



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 Mgmt. Specialist

DATE: January 26-27, 2015 Board Meeting

AGENDA ITEM: 20b. Colorado Mesonet - Non-Reimbursable Project Investment

Background

Weather and climate monitoring in Colorado currently exists as a patchwork of networks operated by between multiple federal, state, local and private entities, rather than a 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. These stations and the data they collect are critical for long term climate monitoring, agricultural, fire weather, flood warning, water supply forecasting and drought monitoring.

The Colorado Climate Center runs the CoAgMet network consisting of 70 stations statewide tracking agricultural weather; as well as a US regional climate reference network called USRCRN consisting of 17 high-quality precipitation and temperature monitoring stations located in pristine environments that was abandoned by NOAA. These sites were intended to monitor the climate over long periods of time in areas free of urbanization and with datasets free of station moves, changes in observation time and other factors that create inhomogeneity in climate datasets. Neither of these networks are funded at levels which allow for them to be run at high quality levels.

The USRCRN network needs multiple station visits per year to add and remove fluids from rain gages. The CoAgMet network, in order to be run as a reliable mesonet and for calculations of consumptive use needs close attention paid to quality control and making sure all sensors are functioning properly as well as regular station visits. Lack of funding currently prohibits proper maintenance and operation of both of these networks.

To fully fund these stations would require a minimum of \$182,500 annually. It includes operation, maintenance, travel, communications, database and website management as well as hazardous waste disposal.

Staff recommendation

Staff recommends that the Board approve this request for the General Assembly to authorize this project and appropriate \$1,500 from the Construction Fund to the Department of Natural Resources for allocation to the CWCB for partial support of the Colorado Mesonet.

