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*“Protecting and restoring water quality, spring flow and ecological health of Wakulla Spring”*

To: Wakulla County Commissioners

From: Anthony R Gaudio, Chair, Wakulla Springs Alliance

Date: May 15, 2023

Re: Agenda item 23: Request Board Reconsideration of Direction Given to Staff on May 1, 2023 Pertaining to the Proposed Ordinance Regarding Wakulla Springs Protection Regulations

The Wakulla Springs Alliance supports Commissioner Ralph Thomas’s proposal to expand the area encompassed by the proposed Ordinance Regarding Wakulla Springs Protection Regulations. We agree with Commissioner Thomas’s assertion that “there is no good place for a gasoline spill in Wakulla County” or a spill of any other petroleum product or federally listed hazardous substance or hazardous waste.

WSA continues to have concerns with the ordinance as drafted. Additional comments follow. We believe these modifications are essential to making this ordinance an effective mechanism for protecting the Floridan Aquifer in Wakulla County from leaks and spills from storage tanks for petroleum products as well as federally listed hazardous substances and hazardous wastes. We urge the Commission to hold at least one public workshop with third party experts to further vet and understand the proposed ordinance, including our suggested changes, before scheduling public hearings on the ordinance. It is more important to ensure the ordinance protects the aquifer and springs than to rush this through the Commission.

Consistent with Commissioner Thomas’s assertion, the WSA Board also urges the Commission to regulate petroleum products in the same manner as federally listed hazardous substances and hazardous wastes, i.e. require that they be stored in above-ground tanks that meet state and county standards for spill and leak prevention and containment. To do so, the proposed ordinance should be amended to apply to all “regulated substances” as they are defined in the proposed ordinance rather than providing lesser protection for gasoline and other petroleum products than for federally listed hazardous substances and hazardous wastes.

In particular, section 5(a) should be amended. Note, however, that as currently written, there are two sections 5(a): one is titled “Underground Storage Tanks” (p. 10) while the other is titled “Aboveground Storage Tanks” (p. 12). Both should be amended to be consistent.

*Page 10: Underground Storage Tanks (UST). ~~Based upon the Geotechnical Assessment Report, if overburden or confining layers exists between the superficial and Floridan Aquifer, Underground Storage Tanks may be utilized in compliance with the provisions of this Code.~~ No Regulated Substances ~~Hazardous Substances or Hazardous Waste~~ shall be permitted to be stored in an Underground Storage Tank.*

*Page 12: Aboveground Storage Tanks (AST). ~~Based upon the Geotechnical Assessment Report, if no overburden or confining layer exists between the superficial and Floridan Aquifer, an Aboveground Storage Tank shall be required in compliance with the provisions of this Section.~~ Regulated Substances ~~Hazardous Substances and Hazardous Waste~~ shall only be permitted to be stored in Aboveground Storage Tanks. All Aboveground Storage Tanks shall be Double Walled or installed within an impervious Secondary Containment. Except for connected underground piping, most storage tank components of ASTs are above grade and readily visible or accessible. Aboveground piping not in contact with soil is not required to have Secondary Containment.*

This approach would simplify the regulatory process and eliminate the potential enforcement and legal challenges posed by the absence of definitions for the terms “overburden” and “confining layer” in both versions of section 5(a) as well as the absence of any specification of the extent, thickness, or nature of any overburden or confining layer that the county believes would provide sufficient protection to warrant allowing use of underground storage tanks for petroleum products. In the absence of explicit standards the county could be subject to legal challenges for alleged inconsistent application of the ordinance.

More importantly, however, is the fact that no amount of unconsolidated overburden above the limestone bedrock which contains the Floridan aquifer would protect the aquifer from a spill or leak from an underground storage tank. Furthermore, there is no guarantee that the presence of a clay layer on the site would offer such protection. The hydrogeologist with whom WSA consulted asserted that sooner or later any spill or leak will reach the aquifer. The findings from FDEP’s site assessment of a gasoline leak on Capital Circle Northwest in Leon County illustrate this fact: FDEP documented groundwater contamination at a depth of 125 feet from four gasoline constituents that are federally listed hazardous substances: benzene, toluene, ethylbenzene, and xylene, despite the presence of 85 feet of unconsolidated overburden, including two layers of clay that might be characterized as “confining layers.” As shown on the attached figure from that assessment, one layer is 5 to 12 feet thick while the second is 20 to 38 feet thick.

The geotechnical assessment requirements in the proposed ordinance remain important for identifying subsurface karst conditions that may pose a threat of surface collapse and/or a pathway for rapid infiltration to the aquifer. WSA recommends that the ordinance include a required setback of 300 feet for aboveground storage tanks from all surface karst features listed in the Conservation Element Policy 13.1 of the Comprehensive Plan as well as relic sinks with a direct connection to the aquifer and spring to sink systems that are identified by the required geotechnical assessment.

WSA also recommends that the term “Wakulla Aquifer,” which has been substituted for “Wakulla Springs” in Commissioner Thomas’s proposed revisions, be changed to “Floridan Aquifer in Wakulla County.” “Wakulla Aquifer” is not a defined hydrogeologic feature recognized in the professional or regulatory literature. The Wakulla Basin Management Action Plan uses the precise term “Upper Floridan Aquifer” which is the aquifer that discharges at Wakulla Spring Spring and is used for drinking water in the county.