




Interoffice Memorandum

May 1, 2023

TO: Mayor Jerry L. Demings
–AND–
County Commissioners 

FROM: Timothy L. Boldig, Interim Director
Planning, Environmental, and Development
Services Department

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SUBJECT: June 6, 2023 – Work Session
Groundwater Vulnerability Assessment

Orange County has over 600 named lakes across 12 major drainage basins. Excessive nutrients (i.e., nitrogen and phosphorus) entering a waterbody can adversely impact water quality. Currently, there are 151 impairments impacting 87 water bodies and the number of impairments is generally increasing with time. Approximately 60 percent of the impairments are related to nutrients. Conventional septic tanks, also known as on-site sewage treatment and disposal systems, represent a major potential source of nutrient loading known to adversely impact water quality.

In 2021, the Septic Tank Workgroup was created to address nutrient loading from conventional septic systems. An initial focus of the Septic Tank Workgroup's efforts is to identify locations within Orange County where groundwater and surface water resources may be vulnerable to excessive nutrient loading from conventional septic systems.

Consultants working for the Environmental Protection Division have completed a Groundwater Vulnerability Assessment (GVA) to identify areas of the aquifer within Orange County that are potentially vulnerable to nutrient loading from conventional septic systems. Local data was used to model the vulnerability of waterbodies to nutrient loading and the zones of influence around those waterbodies where impacts from conventional septic systems might be of greatest concern. A scoring methodology was used to rank the vulnerability associated with conventional septic systems at the subdivision level using relevant factors (e.g., septic system density, mean distance to waterbody, etc.). Subdivisions around waterbodies of interest were then combined to create proposed Priority Vulnerability Areas (PVAs) where restrictions on conventional septic system use will be proposed in a manner similar to those adopted by the Florida Department of Environmental Protection for the Wekiwa and Rock Springs Priority Focus Area. A methodology was also developed to rank the PVAs by the risk posed to the associated waterbodies to help determine locations where the potential connection to central sewer or upgrade to advanced treatment septic systems should be prioritized.

During this work session, staff will discuss the GVA, recommendations emerging from the study and the stakeholder engagement conducted to date.

This work session is for informational purposes only.

TLB/DDJ:ik