

Appendix J

Land Reclamation Assessment

Introduction

Mining sites provide an opportunity for water supply development (WSD) or water resource development (WRD) projects through the process of land reclamation (paragraph 373.709(2)(j), F.S.). These projects may help meet future water supply demands or assist in meeting the goals of MFL prevention or recovery strategies.

Methodology

The Districts completed an analysis, using geographic information system (GIS) software, that identified current mining sites in the planning area by compiling the spatial coverage from three Florida Department of Environmental Protection (DEP) sources. These sources included the Florida Statewide Land Use-Land Cover (DEP, 2022b), Mandatory Phosphate Boundaries 2019 (DEP, 2021) Mandatory Non-Phosphate (DEP, 2022a) datasets. Spatial coverage for these layers was restricted to the NFRWSP area.

First, the spatial data layers were projected, if necessary, to the Florida State Plane coordinate reference system (EPSG:2883) for consistency in geoprocessing. Land use data was then filtered to include only land use codes associated with mining activities (Table J1). Next, the processed land use and mandatory non-phosphate layers were combined into a single layer, and instances of redundant spatial overlap were eliminated. The results were exported to a spreadsheet and processed to summarize the acreage results by county.

Table J1. Selected land use codes related to mining activities in Florida

Land Use Code	Description
1530	Mineral Processing
1531	Clays
1532	Phosphate
1533	Limerock
1534	Magnesia
1535	Heavy Minerals
1600	Extractive
1610	Strip Mines
1611	Clays
1612	Peat
1613	Heavy Minerals
1620	Sand and Gravel Pits
1630	Rock Quarries
1631	Limerock
1632	Dolomite
1633	Phosphate
1634	Heavy Minerals
1650	Reclaimed Lands

Land Use Code	Description
1670	Abandoned Mining Lands
7420	Borrow Area (Borrow Pit)

Results

In summary, 112,823 acres of mining area were identified in the planning area (Table J2; Figure J1). Clay County had the largest total mining land area (36,545 ac; 32%) and Union County has the least total area (73 ac; <1%). Mining sites will be evaluated, as needed, in areas where WSD or WRD projects may provide an improvement in water availability in the basin and do not cause adverse impacts to water resources in the basin.

Table J2. Mining parcel area by county in the NFRWSP area

County	Mining Area (acres)
Alachua	4,885
Baker	9,353
Bradford	9,628
Clay	36,545
Columbia	529
Duval	1,236
Flagler	481
Gilchrist	220
Hamilton	34,944
Nassau	96
Putnam	11,815
St. Johns	773
Suwannee	2,245
Union	73
Total	112,823

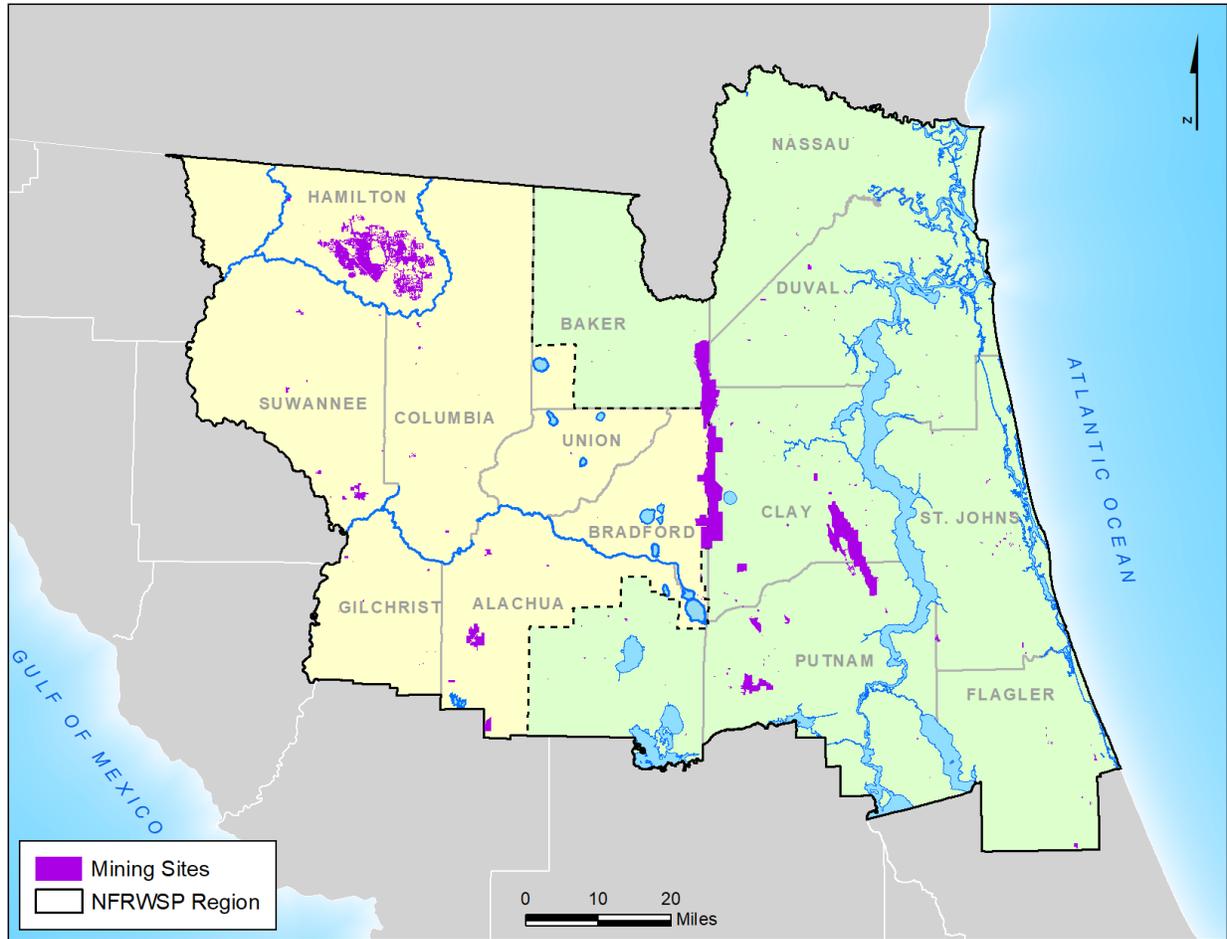


Figure J1. Mining sites in the NFRWSP area

References

- Florida Department of Environmental Protection. 2021. *Mandatory Phosphate Boundaries 2019*.
<https://fdep.maps.arcgis.com/home/item.html?id=ddceb3aa3d5042a0a7d9af1bec74f390>. Accessed July 28th, 2022.
- Florida Department of Environmental Protection. 2022a. *Mandatory Non-Phosphate (2022) – Current Mines*.
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- Florida Department of Environmental Protection. 2022b. *Statewide Land Use Land Cover*. <https://geodata.dep.state.fl.us/datasets/FDEP::statewide-land-use-land-cover/about>. Accessed July 29th, 2022.