

Summer Lake Wildlife Area Breeding Shorebird and other Waterbird Survey

This report summarizes results of the annual Summer Lake Wildlife Area (SLWA) shorebird and other waterbird breeding season survey conducted on May 18 and 19, 2024.

A total of **4,842 birds** were counted, consisting of the following species groups:

2,266 shorebirds (19 species),

224 terns (2 species),

1,256 gulls (4 species),

398 grebes (4 species),

337 waders (5 species),

251 pelicans and cormorants (2 species),

110 cranes and rails (3 species).

Compared to 2023, total birds counted were down -12.3% (shorebirds up +90.7%, terns up +3.2%, gulls down -17.1%, grebes up +34.5%, waders down -84.8%, pelicans and cormorants down -65.3% and cranes and rails up +93.0%).

Fourteen (14) East Cascades Audubon Society (ECAS) volunteers and 2 SLWA employees participated in the survey. Volunteers reported 193 hours of service. Additionally, 30 hours were contributed for survey organization and preparation. Volunteer vehicle mileage to and from the event and during the survey totaled 2,760 miles.

Background and purpose – Following adoption of SLWA Management Plan in 2007, the survey was established in 2009 to monitor the distribution and habitat use of breeding shorebirds on SLWA.

In 2010, counts of other waterbirds (terns and gulls, grebes, waders, pelicans and cormorants, cranes and rails) were added to the survey.

Knowledge of abundance and distribution of breeding shorebirds and other waterbird species can provide insights into direction and effectiveness of habitat management actions for these species.

Shorebirds and other waterbirds are very adaptable and mobile in their utilization of favorable wetland habitat found on SLWA.

SLWA habitat conditions can vary, sometimes dramatically, due to wetland enhancement and management activities and yearly climatic conditions.

In addition, the habitat conditions of other wetlands in the region may attract breeding shorebirds and other waterbirds to and sometimes away from SLWA.

Traditional cruise surveys, driving along dikes and roads were not effective for adequate coverage of SLWA due to visibility constraints from vegetation obstruction and distance, as well as surveying large areas of potential habitat in a timely manner.

A comprehensive/simultaneous areawide survey of all habitat management units (HMUs) was developed.

East Cascades Audubon Society (ECAS) was contacted for support as a volunteer project because of the knowledge, skills, abilities, and interest of many members.

Initially, shorebirds were the focus of the survey and later expanded to include other waterbirds that had not been previously monitored and to take advantage of expertise and interest of ECAS volunteers.

Volunteers are assigned specific areas (usually a portion of or entire HMU) to survey. Some areas require hiking or wading through wetlands to distant or remote areas for effective coverage. Multiple observers are often needed for several of the larger HMUs.

Specific routes are sometimes difficult to assign because of varying water levels and changes to vegetation structure between years.

Capability, preparedness, and persistence of some volunteers is sometimes problematic for effective coverage of remote HMUs. Species found in each HMU are recorded on datasheets.

Ideally, the survey is conducted during the peak of the breeding season for the nine species of interest, typically occurring near the end of May or in early June. Weekends are preferred times to allow for better volunteer availability and participation.

Scheduling survey dates have been and continues to be difficult. Memorial Day weekend has been avoided due to the availability of volunteers. Another complicating factor has been other ECAS volunteer events in early June that conflicted with the survey.

The survey provides valuable information/monitoring of breeding shorebirds and other waterbird occurrences and use of SLWA's wetland habitats. In addition, HMU specific data collection allows for evaluation of wetland enhancement and management actions.

Discussion of 2024 survey – Mostly clear, calm to slight breeze with cool to warm temperature weather conditions were favorable for the survey.

Volunteer participation was similar to 2023 but less than previous years. Only a few observers were able or willing to hike into remote areas. Consequently, portions of several important HMU's were not surveyed well.

The recently enhanced Gold Dike Impoundment HMU (1,900 acres) stands out in this regard. Habitat management actions in summer 2021 and 2022 (controlled burning, drawdown and drying to consolidate and oxidize wetland soils and muck, grazing and shallow disking) reduced the density of tall emergent (broad-leaved cattail and hardstem bulrush) vegetation. These actions created very open conditions in some areas that resulted in new growth of annual, early

successional, and early emergence of many wetland plant species hosting an abundance of seeds and invertebrate populations. Regrowth of tall emergent plant growth has been prolific in portions of the HMU resulting in visual obstruction to observers viewing from dikes and levees or along shorelines. This 1.5-mile wide and 2.5-mile long HMU was surveyed from outer edges only, with many shorebird and other waterbird species utilizing, but not surveyed within the interior. Few surveyors covered remote areas found within the Alkaline Playa (3,571 acres), Lake and Lakeshore (1,600 acres) and South of Gold Dike (800 acres) HMU's.

Data recording for a few HMU's was not very precise due to a lack of volunteer familiarity with HMU boundaries.

Recommendations –

Overall, the survey remains very effective and successful because of volunteer participation and should continue.

It continues to provide valuable information to SLWA staff regarding habitat management effectiveness for many wetland-dependent bird species.

An increase in volunteer recruitment, especially for those willing to access remote and important waterbird use areas, is important to improve coverage and subsequent survey effectiveness.

This survey and volunteer effort provides information and documentation of habitat use by shorebirds and other waterbirds that is important to SLWA staff and available to the public.

May 31 and June 1 are proposed dates for the survey in 2025.