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Wastewater disposal growing more urgent

Problems identified, solutions are not

By David Curran

Last Aug. 8 was a watershed day for the Hyannis Water Pollution Control Facility.

Barnstable's only municipal wastewater treatment plant has a capacity of 2.5 million gallons per day. On Aug. 8, flow exceeded capacity by 9,400 gallons.

In all probability, that will happen again this year, according to Mark Giordano, senior project manager with the Department of Public Works' Engineering Division. And even if it doesn't, with wastewater flow forecast to increase by 1 million gallons a day over the next 20 years due to growth and development, it's only a matter of time before daily flows in excess of 2.5 million gallons become routine.

The solution will be measured in acres - no fewer than 20, the approximate area needed to handle that extra million gallons a day.

And that will only solve one component of the multifaceted wastewater disposal challenge the town is facing.

All of this was presented Monday at town hall, when Barnstable's Local Planning Committee conducted the second in its series of public workshops as it works on revising the town's Local Comprehensive Plan. Monday's session, attended by about two dozen townspeople, covered wastewater facilities.

Additional workshops are scheduled for April 12 on nitrate and nitrogen management, a topic that also involves wastewater, and May 12 on "smart growth." The workshops, to be conducted in the town hall hearing room, start at 7 p.m.

Nitrate loading is one of the reasons Barnstable needs the additional acreage, Giordano said. The Hyannis plant is capable of processing up to 4.2 million gallons per day, but that figure drops to 2.7 million gallons when nitrogen removal is added, as it has been in Hyannis. Capacity drops an additional 200,000 gallons per day to avoid impacting nearby groundwater, Giordano said.

After originally looking at seven sites, the town has narrowed its focus to two that would provide additional acreage for the disposal of effluent from the treatment plant - 109 acres at Cape Cod Community College and 18 acres in the same general area but south of Route 6.

"We are not going to move forward with any sewering projects" until an effluent disposal site is identified, Giordano said. He said the town is looking at a six-month time frame to complete that task.

The town already has identified and prioritized areas of concern whose wastewater disposal issues can be solved most cost-effectively by connecting them to the town's sewer system, said Dale Saad, coastal health resource coordinator with the Health Department.

"The ones that are being connected are being connected because it's the most economical" solution, Giordano said.

None of those areas is beyond four miles from the Hyannis plant, Saad said. The town determined that running sewer lines any longer than that would not be cost-effective.

For sites beyond the four-mile limit and any within four miles for which it has been determined that sewering will not be the most cost-effective

solution, the town has been studying alternatives ranging from on-site individual systems and on-site cluster systems serving two or more properties to small plants such as the one that services the Barnstable Horace Mann Charter School in Marstons Mills.

Saad said the best solution will vary site by site.

"It will take a variety of different approaches and technologies to solve this wastewater problem," said Tom Cambareri, water resources program manager for the Cape Cod Commission.

And they will not be implemented all at once. For residential properties with individual systems, for example, existing systems, even if they do not meet current standards, can remain in place until the property changes hands.

"People are holding off selling properties that are in failure," Saad said, adding that the town is beginning to look at the potential costs it might face if such wastewater systems are not replaced.

But Cambareri sees opportunities for novel approaches, such as public/private partnerships sharing a small treatment plant.

"That's the kind of thinking we think we're on the cusp of," Cambareri said.

Felicia Penn, a member of the Cape Cod Economic Development Council and executive director of the Smart Planning and Growth Coalition, a Hyannis-based nonprofit working to preserve Cape Cod's community character by supporting changes in planning and zoning that foster an economically sustainable Capewide community, cited the Super Stop & Shop in Cotuit as an example of such an approach.

Building in a nitrogen-sensitive area, the developer decided on a treatment plant that could handle twice the capacity of the development itself, then contracted to take in wastewater from neighbors to achieve the requirement that the development result in no net increase.