

STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

John W. Hickenlooper
Governor

FROM: Jeff Baessler, Stream and Lake Protection Section
Tom Ley, State Hydrographer, Division of Water Resources

Mike King
DNR Executive Director

Jennifer L. Gimbel
CWCB Director

DATE: November 4, 2011

SUBJECT: **Agenda Item 17a, November 15-16, 2011 Board Meeting
Non-Reimbursable Investments – Division of Water Resources
Satellite Monitoring System Maintenance**

Introduction

The Division of Water Resources (DWR) has requested an appropriation of \$300,000 for the continued operational viability of the state Satellite-linked Monitoring System (SMS) and Stream Gage Refurbishment Program. Each year, funding for this program has been reviewed and approved by both the Finance Committee and the Board. It has been recognized that it is critical for both the State's water planning and water administrative agencies to support and maintain state-of-art stream gaging programs and continue to provide accurate water resources data to support multi-agency and water user needs. The DWR Satellite-linked Monitoring program is outlined in §37-60-121 and §37-80-102 C.R.S.

Staff Recommendation

Staff recommends that the Board appropriate \$300,000 from the Construction fund to the Department of Natural Resources for allocation to the Division of Water Resources (DWR) to enhance, renovate, and replace the Data Collection Platforms in the existing satellite monitoring system and to refurbish existing stream gages.

Discussion

The \$300,000 request for FY 2012-2013 will support the continued, long-term operational viability of over 500 satellite-linked water resources monitoring sites. These funds will be allocated as follows:

1. \$245,000 for replacement of out-dated Data Collection Platforms (DCP) and associated satellite telemetry equipment and upgrading of satellite transmission components. Funds requested in this category allows the replacement of out of date DCPs at DWR satellite monitoring gaging stations as technology improvements become available or are mandated by NOAA, the Federal Agency managing the GOES satellite resource.

2. \$55,000 for refurbishing existing stream gages as needed to maintain operational reliability of stream flow data collection. This is a recurring annual request to cover refurbishment and repair costs which arise due to deterioration and exceedance of life expectancy of the physical stream gage infrastructure.

The requested funding amount of \$300,000 remains unchanged from the 2011-2012 appropriation and will be sufficient to maintain the operational viability of the system during 2012-2013. (The details of the DWR Satellite Monitoring System funding request are explained in the attached memo from Scott Cuthbertson to Jennifer Gimbel dated August 3, 2010).

Water Project Construction Program – Project Data

Applicant: Division of Water Resources and Colorado Water Conservation Board

Project Name: Satellite-linked Monitoring System and Stream Gage Refurbishment program

Project Type: DWR Stream Gaging

County: Statewide **Drainage Basin:**
Statewide Drainage Basins

Water Source: N/A

Total Study Cost: \$300,000

Funding Sources: CWCB

CWCB Investment: **Interest Rate:** N/A
\$300,000

Term: N/A

This project entails the continued, long-term operational viability of the State Satellite Linked Monitoring System and Stream Gage Refurbishment Program, which is administered by the Division of Water Resources (DWR). This program encompasses over 500 satellite stream gaging stations which require continued replacement of outdated data collection platforms, upgrades to transmission components, and refurbishment of the associated infrastructure. In addition, many existing gaging stations need to be modified to provide critical stream flow data for flood warning and low flow monitoring. Changes in technology, which will ultimately

increase reliability and real time data transmission rates, will require the DWR to continue to upgrade the system in the future. The costs associated with the continued refurbishment and operational viability of the system is approximately \$300,000 per year.



Crystal River DWR/CWCB Satellite Gage



Purgatoire River @ Fishers Crossing
DWR/CWCB Compact Gage