



REPLY TO  
ATTENTION OF:

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

CESAM-RD-C

PUBLIC NOTICE NO. SAM-2004-55-JWS

APR 28 2008

**JOINT PUBLIC NOTICE  
U.S. ARMY CORPS OF ENGINEERS**

**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY  
OFFICE OF POLLUTION CONTROL**

**MISSISSIPPI DEPARTMENT OF MARINE RESOURCES**

**Project Update of Proposed Filling for Sports Complex in Ocean Springs, Jackson County, MS**

TO WHOM IT MAY CONCERN:

This District received the original application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 USC 1344) on November 15, 1999. Please communicate this information to interested parties.

**APPLICANT:** City of Ocean Springs

**LOCATION OF WORK:** The project site is located north of Hwy 90, south of Tap Road, east of Groveland Road, and west of Hwy 57, in Section 30, Township 7 South, Range 7 West, Latitude 30° 24' 39" N, Longitude 88° 43' 19" W, Ocean Springs, Jackson County, Mississippi.

**BACKGROUND INFORMATION:** A public notice was issued on December 10, 1999 for impacts to 113 acres of wetlands for this project. As a result of public comments, the applicant revised their plans to impact 65.4 acres of wetlands. On February 16, 2005, a second public notice was issued, which consisted of 75 acres of wetland impacts. The application was further revised to include two roads into and out of the property, which equated to 77.96 acres of wetland impacts. As a result of public and agency comments, the applicant revised their plans to impact 50.6 acres of wetlands, as of February 2007. As a result of further agency discussions, the applicant has further revised their plans as outlined below.

**CURRENT WORK DESCRIPTION:** The applicant proposes to construct a recreational sports

**CESAM-RD-C**

**Public Notice Number SAM-2004-55-JWS**

complex to serve the citizens of Ocean Springs, Mississippi. The proposal consists of constructing four (4) soccer fields, two (2) football fields, four (4) softball fields (three-hundred feet (300') from home plate to the outfield fence), three (3) little league baseball fields (two-hundred feet (200') from home plate to the outfield fence), and two (2) baseball fields (two-hundred seventy-five feet (275') from home plate to the outfield fence). In addition, to the athletic fields, the complex will consist of a maintenance area, ingress and egress to Hwy 57, fiber reinforced turf parking, shaded pavilion, softball quad center plaza, park office, entrance gate, concessions and restrooms, picnic area, and a playground.

Of the 114.85 acres of wetlands onsite, approximately 34.20 acres of the onsite wetlands will be impacted and approximately 80.65 of wetlands will be avoided. The project will also impact approximately 1.70 acres of wetlands offsite and just to the east of the sports complex for ingress and egress to/from Hwy 57. The total wetland acres impacted for the proposed project will be approximately 35.90 acres.

As mitigation, the City of Ocean Springs has secured a 165.9-acre tract, also known as Broken Arrow Farms, in Sections 7 and 8, Township 5 South, Range 5 West, Jackson County, Mississippi. Of the 165.9 acres, 133 acres are wetlands and will be deeded to the Land Trust for the Mississippi Coastal Plane (LTMCP). The site can be restored using bunchgrass pine savanna wetlands criteria. The site has experienced a lack of fire management practices and is located west of two existing mitigation banks. Herbaceous species identified as common to pine-savanna ecosystems can be enhanced by introduction of a managed fire regime. Additionally, nuisance and invasive vegetation can be suppressed and a long-term management program, including a fire regime would be established.

In addition, to the above mitigation, the City will also preserve, enhance and deed, through conservation easement, the remaining 80.65 acres of onsite (Hwy 57 site) wetlands to the LTMCP. Enhancement will consist of mowing, prescribed burns, and/or re-planting of wetland trees.

The two sites equate to 246.55 acres of enhanced/conserved wetlands for impacts to 35.90 acres of wetlands, or a 6.87 / 1 ratio.

The applicant has received certification from the State of Mississippi, in accordance with Section 401(a)(1) of the Clean Water Act, by letter dated March 15, 2007.

Also, the applicant received certification from the State of Mississippi, by letter dated July 31, 2004, that the proposed activity complies with and will be conducted in a manner that is consistent with the State Coastal Zone Management Program.

This public notice is being distributed to all known interested persons in order to assist in

**CESAM-RD-C**  
**Public Notice Number SAM-2004-55-JWS**

developing facts on which a decision by the U.S. Army Corps of Engineers (Corps) 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 benefit 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, 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 Corps 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 Corps 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 to consider 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 was considered for the potential to effect cultural and historic properties within the permit area. Although the extent of federal control and responsibility for these considerations are confined to the limits of the property for this particular project, the potential indirect effects that may occur to historic properties as a result of this

**CESAM-RD-C**

**Public Notice Number SAM-2004-55-JWS**

undertaking were also considered. By letter dated June 7, 2001, Mississippi Department of Archives and History stated no recorded archaeological sites within the area.

The U.S. Fish & Wildlife Service (FWS) has indicated that the proposed activity will not affect listed endangered or threatened species, or their critical habitat.

Correspondence concerning this Public Notice should refer to Public Notice Number SAM-2004-55-JWS and should be directed to:

District Engineer  
U.S. Army Engineer District, Mobile  
Attention Coastal Branch  
Post Office Box 2288  
Mobile, Alabama 36628-0001

Comments should be received no later than **21 days** from the date of this Public notice.

If you have any questions concerning this publication, you may contact the project manager via e-mail at **Jason.W.Steele@usace.army.mil** or telephone number **(202) 761-7763**. 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/RD/reg](http://www.sam.usace.army.mil/RD/reg), and please take a moment to complete our customer satisfaction survey while you're there. Your responses are appreciated and will allow us to improve our services.

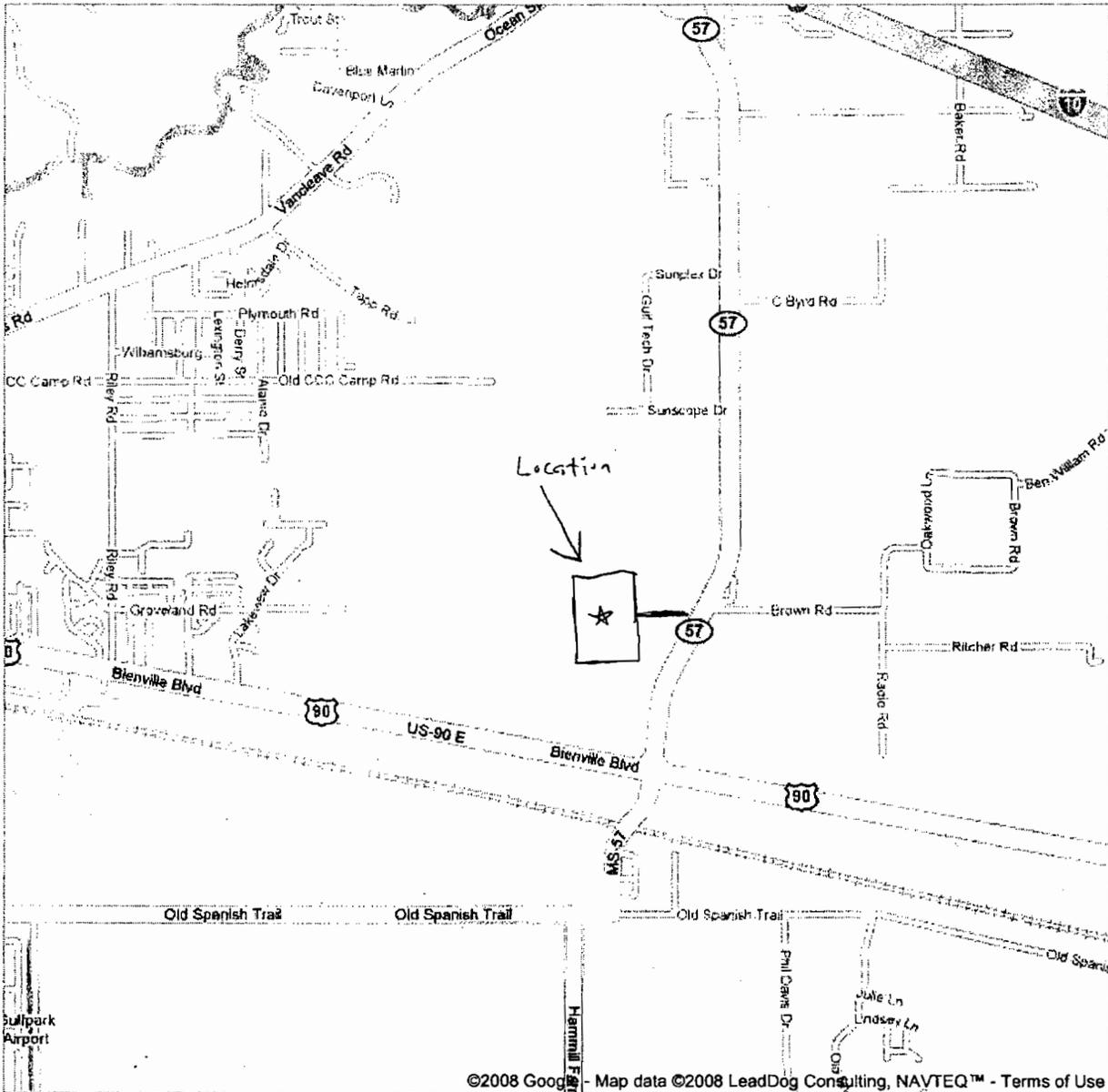
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MOBILE DISTRICT  
U.S. Army Corps of Engineer

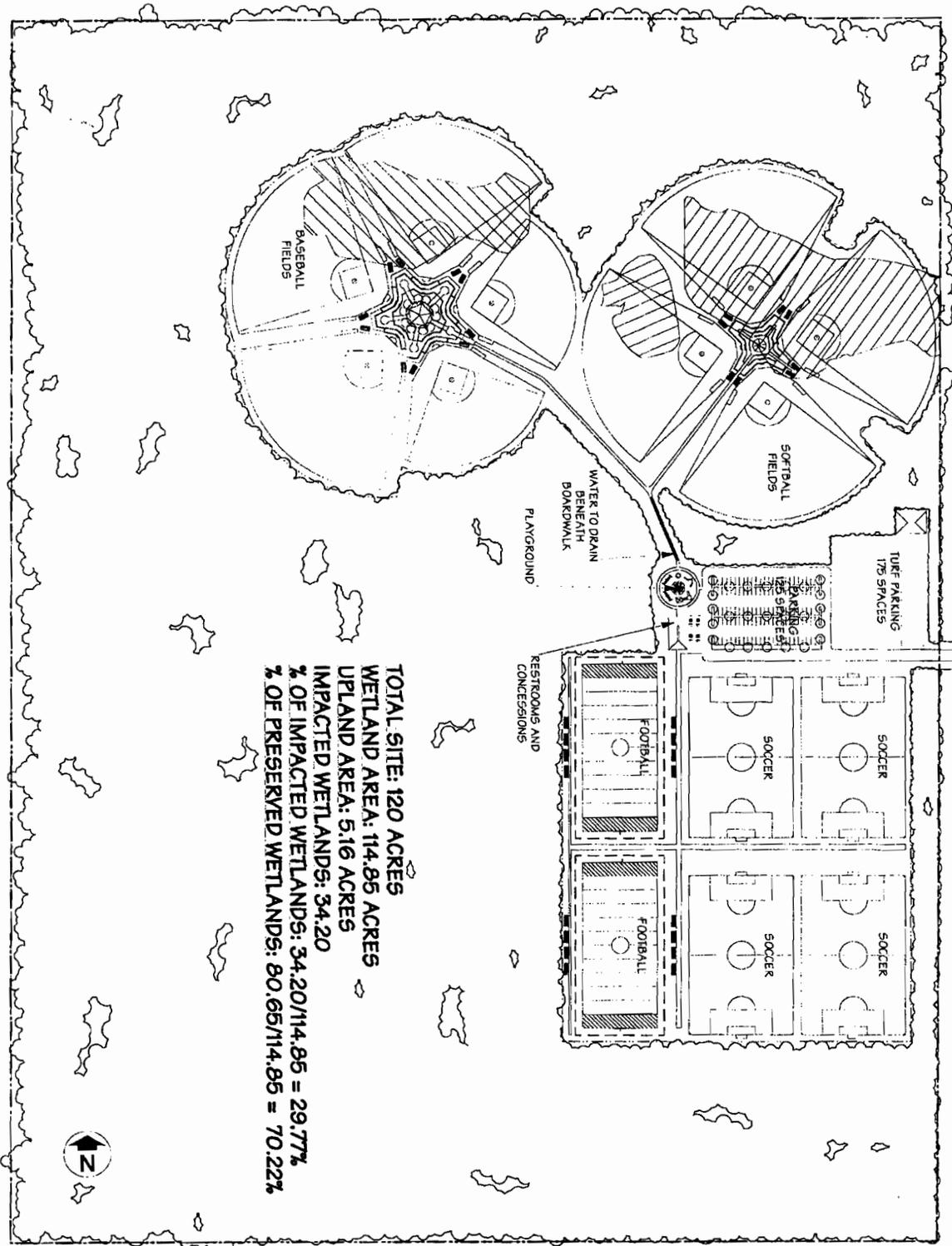


Address **Groveland Rd**  
**Ocean Springs, MS 39564**

Get Google Maps on your phone  
Text the word "GMAPS" to 466453

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To Hwy 57

**TOTAL SITE: 120 ACRES**  
**WETLAND AREA: 114.95 ACRES**  
**UPLAND AREA: 5.16 ACRES**  
**IMPACTED WETLANDS: 34.20**  
**% OF IMPACTED WETLANDS: 34.20/114.95 = 29.77%**  
**% OF PRESERVED WETLANDS: 80.65/114.95 = 70.22%**

Date: 1/10/03 Drawn: CND Checked: J Scale: 1"=200' <b>MASTER PLAN REVISION</b>	City of Ocala Springs Hwy 57 Sports Complex	ROAD NO.    DATE _____    ____/____/____	Sheet: _____ of _____
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JFDS

James F. Dwyer & Sons  
INCORPORATED  
LANDSCAPE ARCHITECTS

DATE: 10/08

DRAWN BY: JF

PROJECT NAME  
HIGHWAY 57  
SPORTS PARK

DATE: 10/08

DRAWN BY: JF

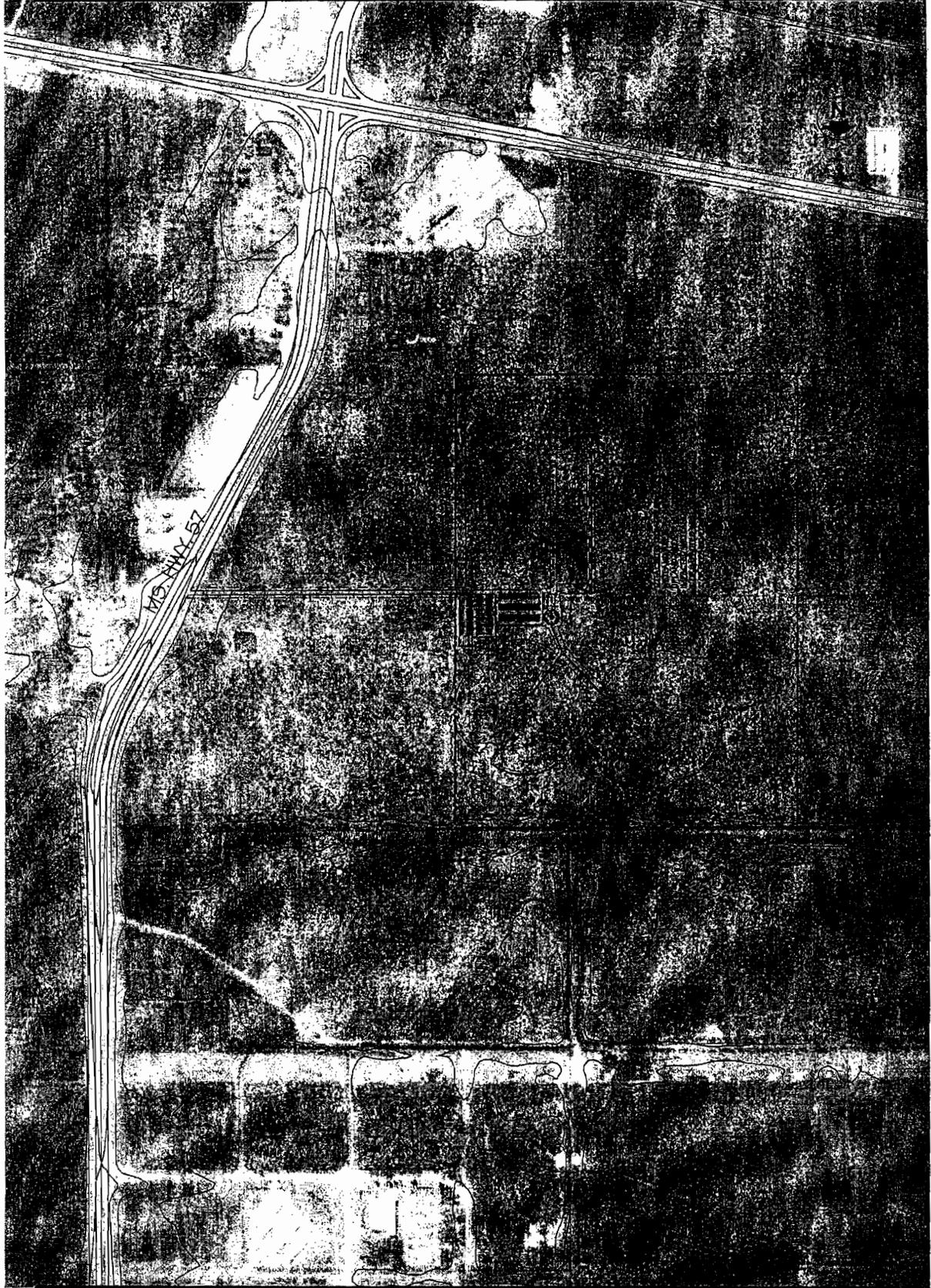
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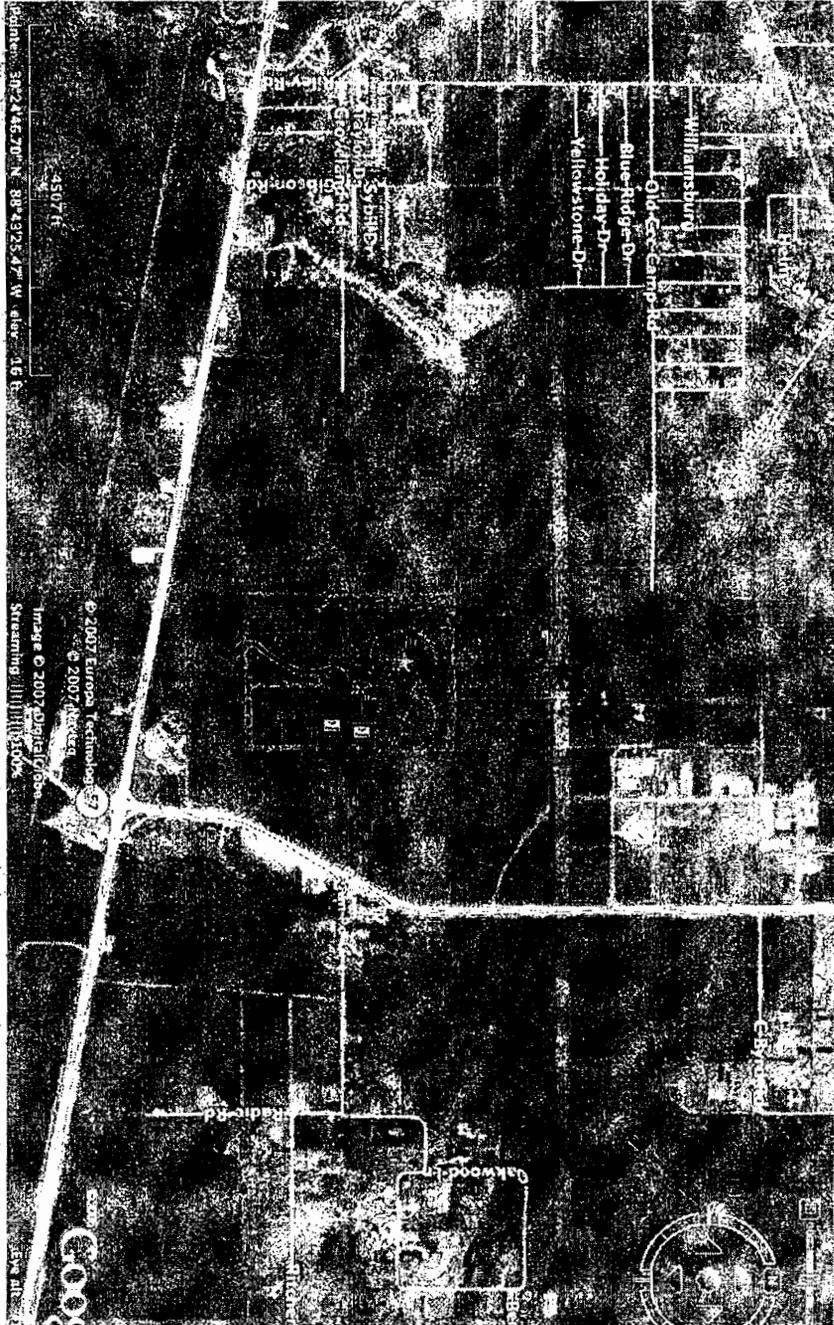
SCALE: 1"=100'

CONTEXT  
MAP

Sheet

12 / 12





▲ N

Scale 1" = 500'  
• Location of Master Plan  
Property line is Approximate •

**FINAL MITIGATION PLAN**  
**FOR**  
**MS HWY 57 SPORTS COMPLEX**

**April 11, 2008**

**Proposed Hwy 57 Sport Complex**

With the development of the new master plan the activities originally proposed for the MS Hwy 57 complex has changed considerably. The proposal now provides for 4 Soccer Fields, 2 Football Fields, 4 Softball fields (300'), 3 Little League Baseball Fields (200') and 2 Baseball Fields (275'). In addition to the athletic fields the new master plan also includes Preservation of Wetlands, Maintenance Area, Parking, Ingress and Egress to MS Hwy 57, Fiber Reinforced Turf Parking, Shade Pavilion, Softball Quad Center Plaza, Parking, Park Office, Entrance Gate, Concessions & Restrooms, Retention Ponds/Irrigation Reservoir, Picnic Area, and a Playground. The site consist of 120 acres, of which includes 5.16 acres of uplands and 114.85 acres of wetlands. Of the 114.85 acres of wetlands approximately 34.20 acres will be impacted and approximately 80.65 will be avoided. The project also will impact property to the East of the Sport Complex for ingress and egress from MS Hwy 57 to the Sport Complex. The impact will be approximately 1.70 acres. The total acres impacted for the proposed project will be approximately 35.90acres.

**City of Ocean Springs Mitigation Sites**

The City of Ocean Springs proposed project will avoid 80.65 acres of wetlands at the Hwy. 57/Hwy.90 site. This site will be known as the Hwy.57/Hwy.90 mitigation site.

This site is being proposed to compensate for the unavoidable impact to wetland functions and values at the recreation site located near the intersection of MS Highway 57 and US Highway 90. The 80.65 acres of avoided wetlands on the MS Hwy. 57/Hwy. 90 site will be deeded to the Land Trust of the Mississippi Coastal Plane (LTMCP) and will be placed under a conservation easement to ensure that future development will not take place on this property.

The City of Ocean Springs has secured a 165.9-acre tract in Sections 7 and 8, Township 5 South, Range 5 West, located in Jackson County, Mississippi, This site is located in Hurley, Mississippi and is also known as Broken Arrow Farms. This site will be known as the Hurley mitigation site.

This site is being proposed to compensate for the unavoidable impact to wetland functions and values at the recreation site located near the intersection of MS Highway 57 and US Highway 90. The mitigation site will be deeded to the LTMCP and will be placed under a conservation easement to ensure that future development will not take place on this property.

The sites are intended to provide wetland credits to satisfy compensatory mitigation requirements associated with the U.S. Army corps of Engineers permit for the City of Ocean Springs Recreational Facility.

Hwy 57 property  $80.65 \div 5 = 16.13$   
 Hurley Property  $133.00 \div 5 = \underline{26.60}$   
 Total Credit 42.73

Wetlands Credits	42.73
Altered wetlands	<u>-35.90</u>
Total credits over Altered Wetlands	+ 6.83

**Hwy.57/Hwy.90 Mitigation Site**

**Base Line Condition**

This site is natural un-impacted wet pine flat woods wetlands with cypress species. There is very little elevation change and it appears that water slowly flows to the south west to exit the site. It is difficult to traverse this area as a result of the undergrowth. Struggling remnants of pitcher plants are encountered throughout. It appears that this area was once part of an extensive pine savanna in which the herbaceous species such as the pitcher plants were once common and extensive. Fire has been critical element to maintaining that ecosystem but has been excluded in recent time.

**Endangered & Threatened Species**

The area was investigated for known threatened and endangered species, i.e. Louisiana Quillwort, Gopher Tortoise, Bald Eagle, Black Pine snake, and Eastern Indigo snake. The area is not suitable for the Quillwort or Tortoise. The Eastern Indigo snake usually uses the burrows made by the tortoise and since no burrows were observed, it is believed that the area is too wet for the Eastern Indigo snake. The black pine snake is also found in the same environment as the Eastern Indigo snake and no evidence of the black snake was observed. No evidence of the Bald eagle was observed.

**Cultural Resources**

There are no known properties, buildings, or Indian artifacts or listing in the National Register of Historic Places for the Hwy 57 site or the Hurley mitigation site.

**Wetland Determination**

Barry A. Vittor & Associates, Inc. Conducted surveys of the City of Ocean Springs' property located near the intersection of Mississippi Hwy 57 and U.S. Hwy 90. The purpose of this study was to access the qualities of the wetlands located in the proposed recreation complex and as a potential wetland mitigation site. These wetlands were evaluated using the Wetland Rapid Assessment Procedure (WRAP) recommended by the Mobile District Corps of Engineers. Vittor & Associates survey was conducted on the 120 acres which consisted of 114.86 acres of wetlands and 5.26 acres of uplands at the Hwy 57/Hwy.90 project site. The results of the survey determined that the properties were medium to high quality.

**Restoration and Prescribed Fire Plan**

The initial burn would be conducted prior to any other activities. This would utilize all available fuel and aid in regeneration of desired herbaceous species. The burning would be conducted utilizing techniques that would produce hot fire. The prescribed rotation for burning in a pine savanna is usually on a three to five year rotation, however, burns in this area should take place on a two to three year rotation to reduce the potential of hot fires. Variable season burns ("cool and warm season burns") should be conducted as often as weather permits. Consideration for the second burn should include the height and density of shrubby species. The LTMCP will establish fire brakes at the Hwy.57/Hwy.90 mitigation site in order to protect adjacent properties. The target for full achievement of the restoration goals will be set at 10 years after the issuance of the COE permit.

The City of Ocean Springs will contract with a professional fire burn company (FireTrax in Wyoming) to conduct the initial burn of the entire 120 acres at the Hwy 57/90 site plus the 60' wide road ROW that is approximately 1650 feet long leading to Hwy 57. This burn is scheduled for April 2008. FireTrax has conducted a number of controlled burns for the Mississippi Department of Marine Resources on the Mississippi Gulf Coast.

After the initial burn, and approval of the permit by the USACOE, the City of Ocean Springs will convey both the Hurley site and the preservation area on the Hwy 57/90 site to the LTMCP, who will thereafter be responsible for all prescribed burns and the management plan. Costs associated with the management plan will be projected, and the City will transfer funds to the LTMCP as an endowment to fund this plan.

### **Cypress and Bunchgrass Pine Savanna**

Defining feature: Pine Savannas are defined by reoccurring fires in a variety of seasons.

### **Restoration Goals**

1. Fire should occur at a minimum annually or biannually until restoration period ends when the success criteria below are met as decided by the regulatory agencies. In an established system, fire should occur at a minimum of 3-5 years (Lewis & Teaford, 1995). The mitigation plan assumes that after the initial burn, a burn will take place in 2010 and in 2012, and thereafter approximately every four years depending upon the monitoring report recommendations.
2. Bunchgrass Pine Savanna over story should have 5-15% canopy coverage, a basal area of 10-20 sq. ft./acres, and the spacing between individual trees should be approximately 50 feet (a range of 5-35 trees per acre) (Lewis & Teaford, 1995). Longleaf (*Pinus palustris*) and /or Slash Pine (*Pinus elliottii*) are the desirable cover in the over story. Cypress Pine Savanna over story may include the previous and in addition Pond Cypress (*Taxodium ascendens*) with the canopy coverage being from 5-25%.
3. Bunchgrass Pine Savanna shrub/sapling layer should have a limited cover of 0-15% and be composed primarily of future over story species (Lewis & Teaford, 1995). Cypress Pine Savanna shrub/sapling layer should be no greater than 35% cover and be composed of future over story species.
4. The herbaceous layer should have 85-100% ground area coverage of desirable, native species from an accepted species list (Lewis & Teaford, 1995).
5. The herbaceous layer should be diverse and each one meter square plot for a bunchgrass pine savanna should contain no less than 8 different species listed on the HGM Pine Savanna Herbaceous Indicator Score Sheet. Alternatively, if the site is dominated by bunchgrasses (including *Ctenium aromaticum*, *Mulenbergia expansa*, *Aristida stricta* or *A. beyrichiana*, *Sehizachyrium scoparium*, and *Sporobolus* sp.), ground coverage should be no less than 50% for a 1-meter square for a fully restored site (Rheinhardt, R.D. et al, 2002). In Cypress Pine Savannas each one square meter plot should contain no less than 7 different species listed on the HGM Pine Savanna Herbaceous Indicator Score Sheet or a minimum of 50% coverage of a 1-meter plot by *Carex*, *Scleria*, and no-wiry *Rhychospora* sp.
6. Undesirable species in all layers should compose <10% coverage (Lewis & Teaford, 1995) and includes but is not limited to Loblolly Pine (*Pinus taeda*), Sweetgum (*Liquidambar styraciflua*),

Hardwoods, Popcorn Trees (*Sapium sebiferum*), and Cogon grass (*Imperata cylindrica*) or any other species identified as an invasive exotic.

7. Contingency Plan: In the event that eventually prescribed burns are deemed unsafe or unacceptable as a means of wetlands restoration, then the LTMCP will explore mowing or management of another property as an alternative.

## **Hurley Mitigation Site**

### **Baseline Conditions**

This site is natural wet pine flat woods wetlands with cypress and gallberry species. The site has been somewhat impacted by rutting from recent silviculture practices; however, it is not recommended to attempt to level these ruts, since the presence of additional heavy equipment may have even more of a negative impact. It was also determined that the ruts and hardpan are insignificant to restoration efforts and the site will probably revert back to natural grade on its own without the use of grading equipment.

There also exist some exotic plants species (e.g. Japanese honeysuckle, Japanese climbing fern). Fire has been critical element to maintaining that ecosystem but has been excluded in recent time. The pine savanna suffers greatly from lack of fire management and no timber management is evident for the entire site. A timber road exists on the east side of the site. The road was constructed by excavating soil from each side of the roadbed but does not appear to impact the natural hydrology.

It is readily apparent to the observer that lack of fire management and use of the area for agricultural purposes in the past has significantly impacted the functional capacity of the wetlands. Historically, the site was a well functioning pine savanna-cypress wetland. This system is, therefore, uniquely suited for enhancement.

### **Endangered & Threatened Species**

The area was investigated for known threatened and endangered species, i.e. Louisiana Quillwort, Gopher Tortoise, Bald Eagle, Black Pine snake, and Eastern Indigo snake. The area is not suitable for the Quillwort or Tortoise. The Eastern Indigo snake usually uses the burrows made by the tortoise and since no burrows were observed, it is believed that the area is too wet for the Eastern Indigo snake. The black pine snake is also found in the same environment as the Eastern Indigo snake and no evidence of the black snake was observed. No evidence of the Bald eagle was observed.

### **Cultural Resources**

There are no known properties, buildings, or Indian artifacts or listing in the National Register of Historic Places for the Hwy 57 site or the Hurley mitigation site.

### **Wetland Determination on the Hurley Site**

Barry A. Vittor & Associates, Inc. Conducted surveys of the City of Ocean Springs' property located in Hurley, Mississippi in Sections 7 and 8, Township 5 South, Range 5 West, in Jackson County, Mississippi. The purpose of this study was to access the qualities of the wetlands. These wetlands were evaluated using the Wetland Rapid Assessment Procedure (WRAP) recommended by the Mobile District Corps of Engineers. Vittor & Associates survey was conducted on the 165.9 acres which consisted of 133.00 acres of wetlands and 32.9 acres of uplands. The results of the survey determined that the properties were medium to high quality.

## **Restoration and Prescribed Fire Plan**

The initial burn could be conducted prior to any other activities. This would utilize all available fuel and aid in regeneration of desired herbaceous species. The burning would be conducted utilizing techniques that would produce hot fire. The prescribed rotation for burning in a pine savanna is usually on a three to five year rotation. Variable season burns ("cool and warm season burns") should be conducted as often as weather permits. Consideration for the second burn should include the height and density of shrubby species. The LTMCP could negotiate with the two established adjacent mitigation banks to conduct burns for this site. In that case, firebreaks would not be needed. The target for full achievement of the restoration goals will be set at 10 years after the issuance of the COE permit. The site can be restored using bunchgrass pine savanna wetlands criteria. The site has experienced a lack of fire management practices and is located west of two existing mitigation banks. During a recent "controlled" burn by Wetland Solutions, one of the two mitigation banks, the fire jumped the road and burned a portion of the site. Other than the burned area, the sapling shrub stratum is fairly moderate along with a moderate herbaceous stratum. Herbaceous species identified as common to pine-savanna ecosystems can be enhanced by introduction of a managed fire regime. Additionally, nuisance and invasive vegetation can be suppressed and a long-term management program, including a fire regime would be established.

The City of Ocean Springs will contract with the Mississippi Forestry Commission to conduct the initial burn at the Hurley site in April, 2008.

After the initial burn, and approval of the permit by the USACOE, the City of Ocean Springs will convey both the Hurley site and the preservation area on the Hwy 57/90 site to the LTMCP, who will thereafter be responsible for all prescribed burns and the management plan. Costs associated with the management plan will be projected, and the City will transfer funds to the LTMCP as an endowment to fund this plan.

While the Hurley site is not located in the same drainage basin, it is located nearby and in Jackson County between the two approved mitigation banks. These two banks have service areas that include the three coastal counties. The proposed mitigation site is a pine savanna-cypress site in south Mississippi, in Jackson County, and adjacent to two approved mitigation banks making this site highly desirable and has the potential of providing a very large contiguous wetland that will effectively and efficiently restore an ecosystem. Introduction of managed fire burns and placing the property under a conservation easement will result in restoration and perpetual protection of 165.9 contiguous acres of pine savanna and cypress habitat.

## **Cypress and Bunchgrass Pine Savanna**

Defining feature: Pine Savannas are defined by reoccurring fires in a variety of seasons.

### **Restoration Goals**

1. Fire should occur at a minimum annually or biannually until restoration period ends when the success criteria below are met as decided by the regulatory agencies. In an established system, fire should occur at a minimum of 3-5 years (Lewis & Teaford, 1995). After the initial burn conducted by the city in 2008, a burn is recommended in 2010, 2012, and approximately every four years thereafter depending upon the monitoring report recommendations.
2. Bunchgrass Pine Savanna over story should have 5-15% canopy coverage, a basal area of 10-20 sq. ft./acres, and the spacing between individual trees should be approximately 50 feet (a range of 5-35 trees per acre) (Lewis & Teaford, 1995). Longleaf (*Pinus palustris*) and /or Slash Pine (*Pinus elliotii*) are the desirable cover in the over story. Cypress Pine Savanna over story

may include the previous and in addition Pond Cypress (*Taxodium ascendens*) with the canopy coverage being from 5-25%.

3. Bunchgrass Pine Savanna shrub/sapling layer should have a limited cover of 0-15% and be composed primarily of future over story species (Lewis & Teaford, 1995). Cypress Pine Savanna shrub/sapling layer should be no greater than 35% cover and be composed of future over story species.
4. The herbaceous layer should have 85-100% ground area coverage of desirable, native species from an accepted species list (Lewis & Teaford, 1995).
5. The herbaceous layer should be diverse and each one meter square plot for a bunchgrass pine savanna should contain no less than 8 different species listed on the HGM Pine Savanna Herbaceous Indicator Score Sheet. Alternatively, if the site is dominated by bunchgrasses (including *Ctenium aromaticum*, *Mulenbergia expansa*, *Aristida stricta* or *A. beyrichiana*, *Sehizachyrium scoparium*, and *Sporobolus* sp.), ground coverage should be no less than 50% for a 1-meter square for a fully restored site (Rheinhardt, R.D. et al, 2002). In Cypress Pine Savannas each one square meter plot should contain no less than 7 different species listed on the HGM Pine Savanna Herbaceous Indicator Score Sheet or a minimum of 50% coverage of a 1-meter plot by *Carex*, *Scleria*, and no-wiry *Rhychospora* sp.
6. Undesirable species in all layers should compose <10% coverage (Lewis & Teaford, 1995) and includes but is not limited to Loblolly Pine (*Pinus taeda*), Sweetgum (*Liquidambar styraciflua*), Hardwoods, Popcorn Trees (*Sapium sebiferum*), and Cogon grass (*Imperata cylindrica*) or any other species identified as an invasive exotic.
7. Contingency Plan: In the event that eventually prescribed burns are deemed unsafe or unacceptable as a means of wetlands restoration, then the LTMCP will explore mowing or management of another property as an alternative.

**Note:**

Desirable species are defined as though appearing on the plant list for Pine Savanna developed in *Wetlands Evaluation System: An Overview of a Proposed System for Forested Palustrine Wetlands in South Mississippi* or the plant list developed by Andre Clewell for the Sandhill Crane Refuge.

Lewis, P.L. & Teaford, J.W. (1995). *Wetlands Evaluation System: An Overview of a Proposed System for Forested Palustrine Wetlands in South Mississippi*. Unpublished manuscript.

**Invasive Species Control**

If future monitoring indicates the presence of invasive or exotic species, actions should be initiated to eliminate the species from the site. Prescribed burns should serve as an adequate control to any invasive species populations.

The Ocean Springs Parks and Leisure Services Department will spray herbicide, especially along the access road, to prevent invasive species, as part of its regular maintenance plan. Currently there is little to no Cogon grass on either site.

**Real Estate Interest**

Both mitigation sites shall be preserved in a natural state in perpetuity. This will be guaranteed by deeding the property to LTMCP and placed under a conservation easement. These natural preserve areas will not be disturbed by any dredging, filling, land clearing, agricultural activities, planting, or other construction work whatsoever. The permittee agrees that the only future utilization of the preserved areas in question will be as a purely natural area. The permittee will prepare the conservation easements, to include a legal description, survey, and scale drawings, of the area in question. The permittee will furnish this information to the U.S. Army Corps of Engineers, Regulatory Division, Post Office Box 2288, Mobile, Alabama 36628-0001, for legal review and approval prior to any work.

**Provisions Covering Use of the Land**

Use of the land will be restricted as determined by language developed by LTMCP for the conservation easement of both sites.

**MAINTENANCE AND MONITORING****Maintenance Provisions**

The City will deed the property to LTMCP immediately upon receipt of a COE permit. LTMCP will place the property into a conservation easement upon receipt of the property from the City. The LTMCP will submit a monitoring report to the USACE every 6 months for the first 3 years, once a year for the next 3 years, and then every 5 years following for both sites.

**Monitoring Provisions**

The required monitoring reports shall include the following:

- a. Date permitted activity was begun; if work has not begun onsite, please so indicate.
- b. Brief description of extent of work (i.e. dredge, fill, monitoring, mitigation, management, maintenance) completed since the previous report or since the permit was issued. Show on copies of the permit drawings those areas where work has been completed.
- c. Brief description and extent of work (i.e. dredge, fill, monitoring, mitigation, management, maintenance) anticipated in the next six/twelve months. Indicate on copies of the permit drawings those areas where it is anticipated that work will be done.
- d. The progress of the permitted mitigation program. The reports shall include; photographs taken from the permanent stations, some of which must be in the vegetation sampling areas, a description of problems encountered and solutions undertaken, and anticipated work for the next six/twelve months.
- e. This report shall include on the first page, just below the title, the certification of the following statement by the individual who supervised preparation of the report: "This report represents a true and accurate description of the activities conducted during the six/twelve month period covered by this report."

All mitigation work shall be performed by or under the direct supervision of an environmental consultant/specialist. The environmental consultant/specialist must be approved by the USACE and must provide documentation that prior mitigation work has been deemed successful by the USACE.

The environmental consultant/specialist shall be present at the site during all phases of the mitigation work.

## **OTHER PROVISIONS**

### **Validity, Modification and Termination of the Mitigation Plan**

This plan will become valid following issuance of the COE permit and execution of the plan as provided by the permit for the recreational facility of the City of Ocean Springs. This plan may be amended, altered, released, or revoked only by written agreement among the City, LTMCP, and the COE, their heirs, assigns or successors-in-interest, which amendment shall be filed in the public records of Jackson County, Mississippi.

### **Contract between the City and LTMCP**

A contract between the City of Ocean Springs and the Land Trust of the Mississippi Coastal Plain shall be developed and signed covering both sites by all parties and submitted to the U.S. Army Corps of Engineers prior to the issuance of the permit.