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Fires May Affect LA County Water Supply

Morris Fire borders reservoirs.

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San Gabriel Canyon (myFOXla.com) - While more than 1,000 firefighters toiled in heat wave conditions to gain the upper hand on two mountain fires above Azusa and Altadena, a Los Angeles County deputy director of Water Resources said today the Morris Fire could adversely impact the drinking water supply for more than one million people.

Post-fire erosion and accelerated sedimentation -- not pollution -- are the primary concerns to water officials. Vast mountainsides are scorched above the man-made reservoirs in San Gabriel Canyon, and Morris Fire perimeter maps today also showed burned areas bordering both bodies of water.

With vegetation burned off an estimated 1,800 acres or more, erosion rates and volume will increase on the steepest slopes with or without rains, according to geologists and geomorphologists.

Increased erosion in burned watersheds that empty into the San Gabriel and Morris reservoirs could mean those dammed bodies of water will have to be drained and cleared of sediment far ahead of the normal schedule, said Christopher Stone, assistant deputy director for Water Resources, Los Angeles County Department of Public Works.

The same thing happened after the 2002 Curve and Williams fires, when it took three years and cost $35 million to remove 5 million cubic yards of debris from the reservoirs, Stone said.

Draining the reservoirs over long periods of time can deprive local water vendors of up to 250,000 acre-feet that could be available in normal years, Stone said.

"In an average year we drain 250,000 acre-feet out of the reservoirs to spreading grounds," Stone told City News Service. "There it percolates underground, then it's pumped out and treated for drinking water supply. An acre-foot can supply two families of four for one year."

The typical annual yield from the San Gabriel and Morris reservoirs supplies "well over a million people," Stone said.

"That's a huge impact," Stone said. "It's a situation we'll have to monitor. A trigger point for draining the reservoirs will be whether we can operate valves and gates on the dams. It will depend on the rain seasons and when we get heavy rains."

Morris Dam was built in 1934, and according to California Institute of Technology archives, Morris Reservoir was used for testing rockets and torpedoes during World War II. The Metropolitan Water District had jurisdiction for several decades, but the Los Angeles County Department of Public Works has been responsible for both dams and reservoirs since1995.

The San Gabriel Mountains that comprise all the high ground in the Angeles National Forest are "highly erosive" and tons of sediment come down every year in normal conditions, Stone said. The two reservoirs in San Gabriel Canyon have to be drained and cleared of sediment every 10 to 15 years in normal circumstances -- without fires, Stone said.

At the Morris Fire incident command post in Irwindale, Angeles National Forest Technician Jim Garner explained some basic geology about the eroding San Gabriels.

"These are the fastest-growing mountains in the world, I believe, and they are also the fastest disintegrating, because of the geologic uplifting, the earthquakes and the faults," Garner said, standing next to a fire perimeter map that showed parts of the Morris and the San Gabriel reservoirs. "Even without the fires, you have a tremendous amount of sediment and material coming out of the North, West and East forks of the San Gabriel River. These are huge drainages.

"That's just in normal conditions. Now you take a fire and wipe out all that vegetation and there's nothing to hold the topsoil and sediment back," Garner said. "So when it rains it accelerates movement of debris and volume of material going into the water in those reservoirs. There will be more turbidity and silt in the water."

Los Angeles County is the custodian of the dams and reservoirs, and flood control is the primary use of the dams, Garner said.

"About every 10 to 15 years they have to drain the reservoirs and remove the silt, in normal conditions without fires," Garner said. "I do believe they get drinking water out of them."

Congressman David Dreier, R-San Dimas, who represents the 26th Congressional District that includes the areas still burning in the Morris and Station fires, visited an incident command post in Irwindale today for a briefing on the fires.

"My main concern is with 100-degree temperatures, we have two fires going and there is the threat of more fires starting in these conditions," Dreier told CNS. "There is no silver lining to these fires. The only benefit that comes is learning how to combat the next fire.

"What I'm saying should be done today is that people take precautions to protect their families, pets and property," Dreier said. "And they need to listen to law enforcement in the event evacuations become necessary."