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Truckee Meadows taking steps to alleviate future flooding

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A warming climate could mean more floods in the Truckee Meadows, but steps recommended in a new report on the danger are planned for the area.

A recent report by the National Wildlife Federation predicted global temperatures could increase by 2 to 11 degrees in the next 90 years, with one change being an increased risk of flooding.

That's because warmer air can hold more moisture, producing more heavy rain, said Amanda Staudt, a climate scientist with the federation.

There also could be an increased danger of storms when rain falls on an existing snowpack, melting snow and producing floods of the type that submerged much of the Reno-Sparks area in January 1997.

Kelly Redmond, a scientist with the Western Regional Climate Center in Reno, agreed.

"It does seem like we could get more flooding events," Redmond said. "The possibility of getting more rain-on-snow events probably goes up. It also might just be more rain on rain."

Potential danger, the report said, is compounded by increasing development within flood plains, straightening of river channels, draining of wetlands and an overreliance on levees to protect areas from flooding.

All of those are good points, said Naomi Duerr, director of a \$1.5 billion flood control project planned for the Truckee River.

Duerr agreed that a warming climate could mean more of the floods like the one that occurred in 1997 and, to a lesser degree, in 2005.

"Things are changing," Duerr said. "We are expecting to have a greater risk of flooding. They are coming more frequently because of changing climate patterns and it's something we can expect to happen more often."

That makes completion of the long-awaited Truckee River Flood Project all the more important, Duerr said.

Steps to address several major issues addressed in the Wildlife Federation's report already are under way or planned as part of that project, Duerr said.

While levees and flood walls are considered important components of the project, where possible, they are being set up away from the river. Under the "living river" project favored by local officials, much of the riverbank between the river and levees will be terraced.

"We're trying to set our levees back to allow floodwaters to spread out," Duerr said. "Terracing actually creates flood storage in the river. Where there is dirt now there will be space."

The flood project sponsored by Washoe County, Reno, Sparks and University of Nevada, Reno has spent about \$50 million buying land along the river, in some cases removing structures that could be damaged during future floods.

The Truckee Meadows has the highest level of recurring flood damage in Nevada, Duerr said.

Another key component is river restoration, much of which has been completed along the lower Truckee east of Sparks. Work involves bringing back wetlands and returning natural channel meanders to parts of the river that were straightened decades ago.

"That helps store water in place so it doesn't rush by," Duerr said. "That's one of the reasons we're putting the curves back in."

Project sponsors also are pushing floodplain management strategies for future development. The idea, Duerr said, is to ensure that any fill material used for a project that might increase flood potential at a given site is offset by removing other dirt nearby.

"We are well aware of these key points and they are things that we talk about a lot," Duerr said of many of the federation's recommendations. "It's gratifying that what we're doing is being recognized by others as the right things to do."

Additional Facts

Truckee River Flood Project

- The bulk of the \$1.5 billion flood project, which would include terracing of much of the riverbank, currently is being reviewed by the U.S. Army Corps of Engineers.
- Portions are complete, including the construction of a levee and flood wall on Reno-Sparks Indian Colony land where a Wal-Mart Supercenter is planned.
- Restoration of several stretches of the lower Truckee River is completed, including the 102 Ranch and at Lockwood. Restoration of the Mustang Ranch will occur this summer.

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