



CHET GORDON/Times Herald-Record

Trailers along East Avenue in Washingtonville evacuated amid Hurricane Irene and Tropical Storm Lee in September serve as a powerful reminder of Orange County's inclination toward flooding. A panel of experts Tuesday at the Orange County Emergency Services Center in Goshen sought to explain why this happens, to debunk myths and to recommend actions that might blunt the impact.

Orange flood patterns explored

Panel cites bedrock as reason for vulnerability

BY JAMES NANI

Times Herald-Record

Why is Orange County prone to flooding, and what can be done to stop it?

A panel of experts came to a flood forum at the Orange County Emergency Services Center in Goshen Tuesday night to try to help answer those questions.

According to hydrogeologist Russell Urban-Mead, Orange County's geologic history is partly to blame.

Urban-Mead said Orange County's bedrock is mostly made up of shale that has little ability to store groundwater unless it's broken up and fractured.

"(Orange County is) just far enough away from the Tectonic train crashes for there not to be

fracturing," said Urban-Mead.

Orange County is also flatter than other areas in the Hudson Valley. That means areas like the Wallkill Valley area and the Moodna Basin drain slower after heavy rains.

Glaciers from thousands of years ago also dumped tiny silts and clays onto areas such as Walden, Montgomery and the Black Dirt regions, but left few areas of deep sand and gravel. Less deep sand and gravel mean less ability to store groundwater.

What's under our feet, combined with unusually wet summers and severe storms, makes Orange County vulnerable to weather extremes, said Urban-Mead.

Julie Moore, a senior engi-

neer for Stone Environmental Inc. in Vermont, touched on some flood myths that persist. She said armoring stream banks with heavy rocks and straightening channels just push problems downstream.

"The streams are trying to tell us something when they flood," said Moore.

Simply straightening a stream after a flood or deepening it with equipment can't always solve flooding problems and can hurt aquatic life, said Moore.

"Aquatic life is still alive after a flood," Moore said.

Barbara Kendall of the Hudson River Watershed Alliance said New York ranks high in flooding damage nationwide.

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JULIE MOORE

Senior engineer, Stone Environmental Inc. in Vermont

"New York is ninth in the nation for FEMA claims," said Kendall.

Kendall emphasized use of No Adverse Impact, a floodplain management policy from the Association of State Floodplain Managers.

The policy calls for looking ahead for potential negative effects of development or flood-control action on other people, their property and the coastal environments.

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