

Division: Mississippi River Division
District: New Orleans

Fact Sheet

1. Project: Bayou Braud, Spanish Lake, and Alligator Bayou, LA Ecosystem Restoration Project.
2. Location: The study area is located in the watershed of Bayou Braud, Spanish Lake, and Alligator Bayou in the vicinity of Bayou Manchac, Louisiana in Ascension and Iberville Parishes (see figure 1). This watershed is approximately 15 miles east of Baton Rouge, Louisiana.
3. Description of Proposed Project.
 - a) This project is authorized by Section 206 of the 1996 Water Resources Development Act, as amended. Which provides authority for the Corps of Engineers to restore degraded ecosystems.
 - b) Study Area. Bayou Braud, Spanish Lake, and Alligator Bayou watershed drains approximately 13,900 acres. Freshwater enters the watershed from numerous small bayous draining into Bayou Manchac through the Alligator Bayou control structure. The present operating scheme for the structure is to prevent backwater from Bayou Manchac from going into Spanish Lake. The target water level currently used for closing of the gates when water is draining is elevation +5.5 feet. The Bayou Braud, Spanish Lake, and Alligator Bayou watershed is a freshwater system.
 - c) Problems/Investigations. The three critical problems exist in the Bayou Braud, Spanish Lake, and Alligator Bayou watershed. They are: (1) standing water during the spring prevents the natural recruitment of baldcypress seedlings, (2) flood water remaining on the swamp for extended time which cause stress to the trees and slows growth, and (3) competition from nuisance and opportunistic species. The proposed project is necessary to enhance a significant fish and wildlife resource in a predominately urban area.

| Area | Flood Rate | Problems | Fix |
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| Distributary ridges | Occasional flooded for brief periods. | Slope of the ridge dominated by sugar hackberry, lower wildlife value. | Selective management practices, injection of Chinese tallow tree. |
| Higher Overflow areas | Every spring, and during extended rain events. | Baldcypress and tupelo gum seedling and saplings suppressed by other species. | Cut some willow, hackberry, locust, etc. Plant tupelo gum and baldcypress. |
| Deep swamp | Holds water in the growing season longer | Baldcypress seedling and saplings suppressed by other species. | Cut back hardwood scrub, plant baldcypress and tupelo gum. |
| Bayou | Continuously Flooded | Invasive species | Biological or chemical control |
| Cypress flats | Continuously flooded | Harvesting and flooding | Lower water level and plant bald |

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| | | | cypress and tupelo gum. |
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d) Future Without Project Condition. Since the water level in this area would continue to be maintained at an elevation of +5.5 feet year round, there would be continued stress on trees which would limit growth and fitness. There would also be no natural recruitment of baldcypress and tupelo gum seedling in the continuously flooded cypress flats area. Chinese tallow trees exist on this site. If these tallow trees get firmly established, it would then be unlikely that any native tree species would be able to compete. This area would provide limited habitat for birds and small mammals, but not that of a natural system.

e) Engineering and Plan Formulation Rationale. The assumptions being used to produce this preliminary plan are as follows: 1) The project would bring the water level down from 5.5 feet at the gate to 3 feet at the Alligator Bayou control structure. 2) The water level lowering would begin at the end of duck hunting season (Mid January). 3) Water level would be held at this level until dormant season begins (trees loose their leaves ~ mid September) 4) Flooding above this level must be removed in 2 to 3 days until seedling reach 12 inches, after that water must be removed in 10 to 12 days. 5) This scheme would be used every 3 years or coordinated with drought years. The five design alternatives to be considered include: (1) maintaining the present structure at the confluence of Alligator Bayou and Bayou Manchac, but change the operating strategies , (2) enlarging the structure and change the operating strategies, (3) selective management practices on nuisance and competitive species, (4) planting of appropriate species as needed, and (5) a combination of these alternative. The combination of enlarging the structure, changing the operating strategies, selective management, and planting would appear to address the three critical problems in the watershed.

f) Other Plan Formulation Issues: US Fish and Wildlife has identified one threatened species (Bald eagles) that use the project area. Benefits derived from this project can not be used as part of a mitigation that is located in the area.

4. Views of Sponsor: The Parish of Ascension, Office of the President provided a letter of intent in October of 1998 to be the non-Federal sponsor of the project if our analyses were favorable and the cost were affordable. Local residents, elected officials, government, environmental groups, and the State of Louisiana are all in favor of restoring the Bayou Braud, Spanish Lake, and Alligator Bayou watershed.

5. Status: Currently in the first phase of the study (Preliminary Restoration Plan - PRP). Expected completion of the PRP in August 2000.

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