

## Waterfowl Rest Area Program (WRAP) Population Monitoring

### Relationship to Gulf Coast Joint Venture (GCJV) Habitat Conservation:

**Priority Species:** Northern pintail (*Anas acuta*)

**Planning Objective:** To provide disturbance-free sanctuary for northern pintails from November to February at strategically selected sites in rice-producing regions of southwest Louisiana.

**Type of Monitoring:** Population/Vital Rate

**Monitoring Metric:** Number of northern pintails observed on paid-flooded acres during November - February on enrolled WRAP sites

**Monitoring Objective:** Estimate diurnal abundance of northern pintails on paid-flooded acres of enrolled WRAP sites from November to February. The WRAP Steering Committee uses this information to help determine performance of enrolled sites.

**Brief Methodology:** Aerial surveys of waterfowl abundance on enrolled WRAP sites are conducted 2–3 times per month, November – December (Figure 1). Surveys are conducted from fixed-wing

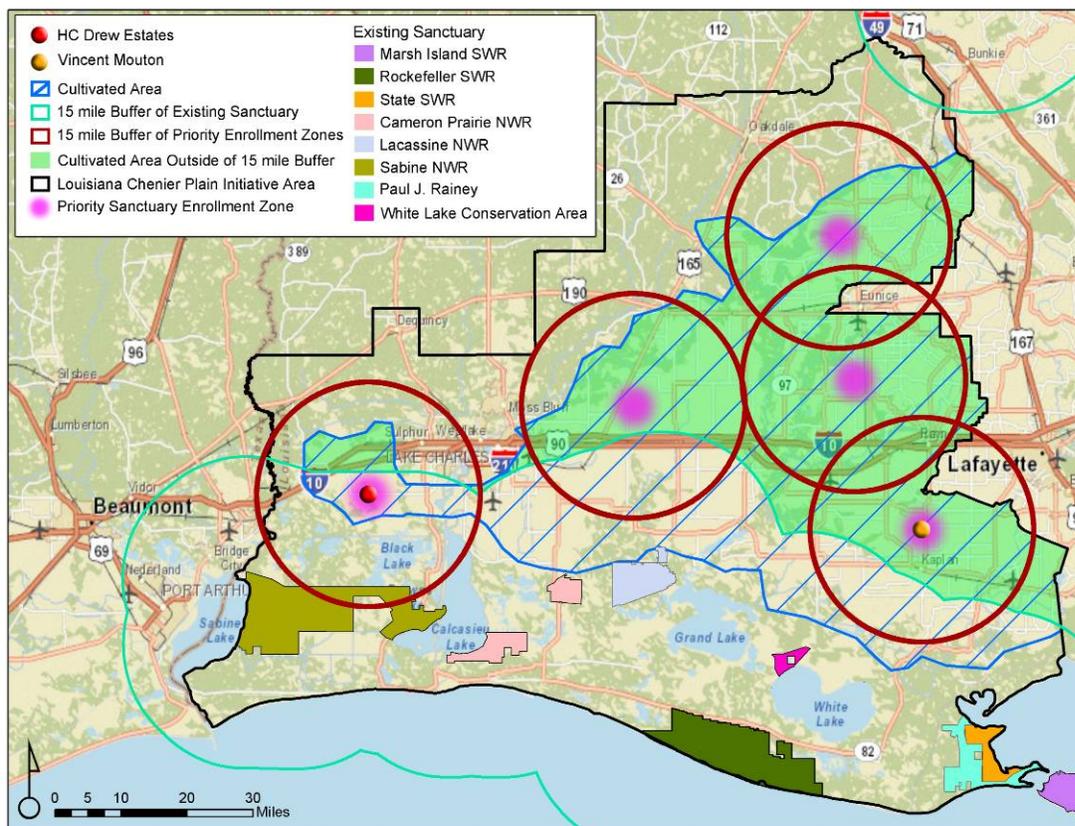


Figure 1. Spatial distribution of priority enrollment zones (pink dots) for the Waterfowl Rest Area Program and locations of sites enrolled during 2011-12 ( $n = 2$ ; red and orange dots).

aircraft at an altitude of approximately 38 m (125 ft) and speed of 161 kmph (100 mph). Efforts are made to conduct surveys at evenly spaced time intervals during each month. Pintail counts on WRAP sites are used as a key metric for determining programmatic and site-specific performance.

**Timing and Frequency:**

**Data Collection:** Aerial surveys are conducted annually during November, December, and January.

**Data Analysis:** Data analysis is conducted annually during February.

**Report Development:** Data, report, tables, and graphs for GCJV use are updated annually by early March.

**Detailed Methodology:**

Aerial surveys to ascertain diurnal waterfowl use on enrolled WRAP sites are conducted 2 to 3 times per month during November, December, and January. Supplemental surveys (1-2 annually) may be flown when resources permit. Surveys are conducted by a combination of personnel from Louisiana Department of Wildlife and Fisheries (LDWF) and the U.S. Fish and Wildlife Service. Surveys are conducted from fixed-wing aircraft at an altitude of approximately 38 m (125 ft) and speed of 161 kmph (100 mph). Efforts are made to conduct surveys at evenly spaced time intervals during each month. The number of ducks, by species, and their location within enrolled tracts (i.e., whether observed on the paid-flooded or buffer areas) are recorded for each WRAP site. Also, general habitat conditions and evidence of habitat manipulations (e.g., rolled, lightly disced, or roller-chopped) are noted by survey personnel. Pintail counts on WRAP sites are the key metric for determining programmatic and site-specific performance. Quantitative criteria for programmatic and site-specific evaluations, against which monitoring data will be compared, will be developed in consultation with the GCJV Waterfowl Working Group.

**Data and Report Archival**

Y:\Monitor

- Contains a readme.doc file that describes directories and the files within them.

Y:\Monitor\WRAP\Population

- Contains compiled data (Excel spreadsheets), reports and tables (Word documents), and graphs relating to WRAP population monitoring (i.e., northern pintail diurnal abundance).

**Monitoring Related Issues to Consider:**

None