Living with the River in Lyons, Colorado

Darrin Punchard, AICP, CFM
Principal – Risk & Resilience
Lyons, Colorado

Located 50 miles north of Denver; 12 miles north of Boulder

“Double Gateway to the Rockies”

Elevation: 5,374 feet

Population: ~2,000

At the confluence of the north & south tributaries of St. Vrain River
Lyons, Colorado – Flood of 2013

17” of rain fell between September 9-15th (average annual precipitation = 18.5”)

Volume of water in St. Vrain River increased 10x above normal amount

211 homes damaged or destroyed (168 homes and 43 mobile homes), displacing 15% of population

Town evacuated for more than a month (no water, sewer or gas; very little electricity)
Lyons, Colorado – Flood of 2013

BEFORE
Lyons, Colorado – Flood of 2013

AFTER
Community Planning Assistance Team (CPAT)

About CPAT

• The CPAT program is an initiative of the American Planning Association (APA)

• CPAT pairs a multidisciplinary team of experts from around the country with local communities

• Teams provide pro-bono assistance to address a variety of local planning issues and challenges

• Team meets on-site for 3-5 days for series of focused discussions, site visits, etc., followed by a final presentation and detailed report
Team Members

- **Gavin Smith, PhD, AICP** – research professor of City and Regional Planning at UNC-Chapel Hill and executive director of the DHS Coastal Hazards Center
- **David Perkes, AIA** – professor at Mississippi State University; founding director of Gulf Coast Community Design Studio
- **Darrin Punchard, AICP, CFM** – principal at Hawksley Consulting; Risk & Resilience practice leader
- **Andrew Rumbach, PhD** – assistant professor of Planning and Design at CU-Denver with focus on disaster recovery and community resilience
Mission: provide technical and advisory assistance to the Town on long-term disaster recovery, hazard mitigation and redevelopment decisions; supporting the community's goals for sustainable neighborhood design, affordable housing, environmental preservation, resilience, and economic prosperity.

Study limits: Confluence area

Key tasks:
1. Engage with stakeholders
2. Review existing plans, policies, etc.
3. Recommend actionable recovery strategies & flood mitigation measures, with example best practices
4. Provide visual depictions of various redevelopment scenarios – including various combinations of land acquisition and on-site housing repair and rebuilding
CPAT for Lyons, CO

Initial visit in February 2014

Full team site visit May 12-16

### Lyons Community Planning Assistance Team
May 12-16, 2014

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
<th>WHO</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MONDAY, MAY 12</strong></td>
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<tr>
<td>9:00 - 10:00 AM</td>
<td>Orientation meeting: Flood impact, recovery efforts, background information...</td>
<td>CPAT, Recovery Advisory Committee</td>
<td>Town Hall</td>
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<tr>
<td>10:00 AM - 12:00 PM</td>
<td>Tour of Lyons, flood-affected areas</td>
<td>CPAT, Town staff</td>
<td>Lyons</td>
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<tr>
<td>12:00 - 2:00 PM</td>
<td>Working lunch</td>
<td>CPAT</td>
<td>TBD</td>
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<tr>
<td>2:00 - 4:00 PM</td>
<td>Stakeholder meetings</td>
<td>CPAT, Stakeholders</td>
<td>OEM Office</td>
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<tr>
<td>4:00 - 5:00 PM</td>
<td>Strategy meeting to refine scope, finalize community meeting agenda</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>5:00 - 5:30 PM</td>
<td>Break</td>
<td>CPAT</td>
<td>TBD</td>
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<tr>
<td>5:30 - 7:00 PM</td>
<td>Team sits in on updates to Lyons Board of Trustees on recovery projects (infrastructure, streams, health and human services)</td>
<td>Board of Trustees, Task Force/Commissions</td>
<td>Roger's Hall</td>
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<tr>
<td>7:00 - 8:00 PM</td>
<td>Opening presentation/Community meeting</td>
<td>CPAT, Boards &amp; Commissions, Confluence area residents, public, Board of Trustees, Recovery Steering Committee</td>
<td>Roger's Hall</td>
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<tr>
<td><strong>TUESDAY, MAY 13</strong></td>
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<tr>
<td>9:00 - 10:00 AM</td>
<td>Stream stakeholder meeting</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>10:00 AM - 12:00 PM</td>
<td>Stakeholder meetings with Confluence area residents</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>12:00 - 1:00 PM</td>
<td>Lunch</td>
<td>CPAT</td>
<td>TBD</td>
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<tr>
<td>1:00 - 3:00 PM</td>
<td>Discussion/Working session</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>7:00 PM</td>
<td>Dinner</td>
<td>CPAT</td>
<td>TBD</td>
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<tr>
<td><strong>WEDNESDAY, MAY 14</strong></td>
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<tr>
<td>9:00 - 10:00 AM</td>
<td>Working session</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>10:00 - 11:00 AM</td>
<td>Discussion</td>
<td>CPAT, Advisory Committee</td>
<td>Town Hall</td>
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<tr>
<td>11:00 AM - 1:00 PM</td>
<td>Working lunch</td>
<td>CPAT</td>
<td>TBD</td>
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<tr>
<td>1:00 - 5:00 PM</td>
<td>Working session</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>5:00 - 6:00 PM</td>
<td>Confluence area residents meeting</td>
<td>CPAT</td>
<td>Town Hall</td>
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<tr>
<td>6:30 - 7:30 PM</td>
<td>Working dinner</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>7:30 - 9:00 PM</td>
<td>Working session to refine concepts and recommendations, begin final presenta-</td>
<td>CPAT</td>
<td>OEM Office</td>
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<td><strong>THURSDAY, MAY 15</strong></td>
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<tr>
<td>9:00 AM - 12:00 PM</td>
<td>Working session</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>12:00 - 1:00 PM</td>
<td>Lunch</td>
<td>CPAT</td>
<td>TBD</td>
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<tr>
<td>1:00 - 4:00 PM</td>
<td>Working session</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>4:00 - 5:00 PM</td>
<td>Review final presentation</td>
<td>CPAT</td>
<td>OEM Office</td>
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<td>5:00 - 6:00 PM</td>
<td>Break</td>
<td>CPAT</td>
<td>TBD</td>
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<tr>
<td>6:00 - 7:00 PM</td>
<td>Set up for final presentation</td>
<td>CPAT, Advisory Committee</td>
<td>School</td>
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<tr>
<td>7:00 - 8:30 PM</td>
<td>Public presentation</td>
<td>CPAT, public, etc.</td>
<td>School</td>
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<tr>
<td>8:30 PM...</td>
<td>Social time</td>
<td>CPAT, Advisory Committee</td>
<td>Oskar Blues</td>
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<td><strong>FRIDAY, MAY 16</strong></td>
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<tr>
<td>9:00 - 10:00 AM</td>
<td>Debrief, final assignments and timeline</td>
<td>CPAT, Mayor, Town Administrator</td>
<td>OEM Office</td>
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<tr>
<td>10:00 - 11:30 AM</td>
<td>Debrief meeting</td>
<td>CPAT</td>
<td>OEM Office</td>
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<tr>
<td>11:30 - 1:00 PM</td>
<td>Lunch - State Resilience Strategies</td>
<td>CPAT, State of Colorado Leadership (Colorado Recovery Office, DOLA, OEM)</td>
<td>TBD</td>
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<tr>
<td>2:00 PM...</td>
<td>Team members depart</td>
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Engage with Stakeholders
Recovery Themes

Living with the River
• River is the lifeblood of the community
• It is a source of risk
• Drives our recommendations for recovery

Importance of Local Culture
• Important to residents and visitors
• Key driver of the local economy

Facing Change
• Disaster amplifies pre-event conditions
  – *Many challenges existed before the flood: inclusivity, affordable housing, developable land, economic development, etc.*
• Post-disaster opportunity
Key Issues and Challenges

Impact on housing
- Loss of affordable housing
- Rebuilding in flood hazard areas

Lack of developable land

Disaster Risk Reduction in the Confluence area
Now, Get to Work!
Local Plan & Policy Review


Microsoft Excel - Relevant Goals-Objectives from Local Plans

GOALS / OBJECTIVES: COMPREHENSIVE PLAN

Goal: Land Use and Growth: Ensure that the built environment contributes to Lyons’ identity and is consistent with the proposed 2010 Lyons Planning Area Map and the Sustainable Design and Development Principles.

1.1: Ensure that the Town has a review process to evaluate applications for conformance with the comprehensive plan.

1.2: Establish the Town’s interest and legal standing in lands surrounding the Town (in the proposed Lyons Planning Area) to develop a shared vision with our neighbors for future land use decisions, share resources and achieve common goals.

1.3: Use land use planning tools (e.g., comprehensive plan, land use regulations) to help achieve a sustainable economy primarily through business and job growth.

Goal: Economic Development: Create an Environment in which local business can prosper.

1.1: Create space for local businesses.

1.2: Improve Lyons’ fiscal, regulatory and physical environment.

1.3: Promote business retention and the creation of new businesses in Lyons.

1.4: Enhance the community’s appearance.

Goal 2: Economic Development: Leverage the Town’s history, natural setting, unique retailers and relationship with the music and arts community to attract tourists.

1.1: Increase Lyons’ brand awareness and recognition.

CONSISTENCY

Helps Achieve
Neutral
Helps Achieve
Neutral
Neutral
Strongly Supports
Helps Achieve
Neutral
Possible Conflicts
Not Consistent
Helps Achieve
Local Plan & Policy Review

- Recovery Action Plan
- Sustainable River Corridor Action Plan
- Comprehensive Plan
- Hazard Mitigation Plan
Design-Related Observations and Options

Living with the river – assets & risks
  • Living within and adjacent to the floodplain

Enhancing the river corridor & trail system
  • Riparian buffers and public access

Expanding Lyon’s legacy of parks and open space
  • Redefining the park system

Connecting parks and downtown Lyons

Use of vacant lots in the floodplain

Resilient housing design in the floodplain

Replacing lost housing: goals and potential sites
Enhancing the river corridor & trail system

- Create continuous creek trail
- Use vacant land to create access to creek
- Protect land outside of floodplain with road
- Create multiple access opportunities to creek
- Restore and maintain a natural landscape buffer
Connecting parks and downtown Lyons

Connect Meadow Park with trail and bridge
Create new Confluence Park from vacated land
Build bridge to connect to Bohn Park
Build bridge to connect to Downtown
Use river stones to build wall in Sandstone Park
Use of Open Space in Confluence Area

- Walking Trails
- Campsites
- River Activities
- Event Space
- Water Park
Use larger vacated lots to bring economic return

Build resilient construction in floodplain

Identify appropriate uses for smaller vacated lots

Identify and act on replacement housing sites
Use of Vacant Lots in Confluence Area

- Natural Landscape
- Neighbor Garden
- Community Garden
- Art Installations
- Camping

Typical Neighborhood in Floodplain
Resilient Housing Design in the Floodplain

- Gabion Wall System
- Local Stone
- Lateral Bracing
- Post or Column
- Concrete Pad
Policy Recommendations & Best Practices

1. Improve the mapping of flood hazard areas
2. Adopt procedures for post-disaster building moratoria
3. Provide disaster reconstruction guidance
4. Prepare a post-disaster redevelopment plan and recovery ordinance
5. Adopt higher floodplain management standards: strategic disinvestments in the floodplain
6. Adopt CRS and adopting No Adverse Impact approaches to floodplain management
7. Improve flood risk communication and the ability to describe the implications of development choices
8. Apply mediation and other dispute resolution techniques to resolve recovery policy issues
9. Enhance existing plans to improve resilience
Final Presentation and Report
CPAT Testimonial

“The Town of Lyons is so very appreciative of the timely support of APA and the extremely helpful efforts of the CPAT. The team was very responsive to the community’s needs and very professional in every aspect of their work here. They helped us focus our efforts on recovery at a very challenging time and were extremely patient with us as we struggled with the daunting tasks ahead of us. The CPAT produced professional maps and documents that our small town does not have the resources to produce, and they developed useful and applicable recommendations that will assist us in our recovery efforts.”

- Victoria Simonsen, Lyons Town Administrator
For More Information

APA’s CPAT Program:
  • www.planning.org/communityassistance/teams

The Lyons CPAT Project:
  • www.planning.org/communityassistance/teams/lyons/

APA’s *NEW* Hazard Mitigation & Disaster Recovery Division
  • www.planning.org/divisions/hazardmitigation/
Thank You

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