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UNITED STATES GOVERNMENT

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# memorandum

DATE: 24 March 1990

REPLY TO  
ATTN OF: Ruth Shea

SUBJECT: 1989-90 winter RMP trumpeter swan observations and projections for 1990-91

TO: Dan Gomez

Dan: Mike Fisher and I will present a more detailed memo to RMP managers ASAP, however I want to make you aware of recent developments at the Harriman State Park winter habitat (HSP) and the implications. This past winter (1989-90) has been milder than average, thus enabling us to maintain predominately ice-free habitat at HSP with relatively low water releases (approx. 300 cfs during most of Dec. through Feb.). We thus had the maximum acres of aquatic food sources available to wintering trumpeters throughout the winter, and the birds were subjected to much less stressful weather conditions and energetic demands than in normal or worse winters.

Usually in mild winters such as 1989-90, RMP trumpeters disperse relatively widely throughout the Tristate area, making use of numerous sites that are ice-covered in average or worse winters. This winter, however, despite the mild conditions, record numbers of trumpeters congregated at Harriman. For years we have known that "someday" in theory, as wintering numbers continued to increase, the swans would exceed the carrying capacity of HSP. We didn't know what the carrying capacity was, but that question received less attention as we struggled to keep the river ice-free and make whatever vegetation therewas available to the swans. In 1989-90 we learned that the wintering birds have reached and exceeded the river's carrying capacity. Swans left the Henry's Fork in mid-March, moving en masse to RRLNWR and to newly opened areas on Golden and Silver lakes at HSP. We floated the HSP river habitat on 3/21 and found the entire river virtually devoid of vegetation. Only small amounts of aquatic plants remained in three locations where high lev els of human use correspond to relatively less use by wintering swans.

Three key observations this winter are cause for concern. These are:

- 1) Record high swan use at HSP during weather conditions that usually result in dispersal of wintering swans;
- 2) Virtually total utilization of all aquatic vegetation in the river even with maximum feeding acres available;
- 3) mass movement of swans from HSP to RRLNWR when food ran out, resulting in 45% of the RMP congregated at the Refuge feeding ponds by 3/16.

This winter's events lead me to conclude that:

- 1) Even if we obtain an agreement that provides adequate water and keeps the HSP habitat ice-free, the swans will eat out the available food by mid-March in mild winters and sooner in average or unusually severe winters.
- 2) When the swans exhaust the vegetation at HSP they will moveto RRLNWR if they are strong enough and weather conditions permit.
- 3) The Refuge's feeding capacity will likely be surpassed and the vulnerability of the RMP will be extreme as anywhere from 1/3 to more than 1/2 the population congregates on McDonald and Culver Ponds.

Carl Mitchell and I have attached some simple projections of anticipated swan numbers, distribution and consequences for 1990-91.

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