



COLORADO

Resiliency & Recovery Office

Governor John W. Hickenlooper



Colorado Resiliency Working Group 2017 Annual Plan

May 25, 2017

Together. A Stronger Colorado.

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Introduction

The **Colorado Resiliency Framework** is the State’s call to action on resiliency, outlining its long-term goals for building a more resilient future for all Coloradans. In 2016, the Colorado Resiliency Working Group (CRWG) carried out sector-based projects that implement strategies in the Framework. These projects, further outlined in the **2016 CRWG Annual Plan**, initiated the process of building resiliency into day-to-day State activities, and laid the foundation for future ambitious, innovative, and cross-sector projects.

The successes and lessons learned from those projects informed the CRWG’s development of the four main projects described in this report. In 2017, the CRWG will focus its attention to cross-sector projects designed to achieve multiple, integrated, and long-term benefits to Colorado. In order to achieve these benefits, these projects include multiple phases and could take several years to fully complete.

Projects in this Annual Plan seek to significantly advance Colorado’s resiliency, both at the State and local level. They are designed to institutionalize resiliency into regular business operations; maximize State investments with the inclusion of resiliency measures in State grant programs; develop resiliency best practices and standards across multiple State agencies; and encourage Colorado communities to collaboratively develop innovative and forward-thinking projects through a resilient design competition.

Project progress and impacts will be presented in an Annual Resiliency Report to be released in 2018.

For more information about Colorado’s resiliency efforts, please visit www.ColoradoUnited.com or email gov_crro@state.co.us.

What is the Colorado Resiliency Working Group?

In the wake of the devastating September 2013 floods, the State of Colorado formed the Colorado Resiliency Working Group (CRWG). Made up of State, local and federal agencies, the CRWG not only improved flood recovery coordination efforts, but also served as the steering committee for the creation of the Colorado Resiliency Framework, the roadmap for incorporating resiliency as a standard daily business practice across the State.

With the adoption of the Colorado Resiliency Framework in 2015, the Governor formalized the CRWG as the leadership team and coordinating body of the State's ongoing resiliency efforts. For more information on the CRWG, its structure, and specific roles, please visit the [CRWG's page on the Colorado United](#) website.

Roles

Resiliency is a shared responsibility across State agencies to preserve, protect, and promote what makes Colorado special. The purpose of the Colorado Resiliency Working Group is to serve as a dedicated team to:

- Enhance cross-agency collaboration and communication;
- Integrate resiliency measures into agency policies and plans;
- Develop sector-specific action plans;
- Monitor and measure progress;
- Identify funding resources; and
- Educate partners and constituents.

Membership

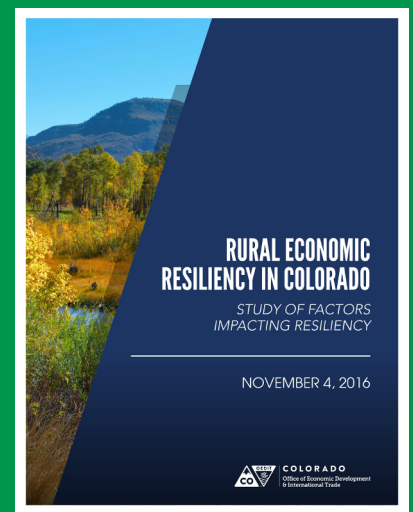
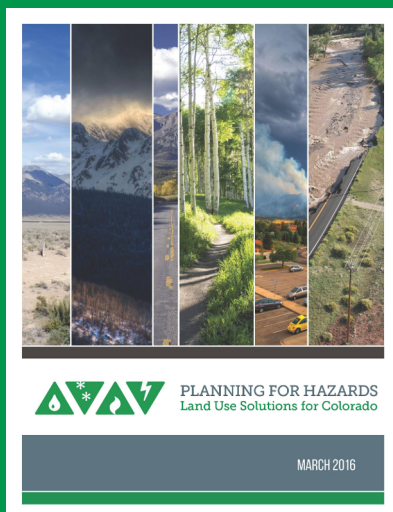
The CRWG is an inclusive body designed to holistically navigate Colorado's resiliency efforts and is composed of representatives from the following agencies and partners:

State Agencies	Federal Partners
Colorado Department of Human Services	Department of Homeland Security
Colorado Department of Local Affairs	Department of Housing and Urban Development
Colorado Department of Natural Resources	Economic Development Administration
Colorado Department of Public Health and Environment	Environmental Protection Agency
Colorado Department of Public Safety	Federal Emergency Management Agency
Colorado Department of Transportation	Federal Highway Administration
Colorado Energy Office	National Renewable Energy Laboratory
Colorado Office of Economic Development and International Trade	
Colorado Office of Information Technology	
Colorado Resiliency and Recovery Office	

The 2016 Annual Plan

The strategies identified in the Colorado Resiliency Framework provide a roadmap for advancing the State's resiliency goals.

The **2016 Annual Plan** was the first following the adoption of the Colorado Resiliency Framework in 2015. Projects identified for 2016 were intended to begin the important work of building a foundation for long-term resiliency in Colorado. The successful completion of these projects reflect incremental improvements in resiliency within each sector, and also demonstrate measurable progress in the State's holistic approach for building resiliency into the everyday activities across all State agencies and throughout Colorado communities. The **2016 CRWG Annual Plan Review** highlights each project's status, accomplishments, and impacts, as well as any future maintenance plans.



Examples of projects from the 2016 CRWG Annual Plan

2017 Annual Plan Project Selection

In November 2016, the CRWG gathered for an All-Hands meeting to identify what the CRWG wants to accomplish in the next 3-5 years and how to get there. Through two facilitated breakout sessions, meeting participants discussed their ambitions for what a resilient Colorado looks like, and what the path for how to get there in the next 3-5 years is. Participants focused on increased cross-sector collaboration, and explored what resources the CRWG will need and the obstacles they are likely to come across moving forward.

Following the All-Hands meeting, the CRRO surveyed the 2017 CRWG Project Selection Team, made up of sector leads and volunteer participants from State agencies, to select the top four outcomes and achievements (identified during the All-Hands meeting) that the group would like to see between 2017 and 2019, and provide additional thoughts on what resources would be needed to meet those four outcomes.

Through the survey, the following four outcomes were determined to be priorities:

1. An actionable holistic plan for climate change, population growth, natural resources, and environmental protection/preservation.
2. Anticipatory rather than reactive development of the built environment to adapt to growing population.
3. Improved alignment of federal, state, and local government relationships, programs, and resources.
4. Established financial incentives and regulatory programs.

In January 2017, the Project Selection Team met to develop cross-sector project ideas that meet these four outcomes, and identify project captains and team members. The following projects are the result of this working group session

Key Themes from the All-Hands Meeting

1. Advance the “business case” for resiliency.
2. Empower, catalyze, and implement demonstration projects.
3. Advance efforts to integrate resilience into applicable standards, codes, and disclosure processes.
4. Address, empower, and protect vulnerable populations, build equity and inclusion, and enhance social capital through the work of all sectors.
5. Engage new partners in the CRWG.
6. Continue Colorado’s innovative hazard identification work, and go beyond a traditional hazard analysis.
7. Prioritize multi-sector approaches for future CRWG projects to maximize resiliency value.
8. Develop tools to better account for population growth in planning. Sustain the State’s resiliency mission for the long term.

2017-2018 Projects

Long-Term Resiliency Institutionalization

Leads: CRRO, CWCB, and NREL

The State of Colorado has made great advances in building a culture of resilience since the adoption of the Colorado Resiliency Framework. For Colorado to continue on the path of becoming the most resilient state in the country, it will require long-term commitments and institutionalization of resiliency practices across state government. By firmly establishing resiliency into the everyday business of state government, resiliency will become the standard rather than the exception.

The CRRO and CRWG lead the State's efforts to implement the strategies identified in the Colorado Resiliency Framework in advancing the State's long-term resiliency goals. Making Colorado resilient and adaptable to hazards and to changing economic, environmental, and social conditions is the task of agencies across State government working in concert. For this to become a reality, resiliency will need to be built into the everyday activities, staffing plans, grants, and budgets of all participating State agencies with a spirit of collaboration.

At the November 2016 CRWG All-Hands meeting, participants noted that for the State to sustain its resiliency mission for the long-term, dedicated staffing and resources will be needed. Sustained funding for resiliency would enable coordinated and dedicated outreach, financial and technical assistance for local efforts, a resource to drive innovation, and needed capacity within all departments. CRWG members underscored this resource need at the November 2016 all hands meeting:

- “Staff with regular focus on long-term resiliency so this does not get back-burnered when a disaster occurs, pulling away...staff necessary for implementation of resiliency efforts.”
- “Staffing is the main resource for these efforts.”
- “Staffing and funding for sure. Everybody involved with these efforts is already under-resourced. It would be excellent to get some staffing dedicated to resiliency efforts that are not diverted in other directions.”
- “Staffing and funding.”

Led by the CRRO, a cross-sector team of CRWG members will work together to conduct a resiliency needs assessment and develop an actionable framework to institutionalize resilience across State agencies. The first step towards establishing long-term resiliency governance in Colorado is having a clear picture of the resources at hand today and those that will be needed to make significant advancements in the future. The proposed process for this needs assessment will be as follows:

1. Evaluate the Colorado Resiliency Framework for priority actions and needs requiring sustained funding.
2. Survey existing state programs and staffing dedicated to advancing resiliency concepts
3. Identify gaps and vulnerabilities impacting efforts to sustain resiliency efforts in the long-term (i.e. uncertain federal funds, staff turnover, etc).
4. Develop options to institutionalize resiliency practices into agency budgets and work plans that align with the State's resiliency priorities, with resource need estimates for a 5-year period. The proposal could include:
 - A single, comprehensive request for funding.
 - Integration of resiliency practices and funding requests into individual department staffing plans and budgets.
 - Identification of potential outside funding sources and a robust, coordinated effort to apply for these resources (federal, foundation, etc).
 - A combination of the above approaches.

2017-2018 Projects

The outcome of this project will be a set of recommendations for action, informed by the needs assessment. Potential outcomes could include:

- Producing an executive order that defines resiliency-oriented objectives and targets for Colorado;
 - This could lead to an annual dashboard of measurable and qualitative outcomes and results.
- Developing a structure, with defined needs and responsibilities, for inclusion in potential legislation to sustain the State's resiliency mission; and
- Implementation of a coordinated administrative process to integrate resiliency criteria in State discretionary grants to incentivize resiliency and maximize State investments.

This project will be closely coordinated with the resiliency grant integration project described next to maximize the efforts of both teams and the benefit to the State.

Resiliency Grant Integration

Leads: CRRO, DOLA, CDOT, CDPHE, OEDIT, and DNR

The State has the ability to maximize investments by incentivizing resiliency through State grants, loans, and asset management programs. For projects implemented by the CRWG, the team currently uses the nine Prioritization Criteria from the Colorado Resiliency Framework to weigh a project's potential impacts against critical needs and the level of urgency, providing a path to developing a focused approach to implementation. These criteria have proven valuable to developing innovative and impactful projects at the state and local level that advance resiliency at the State level, and could be used as guidelines for how to include resiliency measures in State discretionary grants to maximize State investments.

The project team will work collaboratively with State departments to evaluate existing grants, loans, and asset management programs across State government, and to integrate resiliency criteria into program guidance, technical assistance, and funding processes. The proposed process for assessment and integration is as follows:

1. Build a project scoping team with representatives from various State agencies (April-May 2017).
2. Research if and how other states/cities are incorporating resiliency into their funding programs (April-May 2017).
3. Develop education/training for participating agencies on the Colorado Resiliency Framework to address why resiliency is a priority for Colorado, the economic and public safety benefits of resiliency, and why this project is being carried out. (April - August 2017).
4. Inventory existing State discretionary funding and technical assistance programs that could advance resiliency (August - November 2017).
5. Develop an assessment protocol and work with State departments to determine how resiliency practices currently factor into programs and funding decisions (November - February 2018).
6. Collaboratively work with individual departments to prioritize and implement opportunities for integration of resiliency criteria, using the Prioritization Criteria as guidelines to shape the process (February - May 2018).
7. Develop metrics and implement an annual report card to track and share progress (June 2018).
8. Formalize process for future efforts and institutionalize the program (July 2018).

The integration of resiliency criteria into State grants, loans, and asset management programs will not only help maximize investments, but will also help the State track the amount of money invested in resiliency efforts, and their short and long-term resiliency outcomes and returns on investments.

2017-2018 Projects

Interagency Coordination, Best Practices, and Standards

Leads: CDOT, DOLA, and CDPHE

This project is a continuation and expansion of the Infrastructure Sector's 2016 Interagency Coordination project. The goal for 2017 will be to further develop and enhance it to include data and input from all of the CRWG's sectors. In 2016, the Infrastructure Sector built an online, open source platform that is currently being developed to help entities connect with necessary agencies, partners, and resources when funding or implementing infrastructure projects. Registered users who enter project information will be notified of surrounding critical infrastructure as well as be put in contact with the agencies that should be made aware of the proposed infrastructure project. The tool will also serve as a method of distributing resources to those planning, designing, and constructing projects.

By broadening the project out to all sectors, it is anticipated that this tool will:

- Instantaneously connect agencies and impacted stakeholders to engage them in a project earlier to create opportunities to identify, coordinate and include more resilient solutions in the project;
- Create a streamlined method of communication between government agencies at the onset of a projects;
- Help project owners to broaden consideration of other sectors in planning, design, and engineering;
- Serve as a collection point for data and resources; and
- Provide opportunities for collaboration among agencies and levels of government that would otherwise be missed.

In addition, the Infrastructure Sector has been in the process of developing a set of recommendations to enhance resiliency among infrastructure projects, compiling and reviewing the existing standards and policies of multiple State agencies, highlighting current resilient practices, determining inconsistencies across the various State agencies, and looking for opportunities to incorporate more resilient policies/procedures. For 2017, the CRWG will expand this project to include all best practices and standards for all sectors. The proposed process for this will be as follows:

1. Sectors identify relevant categories (e.g. drainage) and associated criteria manuals and standards from individual State agencies and departments (e.g. CWCB Floodplain Stormwater & Criteria Manual and the CDOT Drainage Manual).
2. Sector teams will then review the standards to highlight current resiliency practices, and identify gaps and inconsistencies across different State agencies.
3. Teams will then develop recommendations of best practices to include in standards, identify new opportunities to incorporate resiliency policies and procedures, as well as stream processes better coordination between State agencies.

The outcome of this project will be to develop a large and inclusive guide to resiliency best practices and standards.

Anticipated benefits include:

- Identifying best practices for incorporating climate change into planning, design, and implementation;
- Identifying best practices and resources for protecting natural resources and preserving the environment;
- Increased consistency among government agencies in terms of standards and criteria; and Highlighting current resiliency design practices.

2017-2018 Projects

Resiliency Challenge Competition

Leads: CRRO, DOLA, OEDIT, DOH, CDPHE, and CDPS

This project proposes a resilient design competition for communities to develop innovative cross-sector implementation approaches to address vulnerabilities to economic, social, and climate shocks and stresses. Informed by similar efforts, including HUD's Hurricane Sandy Rebuilding Task Force's [Rebuild by Design](#) competition, this project will provide communities with an opportunity to collaboratively plan and design projects (with input and expertise from government agencies, the private sector, higher education institutions, and others) that address local and regional-specific vulnerabilities.

Elements of projects could include—but are not limited to—new development that incorporates innovative resource and energy efficiency measures; use of green infrastructure; improvement of water quality, wildlife habitat, open space and recreational opportunity; and design that reduces risk to hazards, and improve social capital and economic opportunity.

Communities of all sizes and geographies throughout Colorado will be encouraged to participate. Colorado communities will be challenged and incentivized to show what resiliency in action, across multiple sectors, looks like through highly innovative and replicable and scalable projects. Outcomes of the project will include demonstrating best practices in planning and development that can serve as models for growing Colorado communities.

This development of the competition will be multi-phased, with the first phase focusing on identifying criteria, funding sources and developing a thorough process. By September 2017 (ahead of the upcoming legislative session), the project team will:

- Define the design competition's parameters. These include setting:
 - Goals;
 - the Scope and scale;
 - Criteria for participants and project proposals; and
 - Desired outcomes and awards
- Identify external partners.
- Explore funding needs and opportunities, including:
 - Pooling State agency resources;
 - Partnering with philanthropy and the private sector; and
 - Evaluating the need for a budget request.

For the second phase of the project, the competition will open up to applicants in April/May 2018, with successful projects selected by October/November 2018. The third phase of the project will begin once the selected winners begin project implementation.

Other Priorities

In addition to these four projects the CRWG will undertake in 2017-2018, the group will provide focus to other priorities, including:

- The continuation and maintenance of projects from the 2016 CRWG Operating Plan;
- A resiliency communications toolkit for CRWG partners;
- A resiliency leadership academy to help communities understand opportunities to integrate resiliency measures into their work, be knowledgeable about tools to carry this work out, and provide technical expertise and guidance; and
- Coordinating data collection and aggregation (e.g. GIS assets) through OIT's [Colorado Information Marketplace](#) to increase availability relevant information to State agencies and other uses. The CRWG could also work to develop partnerships with technical experts to help local governments and organizations turn data into useful information.



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