

# 2023 State of Nevada Enhanced HMP Update

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# Why Engage in Hazard Mitigation Planning?

- Mitigation is good for us – increases resilience for our communities
- “Reduces loss of life and property by minimizing the impact of disasters”
- FEMA requires a HMP to receive all categories of public assistance
- It saves us money – every \$1 of mitigation saves \$6
- It makes us money
  - \$2B - \$10B in post disaster hazard mitigation
  - \$2.295B in 2022 pre-disaster Building Resilient Infrastructure and Communities
- You have the local knowledge / perspective
  - We can pull from databases, but you have the insight for your community
- Expectations
  - Review shared documents
  - Provide your input

# Overview

- Wise Oak Support
- Administrative
- Update methodology
- Progress
- Future Actions

# Wise Oak Support



GENERAL PROJECT  
MANAGEMENT  
ASSISTANCE



RESEARCH AND  
ANALYSIS



GIS



TECHNICAL WRITING



OTHER ESSENTIAL  
ACTIVITIES ON  
REQUEST

# Major Actions to Date

Developed / developing text style guide

Developed / developing image style guide

Developed / developing FEMA National Risk Index maps

- Hazards Risk Index
- Expected annual loss
- Social vulnerability
- Community resilience

Aligned hazards with national/state standards

- New hazard names match the State of Nevada Threat and Hazards Guide
- National Risk Index hazards

Working with FEMA on potential new hazard assessment process

# Administrative



# Style Guide - Text

## Text

### Font

- Body: Times New Roman, 12 pt.
- Figure and table labels: Figure/Label; Arial, 10 pt.

### General:

- Alignment: Justified
- Outline Level: Body Text
- Special: none
- Unselect: mirror indents
- Select: “Automatically adjust right indent when document grid is defined.”

### Line Spacing

- Single: 6 pt. before and after; justified; Body Text; 0 indentation;
- Unselect - “Don’t add space between paragraphs of the same style”
- Select - Snap to grid when document grid is defined

## Outline

- X
- X.X
  - Heading 1: Times New Roman; 13 pt.; bold
- X.X.X
  - Heading 2: Times New Roman; 13 pt.; bold
- X.X.X.X
  - Heading 3: Times new Roman; 12 pt.; Bold; Italics

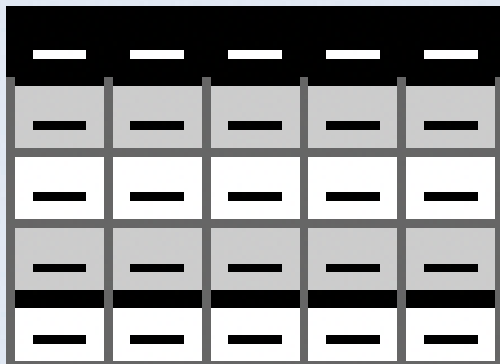
# Style Guide - Graphics

## Figures

- Label
  - Figure/Table
- Black border
  - Black
  - $\frac{3}{4}$  point
- Shadow
  - Right and bottom

## Tables

- Label
  - Table Title
- Style



—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—



What preferences do you have?

Other?



# Update Methodology

# Text Review

Editorial review for  
standardization

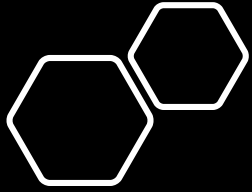
Updating – NOT  
re-writing

Freshening up  
information

Consistent  
formatting

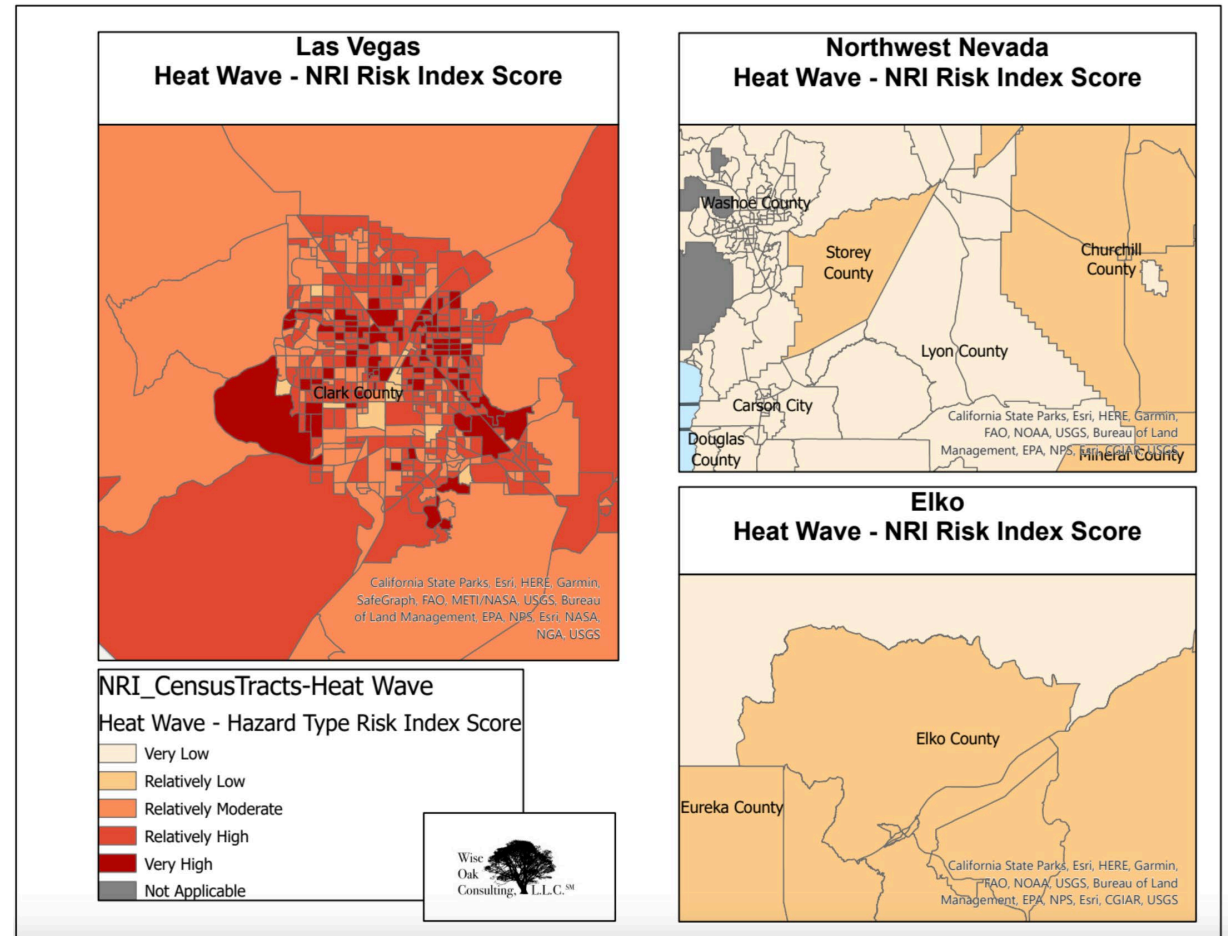
“XX” is a  
placeholder for  
items like figure  
numbers

The very last  
review will be for  
final formatting  
and numbering



# Image Review

- Updating if older than 1 year
- Border: Black; ¾ point
- Shadow: Right and Bottom



# Table Review

- General: Times New Roman 11 point
  - Adjust as required
- Black Heading
- Table Title
- Alternating grey and white

<b>Table 3-03. HMP – 2022 THIRA Crosswalk.</b>			
<b>HMP Profiled Hazard</b>	<b>HMP Risk</b>	<b>THIRA Threat/Hazard</b>	<b>THIRA Jurisdiction</b>
N/A	N/A	Utility Interruption – Extreme Heat	Southern Nevada
<b>Human-Caused Threats</b>			
<b>Terrorism/WMD (Not profiled)</b>	N/A	<ul style="list-style-type: none"> <li>• Active Shooter</li> <li>• Active Shooter</li> <li>• Mass Casualty Attack</li> </ul>	<ul style="list-style-type: none"> <li>• Northern Nevada</li> <li>• Eastern Nevada</li> <li>• Southern Nevada</li> </ul>
<b>Terrorism/WMD (Not profiled)</b>	N/A	<ul style="list-style-type: none"> <li>• Cyberattack – SCADA</li> <li>• Cyberattack – Ransomware on Pipeline</li> <li>• Cyberattack</li> <li>• Cyberattack</li> </ul>	<ul style="list-style-type: none"> <li>• Northern Nevada</li> <li>• Northern Nevada</li> <li>• Eastern Nevada</li> <li>• Southern Nevada</li> </ul>
<b>Terrorism/WMD (Not profiled)</b>	N/A	Tunnel Poisoning Gas Attack	Southern Nevada
<b>Terrorism/WMD (Not profiled)</b>	N/A	Pipeline Attack	Southern Nevada

# HMP Hazards vs. State vs. FEMA NRI (1 of 3)

Legacy HMP	Nevada Threat & Hazard Guide	FEMA NRI	Comment / Question
Avalanche	Geohazards - <b>Avalanche</b>	Avalanche	Updated with no name change
Drought	<b>Drought</b>	Drought	Updated with no name change
<b>Earthquakes</b>	Geohazards - <b>Earthquake</b>	Earthquake	Updated and changed to <b>"Earthquake"</b>
<b>Epidemic</b>	<b>Infectious Disease</b> <ul style="list-style-type: none"> <li>Emerging Disease with Epidemic or Pandemic Potential;</li> <li>Respiratory Virus with Epidemic or Pandemic Potential</li> </ul>	N/A	Updated and changed to <b>"Infectious Disease"</b>
Expansive Soils	N/A	N/A	No change
<b>Heat extreme</b>	<b>Severe Weather</b> <ul style="list-style-type: none"> <li><b>Extreme Heat</b></li> </ul>	Heat Wave	Updated and changed to <b>"Extreme Heat"</b>
Floods	Floods, Landslides & Debris Flow <ul style="list-style-type: none"> <li>Alluvial Fan Flooding</li> <li>Flash Flood</li> <li>Riverine</li> </ul>	Riverine Flooding	Updated and remains "Floods"
<b>Hail &amp; Thunderstorms</b>	Severe Weather <ul style="list-style-type: none"> <li>Microburst</li> <li>Straight-Line Winds</li> <li><b>Thunderstorms &amp; Lightning</b></li> </ul>	<ul style="list-style-type: none"> <li>Hail</li> <li>Lightning</li> <li>Strong Wind</li> </ul>	<b>Do we want to Make this section "Severe Weather" or change to "Thunderstorm &amp; Lightning" or leave it as is?</b>

# HMP Hazards vs. State vs. FEMA NRI (2 of 3)

Legacy HMP	Nevada Threat & Hazard Guide	FEMA NRI	Comment / Question
Infestation	N/A	N/A	Updated with no name change
Land Subsidence and Ground Failure	Geohazards <ul style="list-style-type: none"> <li>Fissures and Subsidence</li> </ul>	N/A	Updated and changed to "Fissures and Subsidence"
Landslide	Floods, Landslides & Debris Flow <ul style="list-style-type: none"> <li>Landslides &amp; Debris Flow</li> </ul>	Landslide	Updated and changed to "Landslides and debris Flow"
Severe Storm and Extreme Snowfall	Severe Weather <ul style="list-style-type: none"> <li>Winter Storms &amp; Extreme Cold</li> </ul>	<ul style="list-style-type: none"> <li>Cold Wave</li> <li>Ice Storm</li> <li>Winter Weather</li> </ul>	In process, suggest changing to, "Winter Storms & Extreme Cold."
Tornado	Tornado	Tornado	In process, no name change
Tsunami/Seiche	Seiche	Tsunami	Updated and changed to "Seiche"
Volcano	Volcanoes	Volcanic Activity	In process, suggest changing to, "Volcanoes."
Wildland Fire	Fire <ul style="list-style-type: none"> <li>Wildland Fire</li> <li>Wildland Urban Interface</li> </ul>	Wildfire	In process, retain, "Wildland Fire."



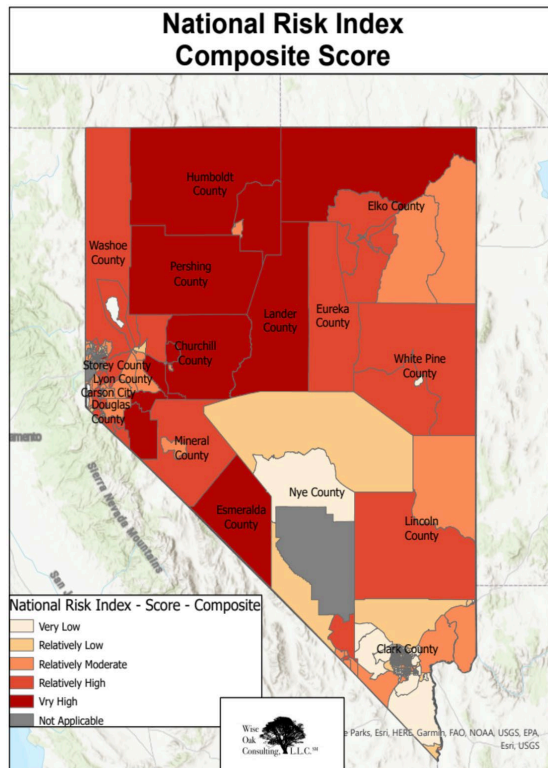
# HMP Hazards vs. State vs. FEMA NRI (3 of 3)

Legacy HMP	Nevada Threat & Hazard Guide	FEMA NRI	Comment / Question
Hazardous Materials	<p>Chemical, Biological, Radiological, Nuclear &amp; Explosives (CBRNE)</p> <ul style="list-style-type: none"> <li>• Chemical</li> <li>• Biological</li> <li>• Radiological</li> <li>• Nuclear</li> <li>• Explosives</li> </ul>	N/A	<p>Updated Separated into a “Technological Hazards” section Retain “Hazardous Materials”</p>
Flooding due to Dam Failure	<p>Infrastructure</p> <ul style="list-style-type: none"> <li>• Dam Failure</li> </ul>	N/A	<p>Updated Separated into a “Technological Hazards” section Changed to “Dam Failure”</p>
Flooding Along Irrigation Ditches and Canals	<p>Floods, Landslides &amp; Debris Flow</p> <ul style="list-style-type: none"> <li>• Flash Flood</li> </ul>	N/A	<p>Updated Separated into a “Technological Hazards” section Remains “Flooding Along Irrigation Ditches and Canals”</p>
???	<p>Infrastructure</p> <ul style="list-style-type: none"> <li>• Natural Gas Pipeline Incident</li> </ul>		<p>Do we want to add Natural Gas Pipeline Incident?</p>
??? 3/28/2023	<p>Infrastructure</p> <ul style="list-style-type: none"> <li>• Power Outage</li> </ul>		<p>Do we want to add Power Outage?</p>

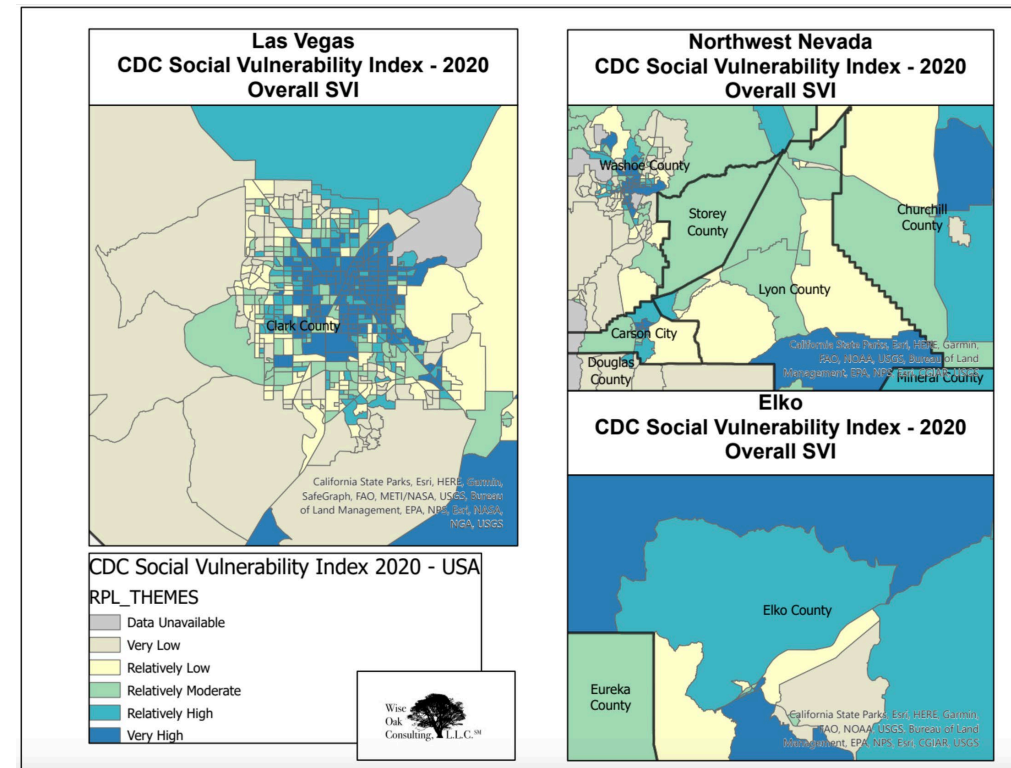


# Baseline: FEMA's National Risk Index

## National Risk Index

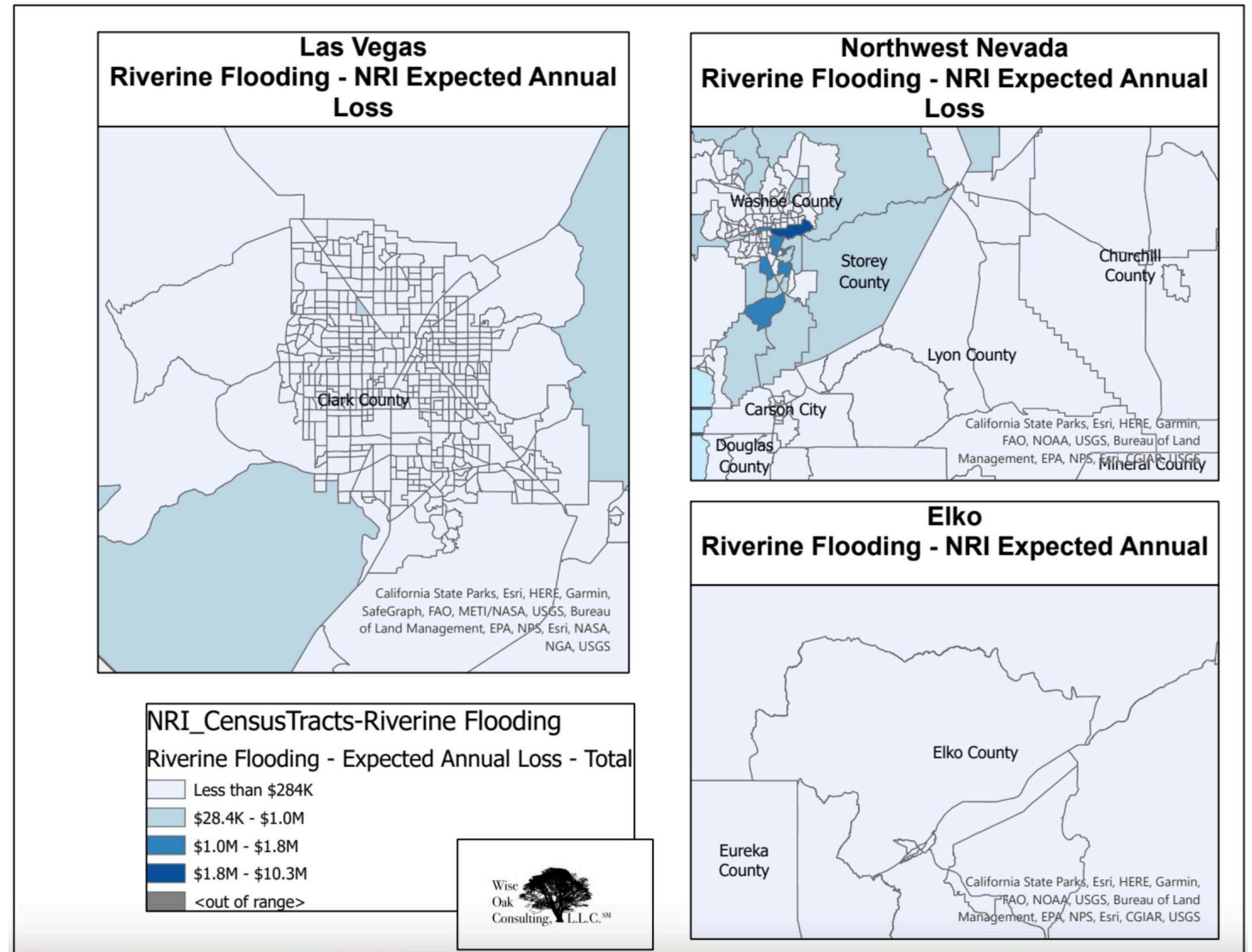


## Social Vulnerability Index



# Expected Loss

- From FEMA's National Risk Index database
- Request for FEMA to approve as "quantitative" expected loss – 2018 comment



# Progress Update

# Section 3 Complete Actions

HAZARD PROFILES COMPLETE		OTHER ITEMS
Avalanche	Infectious Disease	NRI risk maps are in the Hazard folder as each is developed
Dams	Infestation	Complete hazard profiles are in Working Documents folder
Drought	Landslides & Debris Flow	Updating HMP requirement boxes throughout Section 3
Earthquake	Seiche	Coordinated Appendices
Expansive Soils	Thunderstorms & Lightning	Integrating into Section 3
Extreme Heat	Tornado	*Quantitative impact of Climate Change
Fissures & Subsidence	Volcano	
Floods	Wildland Fire	
Flooding Along Irrigation Ditches and Canals	Winter Storms & Extreme Cold	
HAZMAT		

# Future Actions



**Complete hazard profiles**

Review as they are integrated into Section 3



**Mitigation Activity update – 4/04/23**



**Planning meeting 2 - 4/05/2023**



**Planning meeting 3 – ?**



**Ranking of hazards - TBD**



**Vulnerability and loss assessment**

TBD  
Building HAZUS runs



**Build out section 3 - combine new profiles**

Ongoing

We are approximately 1 month behind the desired timeframe.  
We can still meet FEMA deadlines.

# Summary

## Standardizing the style

- Based on existing style
- Capturing new style

## Moving to national – level databases

- National Risk Index
- Social Vulnerability

## Request for map-displayed quantitative losses

- FEMA requires quantitative impacts

## All 19 Hazards have been updated

- Working quantitative impact of Climate Change

## Look to wrap up hazard analysis in April

- Hazard Ranking
- New hazards such as pipelines and power failures?