

## 2012 Priorities regarding the American White Pelican and a multi-species waterbird colony at Chase Lake National Wildlife Refuge



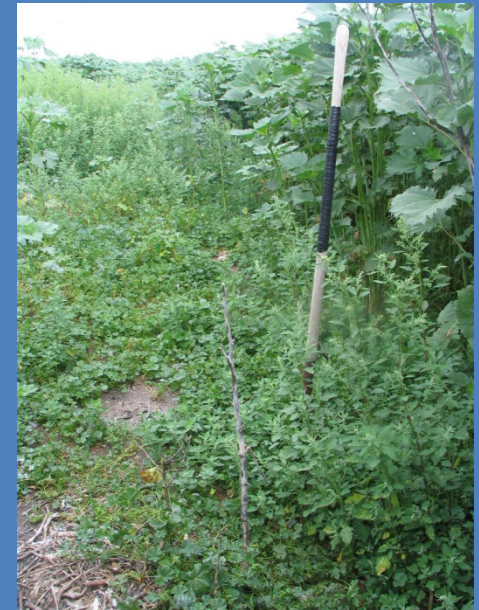
## Priorities

- Monitoring and population estimate of the American White Pelican (AWPE)
  - Develop, assess, and evaluate the accuracy of an automated, pixel-based mapping method to estimate populations of American White Pelicans, Double-crested Cormorants, and gulls at Chase Lake NWR
  - Document and monitor population dynamics of the AWPE, i.e., hatch and crèches dates, crèche sizes and locations, health of the colony, and mortality events due to predation, disease and weather
  - Manually count pelican nests under trees (not visible to aerial survey)
- Develop, assess, and evaluate a protocol to monitor herons, egrets, and gulls at Chase Lake NWR
  - Breeding season perimeter counts of heron, egret and gull species
  - Post-breeding nest counts for herons and egrets
- Evaluate powerline strikes and mortalities of pelicans and other waterbirds near the south perimeter of Chase Lake
- Enhance the USFWS's capability to detect disease events and monitoring colonial waterbirds at Chase Lake NWR
- Other
  - Plan for 1-2 days of banding AWPE chicks at Chase Lake
  - Schedule 2 aerial surveys
    - *Nest count* the end of May beginning of June
    - *Chick count* pre-banding
  - Re-sight color bands on pelicans
  - Plan a prescribed burn of the peninsula once the birds have dispersed



# Monitoring and population estimate of the American White Pelican (AWPE)

- Develop, assess, and evaluate the accuracy of an automated, pixel-based mapping method to estimate populations of American White Pelicans, Double-crested Cormorants, and gulls at Chase Lake NWR
- Document the spring arrival and phenology of the AWPE
- Document and monitor the population dynamics of the AWPE...
  - Hatch and crèches dates
  - Crèche sizes and locations
  - Overall health of the colony
  - Mortality events due to predation, disease, and weather
  - Effects of vegetation on crèched chicks
  - Plan for 1-2 days of banding AWPE chicks at Chase Lake
- Schedule 2 aerial surveys
  - *Nest count* at the end of May beginning of June
  - *Chick count* pre-banding
- Count pelican nests under trees (not visible to an aerial survey)
- Re-sight color bands on pelicans when the opportunity presents itself
- Plan a prescribed burn of the peninsula once the birds have dispersed





## Develop, assess, and evaluate protocols to monitor herons, egrets, and gulls at Chase Lake

- Develop, assess, and evaluate the accuracy of the perimeter-count method and a post-breeding survey of nests to estimate populations of herons & egrets (by species) during the breeding season
- Develop, assess, and evaluate the accuracy of the perimeter-count method and an automated, pixel-based mapping method to estimate populations of gulls (by species) during the breeding season





# Evaluate powerline strikes and mortalities of pelicans and other waterbirds near the south perimeter of Chase Lake



- Frequency and timing of carcass searches and monitoring during breeding season
- Evaluate carcass decomposition rate and predator scavenging rate
- Evaluate search efficiency
- Pre- and post-assessment of marking devices to increase powerline wire visibility





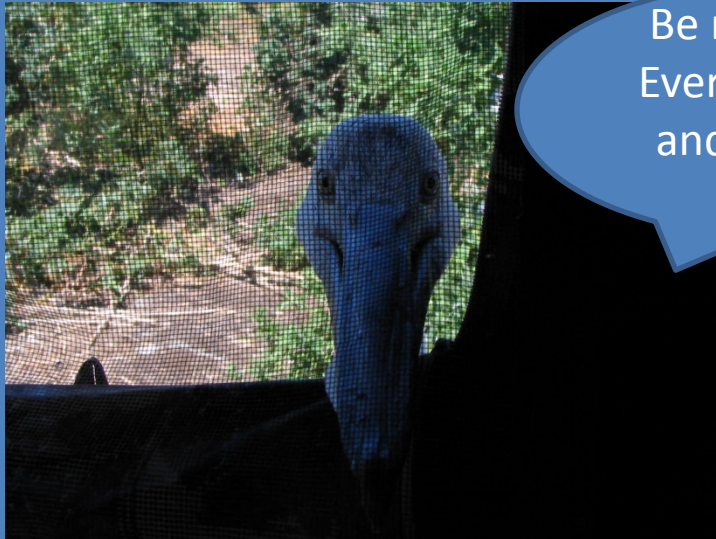
## Enhance the USFWS capability for detecting disease events and monitoring colonial waterbirds at Chase Lake

- Frequency and timing of collecting sick, moribund, and dead birds
- Species of interest (e.g., pelicans, cormorants, herons & egrets, gulls, etc.)
- Number of specimens to be collected
- Protocols for specimen submission (e.g., timing, preparation, carcass condition, etc.)
- Other protocol (e.g., blood draws, etc.)



# Field Equipment

- 1 boat, 1 motor
    - Personal Flotation Devices
    - Rope, anchor, kit for fixing the motor (including an extra plug and chord for the motor)
    - Gas can
  - Tyvek, tecnu, rubber gloves, masks
  - Banding equipment
    - Pliers, glue, bands, personnel
  - Vehicle + Gas
  - 1 seasonal technician to implement the power line study, in addition to support from Chase Lake NWR
- ❖ Items underlined are needed. Items not underlined are already available through either USGS Northern Prairie Wildlife Research Center or USFWS Chase Lake National Wildlife Refuge



Be nice to me.  
Everyone stinks  
and everyone  
pukes!