

Appendix B: Planning Process Documentation

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-

**Local Planning Committee - Colorado Springs Hazard Mitigation Plan
Revision - July 29, 2015**



Last Name	First Name	Organization	Email address	Signature
Arroyo	Cindey	Colorado Springs Utilites	carroyo@csu.org	Assigned Group: Terrorism
Barrentine	Jim	Pikes Peak Community College	Jim.Barrentine@ppcc.edu	Assigned Group: Terrorism OR Severe Weather/Geologic Hazards
Blanchard	Tobi	Colorado Springs Office of Emergency Management	tblanchard@springsgov.com	
Boley	Mark	El Paso County Sheriff's Office	MarkBoley@elpasoco.com	
Brady	Mike	Federal Express	mkbrady@fedex.com	
Brenner	Gordon	Colorado Springs Office of Emergency Management	gbrenner@springsgov.com	Facilitator Assigned Group: Flood
Broomfield	Sally	American Red Cross	sally.broomfield2@redcross.org	
Burgard	Tim	Harrison School District 2	tburgard@hsd2.org	Assigned Group: Terrorism OR Severe Weather/Geologic Hazards
Carrier	Will	AECOM	will.carrier@aecom.com	Assigned Group: Wildfire
Chamberlain	Rich	AECOM	rich.chamberlain@aecom.com	Assigned Group: Severe Weather/Geologic Hazards
Corsaro	Cindy	Memorial - UC Health	Cindy.Corsaro@uchealth.org	

**Local Planning Committee - Colorado Springs Hazard Mitigation Plan
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Last Name	First Name	Organization	Email address	Signature
Curtis	Keith	Pikes Peak Regional Building Department	keith@pprbd.org	
Dunn	Ray	Fort Carson	raymond.h.dunn2.civ@mail.mil	
Easton	Travis	Public Works - Engineering	teaston@springsgov.com	Assigned Group: Flood
Edmondson	David	Colorado Springs Police Department	EDMONDMA@ci.colospgs.co.us	Assigned Group: Terrorism
Eller	Paul	Colorado Division of Emergency Management and Homeland Security - Mitigation and	paul.eller@state.co.us	
Evans	Bart	El Paso County	BartEvans@elpasoco.com	
Farkas	Corey	Colorado Springs Public Works - Streets	cfarkas@springsgov.com	Assigned Group: Severe Weather/Geologic Hazards
Force	Jeff	Memorial Hospital - UC Health	jeff.force@ushealth.org	
Frank	Lawrence	AECOM	lawrence.frank@aecom.com	Assigned Group: Terrorism
French	Brigitte	Penrose St Francis	BrigitteFrench@Centura.Org	
Gavelda	Patricia	Colorado Division of Emergency Management and Homeland Security - Mitigation and	Patricia.gavelda@state.co.us	
Gonzales	Tom	El Paso County Public Health - Environmental Health Division	TomGonzales@elpasoco.com	
Gorsich-Bracken	Nancy	South Central Region VOAD	ngorsich@gmail.com	

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Revision - July 29, 2015**



Last Name	First Name	Organization	Email address	Signature
Grady	Brian	Academy School District 20	brian.grady@asd20.org	Assigned Group: Terrorism OR Severe Weather/Geologic Hazards
Griffin-Strickland	Deb	Colorado Springs Utilites	dgriffin@CSU.org	
Hannon	James	USAA	james.hannon@usaa.com	
Hastings	James	School District 11	JAMES.HASTINGSII@d11.org	Assigned Group: Terrorism OR Severe Weather/Geologic Hazards
Hein	Jay	Colorado Springs Parks and Recreation	jhein@springsgov.com	Assigned Group: Wildfire
Howard	Bart	Colorado Springs Office of Emergency Management	bhoward@springsgov.com	Facilitator Assigned Group: Terrorism
Hughlett	Ken	Colorado Springs Utilites	khughlett@csu.org	Assigned Group: Flood
Husted	David	Colorado Springs Police Department	HUSTEDDA@ci.colospgs.co.us	Assigned Group: Terrorism
Inzer	Lonnie	El Paso County OEM	LonnieInzer@elpasoco.com	
Jenkins	Jimmy		Jimmy.R.Jenkins@comcast.net	
Kelley	Brian	Public Works	bkelly@springsgov.com	Assigned Group: Flood

**Local Planning Committee - Colorado Springs Hazard Mitigation Plan
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Last Name	First Name	Organization	Email address	Signature
Korwes	Christopher	Peterson AFB	christopher.korwes@us.af.mil	
Lacey	Brett	Colorado Springs Fire Marshal's Office	blacey@springsgov.com	Assigned Group: Wildfire
Magnuson	Tom	National Weather Service	thomas.magnuson@noaa.gov	Assigned Group: Severe Weather/Geologic Hazards
Martinez	Oscar	United States Forestry Service - Pike and San Isabel National Forest	omartinez@fs.fed.us	Assigned Group: Wildfire
Mitros	Tim	Public Works - Engineering/ Fountain Creek Watershed Flood Control and Greenway District	tmitros@springsgov.com	
Morin	Natalie	Cheyenne School District 12	morin@cmsd12.org	Assigned Group: Terrorism OR Severe Weather/Geologic Hazards
Mouton	Andre	United States Air Force Academy	andre.mouton.2.ctr@us.af.mil	
Pirri	Kimberly	AECOM	kimberley.pirri@aecom.com	Assigned Group: Flood
Poage	David	American Red Cross	david.s.poage@gmail.com	
Quitana	Kenny	Colorado Department of Transportation	kenneth.quintana@state.co.us	Assigned Group: Flood
Roux	Russ	South Central Health Care Coalition	rroux@springsgov.com	

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Last Name	First Name	Organization	Email address	Signature
Sasaki	Caroline	El Paso County OEM	carolinesasaki@elpasoco.com	
Scalfri	David	Colorado Springs Public Works - Streets	dscalfri@springsgov.com	Assigned Group: Severe Weather/Geologic Hazards
Sevey	Anthony	Fort Carson OEM	anthony.h.sevey.civ@mail.mil	
Smith	RC	El Paso County OEM	rsmith@elpasoco.com	
Stanton	David	American Red Cross	dstanton82@icloud.com	
Stoecklein	Tim	University of Colorado at Colorado Springs	tstoeckl@uccs.edu	Facilitator Assigned Group: Severe Weather/Geologic Hazards
Sylvester	Amy	Colorado Springs Fire Marshal's Office	asylvester@springsgov.com	Assigned Group: Wildfire
Teferiller	Ryan	Planning - Land Use Review	rtefertilizer@springsgov.com	
Vigil	Steve	Information Technology - GIS	snvigil@springsgov.com	
Vitwar	David	Colorado Springs Fire Department	dvitwar@springsgov.com	Facilitator Assigned Group: Wildfire
Waldrip	Erik	Cheyenne Mountain Air Force Station	erik.waldrip@us.af.mil	
Walker	Jeremy	Colorado Technical University	jwalker@coloradotech.edu	Assigned Group: Terrorism OR Severe Weather/Geologic Hazards

**Local Planning Committee - Colorado Springs Hazard Mitigation Plan
Revision - July 29, 2015**



Last Name	First Name	Organization	Email address	Signature
Waters	Bret	Colorado Springs Office of Emergency Management	bwaters@springsgov.com	
Watson	David	School District 49	dwatson@d49.org	Assigned Group: Terrorism OR Severe Weather/Geologic Hazards
Will	Dennis	Colorado Springs Parks and Recreation	dwill@springsgov.com	Assigned Group: Wildfire
Wysocki	Peter	Planning - Land Use Review	pwysocki@springsgov.com	



City of Colorado Springs Pre-Disaster Mitigation Plan Revision Pre-Kickoff Meeting Conference Call

**April 16, 2015
10:00 am to 12:00 pm MDT**

AGENDA

1. Introductions: roles and responsibilities
2. Any contractual business
3. Plan Revision schedule and process
4. Plan Revision participants
 - a. Local Planning Committee (have jurisdictional authority in COS)
 - b. Initial identification of key stakeholders
5. PDMP data needs for identified hazards including human-caused
 - a. GIS Data Needs
 - b. Hazus Data Needs – Matrix Flood Inundation Study, Latest DEM
6. Other Plans of note that need to be reviewed
7. Kickoff meeting date, invitations and materials discussion
8. Public Outreach Strategy Framework
9. Next Steps



Local Planning Committee (Local Jurisdictional Authority)

- Office of Emergency Management
- Fire Department
- Police Department
- Planning and Development
- City Engineering/Stormwater
- Colorado Springs Utilities
- El Paso County Office of Emergency Management (include here or as Stakeholder?)
- Pikes Peak Regional Building Department
- Pikes Peak Metropolitan Medical Response System

Stakeholders

- Downtown Business Partnership
- Peterson Air Force Base
- US Air Force Academy
- Cheyenne Mountain Air Force Station
- USAA
- Federal Express
- Fountain Creek Watershed Flood Control and Greenway District
- Pikes Peak Community College
- University of Colorado at Colorado Springs
- Colorado State departments (DHSEM and CDOT)
- Other El Paso County departments?
- Non-profits?
- State and National Parks?
- Other Regional agencies?

Plans

- Updated comprehensive plan
- Capital Improvement budget/plan
- 2011 Colorado Springs Community Wildfire Protection Plan
- Recovery plans
- 2012 Colorado Springs Emergency Preparedness and Safety Guide
- 2007 Emergency Operations Plan
- Local by-laws, building codes, and zoning ordinances
- Shook's Run Drainage Basin Planning Study



GIS Data

Data	Source	Notes (scale, vintage, etc.)
<i>Aerial & Elevation</i>		
Aerial Photography	City, CSU	
Digital Elevation Model	CSU	
<i>Boundaries</i>		
County Boundary	City	
Municipal Boundaries	City	
Districts	City, CSU, El Paso County	
Zoning	City	
Land Use	City	
Future Land Use	City	
Zip Codes	City	
<i>Inventory</i>		
Parcels	CSU	
Assessor's Data	CSU	
Building Footprints	CSU	
Street Trees	City	
Snow Routes	City	
<i>Natural Features</i>		
Streams, Lakes (Hydrography)	Stormwater	
<i>Critical Facilities</i>		
Roads	City	
Police Stations	City	
Fire Stations	City	
Schools	City	
Hospitals	City	
Airports	City	
Bridges	City	
Dams	City	
Water Facilities	City	
Wastewater Facilities	City	
Communications Facilities	City	
EOCs	City	
Government Buildings	City/CSU	
Levees	City/CSU	
Powerplants or Substations	City	
<i>Hazards Data</i>		
Flood Hazard Zones	City	
Earthquake Data	City/USGS	



Data	Source	Notes (scale, vintage, etc.)
Wildfire (Burn Areas)	City/CSU	
Wildland Urban Interface Areas	City	
Rockfall		
Landslide		
Subsidence		
Hazmat Facilities	City	



City of Colorado Springs Pre-Disaster Mitigation Plan Revision GIS Data Needs – May 21, 2015



Data	Source	Notes (scale, vintage, etc.)
<i>Aerial & Elevation</i>		
Aerial Photography	City, CSU	
Digital Elevation Model	CSU	
<i>Boundaries</i>		
County Boundary	City	
Municipal Boundaries	City	
Districts	City, CSU, El Paso County	
Zoning	City	
Land Use	City	
Future Land Use	City	
Zip Codes	City	
<i>Inventory</i>		
Parcels	El Paso County	
Assessor's Data	El Paso County	
Building Footprints	El Paso County	
Street Trees	El Paso County	
Snow Routes	El Paso County	
<i>Natural Features</i>		
Streams, Lakes (Hydrography)	Stormwater	
<i>Critical Facilities</i>		
Roads	City	
Police Stations	City	
Fire Stations	City	
Schools	City	
Hospitals	City	
Airports	City	
Bridges	City	
Dams	City/CSU	
Water Facilities	City/CSU	
Wastewater Facilities	City/CSU	
Communications Facilities	City	
EOCs	City	
Government Buildings	City/CSU	
Levees	City/CSU	
Powerplants or Substations	CSU	
<i>Hazards Data</i>		
Flood Hazard Zones	PPRBD	
Earthquake Data	City/USGS	
Wildfire (Burn Areas)	City/CSU	
Wildland Urban Interface Areas	City	
Rockfall	CSGS	
Landslide	CSGS	
Subsidence		
Hazmat Facilities	City	



**City of Colorado Springs
Pre-Disaster Mitigation Plan (PDMP) Revision
Kickoff Meeting**

**May 12, 2015
1:00 pm to 3:00 pm MDT**

AGENDA

1. Welcome and Remarks – Bart Howard, Office of Emergency Management (OEM)
2. General Introductions
3. Introduction of AECOM Team – Kim Pirri, AECOM
4. Purpose and overview of mitigation planning and Colorado Springs PDMP – Lawrence Frank, AECOM
5. Purpose and roles of the Local Planning Committee and Stakeholders – Lawrence Frank
6. Baseline Survey
7. Local Mitigation Planning Process – Lawrence Frank
 - a. Themes/Concepts
 - b. List of Hazards
 - c. Data Collection
 - d. Plans to Review
 - e. Past Goals and Actions
8. Detailed Survey and Discussion
9. Plan Revision schedule – Lawrence Frank and OEM
 - Chart out next two meetings
10. Public Outreach Strategy Framework – Lawrence Frank
11. Next Steps

Pre-Disaster Mitigation Plan Kickoff Meeting



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Agenda

- OEM Welcome and Remarks
 - General Introductions
 - Introduction of AECOM Team
- Purpose and overview of mitigation planning and COS PDMP
- Purpose and roles of the Local Planning Committee and Stakeholders
 - Baseline Survey
- Local Mitigation Planning Process
 - Detailed Survey and Discussion
- Plan Revision schedule including next two meetings
- Public Outreach Strategy Framework
 - Next Steps



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Purpose and Overview of Mitigation Planning and COS PDMP



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Emergency Management Cycle



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Mitigation is...

Sustained action taken to reduce or eliminate long-term risk to human life and property from natural and human caused hazards



Photo Credit: Colorado Springs OEM



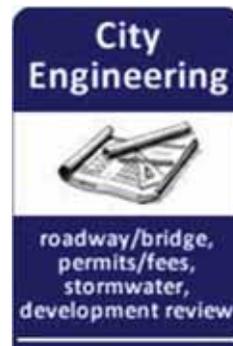
Photo Credit: Colorado Springs OEM



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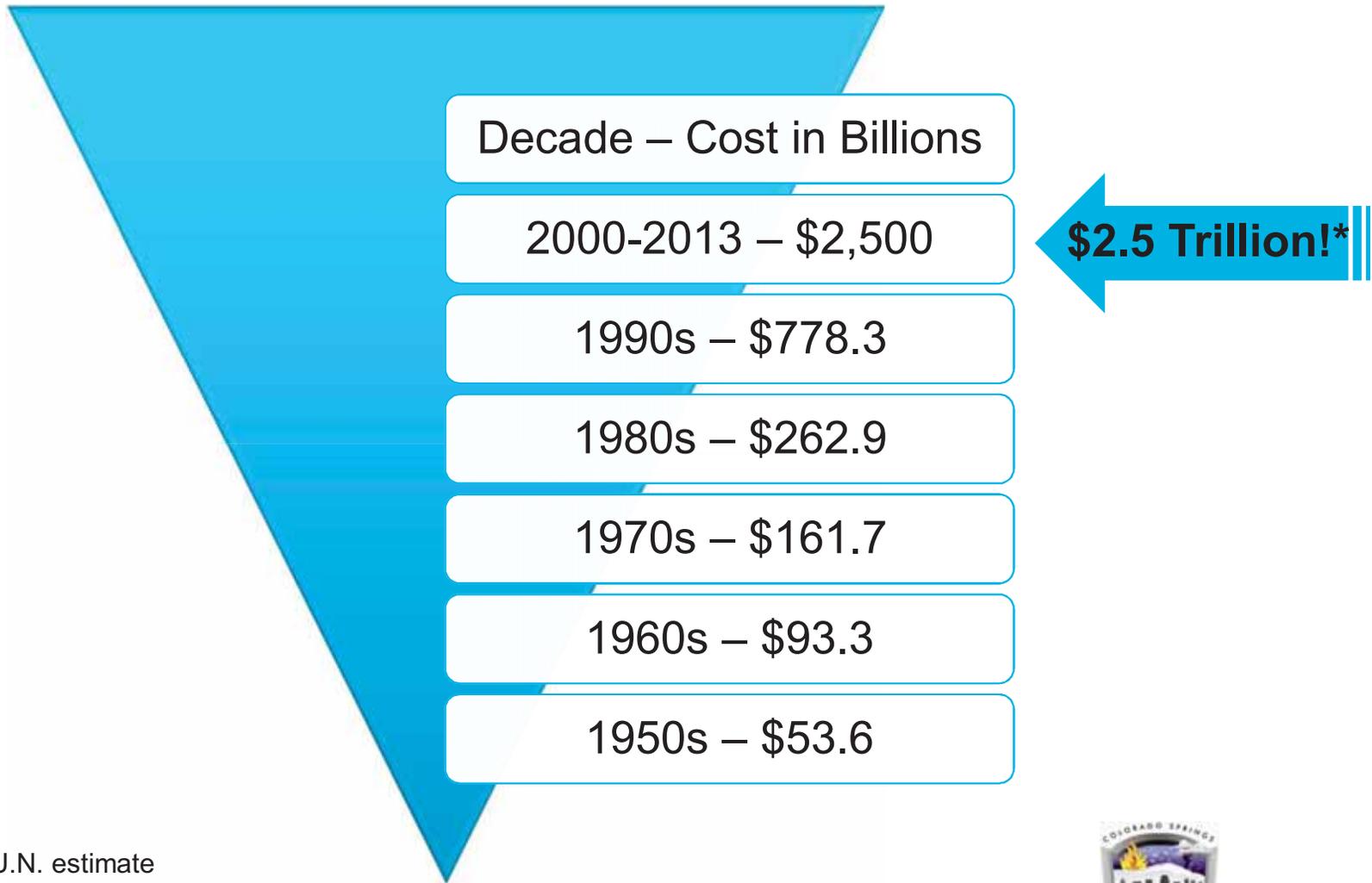
Mitigation is...

Partnerships to combine efforts to reduce the risk of hazards in the community.



Increasing Disaster Costs

Worldwide Economic Losses from Natural Disasters



*from a U.N. estimate



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Increasing Disaster Costs

Most Costly Non-Flood Catastrophes in the Rocky Mountain Region

Year	Peril	Insured Loss	Insured Loss in 2014 Dollars
July 20, 2009	Hail and wind – Denver Metro	\$767.6 M	\$844.9 M
July 1990	Hail-Colorado	\$625 M	\$1.1 Billion
June 2012	Wildfire - Colorado Springs (Waldo Canyon)	\$453.7 M	\$466.7 M
June 2013	Wildfire - Black Forest, Colorado	\$420.5 M	\$426.3 M

Source: Rocky Mountain Insurance Information Association



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Disaster Mitigation Act of 2000

- Encourages and facilitates Local/State planning
- Requires a hazard mitigation plan to maintain eligibility for FEMA mitigation funds
- Enables effective risk reduction
- Creates public forum for hazard mitigation



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Benefits of Mitigation Planning

- Identifies community policies/actions for risk reduction
- Communicates priorities to state and federal officials
- Builds partnerships and efficiencies
- Helps institutionalize mitigation
- Helps creates disaster resilient communities by preparing now to reduce impact of future disasters



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Benefits of Mitigation Planning

- Can help achieve multiple community objectives
- Eligibility and/or preparation for Grant Programs...
 - Hazard Mitigation
 - Pre-Disaster Mitigation
 - Flood Mitigation Assistance
 - HUD Recovery (CDBG-DR) programs
 - Others
- Synergies – How can we do more?



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Examples of Mitigation Project Categories

- Preventive
- Property Protection
- Public Education and Awareness
- Natural Resource Protection
- Emergency Services Protection
- Structural Projects

Photo Credit: Colorado Springs OEM



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Colorado Springs PDMP – 2015 Plan Revision

- Chapter 1 Introduction
- Chapter 2 Community Profile
- Chapter 3 Planning Process
- Chapter 4 Risk Assessment
- Chapter 5 Mitigation Strategy
- Chapter 6 Plan Maintenance
- Appendices



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Colorado Springs PDMP – 2015 Plan Revision

- How Mitigation Planning is distinct from other on-going efforts
- Challenges
 - Cross-disciplinary (requires multiple partners to succeed)
 - Scarce resources
 - Competes with other worthy issues
 - Disaster amnesia



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Purpose and Roles of the Local Planning Committee and Stakeholders



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Who is what?

–Local Planning Committee

- Municipal Agencies – You have the jurisdictional authority to implement mitigation
- Input is **significant!**

–Stakeholders

- Community representatives – A broader audience affected by the implemented mitigation
- A force-multiplier on the LPC, with grass-roots knowledge and leadership
- Input is **significant!**



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Local Planning Committee Role and Responsibilities

- Provide data and institutional knowledge
- Communicate plan goals and progress with agency/department
- Review risk assessment and critique vulnerability analysis
- Update the mitigation strategy and prioritize mitigation actions
- Help promote mitigation and resiliency within community
- Review and provide comments on draft plan
- For actions within your jurisdiction, help implement them



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Stakeholders

Role and Responsibilities

- Provide data and institutional knowledge
- Communicate and promote plan goals and progress with constituency
- Review risk assessment and critique vulnerability analysis
- Update the mitigation strategy and prioritize mitigation actions
- Help promote mitigation and resiliency within community
- Review and provide comments on draft plan



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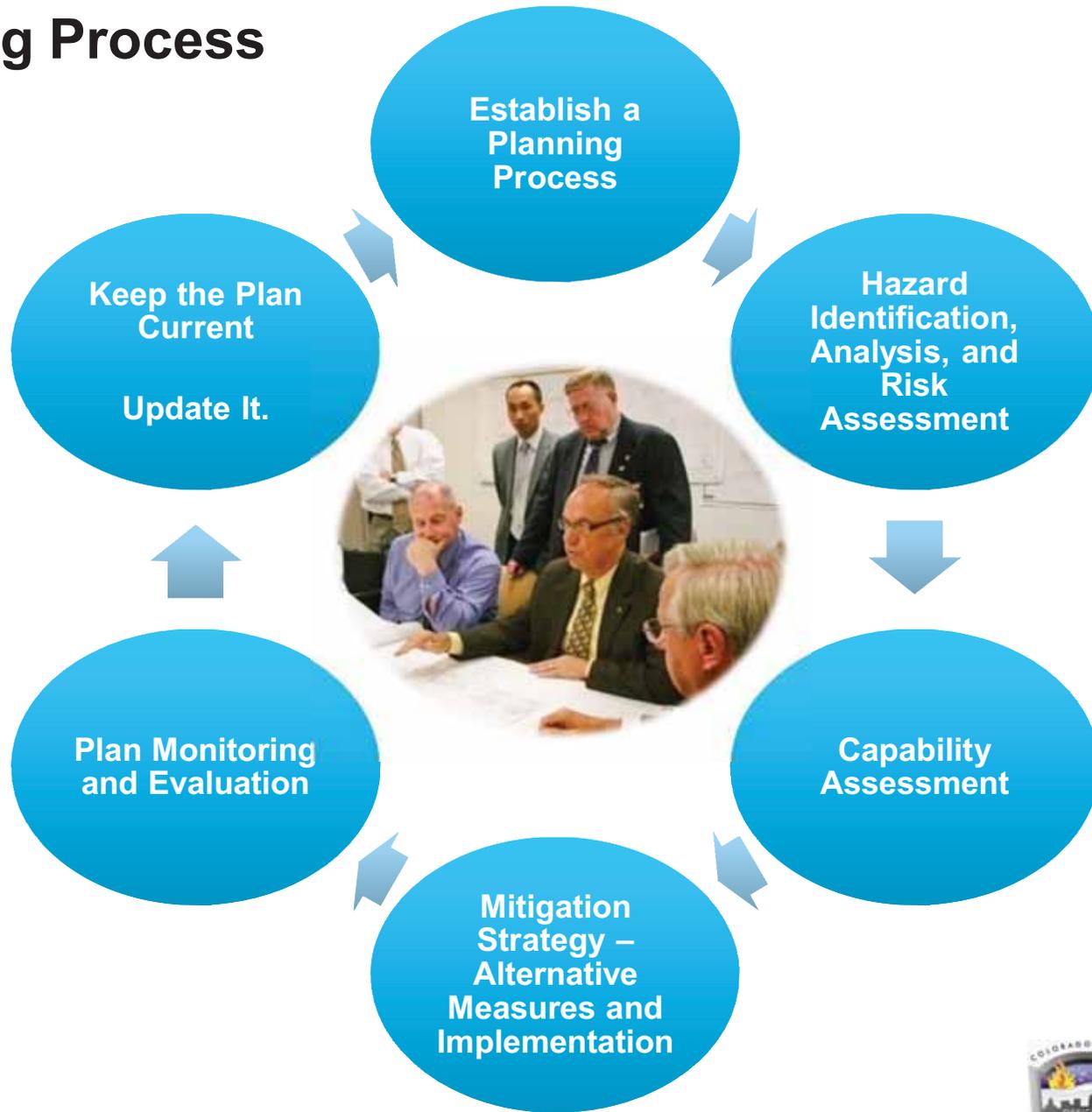
Baseline Survey (10 minutes)

Local Mitigation Planning Process



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Planning Process



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Desired Outcomes

- FEMA compliant plan
 - Accrue CRS points
 - Receive EMAP mitigation credit
- Build on momentum from recovery
- Enhance working relationships
- Clear sense of priority
- Risk and potential actions communicated to community, including public and elected officials
- Make it compelling and interesting to the public



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Planning Themes

- Public-private partnerships
- Make floodplains an amenity – nature trail with flood buffer (natural function of the floodplain)
- Proactive long term approaches and enhanced readiness posture (can react to events better)
- Engage the whole community (public, business, non-profit, military)



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Planning Themes

- Integrate mitigation into other local planning mechanisms
- To the extent possible, make mitigation a consideration in day-to-day community business and when making capital investments
- Opportunities to piggyback a mitigation project onto another infrastructure project (e.g., road reconstruction plus drainage system upgrade)
- Get as many uses out of your capital, your land, and your infrastructure as possible



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Planning Themes

- Combined talent, authority, energy, experience and capability as a committee to do what would not be possible with everyone on their own
- Address immediate risks while also laying groundwork to approach on-going, long-term risk
- Leverage funding opportunities



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Planning Themes - Integration

- Integration into local planning mechanisms
 - Consider natural hazards information (past events, impacts and vulnerabilities)
 - Identify hazard prone areas
 - Identify inconsistencies, gaps, and recommendations
 - Add into plans like comprehensive plan and capital improvement budgeting process
- Integration between departments
 - Involve key community officials with authority to execute policies and programs
 - Collaborate across departments to share knowledge and build relationships for successful implementation

Photos Credit: FEMA Region III



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Risk Assessment

Risk: Intersection of Hazard, Vulnerability and Capability

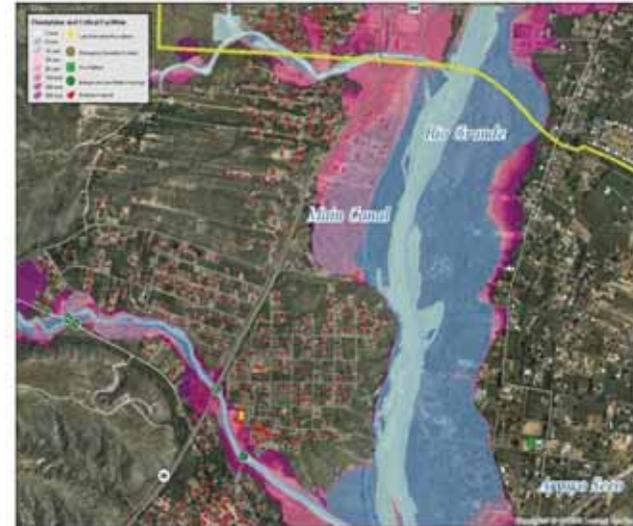


Photo Credit: NASA



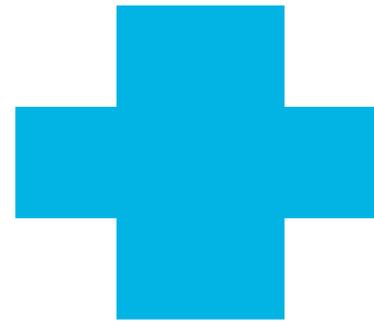
Identifying the Hazards

2010 PDMP Update included:

- Dam and Levee Failure
- Drought
- Earthquake
- Flood
- Hail
- Landslide
- Lightning
- Severe Winter Storm
- Tornado
- Wildfire
- Windstorm
- Human-caused hazards

2015 PDMP Revision:

- Updates all those hazards



- **Flood after Fire**
- **More detail on:**
 - **Human-caused hazards**
 - **Terrorism**



Hazard Profile in the Risk Assessment

- Hazard Description
- Geographic Location / Spatial Extent
 - Using best available data, depict and describe areas at risk
 - Focus on increased risk from flooding post-wildfire
- Previous Occurrences
- Probability and Extent of Future Occurrences
- Magnitude / Severity
 - Determine what is at risk – especially critical facilities and critical infrastructure
- Vulnerability Assessment
- Damage Estimates (for certain hazards, using Hazus)



Data Sources for Hazard Analysis

- Local GIS data
- National Oceanic and Atmospheric Administration (NOAA)
- National Weather Service (NWS)
- SHELDUS – Spatial Hazard Event and Loss Database
- NCDC – National Climatic Data Center
- Western Regional Climate Center
- Others specific to hazard



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EARTHQUAKE • WIND • FLOOD

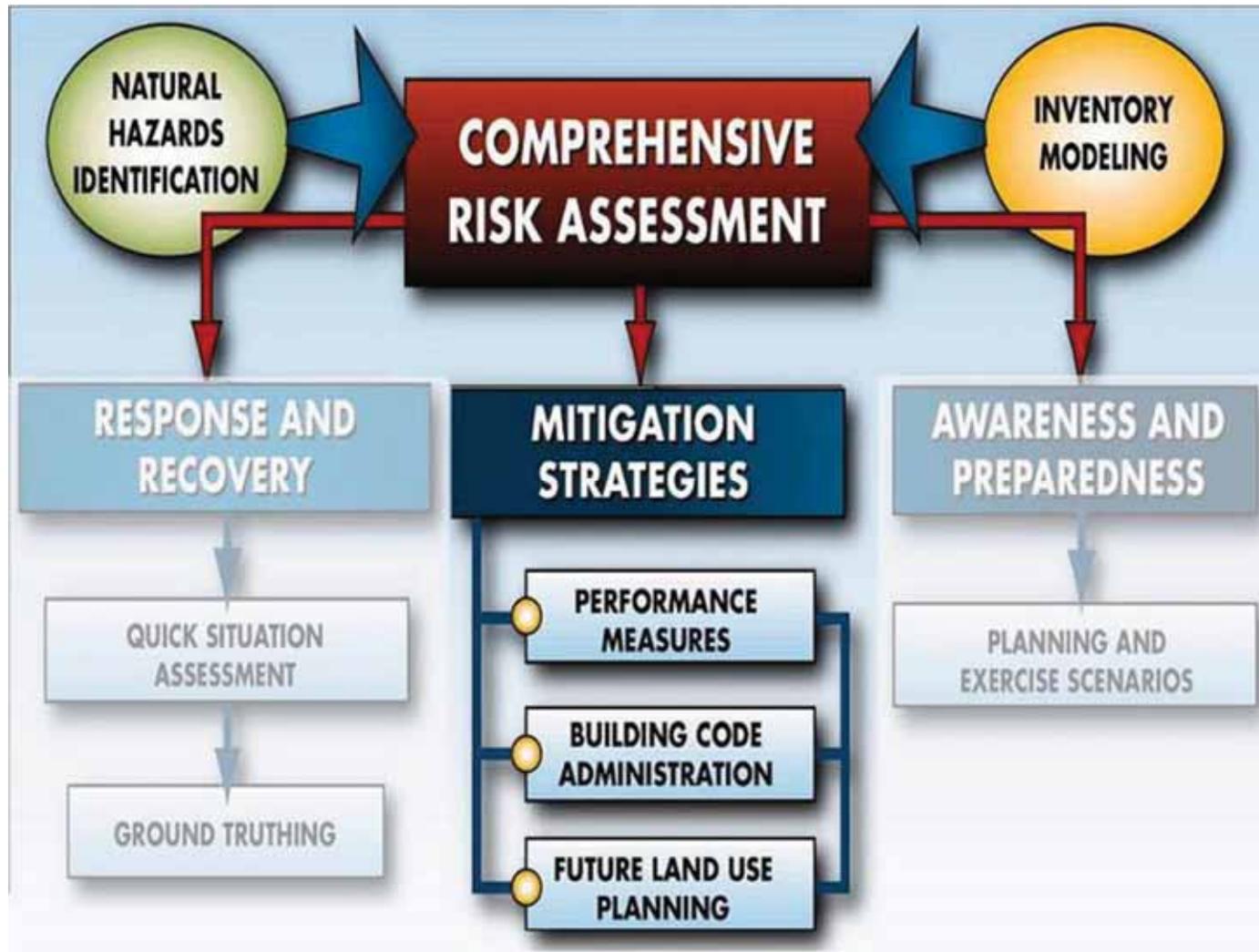
***FEMA's Software Program for
Estimating Potential Losses from
Natural Disasters***



FEMA

FEDERAL EMERGENCY MANAGEMENT AGENCY

How Hazus fits into the Planning Process...





Example Hazus Output...

Flood Model

Estimated Losses

Name	Building Damage %	Content Damage %	Structure Loss USD (In Thousands of Dollars)	Contents Loss USD (In Thousands of Dollars)	Days To 100 Pct Functionality
Cottonwood Christian	6.10	33.03	\$29.56	\$160.18	480
Evans Elementary	7.26	39.92	\$35.19	\$193.61	480
Police Dept	8.63	14.50	\$117.14	\$295.44	480
Alamosa Fire Dept	8.63	14.50	\$50.20	\$126.62	480
TOTAL CRITICAL FACILITY LOSS			\$232.10	\$775.85	

Plans to Review

- Approved City Comprehensive Plan
- Capital Improvement budget/plan
- 2011 Community Wildfire Protection Plan
- Recovery plan (being revised)
- 2012 Colorado Springs Emergency Preparedness and Safety Guide
- 2014 Emergency Operations Plan
- Local by-laws, building codes, and zoning ordinances
- Shook's Run Drainage Basin Planning Study
- Colorado State Mitigation Plan
- Colorado Resiliency Framework

➔ **ARE THERE MORE TO CONSIDER???**



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Past Mitigation Goal, Objectives, and Actions

- Reduce or eliminate the exposure to property damage, injury or loss of life, and damage to the natural environment caused by natural hazards.
 - Identify and initiate improvements to public safety, response, and recovery programs to reduce risk and vulnerability.
 - Follow through with and leverage existing organizations, programs, and procedures to implement the PDM Program.



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Past Mitigation Goal, Objectives, and Actions

- Build upon existing public outreach efforts to reduce risk and vulnerability to natural hazards.
- Leverage external financial assistance and other resources to strengthen the City's disaster resiliency.
- Continue to improve the regulatory review process for development and construction in the vicinity of known natural hazard areas.
- Continue to assess ongoing disaster preparedness programs that maintain or improve City preparedness.



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Results of Baseline Survey and Detailed Survey (20 minutes)

Plan Revision Schedule

- Two more meetings for LPC and Stakeholders
 - Risk Assessment Meeting
 - Mitigation Strategy Meeting



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Public Outreach Strategy Framework



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Who to Involve

– Considering a few more stakeholders:

- Downtown Business Partnership
- Non-profits
- Environmental Groups
- US Forest Service

– General public



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How to Involve Them

- Already have organized wildland fire preparedness drills and flash flood preparedness meetings
- Survey
- **Information available at the “Community Emergency Preparedness Night” at the May 31st Sky Sox game**
- Public Meetings
- Stakeholders promote preparedness and resiliency among constituencies
- Post notifications and draft plan on OEM website (and others)
- Other preferred and successful outreach modes
 - Social media



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Next Steps

Action Items for LPC:

- Confirm dates for next two meetings
- Review 2010 actions
- Known hazard events from 2010-2015
- Recent/New Mitigation actions completed by your organization
 - Projects triggered by recent fires (recovery, HUD, HMGP)
 - Post-fire flood recovery



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Next Steps

Action Items for Stakeholders:

- Confirm dates for next two meetings
- Promote your participation in the planning process within your agency
- Recent/New Mitigation actions completed by your organization
 - Projects triggered by recent fires (recovery, HUD, HMGP)
 - Post-fire flood recovery



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Questions???



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