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*Tim Gelston:* Good afternoon. I think we'll get started. Great to see such a great, large crowd, here. My name's Tim Gelston. You are at Planning for Post Disaster Recovery 1. That, of course, means that there will be a 2 following directly after this.

I'd like to go ahead and start off by introducing the panel up here, and I think we have a—we've got a great program today, so thank you. For those of you on the left side of the room, you may want to shift over. I don't know if you can see that, but you may want to shift over—or not.

Today we have with us three individuals who are gonna speak to us about post disaster recovery planning, including Ken Topping, who's a fellow with the AICP and he's a lecturer at the City and Regional Planning Department of the California Polytechnic State University in San Luis Obispo. He's also the Project Director of the State Hazard Mitigation Plan Revision Project prepared by Cal Poly for the California Emergency Management Agency. He's the president of Topping Associates International, an urban planning consultant firm, and a member of the San Luis Obispo County Planning Communication.

We also have today Barry Hokanson. Barry has more than 45 years of urban planning experience with agencies in California, Texas, Kansas, Iowa, Illinois, with responsibility for developing regulations, building codes, transportation planning, strategic planning, community development, storm water and flood plain management, decision support technology, facilities management systems, emergency response planning and post disaster recovery planning in both urban and suburban areas.

Finally, Christine Butterfield joins us today. She's the Community Development Director for the city of Cedar Rapids, Iowa, since November of 2007. She holds a Master's degree in planning from the University of Wisconsin La Follette Institute of Public Policy, an undergraduate degree from the University of Minnesota. She's worked with local governments in Wisconsin, Illinois, Minnesota, California, and Iowa. Her contribution led to national recognition of best practices in a variety of disciplines, and most recently the 2011 National Planning Excellence Award for best practices in hazard mitigation and disaster planning.

I'd like you to welcome all of them, and look forward to an engaging session today.

Here we go—so this is part of the Resilient Communities Tract, right? That makes sense. We're here to talk about post disaster recovery planning and community resilience, or that ability to bounce back from events is very much a part of a community's well-being, and certainly that level of resilience is part of how we look at communities.

The purpose today is to talk about how planners and planning shapes the recovery and the roles that planners and planning play in post disaster recovery. This session will introduce key concepts and lessons documented in a new Planning Advisory Service report entitled, "Planning for Post Disaster Recovery: Next Generation," to be published later this year.

This session is extraordinary in a number of ways, not only with the panel that we've got assembled, but we're also live webstreaming this, and there's, I'm told, 450 or more various locations that are streaming this conference right now, so welcome to those who can't be here in Chicago with us, but who are joining us by the web. Thank you to the Governor's South Atlantic Alliance, the Florida Department of Economic Development, the Florida Coastal Management Program, and the Florida Department of Environmental Protection, and also NOAA for making the web streaming possible today.

We will be taking questions at the end of the presentation today. We'll be taking them both in the room and online, so if you're online, go ahead and send your questions in at any time. We'll queue them up, we'll have them ready to go just a little bit later.

I alluded to the fact that this is part one of two. We just didn't have enough time in one session to get through all the material and hopefully answer all the good questions that you all will have. Hopefully you'll be able to stick with us and join the second session.

A couple of objectives here—first, to understand the community planner's role in shaping resilience through planning for recovery from natural hazards, and second, to describe the range of policies and programs that form recovery planning processes.

Just a quick discussion, too, about the APA and FEMA partnership—it started back in '93 and resulted in '98 in the document commonly referred to as the Green Book. Has everybody got a copy of the Green Book? Has everybody read the

Green Book? Well, there's another version coming out, and I'll talk about that in a minute, but part of this partnership with FEMA and APA has resulted in a number of things, including planning for post disaster recovery and reconstruction. There's been a collaboration where APA and FEMA have worked on training workshops—Planning for Disaster Resistant Communities is one of those. There's another Planner's Advisory Service PAS report out, Hazard Mitigation Integrating Best Practices into Planning. APA has provided a variety of other kinds of input and resource to FEMA initiatives through the years.

I've alluded to this a couple of times, but the next generation of the post disaster recovery planning report is due out, Jim—

*Jim Schwab:* Late this year or early next year.

*Tim Gelston:* - late this year, early next year, so stay tuned for that. The aim is to incorporate numerous new lessons including those discovered and studied since Katrina. I think it'll include, as it indicates a robust web component to provide publicly accessible information. So stay tuned for that, and I'm sure APA will let you know when it's ready to go.

With that, and without further ado, I'd like to introduce Christine Butterbaugh.

*Christine Butterfield:* Butterfield.

*Tim Gelston:* Butterfield; excuse me.

*Christine Butterfield:* That's the first time I've been called that, so I'm cool.

So I don't—how many people here know where Cedar Rapids, Iowa is; could you raise your hand? Okay, and how many people were aware that we were the subject of a pretty significant flood disaster? Great.

So, here's statistics that are gonna be burned in my brain until the day I die—we had 7749 parcels impacted. Those were residential, commercial, industrial. It displaced about 18,000 residents. Our updated statistics actually indicate there are about 22,000 residents. We did have zero flood deaths. We're one of two Urban Search Rescue Teams in the state of Iowa. We did 400 river rescues, despite our efforts to evacuate, which started Monday before the Friday crest. The most significant, notable part, I think, of the disaster was that all of our local, state, and federal agencies were

impacted by the disaster. You can see 310 public facilities—those are valued at \$335,000,000.

I think the most significant issue for us in the community was really watching that river span from its 600 foot width to 2 miles wide. It was unbelievable. Fourteen percent of our community—we are 75 square miles; Iowa has a lot of land and they do a lot of annexation, but 10 square miles, 1400 city blocks, and the value of the devastation was \$7,000,000,000.

The next shot is a picture of our watershed. This is the Cedar River watershed. It starts in Albert Lee, Minnesota. It's 6500 square miles. You can see Cedar Rapids there—we're three hours west of Chicago, about two hours east of Des Moines. The second largest city in Iowa, we have about 130,000 residents. Our MSA is almost 200,000 people, but we are a standalone community, and still very industrial in nature.

The next map, you can see, the 100 year flood plain is in red, but the 2008 flood spanned far beyond the 100 year flood plain, just to give you a sense of our event.

*Tim Gelston:*

I think we'd like to make this seminar a little more interactive by posing some questions throughout. The first one for the panel is, "How are planners involved in post disaster recovery, and can you give some examples?"

*Ken Topping:*

I'll take a shot at that. Next slide, please. Disasters are increasing due to natural hazards in growth and poor planning, and climate change, and things like that. Some communities are more vulnerable, but no one is actually immune. It could happen anywhere, and planners, they're an essential part of the disaster recovery process. The main challenge is how to rebuild.

The problem is that we're not very well prepared, as a profession, for addressing this question, either ahead of disasters on how much to rebuild if you knew something was gonna happen, or after a disaster when it's happened and it's a necessity that you address rebuilding. Planners, however, ironically are very well qualified; more so, I would say, than emergency managers to handle this, especially if given some forethought. Planners can play an instrumental role in improving the community and building back better, and making—because, making things because planners understand the future and planners understand possibilities that come with the future. Emergency management partners are a little more anchored in reality and what's next.

*Christine Butterfield:* So, I guess, in Cedar Rapids' case, my answer to how are planners involved—really, from my perspective, there's two ways. Number one, you need to lead, and that's what we did. We took responsibility for the entire planning initiative, brought all of the interdepartmental—you know, the directors together as well as multiple jurisdictions. Then other thing that we did was, we really designed the flood recovery systems that are still in operation today.

Like all of you do, when you're putting together a policy, you're gonna reach out to other municipalities, counties, agencies, and really try to understand what are they doing well, what are the issues that they're facing with a specific policy question, and then you're gonna build a system or a regulation or an approach to capitalize on the pros of their approach and minimize on the negatives.

We put together, immediately, a strategy that identified short term, midterm, and long term outcomes or initiatives that we needed to take on. In the short term, we designed a contractor certification system, because we had learned from Grand Forks and some of the communities we talked to in Florida that there were many folks, we kind of call them disaster junkies or roadies, that follow disasters to perform rehab and those types of things, and they take advantage of residents. We also moved very quickly with the planning and we'll talk about that in a little bit.

In the midterm, we worked really hard to design and actually fix some national problems with business recovery, CDBG is tough to use, but particularly with businesses. We worked hard with state and federal government to make some rule changes, and I think probably one of the critical steps was, with the flood recovery planning, it really helped frame, where would flood protection be located, and that defined where would people, and could they redevelop with the least amount of risk, but also framed our property acquisition, which is significant.

Then finally, in the long term, really recovering public facilities, the plan implementation which has been critical, the plans we're gonna talk about today, the neighborhood planning process, River Corridor Redevelopment Plan—these are the first plans in Cedar Rapids' history that had an implementation strategy, and we have demonstrated about 70 percent implementation to date in 5 years.

Next slide. I think the other piece was just moving quickly. You can see our time frame, here. Our disaster happened on June 13th, 2008. From July to October, we engaged about 3000 residents in an open house process, we held 3 open houses. The first open house really framed up what's the problem—obviously water, *[Laughter]* flood protection, hazard mitigation. The second open house, we talked about options, and we asked the community to provide written and verbal feedback on which options best meet their long term needs.

We knew that this wasn't gonna be a dialogue of experts telling residents what they needed to do, how they needed to do it, and where they needed to go, but rather, it was our job to frame up the appropriate questions and ask them how they wanted their community to recover and how they wanted it to look for their children's children.

At our third open house, we had a preferred approach—and you can go to the next slide.

[0:15:00]

This is the strategy that the community came up with, it's 7.5 miles of flood walls and levies, structural and non-structural measures. It provides about 230 acres of additional floodway. We were surprised—I mean, your residents always have the right answers. There's no expert that can give you a better answer than someone that lives in the community, but really surprised at their support of this, because it does impact some of the neighborhoods significantly.

You can go back to the next slide, please. After we had this in place, City Council approved it in November of 2008. I was relieved that it was done, and the city manager brought me into his office, and I thought, "Boy, he's gonna tell me that I did a great job and I got this done in four months"—that's not what he said. What he said was, "Now that that's done, I want you to put together 10 neighborhood plans in 4 months." I looked at him, and the first thing I said was, "That's impossible." He said, "Well, why don't you go think about it and come talk to me *[Laughter]* tomorrow morning?"

So I thought about it overnight, and when I was working in the Chicago Metro, I was here about seven years working in Oak Park and Woodridge, Illinois, there was a group called the Institute of Cultural Affairs that we used, and we brought them in when we were doing facilitation or problem solving. Over the course of that

night, I guess it came to me that what we really needed to do, based upon a lot of the emotion and energy that my team was receiving as we were administering housing assistance, down payment assistance, inter-mortgage assistance, as well as some of the business assistance, that we really needed to create an environment where residents were talking to residents about how they wanted to see neighborhoods recover. How did they want to see housing recover, transportation, arts and cultural?

So, with that, we put together this neighborhood planning process, which was 8 neighborhood meetings over the course of 4 months where staff—we had 80 staff people that were trained, police officers, department directors, secretaries—that really served as facilitators. The role of the planner in this case was really framing up what are those questions that are gonna elicit response from the public that'll help us populate those reinvestment plans.

By May of 2009, we had those completed, and then I think, on the final step, really, we moved on to public facilities planning. Two other kind of critical steps as far as how planners are involved—we really served as the lead on these interdisciplinary work teams. I would say that one of the things that we learned, the best way to problem solve is by having all the people that own a piece of the problem in the room at the same time, looking at one another, so you can really have an interest based discussion.

Then finally, all of the planning work was really framed under this question of, “How do we become more resilient so that we prevent this from ever happening again in Cedar Rapids, but become better and stronger as a result of this public discussion?”

*Tim Gelston:*

Great. Thanks, Christine. You kind of alluded to the next question, I think, which is what are some of the most important lessons and issues? You mentioned the interest based discussions and having people, all the stakeholders at the table to solve a problem. Were there other things that you learned, or perhaps Barry or Ken would jump in?

*Barry Hokanson:*

Thank you. I'll start, and I'll pick up on the point that Christine just made about resilience. Institutionally, how do we learn, and how do our institutions change as a result of this process? I'm gonna ask you to think a little differently about what kind of institutions you're in. Most of us are in city or county planning departments or consulting firms, whatever, and I'm gonna suggest to you that the dynamics of the community are affected by change of all kinds, but

the rapidity of change is greatest in disaster circumstances because it happens so quickly and it's so dramatic.

On the other hand, there are similarities to what happens on a longer time frame with blight, economic—sorry, employment decline, business stagnation, commercial revitalization, housing construction, whether greenfields or other, and green initiatives are slow. It takes years and years for some of our comprehensive planning concepts to actually take shape. Again, the contrast is to a disaster, it's just another form of change and it happens very quickly.

The ingredients are the same. In some instances, the disruption and destruction of the disaster unveils opportunities, and that's true of all change, but it's especially true in the case of disasters—opportunities to reverse decline. The two go hand in hand. There may be long-standing community problems that have been the difficult challenge of the planning department for the last 10 or 15 years, all of a sudden a disaster strikes, you initially think of it as a boatload of problems, but it's also a bag of opportunities. We're gonna illustrate that today, showing how some communities have actually taken advantage of the change brought about by the storm, which was really a catalyst.

I'm gonna ask you to think about resiliency for a minute. In the narrowest sense of our topic today, it's about emergencies and hazards. The full definition up there comes from—well, one of the literature sources in the field, and I'm just gonna read it quickly to you. “Instead of repeated damage and continual demands for federal disaster assistance, resilient communities proactively protect themselves against hazards. They 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.”

Now, I'm afraid maybe you can't see the difference in the tone of the text up there, but what I want you to think about for a minute is, if you just remove some of that language that's hazard specific and you read it again and say, “resilient communities proactively protect themselves, build self-sufficiency and become more sustainable” and so on, the two, I think, are parallel. That is, resilience for hazard mitigation is really a corollary to resilience that might be seen by the finance director as a part of the insurance program maintained by, say, a city or county. It might be the

resilience seen by the engineering department for the inspection programs that cause reinvestment in bridges—that is, to fix things before they break. All of those are forms of mitigation, and it seems to me, as planners, to the extent that we can argue to our executives, to our mayors and city managers that what we're really about when it comes to hazard mitigation and this form of mitigation is, we're really partnering with our fellow department heads, who do mitigation of their sort along the way. But from the city council's policy perspective, it's really building a more resilient city, and all investments are on the table at the same time, at least in principle, and I think if we broaden our understanding of what resilience is about, it stands us better, really, with our executives and elected leaders.

*Christine Butterfield:* I think Cedar Rapids' response is consistent with what Barry just mentioned. The most important lesson that we take away from this is, in a crisis, your assets are magnified, but your weaknesses are exacerbated. I guess one of the purposes of the Green Book is to get you ready, but I would say, as you look at staffing, as you look at partnerships, as you look at innovation and problem solving and project management, that's probably the bible of all good recovery work. As you look at those systems in your own organization, that's a good place to start, and then certainly, returning to the Green Book to say, "Hey, are there options here that make sense for me, or for my agency?"

I think, as Barry mentioned, this cross functional interdisciplinary—I think the cornerstone of resilience is operating in this interdisciplinary center where you can come up with solutions that you otherwise could not create without having an engineer, a landscape architect—I don't know, psychologists, Health and Human Services, having all those people at the table.

I'll give you one example. Right after we approved our flood recovery plan in November '08, our concern was, we were providing rehabilitation funds to some homeowners. Within 30 days after the disaster, we had released all permits, which was a huge, complex, frustrating event for me, but we did it, I think, well, but it certainly adds a huge layer of complexity. Our concern was, we were gonna be investing federal rehabilitation dollars in the path of the future flood walls and levies. We were in our regular weekly meeting where we brought together consultants and department directors. We typically didn't have elected officials, but sometimes the city manager, and just started thinking, "How are we gonna come up with an approach to prevent that

investment, and then having the federal government come back and acquire those properties for the future floodwalls and levies?”

While we were sitting talking, our stormwater engineer and one of the planners in my office that leads our Metropolitan Planning Organization, or manages it, said, “Well, what if we established the construction study area now? Why wait for the federal government to fund our project? Let’s do that now.” So, at the next City Council meeting, we brought forward a proposal to establish a construction study area, which essentially meant, this is the path for the 230 acres of greenway, the floodwalls and levies, and some room, because obviously we need to make—and we’re doing it now; considerable modifications to infrastructure to support the adjacent neighborhoods—and have the City Council establish a policy that no federal funds can be invested in that location. We’re still gonna issue permits. People can still do what they want with their property.

I was completely shocked, but I think it was December 9th, the City Council supported it. The next day, the state established the same policy for the state of Iowa. That was kind of a unique solution that has paid significant dividends. It shows the federal government that we’re committed to this investment, whether or not we get federal funds or not. It also has prevented the problem of investing funds and then reinvesting funds, but it’s also created what I would call planned resiliency.

People know there’s a cultural understanding that construction study area is the path of future floodwalls and levies. It’s just very critical you bring folks together and it’s really how we came up for some of our solutions for CDBG as well.

Communicate, communicate, communicate. If you don’t have crisis communication training in your organization, get it, and do it now. If you’re not doing frequently asked questions as a standard approach in policy changes or regulation, do it now. If you don’t have your own newsletter for community development or public works, do it now. Because typically, the public needs to hear a message 10 to 15 times before they hear it. I would say in a disaster, it took us 30 and 40 times. These people are going through a morass of complex decision making, they’ve got financial challenges, and that will serve you well, establishing those systems now.

The other thing we did, too, is people that have experienced a loss, we really spent a lot of time thinking about how do we let them tell

us? How do we hear those stories? Because if you don't hear their pain, and you don't take time to listen to their stories, they can't give you what you need technically. So we established a case management system for the housing assistance in August '08. We kind of became a social service agency in community development. When we started our property acquisition program, we did away with those big cattle call meetings and we established one on one sessions, and then again with the neighborhood planning process. Each one of those eight meetings started out with residents and business owners telling one another their stories of loss and pain. Because we knew—I mean, I think there's some literature out there, but you know when people are experiencing a catastrophic loss or depression, they need to tell their story about 100 times in order to heal. So that was an important part of what we did.

As Barry mentioned, we were very opportunistic. We were short on workforce affordable housing, we were short on developers that did it, we were short on master plan development, and we spent a lot of time focusing on those areas to get better long term built environment outcomes.

The last two points—in my previous career, I did a lot of work with police and fire, and so the day after the event, the city manager directed me as the lead of our Building Services Division, our Code Division, and I started doing critical incident debriefing with those folks the week after the event, because they were getting the full front emotional reaction from the public as they were doing placarding, as they were doing building inspections, and then we did some of it internally with the planners, because it's hard not to have an emotional reaction to this horrific loss. Thank goodness, we had no loss of life, but it doesn't make it any less trying psychologically—and your staff needs to be able to fight for the ball, and they need to be able to problem solve and do good work. This is the time where their tests are really pushed—so making sure that they're physically and mentally healthy is critical, and I think, as a leader, we all own that.

Finally, kind of the cornerstone message, and Jim Schwab was teasing me about it the other day—the only way to get good results that you're responsible for is owning the problem.

[0:30:00]

In Cedar Rapids, we did not wait for federal or state money. We didn't wait for someone to come in and tell us how to do planning.

We did it and we were very aggressive. Despite the catastrophic event, we really had a lot of fun.

*Barry Hokanson:* You've got some more slides, there.

*Christine Butterfield:* Oh, and this is just a shot of our public engagement, our neighborhood planning process, and our facilitation—sorry. Then this is a shot of how we divided the community in our neighborhood planning process into the North, Central, and South area. I will say, culturally, there's a lot of neighborhood infighting in Cedar Rapids. They would be happy to get a public improvement without any interest or regard as it relates to the impact to the rest of the community.

When we were putting this map together, we had hired Sasaki and Associates, and I asked them to put together an initial map. They had aligned the boundaries on top of each other, and I said, "Uh uh. We gotta cross those boundaries. We gotta demonstrate the interdependency of these neighborhoods." It's been very effective in those neighborhoods, really looking at their neighborhood and how it impacts and interrelates with other neighborhoods, so it was a very effective strategy.

*Tim Gelston:* So what can planners do to help the community structure and approach to the problem and take hold of its future?

*Christine Butterfield:* Our response in Cedar Rapids is—have a strategy. It's gonna be your responsibility to deal with the politics. You're not a politician; you probably have ethical commitments to avoid being political, but understanding the politics and anticipating the outcomes of some of those decisions. You're gonna be responsible for policy, policy development, policy creation. The piece that gets challenging is, I think, the administration, due to its complexity.

In Cedar Rapids, our focus was having a vision and strategic intent. It's hard, it's frustrating, there's a lot of uncertainty, but once you have that plan in place, it gives the community certainty, your departments—I mean, our Public Works director is in love with our plan. It's the first plan he loves, so—go, Cedar Rapids. It has given each of the departments information that they can leverage to secure state and federal funds as we implement components of, for instance, we're making \$43,000,000 worth of investment in our storm sewer system that was damaged. We're gonna be improving roadways valued at \$20,000,000, so that's been critical.

In addition, that vision positioned the city of Cedar Rapids to shave off three and a half years of the Army Corps of Engineers Feasibility Planning Study. Typically, they take five years to do a feasibility study, because we did the upfront planning. We did it in 18 months. Our disaster was on June 13th, 2008—we presented to the Civil Works Review Board November, 2010, and the chief of the Corps of Engineers signed off on the East Side of our flood protection a month later. We were very aggressive and very pleased with those results, but that strategic intent is critical.

If you can go to slide two. I think being opportunistic and hopeful, I think in some of the psychology data on resilience is really believing that you can overcome what's happened. We were very opportunistic with housing. We have worked hard to build a more sustainable Cedar Rapids in the way that we deliver our housing programs, how we've restored our public facilities. But, again, the framework was building a greater community for our kids' kids, and becoming a better Cedar Rapids.

I'll say it to you—in the last two months, when I've been out in the community, people have approached me and whispered in my ear, “The disaster was a horrible event, but I really feel like we're better off for it, today.” And there is this energy and enthusiasm in some of the re-investment and re-development. Since I've been in my position in the last five and a half years, we have seen \$500,000,000 of new housing and business investment, and that doesn't even include the public facilities or the majority of the rehabilitation work, so it has been significant.

Being adaptive and empathetic—I mean, being adaptive is just being able to problem solve and making sure you're never in a room saying something's above your pay grade or, “That's not my problem.” My team, when we were talking about putting together this strategy, and we'd always debrief after we held these public discussions, what could we do better and improve, it was understood that if anybody saw the ball, they owned it. They didn't need to dribble it down the court, maybe they didn't shoot, but they owned that ball. Once they saw the problem, it was theirs, too. They needed to bring it to the table, and then we decided from there, as we used our project management system, who owned it, what was gonna happen, and who else from the other departments or our community would be involved.

Then again the issue of empathy is critical. Next slide, please. Is that it? Again, I think the cornerstone to any plan—because

*[Laughter]* before I came to Cedar Rapids, I primarily served in the city manager's office—is a strong implementation strategy. There's nothing that kills the credibility of a planner than doing a plan and doing nothing with it. It's not easy. I mean, I have plenty of arguments and frustrations with other directors or agencies, but we all have a shared interest, and as long as we can start with those shared interests and come up with an approach to solve the problem or deal with the implementation, we'd take care of it. Again, we're about 70 percent implemented with our strategy today.

Finally, own the problem, own the recovery, the cavalry's not coming in. FEMA is a resource, they certainly didn't save Cedar Rapids. We frustrate them, they frustrate us. The state of Iowa—I mean, the first six months, I just thought, "I'm moving. I can't take it," but today, I'll tell you that we have better working relationships, and I'm better for making it personal and not taking it personally, because we have come up with some great solutions.

*Ken Topping:*

Well, Christine is a tough act to follow, because she's given you all the answers, and Barry and I are gonna backfill now as to the to-do part of it.

My answer to the question, which is how to, what can planners do to help the community structure and approach to the problem—and by the way, do we have any students here from Cal Poly? No? Just checking. *[Laughter]* Okay. If there are any students here that know students from Cal Poly, tell them that there'll be questions on this on the exam for CRP 458. *[Laughter]*

What you can do to help yourself out of a lot of the uncertainties that have been identified is to adopt a local recovery ordinance. Most jurisdictions have ordinances that relate to emergency operations, emergency plans, et cetera. Very few have a local recovery ordinance—even though we put it in the Green Book 15 years ago. It's been there, it's actually been part of the online portion of the old Green Book, but what this does is, it gives you the legal authority to be able to go forward with both kinds of actions—visionary actions; which is almost an oxymoron, I realize, but there's very little time to think, usually, after something happens. It gives you the chance to think ahead while you're dealing and coping with the intricacies of the present. It authorizes the recovery management organization, very similar to what Christine has just described. It directs the preparation of recovery plans. In other words, it's a formal recognition by your governing

body that a recovery plan is gonna be needed, whether a disaster has happened or not.

In L.A., where I was Planning Director for about five years, back in the '80s, Mayor Tom Bradley, now deceased, led the city in creating a recovery and reconstruction plan for the earthquake that he knew was gonna happen. Well, it didn't happen until the 1994 Northridge earthquake, and it was not a catastrophic event, it was only \$48,000,000,000 worth of direct and indirect losses, but that plan turned out to be very helpful in Northridge reconstruction, although, at the same time, the reconstruction itself took a different turn, because it was more repair orientated.

L.A. as an institution learned from that experience, and hopefully the idea of a pre-event ordinance is that you can set yourself up to be ready not in terms of just preparedness, but in terms of planning. Planners understand development. Planners understand development solutions, but you've got to have the time and the latitude to be able to do the plan. I'll tell you in a little while what the parts of the recovery ordinance are that you should be paying attention to.

*Barry Hokanson:*

I'm gonna talk for just a minute about the flow of events that happens after a disaster, and there are different versions of this kind of a diagram, I'm sure you've seen before. In this case, the event is a disaster of one kind or another. It's important to keep in mind, it isn't just flooding, although we talk frequently about that, but it could be coastal hurricanes, wind damage, forest fires, earthquakes, landslides and so forth.

The response phase of the life safety portion; returning people to at least a safe environment temporarily and cleaning up the streets. The important box that I want to talk about today is the little blue one, and it's not talked about nearly enough, in my opinion, and that's called recovery organization. It's deciding how you want to organize. Christine alluded to this a little bit, and I'm gonna guess that the relationship that she had with the city manager in Cedar Rapids was key to how the discussion went. Who was at the table? Who was at the round table in the minutes and hours and days after the event as recovery organizations started to take shape? It was obvious from Christine's comments so far in her presentation that it was pretty certain that the Community Development Department in that case would play the key role, but that is often a—that's a sticking point for many communities, figuring out what the shared responsibilities are and how you

change the mindset from the urgency of the disaster and the response phase to having an orderly process for recovery.

I'm gonna digress for just a second and mention as sort of a coincidence here that I need to illustrate for you from the panel. Tim, to my right, was the head until very recently of the New York Recovery Program for FEMA, and I'm a consultant working on that project, so until just recently, I was an employee of Tim's, and he told me what to do. Now, he's still telling me what to do about how long I can speak, and he pushes the slides. *[Laughter]*

Christine, to my left, you know her background—the coincidence here is that the consulting firm that worked for Cedar Rapids in that instance, Sasaki and Associates, also was working with us as a volunteer on a pro bono basis in the New York recovery and for Staten Island in particular. We happen to have, in the audience today, the planning director for Staten Island, Len Garcia-Duran, if you want to raise your hand, in the middle of the room. Sasaki came to Staten Island recently and conducted a charrette, a training charrette, and then was there again a week or so later for a different charrette. The examples given in Staten Island are frankly *[Laughter]* the same ones that you saw on the board today from Christine, so what goes around, comes around. I just have to comment on the coincidence of this.

Next slide, please. This is an illustration of common themes about the organizational structure. We don't have time to go into it today; I'll just say, on the right side is what's called the National Disaster Recovery Framework, abbreviated NDRF. NDRF, the theme of that, is to have federal resources after the lessons learned in Hurricane Katrina, in the South, and the Gulf Coast, to organize better for disaster recovery in the future. Those six armies, you might say, the federal agencies, organized along common themes. The first one of those, community planning and capacity building, is the one that Tim here on the panel headed in the New York case.

On the left side of the screen is, I think, material that all of you can relate to in some fashion. That's the typical way that counties, cities, MPOs, are organized in key program areas. Not all of the program areas are there; I'll show you another example in a minute, but transportation planning is obviously a very structured program that's been around for 40 or 50 years, relationships have been established.

[0:45:00]

Those relationships can be tapped for disaster recovery because, on the right side of the screen, there's an infrastructure component, and USDOT is at that table. The goal of this is, let's just take a few years ago in Cedar Rapids or in the coming weeks and months for Staten Island, New York, who can come to the table and assist with the process? Who has the money, but also the technical skills and the planning processes to help move things forward?

In the middle of the left side is the Land Use or Comprehensive Plan. We'll talk about that more in a minute. Then the operations in generally HUD's domain, Housing and Urban Development, crucial in recovery, and that's particularly the case today—literally today, in New York and New Jersey following Hurricane Sandy, which we'll talk about in a minute.

So—let's see. Try the next—no, it didn't go. Okay, just back it up. Okay. The process here is one that, again, you know well, or the structure is. I won't belabor the point. The slide is supposed to be animated. I hate apologizing for something that doesn't work, but I apologize; it isn't gonna look very sensible. I think I can explain it quickly. The structure at the top is the elected officials and the executives of the organization, within which, the planning function exists.

The second set of bars there in green are the key departments or key functions of a city or county that pertain to the recovery process. If you think back to that blue box, how are you going to organize? These are the elements that need to be pulled into it, and no city, no county, or no MPO is exactly the same. Some have all of these boxes filled in. In other words, there is activity going in day in and day out, month in and month out, in all of those processes. They simply need to be tapped or reconfigured to be effective in the recovery planning process.

The long green box is the organizational influence of the comprehensive plan. Again, it's all over the map, as you know. Some cities have an extensive planning program in place, others have been decimated by political actions of the recent decades and comprehensive planning is missing or very weak. The bottom portion of the diagram is simply the detailed program areas that are made up or that is comprised of those functions. Next slide.

*Tim Gelston:*

So Ken, can you give us more detail on how a recovery ordinance might work?

*Ken Topping:* Sure, if you show me the next slide. The challenge for all of us is that there's no time to plan after a disaster, and that's basically—Lori, this afternoon, at the next session will talk a little bit more about time compression. After disaster, there are urgent demands to restore normalcy, whatever that is, and the victims needs are paramount. That puts great pressure on the locality to replace development as was. In other words, just give me my permit; don't bother me with your rules and regulations. Planning it, though, is needed to make a better and safer community in many cases. A group of us were in New York and New Jersey this past week, conducting recovery planning workshops related to post Sandy recovery. I would say that we learned about as much as we shared because there are so many new vignettes and stories of situations that are specific to individual communities. Behind this, there is the theme of, "How do we buy the time to do it right, and how do we prevent having the situation repeat itself over and over and over in the future? What can we change as we rebuild that will make it better?" That's what a recovery ordinance is supposed to do.

Next slide, please. There are a series of items in the ordinance that is presently online—Jim, can you tell me the, how to get to that easily? It's not on there.

*Jim Schwab:* [Planning.org/research/postdisaster](http://Planning.org/research/postdisaster).

[Planning.org/research/postdisaster](http://Planning.org/research/postdisaster)—that'll get you close enough. It's right there on the opening page, right? That's gonna be up there until the 30th of April, and we welcome your comments. It is an annotated ordinance, it's not a one size fits all, it's a mix and match, it's a prototypical set of suggested regulations which can and should be adapted to your local situation.

In particular, the key items in that, I've highlighted item four, Recovery Management Organization; item five, Recovery Plan; item seven, Hazard Mitigation Program. I'd like to come back to those. Briefly, I'd like to mention, however, that it provides you a panoply of temporary regulations, including but not limited to, environmental clearances, debris and hazard abatement, damage assessment and placarding, moratoria, temporary use permits, temporary repair permits, deferral of fees, and handling of nonconforming uses. The latter is a very vexing issue in rebuilds, because of either parking or other nonconforming conditions. It could be a use, it could be just simply a prior standard. Do we force people to meet the new standard or not? That's addressed.

We also have included an emergency contractor certification, and this is based on Cedar Rapids. Cedar Rapids' experience has enhanced the learning process here. Planning is a learning process. We keep learning from our outcomes, hopefully. We, the Cedar Rapids approach was to license contractors and they had, Christine can tell better than—how many? How many thousand?

*Christine Butterfield:* Ten thousand.

*Ken Topping:* Ten thousand contractors notified?

*Christine Butterfield:* No, it's 10,000 contractors were licensed and then, as part of that process, in addition to the licensure, obviously, prior licensing, we did a background check. We arrested 30 individuals.

*Ken Topping:* So the predator issue is alive and well, but not in Cedar Rapids, okay?

*Christine Butterfield:* That's right.

*Ken Topping:* They've got a handle on it. That's what we want you to do by checking this out. Even if you don't do anything else, it'll help.

Okay, next slide. The Recovery Management Organization, Barry touched on that, it's an umbrella organization for recovery planning and action and it's not limited to the emergency management departments. That's what we want to emphasize. It includes the development departments, who have a very important role in the long term development solutions for the community, which are embodied with recovery, and vice versa. It outlasts a formal emergency period, and may live for 5 or 10 years, actually, in some cases. It's either run by the city manager, or by the mayor on behalf of the City Council, depending on the type of government you have.

There is a strong staff emphasis in emergency operation centers and what this calls for is a strong, parallel communication with the City Council and the governing body so that the policy issues that begin to bubble up and emerge—they come from every direction—have a separate track for resolution over a period of time. Now, that is handled by, in the next slide, which is the recovery plan. It's like a comprehensive plan in many cases.

In our case, in L.A., we had a recovery plan which was basically a policy plan, but it reflected both short term and long term actions that we knew that we were gonna have to face—we, with some

three dozen departments. It's adopted by the City Council, and it involves coordination and consultation with a variety of interests, including other governmental agencies. That's why you need to buy time to be able to do that, and that's where the recovery ordinance can help you buy that time to carry out the recovery planning.

Last but not least, mitigation is the path to a resilient community, either before or after a disaster. If you have a strong mitigation program, then more power to you; it'll help you. If you have a weak mitigation program, now's the time to put a stronger program in place by getting a recovery ordinance adopted pre-event by your council. It would include a variety of proposed investments to strengthen the built environment to be able to withstand various kinds of risks and vulnerability to which the community is subject.

I'd like to say, at this point, that there's a strong yin/yang linkage between mitigation and recovery. If California were as advanced, and I'll say this despite the fact that we feel pretty good about the state hazard mitigation plan for California—what's missing in all the state hazard mitigation plans is a recovery component. It would be good to have recovery consequences attached to some of the mitigation so that not only the cost/benefit assessments that go with mitigation projects but also the acceleration of recovery that comes with good mitigation. It not only saves you losses, it buys you time after an event has happened. We believe that recovery planning and mitigation planning should go hand in hand. That's it.

*Tim Gelston:*

Great. Thanks, Ken; thanks, Christine; thanks, Barry. We're gonna run to the, or go to the question part of the seminar now. So if you have questions here in Chicago at the audience, please line up at the podium. We've also got questions online that have come through and we'll just alternate back and forth between the online questions and those in the audience, here.

While folks are thinking of their questions here, I'll ask the panel the first question that's come in online, and that is, "Do you have any ideas regarding incorporating assessments of the impact of residential buy out programs on municipal property tax receipts?"

*Christine Butterfield:* I'll say, in Cedar Rapids' case, the acquisition was so significant it wasn't something—I guess I'm reading this as, they want to know if you can assess it through their property tax bill?

*Tim Gelston:* You know, I read it a little bit differently. I think they're using assessment as a study of the impact of the reduction in property value on community tax revenue.

*Christine Butterfield:* Oh, I'm sorry. We're in the middle of a bio program. We have done some preliminary evaluation of the impact of the acquisitions and redevelopment. Now certainly, about 600 of our 1300 parcels that we're acquiring will go off the tax rolls. They're a new greenway, the path for the floodwalls and levies. However, with the housing redevelopment we've done in the Corps, our initial housing programs in addition to the rehab home buyer assistance or interim mortgage and down payment assistance, we have facilitated about \$200,000,000 in new housing funds.

The first two rounds went in our, we call Tier 3, Tier 2 neighborhoods, so almost—are almost suburban neighborhoods and then kind of our 1950s neighborhoods. The first round of construction of single family and multi-family new construction in the Corps, the inundation area, we've seen an increase of, just with those few units, I think \$3,000,000 in greater value than the pre-flood value, so if that's an indicator, there's a lot of public confidence that those investments are going to enhance property values.

I would say, too, that at the time of our disaster, about 50 percent of the residential properties that were impacted were actually rental. As a result of the disaster, we have implemented a Nuisance Abatement Program that's almost like rental regulation, so there's just greater review. There's a requirement that there's background checks, so I guess that's one of the outcomes. Then certainly, as I mentioned, we've seen significant Corps community business investment in the probably hundreds of millions.

[1:00:00]

*Tim Gelston:* Yeah, thank you.

*Barry Hokanson:* Could I add to that? I think that is a burning question in both New York and New Jersey today about the conflict or contrast between what happens with the buyout and what happens to the value on the tax rolls. I think the theory, for many of us as planners, is that it's just a geographic shift. It's gonna shift some place, and we certainly hope—that does need to be documented and studied more thoroughly, I think, but if you buy 10 homes right on the coast, in all likelihood, many of those homeowners are gonna move one

mild inland or a half a mile inland or whatever else and that there, in most cases, is gonna be room enough.

Now, in the case of New York City, that's, there is not much vacant land, obviously. The test is really to study that more analytically over time. If I could make a quick announcement before we go to the next question—there were some cards that we handed out at the beginning of the session, and I have a feeling that there are more people here than there were little cards. One was for a planning organization, the other one is for a sister organization, the Natural Hazards Mitigation Association, and I'm gonna ask my good friend, Ed Thomas, if he would take these to the back for me and, in case anybody didn't get one of the yellow or green cards, they'll be back there. Thank you, Ed. Ed is the president of NHMA.

*Ken Topping:* Let's hear it for mitigation. *[Laughter]* Also, the buyout question is really contingent on what the geographic pattern of the buy outs is. If it's a buy out that consolidates properties in an open area which then adds value to the remaining parcels, that's one thing. If it's a leapfrog series of buy outs, a one time only patchwork pattern that results, then that can lead to deterioration, so it depends largely on the character of the particular buy out. We've got a person in the audience—

*Tim Gelston:* We have a question here from the audience.

*Male:* Great, terrific overview. I've been involved with county emergency management planning, and I'm a newly appointed New York State Canal Recreation-Way Commissioner. Can you touch on or crystallize a few tools for our planner's tool box on whether to harden flood prone shoreline areas, or not to harden, as any levy seawall will fail eventually; maybe how to fine hone your cost/benefit analysis?

Second question, if I could fit it in, is do you have any guidance in the crystal ball on when we will have a better tool? When will the new floodway maps be coming out—flood insurance rate maps and so on—from FEMA? Anyone have a projection on that? I'd be very grateful for anything you could help crystallize the tools in our tool kit. Thank you.

*Ken Topping:* I don't know what Tim wants to say about that, but I'll say this—if you're in a coastal setting, it's a changing ball game of sea level rise and impacts on surges. It's—California coast is impacted, the San Francisco Bay Area, a number of regional organizations have

paid attention to this factor. We actually have an adaptation planning guide that was put together at Cal Poly for the state, which addresses this slightly, not very heavily, but we do have re-engineering of infrastructure such as waste water treatment plants in particular going on up and down the coast for this very reason that, of the climate change impact.

*Tim Gelston:*

I'll just say, to the base flood elevation mapping question—you know, it really depends on your location, the region that you're in and where they are in the process of updating those things. They do come out periodically. We strive to keep up with the best science and the best data, but it does take some time. It's a big nation.

I would make one mention, too, of an act that's likely to impact communities, Congress passed it last year, it's called Biggert-Waters, and among other things, Biggert-Waters will require and phase in over time that folks who pay flood insurance will pay the actuarial cost. I think that's gonna have a fairly significant impact on folks who are in the flood plain over time.

*Barry Hokanson:*

I would—just a quick comment on the right mechanism to use on the shoreline for hard or soft surfaces—I think that's a perfect example of, I wish we had a better tool box and hate to acknowledge that we don't. I also want to say, it's a multidisciplinary question by far. As planners, we dare not venture into that very much, because there are real sciences involved in the questions of coastal areas and river banks and erosion and so on. On the slide that I showed earlier of the NDRF structure, for example, we're relying heavily on NOAA, the National Oceanic and Atmospheric Administration for the actual knowledge base, and not just provide general information, but to be on site and to make determinations and analysis of when is doing restoration feasible, when isn't it, and all of those things. I think, as planners, we need to be advocates for the scientists to come in and do that work, but we can't do it ourselves.

*Tim Gelston:*

Thanks, Barry. Let's go back to the online question. This is a multi-part question for Cedar Rapids, so Christine, I'll try to—I'll read it all and try to keep you organized, here; how about that?

*Christine Butterfield:* Okay, super.

*Tim Gelston:*

“Did Cedar Rapids have a FEMA approved local hazard mitigation plan at the time of the disaster, and when long term community recovery started; and did Cedar Rapids' planners turn to the HMP

planning process and team committee first before establishing and outreaching to your interdisciplinary, long term community recovery working relationships and stakeholders that you mentioned?”

*Christine Butterfield:* We did have a Hazard Mitigation Plan in place, and thank goodness it had been taken care of, I think, three, five months before I arrived. Essentially, as you all know, that plan qualifies you for those grant funds that the state facilitates on behalf of the federal government.

We did not have a long term recovery committee that continues to be discussed. I think that’s kind of a standard component of what FEMA advocates. We did—the city manager did set up a group called the Reinvestment Recovery Coordinating Team, and that brought together the United Way, housing partners, business partners, unionized labor, county officials, next gen-ers. We did have FEMA officials there. The purpose of that discussion, which started out daily and then moved to weekly, was really to perform intake. What are the issues?, what are the resources?, and then who’s going to own it?, and then from that Resource Recovery team, the city manager dispatched directors or staff people to coordinate with those agencies.

I think, on the Hazard Mitigation grant program, I'm gonna tell you, I was incredibly disappointed [*Laughter*] about the eligibility of those resources, and maybe all of you have worked with more of those. When we started our intake process through the state, we thought that potentially all 1300 parcels are—because it’s a voluntary acquisition program, and that was critical in our plan; it’s gotta be voluntary. At the end, as we put together our planned document of the 1300 parcels, only 91 qualified. The reason was that we were going to be building a levy, these structural and nonstructural measures, to protect the community.

There is no panacea, there is no silver bullet, and related to the previous gentleman’s question about how do you put together a strategy—I think it’s all, form follows the function; being clear on where you want to end up, and then working back. When you find that you've hit a barrier, then you've got to go to another track, another path. I would say, one of the things that we started doing with state and federal officials—and this is no criticism of them, but when we had a problem, what we would do is say, “Here’s our problem, and here’s the outcome we want to get,” just so they heard what we were saying—problem and outcome. Then from there, I started having my team, I said, “This is enough. We're not

getting anywhere. Frame up three or four options and let them pick. And organize the pros and cons, the way you would to an elected body.”

That became such an effective approach to get results, but it’s something we actually did implement with HMGP.

*Tim Gelston:* Great. Let’s go to the room here.

*Male:* Thank you so much. I do share your frustration with the HMGP program. *[Laughter]* We have a pretty active acquisition program, and I guess my question is directed toward the post disaster recovery plan—what are your thoughts on identifying potential acquisition projects and what that might do to their property value and their interest in getting involved in that as well?

*Ken Topping:* Well, this is tough, because obviously, it’s gonna skyrocket the property value if you get too specific. Most general plans in California, for example, have solved that problem by being very vague and fuzzy, which is about what you have to do, and that’s why the comprehensive plan is a very important link to all this, and we haven’t talked about the linkage between the recovery plan and the comprehensive plan.

If you have a long term vision that would say we're going to approach an area of shoreline, for example, with a managed retreat, which basically gets us more open space. You can’t go too far in that direction as far as being explicit, because otherwise it could just be a policy statement. It doesn’t have to necessarily be mapped. I think that’s the key, and the problem is that HMGP requires specificity on the grant projects. The question that I think we should be addressing is, how can you look at alternate development solutions through HMGP? I’m not sure that we really do that presently, because it’s all CBA bound. You have to be able to show your cost benefit of one or greater—a benefit to cost ratio of one or greater.

But I know of one case in Santa Barbara which we featured in our State Hazard Mitigation Plan where the city of Santa Barbara had bought out landslide land, which was obviously landslide land, because it was sliding. *[Laughter]* They did that with HMGP money. After—next came a wild fire, which burned down the rest of the houses of the hold outs. When the hold outs wanted to have their rebuild permits, the city was able to say, “No, you can’t do that, because the hazard is too obvious.”

We need to get the horse in front of the cart relative to potential development solutions, because had it been possible to foresee that this was a multi-hazard area and that there were some alternate solutions of buying out the whole area, it would have probably reduced the losses to the property owner in that case, and probably made it a more consistent program, HMGP program, from a land use standpoint. Am I getting close to your question? Okay.

Less specific and more conceptual and try to address the cost/benefit—try to get FEMA to address the cost/benefit issues on a broader basis.

*Tim Gelston:* Great. Next question?

*Male:* That was a perfect set up for my question, Ken, thank you. If I understand the story correctly, Daniel Burnham did a plan for San Francisco after the turn of the century, right before the fire, and once the earthquake and fire occurred, then people were sort of excited about the possibility of rebuilding according to the Burnham plan. It never happened. Everybody just rebuilt, using the same block lines and street alignments, so it never happened.

So my question is, how much energy do you put in to thinking about different scenarios for a community that can only be implemented if you have a disaster and are given the opportunity to replan your community? Lay out streets in a different way—I mean, you're talking about open space, acquiring open, that would be a strategic consideration, I can see that. But again, how do you think about a scenario where much of your city's destroyed, or large parts of it, and what opportunities that presents for rebuilding in a different way?

*Barry Hokanson:* Could I add real quick, and it won't be specific to your—it's about your question, but it is a plug for the next session, actually. In part of the next session, we'll deal with pre-disaster planning for post disaster recovery, so they're gonna do a lot more justice to that question that we can do here in a couple minutes, but it is an important question. I had something I wanted to say, but I forgot it—go ahead. *[Laughter]*

*[1:15:00]*

*Christine Butterfield:* Okay, I think we're back to you. I guess one of the takeaways in really how we're operating now, because we're jumping into our comp plan update, *[Laughter]* is, if you can consistently, as an agency, assess your strengths and weaknesses, they're not gonna

change much, in the event of a disaster. They're gonna become more critical, but you know what those issues are. I mean, we knew that we were close to the river, because we've had a high frequency of flooding. We know that our transportation system is a stinker, in the Corps—so I guess my recommendation would be, what I'm gonna do when I go to my next agency, is really start having some of those critical, crucial discussions.

The problem is, is when we are all in communities and we become complacent by the busy-ness of busy-ness, and avoid leaning in to tough issues. Maybe that's more of a strategy that you have with your elected officials and your leadership team, maybe it's—what's the one big, tough issue we're gonna take on this year and try to tee up? Then bring that into, I would say, your sub-area plans as well.

*Ken Topping:* Real quick—this is a question for the next session, Larry, but adopt a pre-event recovery ordinance. That'll allow you to have the option of a moratorium, which is not easy to do, but it buys you time to do those big picture visioning exercises, whether they result in something or not.

There are examples—we're sitting in a city that burned down, which was rebuilt in a different form, so visionary planning works, folks. It's our job. It's our duty. It's an ethical responsibility to be visionary, right? Santa Barbara rebuilt along the lines of Spanish architecture, and that was because of the 1926 earthquake in Santa Barbara.

We get these opportunities to do it right every now and then, and the question is, have we armed ourselves legally as well as conceptually to be ready to step in with maybe a hip pocket plan or some good, new ideas from the citizenry.

*Male:* A community rating system—was Cedar Rapids a participant in the community rating system before the flood, and are you going to be one after the flood?

*Christine Butterfield:* We are a member now, yes.

*Male:* What's your score?

*Christine Butterfield:* I couldn't tell you that. I could get back to you—but yes, we actually have a staff person, two staff people that have been working with FEMA to establish that, and we have provided

assistance to businesses and residential property owners for about a two year period to support that.

*Tim Gelston:*

Great. We are at time, and I know there's one other, one more question—maybe you could stick around for the next event, or just come up and ask, that'd be great.

Thank you all for attending. Thank you to the panel for the great discussion today, and stick around and come back at 2:30 for the next session.

*[End of Audio]*