STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

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TO: CWCB Board Members

FROM: Taryn Hutchins-Cabibi, Drought & Climate Change

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DATE: April 27, 2011

SUBJECT: Agenda Item #24, May 18, 2011

Proposed Drought Assessment for Recreation & Tourism (DART):

Southwestern Colorado

Staff Recommendation: This is an informational item only. No Board action is required.

Background

The 2010 Colorado Drought Mitigation and Response Plan included a Vulnerability Assessment, identifying drought vulnerabilities to individual economic sectors in Colorado. In addition to highlighting some of these drought vulnerabilities, the assessment helped the state to identify information and data gaps that prevent us from fully and properly assessing the full extent of drought risk within each sectors. This is particularly true with the Tourism and Recreation sector, the state's second largest contributor to its economy.

Introduction

Historically, the Tourism and Recreation sector has been evaluated on a limited basis for drought impacts and vulnerabilities. However, over the past decade, drought impacts to this sector have had far reaching effects. Consequently, the State Drought Plan recommended conducting a closer review of information and data that could improve our knowledge of the impacts in this sector and adopt mitigation actions to safeguard the industry and the jobs that it supports.

This sector is vital to the state's economy. Additionally, the potential drought impacts may have to economic viability is broadly experienced around the state. Therefore, CWCB staff proposes a pilot project in the Southwest corner of the state. After several conversations with stakeholders in the Southwest and the National Drought Mitigation Center (NDMC) on concept ideas, there was general agreement that a project focusing on specific sector vulnerabilities, such as Recreation & Tourism, would be more productive if it focused in a pilot fashion on one region of the state, thus creating a framework for data collection and implementation that could be expanded to other basins/ regions.

Project Concept – Phase I: A Scoping Process (\$30-40K)

The Southwest Basin Pilot Project would have two phases. The first is to conduct a scoping process for the pilot project including the identification of tourism and recreational industries in the basin that will be evaluated for drought vulnerabilities. The scoping process will evaluate the metrics used in the State Drought Plan Vulnerability Assessment and identify additional data and information to fill gap areas and improve the vulnerability assessment tool. The process will develop a structure for stakeholder involvement and contribution to the project. Phase I will be completed by March 31, 2012. Phase II will be the implementation of the findings of the scoping process and will begin, upon procurement being completed, with a targeted completion date of June 2013.

Preliminary List of Tourism & Recreation Industries to be Evaluated:

Skiing:

- What is the base (or peak) elevation of the resort
- Analyze historic SNOTEL record

Wildlife viewing:

- Rate the current sensitivity of habitat
- Collect information regarding competition for water from other sources
- Is the habitat protected through state or federal laws (this can be broken out as protected acres per county)
- How adaptable and/or mobile is the species in question (refer to Environmental Sector for additional discussion)

Hunting, fishing, and camping:

- Collect data regarding fish hatchery operations (refer to State Assets Sector for additional discussion)
- Hunting and fishing license records by county and by year

Golf:

Assess how many acres within the course are considered "essential" for irrigation

Boating:

- Collect registration data by county
- Analyze storage agreements and/or interstate compacts as they relate to reservoir water levels

Rafting:

- Use expert input or demographer data to identify towns and/or counties where economy is highly dependent on rafting
- Analyze instream flows, water use agreement, and recreational in-channel diversions as they relate to streamflows
- Suggest inclusion in future survey efforts

Project Need and Benefits

The Southwest Basin is an optimal choice for a multitude of reasons including:

- 1. Local stakeholder interest and momentum
- 2. A vibrant and varied representation of tourism and recreational opportunities and industries
- 3. High vulnerability to drought impacts

4. High vulnerability and risk to climate change impacts

The Southwest Basin is a hot and dry region that has experienced drought frequently in recent years. Consequently, there is a high degree of awareness around drought and a strong desire, by local stakeholders, to plan for safeguarding the region from the potentially devastating effects of drought. There are university, research centers and non-governmental organizations interested in and willing to work with the state towards this effort. In addition, an effort will be made to engage the tribal community and the federal land agencies, which have a large presence in the area. This momentum and local interest is critical to a successful project, as stakeholder involvement will greatly enhance the level of detail we are able to achieve.

Phase I of the Colorado River Water Availability Study illustrated the potential and significant water supply and management challenges for this basin under certain climate change scenarios. As a result, the stakeholders in this basin are proactively seeking solutions that will mitigate the impacts of drought and climate and adapt to them.

Colorado boasts a variety of tourism and recreational opportunities; the Southwest Basin has virtually all subsets of this sector, making it the ideal geographic region to build a framework that is transferable elsewhere.

As identified in the 2010 Colorado Drought Mitigation and Response Plan Vulnerability Assessment this basin ranks relatively high in drought vulnerability for the tourism and recreation sector. This coupled with possible impacts from climate change makes it an area where resources and jobs can be protected if proactive drought mitigation efforts are adopted prior to the onset of a major drought event.

Potential Partners:

Division of Wildlife State Parks Colorado Tourism Office

DOI- National Parks, BLM USDA- Forest Service Mountain Studies Institute Ft. Lewis College NCAR
NIDIS
NDMC
University of Colorado
Tribal Communities
Ski Areas – Telluride, Silverton, DMR
Telluride Foundation
River Rafting Association