COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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TO:	**Colorado Water Conservation Board Members**
FROM:	**Taryn Finnessey - Climate Change Risk Management Specialist**
DATE:	**November 18-19, 2015 Board Meeting**
AGENDA ITEM:	**18f. Non-Reimbursable Project Investments "En-Bloc" approval Colorado Mesonet Project**

Introduction

Weather and climate monitoring in Colorado currently exists as a patchwork of networks operated by multiple federal, state, local and private entities, rather than a single mesonet or spatially coherent network of weather stations reporting in near real-time via major data portals. Since each network was built for a specific purpose, there is no spatial coherency to where stations are located. Each network is valuable for specific applications. Collectively, the data are critical for long term climate monitoring, agriculture, fire weather, flood warning, water supply forecasting and drought monitoring.

The Colorado Climate Center currently runs the CoAgMet network consisting of 70+ stations statewide tracking agricultural weather conditions and crop water use. It is quickly becoming foundational for water administration in Colorado. The Center also oversees the regional climate reference network (USRCRN) consisting of 17 high-quality precipitation and temperature monitoring stations located in pristine environments. It was recently abandoned by NOAA and deeded to Colorado State University. These sites were intended to provide a baseline to monitor the climate over long periods of time in areas free of urbanization and land use changes. Neither of these networks receive baseline funding that would assure consistent performance, longevity and high quality data. Because the networks were developed independently, data outputs are not consistent or fully accessible for use by consumers.

CoAgMet and USRCRN represent valuable investments in hardware and infrastructure for monitoring climate for water resources planning and management. They have great potential to be the backbone of a Colorado Mesonet. Lack of adequate funding currently limits proper maintenance, operation, and expansion of these networks, as well as the development of an integrated data management system to bring the data output of the separate networks together. With a properly designed data management system, data would be more easily and electronically accessible for real time water resources monitoring and decision support, water supply and flood forecasting and warning, drought assessments and forecast, agricultural applications, fire weather as well as long term climate monitoring.

Staff Recommendation

Staff recommends the Board request the General Assembly to authorize $150,000 from the Construction Fund to be appropriated to the Department of Natural Resources for allocation to the CWCB for the Colorado Mesonet Project.

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PROJECT DETAILS	
Project Cost:	$182,500 annually
NRI Funding Request:	$150,000
Funding Source:	*Construction Fund*
Project Type:	Data Collection/Maint.
Type of Grantee:	State Government

LOCATION	
Benefits:	Statewide
Water Source:	Various
Drainage Basin:	All Basins

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