

SECTION 1

INTRODUCTION

BACKGROUND

Natural hazards are naturally occurring events, such as wildfires, floods and earthquakes that can impact humans. When a natural hazard impacts human life and property, it is considered a disaster. Damages from a disaster can range from no impacts to loss of lives, homes and businesses, and other assets a community determines important to their sustained well-being (e.g., hospitals, schools, roads and power lines). The Federal government has acknowledged the risk natural hazards have on our communities and that mitigation—actions taken to reduce the severity of impacts from a natural hazard—can significantly improve the ability of communities to rebound from such events with less loss and injury to human life and property, and at a much lower cost.

To help communities mitigate their risk to natural hazards, the Federal government passed the Stafford Disaster Relief and Emergency Assistance Act of 1988. The act provided the legal authority for the Federal government to provide assistance

to states during declared major disaster and emergencies. Included in the act was grant funding for affected governments to implement long-term hazard mitigation measures. The hazard mitigation section was amended by the Disaster Mitigation Act of 2000 (DMA) to include local governments. The DMA established requirements for local governments to follow to be eligible for certain types of non-emergency disaster assistance, including funding for mitigation projects. In order to be eligible, local communities must submit and update a local hazard mitigation plan every 5 years also referred to as a pre-disaster mitigation plan (PDMP) or hazard mitigation plan. PDMPs provide a process for identifying cost-effective mitigation policies and actions based on assessments of hazards, vulnerabilities, and risk, and the participation of a wide range of stakeholders and the public. By adopting the PDMP communities can:

- Increase understanding of hazards;
- Support risk reduction activities;
- Improve resiliency;

- Eliminates the impact of future events;
- Provides a long-term solution to a problem;
- Offers a cost-effective solution;
- Help avoid repetitive damages from disasters; and
- Build relationships between residents, organization and businesses.

PLAN PURPOSE

The purpose of the 2021 Tooele County Region Pre-Disaster Mitigation Plan is to provide an update to Tooele County (Tooele County) Pre-Disaster Mitigation Plan from 2016 in order to remain in compliance with FEMA Regulations (Section 322 of the DMA). The planning activities will result in a FEMA approved plan update per Part 201 of Title 44 of the Code of the Federal Regulations. This multi-jurisdictional plan update will evaluate the potential impacts, risks and vulnerabilities associated with natural hazards for jurisdictions in Tooele County. The plan will support, identify, describe,

and document potential mitigation projects for municipalities and the unincorporated areas in the county. The suggested actions and plan implementation contained in this document are for local governments to reduce the impact severity of future disasters. This plan will promote sound public policies and projects designed to protect citizens, critical facilities and infrastructure, private property and the natural environment from future natural hazard. This plan will encourage the participation by jurisdictions, the public, tribal groups, state and federal agencies and other private institutions to collect feedback, educate and inform.

PLAN GOALS

The overall goal of this plan was to coordinate with each participating jurisdiction to develop a planning process that fulfills the components identified in the Local Mitigation Plan Review Tool provided by FEMA, meet the expectations set by the State of Utah, and address the concerns and needs of local jurisdictions. The effort was led by Tooele County with technical assistance from the Bear River Association of Governments (BRAG). Future monitoring, evaluating, updating and implementing will take place as new incidents occur and/or every five years. The PDMP and its strategies

will also be incorporated into local planning efforts and plans as appropriate.

The following short- and long-term goals were revised from the 2016 Tooele County PDMP and agreed upon to represent the current and future needs of all municipalities and Native American Reservation lands in Tooele County. These goals form the basis for the development of this plan and the mitigation strategies developed by each jurisdiction. They are shown in order of priority.

Short Term Goals:

1. Protect human life before, during and after the occurrence of a natural hazard;
2. Prevent loss of life and reduce the impact of damage where they cannot be eliminated;
3. Protect emergency response capabilities;
4. Improve communication and warning systems;
5. Improve emergency medical services and facilities;
6. Improve mobile resources;
7. Protect critical facilities and infrastructure;
8. Maintain government continuity during natural hazards;
9. Protect homes, businesses, property, industry, and educational facilities by combining hazard loss reduction with the community's social, economic and environmental needs;

10. Protect natural resources and the environment when determining mitigation measures;
11. Promote public awareness through education of community hazards and mitigation measures; and
12. Preserve and/or restore natural features that provide mitigation, such as floodplains, riparian areas and other open spaces.

Long Term Goals:

13. Eliminate or reduce the long-term risk to current and future human life and property from identified natural and technologic hazards;
14. Aid in both the private and public sectors in understanding the risks they may be exposed to and finding mitigation strategies to reduce those risks;
15. Avoid risk of exposure to identified hazards;
16. Minimization of the impacts of those risks when they cannot be avoided;
17. Mitigation of the impacts of damage as a result of identified hazards;
18. Accomplish mitigation strategies in such a way that negative environmental impacts are minimized;
19. Provide a basis for funding of projects outlined as hazard mitigation strategies;
20. Establish a County platform to enable the community to take advantage of shared goals, resources, and the availability of outside resources; and
21. Establish a framework and database for

PLAN DEVELOPMENT

PLANNING PROCESS

In the spring of 2020 Tooele County staff began the process of updating their 2016 PDMP. They contracted assistance from the Bear River Association of Governments to update the existing PDMP, including gathering all necessary data, GIS layers, natural hazard information, performing GIS analysis, documenting natural hazards per community and unincorporated counties, determining potential losses, documenting mitigation strategies, and other plan elements according to FEMA Region 8 requirements. Tooele County served as the major point of contact and liaison to all local municipalities and local Native American tribes, scheduled meetings, coordinated with BRAG staff and various stakeholder groups, prepared facilities, assisted in gathering data, and helped in getting the plan adopted by local governments and special service districts.

Tooele County and BRAG worked closely

together along with various local, tribal, state, federal and private stakeholders and the public to develop the plan over the next 18 months (see Figure on the next page). Meetings and surveys were used to collect feedback and inform participants and natural hazard specialist were consulted throughout the plan development (see Section 2. Planning Process and Participation for a complete review of how the plan was developed).

All municipalities, tribes and unincorporated communities were invited to participate (see Appendix B for detailed meeting invite and attendance lists). Tribal groups elected not to participate in the plan. This could have been largely due to the COVID-19 pandemic and associated risks. All jurisdictions which either participated in the plan, or were invited to do so, include the following:

- Tooele County
- Grantsville City
- Rush Valley City
- Stockton City

- Tooele City
- Vernon City
- Wendover City
- Other unincorporated communities, including Native American tribes, were also invited to participate.

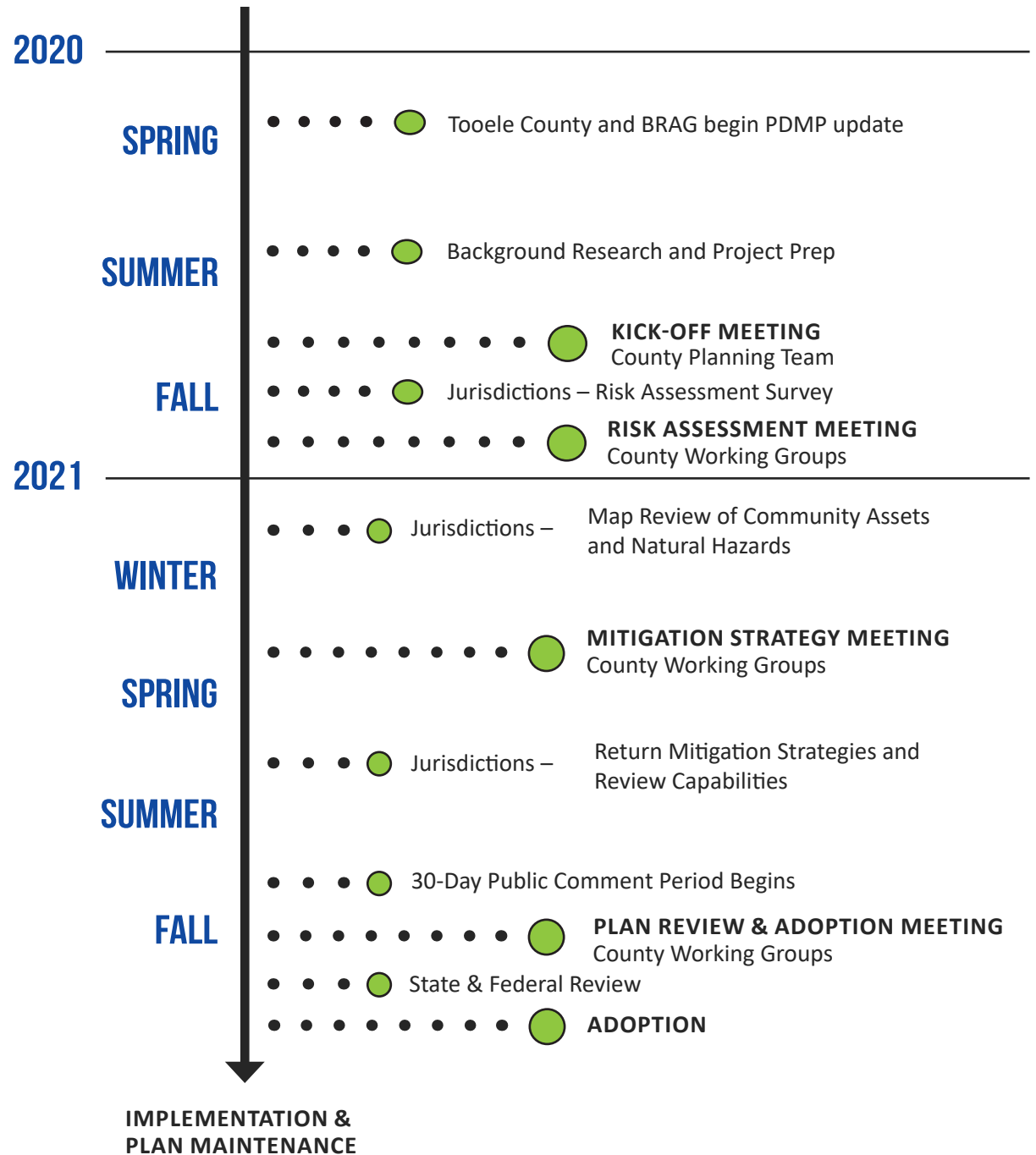
Likewise, outside states, counties, and regional Associations of Governments were invited to participate in the the process, particularly to review the draft plan and provide comments.

LOCAL REVIEW AND ADOPTION OF THE PLAN

On September 17th, 2021, a draft of Tooele County PDMP was put on the Tooele County website, located at <https://tcem.org/> and a hard copy was made available at the Tooele County office for viewing. After a 30-day public comment period, feedback from communities, the public, county working groups, as well as the Utah Division of Emergency Management were integrated into the plan.

The draft plan was then sent to FEMA Region 8 for review. After revisions to the draft plan were completed, letters were sent to each jurisdiction explaining the benefits of adopting the FEMA-approved plan and encouraging them to adopt it. Blank promulgation forms were sent to chief elected officials for each jurisdiction asking them to adopt the plan and send the completed forms to Tooele County for inclusion as an appendix in the plan. The final plan was made available on the Tooele County website found at <https://tcem.org> and a hard copy of it was also made available at the Tooele County office for viewing.

To the right is a generalized timeline for the 2021 update of the Tooele County Pre-Disaster Mitigation Plan.



PLAN UPDATE AND CHANGES

During the 2016 update, the plan and process lacked certain resources, data, maps and staff capabilities. As such the plan had some inconsistencies and lacked a thorough evaluation of the potential impacts, risks and vulnerabilities of natural hazards. Therefore the emphasis of the 2021 PDMP update was not only to improve the resources, data and maps, but to also increase the number of projects in the region. To accomplish this the planning process and plan layout were significantly changed. The risk analysis in particular was improved substantially, provide much more detailed potential loss tables for each participating jurisdiction. Likewise, an online supplementary online plan was created to compliment this plan document.

CHANGES TO THE PLANNING PROCESS

The planning process was configured to ensure consistent participation throughout the entire process and improved data. To improve the consistency of the process and

participation, a timeline was followed, and meeting times and places were set up to be centrally located and at time sensitive to participants' lives. Likewise, with COVID-19 provide challenges for in-person participation, some meetings were held virtually.

Increased Methods of Participation

A variety of formats were used to disseminate information and collect feedback, including: Surveys, web maps, natural hazard experts, and online surveys/workbooks. A risk assessment survey was used to collect community capabilities, and to identify community assets and natural hazards to focus the risk analysis. Google Earth Pro was used to collect feedback about natural hazard and community asset locations. Natural hazard experts from the state were consulted for data and strategies and presented at meetings to educate participants of risk and resources. Risk assessment and mitigation strategy online surveys/workbooks were provided to each jurisdiction to review their community's risk and vulnerabilities

and to develop mitigation strategies. The survey's/workbooks made it possible for representatives to discuss risk, vulnerabilities and actions with their community and elected officials.

Improved Data and Analysis

To improve the risk assessment, spatial and historical data was updated, expanded and created. This data was used for redefining the natural hazards in the region and for completing the GIS exposure analysis and historic occurrence analysis. The improved analyses meant that hazard specific maps and loss tables were created for each jurisdiction.

New Hazards

Avalanche, liquefaction, radon, problem soil and wildlife were added to the natural hazards assessed and mitigated. Avalanche, liquefaction, radon and wildlife were all addressed at the county level because there was no data to map their spatial extent. Instead historical analysis was completed for them. Wildlife was added due to the high volume of wildlife-vehicle collisions.

Participants were notified that wildlife was not be eligible for FEMA hazard mitigation grants. Problem soils were added because of their prevalence and availability of spatial data.

CHANGES TO PLAN LAYOUT

The primary goal of updating the layout was to improve the consistency, readability and usability of the plan. This was accomplished by putting the methodology or how tasks were completed in the planning process section.

The planning process section included details on how the analysis was completed, how strategies were prioritized and who was invited and participated in the plan. The bulk of the plan was then used to present the results of the risk assessment and updated mitigation strategies.

The risk assessment and mitigation strategies sections were combined so a jurisdiction could find all their risk, vulnerabilities, capabilities and strategies in one location. In addition, a risk summary table was provided for each jurisdiction that provided a quick and simple snapshot of the level of risk in the community based on the probability a natural hazard would occur in the future, and the impacts to population, property, economy and future development if it did occur.

A County capability assessment was developed in addition to the jurisdiction specific ones because a lot of the communities are similarly positioned on what and how they can reduce loss.

General County data, including demographics, geographic and physiographic background, climate and geology were removed from the plan. Pieces of that information were included in the natural hazard definitions.

INCORPORATION OF EXISTING PLANS, STUDIES, AND REPORTS

The following plans, studies and reports were referenced and studied as part of the plan update.

- Tooele County Human Services Coordinated Plan, 2016
- 2019-2050 Regional Transportation Plan (Wasatch Front Regional Council)
- Tooele County Active Transportation Implementation Plan, 2018
- Tooele County General Plan Update, 2016
- Tooele County Transportation Plan, 2015
- Tooele County; County Wildfire Preparedness Plan, 2018
- Wildlife Connectivity Across Utah's Highways - Updated, 2017

These plans and documents were incorporated mostly by reference, and Tooele County would like to integrate hazard mitigation elements in future updates of these plans. Wildlife connectivity documents and data in particular were directly integrated into the risk analysis for various jurisdictions.

PLAN USE AND ORGANIZATION

This plan should be used to help local elected and appointed officials plan, design, and implement programs and projects that will help reduce their community's risk and vulnerabilities to natural hazards. This plan should be used to facilitate inter-jurisdictional coordination and collaboration related to natural hazard mitigation planning and implementation. This plan should be used to develop or provide guidance for local emergency planning. Finally, if adopted, the plan will bring communities in compliance with the Disaster Mitigation Act of 2000, qualifying jurisdictions to apply for funding for pre-disaster mitigation projects and for receiving federal aid in the event of a presidentially declared disaster. See Section 4: Implementation and Plan Maintenance for an overview on FEMA hazard mitigation grants.

The plan is broken into 3 parts with accompanying sections. Part 1 is the plan, which includes sections 1-4. Part 2 is the community section, which includes sub-sections for each community with associated

risk assessments. Part 3 is reference material and other supplementary documents, which is section 11 and appendix A-D.

PART 1: THE PLAN

SECTION 1: INTRODUCTION

The Introduction describes the need to plan for natural hazards, why plan for natural hazards, the plan's purpose and goals, and changes since the last update.

SECTION 2: PLANNING PROCESS AND PARTICIPATION

The Planning Process and Participation section is a detailed overview of how the plan was developed, including how natural hazard were defined, how the risk analysis was completed, and how risk was ranked. This section also includes who was invited and participated in the plan, and how the public was used throughout the process.

SECTION 3: COUNTY NATURAL HAZARDS, GOALS AND CAPABILITIES

The County Natural Hazards, Goals and Capabilities section describes the location, extent, previous occurrences and probability of future occurrences natural hazards in the region. It also discusses County goals and capabilities.

SECTION 4: IMPLEMENTATION AND PLAN MAINTENANCE

The Implementation and Plan Maintenance section includes a description of how the plan will be integrated into other planning mechanisms, how the plan will be implemented, how the plan will be maintained, and how continuous public involvement will be sustained.

PART 2: COMMUNITY RESULTS

SECTION 5: COMMUNITY SECTIONS

Community Sections include each jurisdiction's risk, vulnerabilities, capabilities and mitigation strategies. This includes maps showing natural hazard locations and extents, as well as potential losses for each participating jurisdiction. Mitigation strategies for each community are also included in this section, as well as risk to potential future development.

PART 3: REFERENCE DOCUMENTS

This part includes all supplementary documents that support the main document.

SECTION 6: REFERENCES

Appendix A: Invitations to Participate

Appendix B: Meeting Agendas, Attendance, Handouts, and Public Outreach

Appendix C: Risk Assessment Survey Results

Appendix D: GIS Data References

Appendix E: Detailed GIS Risk Assessment Methodology

Appendix F: Historical Hazard Events Database

Appendix G: 2018 Utah Mormon Cricket and Grasshopper Report

Appendix H: Repetitive Loss Table, Morgan and Tooele Counties