Session 1

Holistic Disaster Recovery: Creating a More Sustainable Future

Course Introduction

Time: 3 hours

(Slide 1-1)

Objectives:

- **1.1 Understand the purpose, objectives and content of this course**
- **1.2 Explain the requirements of the course and the expectations of the instructor**
- **1.3 Discuss the use of case studies to explain the depth of impact and importance of effective recovery**
- **1.4 Revisit principles discussed in the session**

Scope:

The purpose of the first 3 - hour session is to allow the professor to describe the overall requirements of the class and introduce students to the course material.

Readings:

Readings are described as those required of students or intended for the instructor. Instructor readings serve to provide additional depth to class lectures. The instructor readings may be used to supplement class readings if desired.

PowerPoint Slides: Parenthetical references to slides are made throughout the course in order to assist the instructor coordinate the use of the course lecture materials and relevant slides. Note, for example, slide 1-1 above.

Supplemental Considerations:

Throughout the course materials, supplemental considerations will be available for the use of the instructor at their discretion. The discretionary assignment of class papers and topical presentations provides an opportunity for students to research disaster recovery topics, including related literature, in greater depth.

Student Reading:

The required reading list will be provided by the instructor on the first day of class. Students are not expected to have completed any reading assignments for Session 1.

Instructor Reading:

The instructor may want to familiarize themselves with the readings in Session 2, particularly as they relate to the terms sustainability, sustainable recovery, disaster resilience, and hazard mitigation. Reading a selection of assigned case studies will assist the instructor gain a more in-depth understanding of the issues surrounding recovery.

The following chapters and documents are recommended:

Eadie, Charles, Rod E. Emmer, Ann-Margaret Esnard, Sarah Michaels, Jacquelyn Monday, Clancy Philipsborn, Brenda Phillips, David Salvesen. 2001. *Holistic Disaster Recovery: Ideas for Building Local Sustainability After a Natural Disaster*. Natural Hazards Research and Applications Information Center, University of Colorado, Boulder. Chapter 1, Introduction to Sustainability. Pp. 2-11.

Schwab, Jim, Kenneth C. Topping, Charles Eadie, Robert Deyle and Richard Smith. 1998. *Planning for Post-Disaster Recovery and Reconstruction*. PAS Report 483/484, Chicago, Illinois, American Planning Association. Chapter 12, Earthquake Case Study: Loma Prieta in Santa Cruz and Watsonville, California. Pp.281-310.

Federal Emergency Management Agency. September 2000. Planning for a Sustainable Future: The Link Between Hazard Mitigation and Livability. Document #364.

Natural Hazards Research and Applications Information Center: Bibliography. Bibliography of social science literature focusing on disaster preparation, recovery and mitigation. www.colorado.edu/hazards/litbase/litindex.htm

General Requirements:

The course syllabus will be distributed to students and discussed. The discussion of the syllabus is intended to provide the student with a solid contextual understanding of the central purpose of the course and a broad introduction to the underlying elements of disaster recovery. In order to be effective, it is important that the instructor have a sound understanding of all topics noted on the syllabus. Emphasis should be placed on an in-depth discussion of Session 1, Objectives 1.1-1.4.

Objective 1.1 Understand the purpose, objectives and content of this course

Remarks:

The instructor should review the course syllabus (including purpose, sessions and objectives) and discuss the primary themes of the course. The instructor should be prepared to answer basic questions about session topics and provide a clear explanation of how session topics follow a logical and interrelated pattern. This exercise should comprise the bulk of the first session.

(Slide 1-2)

Purpose of this course: **Educate students about sustainable disaster recovery, including the principles, concepts, processes and practice currently used in the United States.**

Note: The introduction of the purpose of the course will necessitate defining and providing specific examples of sustainability, disaster recovery and related terms. If necessary, the instructor may rely on definitions provided in Session 2. The instructor may want to refer to some of the brief cases provided in the FEMA document, *Planning for a Sustainable Future*.

Objective 1.2 Explain the requirements of the course and the expectations of the instructor

(Slide 1-3)

Remarks:

While the course is designed to provide the materials needed to teach the class, the instructor may choose to include additional teaching methods, such as the assignment of individual and group presentations and term papers, in addition to the recommended exercises and case study reviews and analyses. Class papers and exam schedules are determined by the instructor.

The instructor should emphasize the key importance and expectation of class participation. The course is designed to facilitate and in most cases require student participation through case study analysis, role playing, and the oral presentation of research findings.

The following rules should apply regardless of class content:

- All reading assignments should be completed before the session in which they are discussed.

- Students are expected to participate in all session discussions, case study analyses and group projects.

- All assignments are to be submitted on time.

Instructor and Student Introductions:

Following an introduction of the instructor, including their areas of interest, each student should discuss their area of study and any personal experiences associated with disasters. This approach not only provides an opportunity for the instructor and students to learn about each others background, it can provide the instructor with a basis for choosing examples later in the course that are related to an individuals area of interest, thereby demonstrating the multi-disciplinary breadth of recovery.

(Slide 1-4)

Student Evaluation:

The instructor should provide a clear explanation of how students will be evaluated. The method chosen should be given to students and discussed on the first day of class. The example may be used or modified at the discretion of the instructor.

- Class participation 20%

- Exam(s) 30%

- Course Paper(s) 20%

- Oral Presentations 10%

- Class Exercises 20%

Objective 1.3 **Discuss the use of case studies to explain the depth of impact and the complexities of recovery**

(Slide 1-5)

Remarks:

The course is designed to rely heavily on the use of case studies to clarify course objectives and explain recovery topics. Case studies, taken from across the country and addressing different hazards, will emphasize both examples of effective and ineffective recovery strategies. The instructor may wish to include examples that have occurred in the state or region in which the course is taught. This may facilitate additional student involvement. Similarly, the instructor may decide to ask students to identify case studies and report their findings in the context of relevant course literature.

Note: The case study; Loma Prieta in Santa Cruz and Watsonville, California, will be used in Session 2 to clarify the central concepts associated with sustainable disaster recovery.

Objective 1.4 **Revisit principles discussed in the session**

Remarks:

The instructor is encouraged to summarize principles discussed in the current session and set the stage for the next lecture. Each session is designed to build on information discussed up to this point in the course. The end of the session also provides an opportunity for the instructor to solicit any questions students may have regarding any topics discussed to this point, and introduce the next session, including any particular expectations or assignments.

(Slide 1-6)

Course Syllabus

Holistic Disaster Recovery: Creating a More Sustainable Future

Purpose: Educate students about sustainable disaster recovery, including the principles, concepts, processes and practice currently used in the United States.

Session 1 Introduction

1.5 Understand the purpose, objectives and content of this course

1.6 Explain the requirements of the course and the expectations of the instructor

1.7 Discuss the use of case studies to explain the depth of impact and importance of effective recovery

1.4 Revisit principles discussed in the session

Session 2 Defining sustainable disaster recovery

2.1 Define sustainable recovery, including disaster resilience and related terms

2.2 Describe the impacts of disasters and the complexities of recovery

2.3 Revisit principles discussed in the session

Beatley, Timothy. 1998. "The Vision of Sustainable Communities." Chapter 8. Pp. 233-*262.* In *Cooperating with Nature: Confronting Natural Hazards with Land Use Planning for Sustainable Communities.* Editor: Raymond Burby. Joseph Henry Press: Washington, D.C.

Becker, William S. and Roberta Stauffer. 1994. *Rebuilding the Future – A Guide to Sustainable Redevelopment for Disaster-Affected Communities.* Golden, Colorado: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Center of Excellence for Sustainable Development.

Berke, Philip and Dennis Wenger. 1991. *Linking Hurricane Disaster Recovery to Sustainable Development Strategies: Montserrat, West Indies.* Hazard Reduction and Recovery Center: Texas A&M University, College Station, Texas.

Cutter, Susan. 1996. Vulnerability to Environmental Hazards. Progress in Human Geography. 20 (4): 529-539.

Eadie, Charles. Loma Prieta in Santa Cruz and Watsonville, California. Pp.281-310, Chapter 12, In *Planning for Post Disaster Recovery and Reconstruction.* 1998, Jim Schwab, et. al.).

Eadie, Charles, Rod E. Emmer, Ann-Margaret Esnard, Sarah Michaels, Jacquelyn Monday, Clancy Philipsborn, Brenda Phillips, David Salvesen. 2001. *Holistic Disaster Recovery: Ideas for Building Local Sustainability After a Natural Disaster*. Natural Hazards Research and Applications Information Center, University of Colorado, Boulder. Chapter 1, Introduction to Sustainability. Pp.1-1 – 1-11.

Federal Emergency Management Agency. September 2000. *Planning for a Sustainable Future: The Link Between Hazard Mitigation and Livability.* Document #364.

The Heinz III Center for Science, Economics and the Environment. 2002. *Human Links to Coastal Disasters.* Chapter 3, Human Impacts of Disasters. Pp. 57-77. Chapter 4. Community and Institutional Impacts. Pp.78-111

Mileti, Dennis. 1999. *Disasters by Design: A Reassessment of Natural Hazards in the United States.* Chapter 1, "A Sustainable Framework for Natural and Technological Hazards." Pp. 17-39. Chapter 3, "Losses, Costs, and Impacts." Pp. 65-104. Chapter 4, "The Interactive Structure of Hazard." Pp.105-133. Joseph Henry Press: Washington, D.C.

Session 3 Dimensions of Recovery

3.1 The disaster recovery process

3.2 Disasters as opportunity

3.3 Short-term versus long-term perspectives

3.4 Disasters as a clarifying agent, highlighting existing or underlying local, state and federal characteristics

3.5 Revisit principles discuss in the session

Mileti, Dennis. 1999. *Disasters by Design: A Reassessment of Natural Hazards in the United States.* Chapter 7, "Preparedness, Response and Recovery." Pp. 229-238. Joseph Henry Press: Washington, D.C.

Mushkatel, Alvin H. and Louis F. Weschler. Emergency Management and the Intergovernmental System. Public Administration Review. Vol. 45. Pp. 49-56.

Ohlsen, Christine and Claire Rubin. 1993. *Planning for Disaster Recovery*. ICMA Management Information Service. Vol. 25, Number 7.

Rubin, Claire. 1979. *Natural Disaster Recovery Planning for Local Public Officials*. Academy for Contemporary Problems. Columbus, Ohio.

Rubin, Claire B. and Daniel Barbee. 1985. Disaster Recovery and Hazard Mitigation: Bridging the Intergovernmental Gap. Public Administration Review. Vol. 45. Pp. 57-71.

Schwab, Jim, Kenneth C. Topping, Charles Eadie, Robert Deyle and Richard Smith. 1998. Chapter 3. Policies for Guiding Post-Disaster Recovery and Reconstruction, pp. 43-74. *Planning for Post-Disaster Recovery and Reconstruction*. PAS Report 483/484, Chicago, Illinois, American Planning Association.

Sullivan, Mark. 2003. Integrated Recovery Management: A New Way of Looking at a Delicate Process. The Australian Journal of Emergency Management. Vol. 18. No. 2.

Session 4 Stakeholders and their roles in recovery

4.1 Identify and discuss the roles of local, state, and federal government agencies and officials

4.2 Identify and discuss the roles of disaster victims

4.3 Identify and discuss the roles of the media

4.4 Identify and discuss the roles of business and corporations

4.5 Identify and discuss the roles of university and research institutions

4.6 Identify and discuss the roles of non-profit agencies and emergent community organizations

4.7 Identify and discuss the roles of contractors

4.8 Identify and discuss the roles of associations and collaborative partnerships

Beauchesne, Ann. 1998. *A Governor's Guide to Emergency Management.* Washington D.C.: National Governor's Association.

Drabek, Thomas and Gerald Hoetmer, Eds. 1991. *Emergency Management: Principles and Practice in Local Government.* Washington D.C.: International City Management Association. Perspectives and Roles of the State and Federal Governments. Pp. 101-127.

Nelson, Laura. 1997. *Emergency Management: A Legislator's Guide.* Denver Colorado: National Conference of State Legislatures.

May, Peter J. 1985. FEMA's Role in Emergency Management: Examining Recent Experience. Public Administration Review, Vol. 45. pp. 40-48.

Tierney, Kathleen, Michael Lindell and Ronald Perry. 2001. *Facing the Unexpected: Disaster Preparedness and Response in the United States.* Washington, D.C.: Joseph Henry Press. Chapter 3: Moving Into Action: Individual and Group Behavior in Disasters. Pp.81-120.

Session 5 Formal and Informal Roles in Recovery

5.1 Discuss federal recovery programs, including their intended purpose and unintended effects

5.2 Discuss state and local recovery programs, including their intended purpose and unintended effects

5.3 Discuss the legal basis of emergency management across federal, state and local levels of government

5.4 Discuss the role of social networks in recovery

Federal Emergency Management Agency. *FEMA's Disaster Assistance: A Guide to Recovery Programs* (December, 2000). FEMA 229 (4).

May, Peter. 1985. *Recovering from Catastrophes: Federal Disaster Relief Policy and Politics.* Westport, Connecticut: Greenwood Press. Chapter 2. Changing Policies, Politics, and Values. Pp.17-47. Chapter 3. Changing Organizations and Priorities. Pp.48-68.

Session 6 Role Analysis

6.1 Analyze how roles change or breakdown over time

6.2 Discuss the emerging roles of the emergency management professional

6.3 Exam 1

Rubin, Claire. 1991. Chapter 9. "Recovery from Disaster," Pp. 224-259. In *Emergency Management, Principles and Practice for Local Government.* Drabek, Thomas and Gerard Hoetmer, Eds. International City Management Association.

May, Peter. 1985. *Recovering from Catastrophes: Federal Disaster Relief Policy and Politics.* Westport, Connecticut: Greenwood Press. Chapter 5. The Federal-State Disaster Relief Partnership. Pp. 87-103.

Session 7 Shared Governance and its Relationship to Sustainable Recovery

7.1 Discuss Exam 1

7.2 Conduct case study analysis and class presentation

7.3 Discuss shared governance using the vertical and horizontal integration typology

Berke, Phillip, R., Jack Kartez, and Dennis Wenger. 1993. "Recovery After Disasters: Achieving Sustainable Development, Mitigation and Equity." The Journal of Disaster Studies and Management. Vol. 17, No. 2 Pp.93-109.

May, Peter and W. Williams. 1986. Chapter 1 Disaster Policy in Perspective. Pp. 1-17. Chapter 2. Intergovernmental Implementation. Pp. 21-34. In *Disaster Policy Implementation: Strategies Under Shared Governance.* Plenum Press: New York.

May, Peter and Robert Deyle. 1998. Governing Land Use in Hazardous Areas with a Patchwork System. Pp. 57-84. In *Cooperating with Nature: Confronting Natural Hazards with Land-Use Planning for Sustainable Communities.* Raymond Burby, Editor.

May, Peter J., Raymond J. Burby, Neil J. Erickson, John W. Handmer, Jennifer E. Dixon, Sarah Michaels, and D. Ingle Smith. *Environmental Management and Governance: Intergovernmental Approaches to Hazards and Sustainability.*

Session 8 Decision Making in Sustainable Disaster Recovery (Part I)

8.1 Discuss choices made by stakeholders, including their implications

8.2 Discuss the politics of recovery decision making

8.3 Discuss the process of planning in sustainable recovery

Beatley, Timothy. 1995. *Planning and Sustainability: The Elements of a New (Improved?) Paradigm.* HRRC Publication No. 132A. College Station, Texas. Texas A&M University, College of Architecture, Hazard Reduction and Recovery Center.

Burby, Raymond J., Timothy Beatley, Philip R. Berke, Robert Deyle, Steven French, David R. Godschalk, Edward Kaiser, Jack D. Kartez, Peter May, Robert Olshansky, Robert Patterson, and Rutherford Platt. 1999. Unleashing the Power of Planning to Create Disaster Resistant Communities. Journal of the American Planning Association. 65.

Nigg, Joanne M. 1995. *Disaster Recovery as a Social Process.* Article No. 284. Newark, Delaware: University of Delaware, Disaster Research Center.

Platt, Rutherford. 2001. Congress and Natural Disasters: A Symbiotic Relationship. Pp. 47-63. In *Facing Our Future: Hurricane Floyd and Recovery in the Coastal Plain.* Greenville, North Carolina: Coastal Carolina Press.

Reddy, Swaroop. 1992. *A Study of Long-Term Recovery of Three Communities in the Aftermath of Hurricane Hugo.* HRRC Monograph 9B. College Station, Texas: Texas A&M University, College of Architecture, Hazard Reduction and Recovery Center.

Schwab, Jim, Kenneth C. Topping, Charles Eadie, Robert Deyle and Richard Smith. 1998. The Planning Process, pp.75-89. In *Planning for Post-Disaster Recovery and Reconstruction*. PAS Report 483/484, Chicago, Illinois, American Planning Association.

Session 9 Decision Making in Sustainable Disaster Recovery

9.1 Describe class options:

1) Class Exercise/Role Playing

2) Case Studies Discussion

Class Exercise – FEMA Emergency Management Institute course, Mitigation and Recovery Exercises (G398); Earthquake (G398.1), Flood (G398.2), and Hurricane (G398.3). Students are expected to have read the introductory materials provided by the instructor prior to class.

Case Study Analysis – Each student research team should identify relevant case study material necessary to conduct a class presentation meeting established requirements.

Session 10 Impediments to a Sustainable Recovery

10.1 Discuss federal disaster recovery programs as an entitlement

10.2 Discuss whether disaster recovery programs are creating more vulnerable communities

10.3 Discuss local capability and commitment to sustainable recovery

Rutherford Platt. *Disasters and Democracy: The Politics of Extreme Natural Events.* 1999. Island Press: Washington D.C. Chapter 1. Shouldering the Burden: Federal Assumption of Disaster Costs. Pp. 11-46.

May, Peter. 1985. *Recovering from Catastrophes: Federal Disaster Relief Policy and Politics.* Westport, Connecticut: Greenwood Press. Chapter 4. Mount St. Helens: A Case Study. Pp.71-86. Chapter 6. Political Influence, Electoral Benefits, and Disaster Relief. Pp.104-128.

Session 11 Impediments to a Sustainable Recovery (Part 2)

11.1 Discuss the lack of recovery planning at the federal, state and local level

11.2 Exam 2

Kartez, Jack and Michael Lindell. 1987. Planning for Uncertainty: The Case of Local Disaster Planning. American Planning Association Journal 53: 487-498.

Kartez, Jack and Charles Faupel. 1994. *Comprehensive Hazard Management and the Role of Cooperation Between Local Planning Departments and Emergency Management Offices.* Unpublished Paper.

Spangle and Associates with Robert Olsen Associates, Inc. 1997. *The Recovery and Reconstruction Plan of the City of Los Angeles: Evaluation of Its Use After the Northridge Earthquake.* Portola Valley, California: Spangle Associates.

Session 12 Facilitators of a Sustainable Recovery

12.1 Discuss leveraging resources

12.2 Discuss the creation of multi-party recovery committees

Oleari, Kenoli. 2000. Making Your Job Easier: Using Whole System Approaches to Involve the Community in Sustainable Planning and Development. Public Management (December): 4-10.

Picou, J. Steven. 2000. The Talking Circle as Sociological Practice: Cultural Transformation of Chronic Disaster Impacts. Sociological Practice: A Journal of Clinical and Applied Sociology 2 (2): 66-76.

Rubin, Claire B. and Daniel Barbee. 1985. Disaster Recovery and Hazard Mitigation: Bridging the Intergovernmental Gap. Public Administration Review. Vol. 45. Pp. 57-71.

Schwab, Jim, Kenneth C. Topping, Charles Eadie, Robert Deyle and Richard Smith. 1998.Chapter 4. The Planning Process, pp. 75-111. *Planning for Post-Disaster Recovery and Reconstruction.* PAS Report 483/484, Chicago, Illinois, American Planning Association.

Videos:

Federal Emergency Management Agency, Emergency Management Institute. 2000. Taking the Initiative. Emmitsburg, Maryland. Available from the Emergency Management Institute at 1-800-238-3358. Ask for the "Disaster Resistant Jobs" video.

National Park Service and Federal Emergency Management Agency. 1995. Multi-objective Mitigation Planning. FEMA Region VIII, P.O. Box 25267, Bldg. 710. Denver, Colorado 80225-0267.

Session 13 Facilitators of a Sustainable Recovery (Part 2)

13.1 Discuss how planning facilitates a sustainable recovery

13.2 Discuss how dispute resolution facilitates a sustainable recovery

Godschalk, David. 1992. Negotiating Intergovernmental Policy Conflicts: Practice-Based Guidelines. Journal of the American Planning Association. Vol. 58. No. 3.: 368-378.

Mileti, Dennis. 1999. *Disasters By Design: A Reassessment of Natural Hazards in the United States.* Chapter 7. Preparedness, Response and Recovery. Pp. 209-240. Washington, D.C.: Joseph Henry Press.

Topping, Kenneth. 1998. Model Reconstruction and Recovery Ordinance. Pp. 149-167. In *Planning for Post-Disaster Recovery and Reconstruction*. J. Schwab et. al. eds. Planners Advisory Service Report No. 483/484. Chicago: American Planning Association.

Tyler, Martha, Katherine O'Prey and Karen Kristiansson. 2002. *Redevelopment After Earthquakes.* Portola Valley, California: Spangle Associates, Urban Planning and Research. Pp. 1-48.

Session 14 Future Trends and Implications

14.1 Discuss the effects of changing demographics

14.2 Discuss the implications of increased responsibilities of local, state and federal officials charged with recovery

14.3 Discuss the concepts of professionalism and accreditation

14.4 Discuss the role of academia in recovery

14.5 Improving the disaster recovery model in the United States

Becker, William S. 1994. The Case for Sustainable Redevelopment. Environment and Development. Nov. 1-4.

Cutter, S.L. 2001. *American Hazardscapes: The Regionalization of Hazards and Disasters.* Washington, D.C.: Joseph Henry Press. Chapter 1 (summary table).

Mileti, Dennis. 1999. *Disasters by Design: A Reassessment of Natural Hazards in the United States.* Joseph Henry Press: Washington, D.C. Chapter 8. Innovative Paths and New Directions. Pp. 241 – 265. Chapter 9. Getting from Here to There. Pp.267 – 288.

Session 15 Revisiting the Principles of Disaster Recovery

15.1 Revisit the concepts of sustainable recovery and disaster resilience

15.2 Term paper presentations