

Canyon County Hazard Mitigation Plan Update

WORK PLAN

The following work plan is broken down into 7 phases and is the basis for the scope of work for this plan update project. This is a proposed scope of services from Tetra Tech, Inc. for the development of an update to the Canyon County Hazard Mitigation Plan (plan). The principle objective for the scope of services below are to update the plan and ensure that the end product is an Idaho Office of Emergency Management (IDOEM) and Federal Emergency Management Agency (FEMA) approved plan.

SCOPE AND DELIVERY OF WORK: The work to be completed and provided by Tetra Tech is described in the following paragraphs. The following phases will be completed by Tetra Tech, in conjunction with the planning partners and steering committee:

Phase 1-Organize and Review

Under this phase, Tetra Tech will facilitate the plan update process. This will include organization and facilitation of the Steering Committee and its meetings, confirmation of the planning partnership, plan review, agency coordination and recommendations for changes to the updated plan. The tasks to be completed under this phase and the specified deliverables are described as follows:

Task 1A- Define the Partnership: Under this task, the County's planning team will identify local governments and Special Purpose Districts within the planning area not currently covered by a local hazard mitigation plan as well as other jurisdictions that may benefit from becoming part of LHMP. Special emphasis will be placed on those eligible local governments within the planning area that did not participate in the initial planning effort.

All jurisdictions and special purpose districts will be invited to a kick-off meeting that will be held to explain the plan update and how to join the LHMP. Templates and information will be provided to further describe the process and answer any potential questions they may have.

Each committed planning partner will be asked to provide a formal commitment in writing to this effort and will be apprised of the expectations to complete this process. Undoubtedly, with the submission of the grant that will fund this project, the County has already obtained several letters to support the granting process, but Tetra Tech will work with County personnel to further enhance those involved. Tetra Tech will strive to finalize the committed planning partnership within 45 days following the date of the kickoff meeting. It is very important to establish a concrete deadline for this step to avoid delays in the planning process. It should be noted that any exception to this performance measure may impact the timeline and must be granted by the County Project Manager.

Task 1B- Organize Steering Committee: Under this task, the planning team will approach/contact candidates to participate on the Steering Committee. These candidates will include: planning partners, residents, state agencies, Academia, Tribes, and other stakeholders within the planning area. Steering Committee members that participated in the initial planning effort will be included in this outreach. These candidates will be solicited for their interest and expertise in this process.

The Steering Committee will be responsible for making key decisions such as plan review, setting goals, objectives for the plan, outreach strategies and will act as spokespersons for the planning effort based

on planning team findings and recommendations. This Steering Committee will meet on an as needed basis throughout the plan update process and provide direction to our team. In an effort to reduce time impacts, Tetra Tech will use various sources to host meetings, including web-based meetings. Tetra Tech will develop the meeting agendas for all meetings while County personnel will be responsible for securing the meeting venues and taking and producing meeting minutes from each session. All Steering Committee meetings will be open to the public and advertised as such.

Task 1C- Plan Review: Under this task, Tetra Tech will facilitate the review the existing plan by the Steering Committee to identify portions that: (1) need updating due to changes in applicability, or (2) need to be enhanced due to the existence of new data, technology or tools. Key areas of focus for this review shall be the risk and vulnerability assessment, goals and objectives, the mitigation action plan, the plan maintenance section and an overall review of the plan's performance. The performance review will strive to answer the following questions:

- What initiatives were completed during the performance period?
- What initiatives were not completed?
- Why were those initiatives not completed?
- Have the capabilities changed within the planning area since the development of the initial plan?
- What new actions need to be considered?
- Ensure these actions are consistent with the goals and objectives of the plan.

Task 1D-Coordination with Fire Agencies: It is the intent of this scope of work for this LHMP update to also qualify as a comprehensive update to the Canyon County Community Wildfire Protection Plan (CWPP) for the planning area. Under this task, Tetra Tech will organize the coordination with all Fire Suppression agencies required under the requirements for CWPP planning. This coordination will involve the facilitation of meetings with the appropriate agencies to garner vital input for components of the CWPP that will be incorporated in to this LHMP update. At a minimum, three (3) meetings will be conducted with the fire suppression stakeholders identified as appropriate for this plan update process.

Task 1E- Coordination with Other Agencies: Under this task, Tetra Tech will coordinate with other agencies involved in, or that have the ability to impact hazard mitigation actions identified in the plan. These will include but are not limited to:

- Appropriate Canyon County departments, including: GIS, Assessor's Office, Planning Department, Office of Emergency Management, and Public Works, etc.
- ID Department of Water Resources
- IDOEM and
- FEMA Region X
- Idaho Department of Lands
- Neighboring counties that have similar exposures or that are performing plan updates of their own.

These agencies will be coordinated with throughout all phases of this proposed scope of services. Tetra Tech will strive to coordinate with any con-current planning effort in an attempt to promote Regional consistency in hazard mitigation.

Task 1F- Recommend/Initiate Changes: Once the review has been completed, it is anticipated that some of the identified changes may require action. For example, if a goal or objective was found to not be applicable to what the plan is striving to achieve, based on the performance review, a new goal or objective will need to be identified using standardized goal setting techniques. This task will be

dedicated to reconciling these changes to make sure that they are incorporated into the final revised plan.

Phase 2-Identify Hazards and Update the Risk Assessment

Under this phase, Tetra Tech will assist the partnership in identifying the characteristics and potential consequences of the natural hazards that may impact or have historically affected the planning area. A thorough assessment of each hazard, as well as the vulnerability of the planning area to each hazard identified, will be accomplished using tools such as GIS/HAZUS, readily available detailed studies, benefit-cost analysis tools, and historical/local knowledge of past occurrences. At a minimum, a map delineating each hazard area, a description of each hazard (including potential depths, velocities, magnitudes, frequencies, etc.), and a discussion of past events will be prepared. The initial Plan will be the principal tool used to identify the hazards of concern as well as the State Hazard Mitigation Plan. Each participating planning partner will receive data specific to their jurisdiction upon which the respective local-jurisdiction annexes will be created. This will be accomplished through the use of established templates designed to walk each partner through the required steps of risk assessment.

For each identified hazard, Tetra Tech will perform a vulnerability analysis that will: (1) include updates to the inventory of the number and type of structures at risk; (2) assess the impact on life, safety, and health; (3) evaluate the need and procedures for warning and evacuation; (4) identify critical facilities (hospitals, for example) and the impact of the hazard on those facilities; and (5) review the development/redevelopment trends projected for the future in each identified hazard area. For the Wild Fire Hazard, the risk assessment will be formatted such that it meets the requirements for CWPP planning.

- ✓ The hazard profiles will provide the following information:
- ✓ Utilize best available information from local, state, tribal or federal sources
- ✓ Geographic Areas of Impact – Maps showing areas of impact
- ✓ Previous Occurrences – History of events to date
- ✓ Severity – Magnitude or potential intensity and duration, including speed of onset
- ✓ Impact – How will, or has, each hazard impacted the planning area
- ✓ Probably of Future Occurrence – What is the likelihood that we will be impacted by the hazard of concern in the future?
- ✓ Probable impacts of climate change on the hazard
- ✓ Future trends in Development

The risk assessment will identify which natural hazards pose the greatest threat to the community by looking at the hazard frequency of occurrence, the severity of the occurrence, and the likelihood that an event will occur. Using the updated asset inventory Comprehensive Data Management System (CDMS), outputs from our risk assessment process include the following:

- ✓ Vulnerability Analysis –Based on data input, we develop data tabulations and maps that demonstrate vulnerable assets and populations at risk.
- ✓ Functionality or Down Time – When an incident occurs, how long will critical facilities be impacted?

Tetra Tech will conduct a flood hazard risk assessment of all FEMA-identified repetitive loss properties within the planning area, as required under the Community Rating System (CRS) and Flood Mitigation Assistance (FMA) programs. This review will include the delineation of repetitive loss areas throughout the County (if any), a determination of the cause of repetitive flooding, annualized loss estimates, and a

building count of the number of structures within each repetitive loss areas. The flood risk assessment will profile all flood related issues that impact the planning area (i.e.: riverine, coastal, urban drainage, stream bank erosion/sediment deposition).

The tasks to be completed under this phase are described as follows:

Task 2A- Update of Critical Facilities and HAZUS general building stock: This task will include an update of critical facilities data and HAZUS general building stock by combining pertinent information regarding structure type, valuation, new construction, and any other information that may assist with modeling in HAZUS. Tetra Tech, working with the County's GIS and Assessor personnel, will begin the interface to capture required data to enhance the HAZUS outputs. This data will be combined from several sources and loaded into HAZUS using the CDMS portal.

Tetra Tech will assist the planning team members in identifying the characteristics and potential consequences of the natural hazards that may impact or have historically affected the planning area. A thorough update to the assessment of each hazard, as well as the vulnerability of the planning area for each hazard identified, will be accomplished using tools such as stakeholder interviews, GIS/HAZUS modeling, benefit-cost analysis, and research of historical occurrences. Tetra Tech will work with the planning partners to ensure maps delineate each hazard. Tetra Tech will update, as necessary, the description of each hazard (including potential depths, velocities of surface/flood water, or magnitudes and frequencies of potential earthquakes, for example) and describe relevant past events. The initial Plan and the currently effective Idaho State Hazard Mitigation Plan will be the principal tools used to identify the baseline hazards of concern. Because this LHMP will be submitted to FEMA, as an update to the current approved plan for the County, the updated risk assessment must include the following:

- ✓ The best available data to identify extent and location of hazard events for which the planning area is susceptible
- ✓ A historical review of events that have occurred during the period between the initial risk assessment and the update process
- ✓ A review of probability of occurrence or frequency of an event based on new data or occurrences

Task 2B- HAZUS-MH Analysis: Under this Tetra Tech will develop HAZUS runs for the entire planning area using the currently available version of the HAZUS model (HAZUS version 4.2 or newer). Level 2 analyses of the dam failure, earthquake, and flood hazards will be conducted. The flood analysis will incorporate the County's current digital flood insurance rate map (DFIRM) as well as any available Light Detection and Ranging (LiDAR) data. For the earthquake analysis, both earthquake soils and liquefaction data will be combined with available earthquake scenario data. The HAZUS model will be populated with updated GIS data provided by the County and their planning team partners. We anticipate spending an additional 160 cost-shared hours on this analysis.

Task 2C- Update Risk Assessment for non-HAZUS Hazards: Under this task, COUNTY will update the risk assessment for the non-HAZUS hazards (drought, landslide, severe weather and wildfire). This will include a GIS exercise designed to analyze building exposure and potential impact utilizing damage functions based on national models. All base mapping components from the original plan will be updated with current data under this task. We anticipate using an additional 160 cost-shared hours to complete this assessment.

Phase 3 - Develop/Implement Public Involvement Strategy

Under this phase, the Planning Partnership will continue to implement the on-going public involvement strategy identified in the initial plan. Depending upon the number of changes or enhancements recommended by the Steering Committee, this public involvement strategy may be enhanced to seek the public's input/support for changed actions. Since this scope of services proposes significant changes to the risk assessment, this phase has assumed it will be necessary to hold a minimum of 4 public meetings. Two public meetings to share the findings of the revised risk assessment, and two public meetings to present the draft plan. The tasks to be completed under this phase are as follows:

Task 3A-Public Meetings: At a minimum, 4 public meetings will be held at times and places to be determined by the Steering Committee. The first two (2) public meetings will be held to share the findings of the updated risk assessment with the public. At these meetings, revised maps and revised damage assessment will be shared with the public and their opinions in possible actions will be solicited. The second set of two (2) public meetings will present the final draft plan to the public for their review and comment. Tetra Tech will facilitate all public meetings conducted under this task.

Task 3B- Press releases and public notices: Under this task, Tetra Tech, with assistance from the Project Manager, Planning Team, and Steering Committee where appropriate, will post public notices and/or press releases announcing the initiation of the plan update process, and also announce all public meetings. All meetings of various types will be open to all citizens of Canyon County. The content of all press releases will be prepared by the County. The County will be responsible for dissemination of all press releases and providing documentation of any response to the releases.

Task 3C-Website: A County sponsored website will be established on the onset of this scope of services. This website will become the principle means for public interaction with this planning process from start to finish. COUNTY will produce materials to support the website such as "Frequently asked questions" (FAQ's), power point presentation from the kickoff meeting, and Steering Committee meeting minutes. County personnel will be responsible for maintenance of the website and assuring continued public access to pertinent information.

Task 3D-Hazard Mitigation Survey: Under this task, the Tetra Tech will develop and deploy a web-based hazard mitigation survey during phase 1 of the public outreach strategy. The purpose of these survey will be to reach as many citizens within the planning area as possible to gauge their perception of risk and their support for hazard mitigation alternatives. Dissemination of the survey will be via electronic means utilizing the web and social media capabilities within the planning area.

Phase 4- Update Goals, Objectives and Identify Capabilities

After the hazard identification and risk assessment documentation have been updated and reviewed, Tetra Tech will work with the Steering Committee to determine if the original goals and objectives identified under the initial planning effort remain viable in light of new information gathered through the risk assessment and initial public involvement phases of the project. Once goals and objectives have been refined, the range of mitigation alternatives and actions on a hazard-by-hazard basis will be updated. Preference will be given to those mitigation actions that provide multi-objective risk reduction. Tetra Tech will work with the Steering Committee and planning partners to establish priorities to make clear which types of strategies and activities are true mitigation measures and which should be closed out or removed from the list. We anticipate spending a total of 24 cost-shared hours on the following assessment.

Information obtained during the update of the risk assessment and during the public involvement strategy will be used to refine the County's existing mitigation strategies previously adopted in the initial plan. Tetra Tech will utilize an enhanced derivation of the "mitigation catalog" concept utilized in the initial planning effort. Additionally, Tetra Tech will provide some baseline training to the partnership on the completion of benefit cost analyses (BCA's), which are required under FEMA hazard mitigation grant programs. The tasks to be completed under this phase are as follows:

Task 4A- Goals objectives and actions: Under this task, Tetra Tech will facilitate the confirmation of a guiding principle, goals, objectives and actions. The baseline for this task will be the guiding principle, goals and objectives identified in the initial plan. As was done with the initial plan, the planning team will strive for confirmation of linear planning components, which means each component directly supports the other. For example, goals will be confirmed that support the guiding principle. Objectives will be identified that meet multiple goals. Actions will be prioritized based on meeting multiple objectives.

Task 4B- Mitigation Catalog: Under this task, Tetra Tech will enhance the mitigation catalog utilized by the planning partnership to identify possible actions for their action plans. As was with the initial plan, the mitigation catalog will represent the comprehensive range of alternatives considered by each planning partner, which is a statutory requirement under the DMA. The catalog utilized by the partnership during the initial planning effort will be enhanced by the Steering Committee through a process facilitated by Tetra Tech, looking at strengths, weaknesses, obstacles and opportunities within the planning area.

Task 4C- Core Capability Assessment: Under this task, Tetra Tech will identify the core capabilities within the planning area that will support or enhance the planning partnership's capabilities to implement the mitigation actions identified in this plan. This assessment will focus on: Legal/regulatory, Technical, Financial, Public Education and Outreach, National Flood Insurance Program (NFIP), and adaptive capacity capabilities of the partnership.

Phase 5: Develop Plan for Monitoring, Evaluating and Updating the Plan

This is a singular task phase. Under this phase, Tetra Tech will work with the Steering Committee to establish a plan maintenance strategy for the updated plan. This strategy will include:

- ✓ Recommendations for Steering Committee involvement
- ✓ A template for annual progress reporting
- ✓ A strategy for continuing public involvement
- ✓ Methodology for incorporation into other planning mechanisms
- ✓ Confirmation of a procedure for linkage to the plan

Phase 6: Assemble the Updated Plan

Under this phase, Tetra Tech will assemble the updated plan, including all those eligible partners who met their "participation" requirements to become part of the updated LHMP. The assembly will utilize all updated or enhanced data generated in Phases 1 through 5. It is anticipated that the current format ("two-volume approach") of the plan will be maintain and enhanced where appropriate. As with the initial plan, Volume II will include a jurisdictional annex for each participating local government within the county. Each partner will have a chapter within Volume II. The jurisdictional annex will be the basis for each chapter. These annexes will meet DMA requirements for each jurisdiction. Templates will be provided to each participating planning partner to guide their completion of their jurisdictional annex.

Two workshops will be held, one for municipal partners and one for special district partners, to walk each partner through completion of the template.

The tasks to be completed under this phase are as follows:

Task 6A- Author the updated plan text: Under this task, the draft updated plan will be authored and assembled by the Tetra Tech. Coordinating with the Steering committee, Tetra Tech will format the plan layout to meet the objectives established for the update process. The key elements to be delivered under this task include:

- ✓ Coordinating with the Steering Committee and Tetra Tech will format the plan layout to meet the objectives established for the update process and for ease in use by the local jurisdictions in development of any additional planning efforts which occur after the initial update.
- ✓ Tetra Tech will describe and document the process used to review and analyze each section of the LHMP. If the planning team or Steering committee found that some sections of the plan warranted an update, and others did not, the process to make that determination shall be documented in the LHMP.
- ✓ The LHMP will provide a discussion on how the public was kept apprised of the plan's actions during the initial performance period.
- ✓ The LHMP shall describe the need for changes to the risk assessment and what changes were made in comparison to the initial plan. This would include any changes to exposure or probability of occurrence due to the occurrence of events during the performance period.
- ✓ The LHMP shall illustrate any changes to risk exposure due to changes in land use due to annexation, new development, or other relevant factors to be determined.
- ✓ The LHMP shall illustrate any changes to the action plan and include an explanation of the status of the action items, and what changes were made.
- ✓ The LHMP shall identify the completed, deleted, or deferred actions or activities from the previously approved plan as a benchmark for progress. Further, the updated plan shall include in its evaluation and prioritization any new mitigation actions identified since the previous plan.
- ✓ The LHMP shall include an analysis of the prior plans schedule for monitoring, evaluating and updating the plan worked, and make any recommendations for changes to the plan maintenance process.
- ✓ The wildfire chapter of the LHMP shall be constructed such that it qualifies as the Community Wildfire Protection Plan (CWPP) for the planning area.
- ✓ Tetra Tech will ensure the entire process of updating and inclusion of eligible new partners within the LHMP is documented in accordance with FEMA policies leading to a FEMA approved LHMP.

Task 6B- Jurisdictional Annex Workshops: As with the initial plan, a series of workshops will be held for the planning partners to instruct them on how to complete their Jurisdictional Annex templates. These workshops will be a 3-hour format. Two workshops will be held at a date, time and location to be determined by the Steering Committee. One session will be tailored to municipal partners, while the second will be tailored to special district partners. Attendance to these workshops will be mandatory as defined under the planning partner expectations.

Task 6C: Technical Edit/Format: Once the initial draft has been developed, the draft plan will be submitted for a technical/format edit to prepare the final draft plan that will be presented to the public for their review and comment and provided to IOEM and FEMA for pre-adoption review and approval.

Phase 7 - Complete Plan Review and Adoption

Under this phase, Tetra Tech will facilitate the review and adoption of the plan. This will include presentation of draft versions of the plan to the Steering Committee, preparation of a “public review draft, completion of the plan review crosswalk, support of the adoption process and submittal of final plan package to IOEM for review and approval. The tasks to be completed under this phase are as follows:

Task 7A- Complete Plan review Crosswalk: Once the final draft plan has been prepared, and all public and Steering committee comments have been incorporated into the final draft, Tetra Tech will complete a FEMA plan review crosswalk to illustrate the plan’s compliance with 44 CFR Section 201.6. A draft plan will then be forwarded along with the completed crosswalk to IOEM with a request for “pre-adoption” review and approval.

Task 7B- Plan adoption support: Once the final draft has been completed, the adoption phase of the planning process will begin. All planning partners will be provided an adoption package that includes: sample resolution, staff report and a copy of the executive summary. Tetra Tech will prepare a standardized power point presentation that can be utilized by all planning partners in their presentations to their governing bodies. Tetra Tech will track the adoption status of all planning partners and provide appropriate documentation of adoption in the plan.