

Appendix H

Land Reclamation Assessment

Introduction

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

Methods

The District completed an analysis, using geographic information system (GIS) software, to identify current mining sites in the planning region. Spatial data layers used for this analysis included Florida statewide land use and land cover (DEP, 2022b), 2019 mandatory phosphate boundaries 2019 (DEP, 2021), and 2022 mandatory non-phosphate mines (DEP, 2022a). The spatial coverage for these layers was restricted to the WWSP region, however there were no phosphate mines identified.

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 H1). 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 H1. Selected land use codes related to mining activities in Florida.

Land Use Code	Description
1530	Mineral Processing
1531 ^a	Clays
1532 ^a	Phosphate
1533	Limerock
1534 ^a	Magnesia
1535 ^a	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 ^a	Heavy Minerals
1650	Reclaimed Lands
1670	Abandoned Mining Lands
7420	Borrow Area (Borrow Pit)

^aLand use codes 1531, 1532, 1534, 1535, and 1634 do not have any spatial coverage in the WWSP region and were excluded from this analysis.

Results

In summary, 6,674 acres of mining land was identified in the WWSP region (Table H2 and Figure H1). Taylor County had the largest total mining land area (4,424 acres; 66%) and Madison County has the least total area (93 acres; 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 H2. Mining land area by county in the WWSP region

County	Mine Area (acres)
Dixie	113
Jefferson	433
Lafayette	435
Levy	1,176
Madison	93
Taylor	4,424
Total	6,674

*Totals may be slightly different due to rounding of individual values.

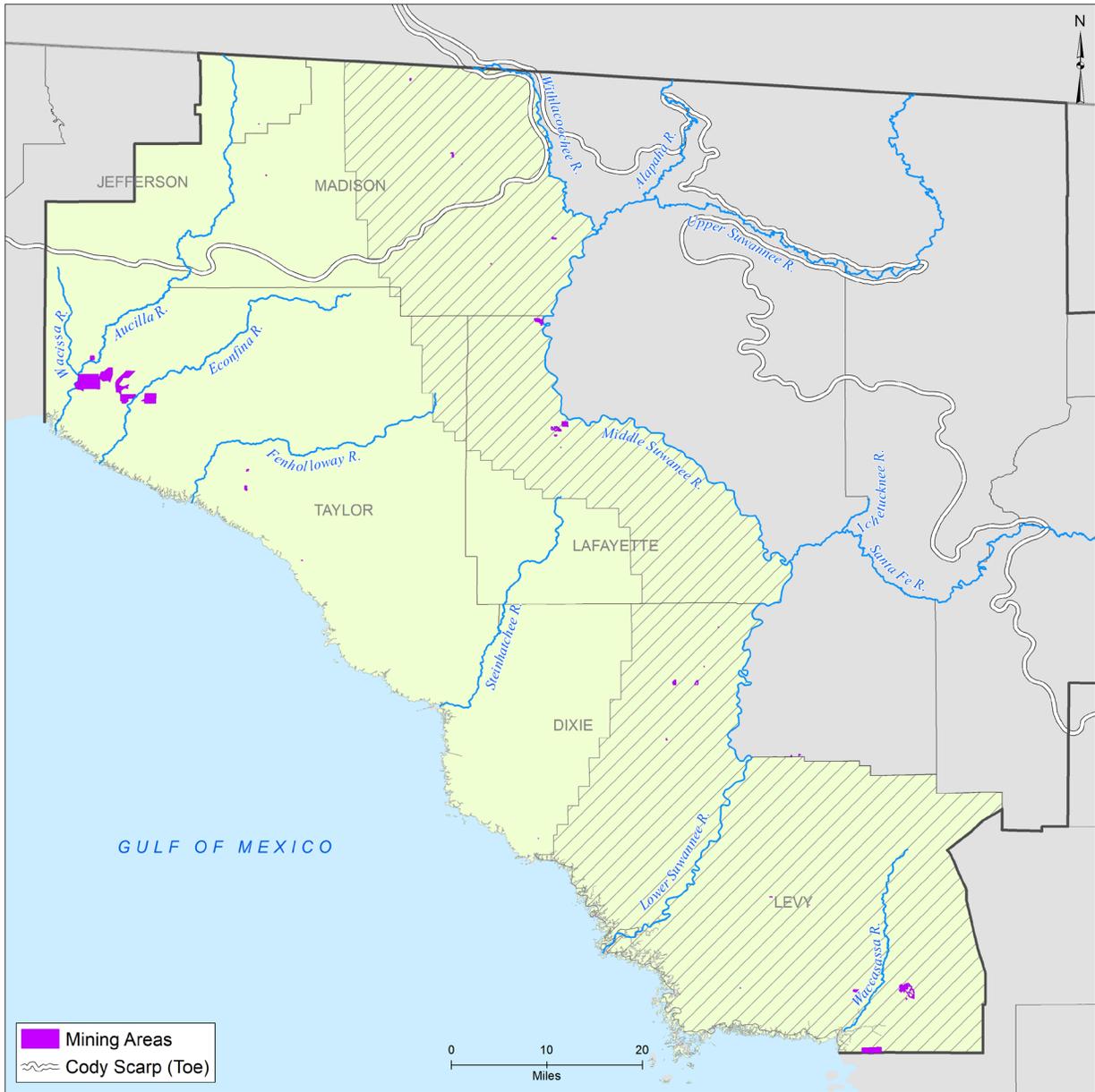


Figure H1. Map of mining operations in the WWSP region

References

- DEP. 2021. *Mandatory Phosphate Boundaries 2019*. Retrieved July 28, 2022, from <https://fdep.maps.arcgis.com/home/item.html?id=ddceb3aa3d5042a0a7d9af1bec74f390>.
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