

June 14, 2013

## FAQs: Quagga Mussel Blitz

### **What is the purpose?**

The purpose of the mussel blitz is to determine the extent of invasive quagga mussels in Wahweap and Antelope Point marinas in Lake Powell and to remove or destroy any mussels found.

### **Why did the National Park Service (NPS) decide to do the mussel blitz?**

The National Park Service identified 14 adult mussels at the Wahweap Marina in March. As of May 10, the NPS had identified more than 150 adult mussels attached to moored vessels and dock structures at the Wahweap and Antelope Point Marinas. The NPS has not found a reproducing colony of mussels. By removing any mussels that are found, the NPS hopes to prevent the establishment of a reproducing colony.

### **Who is involved?**

Approximately 35 divers and 65 support staff will be involved over the 4-day dive operation. Agencies include:

- National Park Service
- Aramark
- Antelope Point Resort and Marina
- Arizona Game and Fish
- Bureau of Reclamation
- Coconino County Sheriff's Office
- US Coast Guard Auxiliary
- US Fish and Wildlife Service
- Utah Division of Wildlife Resources
- Utah Highway Patrol

### **What will happen if mussels are found during the mussel blitz?**

Any mussels found will be collected and the location will be documented. If there are more mussels than can be collected by hand or they cannot be easily collected due to their location, they will be crushed and killed. Removing any mussels found will help prevent reproduction.

### **How many mussels have been found during the blitz so far?**

On June 10, 138 mussels were found and removed at Antelope Point Marina during the first day of dive operations. On June 11, divers found and removed 63 mussels at Wahweap Marina. Divers located and removed an additional 22 mussels at Wahweap Marina on June 13. On the last day of the blitz, June 14, 12 mussels were removed. Divers removed a total of 235 mussels during the four-day event.

### **If control strategies are not effective, how soon could Lake Powell start experiencing mussel impacts?**

Should a mussel population get established and spread, it could be several years before their presence would be obvious. Spreading lake-wide could take considerably longer.

### **What can the public do to help?**

Clean, drain, and dry! The spread of mussels and other aquatic invasive species is preventable. Cooperate with prevention program efforts at Lake Powell and other places where people are trying to protect their waters. Always make sure your vessels and equipment are not causing the problem. Spread the message, not the mussels.

### **Are boat inspections still required at Lake Powell?**

Yes.

### **Can boats leaving Lake Powell spread mussels to other waters now?**

Not if boaters practice "Clean, Drain, and Dry" and treat their boats and equipment to prevent spreading aquatic species.

### **What effect will this have on the Colorado River below the dam in Glen and Grand canyons?**

These detections are so low that no effect will occur. If a large infestation of Quagga mussels existed in Lake Powell, large numbers of mussel larvae might travel through the dam. The larvae that survived would seek to attach in low flow areas. It is not known if they could reach high numbers. The Arizona Canal has not yet developed large populations of mussels despite larvae being delivered from the Lower Colorado River.

### **What has the NPS done to stop mussels at Lake Powell?**

The NPS has operated a mussel prevention program at Lake Powell since 2000. Over a decade ago, scientists predicted that Lake Powell would be the first lake in the western U.S. to get mussels. The number of high-risk boats coming to the park has increased exponentially in that time. Prior to 2007 and the discovery of mussels in the west, Lake Powell was threatened by about 50 high-risk boats per year from eastern states. In 2011 alone, that number was 17,000. 38 boats with mussels were stopped from launching in 2012, over twice the number in 2011. The increased pressure has required the park to screen boats to determine the highest risks and focus our limited capability where it was needed most. At busy times, as few as 15% of boats may actually get inspected.

### **How does NPS monitoring at Lake Powell compare to other mussel monitoring programs?**

No other lake on earth is as intensely monitored for mussels as Lake Powell. The NPS processes hundreds of samples each year. The NPS uses 4 early detection methods, including microscopic analysis, automated particle analysis (FlowCAM), Polymerase Chain Reaction (the DNA test), and deployment of artificial substrates to detect early colonization. Sampling occurs lake-wide at routine sites like marinas and the dam; computers are also used to determine random sampling locations throughout the lake. More samples collected are from areas where there are the most boats. Using both routine and random sampling as well as multiple early detection methodologies is expected to increase the chances of very early detection. Control of any invasive species is easiest when caught early. If these current findings represent a population, the best chances have been created for successful control.