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PAGE, AZ–Secretary of the Interior Ken Salazar today triggered the first "high-flow experimental release" at Glen Canyon Dam since 2008, as part of a new experimental long-term protocol announced in May by the Secretary to better distribute sediment to conserve downstream resources, while meeting water and power needs and allowing continued scientific experimentation, data collection, and monitoring to more fully address the important resources in the Colorado River below Glen Canyon Dam.

The new protocol calls for experimental releases from the dam through 2020 to send sediment downstream to rebuild sandbars, beaches, and backwaters. The rebuilt areas would provide key wildlife habitat, enhance the aquatic food base, protect archeological sites, and create additional camping opportunities in the canyon.

"This is truly an exciting day in the history of the Colorado River Basin, in the history of Grand Canyon National Park, and in the history of the Department of the Interior," said Salazar. "It was an honor to open the river tubes as we opened the door to a new era for Glen Canyon Dam operations and the ecology of Glen Canyon National Recreation Area and Grand Canyon National Park – a new era in which we realize that the goals of water storage, delivery and hydropower production are compatible with improving and protecting the resources of Glen Canyon and Grand Canyon."

The new protocol is built on more than 16 years of scientific research and experimentation conducted under the Glen Canyon Dam Adaptive Management Program. The Department translated the research into a flexible framework that enables scientists to determine, based on the best available science, when the conditions are right to conduct these releases to maximize the ecosystem benefits along the Colorado River corridor in Glen Canyon National Recreation Area and Grand Canyon National Park.

With the Glen Canyon Powerplant running at full capacity, Secretary Salazar opened the river outlet tubes at noon, releasing additional flows that will increase throughout the day until a maximum release of approximately 42,300 cubic-feet-per-second is reached. These releases will continue for nearly five days based on the parameters specified in the protocol and the volume of sediment deposited by the Paria River since late July, which scientists estimate is approximately 500,000 metric tons, enough to fill a football field 230 feet deep.

Through the foundation laid by the protocol, annual experiments can be conducted through 2020 to evaluate the effectiveness of multiple high flow experimental (HFE) releases in rebuilding and conserving sandbars, beaches, and associated backwater habitats that have been lost or depleted since the dam's construction and operation. The protocol identifies the conditions under which a high flow release will likely yield the greatest conservation and beneficial use of sediment deposited by inflows from Colorado River tributaries as a result of rainstorms, monsoons, and snowmelt.

"Favorable sediment conditions in the system only occur periodically, so the ability to respond quickly and make the best use of those deposits when the time is right is essential," said Anne Castle, Assistant Secretary of the Interior for Water and Science. "Today's experimental release under the new protocol

represents a significant milestone in our collective ability to be nimble and responsive to on-the-ground conditions for the benefit of respond quickly to change dam operations to improve downstream resources conditions."

HFE releases simulate natural flood conditions that suspend and redeposit sand stored in the river channel to provide key wildlife habitat—including habitat for the endangered humpback chub, protect archaeological sites, enhance riparian vegetation, maintain or increase recreation opportunities, and improve the wilderness experience along the Colorado River in Glen and Grand canyons. Single experimental releases were conducted in 1996, 2004, and 2008, and included extensive scientific research, monitoring, and data collection by the U.S. Geological Survey's Grand Canyon Monitoring and Research Center, the Bureau of Reclamation, the National Park Service, and the U.S Fish and Wildlife Service.

"These high-flow releases, a new paradigm in water management, recognize that there are hugely beneficial impacts to river ecology from releasing the requisite water needed downstream in large pulses, rather than uniformly throughout the year," said USGS Director Marcia McNutt. "In the arid West, non-uniform flow better mimics the natural environment in which the plants and animals flourished."

This scientific process will continue and the knowledge gained from today's experimental high flow will be used to make further refinements in determining the optimal timing, duration, frequency, and conditions for future releases as well as to inform other management actions on the river.

"As the 1992 Grand Canyon Protection Act emphasizes, the resources of the Grand Canyon are fragile, and conservation of those resources can only be achieved through wise management by today's leaders," said National Park Service Director Jonathan B. Jarvis. "Today's event marks the beginning of the next generation of wisdom for managing this special place. We have only one Grand Canyon. We want to thank the Secretary for his leadership and conservation of this special place now and into the future."

The protocol represents one of two important milestones in the history of the Colorado River. The second, a program to control non-native fish species, provides a framework for actions and research to protect native endangered fish in the river downstream of the dam. The finalization of both efforts involved extensive government-to-government consultation with Native American tribes to ensure implementation of the programs in a manner that respects tribal perspectives.

"The Bureau of Indian Affairs supports the cooperating tribes' active involvement in the Glen Canyon Dam Adaptive Management Program," said Assistant Secretary for Indian Affairs Kevin Washburn. "Many of their insights were incorporated into the process leading to the HFE event. Their strong connections to the Grand Canyon, including their cultural, historic and religious ties, give them a unique perspective on this national treasure. I want to thank the tribes for their long stewardship and their full participation in this important effort to conserve and protect the Colorado River ecosystem."

The additional water released as part of the HFE is part of the annual water delivery to the Lake Mead. "The volume of water we are releasing during this high flow experiment does not change the overall volume of water delivery in the 2013 water year," said Reclamation Commissioner Michael L. Connor. "The current operations plan based on forecast data calls for releasing 8.23 million acre-feet of water from the dam to meet delivery obligations to the Lower Colorado River Basin and Mexico. The experimental flows are included in that total annual volume and will be offset by adjustments to the

monthly release volumes throughout the rest of the water year."

"This new protocol developed by Reclamation will protect both the Grand Canyon and the delivery of water for communities, agriculture and industry," Salazar noted. "We are taking a practical approach. If, for any reason, the new high-flow experiments do not yield the positive results we anticipate, we have the ability to change and adjust future flows."

In addition to the opportunities for HFE releases made possible under the protocol, Secretary Salazar has initiated the first comprehensive analysis of Glen Canyon Dam operations since 1996. The Glen Canyon Dam Long-Term Experimental and Management Plan Environmental Impact Statement will build on information obtained through the Adaptive Management Program and activities conducted under the protocol to analyze a broad scope of dam operations and other related activities. The goal is to determine specific alternatives that could be implemented to improve and protect downstream resources while adhering to applicable laws. Reclamation and the National Park Service are jointly developing the LTEMP EIS, which will ultimately integrate and further refine actions conducted under the protocol.

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