



2016 Hazard Mitigation Plan Update

City of Grand Terrace
Planning Committee Meeting #1
November 21st, 2016



Agenda

■ Part I

- Welcome and Introductions
- Mitigation Planning Defined
- Background
- Local Hazard Mitigation Planning Process
- Overall Objectives
- Project Schedule

■ Part II

- Hazard Identification and Risk Assessment (HIRA) process
- Local Hazard Initial Review
- Critical Infrastructure / Essential Facility Review
- Hazus Earthquake Scenario Development
- Next Steps





The Know How!

- National and Regional Hazard mitigation know how!
- Our team members have managed and authored:
 - Local mitigation planning process updates
 - State mitigation planning process updates
 - Assisted with FEMA's "Integrating Hazard Mitigation Into Local Planning"
 - **Solano County's 2010 Multi-Hazard Mitigation Plan Update**



Integrating Hazard Mitigation Into Local Planning

Case Studies and Tools for Community Officials

March 1, 2013



FEMA

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PART I

- **Mitigation Planning Defined**
- **Background**
- **Local Hazard Mitigation Planning Process**
- **Overall Objectives**
- **Project Schedule**





Hazard Mitigation Defined

- **What is Hazard Mitigation?**
 - Hazard mitigation is sustained action taken to reduce or eliminate long-term risk to life and property resulting from natural hazards. What is a Mitigation Plan?
 - Recognition of potential hazards and actions to curb possible effects
 - Includes Hazard Identification and Risk Assessment (HIRA)
 - Solidifies Mitigation Strategy
 - Provides Planning Process Documentation for State and Feds
- **Why have a Mitigation Plan?**
 - Results in saved lives, reduced injuries, reduced property damages, and protection for the environment
 - Ensures staff and public consensus toward common goal
 - Focuses efforts and limited resources
 - Must have “approved plan” for Hazard Mitigation Program Grant access.
 - Augment local capital improvement funding!
 - California is disaster prone!

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Background

- **Disaster Mitigation Act (DMA) 2000 (Public Law 106-390) provides the legal basis for FEMA mitigation planning requirements for State, local and Indian Tribal governments as a condition of mitigation grant assistance.**
- **FEMA requires an update every 5 years!**
- **City of Grand Terrace “third” hazard mitigation plan update.**
 - 2005 Hazard Mitigation plan , no copies available.
 - 2011 Hazard Mitigation Plan Update developed by the City of Grand Terrace
 - 20 Current Mitigation Actions (projects/ actions defined by 2011 HMP section 6.3)
- **2016 Planning Effort backed by Hazard Mitigation Grant Program (HMGP)?, Flood Mitigation Assistance Program (FMA)?, Pre-Disaster Mitigation Program (PDM) and Community Block Grants?**



MHP Process and Components

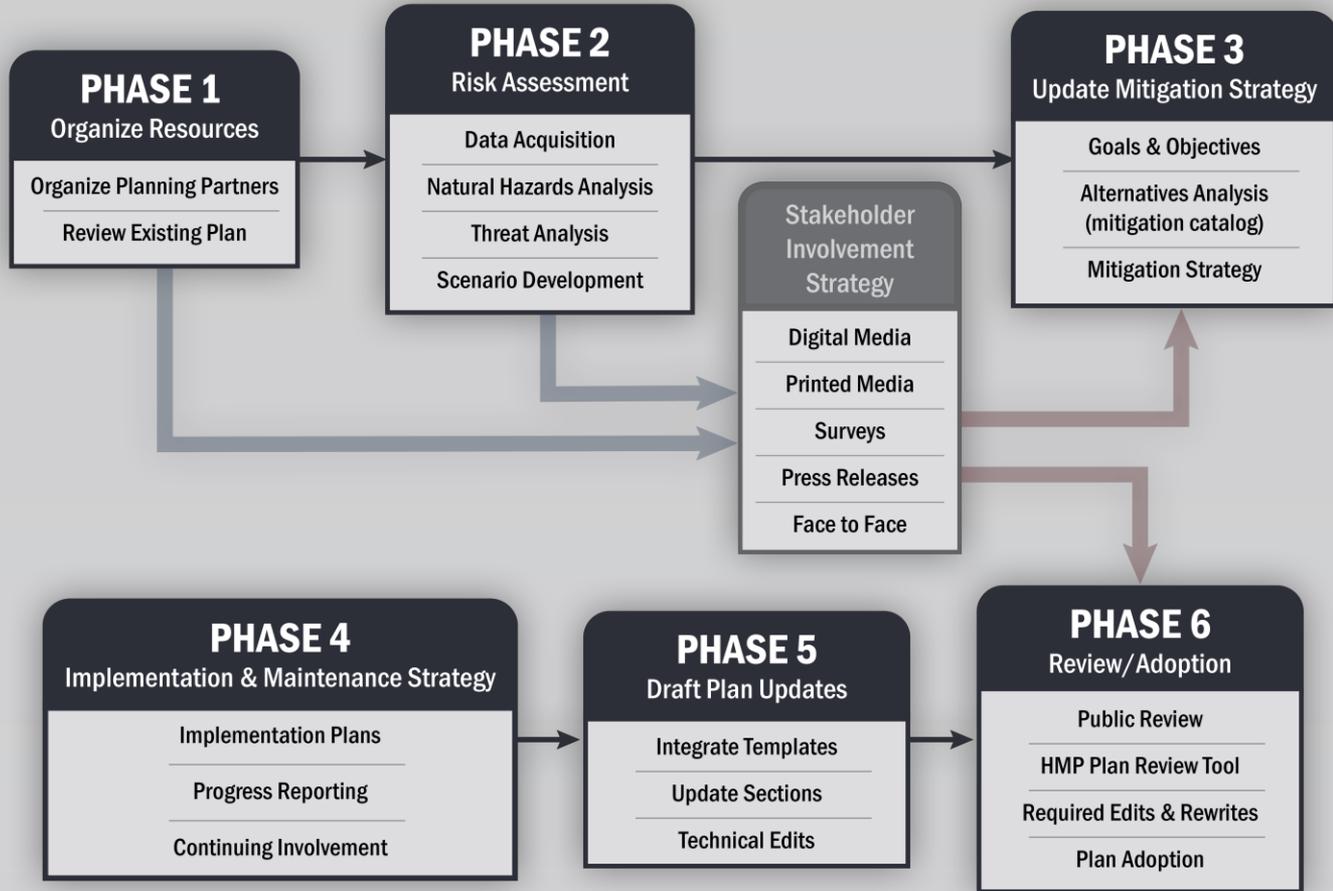
Planning Process

- The planning process is predefined by federal regulations. The requirements and procedures for State, Tribal and Local Mitigation Plans are found in the Code of Federal Regulations (CFR) at:
- Title 44, Chapter 1, Part 201 (44 CFR Part 201)

| DMA 2000 (44 CFR 201.6) | FEMA How to Guidance common name |
|--|---|
| (1) Organize Resources | |
| 201.6(c)(1) | 1. Organize to prepare plan |
| 201.6(b)(1) | 2. Involve the public |
| 201.6(b)(2) and (3) | 3. Coordinate with other agencies |
| (2) Assess Risks | |
| 201.6(c)(2)(i) | 4. Assess the hazard |
| 201.6(c)(2)(ii) and (iii) | 5. Assess the problem |
| (3) Develop the Mitigation Plan | |
| 201.6(c)(3)(i) | 6. Set goals |
| 201.6(c)(3)(ii) | 7. Review possible activities (actions) |
| 201.6(c)(3)(iii) | 8. Draft an action plan |
| (4) Plan Maintenance | |
| 201.6(c)(5) | 9. Adopt the plan |
| 201.6(c)(4) | 10. Implement, evaluate, and revise |



FEMA How to Components *Planning Process*





Scope of Work

Phase 1: Planning/Development Process

- 1.1 Stakeholder Organization
- 1.2 Document Review
- 1.3 Stakeholder Working Session #1

Phase 2: Risk Assessment

- 2.1 Facility Exposure Analysis
- 2.2 Hazus Risk Assessment
- 2.3 Data Visualization and Mapping
- 2.4 Hazard Profile Development

Phase 3: Hazard Mitigation Strategy

- 3.1 Mitigation Goals and Policy Review and Development
- 3.2 Mitigation Strategy
- 3.3 Stakeholder Working Session #3

Phase 4: Implementation & Maintenance Strategy

- 4.1 Implementation
- 4.2 Integration with Other Planning Efforts
- 4.3 Reporting
- 4.4 Grant Reporting
- 4.5 Continued Public Outreach
- 4.6 Stakeholder Working Session #3

Phase 5: Draft Plan Updates

- 5.1 Update Sections and Technical Edits

Phase 6: Review and Adoption

- 6.1 Plan Review and QA/QC
- 6.2 Socialize and Circulate Plan
- 6.3 Finalize and Submit Plan to Cal OES and FEMA





Beyond Compliance!

Planning Process

- **Detailed implementation guidance**
- Competitive edge for Pre-Disaster and Post-Disaster Hazard Mitigation Grant Funding
- **Community-driven, transparent, and collaborative planning process that is fully documented**
- Legitimacy for City decision-making!
- **Integrated with other City and Regional planning mechanisms**
- **Public education and awareness tools (5 year period)**
- **Communicate risks to your residence**





Planning Process Highlights!

COMMUNITY CAPABILITIES & RISK ASSESSMENT

- Detailed hazard profiles specifically aimed at risk and actual vulnerability within the city.
- NFIP program review.
- Field reconnaissance to identify problem areas.
- Hazus level 2 risk assessment.
- City parcel based exposure analysis.
- City critical facility exposure analysis.
- Population exposure analysis.

MITIGATION ACTIONS & STRATEGY

- Completely revamped from 2011 Plan.
- Implementation Strategy based upon public input, planning committee consensus and actual risk!
- Develop Mitigation Implementation Plans based upon available resources and grant opportunities.

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Primary Objectives

- Setting the expectations and define mitigation planning and actions.
- Mitigate the identified risk.
- This is not a response document!
- Create umbrella document with a set prescribed mitigation actions.
- Remain Flexible; Implementation will change over time based upon resources, grants and other leveraging.
- Develop something useful for the public and the City!





Setting the Expectation!



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List of Planning Committee Meetings

- 1-2 HRS in Length.
- Facilitated and Structured
- Information from meetings used to curtail and customize plan
- Required component in the update / planning process

| | |
|--------------------------------------|---|
| Planning Committee Meeting #1 | Part 1: Welcome and Introductions Project Overview LHMP Process and Components Project Timeline Questions and Answer Session Part 2: Resources Public Outreach Strategy Next Steps |
| Planning Committee Meeting #2 | Part 1: Hazard Overview and Draft Risk Assessment Outcomes Community Asset Inventory Review Part 2: Review of Vulnerability Assessment Group Analysis, Risk Factor Development |
| Planning Committee Meeting #3 | Part 1: Identify Draft Problem Statements Goals and Objectives Exercise (introduction) Part 2: Finalize Goals and Objectives Develop Capabilities |
| Planning Committee Meeting #4 | Part 1: Review and Prioritize Draft Mitigation Actions Part 2: Develop Implementation Plans |



Schedule

Nov-Dec 2016



Organize Resources

Dec-Jan / 2017



Assess Risks

March 2017



Develop Mitigation Plan

April 2017



Draft Admin Plan for Review

May 2017



Finalize LHMP Update for Submittal / Approval / Adoption

July 2017



Cal OES & FEMA Review / Plan Adoption

Digital or Live Public Outreach
2/2017

Public Review
04/2017



Next Steps (4 Week Window)

- Prepare for Planning Committee Meeting #2
 - Possible Field Trip to Hazard Mitigation Project
- Finalize and post content for website
- ?...





Next Steps (4 Week Window)

■ Risk Assessment

- Finalize information on local hazards based upon passed profiles and San Bernardino County Plan
- Finalize building / parcel inventory
- Finalize Critical Infrastructure Inventory
- Run Hazus Risk Modeling in more detail
- Define Repetitive Loss Areas if any





PART II

- Hazard Identification and Risk Assessment (HIRA) process
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Today's Goals and Accomplishments

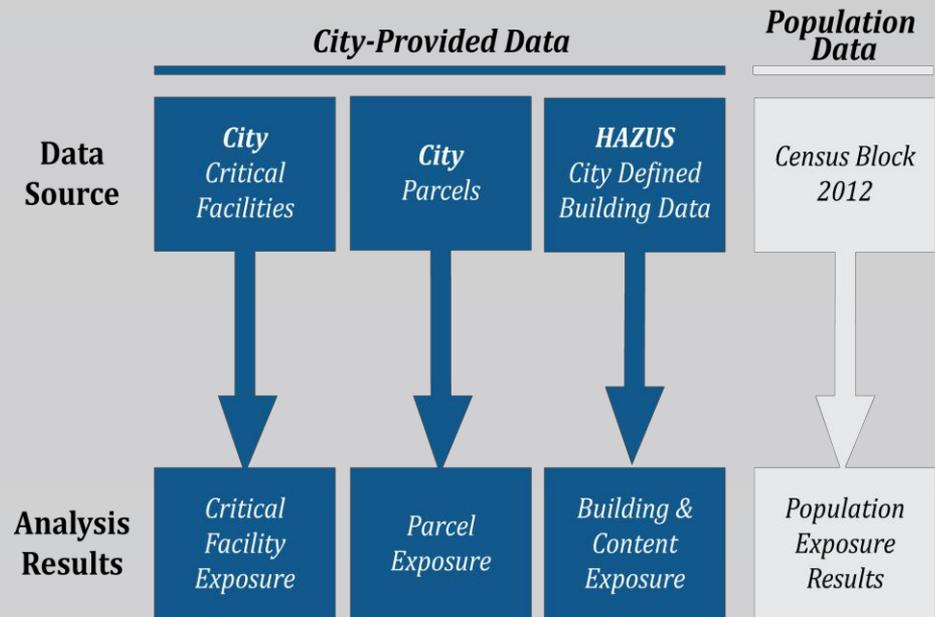
- Validate Critical Facilities / Essential Facilities
- Gather intel on data required for HIRA





Risk Assessment Planning Process

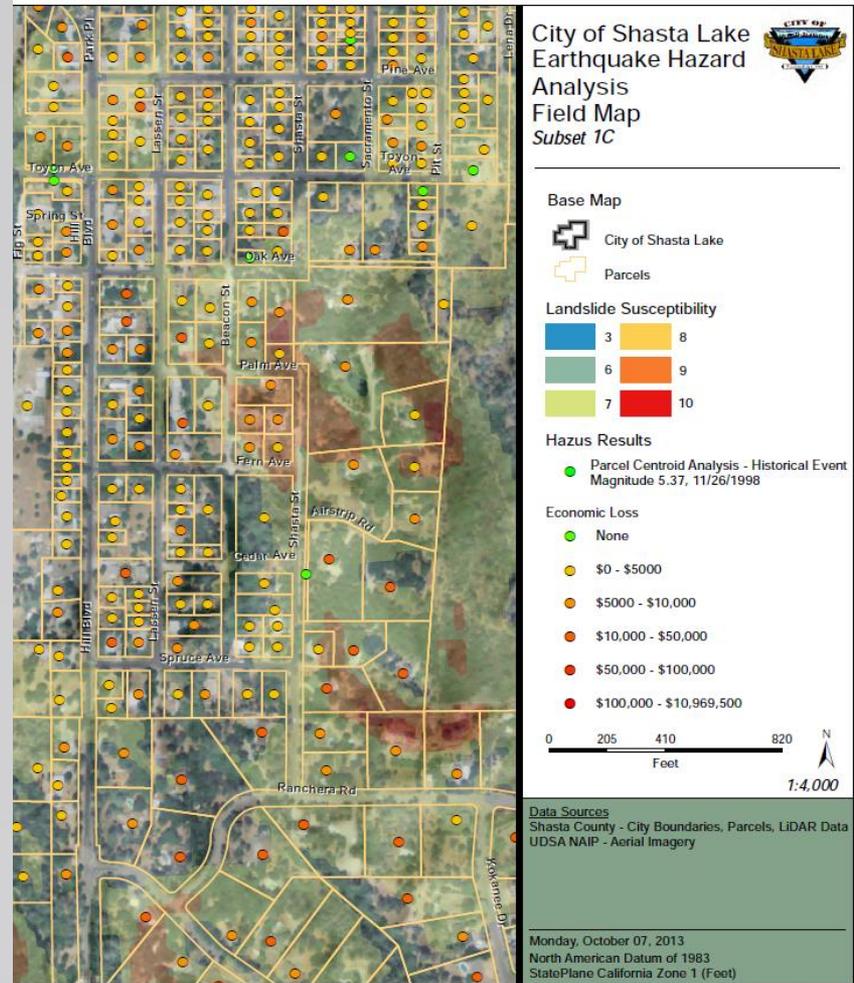
- Develop Population Profiles
- Develop Critical Infrastructure Inventory
- Summarize Vulnerable Assets (Life and Property)
- Estimate Losses
 - Hazus Analysis
 - GIS layering technique for other hazards
- Develop Risk Factor for Profiled Hazards

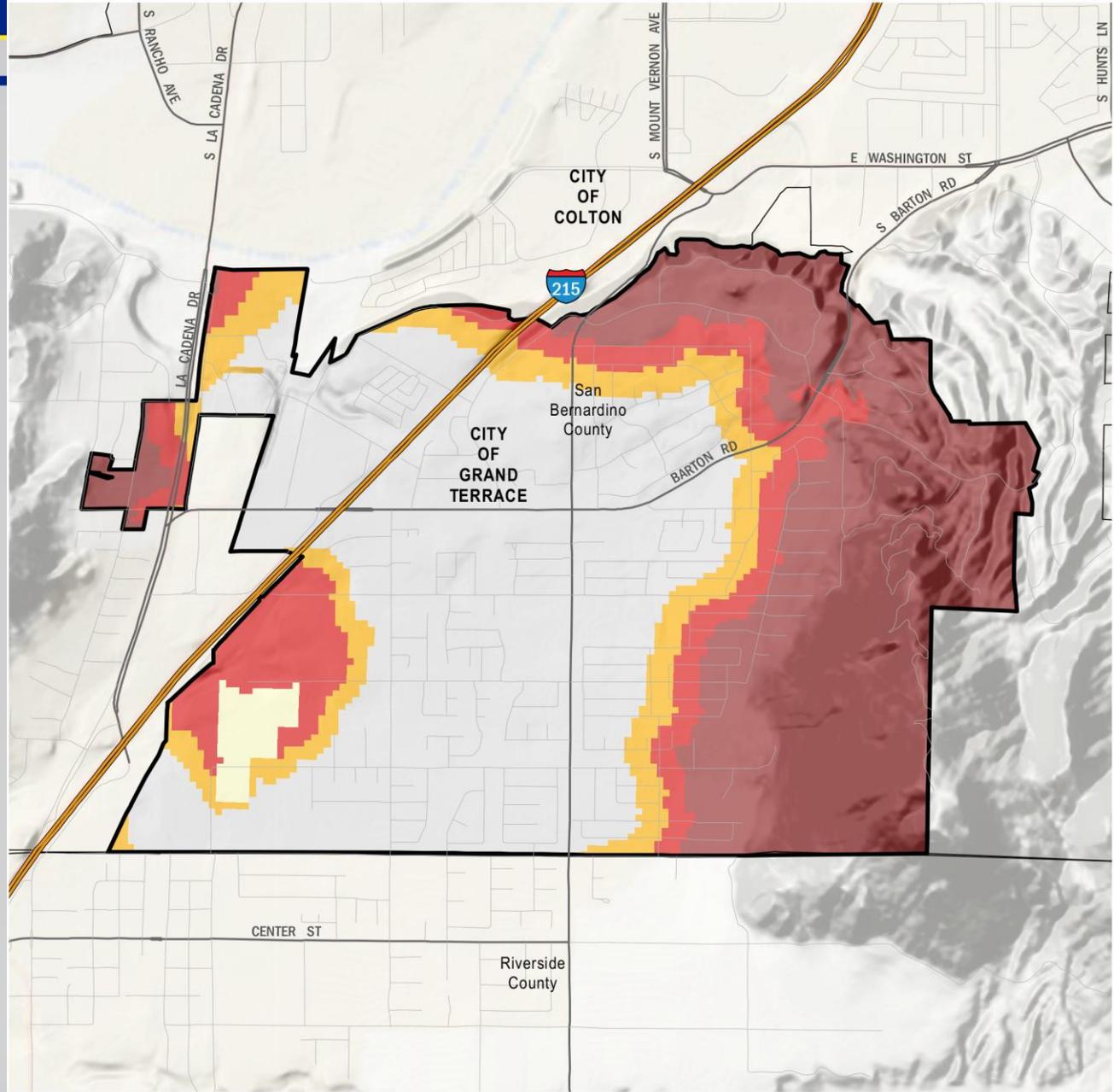




Risk Assessment Planning Process

- Define severity zones and map.
- Develop earthquake scenario.
- Risk Assessment with loss estimation at the parcel level.
- Target High Loss Areas and field verify with rapid screening.
- Define the problem.





0 0.35 0.7 Miles

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LRA Fire Hazard Severity Zone

 Very High

EXPLANATION

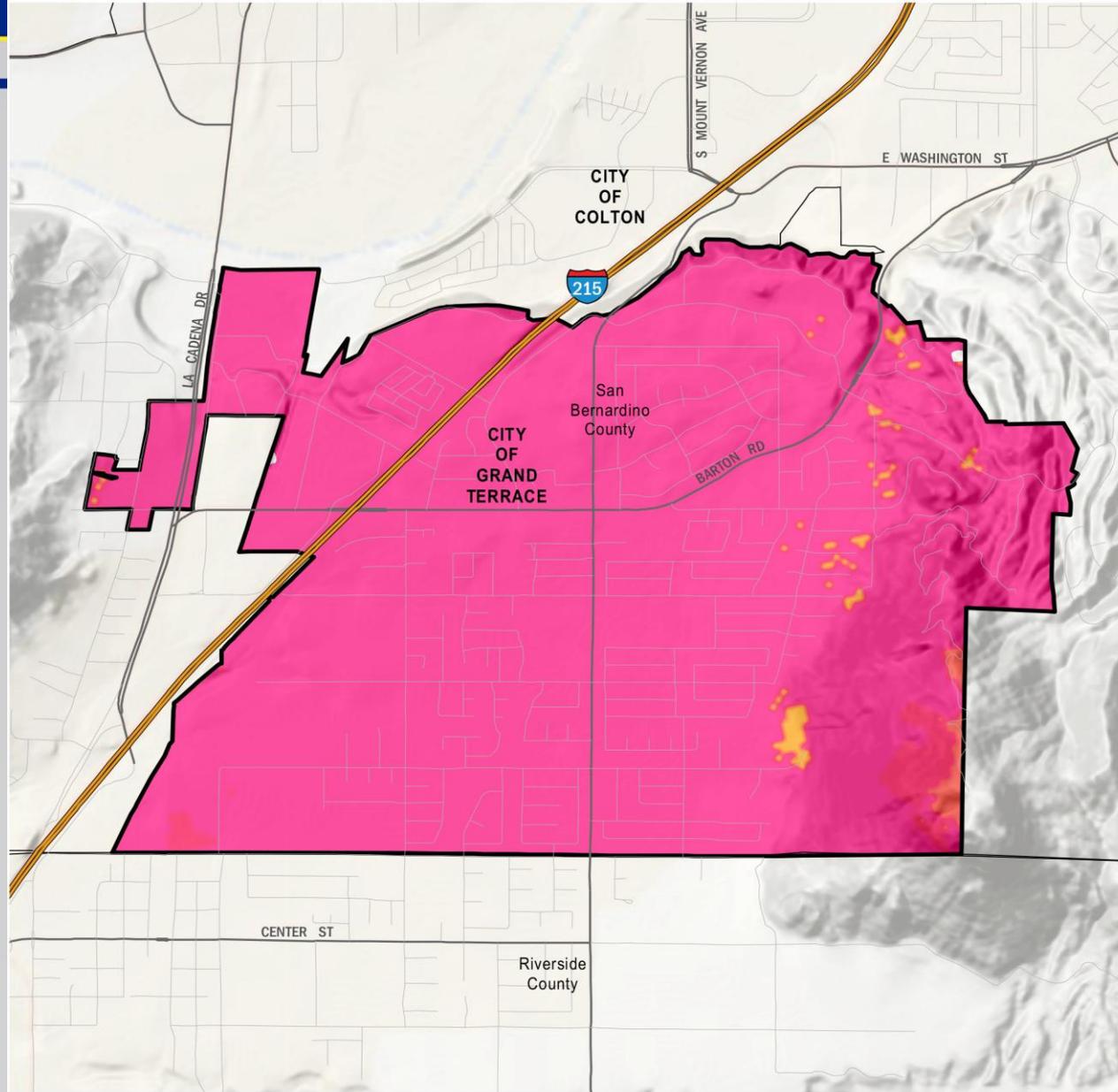
 High

 Moderate

 Non-Wildland/Non-Urban

 Urban, Unzoned





0 0.35 0.7 Miles

EXPLANATION

City of Grand Terrace

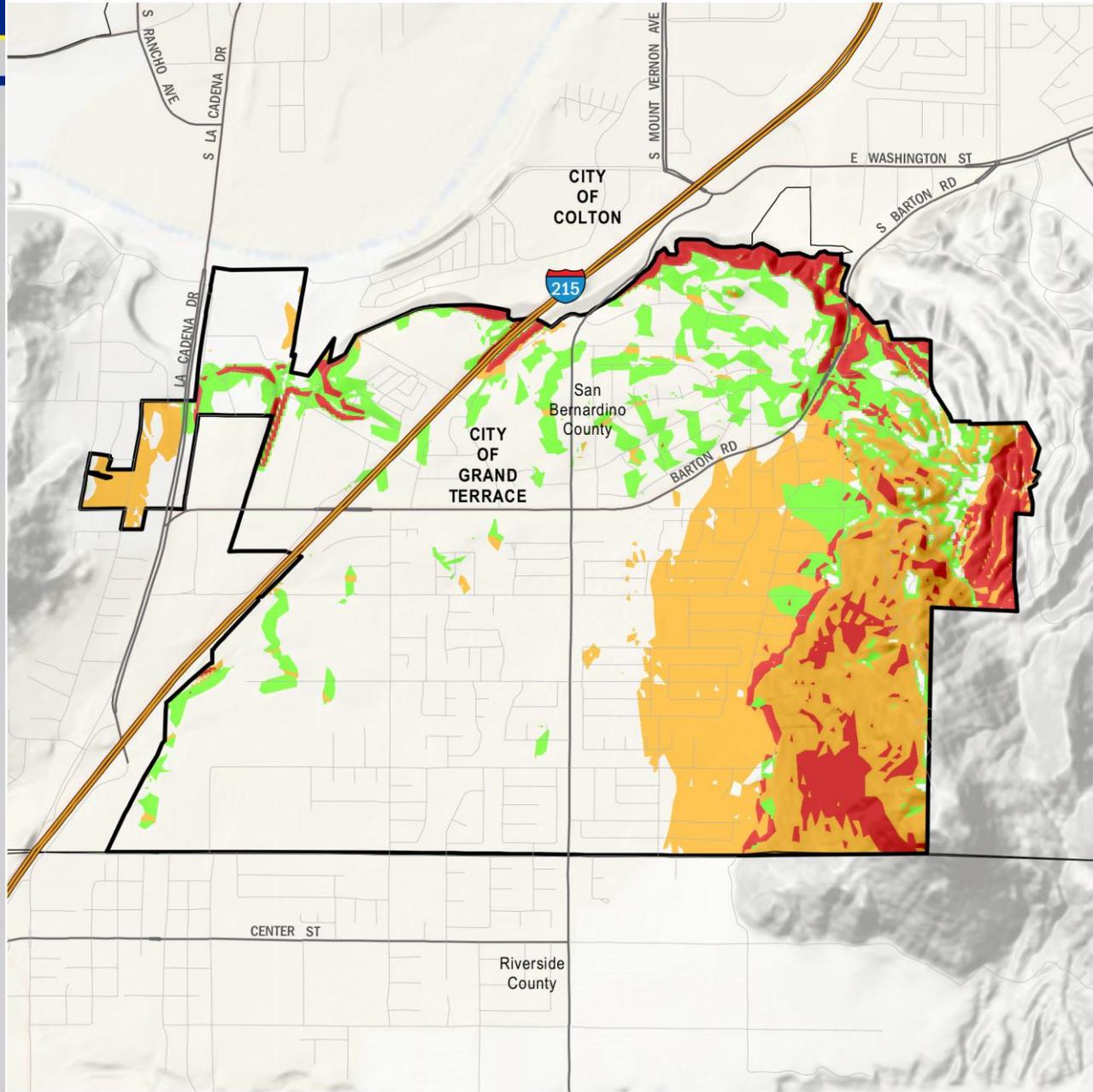
USGS FIRE REGIME

- | | | | | | | | |
|-------------|-------------|-------------|-------------|---------------|---------------|----------------|--------------------|
| 11-15 Years | 26-30 Years | 41-45 Years | 61-70 Years | 91-100 Years | 151-200 Years | 501-1000 Years | Snow/Ice |
| 16-20 Years | 31-35 Years | 46-50 Years | 71-80 Years | 101-125 Years | 201-300 Years | >1000 Years | Barren |
| 21-25 Years | 36-40 Years | 51-60 Years | 81-90 Years | 126-150 Years | 301-500 Years | Water | Sparsely Vegetated |

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0 0.35 0.7 Miles

 City of Grand Terrace

EXPLANATION

Landslide Susceptibility (CGS)
 Low

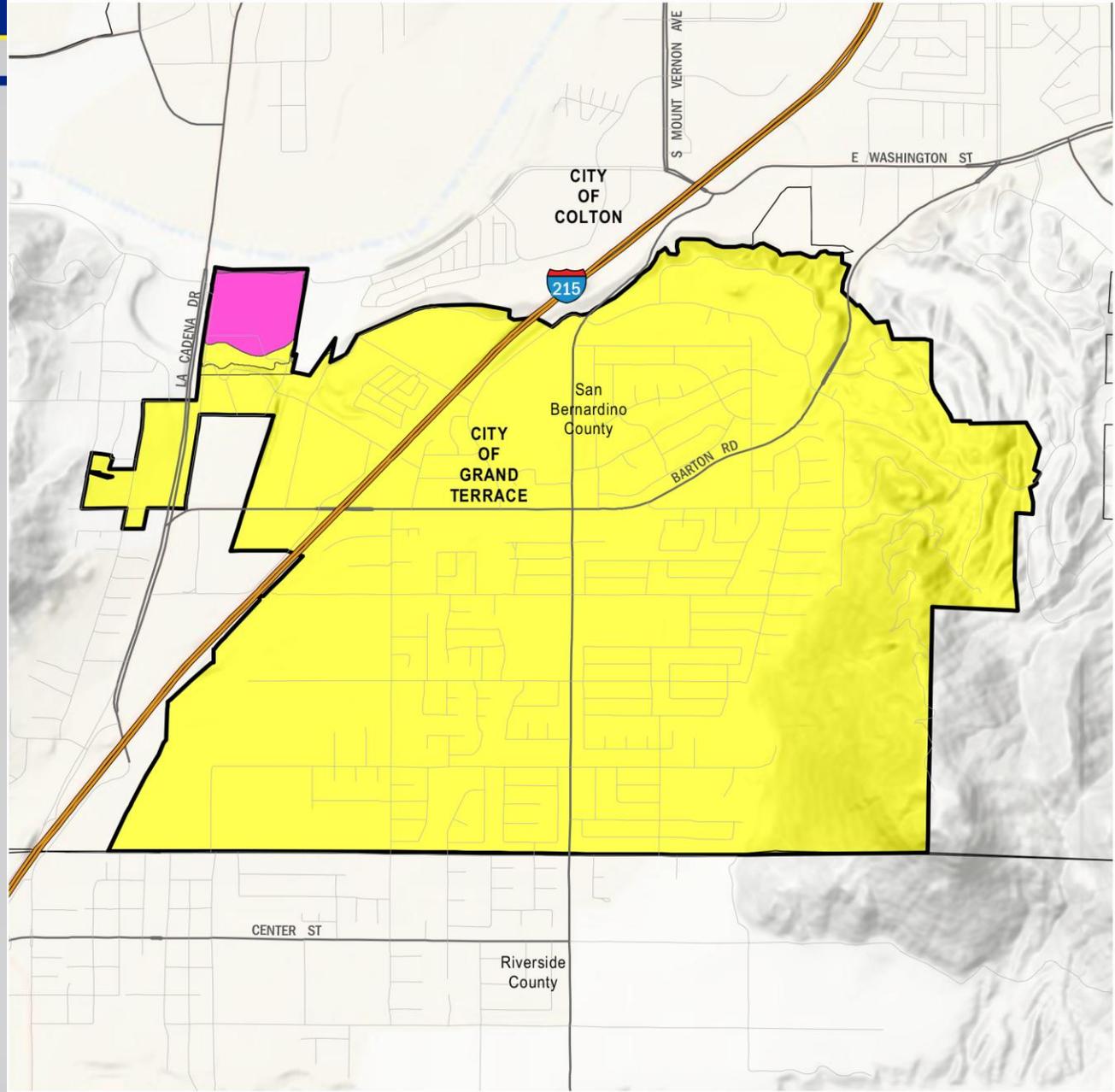
 Medium
 High



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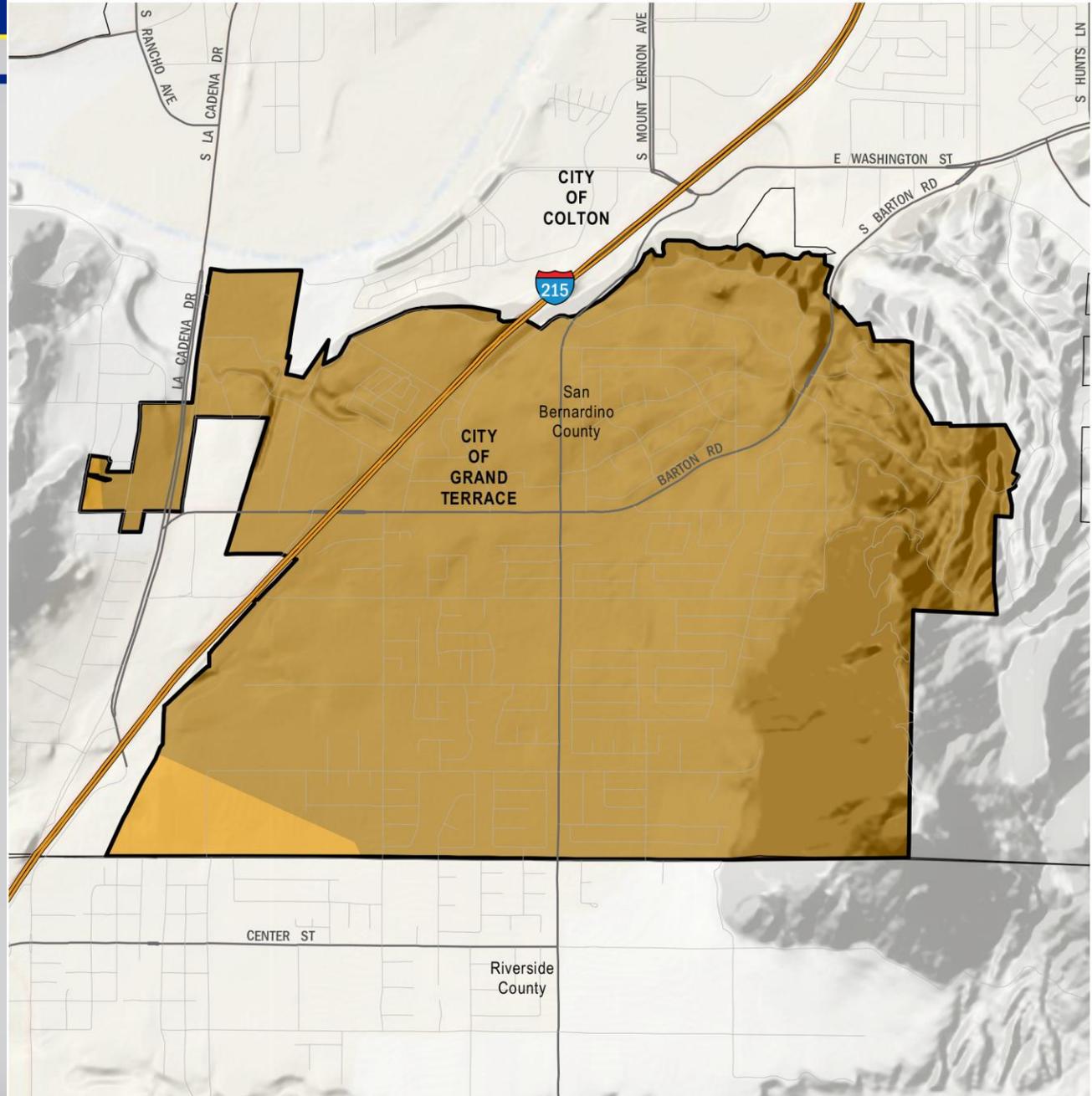
EXPLANATION

100-Year Flood Zone (Floodway)

100-Year Flood Zone

500-Year Flood Zone





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EXPLANATION

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Shakeout Full Scenario [MMI]

 VIII (Severe)

 IX (Violent)





EXERCISE

Hazard Prioritization

Risk Factor Worksheet Development

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