SYRACUSE — Although a precise cause of toxic algae menacing the region's largest and most vital water bodies remains elusive, a wellspring of brainpower is working on the crisis.

With a share of a \$58 million dollar state initiative on the line, about 150 stakeholders met with facilitators at a daylong conference Tuesday at SUNY College of Environmental Science and Forestry in Syracuse.

Their focus: the critical health of Owasco, Skaneateles and Cayuga lakes.

Scholars from Tennessee, Ohio, North Carolina, New York and Michigan, and officials from the New York state health and environmental agencies guided the conference. It was billed as a Harmful Algal Bloom (HAB) summit — one of four being held throughout the state.

The day began with technical presentations, later explored in breakout groups with an array of stakeholders: municipal officials, farmers, water quality advocates, planners, regulators, representative of the Seneca Nation and others.

At the end of the day, the groups had begun framing the big issues at play, including agricultural practices, septic issues, climate change, treatment options, monitoring strategies, governance and public education.

But they were no closer to explaining why the extent, duration, and impacts of harmful algae blooms have exploded in the Finger Lakes in recent years.

"It's completely unexpected," said John Halfman, a water quality specialist and professor of environmental studies at Finger Lakes Institute at Hobart William and Smith Colleges. Nutrients that feed toxic algae are atypical in the deep, clear Finger Lakes waters, added Halfman in an interview after the conference.

"There are many factors that we don't know," the state Department of Environmental Conservation's Scott Kishbaugh told a packed room of more than 300 people after the conference was opened to the public at 6 p.m. "Many residents who lived on lakes for decades have never seen blooms ... until now."

In the last six years, blooms were documented on 340 New York state water bodies, according to Kishbaugh, who works for the DEC's Bureau of Water Assessment Management.

"Each of these water bodies has a personal story," Kishbaugh said. "It's where somebody taught their children to fish, held a sweetheart's hand, skipped stones. We are trying to understand why some of these stories have gone dark."

HABs have closed beaches, killed fish and threatened the drinking water of several hundred thousand New Yorkers. The urgency behind the governor's initiative reflects thinking that the algae blooms, if not dealt with, may signal a tipping point of a larger environmental crisis.

HABs began to really get noticed in 2015 after the state Department of Health documented 35 illnesses from exposure of victims who were swimming or boating.

In 2016, HAB-related toxins were detected for the



A crowd of more than 300 people showed up Tuesday night at the SUNY College of Environmental Science and Forestry to hear plans to address toxic algae blooms in the state. TOM WILBER/USA TODAY NETWORK

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Scott Kishbaugh

State Department of Environmental Conservation

first time in drinking water for more than 40,000 people in Cayuga County. More recently, toxin outbreaks hit Skaneateles and Cayuga lakes not far from drinking-water intakes.

Rochester *Democrat and Chronicle* environmental reporter Steve Orr was one of the first journalists in New York to raise the alarm about blue-green algae blooms, writing about them as far back as 2008.

Although the exact cause of their sudden proliferation in the Finger Lakes is unknown, HABs are generally linked to phosphorus and other nutrient discharges from farms, lawns and septic tanks. They can be exacerbated by heavy rains, causing runoff, and warming waters, providing incubation.

"It's time to stop playing the blame game and finger-pointing and do something about it," Jacqueline Lendrum, director of the DEC's Division of Water Management, said in an interview after the conference.

The day's work, documented with magic marker on flip charts from a half-dozen work groups, will be incorporated into a broader "action plan" that will be open for public comment in May, Lendrum said.

The Cuomo administration announced its \$65 million, 12-lake initiative late last year.

Teams from four regions, working with national experts and local stakeholders, are developing plans to identify and address factors in their respective regions. The state is allocating \$500,000 per lake to develop the plans.

"They (the lakes) are the laboratory in which we are trying to determine why blooms are occurring in New York state," Kishbaugh said.

The state will provide \$58 million in grant funding to execute the plans, including new monitoring and treatment technologies.

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