

Stop the Sand Mine Notice

At Pine Ridge Community Center

Saturday, May 31 10:00am

Yes, the new Stop the sand mine subcommittee was approved by the Pine Ridge Board of Directors

This meeting is for everyone! If you have not yet heard about the sand mine it is very important to attend. If you have heard about it and have been participating, you still should attend, as we need all hands on deck. Please come and share any thoughts, ideas, or concerns. We will be assigning committee duties, responsibilities and titles.

Lots of information on our website!

<https://stopthesandmineecc.wixsite.com/stopthesandmine>

The Sand Mine application in Citrus County, Florida, is threatening the peace and safety of the Pine Ridge equestrian community, Crystal River and the surrounding area. Research shows the proximity of the proposed sand mine to our equestrian neighborhood, farms, businesses, schools, stables, and barns means the people, horses and our pets will all be exposed to serious health, safety, environmental impact, community and economic threats. Major concerns include silica dust, very fine particles that are odorless and colorless that penetrate deeply into your lungs and can cause respiratory problems, silicosis, an irreversible lung disease, cancer, and other health issues. The FDOT would like to remove 4.5 million cubic yards of sand abutting Pine Ridge. Removing this amount of sand on 150 acres would create a pit that is 16.6 feet deep uniformly across the 150 acres. This type of digging into a Karst landscape has been shown to potentially cause groundwater depletion which could lower water levels affecting local wells and springs. Chemicals from mining or fertilizers used on the tree farm property might enter the aquifer. Dewatering can stir up naturally occurring contaminants like arsenic, heavy metals or introduce oxygen, altering the groundwater chemistry. Removing sand over limestone could destabilize the ground adding to sinkhole risk. Check our map. Altering the groundwater flow could impact the ecosystems and water availability, alter water quality and potentially harm aquatic life like the manatees and affect tourism. Lowering the water table might create salt intrusion.

“Dust” is a major concern. Open sand pit mining is made to sound less concerning in this application for a Land Development/ Comprehensive Plan code change, however it has significant environmental and operational concerns, particularly in dry, windy conditions without nearby water for natural suppression. The applicant states, “Water usage rate will not vary due to the amendment.” This is highly alarming, as the dust from only just haul roads only is a particularly prominent concern and this will be uncontrolled.” Very small dust/silica particles <100 microns may account for a much higher potential toxicity when silica is produced, stored and transported. Silica <100 microns can be easily mixed into the air via light air currents.

Several studies have shown, this silica induces oxidative stress, endoplasmic reticulum stress and apoptosis, which can lead to inflammation and fibrosis. This particular study review summarized the health hazards and toxic mechanisms associated with respiratory dust of different particle sizes, airborne dust particles originated from sand quarries...” and concluded silica due to its low density, this would result in a significant increase in exposure for the general population.

Another study researching size and characteristics of the airborne particles from open mines found distribution of particles at different heights and distances. Eighty percent of the airborne particles were respirable at <10 microns and easily transferred through the atmosphere. These 10 micron size particles (silica/dust/ultra-fine particles can penetrate lungs as deep as the pulmonary alveolar and the mechanical processes in mining activity can increase the production of fine and ultra-fine particles by 72%. Several other Studies have shown that the inhalation of respirable silica is proven to cause many adverse health effects

such as asbestosis, silicosis and coal pneumoconiosis (black lung disease).

The primary sources of air pollution will include excavation, loading, transportation and processing of the sand. Equipment like excavators, loaders, hauling trucks or conveyors will be used and the application mentions processing so screening/crushing equipment may also be used. The applicant states, “ No effect on traffic circulation since processing will be contained within the existing site.” While traffic may not be a concern wheel generated dust from haul roads within the mine is one of the biggest sources of fine and ultra-fine dust particles contributing about 40% of total emissions. It is the physical processes in a mine such as truck movement on dirt roads, vibration, sieving, crushing and powerful local wind streams that can separate and re-suspend the fine and ultra-fine particles in the air.

Sand and debris would circulate through our community's air without pause. These dust particles pose serious health risks to both humans and animals. Respiratory dust causes diverse health effects when entering the human

body, making acute or chronic damage through multiple systems and organs. These small particles can travel long distances, staying suspended in the atmosphere for days or even weeks. They are odorless, colorless, non-irritating, meaning you will not know you have inhaled the particles deep into your lung. It does not make sense to purposefully and intentionally place a sand mine next to an equestrian based community based on evidence of the many high risks associated with a sand mine.

In Florida, where water resources are critical, sand mining can contaminate aquifers and springs, impacting drinking water quality and agricultural irrigation. The shallow water table here in Citrus County increases the risk of altering local hydrology. Crystal River(CR) is part of the Springs Coast Watershed and Crystal River/Kings Bay spring group is listed as one of the major five springs. Our local CR Springs were named Outstanding by Florida Legislature and is a designated priority water body! The applicant states “ground water quality will not be impacted by mining operations” How does Citrus County verify this as true? What testing was done, where are those reports, who did this

testing if any was done? Has due diligence been done by Citrus County to ensure the safety of one of our greatest resources in the area?

The case of the 3RT Sand Mine in neighboring Levy County, as discussed by the WWALS Watershed Coalition, illustrates these risks. The mine's location in the Rainbow Springs spring shed raised concerns about its impact on water flow and quality, with the Southwest Florida Water Management District (SWFWMD) criticized for inadequate consideration in its Environmental Resource Permit (ERP) (Sand Mining). Similar concerns apply to Citrus County, where mining could threaten local water bodies and exacerbate existing environmental stresses. The Levy County sand mine is not currently open because a judge stopped the mine from operating citing the Levy County Commissioners' failure to follow proper procedures. We have high expectations our Citrus County board will do their due diligence to protect, promote, improve, public health and safety, while protecting landowners from the adverse impacts of an adjoining development, protecting the character/stability of our residential area and our natural and valuable

resources as stated directly as the primary purpose of the Land Developments Code of the Comprehensive Plan.

Crystal River and the broader Springs Coast watershed are Karst sensitive. Karst is the dominant landscape throughout the Crystal River area and it is directly connected to the Floridan Aquifer. This makes the aquifer very vulnerable to surface activities like development, agriculture and pollution. These activities can lead to rapid infiltration of contaminants into the aquifer, impacting water quality and the health of the springs here in Crystal River. Karst features dominate the Crystal River area. Springs, underground drainage systems and sinkholes extend throughout the Crystal River area, including the area of the proposed sand mine. (See Maps) The SWFWMD does not appear to be paying the attention needed to our aquifer as reported and acted on by the judge in Levy County. If the applicant is planning on watering to control the hazardous dust, this would be an enormous drain on our Aquifer. Orlando residents opposed a sand mine in their area because sand mines owned by three companies were permitted to pump 48 million gallons a day.

Please let's hope the Citrus County Board looks more closely at this. It is the water and our beautiful Springs that drive the economy in this area.