

# Metro Regional Parks and Greenspaces

## **AVIAN WADER & WATERFOWL MONITORING PROTOCOL**

*- Assessing and tracking wetlands habitat quality and restoration effectiveness using waterfowl and wading birds as a bio-indicators*

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### **BASICS:**

Survey a targeted wetland for waders (herons, egrets and cranes) and waterfowl (ducks, geese and grebes) from fixed stations located adjacent to the target wetland.

### **TARGET HABITATS:**

Emergent wetlands, Shrublands and open ponds

### **METHODS:**

*Note: Protocol 1 & 2 are likely already done by Metro*

- 1.) Identify target wetland boundaries, considering the following:
  - Habitat type
  - Management/Restoration activities
- 2.) Establish remote survey stations, considering the following criteria:
  - Identify as many stations as needed to collectively provide a view of the entire target wetland, or the greatest portion possible.
  - Locate each station far enough from the wetland so that surveys can be conducted without flushing target birds.
- 3.) Record the following data on provided data sheets:
  - Conditions:
    - Weather conditions during time of survey.
    - General degree of inundation of the target wetland (e.g., mostly dry, typically inundated, unusually high degree of flooding).
    - Presence of other people, predators or other factors that might substantially influence target bird populations.
  - Timing and frequency of surveys:
    - Conduct at least one count/month, preferably one count/week, beginning in October or when target sampling pond begins to fill, finishing by the end of June, or when wetlands dry up,
    - Conduct counts between the hours of sunrise and 3pm and make every effort to conduct counts at roughly the same time of day (e.g., late morning) each visit.

- Visit all points in one day.

Survey procedure and general considerations:

- Travel as quietly as possible between stations to avoid disturbing birds. Many herons and ducks flush when approached, so it is important to approach survey points as stealthily as possible.
- Begin counting immediately at each station as wetland birds are easily spooked. If possible, survey from a car or remote point using a spotting scope.
- Count all birds visible from each point and keep track of the area surveyed to avoid overlapping counts of the same area from different survey points.
- Make note of any birds hidden in vegetation (i.e.: rails, bitterns), if the species can be positively identified by call.
- Tally juveniles separately, especially chicks or other evidence of breeding activity on site.
- Record flush detections. These are usually disturbed or flushed as a person enters or leaves the wetlands observation point.
- Make sure to clearly label each species on your datasheet to avoid confusing similar species. If you are able, please record species using 4-digit common name species codes. If you are unsure of this notation, or of the code for a specific species, just write out the species name. The following address can be used to look up four-letter bird codes:  
<http://www.pwrc.usgs.gov/bbl/manual/sname.htm>