DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, MOBILE DISTRICT
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

REPLY TO
ATTENTION OF:

Mississippi Branch
Regulatory Division

December 18, 2015

JOINT PUBLIC NOTICE SAM-2015-00644-MJF
U.S. ARMY CORPS OF ENGINEERS

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF POLLUTION CONTROL

MISSISSIPPI DEPARTMENT OF MARINE RESOURCES
DMR-090383

PROPOSED IMPACTS ASSOCIATED WITH THE RESTORATION OF EXISTING AND HISTORIC OYSTER REEFS, MISSISSIPPI SOUND, HANCOCK, HARRISON AND JACKSON COUNTIES, MISSISSIPPI

TO WHOM IT MAY CONCERN:

This District has received an application for a Department of the Army (DA) permit pursuant to Section 10 of the River and Harbors Act of 1899 and Section 404 of the Clean Water Act. Please communicate this information to interested parties.

APPLICANT: **Mississippi Department of Marine Resources (MDMR)**
Attention: Mr. Scott Gordon, Shellfish Bureau Director
1141 Bayview Avenue
Biloxi, Mississippi 39530

AGENT: **MDMR**
Attention: Mr. Charlie Robertson, Marine Scientist
1141 Bayview Avenue
Biloxi, Mississippi 39530

LOCATION: **In existing and historical oyster reefs within the Mississippi Sound, Hancock, Harrison and Jackson Counties, Mississippi. (Most Westerly Latitude 30.189216 North, Longitude -89.483789 West to Most Easterly Latitude 30.358196 North, Longitude -88.591986 West).**

WORK: **The applicant proposes to place fill material consisting of oyster shell, crushed concrete, or limestone cultch material in approximately 23,930 acres (maximum) of existing and historical oyster reefs. The applicant is requesting a 10-year DA permit for work to be accomplished in phases as funding becomes available. Phase I would take place between 2016 to 2018 and would incorporate approximately 3,500 acres from within the identified approximately 23,930 acres of existing and historical reefs as shown on the attached plans. Not all areas described in this notice would be recipients of restoration activities; however, the State would like to have the opportunity to plant**

on any areas that currently or historically have had oyster reefs and are suitable for restoration. Factors for suitable restoration would include current site specific conditions, bottom types, salinity regimes, proximity to fresh water and pollution sources, possibilities for commercial harvest and other factors that would influence restoration success. As sites are selected and mapped, MDMR would notify the relevant regulatory agencies of the specific locations of cultch plant sites prior to any restoration activities beginning. Material would be placed at a density of 100 cubic yards per acre, totaling no more than 350,000 cubic yards of material within Phase I. This density would ensure less than 6 inches of relief of cultch materials across the bottom of each restoration site. Cultch would be transported to deployment areas by barges or small vessels that are loaded to conform to the depth of the water at the restoration site. Deployment of cultch would be washed overboard using high-pressure water hoses in a manner to spray them in a thin, even layer for a distance of 20 to 50 feet from the vessel. The corners of the restoration area would be clearly marked and the vessels would continuously maneuver over the site in a fashion so that cultch would cover the entire area to the needed density as determined by MDMR personnel. These activities would occur only during daylight hours. In order to maximize spat set during peak oyster spawning times, MDMR anticipates execution and completion of the restoration work during Spring (April to June) and Fall (September to October) of the years 2016 and 2017. MDMR personnel would be responsible for managing the reefs. Samples would be taken from the reefs on a yearly basis to measure recruitment rate, density, growth, and also observe changes or identify potential management problems. An adaptive management plan would be implemented to manage the reefs' resources.

EXISTING CONDITIONS: The proposed restoration sites are located within the known footprint of existing and historical oyster reefs found in the waters of the State of Mississippi and would be confined specifically to these areas. All potential sites are within the Mississippi Sound and its adjacent waters. More specific water bodies include St. Louis Bay, Heron Bay, Biloxi Bay, Davis and Graveline Bayous, Pascagoula River and the Mississippi Sound. GPS centroid coordinates of each potential restoration site are attached. Oyster reefs are native to the estuarine environments of the Mississippi Sound, thus, they can tolerate a wide variety of environmental conditions. Typically, areas suitable to oyster reefs and oyster growth have average salinity ranges from 5 to 25 parts per thousand, dissolved oxygen levels between 3.5 to 10.5 mg/L, firm mud bottoms, consistent tidally influenced currents, and depths of between 1 to 20 feet below mean low water. All proposed sites meet the aforementioned criteria but would vary greatly within those ranges given their specific proximity to the fresh water source of the estuarine environment in which they are located and time of year. No submerged aquatic vegetation is located in the vicinity of any of the proposed sites. Historically, these sites supported healthy oyster reefs and there remain small areas of shell scattered or buried beneath the sediment in the vicinity of the proposed restoration sites.

PROJECT PURPOSE: As stated by the applicant, "The purpose of this project is to restore approximately 3,500 acres (Phase I) up to 23,930 acres, of existing and historic oyster reefs that have been depleted as a result of a multitude of adverse effects,

stemming from both natural and anthropogenic causes. The restoration of these reefs would improve water quality within the areas of the reefs, create valuable near shore reef habitat that would support and sustain healthy populations of estuarine fish and other invertebrates, and enhance recently completed and future proposed restoration areas on the eastern end of Deer Island and in Hancock County, Mississippi." The U.S. Army Corps of Engineers (USACE) initially determined the basic project purpose is oyster reef restoration and would be considered a water dependent activity. Additional review will be performed by the USACE and cooperating agencies.

AVOIDANCE AND MINIMIZATION: **According to the applicant's Agent, "Work would be located within the known footprint of existing and historical oyster reefs and would be confined specifically to these areas. No dredging would be required at the selected sites. Cultch material would be loaded on vessels in a manner so that their draft does not exceed the depth of the area they would be working in. MDMR employees would be onsite to monitor compliance with conditions of permits and contracts.**

ALTERNATIVES: **The applicant considered alternatives such as the placement of new reefs in areas never before known to support oyster reefs, or the no action alternative. . Additional review of alternatives will be performed by the USACE and cooperating agencies.**

MITIGATION: **According to the applicant's Agent "Compensatory mitigation would not be required for this project as the objective is to restore areas of degraded and historic oyster reef in a manner consistent with not adversely affecting the surrounding environments or the organisms inhabiting those environments". Additional review of mitigation requirements will be performed by the USACE and cooperating agencies. Final compensatory mitigation will be evaluated by the USACE and cooperating resource agencies throughout the review process for the proposed project.**

The applicant has applied for certification from the State of Mississippi in accordance with Section 401(a)(1) of the Clean Water Act and upon completion of the required advertising; a determination relative to certification will be made.

The applicant has applied for coastal zone consistency from the State of Mississippi Department of Marine Resources in accordance with Section 57-15-6 of the Mississippi Code Annotated (DMR-090383).

This public notice is being distributed to all known interested persons in order to assist in developing facts on which a decision by the USACE can be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources.

The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal, will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, protected species, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and in general, the needs and welfare of the people.

The USACE is soliciting comments from the public; Federal, State and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the USACE to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held for consideration of this application. Requests for public hearings shall state with particularity, the reasons for holding a public hearing.

Evaluation of the probable impacts involving deposits of dredged or fill material into waters of the United States will include the application of guidelines established by the Administrator of the U.S. Environmental Protection Agency.

In accordance with Section 106 of the National Historic Preservation Act, and Appendix C of 33 CFR 325, the undertaking defined in this notice is being considered for the potential to effect cultural and historic properties within the permit area. In accordance with Appendix C of 33 CFR Part 325, the USACE has determined that the permit area is the full area of cultch deployment for the overall project footprint. We are seeking comment from the State Historic Preservation Officer, Federally-recognized American Indian tribes, local historical societies, museums, universities, the National Park Service, and the general public regarding the existence or the potential for existence of significant cultural and historic properties which may be affected by the work. Based on the nature of the activity, the USACE has determined that the proposed project would have ***no potential to affect*** resources in the permit area.

Preliminary review of this application and the U.S. Department of the Interior List of Endangered and Threatened Wildlife and Plants indicated the following species may be present on-site: the Gulf sturgeon (*Acipenser)* listed as threatened with critical habitat (TCH), the Green sea turtle *(Chelonia)* (T), the Kemp's ridley turtle (*Lepidochelys kempii)* (E), the Leatherback sea turtle (*Dermochelys comacea)* (E), the Hawksbill Sea Turtle (*Eretmochelys imbricate)* (E) the Loggerhead sea turtle *(Caretta caretta)* (T), the Piping Plover *(Charadrius melodus)* (TCH), and The West India manatee *(Trichechus manatus)* (E). Preliminary review of this application and the U.S. Department of the Interior List of Endangered and Threatened

Wildlife and Plants for the watershed suggest that the proposed activity **may affect but is not likely to adversely affect** listed endangered or threatened species. Specifically, **the West India manatee, the Gulf sturgeon and its critical habitat and the listed sea turtles** may be affected by this project. The Piping plover utilizes beaches and mudflats. The proposed work will have no effect on the Piping plover as the project is not located within designated critical habitat and required habitat is not found within the project location. This determination is being coordinated with the U.S. Fish and Wildlife Service via this public notice and will be submitted to the National Marine Fisheries Service for coordination via their website.

Correspondence concerning this Public Notice should refer to Number **SAM-2015-00644-MJF** and should be directed to the District Engineer, USACE, Mobile District, USACE Biloxi Field Office, Attention: **Ms. Maryellen Farmer**, 1141 Bayview Avenue, Suite 501, Biloxi, Mississippi 39530, with a copy to the Mississippi Department of Environmental Quality, Office of Pollution Control, **Attention: Ms. Florance Bass, P.E.**, Post Office Box 2261, Jackson, Mississippi 39225, and the Mississippi Department of Marine Resources, **Attention: Mr. Chris Pickering**, 1141 Bayview Avenue, Suite 501, Biloxi, Mississippi 39530, in time to be received within **30 days** of the date of this public notice.

If you have any questions concerning this publication, you may contact the project manager for this application, Ms. Maryellen Farmer (maryellen.j.farmer@usace.army.mil), **(228) 523-4116**. Please refer to the above Public Notice number.

For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/Missions/Regulatory.aspx.

MOBILE DISTRICT
U.S. Army Corps of Engineers

Attachments

Permitting Areas

Permitting Areas

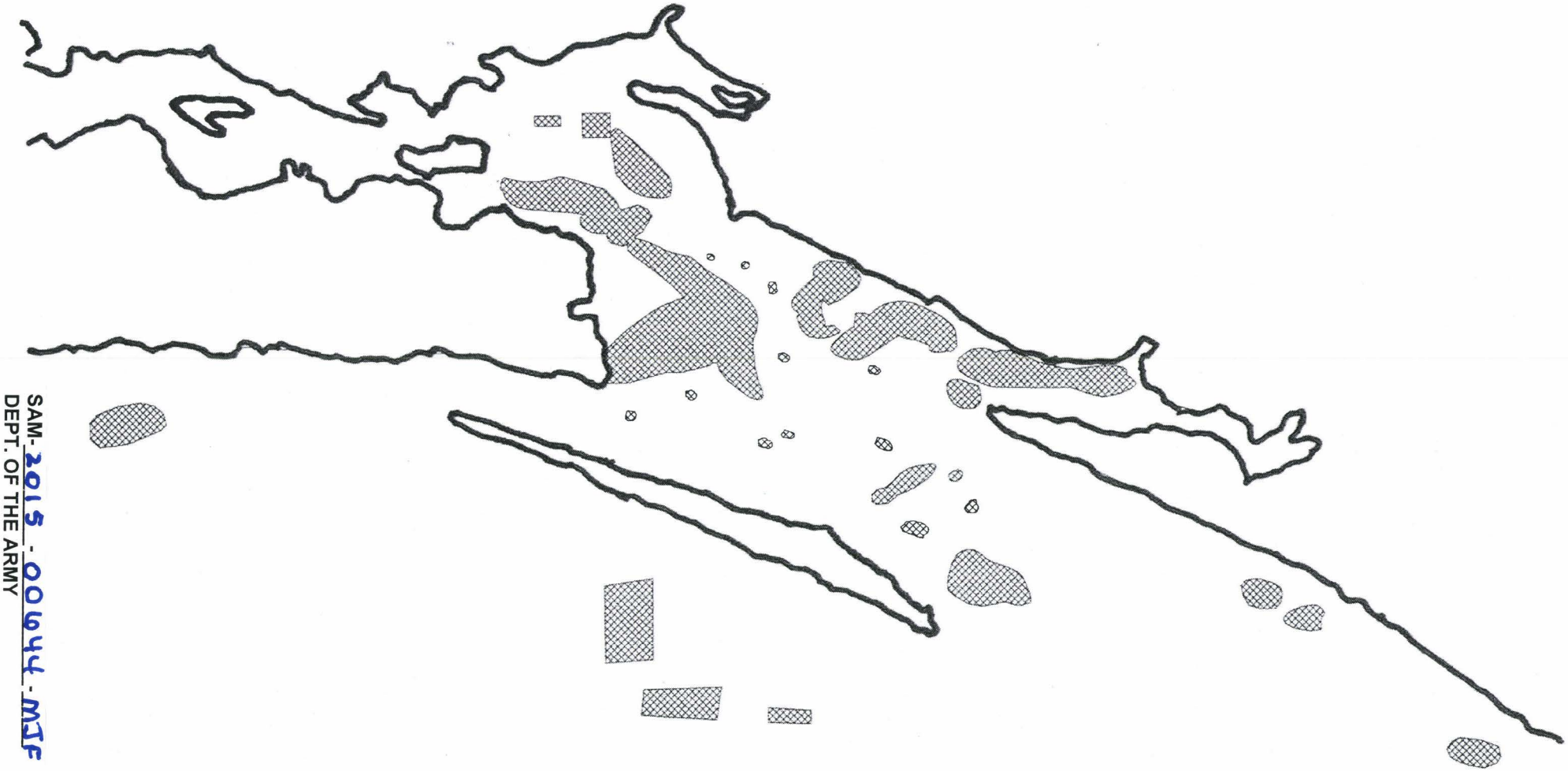
- Mississippi_Shore_Line
- Mississippi Oyster Areas Western Sound

N W E S

0 0.5 1 2 3 4 5 6 7 Miles

SAM-2015-00644-MJC
DEPT. OF THE ARMY

Permitting Areas



Permitting Areas

- Mississippi_Shore_Line
- Mississippi_Oyster_Areas_Biloxi_OceanSprings

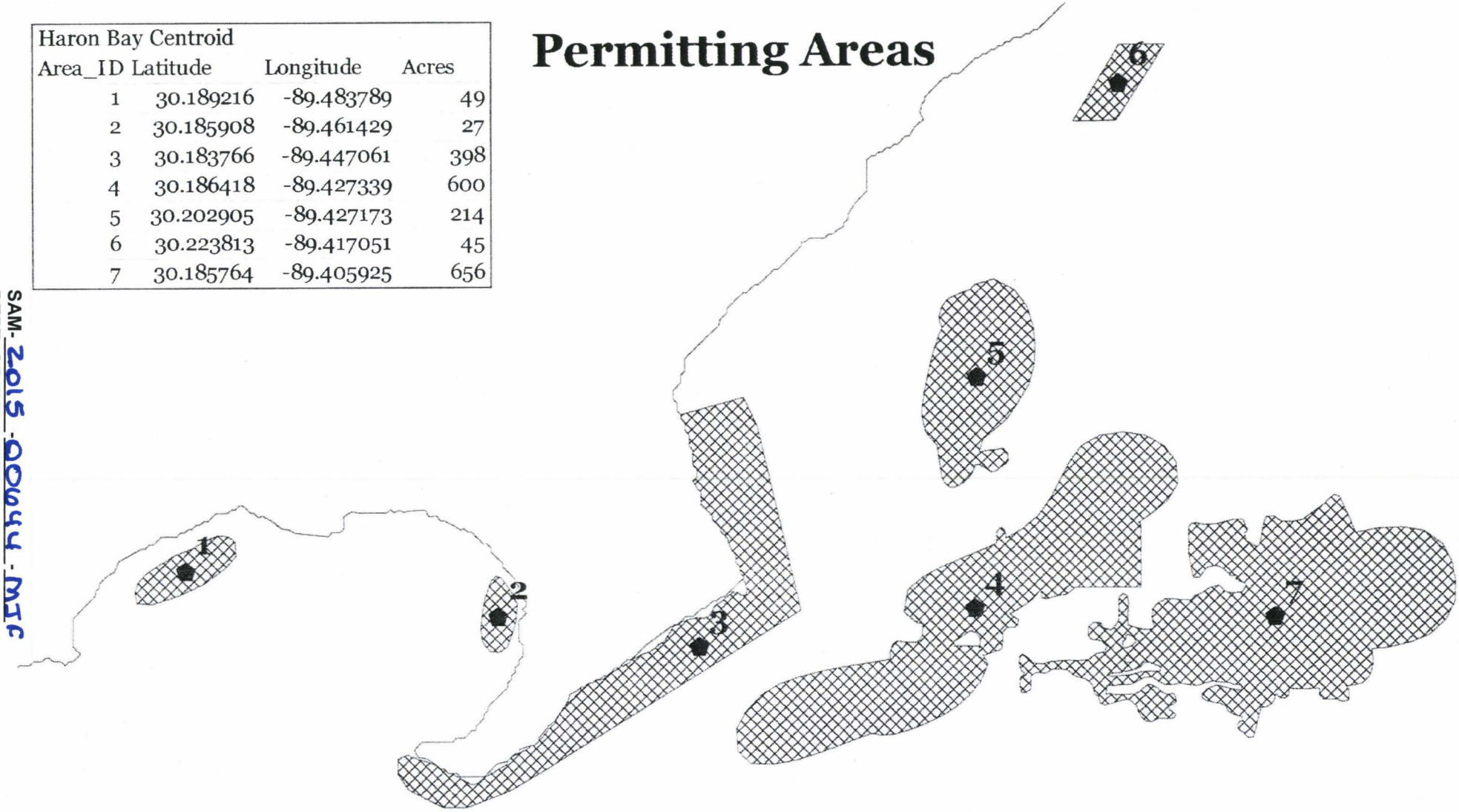
N W E S

0 0.5 1 2 3 Miles

SAM-2015-00644-MJF
DEPT. OF THE ARMY

Permitting Areas

Haron Bay Centroid			
Area_ID	Latitude	Longitude	Acres
1	30.189216	-89.483789	49
2	30.185908	-89.461429	27
3	30.183766	-89.447061	398
4	30.186418	-89.427339	600
5	30.202905	-89.427173	214
6	30.223813	-89.417051	45
7	30.185764	-89.405925	656



Permitting Areas

- Mississippi_Shore_Line
- Mississippi Oyster Areas Haron Bay
- Haron Bay Centroid

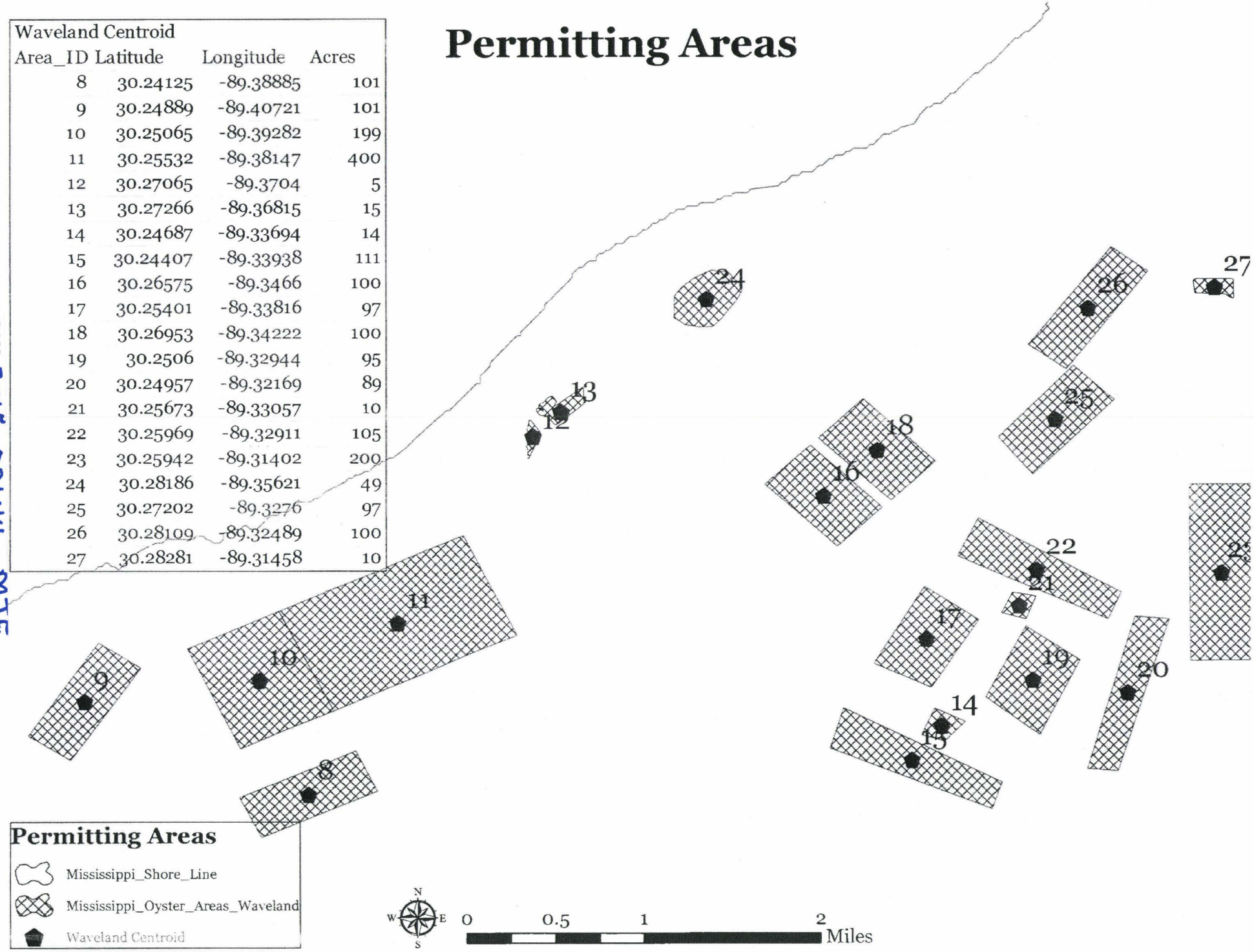
N W E S

0 0.5 1 2 Miles

SAM-2015-00644-MIC
DEPT. OF THE ARMY

Permitting Areas

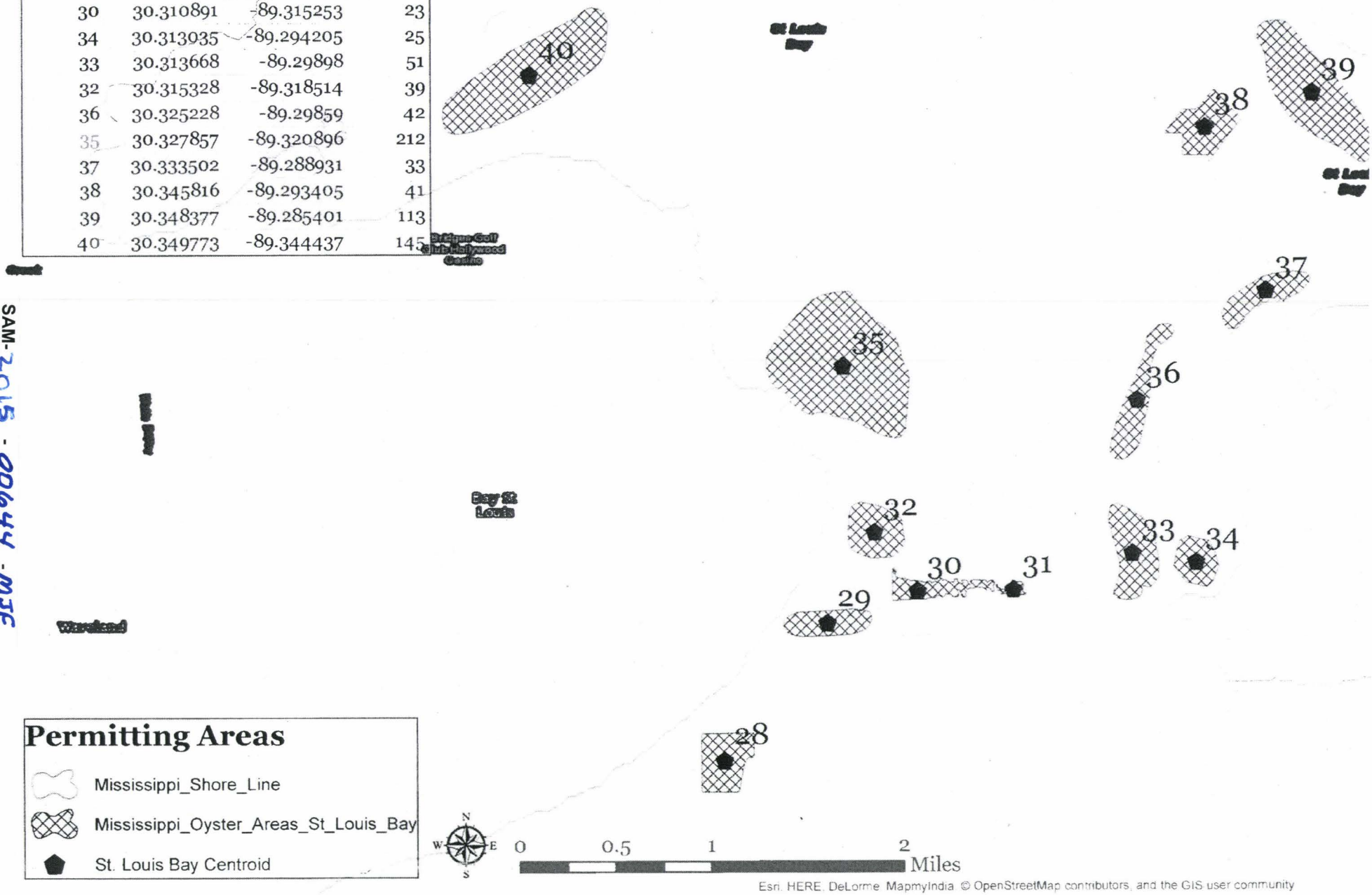
Waveland Centroid			
Area_ID	Latitude	Longitude	Acres
8	30.24125	-89.38885	101
9	30.24889	-89.40721	101
10	30.25065	-89.39282	199
11	30.25532	-89.38147	400
12	30.27065	-89.3704	5
13	30.27266	-89.36815	15
14	30.24687	-89.33694	14
15	30.24407	-89.33938	111
16	30.26575	-89.3466	100
17	30.25401	-89.33816	97
18	30.26953	-89.34222	100
19	30.2506	-89.32944	95
20	30.24957	-89.32169	89
21	30.25673	-89.33057	10
22	30.25969	-89.32911	105
23	30.25942	-89.31402	200
24	30.28186	-89.35621	49
25	30.27202	-89.3276	97
26	30.28109	-89.32489	100
27	30.28281	-89.31458	10



SAM-2015-00644-MJF
DEPT. OF THE ARMY

Permitting Areas

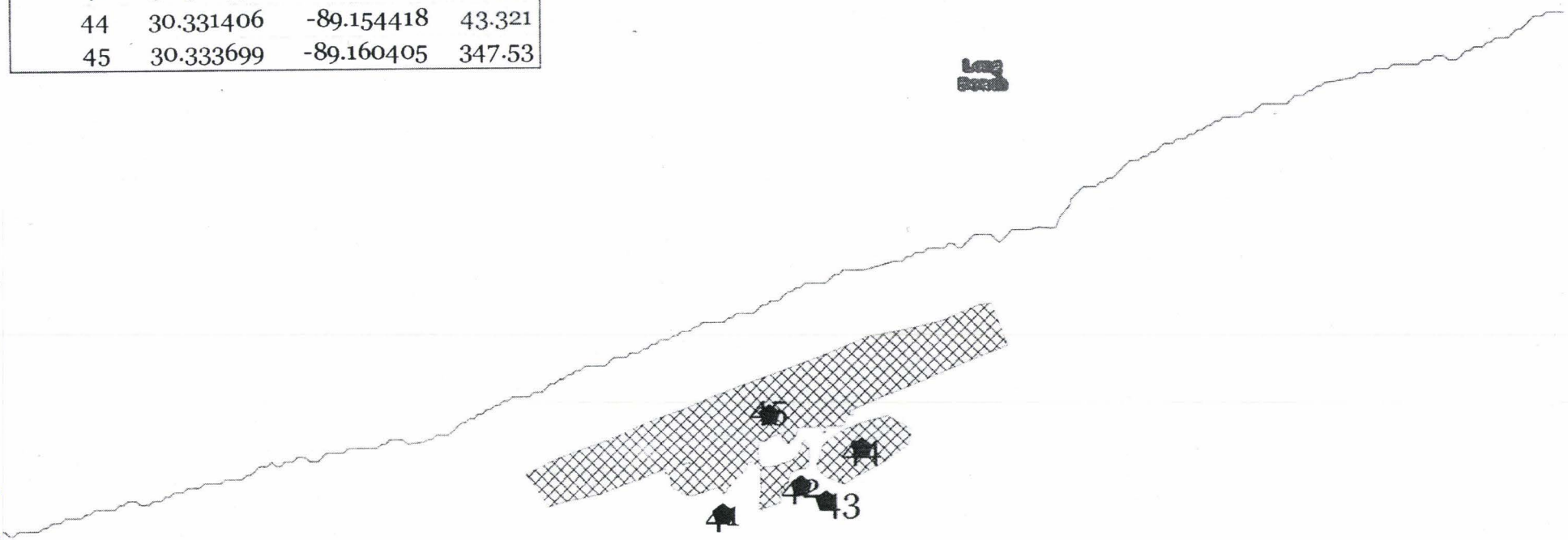
St. Louis Bay Centroid			
Area_ID	Latitude	Longitude	Acres
28	30.298011	-89.329825	41
29	30.30842	-89.322066	30
31	30.310952	-89.307991	3
30	30.310891	-89.315253	23
34	30.313035	-89.294205	25
33	30.313668	-89.29898	51
32	30.315328	-89.318514	39
36	30.325228	-89.29859	42
35	30.327857	-89.320896	212
37	30.333502	-89.288931	33
38	30.345816	-89.293405	41
39	30.348377	-89.285401	113
40	30.349773	-89.344437	145



SAM-2015-00644-MJC
DEPT. OF THE ARMY

Permitting Areas

Longbeach Centroid			
Area_ID	Latitude	Longitude	Acre
41	30.327212	-89.163537	0.9621
43	30.328014	-89.156785	1.4097
42	30.328998	-89.158391	1.4336
44	30.331406	-89.154418	43.321
45	30.333699	-89.160405	347.53



SAM-2015-00644-MJF
DEPT. OF THE ARMY

Permitting Areas

- Mississippi_Shore_Line
- Mississippi_Oyster_Areas_Longbeach
- Longbeach Centroid

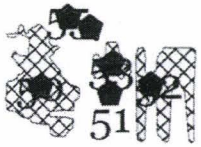
N W E S

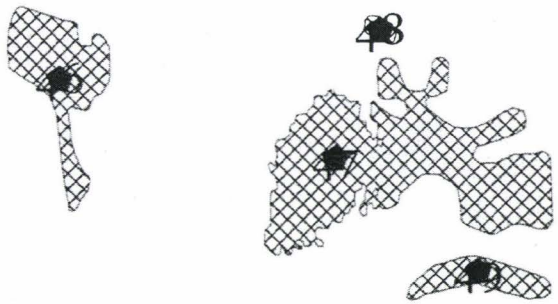
0 0.5 1 2 Miles

Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Permitting Areas

Buoy & Pelican Centroid			
Area_ID	Latitude	Longitude	Acres
49	30.203547	-89.2282	27
47	30.209565	-89.235786	210
48	30.216367	-89.233381	4
46	30.213867	-89.250337	65
51	30.252472	-89.175936	1
52	30.252949	-89.17378	27
53	30.254037	-89.175855	6
50	30.252868	-89.179606	34
54	30.255959	-89.176987	1
55	30.256502	-89.178146	1





Permitting Areas

Mississippi_Oyster_Areas_Buoy_Pelican

Buoy & Pelican Centroid

N W E S

0 0.5 1 2 Miles

SAM-2015-00644-M3C
DEPT. OF THE ARMY

Western_Reef Centroid			
Area_ID	Latitude	Longitude	Acres
56	30.26034	-89.2684	15059

Permitting Areas

[redacted]

Permitting Areas

- Mississippi_Shore_Line
- Mississippi_Oyster_Areas_Western_Reef
- Western Reef Centroid

N W E S

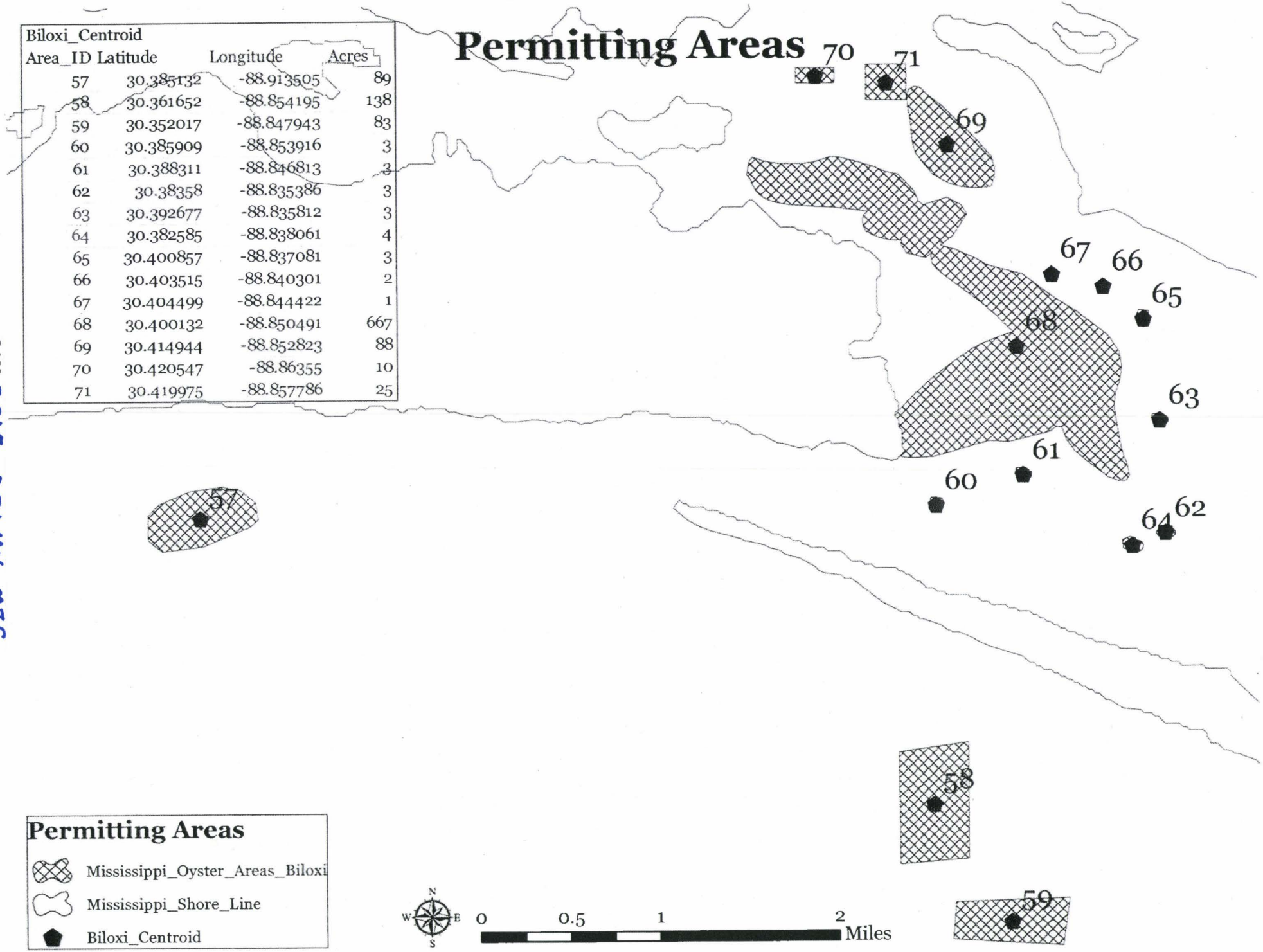
0 0.5 1 2 3 Miles

SAM- 2015 - 00644 - MJC
DEPT. OF THE ARMY

Permitting Areas

Biloxi_Centroid

Area_ID	Latitude	Longitude	Acres
57	30.385132	-88.913505	89
58	30.361652	-88.854195	138
59	30.352017	-88.847943	83
60	30.385909	-88.853916	3
61	30.388311	-88.846813	3
62	30.38358	-88.835386	3
63	30.392677	-88.835812	3
64	30.382585	-88.838061	4
65	30.400857	-88.837081	3
66	30.403515	-88.840301	2
67	30.404499	-88.844422	1
68	30.400132	-88.850491	667
69	30.414944	-88.852823	88
70	30.420547	-88.86355	10
71	30.419975	-88.857786	25

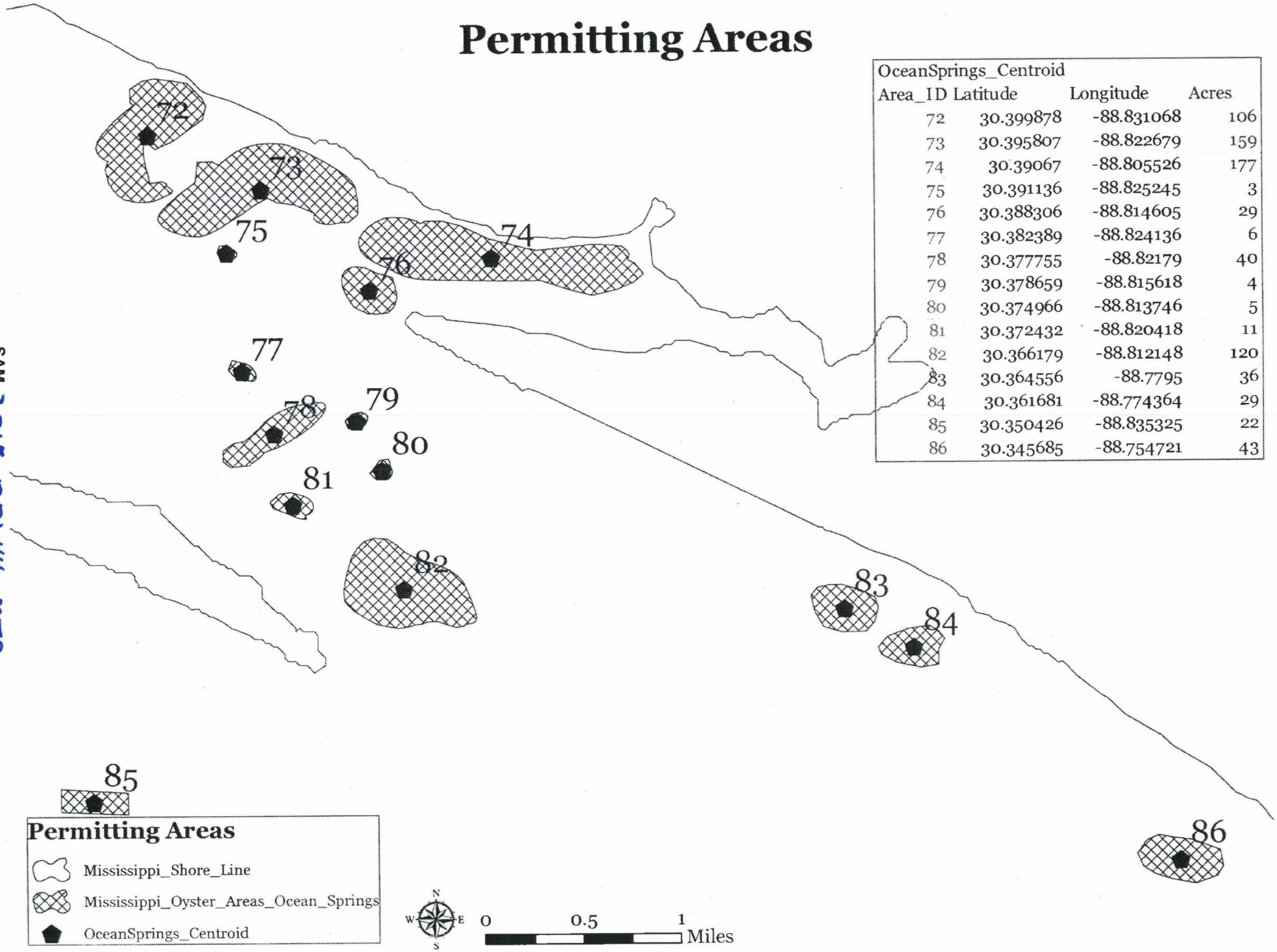


Permitting Areas

- Mississippi_Oyster_Areas_Biloxi
- Mississippi_Shore_Line
- Biloxi_Centroid

SAM-2015-00644-MJC
DEPT. OF THE ARMY

Permitting Areas

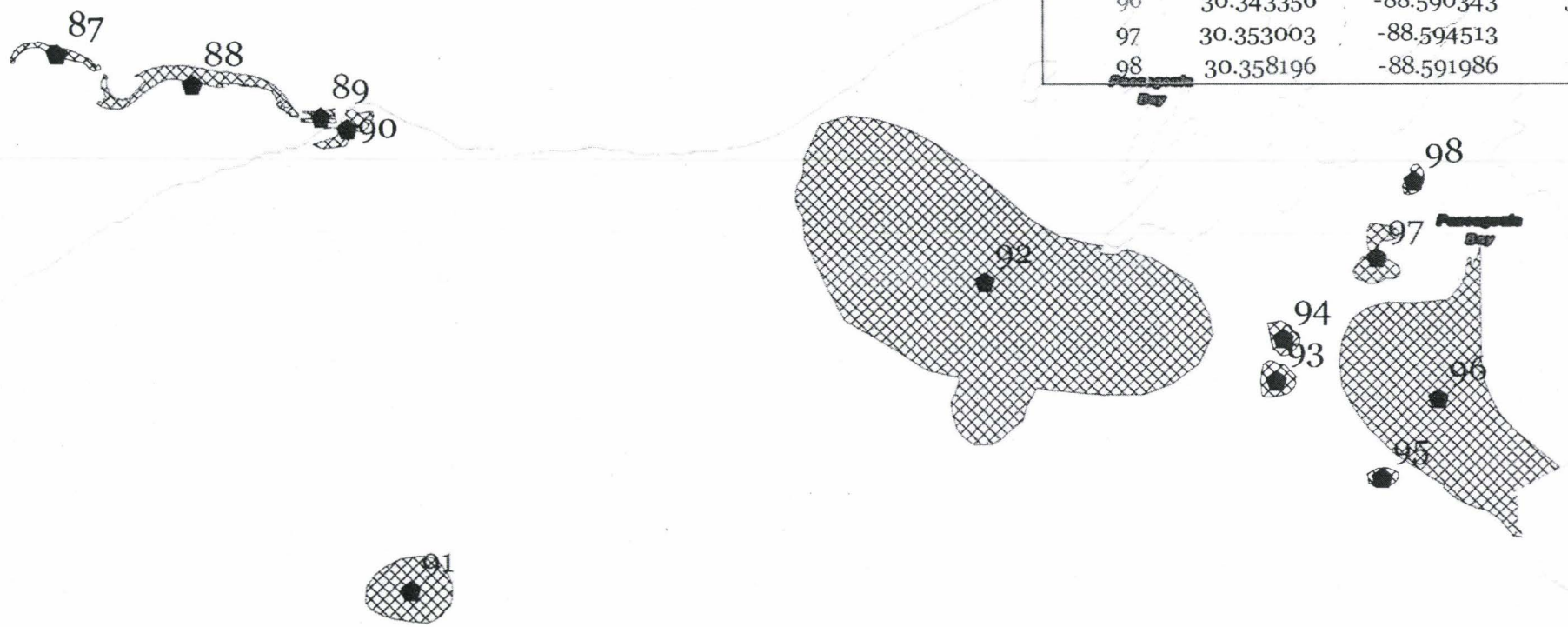


OceanSprings_Centroid			
Area_ID	Latitude	Longitude	Acres
72	30.399878	-88.831068	106
73	30.395807	-88.822679	159
74	30.39067	-88.805526	177
75	30.391136	-88.825245	3
76	30.388306	-88.814605	29
77	30.382389	-88.824136	6
78	30.377755	-88.82179	40
79	30.378659	-88.815618	4
80	30.374966	-88.813746	5
81	30.372432	-88.820418	11
82	30.366179	-88.812148	120
83	30.364556	-88.7795	36
84	30.361681	-88.774364	29
85	30.350426	-88.835325	22
86	30.345685	-88.754721	43

SAM-2015-00644-MJF
DEPT. OF THE ARMY

Permitting Areas

Pascagoula Centroid			
Area_ID	Latitude	Longitude	Acres
87	30.366959	-88.684792	8
88	30.364915	-88.675431	31
89	30.362688	-88.666665	3
90	30.361881	-88.664813	12
91	30.330349	-88.660517	56
92	30.351368	-88.621293	903
93	30.344586	-88.601415	12
94	30.347476	-88.600954	10
95	30.337956	-88.594194	6
96	30.343356	-88.590343	339
97	30.353003	-88.594513	19
98	30.358196	-88.591986	5



Permitting Areas

- Pascagoula Centroid
- Mississippi_Shore_Line
- Mississippi Oyster Areas Pascagoula

N W E S

0 0.5 1 2 Miles

Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

SAM-2015-00644-MJF
DEPT. OF THE ARMY