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REPORT OF USDA-APHIS-ANIMAL DAMAGE CONTROL ACTIVITIES
FOR THE U.S. ARMY AT EAGLE RIVER FLATS

BY

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During September and October of 1992 under Agreement #12-34-73-2158 USDA-APHIS-Animal Damage Control began an effort to keep migratory waterfowl from being poisoned by white phosphorous in the U. S. Army's Eagle River Flats Impact Area at Ft. Richardson near Anchorage, Alaska. The work involved the use of a variety of hazing methods over discrete, limited areas within Eagle River Flats, with other less contaminated areas remaining as undisturbed sanctuaries.

Operations Areas

Areas "A", "B", "C", and "D" are commonly referred to by those who work in Eagle River Flats, but these areas are poorly defined (Fig. 1). The areas that we attempted to keep clear of waterfowl fell within "A", "C", and "D". One contiguous area extended in a band from the EOD pad and Canoe Point through the "C" ponds on north to the Bread Truck Pond and the Bread Truck itself. Within a radius of approximately 100 yards of these landmarks and ponds, strenuous efforts were made to prevent waterfowl from feeding and loafing during daylight hours. In area "A", equipment was placed and intermittently serviced in a narrow arc that extended from north of the observation tower to the tanker truck. Restricted access and personnel greatly limited the effort in "A".

Methods

Several standard hazing methods were used. Up to 11 propane cannons were strategically located around the water areas within the marsh, with efforts made to vary their intervals and collocate them with visual scare devices like scarecrows and mylar tape. Scarecrows were of the traditional clothed-frame design and also the mechanized "scary-man", an inflatable plastic blower unit powered by battery. Mylar tape was strung in difficult to reach areas that appeared attractive to ducks.

To augment these static devices, one or more persons armed with 15mm pyrotechnics, a shotgun and shell crackers, and 16 or 20 inch skyrockets walked or canoed through the marsh servicing the static devices and scaring birds away that were already in the areas of concern or frightening them as they attempted to land. A minimum estimate of 3 miles per day were walked and 1/2 mile canoed in the marsh, although the real amount was probably closer to double that. Work was concentrated in the morning and evening hours. A bird was considered successfully hazed if it responded to our stimuli and left the immediate area for another part of the marsh. We recorded all mortalities that we found, and assumed that the deaths were due to white phosphorous.

Results

Between September 3, 1992 and October 15, 1992 a total of 14,761 waterfowl, including 9,711 ducks, 2,998 Canada geese, and 1,952 swans (Tundra and Trumpeter) were hazed at Eagle River Flats. An average of 10.4 staff hours per day were expended over the 43 consecutive days of hazing. During that period 50 birds were found dead, presumably of white phosphorous poisoning. Of these, approximately half were found on and around the Bread Truck Pond, and approximately half were Green-winged teal. Mortality seemed evenly distributed throughout the period, except that increases appeared as freeze-

out conditions approached. See the 4-table Appendix for other hazing and mortality information.

Discussion

Several problems prevented greater effectiveness in hazing. Even without the late addition of area "A" to the operation, we found that only one person could not effectively keep equipment running and haze the area from the Bread Truck to the EOD pad. The key to keeping birds on the move and making passive devices like scarecrows more effective is an aggressive human presence. With the inclusion of "A" and uncertain boundaries in "C" and "D", our efforts were too dispersed in time and space to prevent the mortalities that occurred. Also, because of this and the difficult access to area "A", equipment was moved and adjusted much less frequently than desirable, thus diminishing its effectiveness. Despite these drawbacks it seems obvious that waterfowl learned to avoid the areas of intense hazing and concentrated their numbers in areas that were left persistently undisturbed. Overall, we feel that the work was effective, but we lacked the corroborating information from formal mortality transects and aerial surveys that might better help us evaluate our effectiveness and adjust our efforts.

Recommendations

- ADC staff should be increased to provide at least one person per area per day for every day that hazing is warranted.
- ADC should improve and vary the types of hazing devices used.
- Mortality transects should be run by ADC during operations, and all carcasses should be logged, identified, removed, and their locations flagged by a uniform, agreed upon system.

- Access to area "A" must be improved so that ADC can enter "A" unaccompanied by EOD on a daily basis, or at least when the 40-90 range is inactive.
- Access within areas "C" and the "C/D" transition could be improved by some realignment and stabilization of board walks.
- Durable, explicit field maps depicting the concise areas of operation for all employees of all projects in the marsh would be very helpful.
- Segregation of conflicting activities in the marsh may be necessary at times, but will reduce hazing effectiveness.
- Initial and periodic briefings on all activities should be given so that projects do not conflict. Better communications result in better work.
- It is as important, for hazing purposes, to know areas that are "safe" as well as areas that are contaminated. If safe, attractive areas can be defined, enhanced, and protected from disturbance from routine Ft. Richardson operations, hazing can be made more effective.
- Prompt feedback on aerial survey results would help us understand how hazing is affecting the distribution of waterfowl in the marsh, and possibly allow for redirection of efforts.

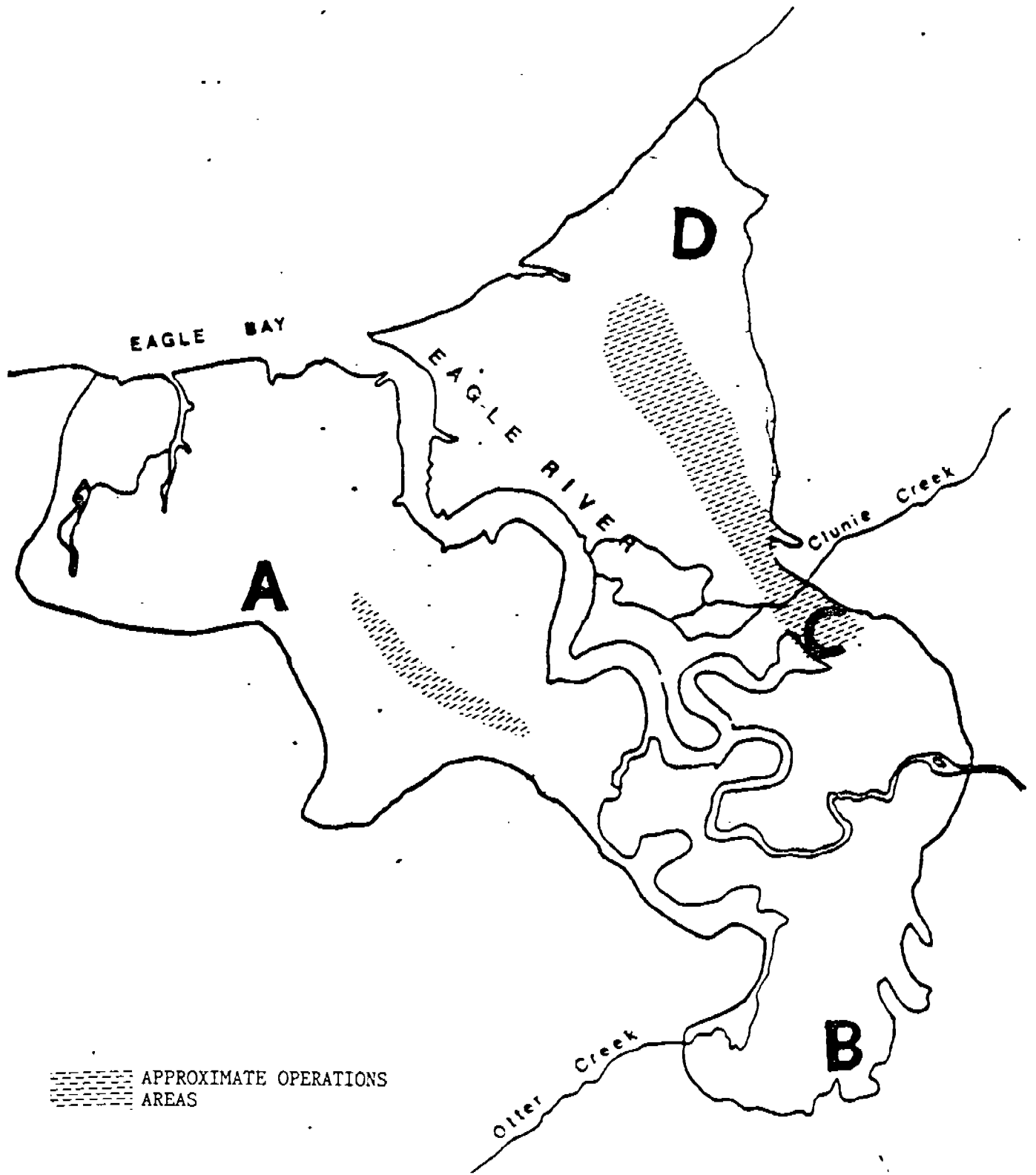
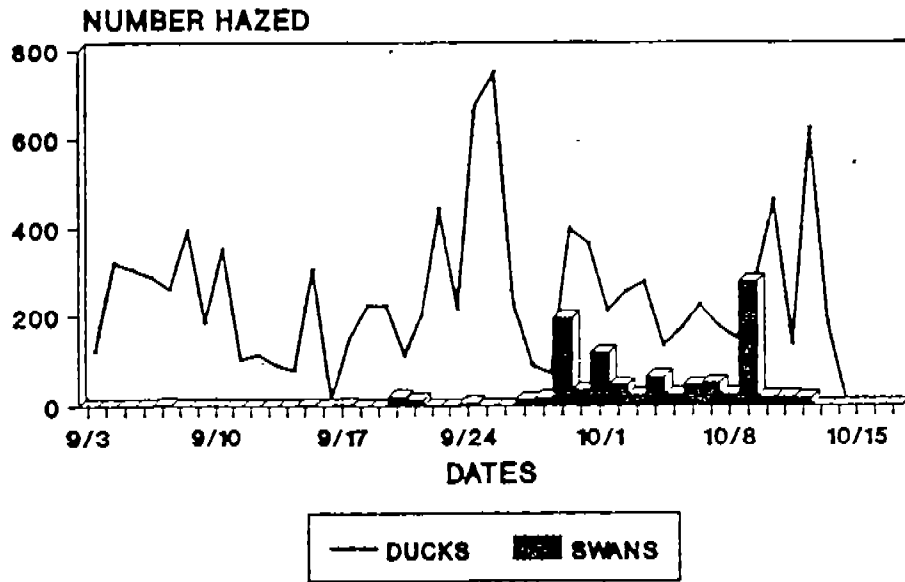


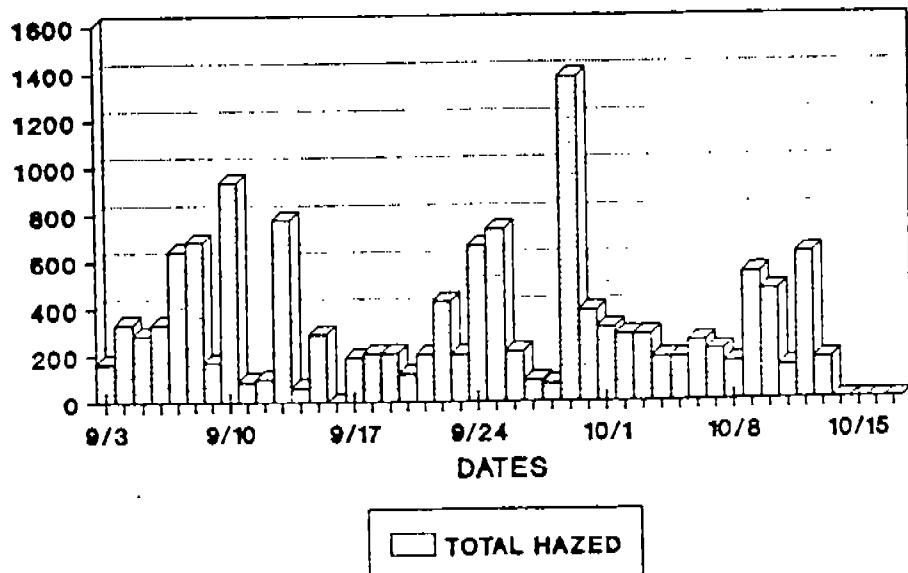
FIGURE 1. EAGLE RIVER FLATS

APPENDIX
EAGLE RIVER FLATS
HAZING PROJECT

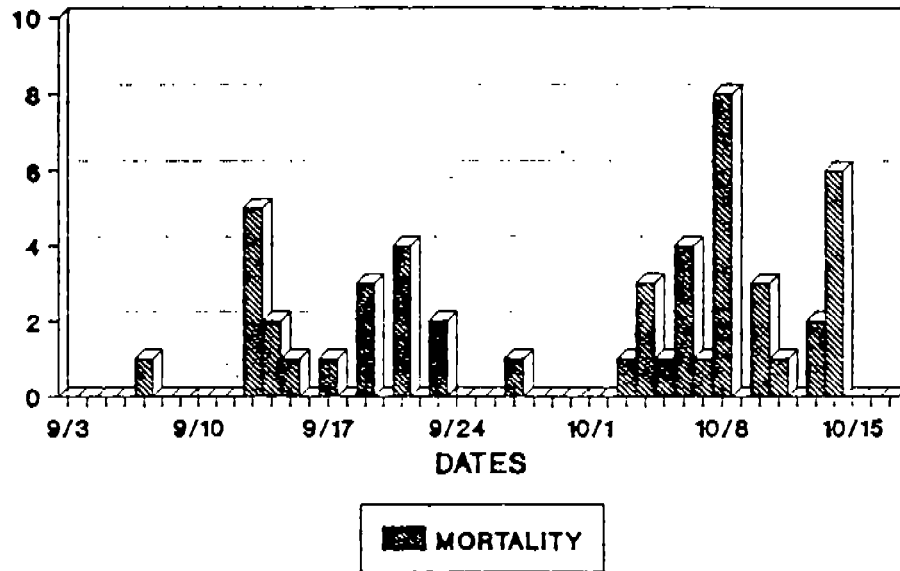
EAGLE RIVER FLATS HAZING RESULTS



EAGLE RIVER FLATS HAZING RESULTS



EAGLE RIVER FLATS MORTALITY RESULTS



EAGLE RIVER FLATS MORTALITY

