



Brackenridge Park Migratory Birds

Brackenridge Park is home to an annual migratory bird rookery. Over the course of the last five years, San Antonio Parks and Recreation has maintained ongoing efforts to help reduce impacts caused by the large colonies of migratory birds at the park. The City of San Antonio has hired the U.S. Department of Agriculture (USDA) and are coordinating with the Texas Parks and Wildlife Department (TPWD) and U.S. Fish and Wildlife Service to facilitate necessary habitat modification and deterrent techniques. The rookery falls within the 2017-2022 Bond Project area and work would not be allowed to start while birds are nesting over the project site.

What is the impact of these birds to the park?

There are several impacts to the park including:

- **Expanding Rookeries:** Rookeries are large colonies of breeding birds. The egret populations and rookery locations have increased and expanded to different areas of the park to include Lambert Beach, Joske Pavilion, Brackenridge Park Conservancy Office and playground area. These amenities become nearly unusable for 10 months of the year due to the bird density / habitat.
- **Water & Air Quality:** High concentrations of bird fecal bacteria is affecting the water quality of the San Antonio River, the bird rookeries are significant contributors to that pollution. Bird feces may also carry diseases that cause respiratory problems in humans.
- **Inaccessible Amenities:** The bird's feces cause damage to park amenities including picnic tables, playground equipment and sidewalks. These amenities are either removed or closed to the public.

What types of birds are causing these impacts?

Multiple species nest in this area of Brackenridge Park including cattle egrets, double-crested cormorants, snowy egrets, great egrets, and Yellow-crowned night-herons, among other species. Species creating the largest issues are the cattle and snowy egrets.

What feedback has the City received about the birds?

Numerous complaints from the public have been submitted to the City and the Brackenridge Park Conservancy. Received complaints include the smell of the area; the amount of feces on amenities such as playground, picnic pads, walkways and roads; and the inability to use these amenities during migratory bird season.

What are the impacts of the birds to water quality?

The San Antonio River Authority has measured elevated levels of E. coli detected in this area of the San Antonio River due in part to the high population of birds. Egrets have been linked to psittacosis-ornithosis agents in Texas populations which is a concern for human health, along with Histoplasma capsulatum fungus which can occur in fecal waste, especially around rivers and water systems. Breathing problems can occur from these avian diseases in addition to the uric acid produced by bird feces. The National Wildlife Research Center that is part of USDA Animal and Plant Health Inspection Service provides the latest research in wildlife conflict with human health. Fecal remains from the birds have the potential to increase the nitrogen in the water, which could kill off aquatic life.

Are the *E.coli*/fecal remains from other animals and not birds?

Over the last eight years, the San Antonio River Authority has conducted bacterial source tracking (BST) throughout the basin. BST allows the identification of the source organism of bacteria in the wild by comparing the genetic makeup of sampled E. coli to known E. coli information. The largest contributors to E. coli contamination have been non-avian and avian wildlife, with those two classifications making up around 50-60% of the total, while human and domesticated animals tend to only make up 5-8% of the sampled isolates.

What impact will habitat modification and deterrent activities have on the birds?

Birds will naturally locate elsewhere to other habitats where these activities are not occurring. Through the use of humane and non-lethal dispersal methods it is anticipated the birds will identify other suitable location for their nesting season. As a result, it is anticipated a different rookery/roost site will alleviate bird overpopulation in the park, water quality issues in the San Antonio River will improve, potential health issues for the community will be mitigated, and public use of park amenities in the project area will increase.

Phase I: Habitat Modification

The USDA will identify habitat modification activities. The initial phase of the project includes modifying and beginning restoration of the habitat at Brackenridge Park. Habitat modification entails clearing the underbrush, clearing dead trees due to bird occupancy, and trimming trees to open up the canopy, which will reduce nesting habitat and discourage birds from roosting at this location. The USDA has worked with the City Forester to develop a plan that preserves the trees while ensuring the health of the habitat at Brackenridge Park. This project will be conducted outside of the breeding season to ensure the safety of the birds and abide by state and federal wildlife laws.

Phase II: Deterrent Techniques

The second phase of the project should discourage birds from roosting by persuading them to roost elsewhere. The methods used to disperse birds may include: pyrotechnics, lasers, spotlights, distress calls, effigies, mylar balloons and drones. According to the Texas Parks and Wildlife Department, the best way to prevent the establishment of a rookery is through early detection. If detected early when the birds first move in, they can be encouraged to relocate with various dispersal methods.

Are the proposed dispersal methods legal and have they been used before in San Antonio?

Yes, dispersal methods are legal and have recently been utilized. Egret nesting in Elmendorf Lake Park was determined to create an elevated risk of potential bird strikes to airplanes operating out of Kelly Field. The project effectively and humanely relocated the large population of egrets out of Elmendorf Lake Park and Woodlawn Lake Park, that significantly lowered the risk of bird strikes and Kelly Field, to an area on the southwest side of the city. Birds were able to nest in that area without posing any flight risk or other conflict. The island in Elmendorf Lake Park has seen the trees rebounding in health while we continue to work with the groundcover because of the concentration of feces. The park also is now home to a greater variety of bird species in the park since this project was completed.

Who was involved with determining the current solution?

To develop the solution, lead agencies relied on data and information from top experts including: U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS) wildlife biologists, Texas Parks and Wildlife biologists, United States Fish and Wildlife Service and the San Antonio River Authority. The City has contracted with the USDA APHIS Wildlife Services to resolve this wildlife human conflict. The current solution being offered for Brackenridge Park comes from years of experience, research, extensive field work and follows regulations placed on wildlife from local, state and federal agencies.

Where do you think the birds will go once they are scared off?

The USDA plans to monitor the movement of these birds. Based on prior egret rookery and roost relocation projects, it is anticipated that many of these birds will move as a group. Initially the birds will search out a location that affords them adequate and suitable roosting habitat. If the chosen location is agreeable from a flight safety and public health standpoint, there won't be an effort to move the birds. If flight safety and public health issues remain, the birds will be encouraged to move on. It is also possible the birds will disperse into smaller flocks across numerous locations. Bird movement will be monitored to ensure the concerns of flight safety and potential health hazards to the community are adequately addressed.

How will these efforts affect the park and river environment, including other types of wildlife?

The park and river environment will improve with the reduced population of birds. Not only is the increased fecal matter detrimental to water quality and other aquatic life, it can be detrimental to other birds in the area. Diseases are typically spread through fecal matter. The effects of so many birds building nests and depositing feces have been burdensome to the vegetation and other birds using the same habitat. The City, USDA Wildlife Service, San Antonio River Authority and Texas Parks and Wildlife are continuously monitoring the habitat and overall health of the river. Bird dispersal will likely cause positive effects on wildlife and natural habitat in the area due to the negative effects of large populations being minimized.

Are trees being removed to reduce the bird habitat in the park?

No. Tree removals are for the purpose of site preparations to accommodate the Brackenridge Park 2017 Bond Project construction. The scope of the project is directly aligned with the Council adopted park master plan reflective of the publicly supported strategies listed below:

- Restore natural park features and improve water quality;
- Restore, preserve, and articulate park cultural and historical features; and
- Increase visibility and pedestrian access to and within the park.

Specifically, the bond project will focus on restoring river walls from the 1900's; stabilize the pump house from the 1870's; and rehabilitate the historic acequia and the 1776 Upper Labor diversion dam.

How are these efforts aligned with the Bird City, Texas program?

The program recognizes the need for wildlife management in cases that create understood conflicts that relate to health, safety, property damage, etc. Humane and non-lethal dispersal methods are recommended.