## Possible Introduction of Quagga Mussels into Columbia Basin Discussion Handout Page 1 of 3

Enclosed are disturbing notices that indicates possible introduction of quagga mussels into the Columbia Basin via hatchery transfer from Nevada to the Owyhee Basin. I believe we should also alert the Members at their meeting in Boise. Dan Diggs will be able to discuss this.

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Sorry to keep spreading the bad news. See below regarding further quagga mussel spread in the Colorado River Basin, and new concern about inoculation of the Snake/Columbia via the Owyhee. Please share with those who should know...

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## Nuisance Mussels Found in Lake Havasu, Reservoir for California

LAS VEGAS -- Divers have collected what authorities say appear to be invasive mussels in Lake Havasu and in a nearby California reservoir that holds water for delivery to Los Angeles.

The discovery expanded wildlife officials' concerns about preventing colonies of mussels from clogging pipelines and affecting native species.

The mussels were discovered Wednesday on submerged cables and concrete at Lake Havasu near the Whitsitt intake facility for the Metropolitan Water District of Southern California, biologists and Southern Nevada water officials said Thursday.

Biologists were still trying to identify the type of mussels late Thursday, but officials said they appeared to be nonnative quagga mussels like those found Jan. 6 in the Lake Mead reservoir behind Hoover Dam.

"I was a little surprised that what appears to be quagga mussels showed up that soon farther down in the system," said Jon Sjoberg, supervising biologist of the Nevada Department of Wildlife. He addressed the issue during a break at a meeting of the California-Nevada Amphibian Populations Task Force on Thursday at the University of Nevada, Las Vegas.

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If the discovery is confirmed, it would mark the first reported case of zebra or quagga mussels in California, said Bob Muir, spokesman for the Metropolitan Water District.

California's largest water agency was checking the Colorado River Aqueduct and related facilities for signs of infestation, Muir said.

Sjoberg called it inevitable that nonnative mussels would appear in the Lower Colorado River, following the discovery two weeks ago in Lake Mead's Boulder Basin and a state fish hatchery.

National Park Service officials and federal biologists have not reported finding invasive mussels downstream from Hoover Dam.

The mussels can survive in a few inches of boat bilge or engine cooling system water.

Sjoberg said it was unclear whether quagga mussels were introduced to Lake Mead by a boat hauled to the lake from the Great Lakes region, or whether the infestation came after a boat or piece of equipment was put in Lake Havasu.

As many as many as 5,000 boats are launched on some weekends at Lake Mead National Recreation Area, according to Park Service figures.

A Southern Nevada Water Authority Water official informed his authority board separately on Thursday that invasive mussels had been found in Lake Havasu.

Ron Zegers, who oversees a network of pipelines, pumps and plants that draws Colorado River water out of Lake Mead for treatment and distribution in the Las Vegas area, said access to the Colorado River Aqueduct "provides the mussel with a whole avenue of spread into California."

The aqueduct delivers water to urban Southern California, including Los Angeles and San Diego.

Zegers said officials in southern Nevada still were assessing the extent of the infestation at Lake Mead, and said the mussels were not seen as a threat to municipal water and sewer infrastructure at the reservoir.

A dive team was scheduled to search Saturday for mussels on and around the agency's two water intakes at Lake Mead.

Quagga mussels are from the same genus as the more commonly known zebra mussel, but are slightly bigger. Douglas Karafa, an administrator with the Clean Water Coalition, called the quagga "zebra's nasty cousin."

"They're just bigger," he said, "and they're worse."

Until quagga mussels were found this month in Lake Mead, they had not been found previously in the United States west of the Great Lakes region or a stretch of the Mississippi River between St. Louis and Alton, Ill.

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Like zebra mussels, quagga mussels are freshwater mollusks that can multiply rapidly, with a single female laying as many as 1 million eggs.

Both species were introduced accidentally to the Great Lakes region in the ballast of ships from eastern Europe and the Ukraine. They can plug pipes up to 12 inches in diameter, and restrict flow in larger pipes. Zegers said mussel colonies also can speed corrosion of pipes and other underwater infrastructure.

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----Original Message----

From: Timothy Walters

Sent: Friday, January 19, 2007 9:14 AM

To: James Gores Cc: Robert Hooton

Subject: RE: Identified Quagga mussels in Lake Mead

Jim,

I just spoke with some employees of the Nevada Department of Wildlife, and have some disturbing news regarding the quagga mussels. These mussels were found in Lake Mead, as well as Lake Mead Hatchery. Based on size, the mussels have probably been present for at least three to six months. During that time period, fish were transported from Lake Mead hatchery all over much of the state of Nevada. Last May, fish were transported from Lake Mead Hatchery to Wild Horse Lake, which is on the East Fork Owyhee River. As a result, we may have quagga mussels in the Owyhee system.

Take care,

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