

## PROGRESS REPORT

Restoration and Management of Coastal Wetlands, Tallgrass  
Prairie and Tidal Marsh

GLO Contract Number 09-041-000-3358

March 2010

### Task 1: Marsh Restoration

- This task is completed. Photos and a map of all planting sites were sent with February's report. A PowerPoint presentation highlighting the use of bulrush baskets has been posted on the ABNC website as described in the work plan.

### Task 2: Prairie Restoration

- This task is completed. "After" photos of restoration sites will be sent with this report.

### Task 3: Mowing and Burning

- This task is completed. The 2010 burn season has ended.

### Task 4: Chinese Tallow Eradication

- This task is completed. Chainsaw crews have finished working on ABNC's West Bank prairie. Photos and a site map will be sent with this report.

| <b>Federal Budget</b> | <b>Current CMP Budget</b> | <b>Billed to Date CMP Budget</b> | <b>Obligated* CMP Budget</b> | <b>Remaining CMP Budget</b> |
|-----------------------|---------------------------|----------------------------------|------------------------------|-----------------------------|
| Personnel             | \$47,220.00               | \$39,837.38                      | \$0.00                       | \$7,382.62                  |
| Fringe                | \$16,379.50               | \$9,257.16                       | \$0.00                       | \$7,122.34                  |
| Travel                | \$0.00                    | \$0.00                           | \$0.00                       | \$0.00                      |
| Supplies              | \$16,736.50               | \$15,030.33                      | \$0.00                       | \$1,706.17                  |
| Equipment             | \$10,000.00               | \$10,000.00                      | \$0.00                       | \$0.00                      |
| Contractual           | \$3,350.00                | \$2,529.28                       | \$0.00                       | \$820.72                    |
| Other                 | \$0.00                    | \$0.00                           | \$0.00                       | \$0.00                      |
| <b>Subtotal</b>       | <b>\$93,686.00</b>        | <b>\$76,654.15</b>               | <b>\$0.00</b>                | <b>\$17,031.85</b>          |
| <b>Indirect Costs</b> | <b>\$0.00</b>             | <b>\$0.00</b>                    | <b>\$0.00</b>                | <b>\$0.00</b>               |
| <b>Totals</b>         | <b>\$93,686.00</b>        | <b>\$76,654.15</b>               | <b>\$0.00</b>                | <b>\$17,031.85</b>          |

| <b>Local Budget</b>   | <b>Current Local Budget</b> | <b>Billed to Date Local Budget</b> | <b>Obligated* Local Budget</b> | <b>Remaining Local Budget</b> |
|-----------------------|-----------------------------|------------------------------------|--------------------------------|-------------------------------|
| Personnel             | \$13,100.00                 | \$8,412.17                         | \$0.00                         | \$4,687.83                    |
| Fringe                | \$1,388.00                  | \$2,103.05                         | \$0.00                         | (\$715.05)                    |
| Travel                | \$0.00                      | \$0.00                             | \$0.00                         | \$0.00                        |
| Supplies              | \$31,172.00                 | \$82,385.00                        | \$0.00                         | (\$51,213.00)                 |
| Equipment             | \$0.00                      | \$0.00                             | \$0.00                         | \$0.00                        |
| Contractual           | \$0.00                      | \$0.00                             | \$0.00                         | \$0.00                        |
| Other                 | \$22,300.00                 | \$34,735.99                        | \$0.00                         | (\$12,435.99)                 |
| <b>Subtotal</b>       | <b>\$67,960.00</b>          | <b>\$127,636.21</b>                | <b>\$0.00</b>                  | <b>(\$59,676.21)</b>          |
| <b>Indirect Costs</b> | <b>\$0.00</b>               | <b>\$0.00</b>                      | <b>\$0.00</b>                  | <b>\$0.00</b>                 |
| <b>Totals</b>         | <b>\$67,960.00</b>          | <b>\$127,636.21</b>                | <b>\$0.00</b>                  | <b>(\$59,676.21)</b>          |

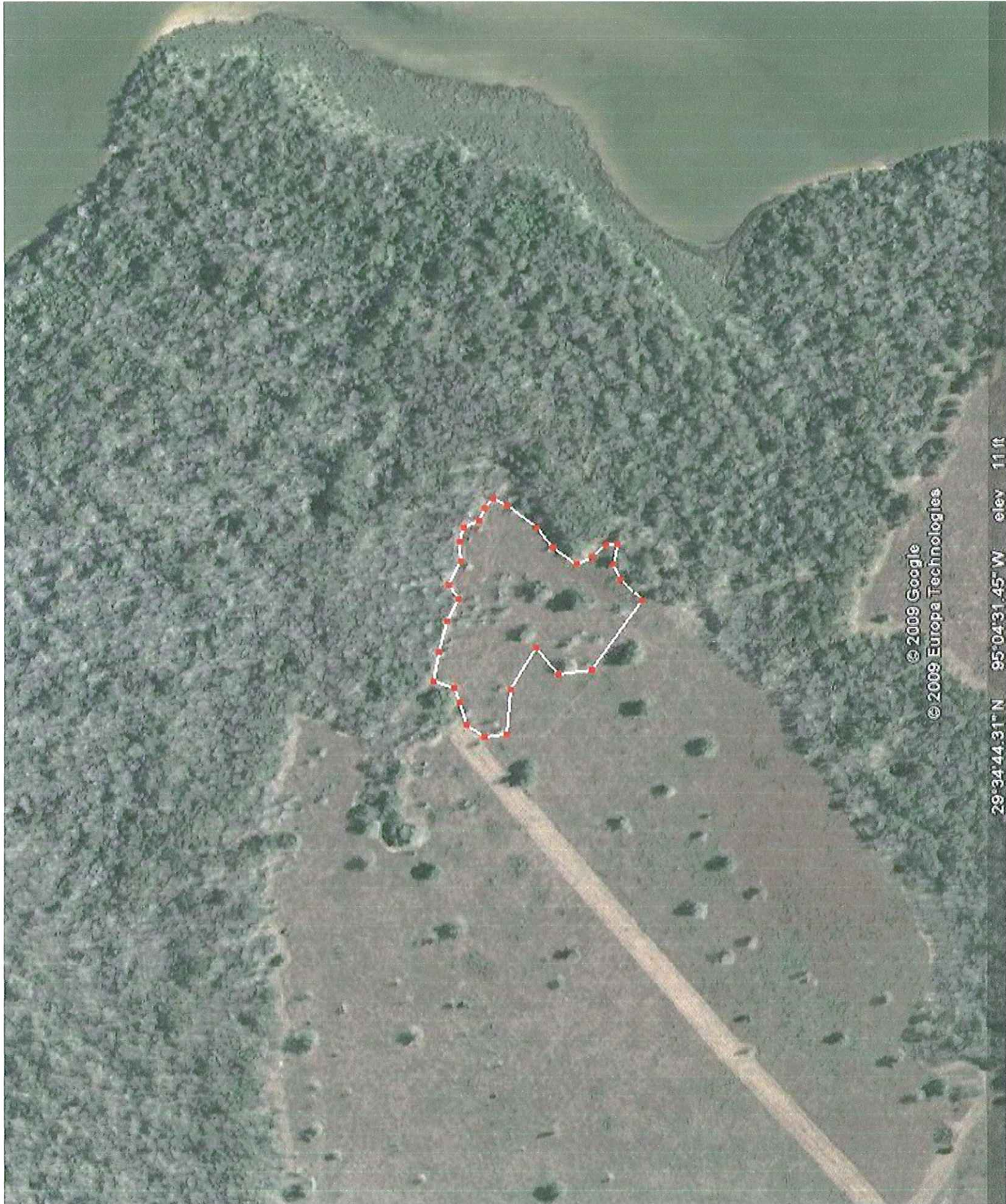
**\*Obligated includes - funds that have been incurred by the recipient but have not been paid by the recipient, such as contract agreements or supplies/materials/equipment acquired, but not invoiced.**



### Bulrush Baskets - CMP 13

| <u>DATE INSTALLED</u> | <u># of baskets installed</u> |
|-----------------------|-------------------------------|
| 6-10-09               | 19                            |
| 6-11-09               | 30                            |
| 6-18-09               | 54                            |
| 11-4-09               | 25                            |
| 11-18-09              | 25                            |
| 11-19-09              | 25                            |

CMP 4 acre Tallow Unit 2009-2010



© 2009 Google  
© 2009 Europa Technologies

29°34'44.31" N 95°04'31.45" W elev 11 ft















RANGER  
1200

TOP HAT





## THE GRIMES PRAIRIE

Coastal tallgrass prairies once dominated the landscape from Lafayette, LA to Corpus Christi, TX. Now, due to development, overgrazing, fire suppression and invasive plant expansion, less than 1% of this valuable habitat remains. Armand Bayou Nature Center manages over 700 hundred acres of these rare grasslands including the acreage before you. Monitoring and restoration efforts help insure the continuance of these prairie lands for generations to come.



This prairie was named in memory of John A. Grimes. John was an important supporter and a great friend of ABNC during the 1980's and early 1990's. He served as an ABNC volunteer, Volunteer Chairman, Interim Director and President of the ABNC Board of Trustees.



1987 image of Grimes prairie shows heavy infestation of Chinese Tallow trees



2009 image of Grimes Prairie shows tallow trees mostly eliminated

### Plants and Animals of the Grimes Prairie

Healthy prairies support a huge diversity of plants and animals. Some you might find in the Grimes Prairie include:



During the early years of the Nature Center, this section of the prairie was overtaken by Chinese Tallow trees. Intensive restoration efforts over the past 20 years have largely eliminated these invasive trees. ABNC now employs prescribed burning and mowing, herbicide application and native species plantings. Once again the native prairie grasses and wildflowers are thriving.



Prescribed burning kills woody plants and removes dead material



Mowing encourages grasses to grow



Aerial herbicide spraying targets invasive shrubs and trees



Thousands of native grasses and wildflower plants are planted in the prairie



Restoration work was funded in partnership with:

## PRAIRIE PLANT PROPAGATION

This is Armand Bayou Nature Center's Native Prairie Plant Nursery where staff and volunteers grow local plant species for use in the restoration projects occurring in the prairies on the ABNC Preserve.

### Why Restore the Prairies?

Coastal prairie lands were once the most common landscape in the Houston area. Today, only 1% of this important habitat remains. Prairies are highly diverse and productive ecosystems which support a large number of animals and plants not found elsewhere. Prairies often contain more than 500 species of plants which can provide food and shelter for animals, fueling a complex living system. Predators, such as White-tailed Kites, Bobcats and Prairie Kingsnakes, rely on the large populations of small mammals which thrive in these grasslands. Some animals, such as Mottled Ducks, nest exclusively in prairies. The ABNC prairies form a living museum of native plants and animals where visitors can learn about and enjoy this rapidly disappearing landscape.



Blazing Star



Bobcat



Prairie Kingsnake



White-tailed Kite



Black Cholla

### THE PROPAGATION PROCESS

Native grasses and wildflowers are collected from sites in Harris County where they will soon be destroyed by development or otherwise lost. Plants are rescued and brought to ABNC where they are divided and transplanted into pots. Seeds are collected from the few local sites where they are still plentiful. These are processed, potted and cared for in the nursery. After growing in pots for several months, these materials are ready to be transplanted into the ABNC prairies.



Seed Collection



Digging prairie plants



Repotting plants and seedlings



Potted Indian Grass swaths transplanting



Prairie Pandemonium volunteers work to restore a degraded prairie



Youth groups and other volunteers have installed thousands of plants into the ABNC prairies

### VOLUNTEER PLANTING EVENTS

During our Prairie Pandemonium event, volunteers transplant over 2,000 potted grasses and wildflowers in a single morning. Smaller volunteer events throughout the year install thousands of additional plants. Each year over 10,000 plants are transplanted into our prairies. Survival of these vigorous potted plants is very high and they soon grow into mature plants, which can reproduce and help bring back the living diversity of the prairies.



Interested in helping? Please stop by the booth desk or visit [www.abnc.org](http://www.abnc.org)

## MARSH PLANT PROPAGATION

This is Armand Bayou Nature Center's Native Aquatic Plant Nursery where staff and volunteers grow local plant species for use in restoration projects in Armand and Horsepen Bayous.

### Why Are Marshes Important To Us All?

Due to subsidence (sinking of the land), over 90% of the marshes in the Armand Bayou watershed have been lost. This has decreased the biological diversity in the bayou. Armand and Horsepen Bayous are marine nurseries where many important species of fish and shellfish spend the first few months of their lives. In fact, over 90% of the local seafood we enjoy utilizes the marshlands in this way. This important group of creatures cannot survive without these marsh habitats. Marshes also provide important living areas for many reptiles, crustaceans and birds. In addition, marsh grasses help protect the shorelines from wave erosion, aid in water purification and provide flood mitigation.



American Alligator



Blue Crab



Least Bittern



Bulrush basket marsh 2 years after planting



Bulrush basket marsh 4 years after planting

### Propagation and Planting

Native aquatic plants are collected from wild sites and grown in the ABNC nursery until they are large enough to plant in the marshes. Staff and volunteers, along with concerned community groups, have worked on this continuing restoration process. Since 1995, over 17 acres of marsh have been restored in Armand Bayou and its tributary, Horsepen Bayou.



Volunteers plant smooth cordgrass



Bulrush matures in nursery ponds



Bulrush basket construction



Deploying a bulrush basket

### Bulrush Baskets

One innovative technique developed at ABNC for restoration is the "bulrush basket." A bulrush plant is removed from its pot and its roots are covered with fabric to protect them. The root ball is then wrapped in woven wire with pieces of concrete added for ballast. The resulting basket is dropped into the bayou where it can take root and grow. These baskets have a high survival rate and make planting a faster and cleaner task.

Interested in helping? Please stop by the front office or visit [www.abnc.org](http://www.abnc.org)









