

# Federal Energy and Water Management AWARDS 2013



*The Mesa Verde Visitor and Research Center Technical and Construction Team Members: PCL Construction Services, AJC Architects, Inc., Alpha Corporation, and National Park Service/Denver Service Center*

## Frank Cope, Bethany Mills, William Nelligan Jodie Petersen, Scott Thomas U.S. Department of the Interior, National Park Service Mesa Verde National Park Cortez, Colorado

At Mesa Verde National Park, the National Park Service constructed a new Leadership in Energy and Environmental Design (LEED) Platinum-certified visitor and research center in FY 2012. Performance goals for siting, energy, water, materials, and indoor environmental quality were set at the earliest stages of the building delivery process. Achieving LEED Platinum certification was a difficult feat due to the special challenges of a curatorial facility that is also open to the public. Temperature, humidity, lighting levels, and contaminants must be carefully controlled, requiring innovative systems, precise design engineering, proper construction, and extensive commissioning to secure the priceless and irreplaceable artifacts.

The building features an improved envelope; reduced lighting; advanced controls; high-efficiency ground-source heat pumps; energy recovery technology; chilled beams and slabs; and on-site renewable energy systems. A 67-kilowatt photovoltaic system, solar water heating system, and a micro-hydro turbine are able to provide 95 percent of the building energy requirements. Landscape irrigation has been successfully eliminated, and a wastewater treatment project and installation of dual flush water closets and low flow fixtures have reduced the site's potable water use by 40.7 percent from the baseline.

