Article 22

Boland Pond has long been the next priority pond for a management plan due to it having significant water quality impairments. This pond was identified as being one of the most impaired ponds in Orleans over a decade ago. The timing now related to sewering is optimum.

It is clear that Boland Pond's water quality continues to degrade; however, the primary causes of water quality impairments have not been fully assessed. We really don't know the relative role sediments, groundwater, septic and stormwater runoff, and other factors play in the impairment. Determining the sources and amounts of the different nutrient loads entering this pond is key in determining the appropriate management strategy for this pond. For example, if it is determined that the primary source of phosphorus to the pond is coming from the bottom sediments, then sewering may not completely solve the water quality issue. This assessment will allow the primary source and concentrations of phosphorus inputs to the pond to be identified, and the appropriate management strategy to be determined. It will also establish the baseline data which will be needed to determine - when water quality improvement occurs - whether it is as a result of the town's sewering and other mitigation efforts, or if additional management actions are needed to restore the overall ecological health of Boland Pond.

According to the available information on the watershed flows into Boland Pond, the groundwater flow is not coming predominantly from the properties addressed in Phase 1 sewering. The watershed and subwatershed areas impacting Boland Pond will not be completely sewered until Eldridge Parkway 1 and 2, Phases 14 and 15 respectively, are completed, many years down the road.

Relative to the degradation mentioned above, there was a Cyanobacteria bloom this past May/June and a health advisory was issued. Recently, although it did not reach a potential of concern, we have been advised to watch it closely by APCC for another potential bloom. We are relieved that so far the news is good.

It's important to note that due to its proximity to several schools, Boland has recently experienced increased visibility and use as a "living classroom" for Orleans Elementary (OES) and Nauset Regional Middle School (NRMS) students. This effort has been supported by the Orleans Conservation Trust (OCT). It is one of our best educational opportunities for the next generation to learn about water quality.

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