THE UNIVERSITY OF TEXAS AT AUSTIN
BUREAU OF ECONOMIC GEOLOGY
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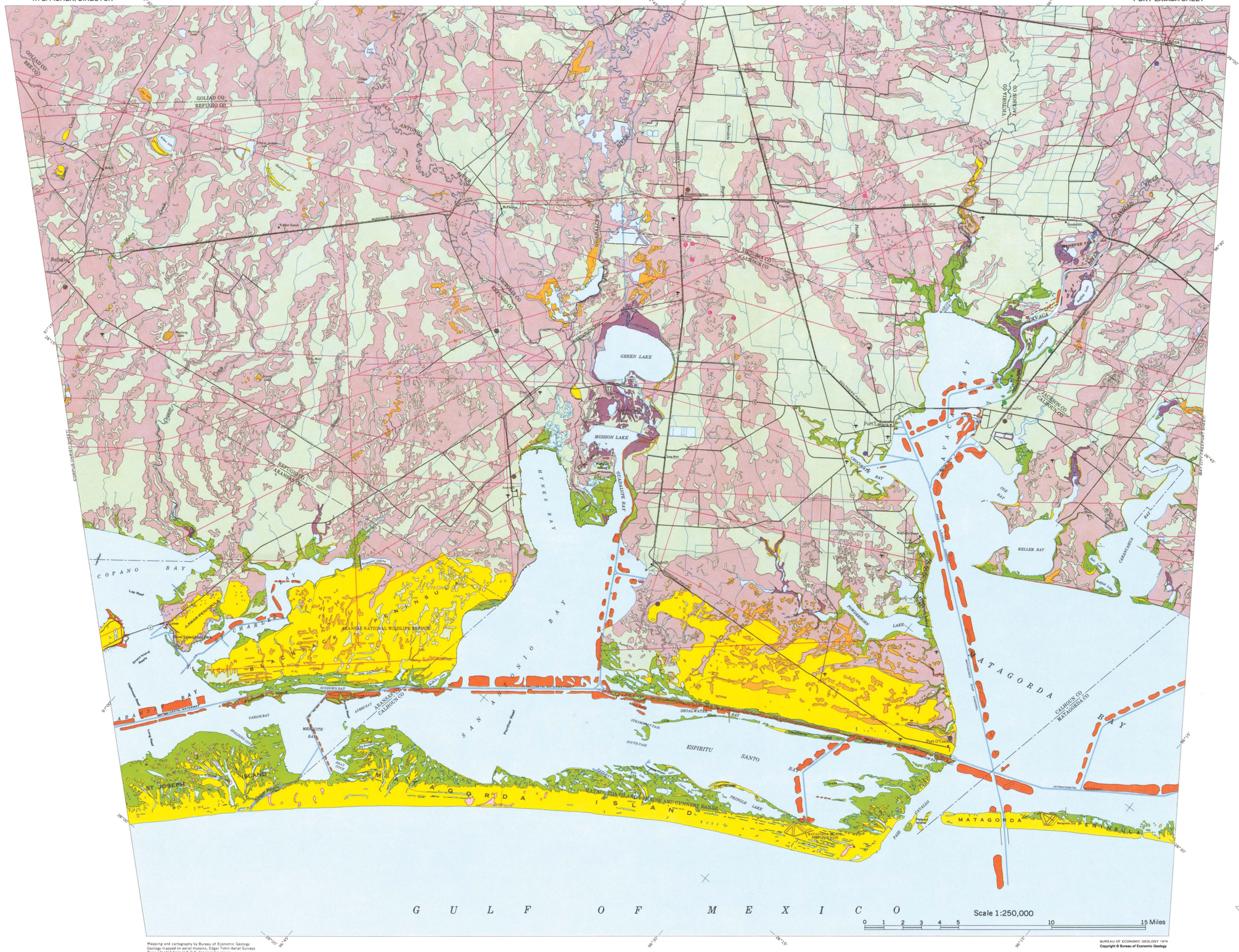

Mapping and cartography by Bureau of Economic Geology
Geology mapped on aerial mosaics, Edgar Tobin Aerial Surveys
Base adapted from U.S.G.S. topographic maps
Sources of data and credit for contributions to maps given in text

PHYSICAL PROPERTIES

EXPLANATION

CATEGORIES

GROUP I
Dominantly clay and mud, low permeability, high water-holding capacity, high compressibility, high to very high shrink-swell potential, poor drainage, level to depressed relief, low shear strength, high plasticity
Geologic units include interdistributary muds, barrier-strandplain-lake associated swales, abandoned channel-fill muds, overbank fluvial muds, mud-filled coastal-inland lakes and tidal creeks, delta plain and reworked delta-front muds

GROUP II
Dominantly sand, high to very high permeability, low water-holding capacity, low compressibility, low shrink-swell potential, good drainage, low ridge and depressed relief, high shear strength, low plasticity
Geologic units include Modern barrier island sands (beach, fore-island dunes, beach ridge and barrier flat, stabilized blowout dune complex, washover sands), fluvial point-bar sands, lake-margin beach ridges, and Pleistocene barrier-strandplain sands

GROUP III
Dominantly clayey sand and silt, moderate permeability and drainage, moderate water-holding capacity, low to moderate compressibility and shrink-swell potential, moderate drainage, level relief with local mounds and ridges, high shear strength
Geologic units include meanderbelt sands, alluvium, levee and crevasse splay, bay-margin sand and mud, Pleistocene fluvial, distributary, delta front sands, and strandplain sheet sands

GROUP IV
Coastal marsh, fresh to brackish, very low permeability, high water-holding capacity, very poor drainage, depressed relief, low shear strength, high plasticity, high organic content, subject to salt-water flooding
Geologic units include fresh to brackish marsh, marsh-covered levees, marsh-filled abandoned coastal lakes and tidal creeks

GROUP V
Inland swamp and marsh, permanently high water table, very low permeability, high water-holding capacity, very poor drainage, very poor load-bearing strength, high organic content, subject to frequent flooding
Geologic units include swamp, inland marsh, marsh-filled barrier-strandplain swales, abandoned channel and course, and marsh-filled inland lakes

GROUP VI
Wind-tidal flat and salt marsh, sand with minor amounts of mud and algal mat laminations, subject to frequent tidal and wind-tidal inundation, eolian transport of sand on backsides of Modern barrier island, properties on the Modern barrier-strandplain similar to Group II, and properties on the bay margin similar to Group V
Geologic units include wind-tidal flat, salt marsh, and washover distributary channel and distal fan facies

GROUP VII
Made land and spoil, properties highly variable, mixed mud, silt, sand, reworked spoil commonly sandy and moderately sorted with properties similar to Group III
Geologic units include subaerial spoil heaps or mounds, subaerial reworked spoil, subaqueous spoil, made land

GROUP XI
Active dunes, sand, friable, very high permeability, low water-holding capacity, low compressibility, low shrink-swell potential, high shear strength, low plasticity, unstable due to migration
Geologic units include Modern barrier fore-island blowout dunes and back-island dunes

Refer to tables in text for land-use evaluation such as engineering, solid-waste disposal, and other functional categories based on physical properties and other parameters

- Pit or quarry, commonly shelly beach and delta front sands
- Sludge pit or miscellaneous waste disposal site, may be abandoned
- Sewage disposal site, liquid effluent, normally treated
- Solid-waste disposal site, sanitary landfill, and open dumps
- Active or potentially active fault, based on lineament or grain displayed on aerial photographs

Sources of data given in text

NOTE:
GROUPS VIII, IX and **X** not present in this area

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