



**CITY OF BOULDER  
OFFICE OF THE CITY MANAGER**

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February 23, 2015

Via email: [jcho@icma.org](mailto:jcho@icma.org)

Jessica Cho

CityLinks Program Manager

ICMA International

777 North Capitol Street NE, Suite 500,

Washington, DC 20002-4201

**Re: Application to 2015 CityLinks Climate Adaptation Partnership Program**

Dear Ms. Cho:

Attached is the City of Boulder's application to ICMA's 2015 *CityLinks Climate Adaptation Partnership Program*, inclusive of a completed one-page application and essay responses to the five questions for applicant resource cities. The city submits this application with enthusiastic hopes of being chosen to partner with an international city struggling to address climate adaptation challenges.

I assure you that, if chosen, the city will make its participation in this program a priority. Our city council and community consistently identify matters of climate change mitigation and adaptation as among the most important issues for the city to work on. It is our firm belief that effectively addressing these types of international issues requires involvement in international partnerships of the sort presented by ICMA's program.

Sincerely,

Maureen Rait

Acting City Manager

# Climate Adaptation Partnership Program Application

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## Contact Information

City or Local Government Authority:

State/Province:

Country:

### **Proposed Program Manager and Point of Contact**

Full Name:

Street Address:

City:

State/Province:

Postal Code:

Country:

Email Address:

Phone Number:

**City of Boulder, Colorado**  
**Response to Questions in Resource City Application for**  
**2015 CityLinks Climate Adaptation Partnership Program**

**1. Provide a brief description of your community including population, demographics, economic drivers, and current or anticipated climate challenges (Maximum 500 words)**

The City of Boulder is a Colorado municipality of approximately 100,000 people located on the Front Range of the Rocky Mountains. Its planning history has contributed to a culture that values public engagement and participation in governance and community decision-making. In part, this phenomenon has contributed to its ability to pilot innovative initiatives—such as widespread bike infrastructure, progressive land-use policies and the current move toward electrical utility municipalization—that address the concerns of an environmentally-focused resident population.

*The Atlantic* has called Boulder one of the “dozen regional powerhouses driving the U.S. economy” and one of America’s most productive metropolitan areas. The tech industry has experienced pronounced growth in Boulder over the last 10 to 15 years. Of the more than 1,000 tech companies started in Colorado since 2000, 40 percent of these were located in Boulder County, by far the most in the Denver metro area. Additionally, both Google and Microsoft now have a significant presence in Boulder, where the largest employer is IBM.

According to the U.S. Bureau of Labor Statistics, Boulder is within the most educated metro areas in the country; over 70 percent of residents hold a bachelor degree or higher, and many hold post-graduate degrees. Moreover, Boulder has the most scientists and engineers as a percentage of its workforce of any city in the country. This is due to both the university and Boulder’s 16 federally-funded research institutions that focus on weather, climate, and geophysical research, including the National Oceanic and Atmosphere Administration and the National Center for Atmospheric Research.

Boulder’s most pronounced challenges to climate adaptation to date have included fire, drought, heat-related stresses to the eco-system including proliferation of invasive species, and flooding; disasters in three of these four areas have hit Boulder in the past four years. Boulder’s infrastructure investments have resulted in a high level of preparedness, as demonstrated during the 2013 floods, which caused minimal long-term damage in Boulder when compared with the surrounding region. This was due in part to the protective greenway and decades of progressive flood related land use planning. Similarly, the City is home to a robust drinking water supply plan and drought response plan, which performed well during the 2002 and 2012 droughts.

Boulder has a long history of innovative initiatives related to climate change. It was the first community to tax itself for the preservation of open space, first to implement mandatory green building requirements, and first to establish a carbon tax on electricity consumption. Its unique set of local resources—both public and private— give it the capacity to quickly pilot and scale-up promising approaches to climate adaptation strategies. Boulder is also working closely with other cities in Colorado to identify strategies and policy initiatives that require collaborations for implementation. These vehicles may also be of value to international cities working on similar challenges.

**2. How is your community dealing with or planning for climate impacts? What challenges or successes have you experienced thus far that you would consider sharing with a community in a developing country? Please include links or references to current or planned programs (Maximum 1000 words)**

Climate adaptation is a real challenge that Boulder is currently wrestling with as the community recovers from historic flooding that created severe and lasting impacts. This follows just three years after experiencing (then) Colorado’s most financially destructive wildfire in state history.

## City of Boulder, Colorado

# Response to Questions in Resource City Application for 2015 CityLinks Climate Adaptation Partnership Program

These experiences and a long history of climate mitigation initiatives have taught the city that resilience strategies involves more than managing or recovering from disruptive events. To mobilize the resources and community support necessary to significantly increase its social, economic and ecological resilience, it is committed to formulating a compelling vision of the future towards which its efforts allow it to “bounce forward.”

Recognizing that many other cities will continue to face similar challenges, Boulder is positioning both its climate mitigation and adaptation to grow the technological, financial and social innovations that can be replicated by other jurisdictions. For Boulder, growing its resilience is a core theme in its future economic development strategy. It includes efforts beyond infrastructure that involve helping individuals and neighborhoods to become resilient. Boulder is broadening the conversation of resilience beyond hardening our defenses to include a social dimension. In addition to the ability to recover, social resilience has to do with being ready, it has to do with adaptability, tenacity, our commitment to survive... and the willingness of communities to actually rally around a common cause and a shared set of values.

As one of Rockefeller’s inaugural [100 Resilient Cities](#), the Boulder’s six resilience building priorities include:

1. Completing flood infrastructure design and implementation based on the experience of recent 100 year+ flood event.
2. Updating the design and infrastructure related to storm water, wastewater and drinking water, particularly in high flood/fire risk zones.
3. Increasing fire hazard mitigation treatments, particularly in high vulnerability zones.
4. Continuing to diversify transportation options to increase mobility and access, particularly for lower income residents.
5. Expanding “localized” energy such as distributed generation and microgrid development to decrease vulnerability and increase stability and reliability of critical power systems during extreme weather or other disruption events.
6. Identifying cross-cutting opportunities between essential functions that prioritize resilience planning.

Several of the [other cities selected to participate in the 100 Resilient Cities](#) are located in Asia, Africa and South America, and may be perfect candidates to pair Boulder with as part of the Climate Adaptation Partnership Program.

Boulder has engaged in comprehensive planning since 1970, with recent plans including segments addressing future climate risks. Its strong focus on open space managed growth helped reduce the spread and impact of recent upland fires into city neighborhoods. In contrast to the 2012 Colorado Springs fires that heavily damaged housing developments that had taken place in the wildland-urban interface, Boulder’s plans and standards were likely significant factors in the ability to both stop fires and reduce property damage.

Boulder has also conducted an extensive update of its flood zone mapping with substantial increases in focus on upland watersheds. This work, along with targeted infrastructure development and diversion features, created effective flood water diversion during the flooding in the areas that had been fully implemented. Despite over 16” of rain in a five day period, many areas that had been redesigned experienced minimal long-term damage. Areas without these treatments experienced much greater impacts. Post flood, the city is mapping affected areas in preparation for adjusting flood maps and refining flood regulations

Resilient energy systems have also become a vital focus area that all communities should be considering. Boulder currently has an installed local solar capacity of over 14MW, one of the highest per capita watts of photovoltaics in the US. The city is currently exploring forming its own municipal utility to implement a series of resilience building strategies, including undergrounding of electricity delivery systems, support for much more extensive microgrid development, stabilizing energy costs for the long-term and much more extensive distributed generation development.

## City of Boulder, Colorado

### Response to Questions in Resource City Application for 2015 CityLinks Climate Adaptation Partnership Program

To actively engage the community in assessment and redesign efforts intended to address future events, the city has conducted rapid post-flood and building assessments and is now exploring a neighborhood-based resilience assessment process.

#### **3. Has your community participated in other international exchanges or partnerships? What was your experience? (Maximum 250 words)**

Boulder has a long history of innovative initiatives related to sustainability and climate change and to assisting other communities as an innovation partner. In addition to Boulder's participation with dozens of regional and national organizations, many focused on climate adaptation work, the city has participated in international peer-exchanges, hosted dozens of international delegations, and been an invited speaker at a number of international conferences and partnerships (e.g., OECD, Heinrich Böll Foundation, International Eco Cities, Net-Zero Cities, United Nations, etc). Boulder is also involved on an ongoing basis with the following international organizations:

- [International City Manager's Association](#) – City Manager Brautigam serves on the Executive Board.
- [International Council for Local Environmental Initiatives \(ICLEI\)](#) – Mayor Appelbaum serves on the Regional Executive committee.
- [100 Resilient Cities](#) – First round member in international effort, pioneered by the Rockefeller Foundation, dedicated to helping cities around the world become more resilient to the physical, social and economic challenges that are a growing part of the 21st century.
- [US Sustainability Directors Network](#) – Member of [Carbon Neutral Cities Alliance](#), a collaboration of international cities committed to achieving aggressive long-term carbon reduction goals.
- [Sister City Program](#) – Boulder's international sister cities are Dushanbe, Tajikistan; Jalapa, Nicaragua; Kisumu, Kenya; Lhasa, Tibet; Manté, Mexico; Yamagata, Japan, and; Yateras, Cuba.

#### **4. Though your community's primary role will be to provide guidance and technical assistance, what do you hope to learn and/or gain from your partner community and this experience? (Maximum 250 words)**

Boulder hopes to gain the following from this experience:

- [Climate Change Messaging](#) – There is always something to be learned about how other communities are messaging climate risk and adaptation imperatives. Are they using some visual tools? Have they found innovative ways to motivate action?

## City of Boulder, Colorado

### Response to Questions in Resource City Application for 2015 CityLinks Climate Adaptation Partnership Program

- Diverse and Inclusive Stakeholder Engagement Methods – The city still has a lot to learn on this front and understands that in many developing countries the civil society organizations are much more adept than we are. Similarly, we stand to gain from learning from different perspectives of social risk and vulnerability – how these cities are building local/neighborhood level capacity around current and future risk, etc.
- Economies of scale — Opportunities for economic or financial collaboration that leverages the resources or services that are needed to effectively enhance key adaptation assets — physical, social, environmental and financial.
- Graceful Failure – Learning about a design area called “graceful failure” of infrastructure as an adaptation strategy for repetitive loss/high hazard risk. In some communities this is unintentional but they nevertheless have made really innovative adjustments to accommodate persistent events (they put electrical plus around the top of the walls in new stores in Bangkok, rather than the bottom, apparently).
- Lessons learned – Exposure to strategies utilized by other cities related to the costs, benefits, impacts, lessons learned and opportunities for replication of these approaches and sharing this information with our surrounding sister cities and county. This could include access to “real-time” learning through access to program staff in other communities.

**5. Who will be the point person in your organization for this partnership? Please provide their contact information and an outline of their current job responsibilities.**

At least at the outset, until we learn whether Boulder is chosen, what international partnership city we are paired with, and the specific needs of that city, the city’s Policy Advisor will serve as the point person for the project. Carl Castillo has served as the city’s Policy Advisor since 2004. The Policy Advisor provides staff representation and communication on intergovernmental matters and guidance on cross-departmental city policies on behalf of the City Council and all city departments, in order to further city goals and advance understandings and mutually beneficial alliances with other governmental organizations. The Policy Advisor provides the city with the following specific services:

- Coordination of the development and implementation of the city's state and federal legislative agenda including all associated lobbying efforts.
- Staff representation and communication on matters of overlapping interests between the city and other governmental and quasi-governmental organizations.
- Analysis and recommendations on special projects of intergovernmental or cross-departmental interest

Carl’s contact information is as follows:

**Carl Castillo**, Policy Advisor  
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