

# Economics of Phosphate

Submitted 6-5-18 by Andre Mele, MS, Suncoast Waterkeeper

I will attempt to explain that rezoning for phosphate mining will:

1. Be inconsistent with the Comp Plan, particularly D1, Future Growth;
7. Adversely influence living conditions in the area;
8. Create or excessively increase traffic congestion or otherwise affect public safety;
9. Create a drainage problem;
11. Adversely affect property values in the adjacent area;
13. Constitute a grant of special privilege to an individual (corporate) owner as contrasted with the public welfare.

Mosaic is a publicly-traded firm (MOS). Phosphate mining is and has always been a boom-and-bust business. It can be occasionally very profitable, but in mining economies, bankruptcy is always around the corner. In fact, historically, most phosphate mining companies have gone bankrupt rather than face the overwhelming liabilities associated with phosphate mining. The profits, when they come, do not accrue to you or your neighbors. They go to shareholders all over the world. The liabilities are yours, forever.

Phosphate mining creates no new jobs. It has so stated under oath at Manatee County. Employees and contractors move from mine to mine. So don't bother going to the Mosaic employment office. There is none. There are 24 jobs available in all of Florida today. Here's the link: <https://www.mosaic.jobs/florida/usa/jobs/>

By incinerating native habitat and burying agricultural soils with sand tailings, Mosaic ensures that land it has mined will remain marginal, both ecologically and economically, for generations, thereby displacing agricultural jobs that once sustained families for generations. Study after study shows soils on reclaimed lands to be at best suitable only for grazing—and anecdotal reports cite negative impacts on cattle.

Mining also displaces other sustainable economic activities, such as tourism and eco-tourism.

Property tax revenues will go *down*, not up. In Polk County, which was about 50% mined but has also had the most time to recover, assessed taxable land values average 30% of what they are on non-mined land.

Mining constitutes a "taking" of adjacent and nearby non-mined landowners property rights, land values, hopes, dreams. It is possible that an organized land movement among non-mine owners could result in a massive Bert Harris Act lawsuit against the county.

The Desoto County side of the mine will be the repository for hazardous clays and fluids from the Manatee County side, which will not accept them. Does Desoto County remember the Sludge Capital days? This will not help the county's long-term well-being or reputation.

The CSAs will all loom 60' high over the Horse Creek flood plain. They will contain billions of gallons of hazardous waste, including waste petroleum hydrocarbons. There are 400 homes in that flood plain. One breach would create drinking water contamination on a large scale, involving both the Peace River and Horse Creek, damage the Peace River Manasota Regional Water Supply Authority facilities, contaminate soil for generations to come, and render homes uninhabitable.

Other everyday liabilities for Desoto County will include:

- Probable labor pool flight
- Increased homelessness
- In other communities heavily involved in mining, drugs have gained a stranglehold, ruining families and lives.
- Truck traffic will increase dramatically.
- Trains will block SR 70 day and night, out by Pine Level.
- Noise and dust will be an everyday fact of life.
- The main routes from the coast into Arcadia will become canyons between 60' berms that conceal the moonscape created by strip mining.

Even wage multipliers, one potential tangible economic benefit to allowing mining into the county, will be minimal, since many of the mine workers and contractors will live and pay taxes in other counties.

Mosaic is a globalist corporation. Globalist corporations have no ethical constraints, other than maximizing returns to shareholders. You, in Desoto County, are going to be thrown under the bus. Nothing personal. It's just business. Mosaic has facilities in Saudi Arabia, Brazil, and is certainly eyeing Morocco, with 70% of the world's phosphate reserves. In the next thirty years, as the Florida reserves dwindle and the revenue stream dries up, Mosaic will be strongly incentivized to bankrupt its US-based business, abandon its responsibilities to Florida's communities, and relocate overseas. It is probably laying the groundwork already, as we speak.

It claims to feed the world, and even got your newspaper editor believing that if we stop mining here, historically, in Desoto County, the US will have to import fertilizer from China. Florida is already *exporting* most of its phosphate, much of it to—you guessed it—China. China is not as stupid as we are. It would rather leave its reserves in the ground, and import on its own terms, rather than wait until it runs out, and then be forced to become a price-taker, as the US will. There is a powerful economic argument to be made for leaving it in the ground.

The fact is, 25% of the world's land in crops and pasture is operated by traditional farmers and herders, many of them savvy sustainable farmers, looking to future markets. This land produces 70% of the world's food. 25% of the farm acres produces 70% of the world's food, and none of it uses Mosaic fertilizers. Mosaic fertilizers are on the wrong side of history. The UN and other international organizations are promoting widespread conversion to regenerative agriculture, cover cropping, carbon farming, and other methods that rebuild the soil and sequester carbon, rather than stripping it bare and creating dependency.

What, if any, sources of revenue will mining generate?

Severance Tax. At \$1.80 per ton, 11.9% of it goes back to the counties that were mined.

Payroll multipliers. Insignificant.

Property taxes? It's a wash, unless Mosaic sweetens the pot. But at the end of mining, the county is left with property taxes that are 30% of what they used to be, in perpetuity.

And those CSAs? They are not going away. Ever. 16,000 acres of land, crippled and sterile, for centuries

Phosphate mining is not a good economic deal for Desoto County.

## A History of Phosphate Disasters

Before 1975, no mines were reclaimed, and phosphogypsum wastes were dumped into rivers and used to backfill mine pits, including early clay settling ponds. Oakbridge and Grasslands, two upscale developments near Lakelands, were built on old filled clay ponds, and each home has 130 pilings driven beneath it to support the slab and prevent settling or cracking. Oakbridge is a radioactive site, and is the target of a current class action lawsuit. In 1975, state legislation was passed that required reclamation of subsequently-mined lands. Reclamation is merely backfilling, contouring and planting grass. It is not restoration. While the older pit-mining sites have shown an ability to recover over 120+ years, there is currently very little indication that post-1975 reclaimed strip-mined land can be returned to ecological or economic functionality without massive infusions of capital. Mosaic is “investing”—their term—in some demonstration projects, and allowing the association to be drawn—incorrectly—between everyday reclamation and the lush photographs of their demonstration projects.

Pre-strip-mining, clay ponds were smaller and gypstacks were fewer and smaller. There were many clay spills anecdotally referred to in the histories, but few documented disasters until about 1980, when the scale of phosphate mining and processing had accelerated to meet the demands of the Green Revolution.

- 1945: Peace River/Polk County spill.
- 1963: Brandon slime dam failure (slime was a miner’s term for the clays retained after ore separation in clay settling areas (CSAs), as they are now known.
- 1967: Mobil Oil retention dam failure (probably a toxic clays spill). Several oil companies were players in the phosphate rush, including Mobil, Occidental and Texaco.
- 1971: Fort Meade waste spill.
- 1980: Agrico dumps 12,000,000 gallons of toxic process fluids into the Peace River.
- 1988: Gardinier (now Mosaic) phosphoric acid spill into the mouth of the Alafia River.
- 1989: Big Four Mine clay spill.
- 1990: Gardinier 250,000 gallons of toxic clays into Peace River.
- 1993: Cargill fertilizer plant in Gibsonton (Riverview) spills acid into Archie Creek.
- 1994: IMC/Agrico gypstack “drops through a sinkhole”
- 1994: IMC Payne Creek Mine unspecified spill.
- 1994: 500 million gallons acidic process water spills from stack breach and floods parts of Keyville, FL.
- 1994: IMC/Agrico Hopewell Mine toxic clay pond breach.
- 1995: Sinkhole at New Wales north stack (IMC) creates a “15-story sinkhole.”
- 1997: Mulberry Corp. 55,000,000 gallons acidic process water spills into Alafia River, killing millions of fish and leaving thirty miles of river “dead as a sewer pipe.”
- 2003: Owners of Piney Point chemical plant and stack (Manatee County) declare bankruptcy, leaving FDEP and taxpayers with responsibility.
- 2004: Cargill Riverview stack spills 65,000,000 gallons acidic process water during Hurricane Frances.

- 2004: Sinkhole at New Wales south stack.
- 2011: Piney Point/FDEP 170,000,000 gallons of contaminated sea water from port dredging, stored in the process water lake, spills into Bishop's Harbor.
- 2013: IMC/Mosaic invisible sinkhole spills for four years beneath New Wales north stack. Over 40,000,000 gallons probably released into Floridan Aquifer before detection.
- 2015: USEPA demands consent decree with Mosaic over illegally mixed contaminants sent to the gypstacks for an unspecified length of time, rendering west-central Florida probably the largest repository of toxic and hazardous waste in the United States, and possibly the world. <https://www.epa.gov/sites/production/files/2016-03/documents/florida-cd.pdf>
- August, 2016: Mosaic New Wales sinkhole in south stack, sends 215,000,000 gallons of contaminated, acidic process water into Floridan Aquifer.
- September, 2016: Mosaic 97,000 gallon spill (unspecified) at Bartow.
- October, 2016: Mosaic 50,000 gallon pure phosphoric acid spilled at Plant City.
- September, 2017: Pre-1975 clay "slime pond" breaches and releases unknown quantities of potentially hazardous waste onto roadways, ditches, and a nearby blueberry farm, south of Bartow.

### **What's in the process "water" in lakes on top of gypstacks?**

Many gypstack spills are enumerated above, invariably in association with massive fish-kills, and the biological death of the Alafia River.

Process water is acidic, with a low pH (similar to that of battery acid) and contains a dilute mixture of phosphoric, sulfuric, and fluosilicic acids. It is saturated with calcium sulfate and contains numerous other ions found in phosphate rock, as well as ammonia from the fertilizer manufacturing process. It burns humans on contact, and kills every fish, crab, snail or other natural organism it touches, even diluted.