

SOUTH BARATARIA

LOCATION: The South Barataria EMU is bordered on the east by the Jefferson Parish boundary line running through Caminada Bay, Bay Des Ilette, West Champagne Bay, Creole Bay, Hackberry Bay and Grand Bayou. On the north the boundary runs through Little Lake and follows the Jefferson Parish line. On the west, the Clovelly EMU forms the western boundary south to the South Lafourche A Boundary (levee) south to the Louisiana 1 Highway embankment and natural levee (Raccourci EMU boundary) to the Leeville EMU to Louisiana 1 embankment (Fourchon EMU boundary). The southern boundary consists of the Louisiana 1 embankment and chenier (Caminada EMU boundary).

LAND COVER: To be determined by Parish Landsat analysis

SOILS: Along Bayou L'Ours east and west fork an extensive natural levee system has created long narrow fingers of Sharkey-Tunica Association soils. Soils are dark gray with a clay surface and poorly drained. Within this zone there are buried deposits of Commerce silty soils. Although these soils are of the firmer mineral variety the natural levee system has subsided to the point where virtually all of this system is at or near sea level. A few isolated areas have maintained remnant swamp forest until recently, but these trees have been killed by saltwater intrusion.

The same condition exists along Bayou Lafourche south of the Leeville EMU. The highest natural ground exists on the southern EMU border where silts from a chenier ridge result in firmer soils with some upland brush and a few trees. The only other high ground is on extensive spoil banks. Soils occurring here are clays and organics.

Throughout the rest of the EMU soils are mainly organic layers of peat of various thicknesses underlain by soft dispersed saline clays and mucky clays. The EMU contains soils developed under both saline and brackish water conditions. When flooded, some organic layers separate from the clay substrate and float.

VEGETATION: Except for brushland, spoil bank succession vegetation and a few spots of trees along Highway 1 on the chenier ridge, the area is exclusively brackish and saline marshland. Saltwater intrusion and subsidence has killed the former swamp forest along the old channel of Bayou L'Ours.

SUBSIDENCE POTENTIAL.: The natural levee of Bayou L'Ours is subsiding rapidly. There appears to be subsidence on both sides of the levee system. The rest of the EMU (except the chenier area) would subside greatly if drained. Rates exceeding 51" would occur in the brackish marsh areas.

LAND LOSS POTENTIAL DUE TO CHANNEL CONSTRUCTION High throughout the EMU.

TOPOGRAPHIC FEATURES: Chenier ridge along the southern boundary Of the EMU with elevations up to +5 MSL, buried natural levee along Bayou L'Ours and Bayou Lafourche at or slightly above sea level, and man-made spoil banks along oil and was access pipeline canals. Otherwise, the area is flooded marsh at or near sea level.

FLOODING POTENTIAL: The entire area is flood prone.

IMPORTANT FARMLANDS: None

USE OF LAND: Other than the Highway 1 transportation corridor, the predominant use of land is for mineral extraction, hunting, trapping, and fishing (commercial and recreational).

HISTORICAL/CULTURAL/ARCHEOLOGICAL:

1. Historic Sites: None
2. Cultural Sites: None
3. Archeological Sites:

LF 11 Known Shell Midden on Bayou Renfleur

LF 12 Known Shell Midden on Bayou Renfleur

UNIQUE ECOLOGICAL FEATURES:

1. Private and public oyster seed grounds along Hackberry Bay to Bay Tambour and Caminada Bay.
2. Prime fish and shellfish nursery grounds adjacent to oyster leases (to the east).
3. Major wading bird rookery in Bayou Tambour.
4. Black Mangrove Area (Fringes on Bayou Tambour and Caminada Bay)

PROBLEMS NOTED:

1. Severe land loss greater than 400 acres per year near Bayou L' Ours
2. Severe land loss east of Golden Meadow
3. Erosion from the east via the bays of the Barataria Basin 126

GOALS

1. Protect the oyster grounds in this EMU
2. Encourage the retention of stable marsh areas under the subsided natural levees as a bulwark against erosion
3. Preserve the mangrove islands
4. Preserve the barrier ridge by not dredging it for sand
5. Contain the highly eroded marshland in Area

South Barataria is almost exclusively a saltmarsh wetland area. There is a chenier ridge on the southern boundary, a low alluvial ridge along Bayou Lafourche and some buried natural levee deposits along Bayou L' Ours and Bayou Raphael. This area has already made the transition to saltmarsh and generally is not eroding quite as fast as the Clovelly area except in Area B northeast of the Leeville EMU

General Policies

POLICY 1. All General Policies for the Lafourche Coastal Zone Shall apply in this EMU unless modified by specific EMU or sub EMU policies stated in this E..U.U. policy statement.

POLICY 2. No canals should be cut through the relatively solid marshlands from Caminada Bay to Area B to avoid exacerbating the deteriorating conditions there. If new canals must be dug, they should be backfilled and dammed at both ends, as per General Policy 7 of the Lafourche Coastal Zone.

POLICY 3. There shall be no illegal dumping in this EMU of any liquid or solid waste. Existing tank storage sites and well sites shall follow all applicable guidelines as specified by the Louisiana Department of Natural Resources regarding the storing and disposal of wastes from mud pits, well construction, etc.

POLICY 4. Permanent human habitation dwellings should be discouraged throughout this EMU due to severe flooding potential from storms, and lack of adequate water and sewerage facilities. Any permits associated with recreational or any other type of permanent dwellings shall require adequate on site sewerage and proof of compliance with solid waste disposal and collection regulations of Lafourche Parish

Besides the general policies, specific policies shall apply to the following areas delineated in the

South Barataria EMU.

Area A - Bayou Lafourche Natural Levee

Area B - Highly eroded marshland northeast of Leeville EMU

Area C - Brackish water marsh in the northwest corner of the EMU

Area D - Brackish water marsh in the northeast section of the EMU fronting on Little Lake

Area E - Lower subsided portion of the Bayou L' Ours Natural Levee System

Area F - South Barataria portion of the Highway 1 chenier ridge embankment bordering on the Caminada EMU

Area G - Mangrove islands fronting on Caminada Bay

AREA A

Area A includes the subsided natural levee on the east side of Bayou Lafourche. Some patchy strips of hardwoods still exist along the higher portions of the ridge. Soils are silts and clays, firmer and more resistant to erosion.

POLICY 5. If pipeline canals must cross the Bayou Lafourche ridge, the canals should be backfilled with original materials dredged from the levee. The backfilled area should match former elevations and the area should be vegetated. A preferable pipeline laying would involve burial, not the dredging of a canal.

Policy 6 The twin Canal should have a dam placed across it in the manner described in General Policy 1 for the Lafourche Parish Coastal Zone where it intersects with the Lafourche natural levee. The construction of this dam should be accomplished by imposing mitigation conditions on other permits in the general area of the proposed dam.

AREA B

Area B is a continuation of the deteriorated marshland of the Leeville EMU. The area is eroding rapidly and all additional destruction of marshland should be avoided whenever possible here.

POLICY 7. Where not specified, spoil from new pipeline canals or oil and gas access canals should be spread out in pending areas so as to create new marsh sites as a part of mitigation conditions for permits.

POLICY 8. If new canals must be dredged in Area B, it should be demonstrated that no alternative exists utilizing existing waterways and/or it is economically not feasible to use techniques such as directional drilling to avoid unnecessary destruction of wetlands here.

POLICY 9. Canals along the perimeter of Area B should place spoil on the bank closest to Caminada Bay in the east along the lake on the north perimeter as indicated on the EMU Overlay.

AREA C

Area C is a small strip of remaining brackish marsh in the northwest portion of the EMU. This serves as a buffer between the South Lafourche levee and rapidly changing area to the north and saltmarsh to the south.

POLICY 10. Dams as described in General Policy 7 should be placed on the Tennessee Gas Pipeline canal as indicated on the EMU map to retard saltwater intrusion into the Clovelly EMU.

POLICY 11. Dams as described in general Policy 7 should be placed on the east - west and north - south canals west and east of the Tennessee Gas Pipeline Canal as indicated on the EMU map. Dams such as this shall be constructed from imposing mitigation conditions on permits in the general area of the proposed dam site for Policy 11 and 12.

POLICY 12. Spoil from any east - west trending canals in Area C should place spoil in the south bank to retard saltwater intrusion into the area.

POLICY 13. No new canals should be dredged through this area connecting the saltmarsh to the south with the lake area to the north unless dams as specified in General Policy 7 are constructed and maintained.

AREA D

Area D like Area C is the remaining portion of brackish marsh extant in this EMU in the northeast portion of the unit.

POLICY 14. Spoil from any north - south trending canals dredged in this EMU should have spoil placed on the east bank to retard erosion and saltwater intrusion into the Clovelly EMU

POLICY 15. No through canals should be dredged to Area D of Clovelly from Little Lake. If canals must be dredged, dams as stated in General Policy 7 should be placed and maintained on these canals at both ends.

POLICY 16. Dams should be placed at areas indicated on the EMU map. Construction of these dams should be accomplished by imposing mitigation conditions on permits in the general area of the dam sites.

AREA E

This area is the submerged southern portion of the Bayou L' Ours natural levee system. Marshland here should be more resistant to erosion than marsh developed on an organic base.

POLICY 17. No canals should be due through this area. If canals must bisect the area, dams and backfilling with original materials should be required to protect the value of this area as a buffer to erosion.

AREA F

Highway 1 embankment and chenier ridge on the southern border of South Barataria EMU.

POLICY 18. Open pit mining for sand for various uses within this EMU currently occurs in the "swale" area between ridges near Louisiana Highway 1. These mines should only

be continued to meet existing demands. No new permits for commercial sand dredging or mining should be issued anywhere in this EMU on the north side of Louisiana 1.

POLICY 19. New pipeline crossings of the chenier ridge and LA 1 embankment should be discouraged. If it can be demonstrated by the permit applicant that there is no feasible alternative to crossing a chenier ridge, then the permit should require that the ridge be graded up to its former elevation and vegetated after the pipeline crossing is completed.

AREA G

Area G encompasses the mangrove fringe islands surrounding Caminada Bay as indicated on the EMU map.

POLICY 20. Mangrove islands should not be destroyed for any reason. If canals must be dredged through any island, the area should be returned to grade and revegetated.

Besides these guidelines, all coastal use guidelines as stated in the F.E.I.S. of the Louisiana Coastal Zone Management Program shall apply to this EMU

Where EMU policies refer to a "use of state concern", the policies are intended only as recommendations to the state program managers and are not legally binding on the permit applicant or the state CZM program.
