Purpose:

Working in a close collaborative effort, Carson Water Subconservancy District (CWSD), FEMA Region IX (FEMA), U.S. Army Corps of Engineers (USACE), U.S. Geological Survey (USGS), U.S. Department of the Interior Bureau of Reclamation (USBR), State NFIP Coordinator, State Hazard Mitigation Office, and other partners (as listed on page 5) will identify, assess, communicate, and plan for flood risk within the Carson River Watershed (watershed), which includes portions of Alpine County in California and Douglas, Carson City, Storey, Lyon, and Churchill Counties in Nevada. The flood risk information provided can be used to enhance hazard mitigation plans, make informed decisions to improve resilience after flooding, protect the beneficial functions of floodplains, and raise awareness about local flood risks.

This charter:

- Details the long-term flood hazard mapping vision for the watershed;
- Describes the desired mapping, assessment, planning information, and planning products;
- Describes the assistance that CWSD and FEMA will provide;
- Summarizes local flooding concerns and indicates areas where floodplain changes are expected; and
- Describes the roles and responsibilities of the CWSD, FEMA, and other signatory partners.

Watershed Vision:

In 2008, all counties along the Carson River adopted the "Carson River Watershed Floodplain Management Plan" (FPM Plan) that describes the long-term goals and objectives for floodplain management. These goals are based on identification and mapping of floodplains to create a broad-based awareness of flood hazards and provide the data necessary to support community floodplain management programs. The mapping program will provide many benefits to watershed communities, property owners, and citizens. These include:

- Increased public awareness and action to reduce risk to life and property;
- Ability to build upon flood hazard data and maps produced during the Flood Map Modernization (Map Mod) program;
- Assess present and future risk;
- Address gaps in flood hazard data to form a solid foundation for risk assessment and floodplain management and provide entities with information needed to mitigate flood-related risk;
- Protection of the natural and beneficial function of drainage-ways and floodplains, including trail corridors, parks, recreational areas, wildlife habitat, flood storage, and groundwater recharge; and,
- Encouraging "Good Neighbor Policies" throughout all communities within the watershed.

Mapping and Assessment:

The watershed experiences flooding incidents on an average of every five years. Types of flood hazards include riverine and alluvial fan flooding and debris flows. Major flood events are typically the result of rain-on-snow events. Flood storage in the upper watershed is limited and available storage is not regulated. Therefore, flood flows are not actively managed and large flows can occur downstream. The watershed contains areas of open floodplains that are continually under threat of change and development. The FPM Plan calls for the protection of the natural function of these floodplains, especially lands within Carson Valley, which provide the bulk of the flood storage for the entire watershed.

Based on previous studies, information obtained during community public meetings for the development of the FPM Plan, and discovery meetings for mapping activity statements, a Five-Year Master Mapping Plan was developed for the watershed. The plan identifies the sequence of work to be performed in order to meet the goals and objectives for floodplain mapping and associated assessments and is consistent with the community goals described in the FPM Plan.

Regulatory Products:

FEMA will provide Alpine, Douglas, Carson City, Lyon, and Churchill Counties with the following updated regulatory products to support floodplain management and flood insurance administration.

- Flood Insurance Study (FIS) Report: The FIS describes the county's flood history and provides technical information on the study.
- Flood Insurance Rate Map (FIRM): The FIRM identifies the county's flood hazard zones, base flood elevations, and floodway boundaries. This map is also used to determine where flood insurance may be required.

Flood Risk Products:

CWSD and partners will work closely with FEMA to produce the products listed below which identify locations and causes of flood hazard changes and quantify the risks associated with those changes. This will allow Alpine, Douglas, Carson City, Lyon, and Churchill Counties to use these updated data and products to make informed hazard mitigation, land use and development, and emergency management decisions.

- Changes Since Last Flood Insurance Rate Map (FIRM): Changes since the last FIRM identify areas where the floodplain, floodway, and/or flood zone designations have changed since the previous flood study. Engineering factors that may have contributed to any changes will also be identified.
- Areas of Mitigation Interest: Areas of mitigation interest identifies areas where
 conditions may contribute to the severity of the flood hazard and associated
 losses. These include areas with a history of flood claims, hydraulic or other
 structures that contribute to backwater impacts, and areas experiencing land use
 change or development.

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FEMA Resources to Support Flood Mitigation Actions:

FEMA encourages floodplain management activities that exceed minimum requirements through programs such as the Community Rating System (CRS). The watershed currently has two CRS communities, Douglas County and Carson City. FEMA also offers Hazard Mitigation Assistance grant programs that fund eligible mitigation activities which reduce disaster losses and protect life and property from future disaster damage. Information on these programs will be provided, along with other related State, Federal, and association resources throughout the project.

Communication and Coordination:

FEMA, CWSD, and partners will work together to establish a consistent flow of information about project status, timelines, and next steps. In addition to regular status reports, CWSD will coordinate with the counties, cities, and other entities in the watershed. CWSD will establish a Flood Mapping Project Management Team (PMT) that will meet on a regular basis to ensure that the goals of this charter are implemented in a coordinated manner. The PMT includes representatives from all counties, cities, Federal, State, and other governmental entities throughout the watershed. CWSD is also the coordinating entity for the Carson River Coalition (CRC), a large watershed-wide stakeholder group. The CRC will be provided opportunities to review and comment on mapping programs and the implementation of the living river concept as described in the adopted Carson River Watershed Regional Floodplain Management Plan.

FEMA will work with Alpine, Douglas, Carson City, Lyon, and Churchill Counties to enhance their ability to communicate flood hazards and associated risk to people who live and work within the watershed.

Specific meetings for each phase of mapping include:

- PMT Meetings: These meetings will focus on setting project expectations, roles and responsibilities of the PMT, and on validating and gathering data.
- Community Coordination Officer (CCO) Meeting/Open House: Local
 officials will be provided with FIS and FIRM information and requirements for
 map adoption. Meetings will be closely followed by open house meetings where
 FEMA, CWSD, and local community officials will present project results to local
 citizens and explain the impact that the results will have on development,
 planning, and flood insurance.
- Flood Study Review Meeting: Local officials, State, Federal, Tribal, and non-governmental entities will be provided the opportunity to view and comment on drafts of the engineering analyses and flood risk data. This meeting may also include highlights of hazard mitigation planning and implementation of best management practices to reduce flood hazards in the watershed.

Roles and Responsibilities:

This Risk MAP Charter represents a good-faith effort by all parties to share data, communicate findings, and plan mitigation activities to protect the communities within the watershed from flood risk. It is not legally binding nor does it preclude a community from participating in the FIRM appeal process. The parties listed in the signature block

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below agree to collaborate on flood hazard identification activities, risk analysis products, and will consult with each other to integrate contributions into flood hazard identification efforts. It is intended to provide a common "Good Neighbor" strategy to address flood hazards and increase resilience within the watershed.

FEMA and CWSD will provide local officials with regular updates on project status, the data and products described above, and outreach guidance to include local awareness of flood risk. These efforts will better enable local communities to take action to reduce risk, through the adoption of the maps, development or enhancement of mitigation plans, and increased communication with citizens to inform them of their risk and the steps that they can take to mitigate that risk.

Alpine, Douglas, Carson City, Lyon, and Churchill Counties, and other entities will provide input and updates throughout the study process to verify data and ensure that the information accurately represents their communities.

CWSD, FEMA, and local officials agree to communicate as needed over the course of each project outlined in the mapping program to review project milestones, outcomes, and impacts. CWSD and the PMT will meet at least twice a year to discuss, plan, and coordinate all mapping program projects.

If for any reason an entity who is a signatory to this document wishes to withdraw their participation from the Risk MAP Charter, they may do so at any time by submitting a written request to CWSD.

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We, the undersigned, agree to work together to implement this Risk MAP Charter for the Carson River Watershed to the best of our abilities and within our legal authorities and

delegations. 'alhowsla Sally Ziolkowski Drector Chuck Roberts, Chairman FEMA Region IX Mitigation Division Carson Water Subconservancy District Date Signed: 2/15/2012 Date Signed: 2/28/12 Kin InviexNEXX CHOWINGER Jason King, State Alicia Kirchner, Chief Nevada Division of Water Resources USACE Sacramento District, Planning Division Date Signed: Date Signed: 3-/5-/2 Elizabeth Ashby Henry Skip Veatch, Chairman Nevada Department of Public Safety Board of Supervisors State Hazard Mitigation Office Alpine County, California Date Signed: 23 Feb 2012 Date Signed: 2/21/2012 Bob Crowell, Mayor Lee Bonner, Chairman Board of Commissioners Carson City, Nevada Date Signed: 2/14/2012 Douglas County, Nevada Date Signed: 3/9/12Chuck Roberts, Chairman Norman Frey, Chairman **Board of Commissioners Board of Commissioners** Lyon County, Nevada Churchill County, Nevada Date Signed: February 15, 2012 Date Signed: 2/23

Kenneth L. Par
Kenneth Parr, Area Manager
U.S. Bureau of Reclamation
Lahontan Regional Office
Date Signed: 24/16/12
Enat Clank
Ernest Schank, Dresident of the Board of
Directors, Truckee-Carson Irrigation
District Date Signed: 4//1/2012

Jon Mittelstadt Jon Mittelstadt, Meteorologist in Charge National Oceanic & Atmospheric Administration National Weather Service - Reno, NV

National Weather Service - Reno, NV Date Signed: 4 - 26 - 20/2