Jill Schultz
President
JMS Communications & Research
Public Engagement Strategies to Build More Resilient Communities when Urgency Matters
The Flood
The 2008 Flood

In Eastern Iowa, the City That ‘Would Never Flood’ Goes 12 Feet Under

Volunteers placing sandbags along a road Thursday in Cedar Rapids, Iowa. About 8,000 people had evacuated their homes, and 5,500 were without electricity.

By CHRISTOPHER MAAG
Published: June 13, 2008

CEDAR RAPIDS, Iowa — They said this city would never flood. They talked about 1993, and 1966 and 1851, years when the Cedar River swelled and hissed but mostly stayed within its banks. They thought they were safe. They were wrong.

31.12 feet flood crest  
10+ square miles impacted  
310 City facilities flooded
Flood Impacts

41,771 tons of flood debris removed

1,360 estimated jobs lost due to flood
Flood Impacts

- 7,749 parcels flooded
- ~18,000 residents displaced
- 0 flood-related deaths
Flood Impacts

5,900 residential properties flooded

~1,400 damaged properties will be demolished
Recovery Timeline

**Phase One:** Public Open House

- **FLOOD**
  - June 13, 2008
  - July - November 2008
  - 3 Public Open Houses seeking public feedback on the following themes:
    - Flood Impact Assessment
    - Options and Evaluation
    - Flood Management Strategy

**Phase Two:** Neighborhoods Reinvestment Plan

- **PHASE 2**
  - January - May 2009
  - 4 City-wide workshops & 4 Area Meetings
  - leading to a strategy for reinvestment that builds:
    - Community Governance
    - An Evaluation Framework
    - An Action Plan

**Phase Three:** Implementation

- **PHASE 3**
  - Ongoing
  - A series of implementation initiatives:
    - Public Facilities
    - Urban Design Guidelines
    - Parks and Recreation Master Plan
    - Army Corps Feasibility Study

*Phase One: Public Open House
Phase Two: Trained City Employees Facilitating Conversations between Neighbors*
The Public Engagement Process – Getting Decisions that Stick

Three Stages – Communicate & Seek Feedback on:
• The need, the process, evaluation criteria
• The options
• The selected option

Keys to Success
• Incorporates public early on in decision-making process
• Establishes clear roles which retain governing board’s authority
• Is interactive and addresses residents’ issues/concerns as process progresses; listens and responds to public feedback
• Develops support during process, creating an outcome that’s supportable by governing boards
Flood Management Plan

• Staffed "open house" events
• Boards which:
  -- told the story
  -- framed up the issues
  -- translated technical information for community consumption
• Solicited feedback at each step; fed back the feedback, and incorporated feedback
Gathering Meaningful Feedback

- Structuring questions to understand underlying reasoning rather than yes/no opinion
- Quality of response gives you more flexibility to reach solutions

#27 Bike Trail - pretty

#26 Old looking, welcoming

Q3a. 

$15 - dean, efficient, functional, welcoming, low maintenance

Reminds of neighborhood streetcar depot
Cultivating Community Support and Stewardship
Sharing Personal Stories of Loss to Allow Healing
## Evaluating Options

<table>
<thead>
<tr>
<th>Tactic</th>
<th>Flood Reduction</th>
<th>Costs</th>
<th>Install Time</th>
<th>Approval Time</th>
<th>Other Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dry reservoir upstream</td>
<td>50%</td>
<td>$600--650M</td>
<td>50 years</td>
<td>3--5 years</td>
<td>Effective, but negatively impacts six towns, as well as roads, bridges, and</td>
</tr>
<tr>
<td>Size: 520,000 acres, 1 ft. of water deep</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>the Duane Arnold Power Plant.</td>
</tr>
<tr>
<td>2. Flood protection at river's edge</td>
<td>50%</td>
<td>$250--275M</td>
<td>10--15 years</td>
<td>1--3 years</td>
<td>Effective, but visually and physically separates the City from the river.</td>
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<tr>
<td>Floodwalls / levees 10-18 ft. high depending on location</td>
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<tr>
<td>3. Flood protection offset from river</td>
<td>50%</td>
<td>$175--200M</td>
<td>10--15 years</td>
<td>1--3 years</td>
<td>Effective, but severe connection to the river and requires extensive property</td>
</tr>
<tr>
<td>Floodwalls / levees 5-18 ft. high depending on location</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>acquisition.</td>
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<tr>
<td>4. Diversion channel around Cedar Rapids (East)</td>
<td>50%</td>
<td>$5.6B</td>
<td>20--30 years</td>
<td>3--5 years</td>
<td>Effective, but expensive, and aesthetic issues.</td>
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<tr>
<td>A 15-mile 330 ft. wide x 20 ft. deep concrete channel along east route</td>
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<tr>
<td>5. Diversion channel around Cedar Rapids (West)</td>
<td>50%</td>
<td>$2.8B</td>
<td>20--30 years</td>
<td>3--5 years</td>
<td>Effective, but expensive, and aesthetic issues.</td>
</tr>
<tr>
<td>11-mile 300 ft. wide x 20 ft. deep concrete channel along west route</td>
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<tr>
<td>6. Multiple reservoirs upstream</td>
<td>33%</td>
<td>$900--950M</td>
<td>40--50 years</td>
<td>3--5 years</td>
<td>Effective, but negatively impacts upstream communities.</td>
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<tr>
<td>Size: Total 520,000 acres, 1 ft. of water deep</td>
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<tr>
<td>7. Widen Cedar River channel cross section</td>
<td>20%</td>
<td>$320--350M</td>
<td>10--20 years</td>
<td>3--5 years</td>
<td>Impacts adjoining property.</td>
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<td>Size: 700 ft. wide</td>
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<tr>
<td>8. Diversion channel through Cedar Rapids</td>
<td>10%</td>
<td>$140-160M</td>
<td>10--15 years</td>
<td>1--3 years</td>
<td>Aesthetic issues and impacts adjoining property.</td>
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<tr>
<td>100 ft. wide by 20 ft. deep concrete channel</td>
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<tr>
<td>9. Construct lift bridge spans</td>
<td>10%</td>
<td>$110--120M</td>
<td>10--20 years</td>
<td>&lt; 1 year</td>
<td>Bridges would not be operational during flood event.</td>
</tr>
<tr>
<td>10. Add tunnel through Cedar River corridor</td>
<td>9%</td>
<td>$300-320M</td>
<td>10--15 years</td>
<td>1--3 years</td>
<td>Unknown.</td>
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<tr>
<td>Four 20 ft. diameter tunnels</td>
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<tr>
<td>11. Increase channel capacity</td>
<td>9%</td>
<td>$35--45M</td>
<td>10--15 years</td>
<td>1--3 years</td>
<td>Impacts adjoining property.</td>
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<tr>
<td>By removing “pinch points” on either side of corridor</td>
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Twenty-two flood management tactics proposed by experts and community members were evaluated. Above are the **11 most effective tactics at reducing the 2008 flood level, in order of effectiveness.**
Developing Strategies

**The Walled City**
(Floodwalls)

Floodwalls are constructed at the river's edge with strategic openings.

**The Greenway**
(Levees)

A levee and parkway system is developed along the river.

**The Breathing Room**
(Naturalized Floodplain)

Low-lying, flood-prone areas are reclaimed as a naturalized floodplain with an integrated inland levee.
Post-meeting follow-up

- Sign-ins/ mailing list
- Synthesizing feedback (include highlights at next meetings to demonstrate comprehension and confirm take-aways)
- Thank you for attending/ Send links to presentation and/or synthesized feedback
Fostering Self Governance
Designing a process that leads to implementation

Flood Management Strategy Implementation: Acquisitions
Initiatives Underway: Medical District Planning
Ongoing Reinvestment Planning: Public Facilities, Parks and Open Space

<table>
<thead>
<tr>
<th>AREA PLAN ELEMENTS</th>
<th>INITIATIVES</th>
<th>ACTION ITEMS</th>
<th>STARTED WITHIN…</th>
<th>ESTIMATED COMPLETION DATE</th>
<th>ROLES</th>
<th>STATUS</th>
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<tbody>
<tr>
<td></td>
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<td></td>
<td>0-12 MONTHS</td>
<td>1-2 YEARS</td>
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<td>Housing &amp; Neighborhood Character</td>
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<td>Transportation &amp; Connectivity</td>
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<td>Recreation &amp; Open Space</td>
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<td>Arts &amp; Cultural Opportunities</td>
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<tr>
<td>Business Reinvestment</td>
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<td>Community Services</td>
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<tr>
<td>Preferred Flood Management Strategy</td>
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</tbody>
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Monitoring progress

Neighborhood Reinvestment Action Plans

Central

Elements

Open Space & Recreation

Initiatives

Greenway Programming and Design

Action Items

Determine feasibility of a new outdoor performance venue

Outdoor performance venue will be part of the Parks and Recreation Master Plan. Open Houses for public input are scheduled for June 23, August 18 and October 6. Additional coordination and planning with the community may be needed at the conclusion of recommendations.

Start Date: 2009
This project is On-Going

This action item is a flood recovery/reinvestment project or initiative that has been identified by the public through the Neighborhood Planning Process.

Responsible Parties

<table>
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<tr>
<th></th>
<th>Lead</th>
<th>Communication</th>
<th>Funding</th>
<th>Participation</th>
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<tbody>
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<td>Private Sector</td>
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