

# No muddy picture of this issue, says Moore

Suspended solids at the root of many mysterious greens failures, USGA official discovers

By MARK LESLIE

Poor-quality water, containing suspended solids perhaps unnoticeable to the naked eye, is spelling death to golf course greens, new and old, around the country, according to Jim Moore, Mid-Continent Section director for the U.S. Golf Association Green Section.

"This is a lot bigger problem than people have realized," Moore said. "It's destroyed a lot of greens. Clubs are facing reconstruction of greens and tees built even within the last 10 years because of lousy water quality."

Moore stumbled on this problem during a five-hour ride home one day with a

gallon of water from an Oklahoma course sitting next to him. "By the time I got home almost one-eighth inch of silt and organic debris had settled to the bottom of the bag, in a moving car no less," he said.

He featured his discovery in his monthly Mid-Continent News newsletter in August, and in September said, "Already a bunch of guys are testing their water supply."

Moore suggested superintendents buy a very large rain gauge — like two feet high and three or four inches across, making sure it is not tapered. They should then collect enough water from their course's supply or a sprinkler to fill the gauge to the number of inches they apply to the course per year. If the gauge doesn't hold that much, just deal in fractions, he said.

After letting the gauge sit for a week, "be prepared for a shock," Moore said.

One-eighth inch of crud, he said, "is not a pretty sight."

Multiply that amount by the number of years the course has been irrigated, and you can see why so many courses are having troubles, Moore said.

Discovering the magnitude of problem, he said, "is almost too easy."

Moore said the industry will witness more sediment problems in the future as water



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sources diminish and laws mandate that course builders construct smaller ponds.

If irrigation ponds are smaller, he reasoned, a course will pump it out more quickly than sediment can settle to the bottom. The sediment that doesn't settle ends up on the course.

Meanwhile, he said, builders of old courses paid more attention to surface drainage.

"Today, we have such good subsurface drainage that people think they don't have to consider surface drainage, and that's not true," the USGA official said.

Moore recommended superintendents immediately check their water.

"This is like taking your temperature," he said. "If it's high, then do something about it."

Saying superintendents should "stop the problem before it reaches the pumps," he suggested several remedies:

- Install a filtering system. "In most cases that's all you need."
  - Clean the intake system. "Some people haven't done this in years."
  - Lift the intake off the bottom of the pond.
  - Hire a specialist to install a fence around the intake and line it with a special fabric to serve as a filter.
  - Have the irrigation source dredged. This rids the course of silt and adds depth to the water storage.
- "I wish superintendents would have a soil lab test their water and repeat the test every year to see if the values (the percentage of silt and clay) are changing," Moore said.



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