

Border Crossing: Climate Change Adaptation Actions for Northern Colorado

Executive Summary of the Workshop:

The multi-agency workshop, ***Border Crossing: Preparing for and Adapting to Climate Change Effects in Northern Colorado***, was held November 16-17, 2010 in Estes Park, Colorado. More than 50 participants attended, representing Rocky Mountain National Park, Arapaho and Roosevelt National Forest, Pawnee National Grassland, Routt and Medicine Bow National Forest and Thunder Basin Grassland, Colorado Department of Wildlife, the City of Estes Park, Bureau of Land Management, National Park Service Climate Change Response Program, USGS, Rocky Mountain Research Station, Pacific Northwest Research Station, and Colorado State University.

The objectives of the workshop were to: (1) increase awareness of the observed and projected climate change impacts in northern Colorado, (2) provide the opportunity for practitioners to gain experience with climate change adaptation, (3) to increase and reinforce relevance to work across jurisdictional boundaries, and (4) to begin to develop a shared vision and set of common approaches for managing shared resources that will help build resilience to climate change. The workshop involved presentations on climate change, natural resource management under climate change, agency tools for climate change adaptation planning, and a multi-agency adaptation case study on the Olympic Peninsula in Washington. The workshop included several facilitated breakout sessions, charging participants to identify what climate change effects related to (1) wildlife, (2) water, (3) vegetation, and (4) human dimensions issues cross the boundaries they manage. During breakout discussions, participants also identified what adaptation options might be feasible and identified top priorities most ready for collaboration across neighboring lands.

More information about the workshop, workshop presentations and supplemental informational materials are available at:

<https://sites.google.com/site/climatechangeadaptationnoco/>

Top Priorities for Multi-agency Collaboration on Climate Change Adaptation:

Wildlife

1. Identify Climate Vulnerable Species and Prioritize Appropriate Actions

Caveats & Clarification: The Landscape Conservation Cooperatives (LCCs) may be able to provide a focal point for determining multiagency priorities. The group suggested using the CDOW state wildlife action plan, which includes a vulnerable species list, as a starting point; then combine that list with a list of species with greatest potential for persistence.

2. Identify Vulnerable Corridors and Prioritize Appropriate Actions

Caveats & Clarification: The group had an extensive discussion of the corridors concept and its use – is it practical, possible, and/or necessary in building resiliency? Will be related to the list of climate vulnerable species.

3. Restore Habitat for Cutthroat Trout

4. Strengthen Adaptation Collaboration and Planning for Limber Pine Habitat

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Water

5. Adopt Landscape and Long-Range Planning for Aquatic Ecosystems through Collaborative Aquatic Ecosystem Sensitivity Assessments and Vulnerability Analyses.

Caveats & Clarification: A potential project would be to extend NRCA (National Resource Conditions Assessment) outside the boundaries of the ROMO boundaries and link with assessment processes used by: USFS, CSU, USGS, USGS, Fish and Wildlife, DOW, NCWCD Northern Colorado Water Conservancy, Big Thompson Watershed Forum

6. Expedite Watershed Restoration through Vegetation and Road Management

Caveats & Clarification: Collaborative efforts should focus on (1) Erosion and sedimentation, (2) Invasive species and (3) Riparian/wetland restoration, and (4) mapping the connectivity of landscapes and disturbed areas. Key collaborators would include representatives from: USFS, NPS, USGS, DOW, local watershed groups, county governments, town engineers

7. Re-evaluate Structures and Development in Floodplains Leading to Floodplain Assessments

Caveats & Clarification: Floodplain mapping should include an inventory of stream-side infrastructure and cultural resources. Floodplain assessments should include risk assessments, including: (1) emergency management response, (2) information about change in major flood intervals, and (3) Safety assessment of existing structures. Collaborating partners would include representatives from: USFS, NPS, USGS, FEMA, and local municipalities.

Vegetation

8. Increase Resilience by Diversifying the Species on the Landscape.

Caveats & Clarification: Need more specific locations; more species can lead to a better chance of resiliency. Diversifying rangeland species could increase resiliency to climate change and invasive species.

9. Conduct Multi-agency Vulnerability Assessments; Use Scenario Planning and Adaptation Planning in Multi-agency Contexts

10. Use Fire as a Management Tool to Build Climate Change Resiliency

Caveats & Clarification: Use prescribed burns as an offset for wildfire smoke emission

People

11. Develop a Coordinated and Consistent Suite of Messages Across Agencies – For Internal and External Audiences

Caveats & Clarification: For internal audiences, use multiple media-types (e.g. PowerPoint, primers, presentations) and gatherings (Family Meetings, introductory training sessions) to downscale national and regional strategies and action plans to Northern Colorado. The goal of the internal effort is to align scientific understanding and management prioritization in response to climate change across departments, agencies and units. This effort may begin by giving staff permission to talk about climate change, since some employees were steered away from such dialogue for so long.

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For external messaging, use existing evidence of change on the landscape to communicate climate impacts, in combination with broad cross-agency messages. Engage and facilitate a dialogue with audiences about the observed changes and the questions the agency's scientists and managers are asking. Use climate change as an opportunity to communicate with both local and visitor audiences. Make the messages personal, by connecting to the audiences' attitudes, beliefs and values. Start by understanding your audiences and finding out what they already know and believe about climate change. Then incorporate climate change topics into popular themes by making the message subtle and connected to everyday values and activities.

12. Incorporate Place-based Climate Change Education Into Interpretation and Public Communication Messages

13. Incorporate Human Health Concerns into the Context of Climate Change Messages

14. Build and Engage in Collaborative Governance Structures Across Agencies

Caveats & Clarification: The Olympic Peninsula Case Study is an example of a collaborative governance process that linked multiple land management agencies in adaptation planning. Assess current policy changes; start by asking: are we including climate change? If not, make sure that it is included.