

DENVER BOARD OF WATER COMMISSIONERS

Meeting Date: October 14, 2009

Board Item: V-A-10

**Purchase of Water Circulation Equipment for Cat and Miller Reservoirs**

Action by Consent

Action

Information

The initial filling of Cat and Miller Reservoirs began in April 2009 and was completed in July 2009. Water is delivered to the reservoirs via the Burlington Canal, stored and released back to the South Platte River to satisfy water rights needs. The Burlington Canal diverts water year round and much of the time the quality of the water is directly impacted by urban runoff and upstream wastewater plant discharges. Water quality degrades in these reservoirs even when the storage time is short. Testing has shown that blue-green algae blooms are occurring and dissolved oxygen is dropping in the reservoirs. These are typical problems observed as water quality declines.

Currently no regulations exist restricting the quality of the water returned to the South Platte River, however, it is prudent to release water with acceptable quality to the river.

SolarBee, Inc. has evaluated Cat and Miller Reservoirs and submitted a proposal to provide floating solar-powered turbines which will circulate the water in the reservoirs. The circulation induced by these units will help prevent blue-green algae blooms and increase dissolved oxygen levels thereby improving the overall water quality in the reservoirs. SolarBee® units have successfully been used by the City of Thornton to improve water quality in its nearby reservoir complex. Two SolarBee® units per reservoir are required to achieve the needed circulation.

The need to purchase water circulation equipment was uncertain at the beginning of 2009 since the downstream reservoirs were not yet online. Therefore, no money was allocated in the 2009 Budget for this purchase. Monies from various MPC's will be transferred to cover this project expense.

**RECOMMENDATION:**

It is recommended that the Board authorize the award of Contract No. 12595A to SolarBee, Inc. to furnish and install SolarBee® units at Cat and Miller Reservoirs in the amount of \$197,260.00.

Respectfully submitted,

  
\_\_\_\_\_  
H. J. Barry, Manager

**Approvals:**

  
\_\_\_\_\_  
Robert Mahoney, Director of Engineering

  
\_\_\_\_\_  
Brian Good, Director Operations/Maintenance

  
\_\_\_\_\_  
David LaFrance, Director of Finance