 Strategies Review.
	Nov. 19	Mitigation Planning Team Meeting-Mitigation Strategies Part II	Brainstorming meeting to begin identifying possible mitigation strategies. Hazards discussed were

Year	Date	Activity	Purpose
			flood, wildfire, earthquake, and avalanche. Rough draft of Risk Assessment made available.
	Nov. 20	Planner meeting with SHMO regarding plan progress	Discussed timeline and planning progress
	December	Reviewed Mitigation Strategies.	Planner compiled notes from mitigation strategies brainstorm meeting and worksheets
2014	Jan 14	Mitigation Planning Team Meeting – Mitigation Strategies Part II	Brainstorming meeting to begin identifying possible mitigation strategies. Hazards discussed were earthquake, pandemic, dams, canals, and drought.
	Feb-Mar	Mitigation Strategies Draft, Update Wildfire Risk Assessment.	Planner compiled notes from mitigation strategies brainstorm sessions, continued revision of Risk Assessment as new data became available for Wildfire.
	Apr-June	Mitigation Strategies Review	Create timeline to meet Grant requirements. Complete all elements of Plan.
	June	Review Best Practices SOG for Mitigation	Find a better system for Mitigation planning. Permission to use Salt Lake County's Mitigation SOG
	July 1	Review Progress with EM staff	Prepare Plan for submission to state and FEMA review boards
	July 14	Mitigation Planning Team Prioritization Workshop	Planning Team reviews final mitigation strategies to assign responsibility, estimate costs, and define priority
	August 8	Emergency Managers Meeting HMP explanation and scheduling	Have each individual Jurisdiction complete their plan.
	September 8-24	Emergency Managers Meeting HMP scheduling	Continue one-on-one meetings with each Jurisdiction to complete plan
	October 7	Submit final plan from each Jurisdiction	Salt Lake County to review Jurisdiction plans and assemble entire County HMP

Year	Date	Activity	Purpose
	October 15	Submit Mitigation Plan to State	State Submission requirement prior to FEMA submission
	November 1	State returns Mitigation Plan for submission to FEMA	Submit Final Plan to FEMA for approval
	November 15	FEMA returns plan for corrections	Correct deficiencies
	November 20	Submit Final Plan to FEMA	Plan complete

Table 3-8 Planning Process Timeline

### 3.3.1 Other Agencies Involved in the Planning Process

As shown in the calendar and in the list below there was ample opportunity for participation in the plan by neighboring communities, agencies who specialize in hazard mitigation and agencies that are involved with new development in Midvale.

#### Team Support

Kevin Barjenbruch, National Weather Service  
 Justin Stoker, Jordan River Commission  
 Steve Bowman, Utah Geological Survey  
 Greg McDonald, Utah Geological Survey  
 Tyre Holfeltz, FFSL  
 Jeff King, Jordan Valley Water Conservancy District  
 Steve Bowman, Utah Geological Survey  
 Jessica Castleton, Utah Geological Survey  
 Tyre Holfeltz, Utah Forestry, Fire and State Lands  
 Riley Pilgrim, Unified Fire Authority  
 Dave Marble, Utah Division of Dam Safety  
 Brad Bartholomew, Utah Division of Emergency Management  
 Katie LeLaCheur, Utah DEM  
 Eric Martineau, Utah DEM  
 Amisha Lester, Utah DEM  
 John Crofts, Utah DEM  
 Julie Baxter, FEMA Region VIII  
 Shelby Hudson, FEMA Region VIII  
 Sean McNabb, FEMA Region VIII

## 3.4 Multi-Jurisdictional Planning

Midvale City has been in contact with Salt Lake County and representatives from the County attended the meeting that was held on October 30, 2014 with key members of Midvale City. The City's designated Emergency Manager has attended the monthly Salt Lake County Emergency Manager's meetings where information has been dispersed regarding the Mitigation Planning Process. Some of the information from Salt Lake County's plan has been included in this plan.

## 3.5 Incorporation of Existing Plans and Technical Information

The Midvale plan relied heavily on technical information provided by the County and the Federal government in working on hazards to mitigate. The Flood Map and Risk Map processes were used extensively to document areas at risk. The Midvale Building department and code enforcement departments have incorporated this data into codes to insure that new development is not placed in areas with unacceptable hazard potential.

## 3.6 Plan Review, Evaluation, and Implementation

- The plan was revised to reflect changes in development since the 2009 Wasatch Front Plan.
- The mitigation strategies have changed as those of 2009 have been accomplished.

### 3.6.1 Hazard: Drought

**Problem Identification:** Salt Lake County is currently in the fifth year of drought conditions. Measures must be taken to conserve and address water shortages for both culinary and agricultural use.

**Goal 1:** Reduce hardships associated with water shortages.

**Objective 1.1:** Priority HIGH, Limit unnecessary consumption of water throughout the County.

**Action:** Continue to encourage water conservation utilizing and promoting Jordan Valley Water Conservation outreach material with each City in the County.

**Status: Accomplished with “Slow the Flow Program”.**

Objective 1.3: Priority Low, Encourage the development of secondary water systems.

Action: Coordinate with current water systems and develop and secondary waters systems plan for drought.

**Status: Not Planned on being Accomplished.**

**Goal 2:** Reduce the amount of fuels that can impact residential homes in urban wild land interface areas.

Objective 2.1: Priority Low, Study the areas and determine which fire resistant natural vegetation can be used in these areas of concern.

Action: Develop outreach document specific to fire resistant natural vegetation.

**Status: Accomplished through “Firewise Program” only along the Jordan River.**

### 3.6.2 Hazard: Earthquake

Problem Identification: Numerous geologic hazards exist in the Salt Lake City metropolitan area, which can constrain land use. Active fault zones pose the threat of earthquakes, while steep mountains adjacent to the city create a potential for landslides, debris flows, rock falls, and snow avalanches. Streams and the fluctuating level of the Great Salt Lake create serious flood and ground-water problems. Considered as a whole, geologic hazards in the Salt Lake City metropolitan area confront planners with a variety of safety and economic issues that must be addressed before wise development can take place. Limited communication or lack of communication capabilities is always a shortfall during an emergency.

**Goal 1:** Increase and harden emergency and non-emergency communication systems.

Objective 1.1: Priority HIGH, Provide redundancies in countywide communication systems.

Action: Assess current countywide communications and interoperable emergency/warning systems.

**Status: Ongoing. Valley Emergency Communications Center (VECC) has been working with cities in the county to update communications, focusing on specific systems, which has included some or all of the following capabilities:**

- **Radio system updated for 800 MHz, Ultra-High Frequency (UHF), Very High Frequency (VHF) and Amateur frequencies.**
- **Agency listing with gateway devices which enable disparate communications systems to link.**
- **VECC paging server capability to text message multiple units/personnel.**
- **Listing of Public Safety Satellite telephones in the County.**

- ***VECC Dialogic Emergency Notification System, a reverse 911 system used to notify public or for notification of response agencies.***
- ***Promoting narrow banding compliance prior to 2013 deadline.***
- ***Salt Lake City is seeking grant funding to build and deploy communications trailer.***

Objective 1.2: Priority HIGH Ensure adequate coordination of disaster response and recovery activities.

Action: Assess EOC's (countywide).

***Status: Ongoing. The County completed FEMA's Capability Gap Assessment in 2007.***

***Goal 2:*** Countywide earthquake loss reduction and safety education.

Objective 2.1: Priority MEDIUM, Provide information on earthquake potential effects to homeowners and developers.

Action: Update current earthquake maps (liquefaction and fault) and incorporated into the County GIS system.

***Status: Accomplished. The information was updated by the Utah Geological Survey and provided to the County by request. Portions are available in the Statewide Geographic Database rather than on County GIS. The Central Utah Water Conservancy District has developed GIS based maps of the Red Butte Dam area in northeastern Salt Lake County that identifies earthquake hazards from ground shaking (peak ground acceleration), fault rupture, liquefaction, and landslides for both the 500 year and 2,500 year seismic events.***

Objective 2.2: Priority HIGH, Improve public education regarding earthquake risks to improve quality of construction.

Action: Ensure current natural hazard ordinance(s) are online, linked to Emergency Services website, and easily accessible and can be download.

***Status: Ongoing. County ordinances are available online and can be downloaded. However, the County website is not easily searchable to locate relevant ordinances and there needs to be a link established from the Emergency Management website to the County Clerk website.***

### **3.6.3 Hazard: Flooding**

Problem Identification: Although located in a semi-arid region, Midvale is subject to cloudburst and snowmelt floods.

***Goal 1:*** Protection of life and property before, during, and after a flooding event.

Objective 1.1: Priority MEDIUM, Encourage 100% participation in the National Flood Insurance Program.

***Status: Ongoing.***

Objective 1.2: Priority MEDIUM Provide current FIRMs for emergency planners.

Action: Update & digitize floodplain maps.

**Status: Ongoing. Floodplain maps have been digitized but have not been completely updated.**

Objective 1.3: Priority High Cleaning out sediment and retention basins.

Action: Continuous.

**Status: Ongoing.**

### 3.6.4 Hazard: Severe Weather

Problem Identification: Snowstorms over northern Utah have a dramatic effect on regional commerce, transportation, and daily activity and are a major forecast challenge for local meteorologists.

Goal 1: Reduce the threat of life loss due to severe weather.

Objective 1.1: Priority LOW, Become National Weather Service (NWS) "Storm Ready Community".

Action: Contact NWS/SLC Office and begin process of becoming a Storm Ready Community.

**Status: Accomplished. County, Salt Lake City, and Sandy participate in the program. Other cities qualify as participating under the County.**

Objective 1.2: Priority LOW, Improve response times to severe weather alerts.

Action: Incorporate NWS on light boards on freeway system.

**Status: Accomplished. The NWS and the Utah Department of Transportation cooperate to provide this information.**

Objective 2.1: Priority LOW, Address Countywide needs of special populations that may be impacted by severe weather conditions.

Action: Create outreach materials (what to do when severe weather strikes) specific to this group and insert the information into County-wide phone books, and phone books specific to 55+ age group developed in County Aging services.

**Status: Accomplished.**

Action: Encourage avalanche preparedness for county backcountry users.

**Status: Accomplished. The County participates with the Utah Avalanche Forecast Center to provide this information.**

Objective 2.2: Priority MEDIUM, Prevent damage to critical facilities.

Action: Assess EOCs to ensure they are grounded lightning, to include buildings with towers, etc.

***Status: Ongoing. The County Emergency Operations Center (EOC) and VECC have been surge protected. County is unsure of the status of other critical facilities.***

- The mitigation plans have been revised based on growth in the city and changing priorities and problems since 2009.

## 4.1 Historical Hazard Events

The following are recent hazard events that have impacted Midvale City:

- None

## 4.2 Hazard Analysis

Please refer to the County HMP Plan for a general description of hazards that affect Midvale. The following hazards ARE expected to occur sometime in the future:

- Avalanche
- Dam Failure
- Drought
- Earthquake
- Flood
- Infestation
- Landslide and Problem Soils
- Pandemic
- Radon
- Severe weather
- Wildfire

	Avalanche	Dam Failure	Drought	Earthquake	Flood	Infestation	Landslide	Pandemic	Problem Soils	Radon	Severe Weather	Wildfire
Midvale	N/A	N/A	Low	High	Low	N/A	N/A	Low	High	Low	Low	Low

## 4.3 - Development Audit

<b>Comprehensive Plan</b>	<b>Yes</b>	<b>No</b>
<b>Land Use</b>	<b>Yes</b>	<b>No</b>
1. Does the future land-use map clearly identify natural hazard areas?	X	
2. Do the land-use policies discourage development or redevelopment within natural hazard areas?	X	
3. Does the plan provide adequate space for expected future growth in areas located outside natural hazard areas?	X	
<b>Transportation</b>	<b>Yes</b>	<b>No</b>
1. Does the transportation plan limit access to hazard areas?	X	
2. Is transportation policy used to guide growth to safe locations?	X	
3. Are movement systems designed to function under disaster conditions (e.g., evacuation)?	X	
<b>Environmental Management</b>	<b>Yes</b>	<b>No</b>
1. Are environmental systems that protect development from hazards identified and mapped?	X	
2. Do environmental policies maintain and restore protective ecosystems?	X	
3. Do environmental policies provide incentives to development that is located outside protective ecosystems?	X	
<b>Public Safety</b>	<b>Yes</b>	<b>No</b>
1. Are the goals and policies of the comprehensive plan related to those of the FEMA Local Hazard Mitigation Plan?	X	

Comprehensive Plan	Yes	No
2. Is safety explicitly included in the plan's growth and development policies?	X	
3. Does the monitoring and implementation section of the plan cover safe growth objectives?	X	

<b>Zoning Ordinance</b>	<b>Yes</b>	<b>No</b>
1. Does the zoning ordinance conform to the comprehensive plan in terms of discouraging development or redevelopment within natural hazard areas?	X	
2. Does the ordinance contain natural hazard overlay zones that set conditions for land use within such zones?	X	
3. Do rezoning procedures recognize natural hazard areas as limits on zoning changes that allow greater intensity or density of use?	X	
4. Does the ordinance prohibit development within, or filling of, wetlands, floodways, and floodplains?	X	
<b>Subdivision Regulations</b>	<b>Yes</b>	<b>No</b>
1. Do the subdivision regulations restrict the subdivision of land within or adjacent to natural hazard areas?	X	
2. Do the regulations provide for conservation subdivisions or cluster subdivisions in order to conserve environmental resources?	X	
3. Do the regulations allow density transfers where hazard areas exist?		X
	NA	
<b>Capital Improvement Program and Infrastructure Policies</b>	<b>Yes</b>	<b>No</b>
1. Does the capital improvement program limit expenditures on projects that would encourage development in areas vulnerable to natural hazards?		
	UKN	
2. Do infrastructure policies limit extension of existing facilities and services that would encourage development in areas vulnerable to natural hazards?		X
3. Does the capital improvement program provide funding for hazard mitigation projects identified in the FEMA Mitigation Plan?	X	
<b>Other</b>	<b>Yes</b>	<b>No</b>
1. Do small area or corridor plans recognize the need to avoid or mitigation natural hazards?	X	
2. Does the building code contain provisions to strengthen or elevate construction to withstand hazard forces?	X	

Zoning Ordinance	Yes	No
3. Do economic development or redevelopment strategies include provisions for mitigation natural hazards?	X	
4. Is there an adopted evacuation and shelter plan to deal with emergencies from natural hazards?	X	

## 4.4 - National Flood Insurance Program (NFIP)

NFIP TOPIC	SOURCE OF INFORMATION	COMMENTS
Insurance Summary		
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	FEMA NFIP or Insurance Specialist	
How many structures are exposed to flood risk within the community?	Community Floodplain Administrator	
Describe any areas of flood risk with limited NFIP policy coverage	Community FPA and FEMA Insurance Specialist	
Staff Resources		
Does the community have a dedicated Floodplain Manager or NFIP Coordinator?	Floodplain Administrator	
Is the Floodplain Manager or NFIP Coordinator certified?		
Is floodplain management an auxiliary function?	Floodplain Administrator	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Floodplain Administrator	
What are the barriers to running an effective NFIP program in the community, if any?	Floodplain Administrator	
Compliance History		
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	
Are there any outstanding compliance issues (i.e., current violations)?		
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?		

NFIP TOPIC	SOURCE OF INFORMATION	COMMENTS
Is a CAV or CAC scheduled or needed?		
Regulation		
When did the community enter the NFIP?	Community Status Book <a href="http://www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-community-status-book">http://www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-community-status-book</a>	
Are the FIRMs digital or paper?	Floodplain Administrator	
Does the Floodplain Ordinance meet or exceed FEMA or State minimum requirements? If so, in what ways?	Floodplain Administrator	
Provide an explanation of the permitting process and include a copy of floodplain permit.	Community FPA, State, FEMA NFIP Flood Insurance Manual <a href="http://www.fema.gov/flood-insurance-manual">http://www.fema.gov/flood-insurance-manual</a> Community FPA, FEMA CRS Coordinator, ISO representative CRS manual <a href="http://www.fema.gov/library/viewRecord.do?id=2434">http://www.fema.gov/library/viewRecord.do?id=2434</a>	
Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	
What is the community's CRS Class Ranking?	Flood Insurance Manual <a href="http://www.fema.gov/flood-insurance-manual">http://www.fema.gov/flood-insurance-manual</a>	
What categories and activities provide CRS points and how can the class be improved?		
Does the plan include CRS planning requirements	Community FPA, FEMA CRS Coordinator, ISO representative CRS manual <a href="http://www.fema.gov/library/viewRecord.do?id=2434">http://www.fema.gov/library/viewRecord.do?id=2434</a>	

Midvale City does not have any repetitive flood loss claims identified under the National Flood Insurance Program (NFIP). The City's Community Development Director oversees enforcement of floodplain management requirements adopted by the City, including regulating new construction in Special Flood Hazard Areas (SFHAs); Floodplain identification and mapping, including any local requests for map updates; and Description of community assistance and monitoring activities (SFHAs); Floodplain identification and mapping, including any local requests for map updates; or Description of community assistance and monitoring activities.

## 5 Vulnerability Assessments

This vulnerability assessment analyzes the population, property, and other assets at risk to hazards.

### 5.1 Assets at Risk

This section considers Midvale's assets at risk, including values at risk, critical facilities and infrastructure, economic assets, and growth and development trends.

#### Values at Risk

Table 4 shows the 2014 assessed property data from the State of Utah for Midvale City and includes data for the portions of Midvale in Salt Lake County.

<i>Midvale City</i>	<i>Real Property Value</i>	<i>Personal Property Value</i>	<i>Central Assessed Value</i>	<i>Total</i>
TBD				

Table 4. Assessed Property Value Data for Midvale City

#### Critical Facilities and Infrastructure

A critical facility may be defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. Essential facilities are those that if damaged would have devastating impacts on disaster response and recovery. High potential loss facilities are those that would have a high loss or impact on the community. Transportation and lifeline facilities are the third category.

#### Essential Facilities

Figure 12 shows essential facilities that are located within Midvale.

<b>Name of Facility</b>	<b>Address</b>	<b>City</b>
TBD		

Figure 12. Essential Facilities Midvale City

#### High Potential Loss Facilities

High potential loss facilities as identified by FEMA HAZUS-MH are located throughout Midvale. Midvale works closely other government entities and private property owners in monitoring and assessing facilities that fall into this category that are not owned by the City.

### Transportation and Lifeline Facilities

Transportation and lifeline facilities are located within the boundaries of Midvale. I-15 is the major freeway thoroughfare through Midvale that runs north to south through the State of Utah. There are major freight and a passenger rail lines that goes through the City near its west boundary that are used by the Union Pacific Railroad and the Utah Transit Authority. There are two major high pressure gas lines operated by Questar that are located on the west and east sides of the City. The Salt Lake Aqueduct also resides in the City and is operated by the Metropolitan Water District.

## 5.1.1– Hazard Descriptions Summary

Hazard	Location (Geographic Area Affected)	Maximum Probable Extent (Magnitude/Strength)	Probability of Future Events	Overall Significance Ranking
Avalanche	N	Weak	Unlikely	Low
Dam Failure	N	Weak	Unlikely	Low
Drought	L	Medium	0	Medium
Earthquake	Significant	Significant	High	High
Problem Soils	Significant	Severe	Low	High
Severe Weather	Low	Medium	0	Medium
Flood	Low	Medium	0	Low
Landslide	N	Weak	Unlikely	Low
Wildfire	N	Weak	Unlikely	Low

## Definitions for Classifications

### Location (Geographic Area Affected)

- Negligible: Less than 10 percent of planning area or isolated single-point occurrences
- Limited: 10 to 25 percent of the planning area or limited single-point occurrences
- Significant: 25 to 75 percent of planning area or frequent single-point occurrences
- Extensive: 75 to 100 percent of planning area or consistent single-point occurrences

### Maximum Probable Extent (Magnitude/Strength based on historic events or future probability data)

- **Weak:** Limited classification on scientific scale, slow speed of onset or short duration of event, resulting in little to no damage
- **Moderate:** Moderate classification on scientific scale, moderate speed of onset or moderate duration of event, resulting in some damage and loss of services for days
- **Severe:** Severe classification on scientific scale, fast speed of onset or long duration of event, resulting in devastating damage and loss of services for weeks or months
- **Extreme:** Extreme classification on scientific scale, immediate onset or extended duration of event, resulting in catastrophic damage and uninhabitable conditions

Hazard	Scale / Consideration	Limited	Moderate	Severe	Extreme
Drought	Palmer Drought Severity Index <sup>2</sup>	-1.99 to +1.99	-2.00 to -2.99	-3.00 to -3.99	-4.00 and below
Earthquake	Modified Mercalli Scale <sup>3</sup>	I to IV	V to VII	VII	IX to XII
	Richter Magnitude <sup>4</sup>	2, 3	4, 5	6	7, 8
Hurricane Wind/ Storm Surge	Saffir-Simpson Hurricane Wind Scale <sup>5</sup>	1	2	3	4, 5
Tornado	Fujita Tornado Damage Scale <sup>6</sup>	F0	F1, F2	F3	F4, F5

### Probability of Future Events

- **Unlikely:** Less than 1 percent probability of occurrence in the next year, or has a recurrence interval of greater than every 100 years.
- **Occasional:** Between a 1 and 10 percent probability of occurrence in the next year, or has a recurrence interval of 11 to 100 years.
- **Likely:** Between 10 and 90 percent probability of occurrence in the next year, or has a recurrence interval of 1 to 10 years.
- **Highly Likely:** Between 90 and 100 percent probability of occurrence in the next year, or has a recurrence interval of less than 1 year.

### Overall Significance

- **Low:** Two or more of the criteria fall in the lower classifications or the event has a minimal impact on the planning area. This rating is sometimes used for hazards with a minimal or unknown record of occurrences and impacts or for hazards with minimal mitigation potential.
- **Medium:** The criteria fall mostly in the middle ranges of classifications and the event's impacts on the planning area are noticeable but not devastating. This rating is sometimes used for hazards with a high extent rating but very low probability rating.

<sup>1</sup> Cumulative meteorological drought and wet conditions: <http://ncdc.noaa.gov/>

<sup>2</sup> Earthquake intensity and effect on population and structures: <http://earthquake.usgs.gov>

<sup>3</sup> Earthquake magnitude as a logarithmic scale, measured by a seismograph: <http://earthquake.usgs.gov>

<sup>4</sup> Hurricane rating based on sustained wind speed: <http://nhc.noaa.gov>

<sup>5</sup> Tornado rating based on wind speed and associated damage: <http://spc.noaa.gov>

- High: The criteria consistently fall in the high classifications and the event is likely/highly likely to occur with severe strength over a significant to extensive portion of the planning area.

## 5.1.2 – Goals to reduce long-term vulnerabilities

The following plan goals and objectives of the Mitigation plan were maintained from the WFRC plan. These include reducing the risk from natural hazards in Salt Lake County through coordinating with all local governments to develop a countywide planning process. They are shown from highest to lowest priority.

1. Protect life safety.
2. Eliminate and/or reduce property damage.
3. Promote public awareness through education about community hazards and mitigation measures.
4. Protect emergency response services and capabilities, critical infrastructure, critical facilities, communication and warning systems, mobile resources, and other lifelines.
5. Ensure government continuity.
6. Protect the cultural fabric of the community, including cultural resources, developed property, homes, businesses, industry, education and other institutions.
7. Combine hazard loss reduction efforts with other environmental, social and economic needs of the community.
8. Preserve and/or restore natural features, natural resources and the environment.
9. Eliminate or reduce long-term risk to human life and property.
10. Aid private and public sectors in understanding the risks they may be exposed to and identify mitigation strategies to reduce those risks.
11. Avoid risk of exposure to natural and technological hazards.
12. Minimize the impacts of risks that cannot be avoided.
13. Mitigate the impacts of damage as a result of identified hazards.
14. Accomplish mitigation strategies in such a way that negative environmental impacts are minimized.
15. Provide a basis for prioritizing and funding mitigation projects.
16. Establish a countywide platform to enable the community to take advantage of shared goals and resources.

## Objectives

The following objectives are meant to serve as a measure upon which individual hazard mitigation strategies can be evaluated. These objectives become especially important when two or more projects are competing for limited resources.

1. Address a repetitive problem, or one that has the potential to have a major impact on an area or population.
2. Identify persons, agencies or organizations responsible for implementation.
3. Identify a time frame for implementation.
4. Explain how the project will be financed including the conditions for financing and implementation (as information is available).
5. Identify alternative measures, should financing not be available.
6. Be consistent with, support, and help implement the goals and objectives of hazard mitigation plans already in place.
7. Significantly reduce potential damages to public and/or private property and/or reduce the cost of state and federal recovery for future disasters.
8. Are practical, cost-effective and environmentally and politically sound after consideration of the options.
9. Can meet applicable permit requirements.
10. Benefits should outweigh the costs.
11. Have manageable maintenance and modification costs.
12. Accomplish multiple objectives when possible.
13. Should be implemented using existing resources, agencies and programs when possible.

## 5.2 Previous Occurrences of Hazardous Events

None

## 5.3 Regulatory Mitigation Capabilities

Table D.5. lists regulatory mitigation capabilities, including planning and land management tools.

### Planning and Regulatory

Plans	Yes/No Year	Does the plan address hazards? Does the plan identify projects to include in the mitigation strategy? Can the plan be used to implement mitigation actions?
Comprehensive/Master Plan	Yes X	No

Capital Improvements Plan	Yes X	No
Economic Development Plan	Yes X	No
Local Emergency Operations Plan	Yes X	Yes
Continuity of Operations Plan	No	No
Transportation Plan	Yes	No
Stormwater Management Plan	Yes	No
Community Wildfire Protection Plan	No	No
Other special plans (i.e., brownfields redevelopment ,disaster recovery, coastal zone management, climate change adaptation)	Yes	Environmental Hazards & Peripheral Hazards

Building Code, Permitting, and Inspections	Yes/No	Are codes adequately enforced?
Building Code	Yes	Version/Year: Inadequate
Building Code Effectiveness Grading Schedule (BCEGS) Score	ukn	Score:
Fire department ISO rating	ukn	Rating:
Site plan review requirements	Yes	Yes
Land Use Planning and Ordinances	Yes/No	Is the ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Zoning ordinance	No	Codes already incorporate these hazards
Subdivision ordinance	No	Codes already incorporate these hazards
Floodplain ordinance	No	Codes already incorporate these hazards
Natural hazard specific ordinance (stormwater, steep slope, wildfire)	No	Codes already incorporate these hazards
Flood insurance rate maps	Yes	Codes already incorporate these hazards
Acquisition of land for open space and public recreation uses	Yes	Codes already incorporate these hazards
Other		
How can these capabilities be expanded and improved to reduce risk?		

## Administrative and Technical

Administration	Yes/No	Describe capability Is coordination effective?
Planning Commission	Yes	None
Mitigation Planning Committee	No	
Maintenance programs to reduce risk, e.g., tree trimming, clearing drainage systems	Yes	Vacuum trucks, backhoes, loaders, tv capability for pipes, snow removal
Mutual aid agreements	Yes	With fire police public works and inspectors
Staff	Yes/No FT/PT <sup>7</sup>	Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	Yes FT	
Floodplain Administrator	Yes FT	
Emergency Manager	Yes FT	
Community Planner	Yes FT	
Civil Engineer	Yes FT	
GIS Coordinator	Yes FT	
Other	Yes FT	Inspectors and Public Works Staff

<sup>7</sup> Full-time (FT) or part-time (PT) position

Technical	Yes/No	Describe capability Has capability been used to assess/mitigate risk in the past?
Warning systems/services (Reverse 911, outdoor warning signals)	Yes	VECC and been done through group callouts
Hazard data and information	Yes	Maps and Hazus
Grant writing	Yes	EM writes the grants along with contractors
Hazus analysis	Yes	
Other		
How can these capabilities be expanded and improved to reduce risk?		
Improvement of GIS equipment and programs		

## Financial

Funding Resource	Access/ Eligibility (Yes/No)	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital improvements project funding		
Authority to levy taxes for specific purposes		
Fees for water, sewer, gas, or electric services		
Impact fees for new development		
Storm water utility fee		
Incur debt through general obligation bonds and/or special tax bonds		
Incur debt through private activities		
Community Development Block Grant		
Other federal funding programs		
State funding programs		
Other		
How can these capabilities be expanded and improved to reduce risk?		

## Education and Outreach

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation? Could the program/organization help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	Citizen Corp, Cert, Multi- Ethics
Ongoing public education or information program, e.g., responsible water use, fire safety, household preparedness, environmental education.	Yes	Facebook, Twitter, Newsletters
Natural disaster or safety related school programs	Yes	UFA SafeSchool
StormReady certification	No	
Firewise Communities certification	Yes	UFA
Public-private partnership initiatives addressing disaster-related issues	Yes	Engineering group, Cardwell fuel
Other	Yes	Snow removal program
How can these capabilities be expanded and improved to reduce risk?		
Use the newsletter for public posting of other issues. Preparedness tips, Utopia fiber optics		

## 5.4 Mitigation Prioritization

Mitigation plans will be prioritized based on several factors:

- Availability of Funds
- Implementation ability with ongoing projects
- Benefit – Cost ratio
- Public input
- Other miscellaneous information that when it becomes available will make certain mitigation plans a high priority

# 6 Mitigation Strategies

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## 6.1 Mitigation Actions

### 6.1.1– Mitigation Action Evaluation and Prioritization

- 1= Highly effective or feasible
- 0=Neutral
- -1=Ineffective or not feasible

#### Example Evaluation Criteria

1. Life Safety – How effective will the action be at protecting lives and preventing injuries?
2. Property Protection – How significant will the action be at eliminating or reducing damage to structures and infrastructure?
3. Technical – Is the mitigation action technically feasible? Is it a long-term solution? Eliminate actions that, from a technical standpoint, will not meet the goals.
4. Political – Is there overall public support for the mitigation action? Is there the political will to support it?
5. Legal – Does the community have the authority to implement the action?
6. Environmental – What are the potential environmental impacts of the action? Will it comply with environmental regulations?
7. Social – Will the proposed action adversely affect one segment of the population? Will the action disrupt established neighborhoods, break up voting districts, or cause the relocation of lower income people?
8. Administrative – Does the community have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?
9. Local Champion – Is there a strong advocate for the action or project among local departments and agencies that will support the action's implementation?
10. Other Community Objectives – Does the action advance other community objectives, such as capital improvements, economic development, environmental quality, or open space preservation? Does it support the policies of the comprehensive plan?

## 6.1.2– Actions Taken on Mitigation Strategies proposed in the 2009 Wasatch Front Mitigation Plan

### 2009 Mitigation Strategies Progress and Summary

The following mitigation strategies were formulated by the Salt Lake County Mitigation Strategies Working Group for inclusion in the 2009 Wasatch Front Region Natural Hazard Pre-Disaster Mitigation Plan, which was adopted by the City of Midvale on October 6, 2009. The following summary highlights the City of Midvale efforts to implement those goals where applicable and practical as part of the County's overall mitigation planning efforts.

Category	Goal / Objective	Action	Status	Comments
All Hazards	1 –Improve and maintain communications capabilities for emergency operations 1.1 –Improve communication capabilities	1 – Conduct an inventory and assessment of communications equipment and systems and identify needs	Complete	
All Hazards	1 – Improve and maintain communications capabilities for emergency operations 1.1 – Improve communication capabilities	2 – Conduct Training and awareness activities on communication equipment, tools, and systems	Complete	
All Hazards	1 – Improve and maintain communications capabilities for emergency operations 1.1 – Improve communication capabilities	3 – Establish agreements to share communications equipment between agencies involved in emergency operations	Complete	
All Hazards	1 – Improve and maintain communications capabilities for emergency operations 1.1 – Improve communication capabilities	4 – Establish notification capabilities and procedures for emergency personnel	Complete	Revising

Category	Goal / Objective	Action	Status	Comments
All Hazards	1 – Improve and maintain communications capabilities for emergency operations 1.2 – Maintain communications capabilities for critical facilities	1 – Evaluate vulnerability of critical communications systems	Complete	revising
All Hazards	1 – Improve and maintain communications capabilities for emergency operations 1.2 – Maintain communications capabilities for critical facilities	2 – Establish redundancy for dispatch centers and other critical communications	Relevant	
All Hazards	1 – Improve and maintain communications capabilities for emergency operations 1.3 – Conduct communications Strategic Planning	1 – Establish a coordinating group to address long-term communication needs and implementation strategies	Complete	
All Hazards	1 – Improve and maintain communications capabilities for emergency operations 1.3 – Conduct communications Strategic Planning	2 – <b>Acquire</b> , upgrade, and/or integrate communications equipment and systems as determined by coordinating group	Incomplete	Seeking new revenue & Funding
All Hazards	2– Improve awareness and analysis of hazards 2.1– Improved Quality and Access to digital geographic (GIS) hazards data	1 – Establish a coordinating group to address geographic data issues	Complete	Contract Company
All Hazards	2 – Improve awareness and analysis of hazards 2.1 – Improved Quality and Access to digital geographic (GIS) hazards data	2 – Examine current data availability and sharing capabilities, evaluate needs, and identify shortcomings	Complete	
All Hazards	2 – Improve awareness and analysis of hazards 2.1 – Improved Quality and Access to digital geographic (GIS) hazards data	3 – Update and expand data on hazards, critical facilities, and critical infrastructure according to assessed needs	Complete	

Category	Goal / Objective	Action	Status	Comments
All Hazards	2– Improve awareness and analysis of hazards 2.1 – Improved Quality and Access to digital geographic (GIS) hazards data	4 – Provide centralized access to geographic data to emergency planners and responders	Complete	
All Hazards	2– Improve awareness and analysis of hazards 2.2 – Improve and expand hazard monitoring capabilities	<b>1 – Integrate</b> existing hazard monitoring networks in emergency operations centers. Utilize sensors such as weather stations, stream gages, seismograph stations, road conditions, etc.	Complete	Revisions
All Hazards	2 – Improve awareness and analysis of hazards 2.2 – Improve and expand hazard monitoring capabilities	2 – Identify and implement additional hazard monitoring capabilities.	Complete	Revisions
All Hazards	3 – Ensure critical facilities can sustain operations for emergency response and recovery 3.1 – Prevent damage to critical facilities and infrastructure	<b>1 – Utilize GIS</b> to identify facilities and infrastructure at risk	Complete	Contract company
All Hazards	3 – Ensure critical facilities can sustain operations for emergency response and recovery 3.1 – Prevent damage to critical facilities and infrastructure	<b>2– Assess critical facilities</b> for hazard exposure, structural weaknesses, power, communications and equipment resources and redundancy, and adequate emergency procedures	Complete	Contract company
All Hazards	3 – Ensure critical facilities can sustain operations for emergency response and recovery 3.1 – Prevent damage to critical facilities and infrastructure	<b>3 Implement</b> improvements to address identified in assessment	Complete	Contract company

Category	Goal / Objective	Action	Status	Comments
All Hazards	4 – Improve response capabilities through mutual-aid agreements 4.1 – Utilize mutual-aid agreements in accordance with National Incident Management System (NIMS) requirements	1 – Compile inventory of mutual-aid agreements and memoranda of understanding (MOU) and identify deficiencies	Complete	Contract company
All Hazards	4 – Improve response capabilities through mutual-aid agreements 4.1 – Utilize mutual-aid agreements in accordance with National Incident Management System (NIMS) requirements	2 Pursue and implement needed mutual-aid agreements	Complete	Contract company
All Hazards	5 – Increase citizen safety through improved hazard awareness 5.1 establish a comprehensive public education program	1 – Provide education regarding all natural hazards through live trainings, as well as web-based, print and broadcast media	Relevant	
All Hazards	5 – Increase citizen safety through improved hazard awareness 5.1 Establish a comprehensive public education program	2 - Incorporate information about cascading effects of hazards in education programs	Relevant	
All Hazards	5 – Increase citizen safety through improved hazard awareness 5.1 Establish a comprehensive public education program	3 – Develop education programs to target specific groups including homeowners, developers, schools and people with special needs	Relevant	Emergency Manager
All Hazards	5 – Increase citizen safety through improved hazard awareness 5.1 Establish a comprehensive public education program	4 – Utilize maps and similar products on County EM website and other media to educate public on areas at risk to hazards	Relevant	Engineering

Category	Goal/ Objective	Action	Status	Comments
All Hazards	5 – Increase citizen safety through improved hazard awareness 5.1 Establish a comprehensive public education program	5 – Coordinate with existing public education programs such as the American Red Cross, Utah Living with Fire, be Ready Utah, the National Weather Service, etc.	Relevant	In revision by EM
All Hazards	6 – Improve public safety through preventative regulations 6.1 – Minimize hazard impacts through the adoption of appropriate prevention measures	1 – Establish and enforce appropriate planning, zoning, and building code ordinances	Relevant	Revising plan
All Hazards	6 – Improve public safety through preventative regulations 6.1 – Minimize hazard impacts through the adoption of appropriate prevention measures	2 – Ensure current hazard ordinances are available for viewing online	incomplete	Revising
Dam Failure	1 – Include dam failure inundation in future County and City planning efforts 1.1 – Review current State dam safety information on all identified high hazard dams in the County	1 – Include dam inundation maps in current County, City and Special Service District Emergency Operations Plans	Not relevant	
Dam Failure	1 – Include dam failure inundation in future County and City planning efforts 1.1 – Review current State dam safety information on all identified high hazard dams in the County	2 – Utilize inundation maps to identify potential evacuation areas and routes	Relevant	Emergency Manager
Drought	1 – Reduce and prevent hardships associated with water shortages 1.1 – Limit unnecessary consumption of water throughout the County	1 Continue to encourage water conservation utilizing and promoting outreach material from all water districts in the County	Relevant	Water Department

Category	Goal / Objective	Action	Status	Comments
Drought	1 – Reduce and prevent hardships associated with water shortages 1.1 – Limit unnecessary consumption of water	2 – Emergency Managers will coordinate with local water districts/public utilities to support ongoing conservation efforts	Relevant	Revising plan
Drought	1 – Reduce and prevent hardships associated with water shortages 1.1 – Limit unnecessary consumption of water throughout the County	3 – Investigate feasibility of implementing an incentive program to encourage the use of low-flow appliances and fixtures in homes and businesses	Relevant	EM and Water department
Drought	1 – Reduce and prevent hardships associated with water shortages 1.1 – Limit unnecessary consumption of water	4 – Implement water-saving devices and practices in public facilities	Relevant	Water Department
Drought	1 – Reduce and prevent hardships associated with water shortages 1.1 – Limit unnecessary consumption of water throughout the County	5 – Repair, maintain and improve water distribution infrastructure to prevent loss from leakage, breaks, etc.	Relevant	Water and Sewer Dept.
Drought	1 – Reduce and prevent hardships associated with water shortages 1.1 – Limit unnecessary consumption of water throughout the	6 – Coordinate public safety water use, such as hydrant testing	Relevant	Water and EM Public Education campaign
Drought	1 – Reduce and prevent hardships associated with water shortages 1.1 – Limit unnecessary consumption of water throughout the County	7 – Provide information on landscaping alternatives for persons subject to green area requirements	Relevant	City mission
Drought	1 – Reduce and prevent hardships associated with water shortages 1.2 – Address agricultural water shortages in the County	1 – Set up livestock water rotation in areas of agricultural use	Not relevant	

Category	Goal/Objective	Action	Status	Comments
Drought	1 – Reduce and prevent hardships associated with water shortages. 1.3 – Encourage development of secondary water systems.	1 – Coordinate with water districts to plan for, develop and/or expand secondary water	Complete	Water Districts MOU
Earthquake	1 – Reduce earthquake losses to infrastructure 1.1 – Encourage retrofit and rehabilitation of highly susceptible infrastructure.	1 – Identify structures at risk to earthquake damage.	Complete	Building Dept.
Earthquake	1 – Reduce earthquake losses to infrastructure.	2 – Research feasibility of an incentive program for retrofitting privately-owned buildings, particularly unreinforced masonry.	Incomplete	Redevelopment Planning
Earthquake	1 – Reduce earthquake losses to infrastructure.	2 – Research feasibility of an incentive program for retrofitting public buildings at risk	Incomplete	Planning on-going
Earthquake	1 – Reduce earthquake losses to infrastructure. 1.2 – Improve public education regarding earthquake risks to unreinforced masonry buildings.	1 – Provide educational materials to unreinforced masonry home and building owners.	Relevant	Building Dept. educating businesses and home owners.
Earthquake	1 – Reduce earthquake losses to infrastructure. 1.3 – Improve Seismic Hazard understanding and seismic resistance of CUWCD Red Butte Dam in Salt Lake County	1 – Procure Engineering Consultant to perform the nonstructural design and geotechnical assessment and review.	Relevant	Engineering
Flooding	1 – Protection of life and property before, during and after a flooding event. 1.1 – Provide 100% availability of the National Flood Insurance Program	1 – Assist Cities with NFIP application	Relevant	Engineering/State

Category	Goal/ Objective	Action	Status	Comments
Flooding	<b>1</b> – Protection of life and property before, during and after a flooding event <b>1.1</b> – Provide 100% availability of the National Flood Insurance Program	<b>2</b> – Encourage Communities to actively participate in NFIP	Relevant	Engineering/State
Flooding	<b>1</b> – Protection of life and property before, during and after a flooding event <b>1.2</b> – Encourage appropriate flood control measures, particularly in new developments	<b>1</b> – Determine potential flood impacts and identify areas in need of additional flood control structures	Complete	Revisions on going with the State
Flooding	<b>1</b> – Protection of life and property before, during and after a flooding event <b>1.2</b> – Encourage appropriate flood control measures, particularly in new developments	<b>2</b> – Address identified problems through construction of debris basins, flood retention ponds, energy dissipaters or other flood control structures	Complete	SLCo. Public Works/ City PW
Flooding	<b>1</b> – Protection of life and property before, during and after a flooding event <b>1.3</b> – Provide maintenance, repairs and improvements to drainage structures, storm water systems and flood control structures	<b>1</b> – Establish maintenance and repair programs to remove debris, improve resistance and otherwise maintain effectiveness of storm water and flood control systems	Complett?	City PW
Flooding	<b>2</b> – Reduce threat of unstable or inadequate flood control structures <b>2.1</b> – Reduce potential for failure of flood control structures	<b>1</b> – Identify and assess structures for deficiencies	Relevant	Engineering
Flooding	<b>2</b> – Reduce threat of unstable or inadequate flood control structures <b>2.1</b> – Reduce potential for failure of flood control structures	<b>2</b> – Modify structures as needed to address deficiencies	Relevant	Building Dept.
Severe Weather	<b>1</b> – Reduce threat of loss of life or property due to extreme weather events <b>1.1</b> – Maintain status as a StormReady Community	<b>1</b> – Maintain Hazardous Weather Operations Plan according to StormReady requirements	Relevant	Revisions on going

Category	Goal / Objective	Action	Status	Comments
Severe Weather	1 – Reduce threat of loss of life or property due to extreme weather events 1.1 – Maintain status as a StormReady Community	2– Maintain Contact with NWS prior to re-application in 2010	Relevant	Revising Plan
Severe Weather	1 – Reduce threat of loss of life or property due to extreme weather events 1.2 – Increase awareness of information services provided by NWS	1 – Meet with NWS representative on an annual basis to receive information on new services and alerts available	Relevant	Revising Plan
Severe Weather	1 – Reduce threat of loss of life or property due to extreme weather events 1.2 – Increase awareness of information services provided by NWS	2 – Assist NWS in making other agencies and departments aware of available resources	Relevant	Engineering, Water and City EM
Severe Weather	1 – Reduce threat of loss of life or property due to extreme weather events 1.3 – Encourage safe practices in avalanche prone areas	1 – Assist Forest Service Utah Avalanche Forecast Center and other organizations in promoting avalanche hazard awareness for backcountry users	Not relevant	
Severe Weather	1 – Reduce threat of loss of life or property due to extreme weather events 1.4 – Examine the vulnerability of patrons at large event venues to extreme weather events	1 – Work with NWS to develop large event venue weather safety and evacuation procedures	Relevant	Engineering, Water and City EM
Slope Failure	1 – Reduce or eliminate the threat of slope failure damage 1.1 – Reduce the threat of slope failures following wildfires	1 – Develop protocol for working with State and Federal agencies in reducing the impact of post-fire debris flow hazard	Not Relevant	
Slope Failure	1 – Reduce or eliminate the threat of slope failure damage 1.2 – Monitor historic landslide areas	1 – Coordinate with the Utah Geological Survey and other agencies to understand current slope failure threats/potential	Not Relevant	

Category	Goal/ Objective	Action	Status	Comments
Slope Failure	<p>1 – Reduce or eliminate the threat of slope failure damage</p> <p>1.3 – Address landslide hazards in new subdivisions</p>	<p>1 – Utilize recommendations provided by the State Geological Hazards Working Group to address land-use and planning for new developments</p>	Not Relevant	
Wildland Fire	<p>1 – Community education on wildfire hazard</p> <p>1.1 – Reduce risk from wildfire through education programs</p>	<p>1 – Increase public awareness through "Firewise" program</p>	Not relevant	
Wildland Fire	<p>1 – Community education on wildfire hazard</p> <p>1.1 – Reduce risk from wildfire through education programs</p>	<p>2 – Educate homeowners on the need to create defensible space near structures in WUI</p>	Not Relevant	
Wildland Fire	<p>2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities</p> <p>2.1 – Assist homeowners with creating defensible space near structures in WUI areas</p>	<p>1 – Designate and promote county-wide annual initiative for clearing fuels</p>	Not Relevant	
Wildland Fire	<p>2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities</p> <p>2.1 – Assist homeowners with creating defensible space near structures in WUI areas</p>	<p>2 – Provide waste removal, such as chipping of green waste by public works, following designated fuel clearing day/week</p>	Not Relevant	
Wildland Fire	<p>2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities</p> <p>2.2 – Improve evacuation capabilities for WUI areas</p>	<p>1 – Work with experts and communities to develop or update evacuation plans</p>	Not Relevant	

Category	Goal/ Objective	Action	Status	Comments
Wildland Fire	2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities 2.2 – Improve evacuation capabilities for WUI areas	2 Evaluate transportation network and address needed improvements to facilitate evacuation and emergency response	Not Relevant	
Wildland Fire	2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities 2.3 – Improve addressing system in WUI areas to facilitate emergency response	1 – Identify all facilities, businesses, and residences, particularly in the canyons, and assign addresses according to current county addressing standards	Not Relevant	
Wildland Fire	2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities 2.3 – Improve addressing system in WUI areas to facilitate emergency response	2 – Incorporate improved addresses in fire-dispatch and other databases	Not Relevant	
Wildland Fire	2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities 2.4 – Complete wildfire protection projects	1 – Reduce fuels around publically owned structures	Not Relevant	
Wildland Fire	2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities 2.4 – Complete wildfire protection projects	2– Implement fire breaks and other protective measures	Not Relevant	

Category	Goal / Objective	Action	Status	Comments
Wildland Fire	2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities 2.4 – Complete wildfire protection projects	3 – Assess existing water flow capabilities, both public and private, and address deficiencies	Not Relevant	
Wildland Fire	2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities 2.4 – Complete wildfire protection projects	4 – Assist communities in developing Community Wildfire Protection Plans or similar plans	Not relevant	
Wildland Fire	2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities 2.5 – Encourage proper development practices in the WUI	1 – Adopt the Utah Wildland-Urban Interface Code	Not Relevant	
Wildland Fire	2 – Improve safety from wildfire hazards through planning, protective actions and improved fire response capabilities 2.5 – Encourage proper development practices in the WUI	2– Define wildland-urban interface and develop digital maps of the WUI	Not Relevant	

Each month a hazard will be discussed in detail, each jurisdiction will distribute their best practices for mitigating that hazard and all jurisdictions will create a new mitigation strategy for dealing with the specific hazard being discussed. This new strategy will be added to the jurisdictions plan as detailed in plan maintenance.

## 6.4.1 Emergency Managers Mitigation Schedule:

Action Lead—Midvale Emergency Management	
Multi-Hazard Mitigation Actions	
<b>January 2015</b>	Emergency Manager's Meeting/Planning Team  Earthquake Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)
<b>February 2015</b>	Emergency Manager's Meeting/Planning Team  Flood Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)
<b>March 2015</b>	Emergency Manager's Meeting/Planning Team  Wildland Fire Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)
<b>April 2015</b>	Emergency Manager's Meeting/Planning Team  Slope Failure Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)
<b>May 2015</b>	Emergency Manager's Meeting/Planning Team  Severe Weather Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)
<b>June 2015</b>	Emergency Manager's Meeting/Planning Team  Dam Failure Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)
<b>July 2015</b>	Emergency Manager's Meeting/Planning Team  Avalanche Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)

<b>August 2015</b>	Emergency Manager's Meeting/Planning Team
Pandemic Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)	
<b>September 2015</b>	Emergency Manager's Meeting/Planning Team
Drought Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)	
<b>October 2015</b>	Emergency Manager's Meeting/Planning Team
Infestation Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)	
<b>November 2015</b>	Emergency Manager's Meeting/Planning Team
Radon Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)	
<b>December 2015</b>	Emergency Manager's Meeting/Planning Team
Problem Soils Mitigation Review (Each Jurisdiction will bring their best mitigation practice and update progress on plans to date. Special emphasis will be based on cost/benefit reviews.)	

Table 6.1.1

6.4.1.2 The cost for this mitigation effort is minimal.

6.4.1.3 The benefit will range from hundreds of thousands of dollars to millions of dollars.

6.4.1.4 The benefit to cost ratio is almost infinite.

## 6.4.2 Firewise:

### Midvale will implement the “Firewise” program in conjunction with the UFA.

#### About the Firewise Communities Program

Brush, grass and forest fires don’t have to be disasters.

NFPA’s Firewise Communities Program encourages local solutions for safety by involving homeowners in taking individual responsibility for preparing their homes from the risk of wildfire. Firewise is a key component of Fire Adapted Communities – a collaborative approach that connects all those who play a role in wildfire education, planning and action with comprehensive resources to help reduce risk.



The program is co-sponsored by the USDA Forest Service, the US Department of the Interior, and the National Association of State Foresters. To save lives and property from wildfire, NFPA's Firewise Communities program teaches people how to adapt to living with wildfire and encourages neighbors to work together and take action now to prevent losses. We all have a role to play in protecting ourselves and each other from the risk of wildfire.

#### About the National Fire Protection Association (NFPA)

NFPA is a worldwide leader in fire, electrical, building, and life safety. The mission of the international nonprofit organization founded in 1896 is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training, and education. NFPA develops more than 300 codes and standards to minimize the possibility and effects of fire and other hazards. All NFPA codes and standards can be viewed at no cost at [www.nfpa.org/freeaccess](http://www.nfpa.org/freeaccess).



#### Community Wildfire Protection Plan (CWPP)

A CWPP is a document produced in effort to mitigate the risk of wildfire in at-risk communities. The plan is developed by a community-based citizen group in conjunction with subject matter experts such as local fire departments, State of Utah Wildland/Urban Interface coordinators and partners from the BLM and USFS.

Typically CWPP development entails 4-6 weekly meetings which address the following:

- Community make-up (infrastructure, access & egress, population, # of homes, etc). This group is made of citizen volunteers who have recognized the need for a plan. We like to get city or community leaders involved as often as possible.
- Areas that pose a risk to the community.
- Projects to mitigate the above risk(s).

- Community education.
- Needs for local responders (to address wildfire threats; i.e. New PPE, engines, staffing etc.).
- Ongoing maintenance.

Every few years it should be revisited and updated as necessary.

One thing unique to Utah is the CWPP ties in with communities becoming Firewise, which is a prestigious national award given to communities whom have been proactive and taken steps to address and mitigate the issue of wildfire. The UFA is currently working with each community to develop CWPP and work towards Firewise recognition where applicable. Once the CWPP is complete, grants are applied for on their behalf by the SMEs involved and most communities will typically receive a monetary reward to complete the projects identified in the CWPP.

Below are Areas participating in the Firewise program.

Community Number	Community Name	County	Lat	Long	Fire Occurrence	Fuels Hazards	Values Protected	Fire Protection Capability	Overall Score	Notes
277	Salt Lake City	Salt Lake	40.7627769	-111.8874988	2	3	2	1	8	
278	Sandy	Salt Lake	40.5710733	-111.7921882		3	2	1	8	
279	Alta	Salt Lake	40.5853222	-111.6518986	1	1	2	2	6	
280	Big Cottonwood	Salt Lake	40.6344202	-111.7083822	1	1	3	2	7	Canyon is designated
281	Bluffdale	Salt Lake	40.4736108	-111.9533369	2	3	2	1	8	
282	Brighton	Salt Lake	40.6013883	-111.5805566	1	1	3	2	7	
283	Copperton	Salt Lake	40.5636127	-112.0977772	2	2	2	1	7	
284	Cottonwood Heights	Salt Lake	40.6073088	-111.7902819	1	2	3	1	7	Renamed from Granit
285	Dimple Dell	Salt Lake	40.5619452	-111.8150019	2	3	3	1	9	
286	Draper	Salt Lake	40.4909247	-111.8540252	2	2	3	1	8	
287	Emigration Canyon	Salt Lake	40.77	-111.7591669	2	3	3	2	10	
288	Herriman	Salt Lake	40.4920486	-112.0380213	2	3	2	1	8	
289	High Country Estates	Salt Lake	40.5008358	-112.087225	2	3	3	1	9	
290	Holladay	Salt Lake	40.674568	-111.7824641	1	2	1	1	5	
291	Lambs Canyon	Salt Lake	40.7084747	-111.6158605	2	2	2	3	9	
292	Little Cottonwood	Salt Lake	40.5738511	-111.6987175	1	1	2	2	6	Canyon is designated
293	Mount Aire	Salt Lake	40.7258336	-111.7169436	2	2	2	3	9	
294	Olympus Cove	Salt Lake	40.6457619	-111.8058963	2	3	2	1	8	

6.4.2.2 The cost for this mitigation effort is minimal.

6.4.2.3 The benefit will range from hundreds of thousands of dollars to millions of dollars.

6.4.2.4 The benefit to cost ratio is almost infinite.

## 6.4.3 Earthquake

### 6.4.3.1 Problem Statement

Midvale has a large number of unreinforced brick residences poses a large problem in the event of a major earthquake. Midvale Emergency Management will present the “Fix the Bricks” program. This program is part of the Salt Lake City and State of Utah effort to mitigate the effects of a large-scale earthquake by minimizing post-earthquake personal injury and requirement for outside assistance.

6.4.3.2 The cost for this mitigation effort is minimal.

6.4.3.3 The benefit will range from hundreds of thousands of dollars to millions of dollars.

6.4.3.4 The benefit to cost ratio is almost infinite.

## 6.4.4 Flood

### 6.4.4.1 Mitigation Action

Midvale Emergency Management will apply for grants for flood mitigation assistance. As each jurisdiction has already identified their flood prone areas through HAZUS and RiskMAP we will utilize existing reports to help prepare plans for mitigation and application for funding.

Canal Mapping will be discussed at the 2015 Emergency Managers Meeting and a subcommittee will be formed.

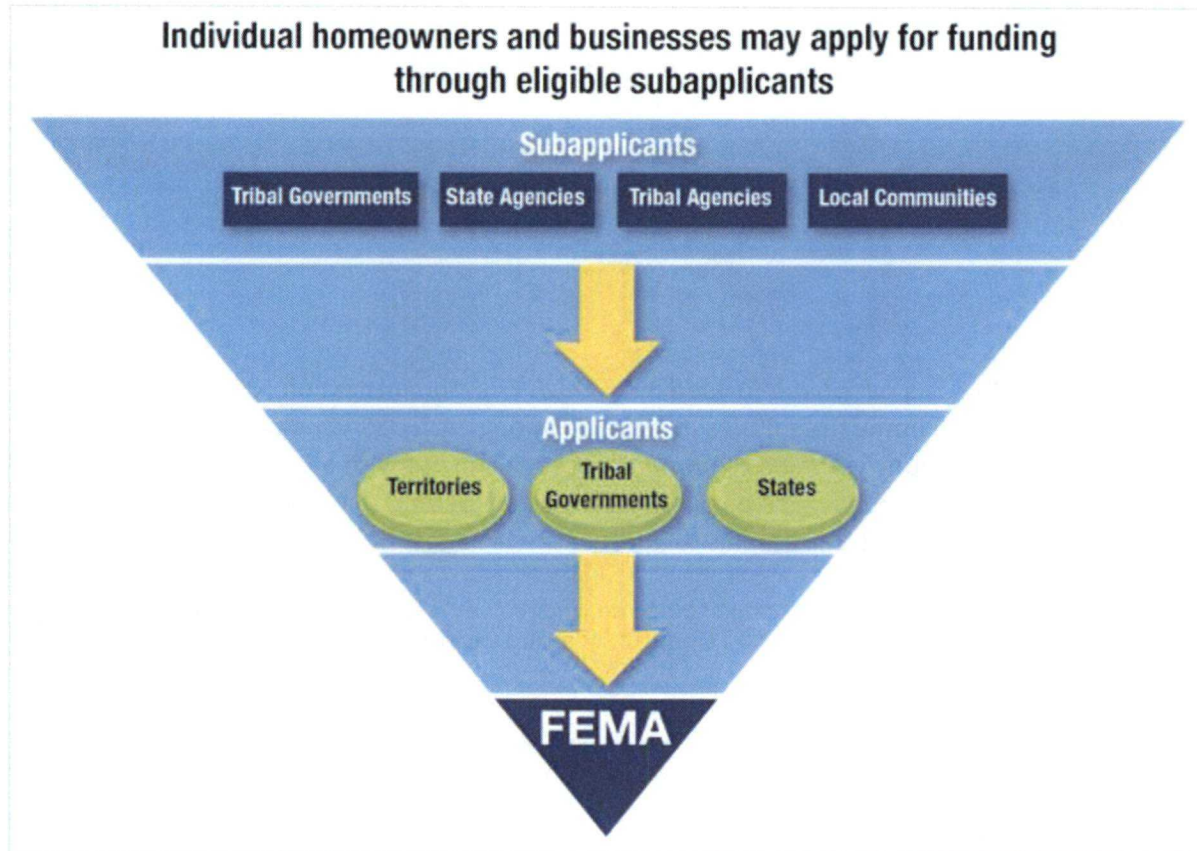
## Flood Mitigation Assistance Program

The Flood Mitigation Assistance (FMA) program provides funds for projects to reduce or eliminate risk of flood damage to buildings that are insured under the National Flood Insurance Program (NFIP) on an annual basis.

There are three types of FMA grants available to applicants:

- **Planning Grants** - to prepare flood mitigation plans
- **Project Grants** - to implement measures to reduce flood losses, such as elevation, acquisition or relocation of NFIP-insured structures
- **Management Cost Grants** - for the grantee to help administer the FMA program and activities

Please see the chart below for information on how to apply to the FMA program.



FEMA pyramid flow chart Flood Mitigation Assistance.

6.4.4.2 The cost for this mitigation effort is minimal.

6.4.4.3 The benefit will range from hundreds of thousands of dollars to millions of dollars.

6.4.4.4 The benefit to cost ratio is almost infinite.

### 6.4.5 Slope Failure:

This is not an issue in Midvale.

### 6.4.6 Severe Weather

Problem Statement – Severe weather is inevitable. The best mitigation practice is the timely communication of the event and actions that can be taken to minimize the effects. The biggest threat of severe weather is winter storms. Winter storms usually cause power outages that can last up to several days. Home heating becomes a major problem. Each year Midvale has several

devastating fires from homeowners using unsafe heating units. Our jurisdiction will implement the “Fire is everyone’s Fight” program through community outreach.

## Fire Is Everyone’s Fight™



Fire Is Everyone’s Fight™ is a national effort led by the U.S. Fire Administration (USFA) to lower the number of home fires and home fire injuries in America. Along with USFA and partner organizations across the country, the fire community is speaking out with a unified message of fire prevention and safety to the public. The goal is to change how people think about fire and fire prevention using social marketing strategies to address the broadest possible audience.

The fire problem in the United States is an ongoing and continuous battle for the fire service and the public alike. Eighty-one percent of all fire deaths and 76 percent of all fire injuries occur in residential buildings.

Each year there is an estimated:

- 365,500 residential building fires
- 2,560 deaths
- 13,275 injuries
- \$6.6 billion in property loss

## A call to action

This is a call to action for the USFA, fire and life safety partner organizations and the American public. We must join together to help reduce the number of home fires, and the resulting deaths, injuries and loss of property. We rely on the fire service to fight fires once they occur; however, the prevention of fires is up to all of us... Fire Is Everyone’s Fight™. Fire is Everyone’s Fight™ is a national effort led by the U.S. Fire Administration (USFA) to lower the number of home fires and home fire injuries in America. Along with USFA and partner organizations across the country, the fire community is speaking out with a unified message of fire prevention and safety to the public. The goal is to change how people think about fire and fire prevention using social marketing strategies to address the broadest possible audience.

As firefighters and emergency responders, you work every day to keep our families and homes safe. Fire is Everyone’s Fight™ not only supports your vital mission to protect lives and property, but it also seeks to keep you and the men and women you serve with safer as well. As you and thousands of other members of the fire and emergency services community across the country

spread Fire is Everyone's Fight™ to your communities, people will begin to recognize and understand the importance of taking small steps to make their homes and families safer from fire.

There are dozens of ways you can use Fire is Everyone's Fight™ to help teach people in your city or town to be safer. This guide shares just a few ideas to help you get started. It offers suggestions for engaging people in the community. This guide will help you:

- Integrate Fire is Everyone's Fight™ content into your existing media and community outreach programs.
- Reach out to organizations to arrange speaking opportunities.
- Use social media to get the word out about fire safety and prevention.
- Know what to say and how to say it simply and effectively.
- Put together an event that attracts the audience you want to inform.
- Create opportunities to get the word out.

6.4.6.2 The cost for this mitigation effort is minimal.

6.4.6.3 The benefit will range from hundreds of thousands of dollars to millions of dollars.

6.4.6.4 The benefit to cost ratio is almost infinite.

## 6.4.7 Dam Failure

This is not an issue in Midvale

## 6.4.8 Avalanche

This is not an issue in Midvale

## 6.4.9 Pandemic

Midvale Emergency Management will work with the County Health Department to assist them in designing their mitigation programs for dealing with pandemics.

"The Salt Lake County Health Department (SLCo HD) continues to improve its emergency response capacity by planning, training, exercising and working with partners and municipalities throughout the county.

The SLCoHD Emergency Management Bureau takes the lead within the department and involves all health department staff through planning, training, drills and exercises.

The health department follows the principles of Emergency Management: to plan for, respond to, recover from, and mitigate natural and manmade emergencies and disasters.

**"Our goal is to do the most good for the most people in the shortest amount of time."**

6.4.9.2 The cost for this mitigation effort is minimal.

6.4.9.3 The benefit will range from hundreds of thousands of dollars to millions of dollars.

6.4.9.4 The benefit to cost ratio is almost infinite.

## 6.4.10 Drought

### 6.4.10.1 Problem Statement

Midvale is prone to cyclical droughts. These droughts have been severe enough to require mandatory water rationing. YOUR JURISDICTION NAME GOES HERE Emergency Management will conduct a special presentation on “Slow the Flow” to encourage residents to take advantage of the free “Water Check” program.



#### **What is a water check?**

A water check analyzes the efficiency of your automated sprinkler system. Trained workers will perform the water check at your home and provide you with a customized watering schedule.

The tests that will be performed include soil type, grass root depth, sprinkler distribution uniformity and water pressure. The entire process will take approximately one hour.

#### **How much does it cost?**

The water check program is a free service sponsored by your water provider.

#### **How do I sign up?**

The SL County program will be open until further notice. You can schedule an appointment by signing up using the form below or by calling 877-728-3420. This program is sponsored by: Jordan Valley Water Conservancy District, Central Utah Water Conservancy District, Washington County Water Conservancy District, Sandy City, Murray City, Salt Lake City, Metropolitan Water District of Salt Lake and Sandy, Central Iron County Water Conservancy District and Utah State University.

6.4.10.2 The cost for this mitigation effort is minimal.

6.4.10.3 The benefit will range from hundreds of thousands of dollars to millions of dollars.

6.4.10.4 The benefit to cost ratio is almost infinite.

## 6.4.11 Infestation

Infestation is not relevant in Midvale.

## 6.4.12 Radon

### 6.4.12.1 Problem Statement

- Radon kills 21,000 people per year. (American Lung Association).
- Radon is the #1 cause of lung cancer for nonsmokers.
- A radon level of 15 pCi/L is equivalent in lung damage to each person living within a household smoking a pack of cigarettes per day. (Radon Measurement & Elimination Services).
- Utah has one of the lowest rates of smoking in the country, but lung cancer is still the leading cause of cancer death.

When radon becomes trapped in buildings and homes, people breathe the radon into their lungs and the gas becomes trapped. The Environmental Protection Agency (EPA) has determined that a level of 4.0 pCi/L action level of radon is dangerous for human health. Utah Radon Levels are at or above this level on average. Radon continues to break down over time because of environmental interactions with other chemicals. When radon breaks down it releases harmful cancer causing chemicals into the lungs. The chemicals wear down the lungs over time and cause lung cancer. At a 4.0 pCi/L action level or above, the risk increases because of the high concentration of cancer causing chemicals in the home for people to breathe in. However, radon exposure is preventable.

Midvale Emergency Management will conduct a half day seminar to educate citizens in procuring radon testing kits. A presentation from the Health department will be made. The course will cover the steps for citizens when they purchase the radon test kit:

**Step 1:** Purchase a radon test kit. You can purchase a kit from:

- Hardware stores (may have additional lab fee; read label carefully)
- Online from the [Utah Department of Environmental Quality](#)

**Step 2:** Follow the instructions. Place kit in lowest level of your home that you live in.

Close windows and doors for 12 hours before test and limit traffic in the room.

Do not place in rooms like bathrooms, play rooms, kitchens, or laundry rooms.

**Step 3:** Mail kit to the lab. Please be aware that some kits charge a lab fee. Read the instructions and disclaimer before purchasing.

**Step 4:** Interpret your results. A level of 4.0 pCi/L or higher is considered harmful to your health. Consult a mitigation professional for prices and ways to fix the problem. The Utah Department of Environmental Quality has this list.

6.4.12.2 The cost for this mitigation effort is minimal.

6.4.12.3 The benefit will range from hundreds of thousands of dollars to millions of dollars in the potential reduction of healthcare costs.

6.4.12.4 The benefit to cost ratio is almost infinite.

## 6.4.13 Problem Soils

### 6.4.13.1 Problem Statement

Midvale is prone to areas of collapsible soil.

Midvale Emergency Management will participate in a half-day seminar with the authors of the book *Geologic Hazards of the Magna Quadrangle, Utah*, authored Jessica J. Castleton, Ashley Elliott, Greg N. McDonald to determine testing and mitigation techniques that can be implemented.

6.4.12.2 The cost for this mitigation effort is minimal.

6.4.12.3 The benefit will be approximately hundreds of thousands of dollars.

6.4.12.4 The benefit to cost ratio is almost infinite.

# 7 Plan Implementation & Maintenance

## 7.1 Implementation

Mitigation is most successful when it is incorporated into the day-to-day functions and priorities of government and development. Midvale City will utilize the information in the Hazards Mitigation Plan to prepare for future events and plan accordingly. The mitigation strategies will be incorporated into other plans such as development, police and fire requirements, and city policies and agreements. It is essential that the public be involved in this process in every aspect.

## 7.2 Maintenance Schedule

Periodic monitoring and updates of this Plan are required to ensure that the goals and objectives for the city are kept current and that local mitigation strategies are being carried out. This Plan has been designed to be user-friendly in terms of maintenance and implementation. The Plan will

also be revised to reflect lessons learned or to address specific hazard incidents arising out of a disaster as needed.

### Annual Review Procedures

Midvale City will be responsible to annually review the mitigation strategies described in this Plan, as required by the Utah Division of Emergency Management (UDEM), or as situations dictate such as following a disaster declaration. The process will include the city organizing a Hazards Mitigation Planning committee comprised of individuals from organizations responsible to implement the described mitigation strategies. Progress toward the completion of the strategies will be assessed and revised as warranted. The city emergency manager will regularly monitor the Plan and is responsible to make revisions and updates.

### Five Year Plan Review

The entire Mitigation Plan including any background studies and analysis shall be revised and updated as needed every five years by Midvale City to determine if there have been any significant changes in the city that would affect the Plan. Increased development, increased exposure to certain hazards, the development of new mitigation capabilities or techniques and changes to Federal or State legislation are examples of changes that may affect the condition of the Plan.

## 7.3 Hazard Mitigation Plan Amendments

Midvale City will amend and update its Hazard Mitigation Plan as needed.

## 7.4 Maintenance Evaluation Process

It will be the responsibility of the designated Emergency Manager, City Manager, Mayor and City Council Members to ensure these actions are carried out no later than the target dates unless reasonable circumstances prevent their implementation (i.e. lack of funding availability).

### Funding Sources

Although all mitigation techniques will likely save money by avoiding losses, many projects are costly to implement. Midvale City shall continue to seek outside funding assistance for mitigation projects in both the pre-disaster and post-disaster environment, subject to budget constraints and available funding sources.

### Federal Programs

The following federal grant programs have been identified as funding sources which specifically target hazard mitigation projects:

## Future Revisions

Future revisions of the Hazard Mitigation Plan shall include:

- Expanded vulnerability assessments to include flood and dam failure inundation.
- Continue the search for more specific mitigation actions.
- An analysis of progress of the Plan as it is revised.
- Expanded look into how the identified natural hazards will affect certain populations including the young and elderly.

Implementation and maintenance of the plan is critical to the overall success of hazard mitigation planning.

The plans will be implemented by the following process:

TBD

## 8 Hazard Mitigation Plan Adoption

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It is the intent of Midvale City that this Hazard Mitigation Plan will be adopted by resolution once approved by the State of Utah and FEMA, which approval should be within five years of the previous Hazard Mitigation Plan's approval date. This process will be documented through the Midvale City Recorder's office.

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