Integration with Local Planning Efforts: Linkages with Community Planning

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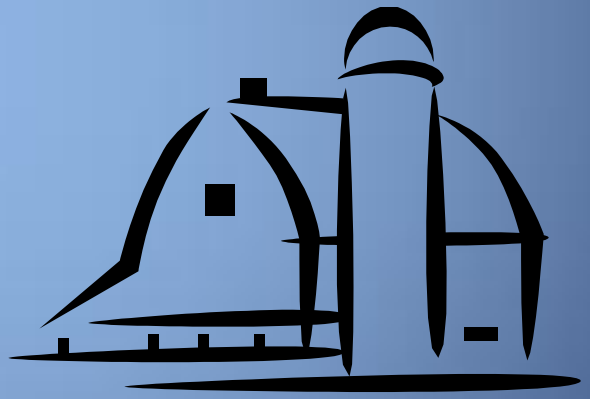
Natural Hazard Mitigation Association

August 6, 2014

NHMA

Natural Hazard Mitigation Association

Managing Disaster Recovery by Smokestacks and Silos



Benefits of Plan Integration

- Reduction in long-term loss prevention
- Formation of beneficial partnerships
- Expansion of external funding opportunities
- Facilitate quicker recovery (speed versus deliberation)
- Resolution of issues locally and not by external parties

More Benefits

- Avoids duplication of efforts
- Avoids conflicts in policy matters and procedures
- More effective utilization of scarce resources
- In state like Florida, Comprehensive plans have the force of law. Integration into comp plan puts teeth in mitigation.

Obstacles to Achieving Plan Integration

- “It has always been thus.”
- Challenges centers of power.
- Challenges “big egos”
- Moving bureaucracy – slow, slower, slowest

Keys to Overcoming the Obstacles

- “Doggedness”
- Patience and Persistence
- Long-term Commitment
- “Stay the course”
- Don’t expect rapid reversal of old ways
- Creating collaborations
- Documenting success – “4 to 1 benefit”

Florida Plan Integration Initiative

Reasons for Initiative

Charley
Frances
Jeanne
Ivan
Wilma

Highlands County, FL

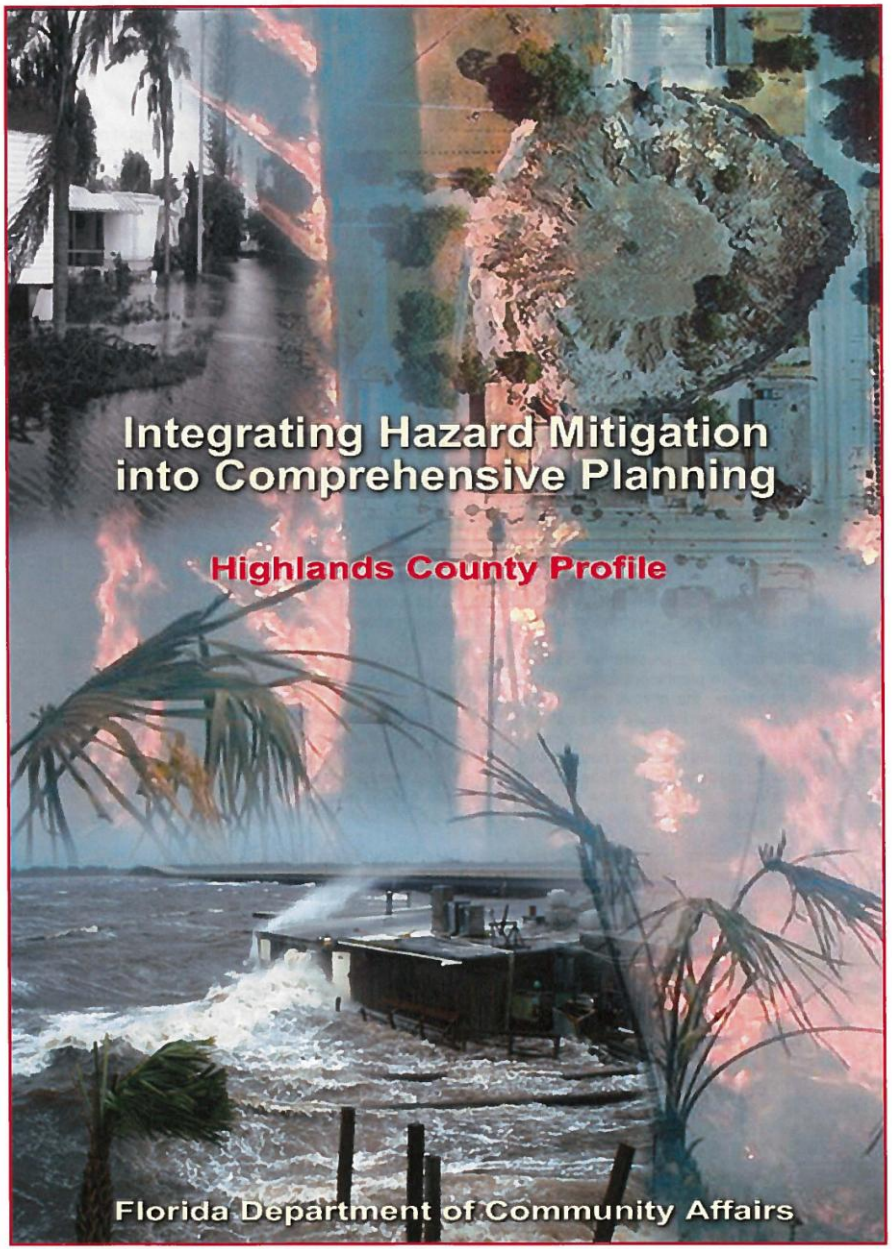
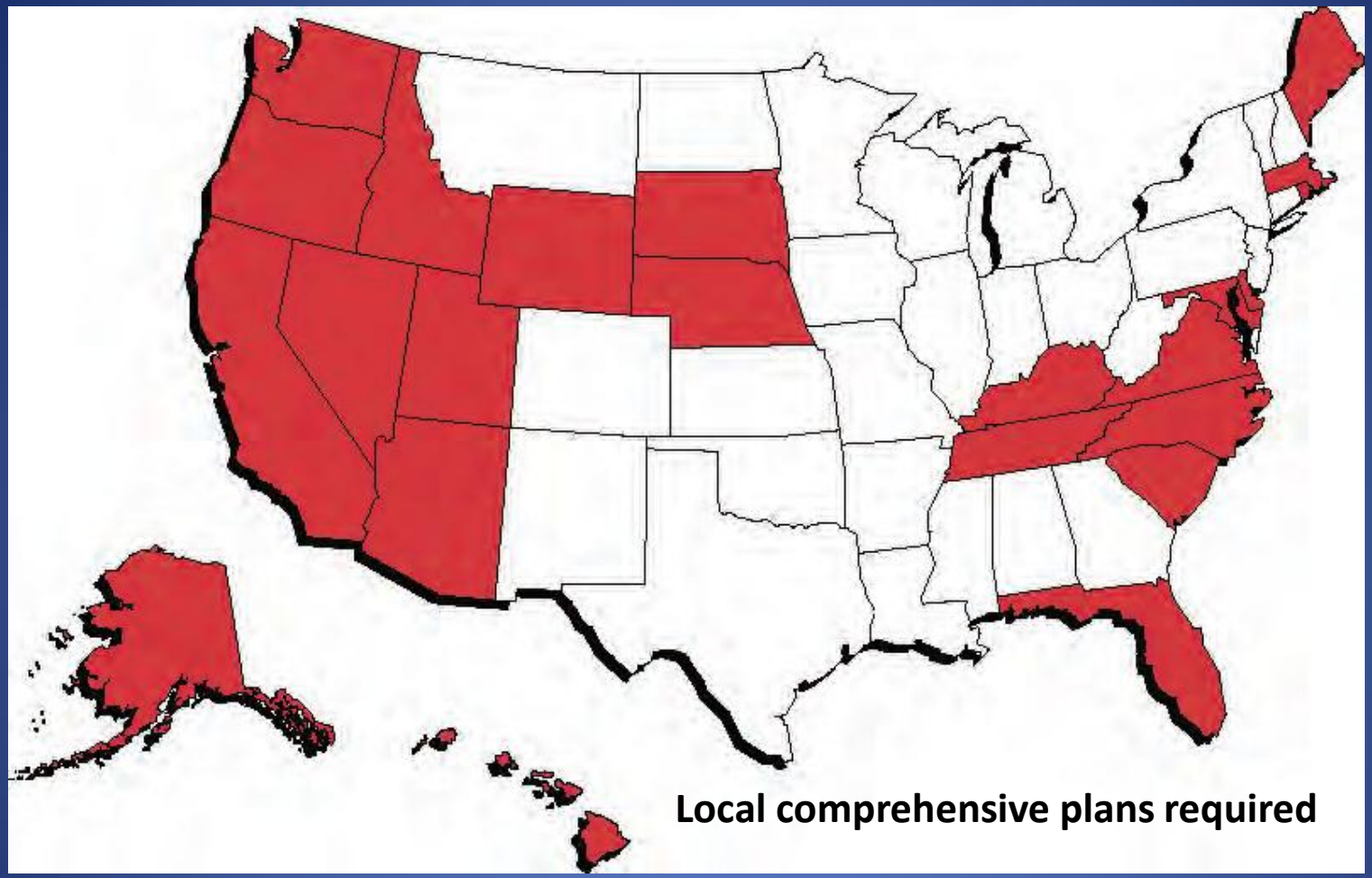


Table of Contents

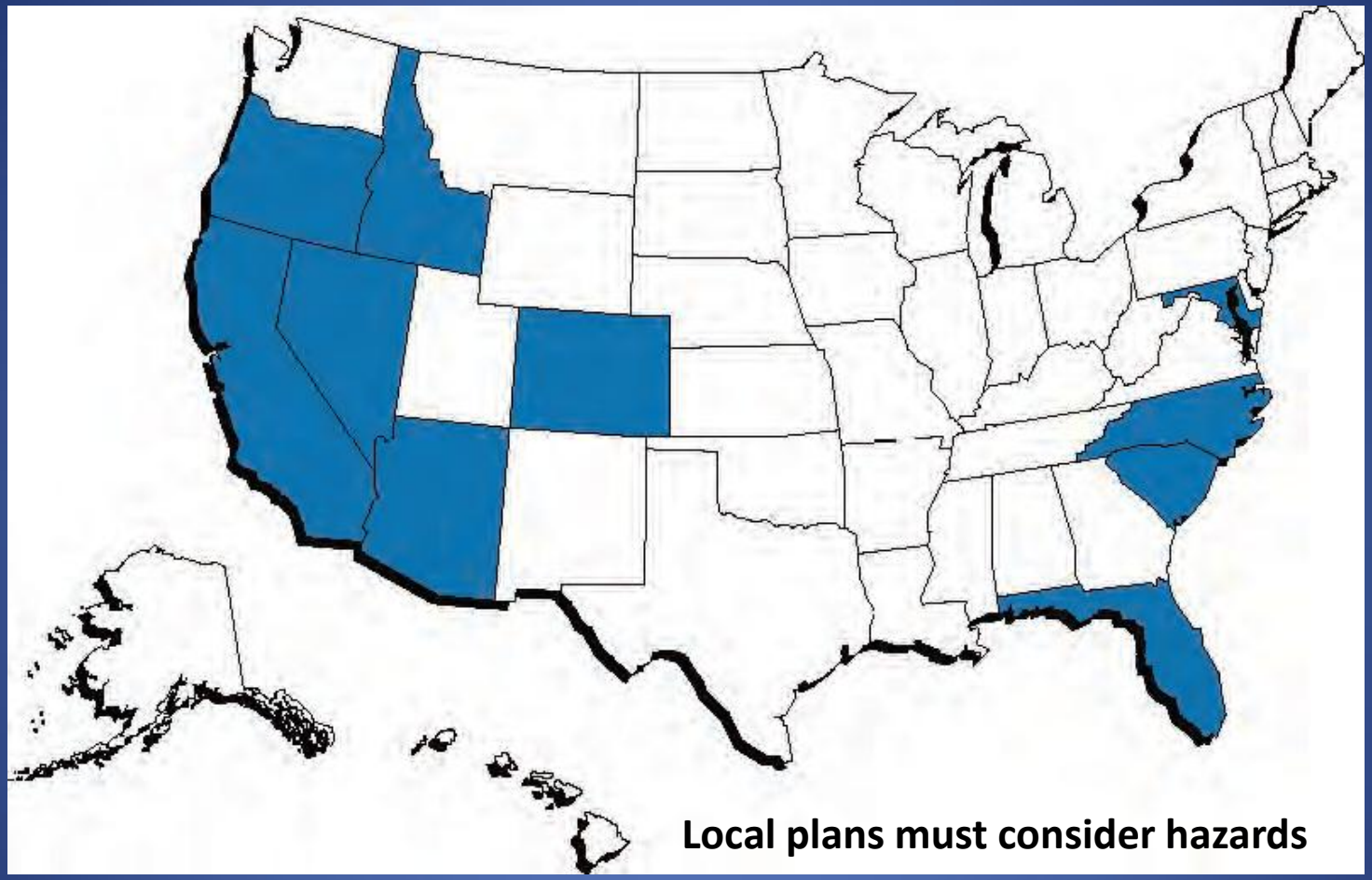
Relationship

What is planning?
What is mitigation?

done by whom, when, how?



States shown in red require some or all local governments to develop local comprehensive plans.



Ten states have specific requirements that local plans must in some way address natural hazards in a specific element. The states shown here in blue do not necessarily specify the inclusion of a discrete hazards element, but they do require that natural hazards are addressed in a larger element that may address related concerns. For more information, see www.disastersafety .org/text.asp?id=building_codes.

Trend:

Integration of Comprehensive Planning and Hazard Mitigation Planning

Similar Process
City Planning & Mitigation Planning

1. Problem identification
2. Goals and Objectives
3. Develop Alternatives
4. Evaluate Alternatives
5. Select Optimum Plan
6. Adopt Implementation /Action Plan

Mitigation Confusion:

versus

versus

Preparedness

Response

Recovery

Mitigation $

Resilience/Sustainability

What do they mean?

Mitigation: **plan better, build smarter**

Resilience: **ability to bounce back**

Sustainable: **systems able to operate effectively & efficiently for the long haul**

Planning is good management

Resilience

Instead of repeated damage and continual demands for federal disaster assistance, resilient communities proactively protect themselves against hazards, build self-sufficiency and become more sustainable.

Resilience is the capacity to absorb severe shock and return to a desired state following a disaster. It involves technical, organizational, social and economic dimensions.

It is fostered not only by government, but also by individual, organization and business actions.

Instead of repeated damage and continual demands for federal disaster assistance, resilient communities proactively protect themselves against hazards, build self-sufficiency and become more sustainable.

Resilience is the capacity to absorb severe shock and return to a desired state following a disaster. It involves technical, organizational, social and economic dimensions.

Resilient communities proactively protect themselves, build self-sufficiency and become more sustainable.

Resilience is the capacity to absorb severe shock and return to a desired state. It involves technical, organizational, social and economic dimensions.

A general administrative goal, not hazards or disasters only.

Anticipate Post-Disaster Opportunities

- **Build back stronger**
- **Build back smarter**
- **Building Codes**
- **Floodplain mapping**
- **Mitigation**
- **Coastal Programs**
- **Regional Planning**
- **Local Planning**
- **Recovery Spending Plans**


© EPA

Developing Galveston's Recovery Plan


Damage Level by Parcel - Bolivar Peninsula
Wetland Regions - Bolivar Peninsula


Please find where your property is located
on Bolivar Peninsula and place a dot on the map


FRENCHTOWN
SANTA FE

Multi-Department Planning and Integration
(including hazard mitigation)

- Avoidance of conflicting outcomes
- **Avoidance of ineffectiveness**
- Better mitigation performance
- Improved external funding opportunities
- Building partnerships among mitigation stakeholders

New FEMA Report: **Plan Integration Guide** (July 2014)

Plan Name	**Element Incorporated into the Hazard Mitigation Plan**
County Emergency Operations Plan	All-hazards approach to event response, evacuation, and recovery
County Comprehensive Plan	Demographic data, land use policies, development trends
County Capital Improvement Plan	Hazard area and critical facility construction
Building Code	Higher standards at the local level than required by States or Federal Government
Zoning Ordinance	Flooding hazards and land use
County Capital Improvements Program	Stormwater projects
Stormwater Management Plan	Public outreach and watershed education

Table 1.1: Plan Elements Incorporated into the Hazard Mitigation Plan

Participants: Both Planning and Mitigation

- Elected Officials
- Advisory Bodies
- Administrative Officers
- Business Organizations and Neighborhood Groups

Local Government Planning

- Elected and Executive
- Advisory Groups
- Finance and Budget
- Data / GIS
- Legal
- Utilities
- Transportation
- Planning and Development
- Public Safety

Transportation
Street
Freight
Transit
Bicycle
Pedestrian
School

Comprehensive Plan

Capital Improvements Program

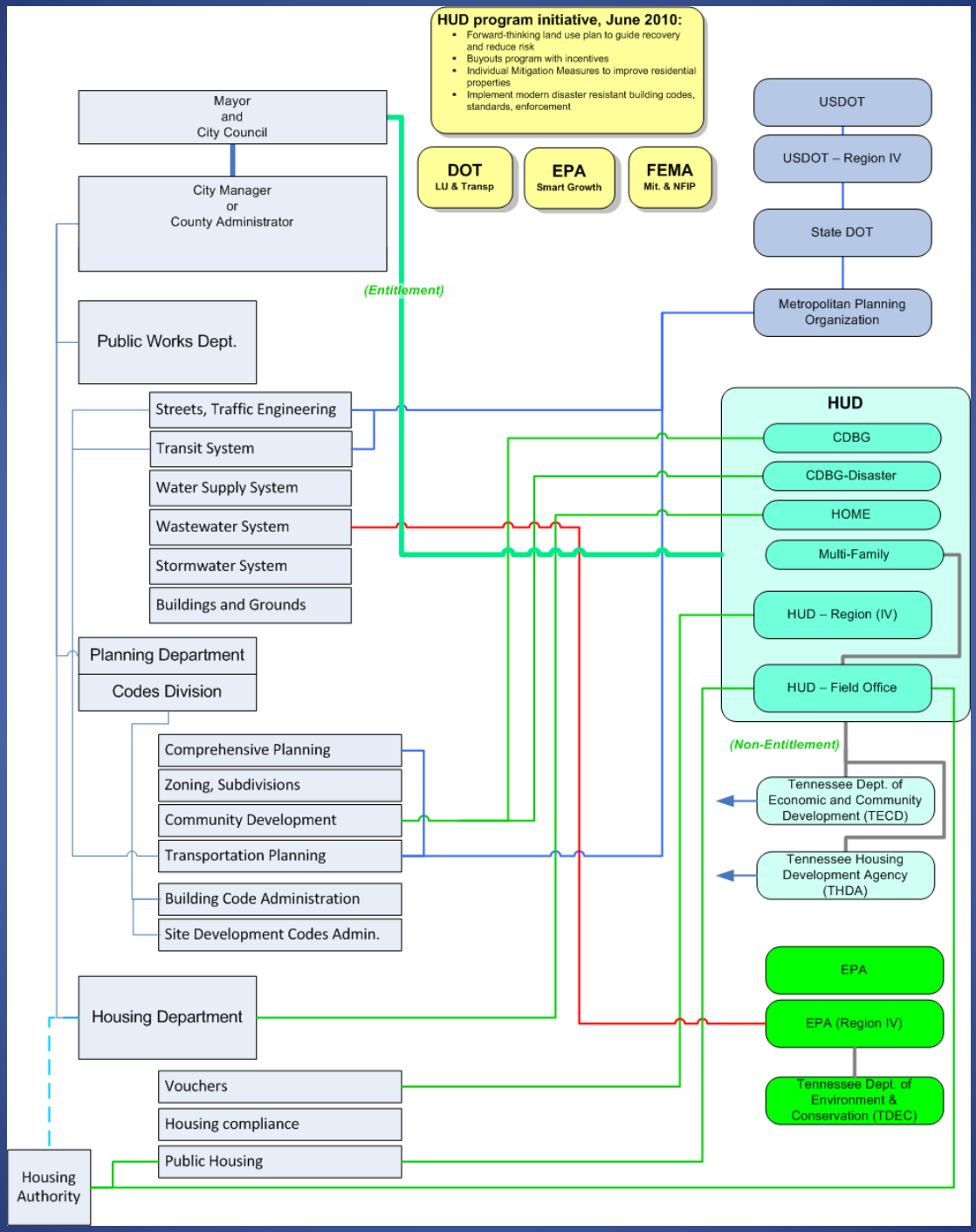
Strategic Plan

Public Safety
Police
Fire
Emergency Mngmt.

Utilities
Water
Sewer
Stormwater
Watersheds
Erosion Control

Planning & Development
Land Use & Zoning
Subdivision Regulation
Community Development
Housing
Neighborhood Sustainability

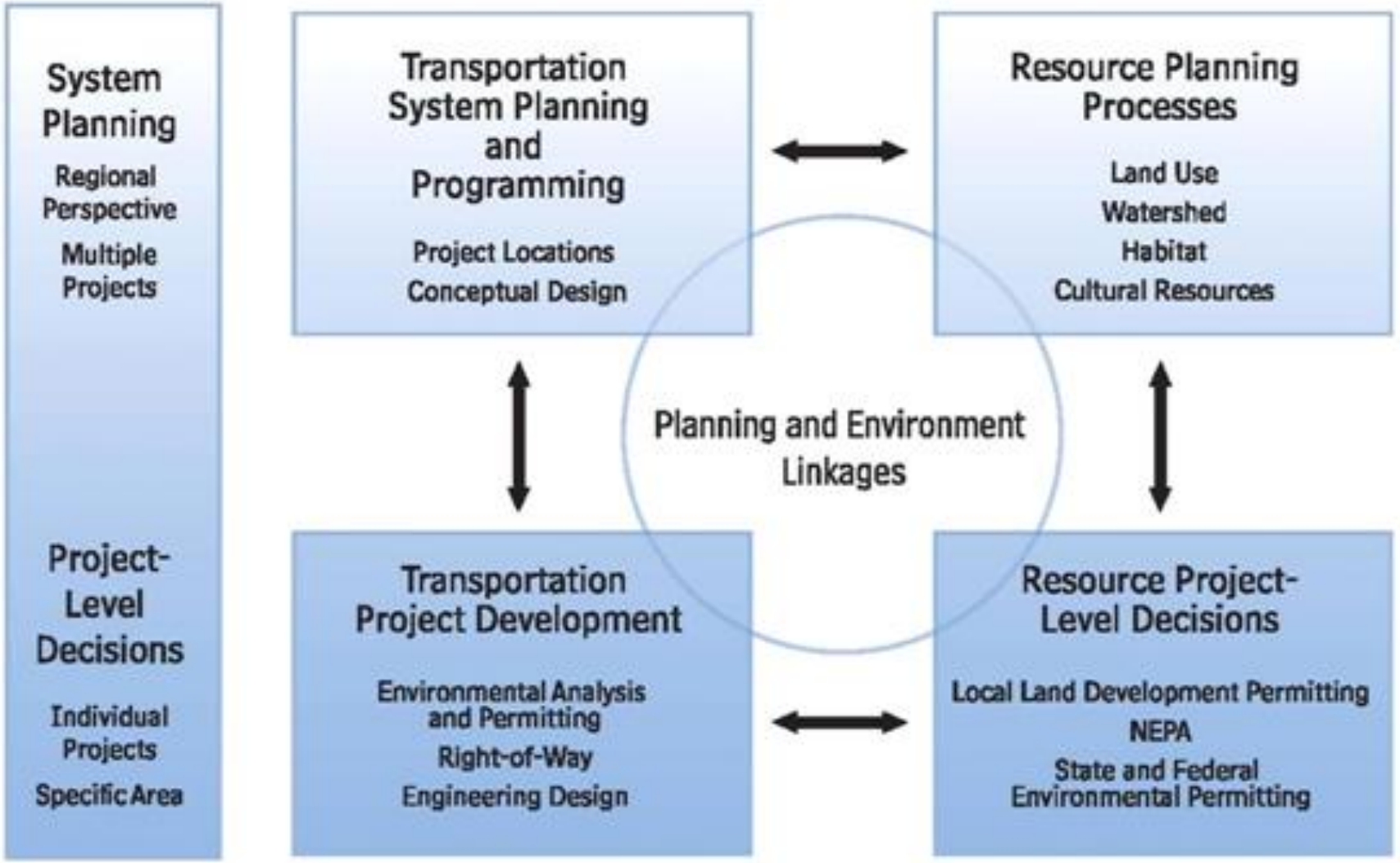
Hazard Mitigation Planning


HUD program initiative, June 2010:
Forward-thinking land use plan to guide recovery and reduce risk
Buyouts program with incentives
Individual Mitigation Measures to improve residential properties
Implement modern disaster resistant building codes, standards, enforcement
Mayor and City Council
City Manager or County Administrator
DOT
LU & Transp
EPA
Smart Growth
FEMA
Mit. & NFIP
USDOT
USDOT – Region IV
State DOT
Metropolitan Planning Organization
(Entitlement)
Public Works Dept.
Streets, Traffic Engineering
Transit System
Water Supply System
Wastewater System
Stormwater System
Buildings and Grounds
Planning Department
Codes Division
Comprehensive Planning
Zoning, Subdivisions
Community Development
Transportation Planning
Building Code Administration
Site Development Codes Admin.
Housing Department
Vouchers
Housing compliance
Public Housing
Housing Authority
HUD
CDBG
CDBG-Disaster
HOME
Multi-Family
HUD – Region (IV)
HUD – Field Office
(Non-Entitlement)
Tennessee Dept. of Economic and Community Development (TECD)
Tennessee Housing Development Agency (THDA)
EPA
EPA (Region IV)
Tennessee Dept. of Environment & Conservation (TDEC)

Transportation Planning / Land Use Planning

- Integration happened 1960s
- Land Use Analysis Zones
- Matrix: Trip Productions and Attractions
- Modal mix by trip: Pedestrian, Bicycle, Autos, Truck, Bus, Train
- Trip distribution to the system network
- Evaluation of Alternatives
- Participation: Elected, Executive, Technical, Citizen
- Selection of Optimum Plan
- Budget and Capital Improvement Plan (annual, 5 yr., 10 yr, …)

Land Use and Transportation Alternatives Analysis plus Visualization


System Planning
Regional Perspective
Multiple Projects
Project-Level Decisions
Individual Projects
Specific Area
Transportation System Planning and Programming
Project Locations
Conceptual Design
Resource Planning Processes
Land Use
Watershed
Habitat
Cultural Resources
Planning and Environment Linkages
Transportation Project Development
Environmental Analysis and Permitting
Right-of-Way
Engineering Design
Resource Project-Level Decisions
Local Land Development Permitting
NEPA
State and Federal Environmental Permitting

7 Plan Elements

Issues & Elements

S = Topic identified in statute

SR = Topic closely related to statutory requirements

IN = Factors affecting inadequate inventory of state

T = Trail Systems

Topics

	Land Use	Circulation	Housing	Conservation	Open Space	Noise	Safety
...iculture	S			SR	S		
...ir Quality					S		
Airports	SR	SR			SR	S	
Density	S	S					
Education	S						
Fire					S		S
Fisheries				SR	S		
Flooding	S			S	S		S
Forests/Timber	S			S	S		
Housing	SR		S				
Industrial Uses	S					S	
Land Reclamation				S			
Land Use	S	S	SR	S	SR	S	SR
Minerals				S	S		
Noise Contours	SR					S	
Public Buildings	S						
Railways & Yards		SR				S	
Recreation	S				S		
Scenic Resources	S				S		
Seismic Hazards					S		S
Soil Conservation				S	S		
...oil Instability							S
Transportation Routes		S			T	S	S
Transportation Terminals		S					
Utilities/Easements		S			S		
Waste Facilities	S		IN				
Water Quality				S	S		
Water Supply	SR		IN	S	S		
Watersheds				S	S		
Waterways/Water Bodies				S	S		
Wildlife				S	S		

Suggested Local General Plan Process in California

Public Participation and Intergovernmental Review

Work Program
Early policy guidance, scope of work, adoption deadlines

Formulate Goals
Visioning, articulate principles, identify issues and assumptions

Collect and Analyze Data
Examine current conditions and trends

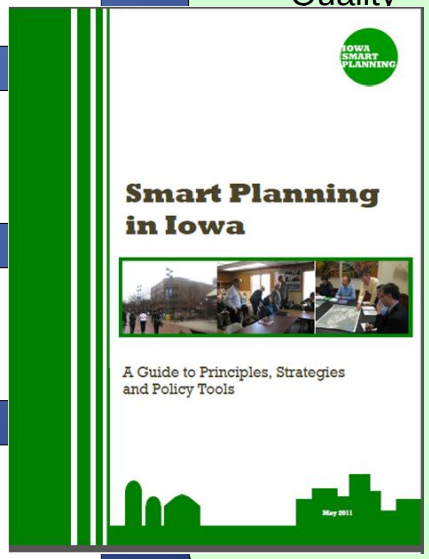
Refine Goals
Refine goals and formulate objectives

Alternatives Analysis
Develop and evaluate alternative plans

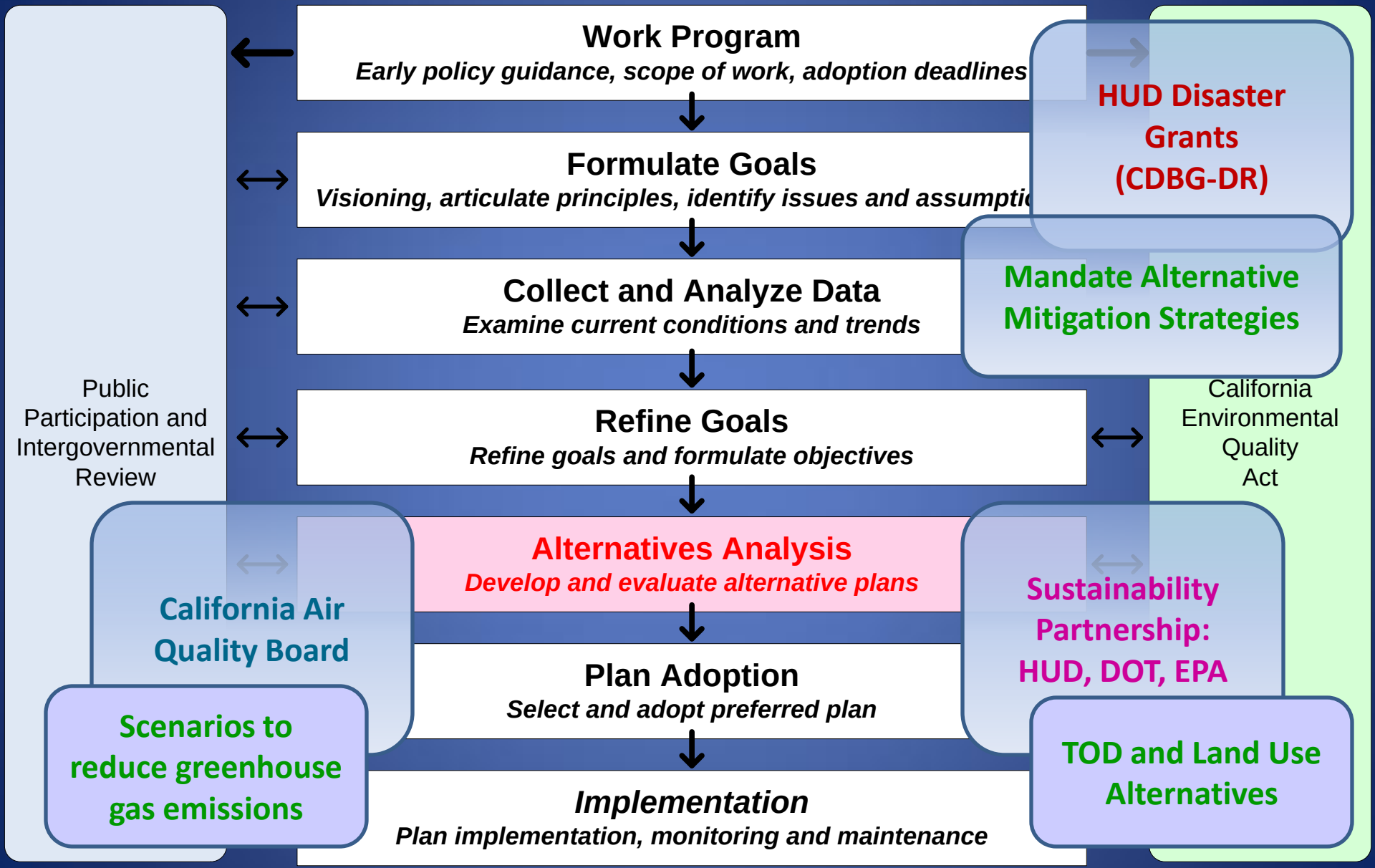
Plan Adoption
Select and adopt preferred plan

Implementation
Plan implementation, monitoring and maintenance

California Environmental Quality

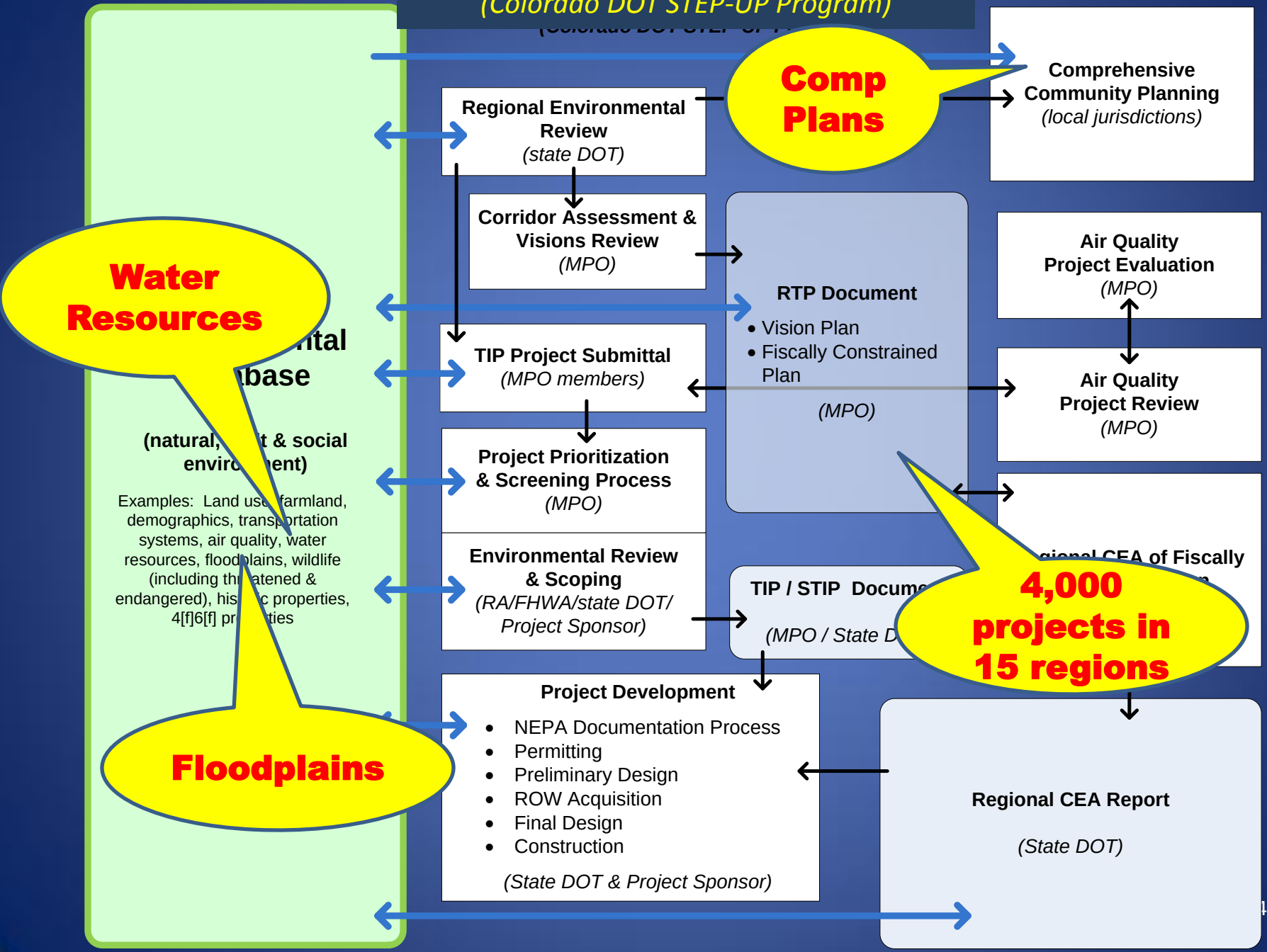


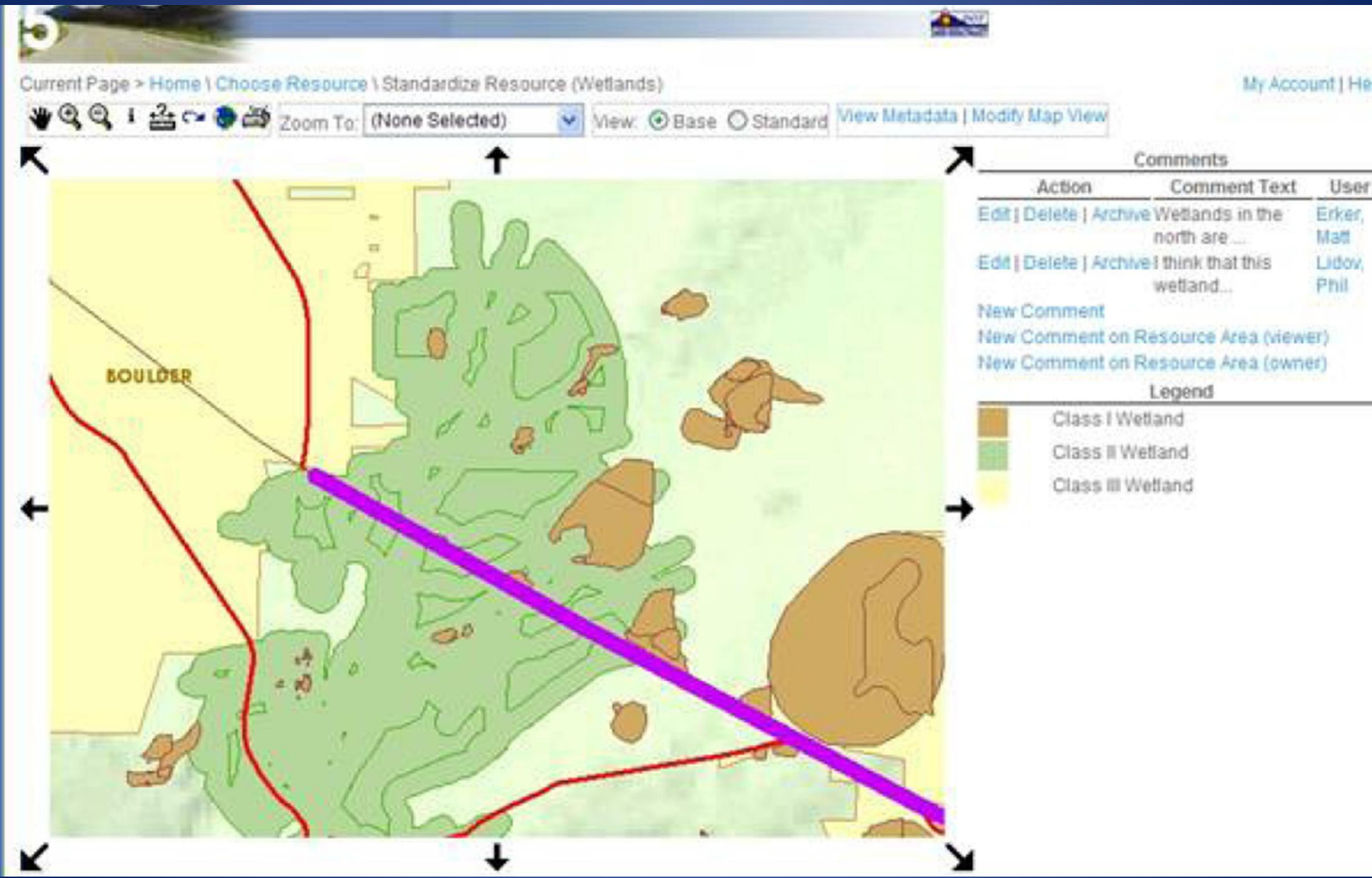
Suggested Local General Plan Process in California



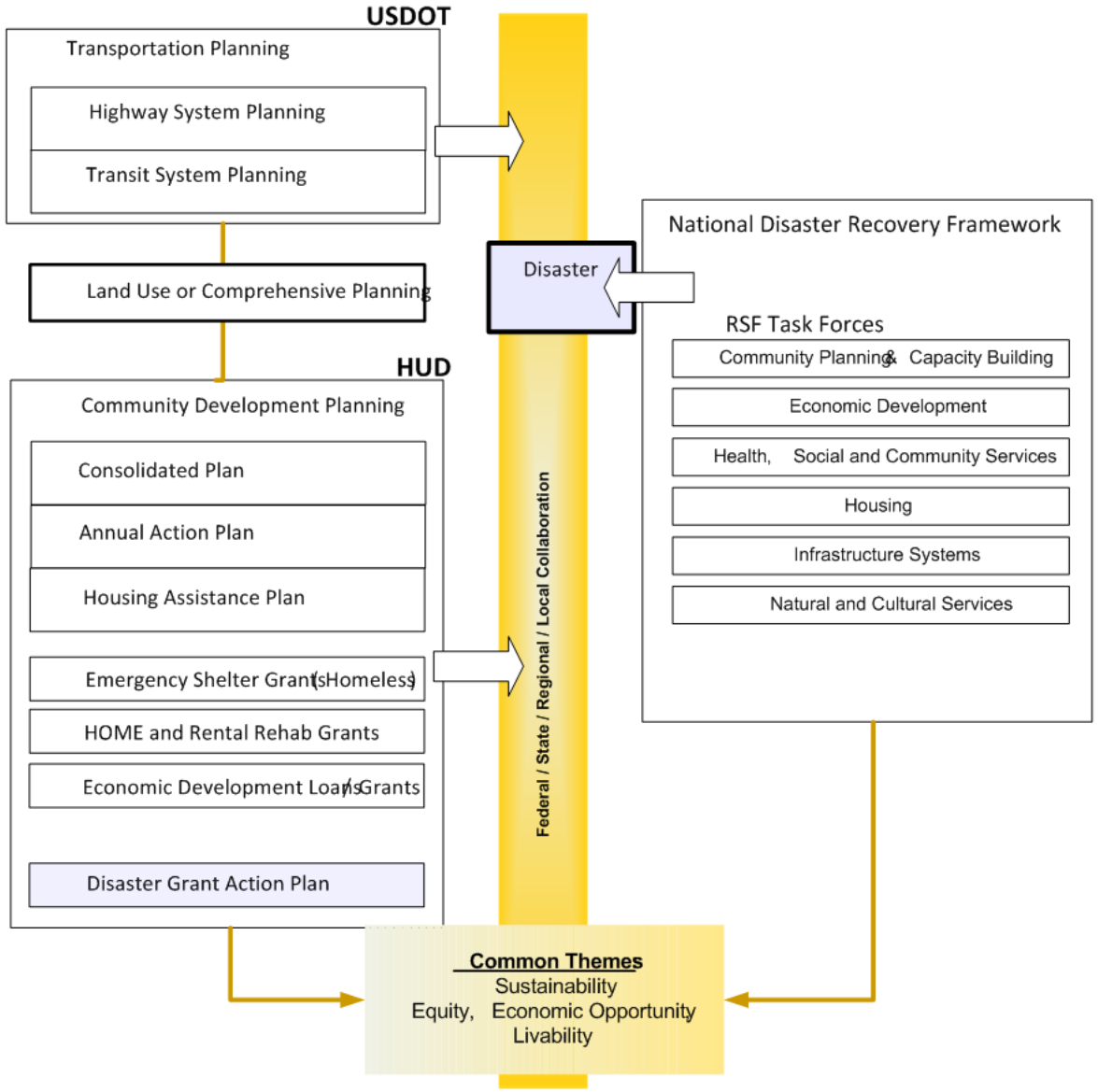
Environmental Collaboration

(Colorado DOT STEP-UP Program)

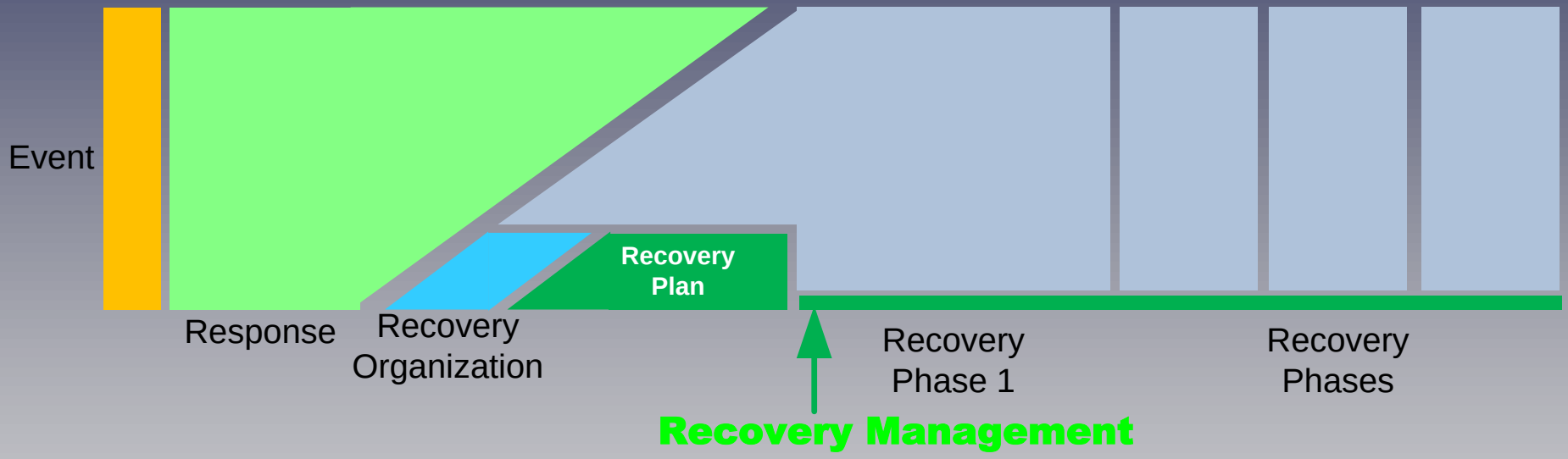



Current Page > Home \ Choose Resource \ Standardize Resource (Wetlands)
My Account | He
Zoom To: (None Selected)
View: Base Standard
View Metadata | Modify Map View
BOULDER
Comments
Action
Comment Text
User
Edit | Delete | Archive
Wetlands in the north are ...
Erker, Matt
Edit | Delete | Archive
I think that this wetland...
Lidov, Phil
New Comment
New Comment on Resource Area (viewer)
New Comment on Resource Area (owner)
Legend
Class I Wetland
Class II Wetland
Class III Wetland

Common Themes Among Federal Programs Supporting Communities



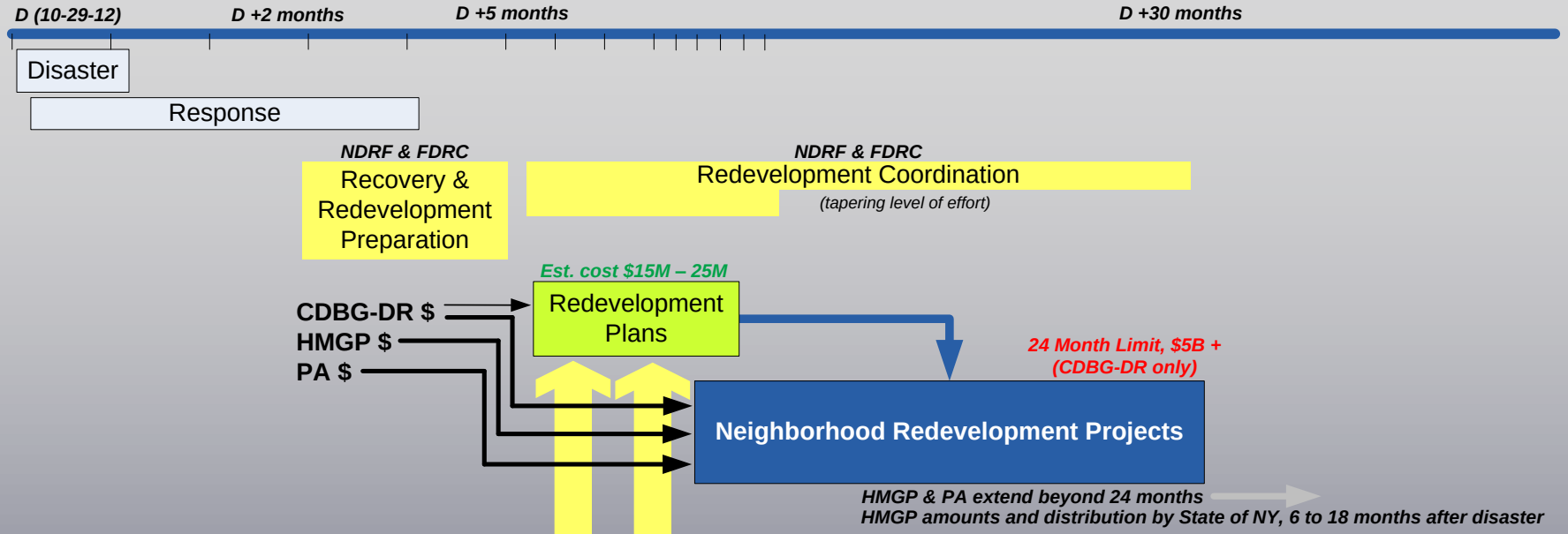
Department	Interest in Disaster Recovery Plan
Utilities (water, sewer, other)	Infrastructure Repair Grants (FEMA), reconfiguration due to land use changes, hardening wiith mitigation techniques via redesign.
Streets and Highways	
Public Transit (bus, van, rail)	
Transportation Planning	Changes in travel demand, opportunities for system enhancement, support for new development goals and revised land use plans.
Community Development	Support for new development goals, commercial and neighborhood revitalization, affordable housing, public services, job growth,
Economic Development	Support for new development goals, commercial revitalization, public services, job growth,
Housing and Support Services	Better inventories of housing stock, strategies for immediate and long-term replacement housing.
Public Health, Social Services	Attention to vulnerable populations, socioeconomic determinants of health, access to heathcare, lower concentrations of poverty, blight, unhealthy areas.
Parks, Recreation, Libraries	Infrastructure Repair Grants (FEMA), reconfiguration due to land use changes, hardening wiith mitigation techniques via redesign.
Public Safety (Police, Fire)	Improved resilience to future disasters, better evacuation resources, e.g., road capacity, reduced demand for emergency services such as rescue, ambulance and property protection. Consideration of crime analysis with GIS, relation to neighborhood characteristics such as poverty, school dropout rates, unemployment pre and post-disaster.
Finance, Budget, Risk Management	Improved resilience to future disasters, lower direct agency costs, less disruption of the local economy.
Executive and administrative officials	Less turmoil for all municipal systems, higher predictability of operations, greater stability of municipal finance conditions.



How?

The ABCs of Recovery Planning

Recovery Planning Schematic Timeline



Sandy Recovery Principle (HUD CDBG-DR)

Grantees are required to develop plans that show: "...how the grantee will promote (a) sound, sustainable long-term recovery planning informed by a post-disaster evaluation of hazard risk, especially land-use decisions that reflect responsible flood plain management and take into account possible sea level rise (for example, by using the new FEMA floodplain maps and designs applying the new Advisory Based Flood Elevations (ABFE) or higher), and (b) how it will coordinate with other local and regional planning efforts to ensure consistency ..."

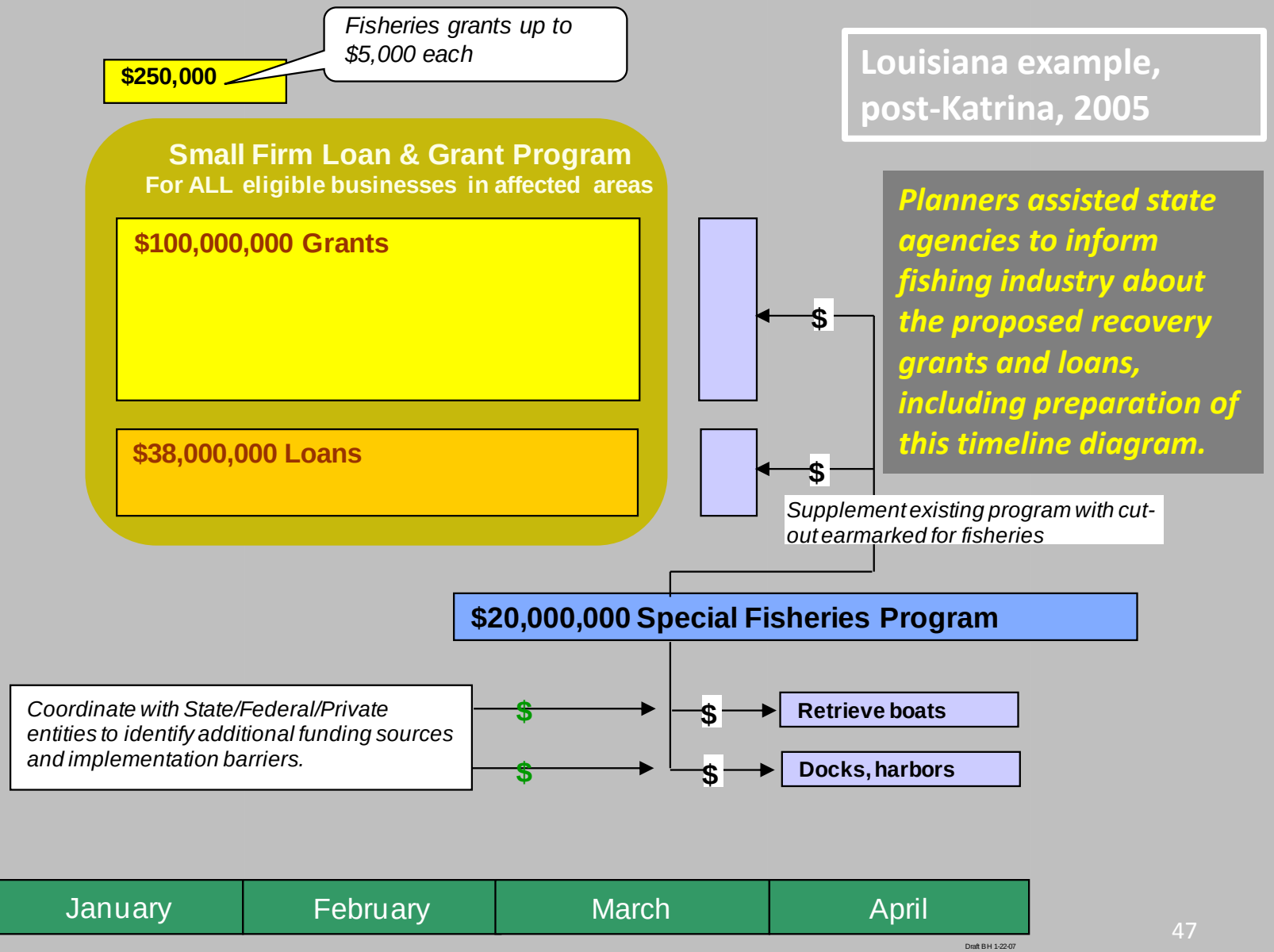
RSFs – Sustainability Partnership plus FEMA Mitigation

HUD, DOT and EPA lead the federal endeavor, joined by others such as Energy, USDA and Commerce. Integrated strategies such as transit oriented development are crucial assets to bolster smart, strong and thereby sustainable redevelopment after Hurricane Sandy, accomplished through detailed implementation plans especially in heavily damaged communities and neighborhoods. HUD's Region 2 is expected to play a key role in this CDBG-DR work by communities and their respective consultants due to constrained schedule.

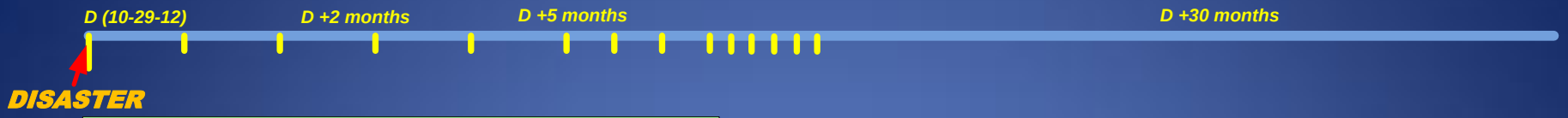
Mitigation Actions form basis of redevelopment plans:

- Buyouts
- Elevations
- Floodproofing, hardening
- Bulkheads, Levees, Check Valves, Pumps
- Modified PA projects (alt/imp)
- Reconfiguration via TOD & environmental systems constraints

Funding Map for Fisheries and Other Businesses



Schematic Timeline



FEMA Individual Assistance (IA) — *Financial Assistance to Families and Individuals*

FEMA Public Assistance (PA) — *Emergency Work*

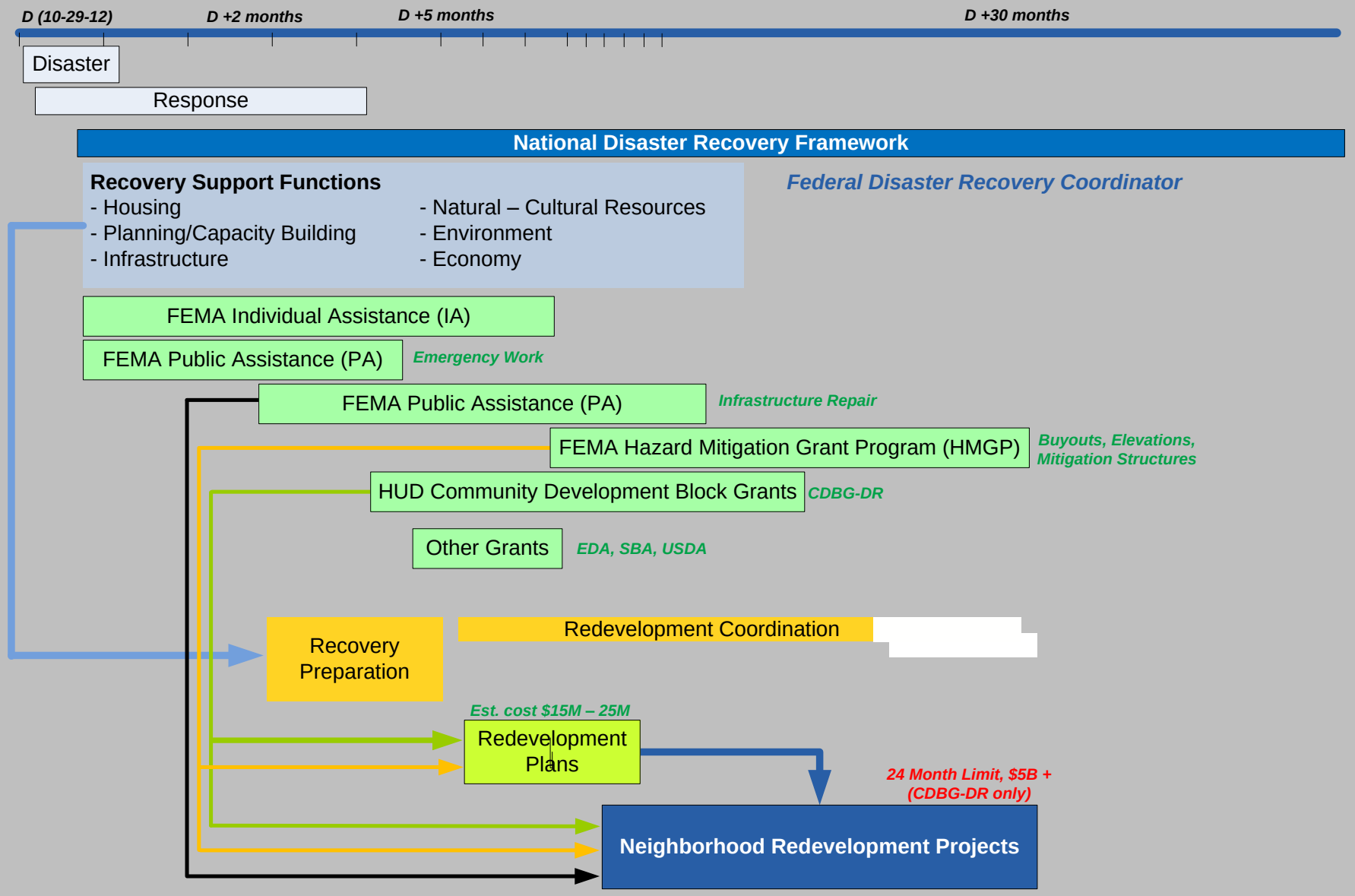
FEMA Public Assistance (PA) — *Infrastructure Repair*

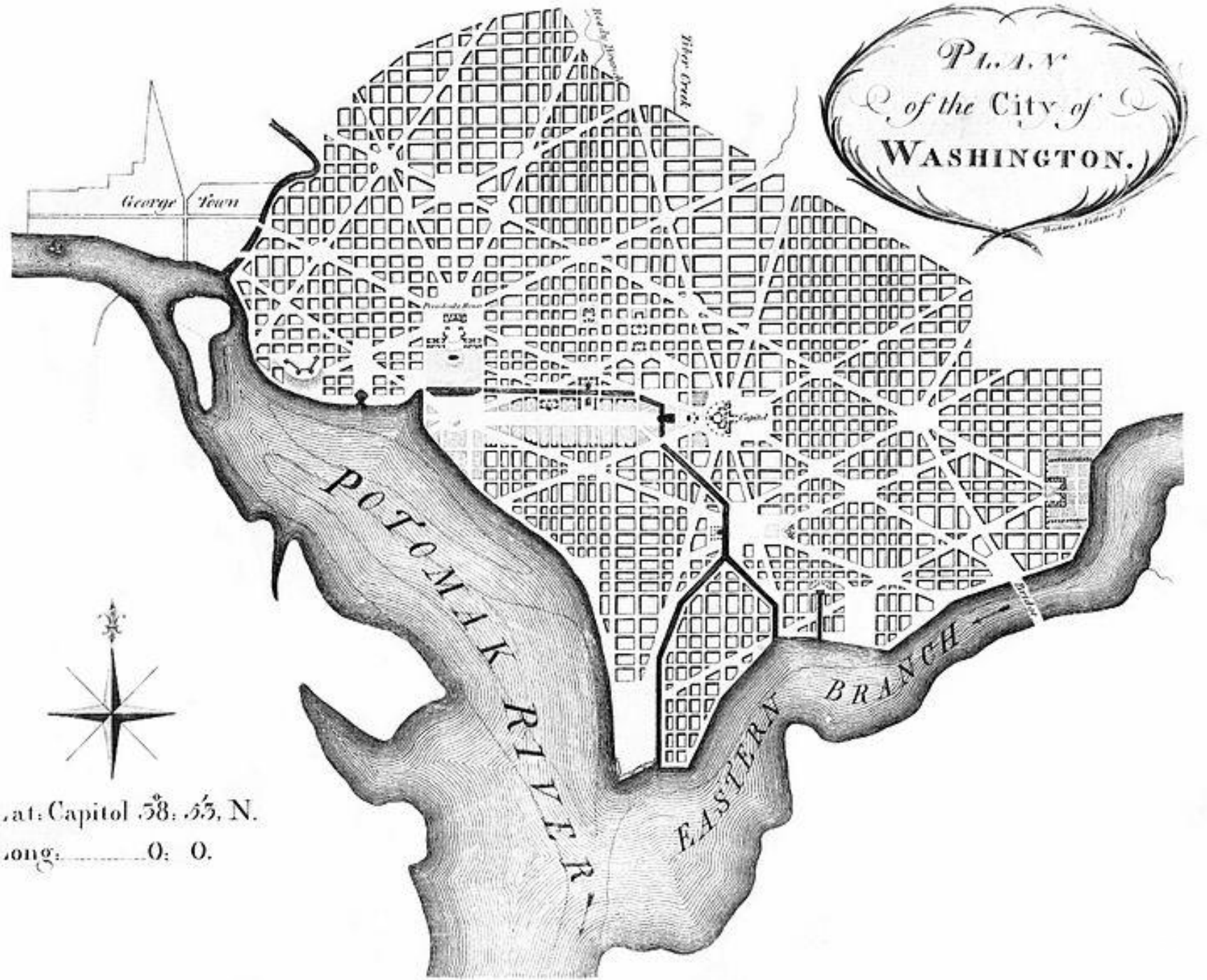
FEMA Hazard Mitigation Grant Program (HMGP) — *Buyouts, Elevations, Mitigation Structures*

HUD Community Development Block Grants — *CDBG-DR*

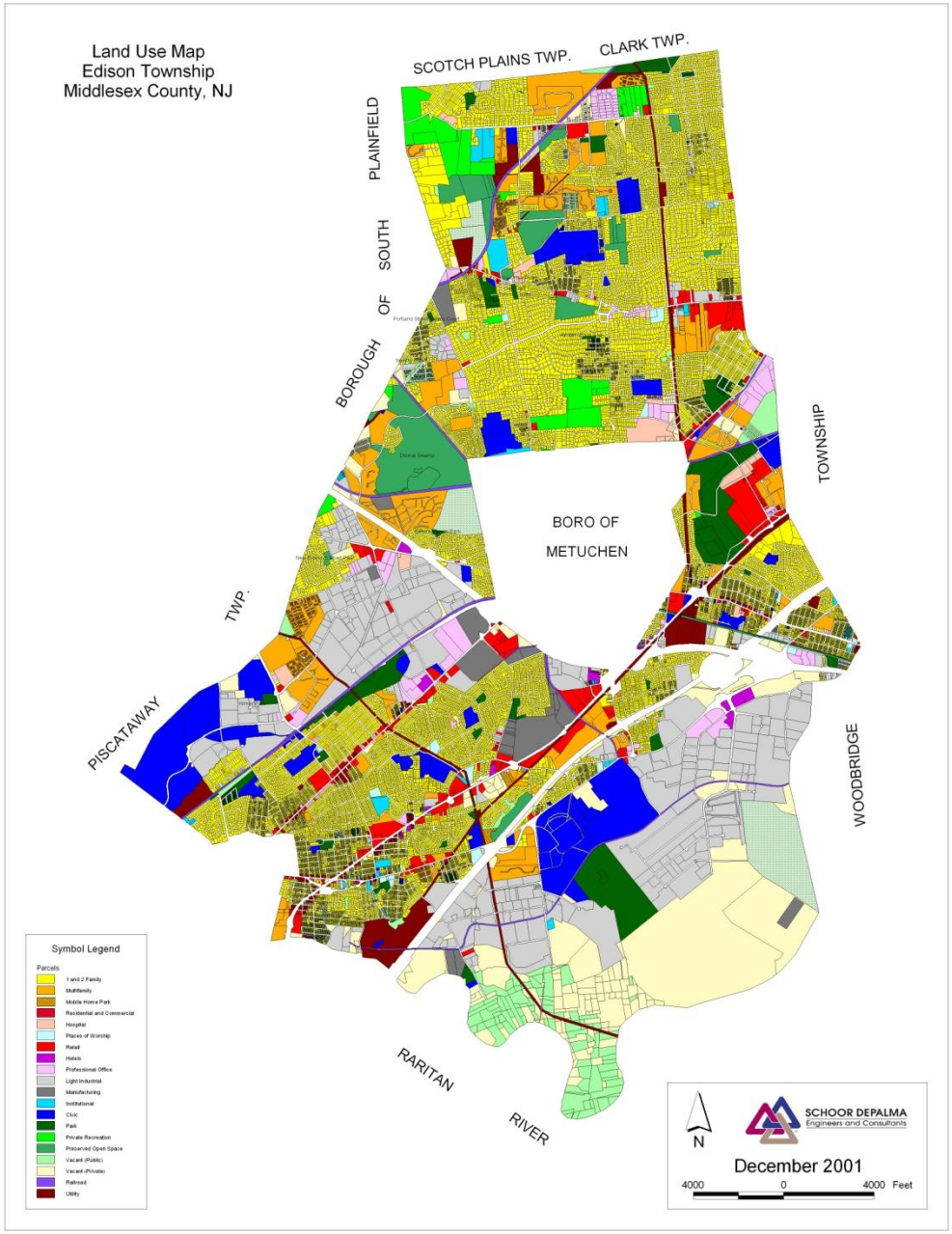
Other Grants

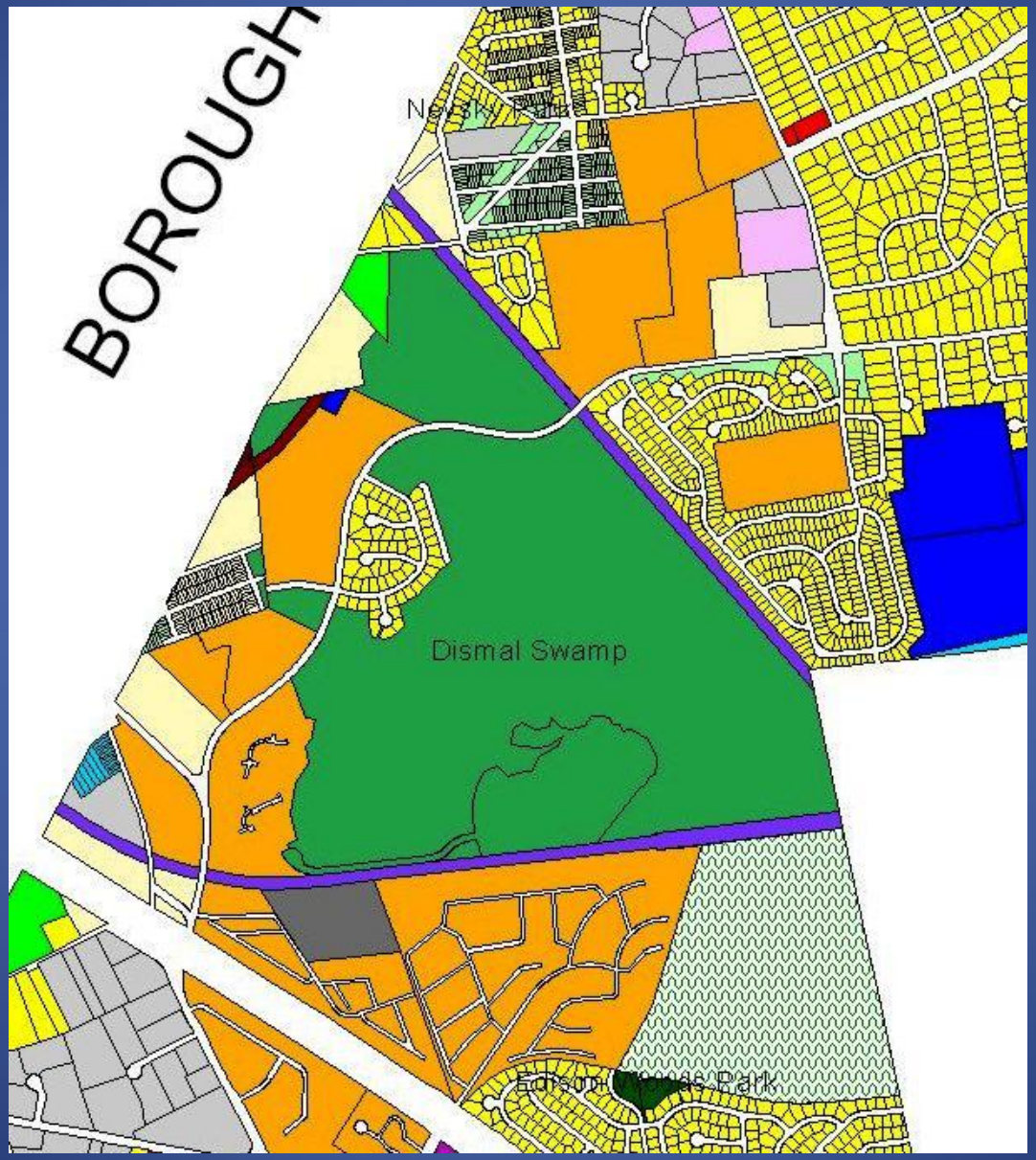
Recovery Planning Schematic Timeline

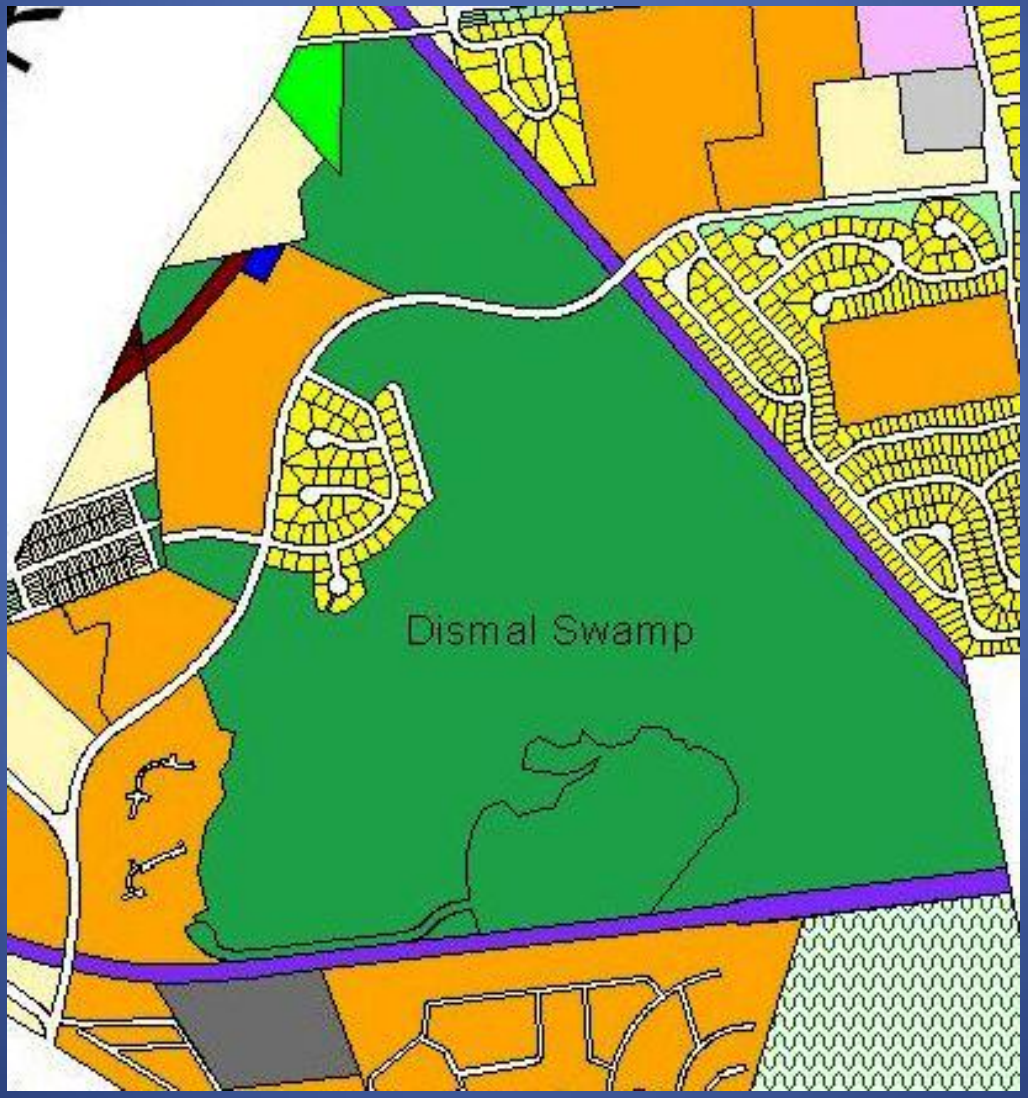



Plan
of the City of
WASHINGTON.
George Town
POTOMAK RIVER
EASTERN BRANCH
Lat: Capitol 38: 53, N.
Long: 0: 0.


GENERAL PLAN
OF
RIVERSIDE
OLMSTED, VAUX & CO. LANDSCAPE ARCHITECTS
1869.
Scale 400 feet to an inch.
DES PLAINES RIVER


Land Use Map
Edison Township
Middlesex County, NJ
SCOTCH PLAINS TWP.
CLARK TWP.
PLAINFIELD
BOROUGH OF SOUTH
TOWNSHIP
BORO OF
METUCHEN
TWP.
PISCATAWAY
WOODBRIDGE
RARITAN
RIVER
Symbol Legend
Parcels
1 and 2 Family
Multifamily
Mobile Home Park
Residential and Commercial
Hospital
Places of Worship
Retail
Hotels
Professional Office
Light Industrial
Manufacturing
Institutional
Civic
Park
Private Recreation
Preserved Open Space
Vacant (Public)
Vacant (Private)
Railroad
Utility
N
SCHOOR DEPALMA
Engineers and Consultants
December 2001
4000 0 4000 Feet


BOROUGH
Dismal Swamp


Dismal Swamp

Texas City, Texas

Roseville, California

Elements of a Comprehensive Planning Process

Land Use
Public Facilities
Transportation
Capital Improvements
Housing
Historic Preservation
Economic Development
Recreation and Open Space
Environment
Conservation
Implementation

SALT LAKE CITY CORPORATION
FY 2008-09 CAPITAL AND OPERATING BUDGET BOOK
CAPITAL IMPROVEMENT PROGRAM
D-1

CAPITAL IMPROVEMENT PROGRAM

OVERVIEW

Salt Lake City's Capital Improvement Program (CIP) is a multi-year planning program of capital expenditures needed to replace or expand the City's public infrastructure. The construction and/or rehabilitation of streets, sidewalks, bridges, parks, public buildings, waterworks, and airport facilities are typical projects funded within CIP.

Two elements guide the City in determining the annual schedule of infrastructure improvements and budgets. These include the current fiscal year's capital budget and the 10 Year Inventory of Capital Needs. This document details the City's infrastructure needs that could be addressed with general and enterprise funds, and establishes a program to address those needs within the City's ability to pay.

Salt Lake City's FY 2008-09 budget appropriates $273.1 million for CIP, utilizing General Funds, Enterprise Funds, Community Development Block Grant (CDBG) Funds, Class "C" Funds and

Salt Lake City Capital Improvement Program

Fiscal Year 08/09 General Fund/CDBG Fund/Other Fund Projects

	Project	Project Description	08-09 Budget	Operating Budget Impact
14	**Jordan River Trail - Rose Park Golf Course to Redwood Road District 1**	To design & construct improvements to existing dirt & gravel trail from the north end of the Rose Park Golf Course bridge to Redwood Road at approx. 1800 North. Improvements include removal of vegetation, grading, & placement of trailway base gravel, asphalt pavement & gravel placement for horse lane. Design $40,000. Construction inspection & admin fees $40,000. Supports City's sustainability efforts.	$200,000	Minimal Power Usage Approx $1,000 per year
15	**Sidewalk Rehabilitation/Concrete Sawing - Citywide**	To provide sidewalk rehabilitation & reduction of tripping hazards through concrete sawing or grinding. Process eliminates displacement of up to one & one-half inch. Design $14,500. Construction inspection & admin $15,100. Supports City's sustainability efforts.	$175,000	None
16	**Tree Replacement Parks - Citywide**	To replace existing deteriorated or removed trees throughout City Parks. Design $4,300. Construction inspection & admin fees $3,000. Supports City's sustainability efforts.	$50,000	None
17	**Traffic Signal Upgrades - 900 E. 1300 So., 2000 E. 2700 So., 300 W. 1700 So., Main St. 1300 So. Districts 5 & 7**	To remove & replace four (4) existing traffic signals with equipment that includes steel poles, span wire, signal heads & traffic signal loops, mast arm poles, new signal heads, pedestrian signal heads with countdown timers, improved loop detection, & left turn phasing as needed. Design $80,000. Engineering fees $80,000. Construction inspection & admin $20,000. Supports City's sustainability efforts.	$640,000	None
18	**Bicycle/Pedestrian Paths, Routes & Facilities**	To develop, design & construct bicycle/pedestrian paths, routes & facilities Citywide to include bike racks, restriping lanes for bike use &	$500,000	None

Recommendations (*Florida – Miami Dade County):*
Local Mitigation Strategy fitted to Comprehensive Plan

1. For the local mitigation strategy **to be effective** in the decision-making process of growth management, its objectives and policies must be integrated into the Comprehensive Plan.
2. The Plan is the **legal basis** for all local land use decisions made. If hazard mitigation is to be accomplished beyond the occasional drainage project, these hazards must be addressed in comprehensive planning, where development can be limited or regulated in high-risk hazard areas just as sensitive environments are routinely protected through growth management policies.
3. Mitigation of hazards is considerably easier and less expensive if done when **raw land** is being converted into development.
4. **Retrofitting** structure and public facilities after they have been built is significantly more expensive.
5. However, if older neighborhoods or communities are scheduled to be **revitalized or redeveloped**, hazard mitigation needs to be an aspect considered and integrated into the project prior to the time of development approval.

Future Land Use Category		Coastal Hazard Zone		Hurricane Vulnerability Zone		Flood Zones		Wildfire Susceptible		Potential Sinkhole Areas	
		Total	Undev.	Total	Undev.	Total	Undev.	Total	Undev.	Total	Undev.
Agriculture	Acres	**5845**	**2173**	**33799**	**13358**	**123650**	**41181**	**14944**	**7424**	**0**	**0**
	%	16.6	15.2	32.6	40.8	35	50.2	58.2	75	0	0
Commercial	Acres	**114**	**58**	**976**	**268**	**5008**	**1082**	**146**	**87**	**0**	**0**
	%	0.3	0.4	0.9	0.8	1.4	1.3	0.6	0.9	0	0
Estate	Acres	**849**	**535**	**1604**	**613**	**9401**	**1318**	**540**	**126**	**0**	**0**
	%	2.4	3.7	1.5	1.9	2.7	1.6	2.1	1.3	0	0
Federal Land	Acres	**211**	**31**	**1149**	**84**	**2648**	**178**	**415**	**16**	**0**	**0**
	%	0.6	0.2	1.1	0.3	0.7	0.2	1.6	0.2	0	0
Industrial	Acres	**80**	**17**	**395**	**79**	**19193**	**5993**	**2182**	**574**	**280**	**21**
	%	0.2	0.1	0.4	0.2	5.4	7.3	8.5	5.8	37.5	58.7
Military	Acres	**0**	**0**	**2198**	**29**	**796**	**12**	**405**	**2**	**0**	**0**
	%	0	0	2.1	0.1	0.2	0	1.6	0	0	0
Multi-Family	Acres	**1251**	**702**	**3833**	**1585**	**17008**	**5722**	**240**	**79**	**0**	**0**
	%	3.6	4.9	3.7	4.8	4.8	7	0.9	0.8	0	0
Preserve	Acres	**24957**	**9687**	**49529**	**14316**	**137822**	**18217**	**5585**	**941**	**41**	**0**
	%	70.9	67.9	47.8	43.7	39	22.2	21.7	9.5	5.5	0.6
Single Family	Acres	**1875**	**1065**	**10135**	**2403**	**35884**	**6729**	**1192**	**620**	**425**	**15**
	%	5.3	7.5	9.8	7.3	10.1	8.2	4.6	6.3	57	40.7
Water Bodies	Acres	**0**	**0**	**0**	**0**	**2269**	**1593**	**38**	**27**	**0**	**0**
	%	0	0	0	0	0.6	1.9	0.1	0.3	0	0
Total	Acres	**35182**	**14267**	**103618**	**32733**	**353679**	**82024**	**25687**	**9896**	**746**	**36**
	%	100	100	100	100	100	100	100	100	100	100