Chapter 9

Recovery

Chapter Objectives
1) Define, describe & understand recovery as a process that occurs in both short-term & long-term periods
2) Base recovery processes on principles that promote a holistic & sustainable outcome for future events & populations likely to be affected
3) Outline the key recovery challenges that are faced by those affected & those who seek to help
4) Situate recovery planning as a community-based process that produces a consensus-based vision
5) Encourage mitigation as a central element of recovery planning
6) Foster an appreciation for the breadth of recovery planning elements that must be part of rebuilding a community
7) Identify opportunities for both professional work & volunteer service in the area of disaster recovery

Introduction
- Most communities do not plan for recovery
- Challenges:
  - Finding temp housing
  - Rebuilding a home
  - Finding a rental
  - Relocation
  - Loss of vehicle
  - Loss of business/workplace
  - Loss of social networks
- 1st step in recovery process is a preliminary damage assessment (PDA)
  - Lays the foundation for what resources are needed
**Preliminary Damage Assessment (PDA)**

- Number & type of houses damaged as well as the extent of damage, from minor to completely destroyed
- Consideration of populations that may require additional assistance such as people living in:
  - Local nursing homes
  - Assisted living facilities
  - State schools
  - Group homes
- Impact on local utilities including:
  - Power
  - Telephone
  - Cell towers
  - Gas
  - Water
  - Stormwater drainage

**PDA (cont.)**

- Damage to critical infrastructure such as:
  - Bridges
  - Underpasses
  - Railroads
  - Subways
  - Airports
  - Waterways
  - Roads
- Impacts on local cultural & historical resources
  - Represent a shared identity & heritage
  - May impact tourism & the local economy
- The hit taken by local businesses, including:
  - Home-based
  - Locally-owned
  - Franchise
  - Corporate
  - Other types of businesses

**Collaboration Needed**

- Public works
  - Block off damaged streets
  - Coordination with waste removal
- Waste removal & the landfill authorities
  - Assess potential of landfill to collect & take in debris
- Public information to educate the public about:
  - Recovery assistance
  - Debris removal
  - When & where they can initiate their own recovery assistance
- Chambers of Commerce & local business associations
- Educators from pre-school through college & university levels
- Federal, state & local government officials assigned to conduct short- & long-term recovery, as well as recovery teams & consultants
Collaboration Needed (cont.)
- Relief organizations
  - Especially those with external resources & volunteers to rebuild homes
- Local faith-based & community organizations
  - Can focus on the needs of low-income households
- Code officials & building inspectors
  - Can design stronger & safer structures by writing new codes
- Planners
  - Can redesign a more functional infrastructure resilient to additional damage
- Parks & recreation
- Police & Fire
- Environmental organizations
- Sports teams
- Who else?

Introduction (cont.)
- Recovery efforts can be addressed quickly or can take considerable time
  - Depend on type & scope of disaster
- 1st question is not how soon to start
  - Should be, how long will it take
- Recovery leader must determine:
  - Who should be involved
  - Where the resources will come from
  - How to build a stronger, more disaster-resistant community

Definitions of Recovery
- *Reconstruction* (rebuilding)
  - Should reduce the impact of future disasters
- *Restoration* (historic)
- *Rehabilitation* (improvement)
- *Restitution* (legal)
Definitions of Recovery (cont.)

- Recovery is best thought of as a process
  - Short-term recovery (usually managed by EMs)
    - Restoration of key utilities
    - Temp housing
  - Long-term recovery (usually managed by elected officials)
    - Figuring out how, when, & where to rebuild
    - Setting timelines
    - Organizing people/resources/organizations

Recovery Challenges - Housing

(Quarantelli)

- Displaced persons move through four phases of sheltering/housing
  1) Emergency shelter
     - No amenities
  2) Temporary shelter
     - Protection from elements
     - Sanitation
     - Food
     - Water
  3) Temporary housing
     - Regain basic household routine
  4) Permanent housing
     - No more moves

Recovery Challenges - Housing

(Quarantelli)

- Most shelters open & close quickly
- Community may open functional needs or medical shelters
- Communities house residents in many different ways
  - Mobile homes
  - Rented apartments
- 1st step in recovery is finding safe & secure housing
  - Can be harder than expected
Recovery Frameworks for Housing
(Comerio)

1) Redevelopment Model:
- Involves national agencies in designing a recovery
  - Agencies work together to create systemic national plans
  - Common under highly centralized govt.s & disasters involving extensive damage
  - Assumes govt. support of the population and sufficient resources

2) Capital-Infusion Model:
- Brings outside aid in through non-governmental agencies (NGOs)
  - Must be aware of cultural/environmental context

Recovery Frameworks for Housing (cont.)
(Comerio)

3) Limited-Intervention Model:
- Where insurance pays & government combine to help
  - More typical in developed nations
  - Government assistance:
    - Resources
    - Grants
    - Expertise
    - Loans
    - Personnel

4) Market Model:
- Affected people must survive on their own with limited support from others
  - Based on insurance & personal resources

Recovery Challenges - Businesses

- Preparing is the key to surviving disaster in the business community
  - However, most business owners do little to prepare
- Issues
  - Downtime
    - Cannot supply goods, services
  - Displacement
    - Time away from the location where business is conducted
- The range of businesses
  - Corporate
    - Typically more able to deal with disasters
  - Small business
    - Highest risk, more likely to be owned by women/minorities
  - Home-based
Recovery Challenges - Infrastructure

- Roads, bridges, highways
- Levees, waterways
- Cell towers
- Power, water
- Airports, et al.
- Direct & indirect impacts
  - Road closures affect businesses
  - Loss of power threatens a nursing home
- Rebuilding strategy:
  - Resilient
  - Robust
  - Adaptable

Recovery Challenges - Psychological Impacts

- Most people do well most of the time
  - A minority of those impacted might develop post-traumatic stress disorder (PTSD)
  - PTSD takes about six months to diagnose
- What influences trauma:
  - Magnitude of disaster & exposure
  - Social support & networks
  - Training & education
  - Stress reduction activities
  - Psychological, spiritual & emotional care

Recovery Challenges - Environment

- Disasters can harm our environment
  - Release of hazardous materials
  - Poor decisions about:
    - Managing debris
    - Rebuilding homes
    - Treating nature’s resources
- Recovery planning should consider impact to waterways, trees, animal life
  - Establish plans & collaborative rescue teams before disaster strikes
Recovery Challenges - Environment (cont.)
- Consider how we manage disaster debris
  - Reduce, re-use, recycle, re-sell
- Options:
  - Conserve sensitive areas
  - Establish more green, open spaces
  - Rebuild “green” & energy efficient

Recovery Challenges - Historic & Cultural Resources
- Historic properties are defined as:
  - “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places” (FEMA 2005)
- Cultural resources include:
  - Built environment
  - Monuments
  - Art & sculpture found inside museums & around our communities
  - The ways of life that represent a shared cultural heritage

Community-Based Recovery Planning
- Communities must be involved in making decisions about recovery
- Participation brings:
  - Ideas
  - Insights
  - Support
- Participation also brings social capital
  - Bonding – across similarities (neighborhoods)
  - Bridging – across differences (occupations)
  - Linking – bring crucial recovery resources together
  - Structural – reflects who we are; tied to our statuses within community
  - Cognitive – attitudes, philosophies (“Green”)
Basic Recovery Planning

- Two kinds
  1. Pre-disaster
  2. Post-disaster (most common & undesirable)
- Involve the whole community
  - All the stakeholders
  - Local people know the community best
- A comprehensive plan should include:
  - Addressing key elements
  - Linking project to funding
  - Generating a timeline
- Project leaders should keep the public informed & actively engaged

Recovery Plan Elements

- Housing
  - What should homes look like post-disaster?
  - New codes
  - Permitting
  - Attention to at-risk populations
- Businesses
  - Business recovery must be a priority
  - Temporary support to employees
  - Alternate business locations
  - Alternate deliver/supply routes

Recovery Plan Elements (cont.)

- Environment
  - Should consider:
    - Identification & consideration on how to handle environmentally sensitive areas & endangered/threatened wildlife
    - Involving knowledgeable experts
    - Opportunities to reintroduce lost elements & deal with situations that make disasters worse
- Historic & Cultural
  - Places are important to people (economically, historically, identity)
    - Will bring them to the planning table
    - Can generate a focus recovery planning (e.g. - French Quarter)
Recovery Plan Elements (cont.)

- **Infrastructure**
  - Cost can be significant
  - Affords opportunity for upgrades
    - Roads redesigned to improve traffic flow/manage storm runoff
    - Bridges rebuilt to new standards
    - Ports can benefit from new docks

- **Psychological**
  - Communities usually fail to plan for social/psychological recovery
  - Most communities have:
    - Social workers
    - Faith leaders
    - Psychologists

Working & Volunteering

- There are many opportunities to work & volunteer during disaster recovery

  - Work examples
    - Infrastructure Manager
    - Environmental Technician, Oil Spill
    - Disaster Recovery Specialist

  - Volunteers critical to recovery efforts
    - NGO teams
    - Faith based efforts
    - Environmental clubs & initiatives
    - Civic organizations – fund raising
    - Fraternities, sororities
    - Sports teams
    - School clubs