Appendix 13.F. Waterfowl Population Summary

Response to SJRWMD by Jamie Feddersen, Waterfowl Biologist, Florida Fish and Wildlife Conservation Commission

Current Waterfowl Use of St. Johns River and associated wetlands

The following assessment is based on personal observation and professional judgment of FWC staff (J. Feddersen, R. Bielefeld), and Midwinter Waterfowl Inventory data (see attached disclaimer) through 2003.

Quality waterfowl habitat along the Upper St. Johns River exists in scattered pockets along the entire length of the river from Blue Cypress Lake to Lake Woodruff. In general, waterfowl will use these pockets of habitat in small numbers, but only occur in large numbers on more sizeable areas.

Areas within the Blue Cypress Conservation Area provide habitat, but waterfowl use tends to be low. This may be due to disturbance by recreational boaters, fishing, and hunting pressure. This disturbance likely occurs along many areas of the St. Johns River.

TM Goodwin WMA is an intensively managed moist-soil wetland that produces quality wetland habitat for waterfowl and other wetland dependent wildlife. In the absence of active management, the area would not be as productive or beneficial. Access is controlled on this area which limits the amount and type of disturbance waterfowl may experience to only a few days each week.

The Mary A and Sartori blocks of the Three Forks Water Conservation Area have been productive and important most recently following a natural alteration of the habitat caused by hurricane activity during 2004. However, in the absence of active management since that time, the habitat has degraded and waterfowl use has also declined.

The Moccasin Island tract of the River Lakes Conservation Area (east of Lake Winder) recently has provided excellent habitat for migrating and wintering waterfowl. Anecdotal reports indicate that waterfowl numbers are high in November but quickly decrease because of high hunting pressure and that waterfowl use of tertiary treatment ponds at the Viera Water Treatment Plant increase when waterfowl numbers decrease on Moccasin Island.

The marsh areas along the north side of Lake Jessup often hold large numbers of waterfowl in early November, but these numbers can also quickly decrease because of human disturbance.

Between Lake Jessup and Lake Woodruff there is limited waterfowl habitat, however Lake Woodruff provides excellent habitat in many years.

I have included a graph (Fig. 1) of estimated waterfowl numbers in the St. Johns River Basin (from Fort Drum to Lake Woodruff) during the annual Midwinter Inventory (FWC, unpublished data). This survey was normally conducted within the first two weeks of January; however, data after 2003 is not available because we no longer conduct this survey due to budget constraints. Although the Midwinter Inventory survey area is larger than the area surveyed by Sincock (he

only surveyed to Lake Harney), the ranges of duck numbers are comparable to those Sincock recorded within the first two weeks of January (MWI: 271 – 21,854, Sincock: 2,255 – 21,750).

Figure 1 also shows the estimated continental breeding duck population in thousands (U.S. Fish and Wildlife Service 2009). I included these numbers just to give an indication of the previous spring duck populations.

The Midwinter Inventory has been criticized because it lacks statistical rigor, survey techniques vary among states, survey personnel change often, and personnel experience varies greatly (Eggeman and Johnson 1989). Therefore, you must exercise caution when drawing inferences about population trends using this data (see disclaimer). Additionally, you need to keep in mind the Midwinter Inventory data are a snapshot in time. Lots of factors affect where ducks will be at any given point in time. The survey numbers could easily go up or down markedly within a few days of when the survey was conducted due to weather events, disturbance, etc., but they are our only data. Please be very cautious in how you interpret these data, they may not be applicable as a direct index to habitat quality or use.

Midwinter Waterfowl Inventory Disclaimer

The winter population data comes from the annual Midwinter Waterfowl Inventory (MWI). The MWI is an aerial survey designed to determine numbers and distribution of waterfowl on traditional areas of concentration. The survey is flown each year during one week in early January. When using these data, please be aware of several shortcomings and limitations. The MWI is a statewide survey of concentration areas only, and does not provide estimates of the entire wintering duck population. Birds using smaller or less conspicuous and discrete wetlands are not counted. For a number of reasons, changes in the MWI counts may not reflect real year-to-year changes in actual population size. We believe that changes in habitat conditions, bird distribution, personnel, and survey efforts are among the sources contributing to temporal variation in these data (Eggeman and Johnson, 1989). Because of the lack of replication and representative sampling, no statistical measures of reliability are available for data from the MWI.

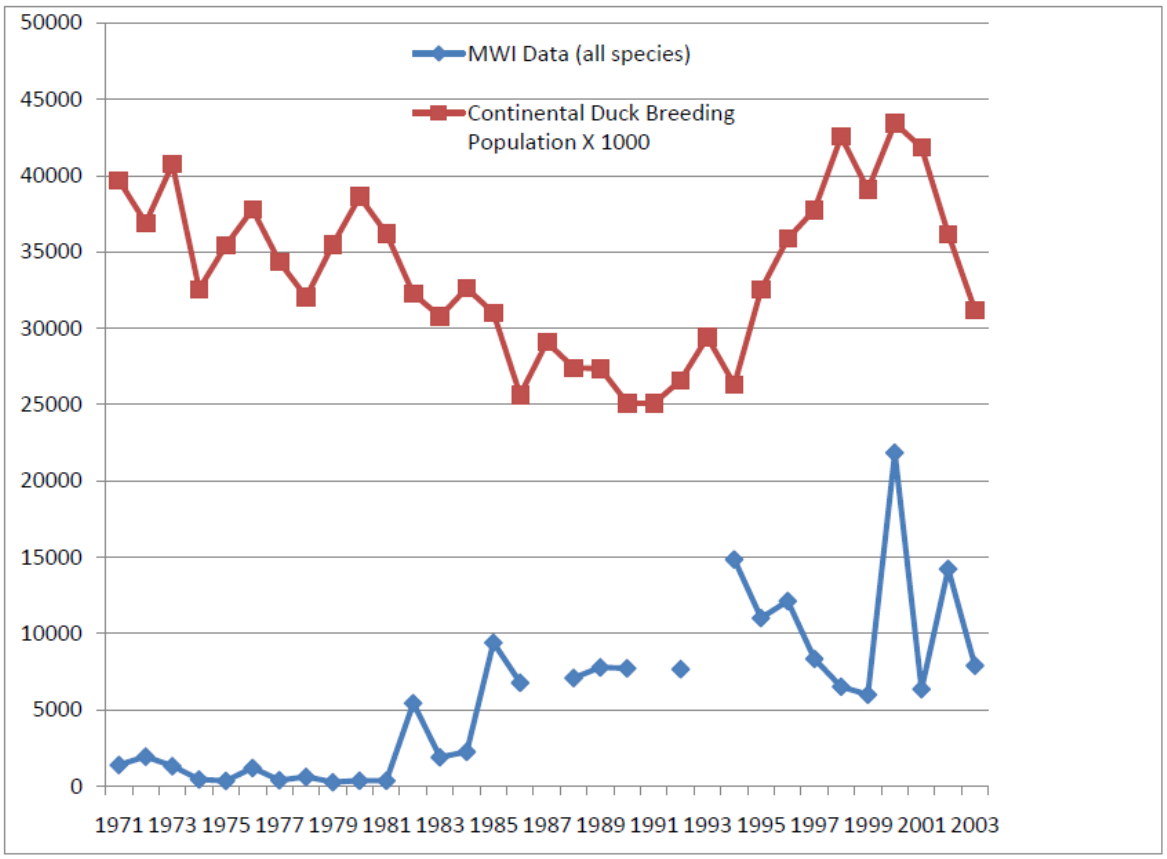

Figure 1. Continental duck populations (USFWS 2009) and Upper St. Johns River Midwinter Inventory (MWI, FWC unpublished data) between 1971-2003. Data not available for MWI in 1987, 1991, 1993.

Literature Cited

Eggeman, D. R. and F. A. Johnson. 1989. Variation in effort and methodology for the midwinter waterfowl inventory in the Atlantic Flyway. Wildlife Society Bulletin 17:227-233.

Sincock, J. L. 1958. Waterfowl ecology in the St. Johns River Valley as related to the proposed conservation areas and changes in hydrology from Lake Harney to Ft. Pierce, Florida. Federal Aid Project W-19-R. Tallahassee, Florida. Florida Game and Fresh Water Fish Commission.

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