MANAGEMENT PLAN FOR MIDCONTINENT GREATER WHITE-FRONTED GEESE



Prepared for the:

Central Flyway Council
Mississippi Flyway Council
Pacific Flyway Council
Canadian Wildlife Service
United States Fish and Wildlife Service

July 1999 Revised July 2005

FINAL DRAFT

As Adopted by All Councils

FOREWORD

This plan was prepared by members of the White-fronted Goose Subcommittee of the Central Flyway Waterfowl Technical Committee, the Snow and White-fronted Goose Committee of the Mississippi Flyway Technical Section, and the Alaska Department of Fish and Game, with assistance from representatives of the Canadian Wildlife Service and U.S. Fish and Wildlife Service (see Participants section). Brian Sullivan, Texas Parks and Wildlife Department, was the primary author of the previous plan, which was approved in July of 1998. The current plan represents an update of the previous version.

Mid-continent greater white-fronted geese migrate through many jurisdictions in three nations, and are of great interest to many individuals and organizations. The Central, Mississippi, and Pacific Flyway Councils solicit the cooperation of all who are responsible for and interested in the management of the international resource these geese comprise. Inquiries or comments may be addressed to:

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INTRODUCTION

The purpose of this plan is to provide guidelines for management decisions affecting the Midcontinent Population of Greater White-fronted Geese (*Anser albifrons frontalis*) (MCWFG). These geese nest in arctic areas from Hudson Bay west to the interior (non-coastal) and North Slope regions of Alaska. Migration stopovers include areas in prairie Canada, the eastern Central Flyway, and the western Mississippi Flyway. The primary wintering areas are in the gulf coast marshes and prairies, the Mississippi River alluvial valley, and in Mexico (Fig. 1). Major recreational harvest areas include Louisiana and Texas, where over 50 percent of the harvest occurs, and Saskatchewan, Alberta and Arkansas. Additionally, subsistence harvest occurs in Alaska and the Northwest Territories.

This plan is an update of a plan that was completed in 1998. The 1998 plan replaced two plans written for western and eastern segments of MCWFG, adopted by the Central and Mississippi Flyway Councils in March 1982. In those plans, the basis for population delineation was legband recovery data for birds marked during the early and mid-1960s and population status was assessed from winter and spring surveys. A more extensive banding and marking program was conducted on breeding areas from 1987 through 1995. Information from this program indicated that mixing of birds from eastern and western breeding areas during the non-breeding period was common and that eastern and western segments were not sufficiently distinct to warrant separate management. Also, previous surveys (especially the spring survey) failed to produce reliable information for population assessment and a new fall survey was implemented in 1992. Although this plan treats MCWFG as a single population, special management options for identifiable and manageable segments or subunits within the population could be considered should they be recognized with new information.

GOAL

To maintain the MCWFG population at a level that will optimize harvest opportunities and other public benefits consistent with the welfare of the population, international treaties and habitat constraints.

OBJECTIVES

The number and distribution (spatial and temporal) of birds affects harvest opportunities and other public uses associated with the MCWFG population. Accordingly, objectives are presented under separate guidelines for population, distribution, and use.

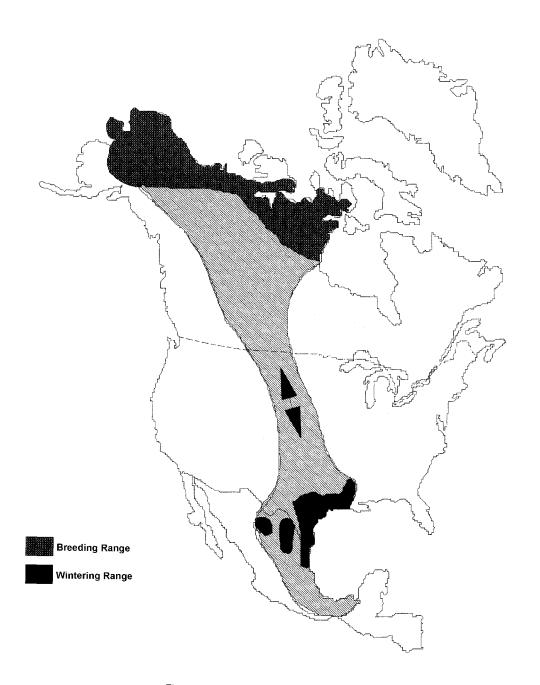


Figure 1. Range of mid-continent white-fronted geese

POPULATION GUIDELINES

<u>Objective A</u>: The population objective is 650,000 MCWFG. Assessment of population status in relation to the objective will be based on a 3-year running average of indices from the fall survey conducted annually in Prairie Canada.

<u>Rationale</u>: The 13-year average of 782,669, as measured during the fall survey, exceeds the population objective of 650,000, and annual counts have exceeded that level during 9 of 13 years that the survey has been conducted. However, recent surveys indicate a 51% decline in the population estimate from 1,067,600 during fall 2000 to 528,200 during fall 2003. The most recent survey of 644,300 (fall 2004) is 19 % below the 1992-2003 average. Currently, the 3-year average as of fall 2004 of 617,600 is near the population objective.

Use of 3-year running averages rather than single-year indices to measure status in relation to the objective is considered appropriate to reduce the effects of annual variation in indices and survey conditions.

<u>Strategy A-1</u>: Monitor the population via the fall survey (late September) in Saskatchewan and Alberta.

<u>Rationale</u>: Surveys of MCWFG are difficult or impossible except when the birds are relatively concentrated during fall migration in southwestern Saskatchewan and southeastern Alberta. Later during fall, winter, and spring, the population is more dispersed and intermingled with other goose species.

Responsibilities: The fall survey will be coordinated by the Canadian Wildlife Service, with assistance from provincial wildlife agencies, the U.S. Fish and Wildlife Service and the Central and Mississippi Flyway Councils. The U.S. Fish and Wildlife Service will provide 2 aircraft and pilots, and the Central and Mississippi Flyway Councils will provide 1 observer each, including travel expenses. Observer commitments should be considered long-term (5 or more years). If a change in observers is necessary, each Council will be responsible for expenses incurred in training a new observer for their respective flyway. Training would involve sending an "observer trainee", in addition to the regular observer for a period of one to three years. Ideally, any change in observers would be known for 3 years ahead of time for training a replacement. Consideration should be given to having two trained observers, in addition to those flying, in the event of unforeseen circumstances.

<u>Strategy A-2</u>: Monitor the status and trends of breeding birds by conducting surveys in select areas of the breeding range

- a. <u>Continue documentation of breeding white-fronted geese on the interior and northern</u> portions of the Alaska-Yukon Breeding Waterfowl Survey.
- b. <u>Continue documentation of breeding white-fronted geese on Alaska's North Slope during</u> the Aerial Breeding Pair Survey of the Arctic Coastal Plain.
- c. Increase sampling intensities for breeding pair surveys in interior and northwest Alaska.
- d. Conduct and evaluate pilot breeding population surveys in the central Arctic.

<u>Rationale</u>: Aerial breeding population surveys have been conducted over most of Alaska since 1957; surveys were initiated on the North Slope in 1986. Recently, surveys were initiated in the central Arctic to monitor the status of Arctic-nesting geese including MCWFG. Results of these ongoing and new surveys should be evaluated to determine if they accurately reflect the status of MCWFG in the primary portions of the breeding range. If so, these surveys could be used as an additional tool to detect regional differences, interpret results of the fall survey, and examine the feasibility of rangewide stratified population survey.

<u>Responsibilities</u>: U.S. Fish and Wildlife Service, Canadian Wildlife Service, and cooperators, including the Arctic Goose Joint Venture.

<u>Strategy A-3</u>: Continue operational banding of MCWFG and explore options for expanded banding across the breeding range in Canada and Alaska.

<u>Rationale</u>: Band recovery data provide consistent information to assess survival and harvest rates, temporal and geographic distribution of the harvest, and population size. Harvest management based only on population indices may become unreliable due to changing bird distribution. Banding data provide a means to assess the overall success of population management. Banded samples should be adequate to provide statistically valid results.

Annual updates of survival and recovery rates should be reported to the respective flyway technical sections at their winter meetings.

<u>Responsibilities</u>: CWS and USFWS with funding support from the Central and Mississippi Flyways and the Arctic Goose Joint Venture.

<u>Strategy A-4</u>: Monitor annual productivity of MCWFG by:

- a. Conducting field productivity appraisals during fall in Saskatchewan and Alberta.
- b. Monitoring age ratios in the harvest through parts-collection surveys as a component of annual harvest surveys in the U.S. and Canada.

<u>Rationale</u>: Productivity data provide valuable insights into population dynamics (see Information Needs sections) and aid in interpreting results from population and harvest surveys.

Direct assessments provide the best index to annual productivity, and unlike parts collection surveys, are free from biases caused by differential vulnerability of adult and immature birds to hunting. Field productivity appraisals (percent immatures and number of young per family) for MCWFG have been conducted since 1956, most recently in Texas and Louisiana during late October. However, productivity assessments should be conducted in Prairie Canada during September to reduce the bias that hunting mortality causes on the age structure of the population. Annual parts collection surveys provide useful information on the age composition of harvested birds, and provide an alternative index to annual production.

Responsibilities: U.S. Fish and Wildlife Service, Canadian Wildlife Service, and state and provincial agencies.

<u>Strategy A-5</u>: Encourage and participate in various waterfowl and habitat conservation programs and other programs that affect wildlife habitat (e.g., North American Waterfowl Management Plan, federal farm programs, etc.) to ensure habitats in adequate quantity and quality to achieve population objectives.

<u>Rationale</u>: MCWFG depend upon a wide array of key habitat types in three nations during their annual cycle. These habitats should be monitored, protected, restored, or enhanced as needed because human-induced and natural changes to these habitats will continue.

Responsibilities: All cooperating agencies and organizations.

<u>Strategy A-6</u>: Reduce non-hunting mortality and indirect hunting mortality by supporting:

- a. Nontoxic shot education and enforcement programs.
- b. Education efforts to reduce wounding mortality.
- c. Maintenance and implementation of disease contingency plans to minimize mortality during disease outbreaks.
- d. Research on disease.
- e. Monitoring and controlling of other man-caused non-hunting mortality sources.

Rationale: Mandatory use of nontoxic shot was required nationwide for waterfowl hunting in the U.S. in 1991 and Canada in 1999, but continued hunter education and enforcement is needed to ensure compliance. Currently, nontoxic shot is required in Mexico where a substantial portion of the harvest is attributed to non-residents, but enforcement efforts and availability of nontoxic shot are insufficient. Hunter education and skills development can substantially reduce wounding losses of waterfowl and can improve the efficiency of resource use. Diseases (especially avian cholera) are a significant source of mortality in some years. Disease should be reported and controlled as outlined in various disease contingency plans. Other forms

of non-hunting mortality also occur (e.g., power line collisions, wind farms, etc.) and should be documented and controlled as appropriate.

Responsibilities: All cooperating agencies and organizations.

DISTRIBUTION GUIDELINES

Objective B: Monitor the geographic and temporal distribution of MCWFG.

<u>Rationale</u>: It is recognized that future changes in distribution patterns are likely as a result of habitat changes or other factors that are outside the control of waterfowl managers.

Strategy B-1: Monitor the geographic and temporal distribution of MCWFG by:

- a. Monitoring MCWFG during coordinated surveys, including the annual fall survey in Canada (see strategy A-1), the mid-winter waterfowl survey in the U.S., periodic surveys in Mexico, and as needed during periodic regional and local surveys on breeding, migration, and wintering areas.
- b. Monitoring results of national, provincial, territorial, state, and other harvest surveys.
- c. Analyzing legband recoveries and neck collar re-sightings from marking programs.
- d. Conducting additional banding and marking should a specific need be identified.

<u>Rationale:</u> These programs generally are sufficient to detect major changes in distribution patterns of MCWFG in the U.S. and Canada. Increased band reporting rates and improved surveys in Mexico (see Information Needs sections) would increase the capability of detecting changes in distribution throughout the wintering range of MCWFG.

<u>Responsibilities</u>: All cooperating agencies. Technical Committees of the Central, Mississippi, and Pacific Flyway Councils and federal wildlife agencies will evaluate distributions and recommend appropriate corrective measures if undesirable changes occur. State agencies will conduct winter surveys in the U.S., in cooperation with the U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service will conduct winter surveys in Mexico at three-year intervals.

<u>Strategy B-2:</u> Adjust management programs when and where appropriate to maintain a desirable distribution of MCWFG.

<u>Rationale:</u> The distribution of MCWFG is dynamic but has been satisfactory over time. The ability to affect the overall distribution of MCWFG through management programs is limited, but there may be situations where management could effect a desirable distribution of MCWFG. For example, intense hunting on key staging or migration areas could negatively impact use of these areas by MCWFG. It is not the intent of this strategy to react to changes in distribution of

MCWFG due to landscape level changes in habitat or other factors not related to specific management programs.

Responsibilities: All cooperating agencies and organizations.

USE GUIDELINES

Objective C: Provide optimal harvest opportunities and other public uses consistent with population size, distribution objectives, habitat constraints, and international treaties.

<u>Rationale</u>: MCWFG are a valuable renewable natural resource and are highly prized as game birds and for viewing. Harvest opportunity and recreational use and enjoyment are important values and strong motivation for managing MCWFG at optimum levels. Maintaining the population at or above the objective level will permit these traditional uses as well as provide other non-consumptive recreational uses.

<u>Strategy C-1</u>: Annually develop and implement hunting regulations according to the following guidelines:

a. Use base regulations (or a set of regulations that would produce a similar harvest) when the 3-year running average of the population index is between 500,000 and 800,000. Base regulations are defined as season lengths and bag limits similar to those that occurred during 1990-1996 period. Under these regulations, recreational harvests in the U.S. and Canada averaged approximately $182,000 \pm 49,000$ (avg. ± 1 Std. Dev.). Restrictive regulations will be implemented if the most recent fall survey result is below 500,000. Restrictive regulations will remain in effect until the 3-year running average exceeds 600,000.

For purposes of these guidelines, base regulations are as follows:

East Tier Central Flyway* and Mississippi Flyway - 72 days and 2 white-fronts or 86 days and 1 white-front.

West Tier Central Flyway (except Texas west zone)*- 107 days and 5 white-fronts (in aggregate with dark geese).

Alaska - 107 days and 4 white-fronts

Texas West Goose Zone – 95 days and 1 white-front

Canada – 107 days and 4 white-fronts or equivalent (see paragraph e. below)

*The East Tier of the Central Flyway includes the states of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma and the eastern goose-hunting zone in Texas. The West Tier of the

Central Flyway includes Montana, Wyoming, Colorado, New Mexico and the western goose-hunting zone in Texas.

b. Implement restrictive regulations when a single year estimate falls below 500,000. Restrictive regulations will remain in effect until the three-year running average exceeds 600,000.

For purposes of these guidelines, restrictive regulations are as follows and are intended to result in an approximate 25% reduction in harvest from base regulations:

East Tier Central Flyway and Mississippi Flyway – 60 days and 2 white-fronts or 72 days and 1 white-front

West Tier Central Flyway (except Texas west zone) – 107 days and 3 white-fronts

Texas west zone – 95 days and 1 white front

Alaska – 107 days and 3 white-fronts.

Canada – 107 days and 2 white-fronts or equivalent (see paragraph e. below).

c. Permit the use of liberal regulations when the 3-year running average is above 800,000. Under these regulations, recreational harvests in the U.S. and Canada averaged approximately 292,000 (Appendix D

For purposes of these guidelines, liberal regulations are as follows:

East Tier Central Flyway and Mississippi Flyway – 86 days and 2 white-fronts or 107 days and 1 white-front

West Tier Central Flyway (except Texas west zone) – 107 days and 5 white-fronts

Texas west zone -107 days and 1 white-front Alaska -107 days and 4 white-fronts.

Canada – 107 days and 5 white-fronts

- d. Temporal and/or geographic variation in regulations may be used to optimize harvest opportunity while addressing conservation needs of biologically identifiable and manageable population components.
- e. The historical relationship in MCWFG harvest between Canada and the U.S. is recognized and will be considered if regulatory changes are required under these guidelines. Hunting regulations will be selected from a suite of options that will produce results in harvest that are equivalent to the above guidelines. These options will include but are not limited to bag and/or season limits, season opening dates and non-resident alien hunting restrictions. This flexibility will provide Canada with the ability to manage non-resident alien harvest while meeting specific harvest objectives.

Rationale: Because MCWFG are managed as 1 population and their range crosses many jurisdictional boundaries, it is essential that harvest management be agreed upon and coordinated among stakeholders before, rather than during, the annual regulations process. The intent of the above harvest strategy is to increase the proportion of seasons under "base" regulations and to minimize the number of seasons under the restrictive option. The result is expected to reverse a decline in the number of white-fronted geese that occurred following implementation of liberal harvest regulations since 1999. The above guidelines are responsive to population status, allowing for liberalization of regulations to provide additional hunting opportunity while recognizing that restrictions may be required at low population levels.

The base regulations are a set of regional-specific hunting regulations which, for the most part, were in place during 1990-1996 (Appendix E). The primary differences between the base regulations and those actually in place in 1990-1996 are:

- 1) A 70-day white-fronted goose season was in place in the Mississippi Flyway since at least 1971 when current frameworks of 107/1 or 86/2 were implemented.
- 2) A 72-day/2 white-fronted geese/day bag limit was not available to the east tier of states in the Central Flyway until 1999.
- 3) An 86-day/1 white-fronted goose/day bag limit was not available to the Mississippi Flyway until 1999.
- 4) A white-fronted goose bag limit of less than 4 was in place in Canada and western Texas prior to 1999.
- 5) An 86-day/2 white-fronted goose/day bag limit was in place in North Dakota prior to 1999.

The average harvest during 1990-1996 (using MQS harvest data) was considered in selecting base regulations for these guidelines. Equitable hunting opportunity between the Mississippi Flyway and the east tier of the Central Flyway is considered appropriate because MCWFG are managed as 1 population under this plan.

Historically, hunting regulations have been more liberal in the west tier of the Central Flyway, Alaska and Canada, in recognition of short effective seasons in northern areas and limited hunting opportunity on the margins of the range. These traditional differences will continue under this plan.

Within the range of the MCWFG, there may be segments of the population that require special conservation initiatives. Where feasible, temporal and spatial tailoring of regulations will be used to address concerns about biologically identifiable population segments that can be effectively managed as separate units.

Previous management plans for MCWFG recognized the nearly equal historical harvest between the U.S. and Canada. Additionally, one of these, "Management Guidelines for Western Mid-Continent White-fronted Geese" (1982), recommended that regulatory adjustments be considered if "consistent and important deviations from these proportions" occur. In this plan, the historical

international distribution of harvest will continue to be considered when proposals for regulatory adjustments are made.

Responsibilities: All cooperating agencies.

<u>Strategy C-2</u>: Develop (U.S.) and improve (Canada) programs for managing subsistence hunting.

Rationale: Subsistence hunting by rural residents in Alaska and Canada is a traditional use of MCWFG. Amendments to migratory bird conventions between the U.S., Canada, and Mexico, implemented in 1997, provide for this harvest under law and establish principles for managing subsistence bird hunting in the North. Management processes have been established in Canada, and are entering the regulation setting phase. In the U.S., the Alaska Migratory Bird Comanagement Council (AMBCC) was established to involve subsistence hunters in management processes, serve as a liaison with the flyway councils, and to develop proposed regulations for spring and summer hunting.

Improved communication and cooperation among levels of government and user groups are needed to establish an effective cooperative system for integrating subsistence management with flyway councils, and to integrate expanded co-management systems between the U.S. and Canada. It is particularly important to more broadly involve indigenous peoples and co-management bodies that are developing conservation programs on the breeding grounds in establishing management goals and harvest strategies. Local governments in the North manage large expanses of breeding habitat, control public access to these areas, and are vital to successful implementation of harvest regulation and monitoring efforts. Subsistence hunting program development should include administrative procedures, cooperative identification of conservation objectives, information exchange and education, coordination with flyway councils, harvest assessments, and monitoring of compliance with conservation agreements and rules.

Responsibilities: All cooperating agencies and organizations.

Strategy C-3: Monitor harvest of MCWFG:

- a. Continue and improve existing harvest surveys in Canada and the United States.
- b. Continue the development of harvest surveys in Mexico.
- c. Monitor harvest and survival rates from banding programs (see Strategy A-2).

<u>Rationale</u>: Reliable estimates of harvests are essential to reasonable evaluations of population-level effects and management programs, including harvest regulations. In general, surveys of harvests are considered adequate in Canada, however, better information is needed on the species composition of harvest by nonresident aliens. In the U.S., the transition to the HIP, though likely to improve the accuracy of the estimates, has resulted in estimates that are not

comparable to historic data. Because up to 30% of the MCWFG population winters in Mexico, the potential for harvest is great and an operational survey is needed. Recent information suggests a subsistence harvest of MCWFG in the range of 8,500 - 12,500 in the Northwest Territories and up to 10,000 white-fronts in Alaska. Subsistence harvest surveys in some regions have not been conducted on a regular basis, and have differed considerably in scope, methods, and level of detail. A statewide migratory bird subsistence harvest survey was initiated in Alaska in 2003 under the guidance of the AMBCC.

Responsibilities: All cooperating agencies and organizations.

<u>Strategy C-4</u>: Provide for non-consumptive uses consistent with local management programs.

<u>Rationale</u>: Aesthetic values of MCWFG are well recognized and supported. Promotion of these is a valid activity and may result in increased support for management programs.

Responsibilities: All cooperating agencies and organizations.

ANNUAL DATA COLLECTION PROGRAMS

- 1. Fall population survey in Prairie Canada.
- 2. Alaska-Yukon Breeding Waterfowl Survey, and Arctic Coastal Plain survey
- 3. Fall productivity appraisals.
- 4. Coordinated Midwinter surveys.
- 5. Non-hunting mortality surveillance and reporting.
- 6. Federal and state waterfowl harvest surveys.
- 7. Breeding ground bandings.
- 8. Continue pilot breeding ground surveys in the Central Arctic during experimental period.

<u>INFORMATION NEEDS (NOT IN PRIORITY ORDER)</u>

- a. Improved population surveys are needed in Mexico. MCWFG population estimates from periodic aerial surveys conducted by the U.S. Fish and Wildlife Service have ranged from about 14,000 to 60,000, but ground count estimates made by Canadian Wildlife Service biologists during January 1994 and 1995 were at least 175,000.
- b. Improved harvest surveys and ease of band reporting are needed in Mexico.
- c. Improve and expand efforts to monitor the abundance and distribution on major breeding areas, including development of methods for periodic inventories in the central Arctic.

Research Needs:

- a. Leg band recovery and neck collar re-sighting data should be finalized and published. These data from marking programs have provided new perspectives on MCWFG. This information will lead to better understanding of harvest rates, harvest distribution, survival rates, movements, and population size.
- b. Population models for MCWFG should be developed to learn how changes in key parameters may affect population dynamics. A better understanding of population dynamics will improve management programs.
- c. Continue efforts to assess the status and trend of MCWFG breeding in interior and northwest (boreal-taiga) areas of Alaska and identify factors affecting population dynamics these geese. Concern has been expressed about historical decline, low productivity, and low survival in this boreal-breeding group.
- d. Conduct additional research on the ecology of the avian cholera bacterium to determine how disease outbreaks and transmission can be prevented or reduced.
- e. Determine the distribution and abundance of MCWFG in the Rainwater Basin region of Nebraska and compare to historical information. Due to the large number of snow geese using this area during February and March, it is possible that MCWFG have been displaced from the most desirable habitats.
- f. Assess the effects of habitat degradation and competition by snow geese and other geese on MCWFG throughout their range.
- g. Continue pilot surveys to determine if MCWFG can be adequately monitored with other species during central Arctic breeding ground spring surveys.

MAINTENANCE OF PLAN

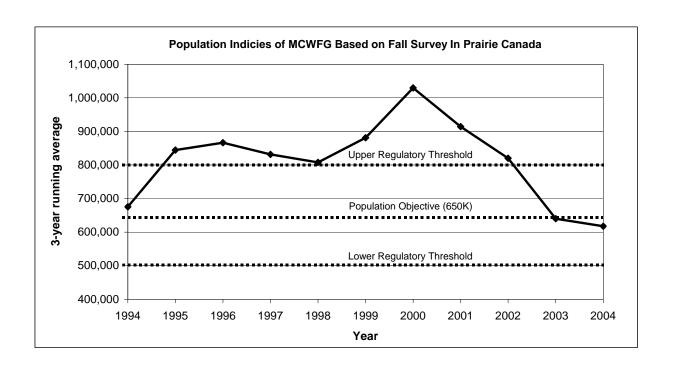
This plan will be reviewed at 5-year intervals (2005, 2010, etc.) by the Central, Mississippi, and Pacific Flyway Councils, their technical committees, and representatives from the Canadian Wildlife Service and U.S. Fish and Wildlife Service. Participation by Mexico in future plan revisions will also be encouraged. All available information will be considered and necessary modifications to this plan will be developed and presented to all 3 Flyway Councils for consideration and appropriate action. Appendices containing information on annual data collection programs will be updated annually and distributed through appropriate contacts before the July Flyway Council meetings. These updates will be provided by the Chair of the Central Flyway White-fronted Goose Subcommittee.

APPENDICES

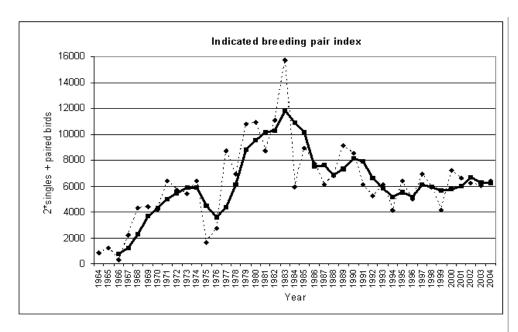
APPENDIX A

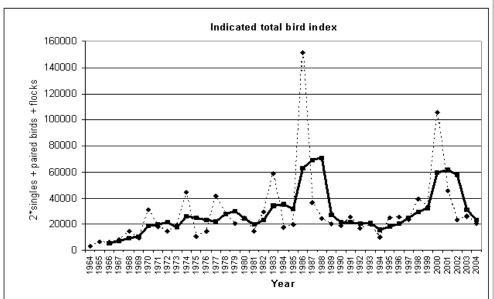
Population Indices and Management Thresholds for Mid-continent
White-fronted Geese Based on Aerial inventories in Prairie Canada

Year	Aerial Surveys	Three Year Running Average
	· ·	Tilloo Todi Railling / Wordgo
1992	623,000	
1993	676,300	
1994	727,300	675,533
1995	1,129,400	844,333
1996	742,500	866,400
1997	622,200	831,367
1998	1,058,300	807,667
1999	963,100	881,200
2000	1,067,600	1,029,667
2001	712,300	914,333
2002	680,200	820,033
2003	528,200	640,233
2004	644,300	617,567



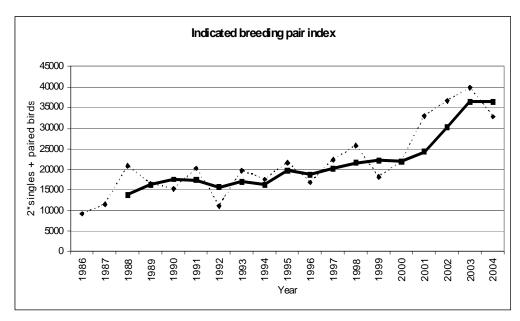
APPENDIX B

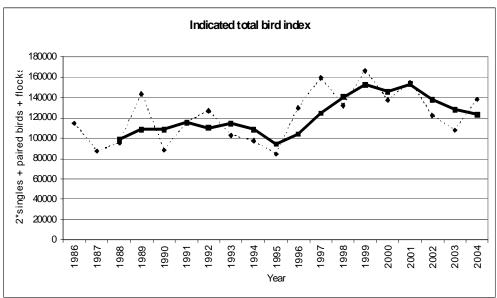




Indicated breeding pair and total bird indices of mid-continent greater white-fronted geese estimated during spring breeding pair surveys in interior and northwest Alaska, 1964-2004. Point estimates connected with dashed lines, 3-year running averages connected with solid bold lines. Indices derived from strata 3-6, 11 in the continental breeding pair survey (Conant and Groves 2004).

APPENDIX B (cont.)

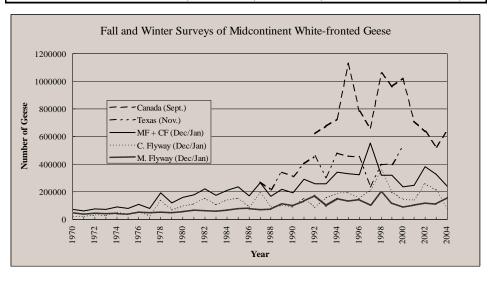




Indicated breeding pair and total bird index of mid-continent greater white-fronted geese estimated during breeding pair surveys on the Arctic Coastal Plain, Alaska, 1986-2004. Point estimates connected with dashed line, 3-year running average connected with solid bold line (Mallek et al. 2004).

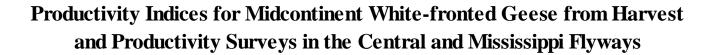
APPENDIX C

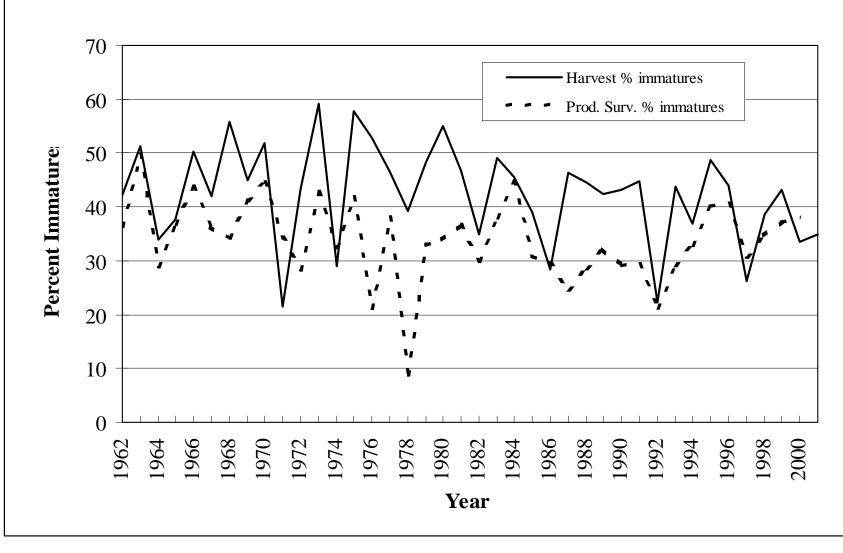
Fall and					hite-fronted Geese
	Texas	Canada	M. Flyway	C. Flyway	
Year	(Nov.)	(Sept.)	(Dec/Jan)	(Dec/Jan)	MF + CF (Dec/Jan)
1970			50,625	22,070	72,695
1971			39,300	21,144	60,444
1972			45,800	32,142	77,942
1973			43,000	29,665	72,665
1974			43,200	49,463	92,663
1975			40,400	39,510	79,910
1976			53,400	54,800	108,200
1977			50,400	29,575	79,975
1978			53,100	140,605	193,70
1979			49,300	69,005	118,30
1980			59,000	99,450	158,450
1981			67,500	110,950	178,45
1982			65,600	155,850	221,45
1983			62,000	110,898	172,89
1984			70,300	140,697	210,99
1985			81,300	155,705	237,00
1986			78,600	92,700	171,30
1987	271,850		71,500	194,525	266,02
1988	218,077		76,700	90,673	167,37
1989	340,620		116,500	103,073	219,57
1990	311,173		103,300	90,830	194,13
1991	403,017		135,700	155,211	290,91
1992	458,123	622,948	172,900	85,881	258,78
1993	304,195	676,344	99,240	158,625	257,86
1994	479,407	727,295	154,340	188,878	343,21
1995	456,653	1,129,378	134,421	194,845	329,26
1996	454,275	781,203	145,075	154,519	321,82
1997	239,221	662,206	106,570	215,254	552,12
1998	396,673	1,058,256	195,593	356,531	319,33
1999	400,000	963,100	118,945	200,391	319,33
2000	522,845	1,023,500	92,274	145,219	237,49
2001		712,309	104,487	141,189	245,67
2002		680,200	119,987	260,849	380,83
2003		528,200	113,844	213,343	327,18
2004		644,300	161,156	79,389	240,54



APPENDIX D

	Productivity Data for Mid-Continent White-Fronted Geese																			
					Harve	st .	Age	Ratios						Harve		0.	atios		MF/CF Fall F	Productivity
		N	Mississippi F	lyway					Central Fl	yway					MF/CF C	Combined	**		Surve	eys
Year	Adults	Immatures	Total	Imm./Ad.	% Imm.	# parts	Adults	Immatures	Total	Imm./Ad.	% Imm.	# parts	Adults	Immatures	Total	Imm./Ad.	Harvest % immatures	# parts	Prod. Surv. % immatures	Imm./Fam.
1962	1,582	1,060	2,642	0.67	40.1	" parts	13,560	10,034	23,594	0.74	42.5	173	15,165	11,071	26,236	0.73	42.2	182	36.4	2.08
1963	3,405	3,984	7,389	1.17	53.9	28	15,009	15,459	30,468	1.03	50.7	140	18,414	19,443	37,857	1.06	51.4	168	49.7	2.82
1964	9,204	2,669	11,873	0.29	22.5	43	14,772	9,602	24,374	0.65	39.4	214	23,976	12,271	36,247	0.51	33.9	257	28.9	2.37
1965	14,255	7,983	22,238	0.56	35.9	87	7,785	5,293	13,078	0.68	40.5	115	22,040	13,276	35,316	0.60	37.6	202	36.8	2.75
1966	21,908	21,908	43,815	1.00	50.0	59	17,477	17,827	35,304	1.02	50.5	121	39,385	39,734	79,119	1.01	50.2	180	43.8	2.92
1967	11,368	9,890	21,258	0.87	46.5	37	15,053	9,182	24,235	0.61	37.9	134	26,421	19,072	45,493	0.72	41.9	171	36.2	2.57
1968	2,488	2,737	5,225	1.10	52.4	12	9,014	11,808	20,822	1.31	56.7	82	11,502	14,545	26,047	1.26	55.8	94	34.4	2.80
1969	19,429	19,041	38,470	0.98	49.5	42	19,298	12,544	31,842	0.65	39.4	101	38,727	31,585	70,312	0.82	44.9	143	41.2	2.87
1970	18,014	22,157	40,171	1.23	55.2	31	14,584	12,834	27,418	0.88	46.8	80	32,598	34,991	67,589	1.07	51.8	111	44.5	2.72
1971	18,246	1,277	19,523	0.07	6.5	17	26,796	10,987	37,783	0.41	29.1	143	45,042	12,264	57,306	0.27	21.4	160	34.4	2.36
1972	7,457	5,443	12,900	0.73	42.2	18	21,708	16,933	38,641	0.78	43.8	119	29,165	22,376	51,541	0.77	43.4	137	28.4	2.29
1973	13,240	20,124	33,364	1.52	60.3	33	22,546	31,564	54,110	1.40	58.3	211	35,786	51,688	87,474	1.44	59.1	244	42.8	2.70
1974	6,872	3,230	10,102	0.47	32.0	21	24,909	9,714	34,623	0.39	28.1	137	31,781	12,944	44,725	0.41	28.9	158	32.6	2.37
1975	11,528	17,754	29,282	1.54	60.6	45	20,886	26,735	47,621	1.28	56.1	166	32,415	44,488	76,903	1.37	57.8	211	41.9	2.29
1976	7,441	14,807	22,248	1.99	66.6	30	18,621	14,338	32,959	0.77	43.5	111	26,062	29,145	55,207	1.12	52.8	141	21.2	2.18
1977	9,926	8,734	18,660	0.88	46.8	22	26,286	22,868	49,154	0.87	46.5	212	36,246	31,568	67,814	0.87	46.6	234	38.1	2.35
1978	27,583	5,793	33,376	0.21	17.4	27	25,685	18,494	44,179	0.72	41.9	161	47,096	30,459	77,555	0.65	39.3	188	8.9	1.49
1979	13,671	15,448	29,119	1.13	53.1	59	29,072	25,583	54,655	0.88	46.8	194	43,220	40,554	83,774	0.94	48.4	253	33.0	3.18
1980	17,561	10,536	28,097	0.60	37.5	39	32,002	42,882	74,884	1.34	57.3	207	46,332	56,649	102,981	1.22	55.0	246	34.0	2.26
1981	57,498	37,373	94,871	0.65	39.4	91	41,268	39,618	80,886	0.96	49.0	265	93,450	82,307	175,757	0.88	46.8	356	36.6	2.04
1982	33,830	17,591	51,421	0.52	34.2	52	40,920	22,097	63,017	0.54	35.1	196	74,513	39,925	114,438	0.54	34.9	248	29.9	1.80
1983	33,322	28,324	61,646	0.85	45.9	66	25,914	25,914	51,828	1.00	50.0	240	57,670	55,804	113,474	0.97	49.2	306	38.0	2.15
1984	37,944	29,216	67,160	0.77	43.5	154	41,817	36,380	78,197	0.87	46.5	328	79,082	66,275	145,357	0.84	45.6	482	44.7	1.79
1985	27,699	19,113	46,812	0.69	40.8	76	31,579	19,894	51,473	0.63	38.7	279	59,826	38,459	98,285	0.64	39.1	355	30.9	1.62
1986	27,655	6,361	34,016	0.23	18.7	57	23,373	10,518	33,891	0.45	31.0	181	48,598	19,309	67,907	0.40	28.4	238	29.5	1.61
1987	18,911	13,237	32,148	0.70	41.2	73	28,804	26,212	55,016	0.91	47.6	246	46,813	40,351	87,164	0.86	46.3	319	24.6	1.39
1988	22,093	11,709	33,802	0.53	34.6	130	32,315	29,406	61,721	0.91	47.6	348	52,873	42,650	95,523	0.81	44.6	478	28.5	1.52
1989	29,600	18,056	47,656	0.61	37.9	187	45,203	35,259	80,462	0.78	43.8	511	73,866	54,252	128,118	0.73	42.3	698	32.2	1.87
1990	46,491	23,710	70,201	0.51	33.8	168	39,680	33,331	73,011	0.84	45.7	537	81,308	61,904	143,212	0.76	43.2	705	29.2	1.69
1991	47,814	24,385	72,199	0.51	33.8	149	28,391	26,119	54,510	0.92	47.9	396	70,086	56,623	126,709	0.81	44.7	545	29.4	1.76
1992	47,376	7,106	54,482	0.15	13.0	173	30,751	10,456	41,207	0.34	25.4	434	74,417	21,272	95,689	0.29	22.2	607	21.2	1.61
1993	26,849	15,036	41,885	0.56	35.9	199	35,043	29,787	64,830	0.85	45.9	628	59,945	46,770	106,715	0.78	43.8	827	29.2	1.45
1994	59,693	28,055	87,748	0.47	32.0	154	37,896	23,875	61,771	0.63	38.7	401	94,298	55,221	149,519	0.59	36.9	555	33.0	1.70
1995	38,807	29,881	68,688	0.77	43.5	127	30,440	30,440	60,880	1.00	50.0	424	66,548	63,020	129,568	0.95	48.6	551	40.2	1.82
1996	64,951	51,960	116,911	0.80	44.4	118	42,626	33,249	75,875	0.78	43.8	398	108,029	84,757	192,786	0.78	44.0	516	40.7	1.52
1997	94,182	28,254	122,436	0.30	23.1	114	43,103	16,810	59,913	0.39	28.1	185	134,507	47,842	182,349	0.36	26.2	299	30.8	1.46
1998	71,690	37,279	108,969	0.52	34.2	147	29,956	21,269	51,225	0.71	41.5	206	98,226	61,968	160,194	0.63	38.7	353	34.7	1.88
1999	79,113	66,455	145,568	0.84	45.7	101	69,383	49,955	119,338	0.72	41.9	221	150,717	114,189	264,906	0.76	43.1	322	37.2	1.83
2000	95,343	40,997	136,340	0.43	30.1	110	47,161	24,995	72,156	0.53	34.6	295	138,735	69,761	208,496	0.50	33.5	405	38.03	2.09
2001	42,835	29,128	71,963	0.68	40.5	124	46,268	20,358	66,626	0.44	30.6	187	90,245	48,344	138,589	0.54	34.9	311		





APPENDIX E

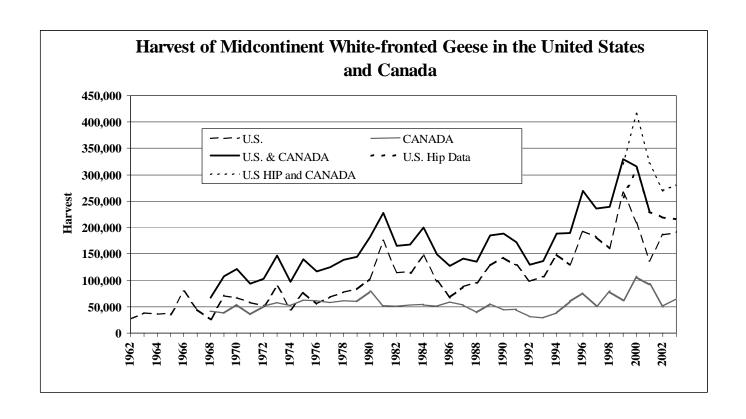
		ESTIN	MATEL) HAR	VESTS	OF M	IDCON	TINE	NT WH	HTE-F	RONT	ED GE	ESE		
						MI	SSISSIPI	PI FLYW	AY						P. FLY.
YR	LA	AR	IA	MO	MN	WI	MI	IL	IN	ОН	TN	KY	MS	AL	AK 1
1962	2,217	0	248	177	0	0	0	0	0	0	0	0	0	0	
1963	6,350	0	195	803	0	41	0	0	0	0	0	0	0	0	
1964	11,156	0	602	115	0	0	0	0	0	0	0	0	0	0	
1965	21,583	0	0	0	655	0	0	0	0	0	0	0	0	0	
1966	43,351	0	79	385	0	0	0	0	0	0	0	0	0	0	
1967	20,270	0	469	0	373	0	0	0	0	0	0	146	0	0	
1968	4,685	0	147	393	0	0	0	0	0	0	0	0	0	0	
1969	36,767	0	1,183	254	0	0	0	0	266	0	0	0	0	0	
1970	39,645	0	75	146	305	0	0	0	0	0	0	0	0	0	
1971	19,286	0	0	0	237	0	0	0	0	0	0	0	0	0	
1972	11,064	0	237	1,106	493	0	0	0	0	0	0	0	0	0	398
1973	31,072	674	714	166	0	0	0	201	0	0	0	0	166	371	583
1974	9,768	0	278	0	56	0	0	0	0	0	0	0	0	0	518
1975	23,762	268	375	2,000	2,610	0	0	267	0	0	0	0	0	0	398
1976	19,168	530	2,215	335	0	0	0	0	0	0	0	0	0	0	348
1977	16,991	0	954	0	715	0	0	0	0	0	0	0	0	0	ns
1978	31,694	1,021	661	0	0	0	0	0	0	0	0	0	0	0	ns
1979	23,619	0	421	279	0	0	139	0	0	0	0	0	4,661	0	ns
1980	25,676	1,437	146	386	299	0	0	0	0	153	0	0	0	0	ns
1981	93,172	420	0	202	0	198	0	0	0	0	0	0	879	0	ns
1982	50,536	543	0	342	0	0	0	0	0	0	0	0	0	0	
1983	58,772	1,576	0	527	501	159	0	111	0	0	0	0	0	0	
1984	64,917	919	211	136	596	0	0	0	113	0	0	0	268	0	, i
1985	44,261	1,382	424	670	0	75	0	0	0	0	0	0	0	0	-
1986	32,280	446	451	775	0	64	0	0	0	0	0	0	0	0	
1987	31,567	426	0	155	0	0	0	0	0	0	0	0	0	0	
1988	32,395	1,313	0	0	0	0	0	0	94	0	0	0	0	0	
1989 1990	44,881	1,765	88	626	0	0	_	0	0	118	0		0	0	
1990	65,433	3,019	258	191	0	0	131	0	66	46	0	0	1,058		
1991	65,233	7,782	329	114	0	0	0	0	0	0	0	0	0	0	
1992	48,323	4,517	75 0	367 298	136 0	0	0	733 0	0 79	71 0	0	0	261 473	0	,
1994	38,783	2,252			-						0	_			
1995	79,092 52,435	7,014	296 242	739 0	0	0	0	521 1,580	86 0	0	0	0 815	989	0 292	216 343
1996	96,481	12,335 18,265	188	1,371	192	0		1,580	0	0	0	815			
1997	82,283	22,509	352	2,094	192	0			238						
1998	82,283 88,314	18,047	1,418	2,094 549	275	0		3,187		0	300		11,013	488	
1999	97,048	40,587	211	4,430	983	0		0	0	0	0				
2000	117,734	13,283	0	330	963	0	0	0	0	0	0				
2001	54,728	12,190	0	2,105	0	0	0	114	0	0	0		1,290		
2002	80,881	23,579	0	2,103	0	0	0	682	0		0		711	0	
2003	85,850	21,319	0	539	0				0		0				
2004	22,023			- 557									2,		

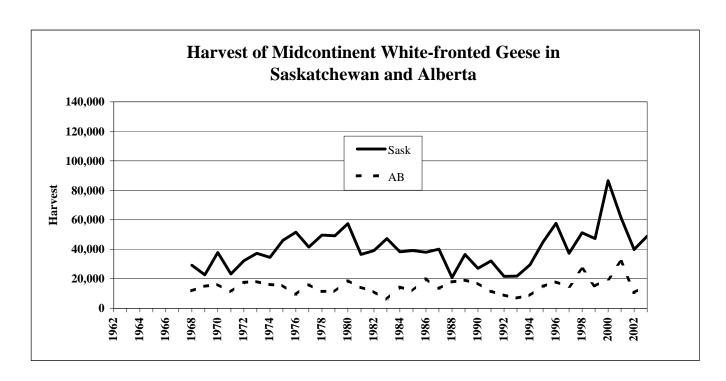
¹ Alaska white-front harvest includes MCWFG and Pacific white-fronts; MQS data reflect only MCWFG areas; 2002-2003 are statewide totals from HIP.

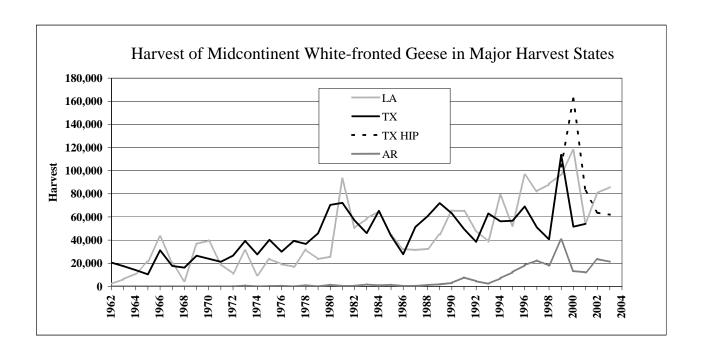
² Data from HIP are shaded.

		ES	STIM	ATE	D HA	RVE	STS ()F N	IID-C	ONTI	NENT '	WHITI	E-FRO	NTED	GEESE		
-		-		CE	NTRAI	FLY	WAY					CAN	ADA			TOTALS	\$
YR	МТ	ND	SD	WY	NE	co	KS	NM	OK	TX	ON	МВ	SK	AB	U.S.	CANADA	U.S. + CANADA
1962	0	272	595	0	533	0	1,238	0	309	20,647					26,236		
1963	0	8,035	577	0	2,541	0	1,105	0	658	17,552					37,857		
1964	0	6,510	539	0	1,192	0	1,735	0	291	14,107					36,247		
1965	0	687	634	0	273	0	775	0	334	10,375					35,316		
1966	0	1,280	562	0	745	0	724	0	753	31,240					79,119		
1967	0	3,907	872	0	611	0	834	0	321	17,690					45,493		
1968	0	1,991	570	0	1,219	0	293	65	488	16,196	0	0	29,243	11,922	26,047	41,165	67,212
1969	205	1,837	398	0	1,049	0	1,078	0	743	26,532	0	0	22,696	14,997	70,312	37,693	108,005
1970	0	670	1,584	0	738	0	511	0	0	23,915	0	0	37,876	16,219	67,589	54,095	121,684
1971	262	5,800	942	0	4,991	0	4,152	0	341	21,295	0	1,366	23,301	11,263	57,306	35,930	93,236
1972	237	268	1,104	0	3,321	0	5,632	0	1,415	26,664	0	1,369	32,274	17,589	51,939	51,232	103,171
1973	209	8,081	1,852	0	926	0	3,313	0	422	39,307	0	2,902	37,283	18,160	88,057	58,345	146,402
1974	50	1,945	521	0	579	0	3,435	0	460	27,633	0	926	34,498	16,176	45,243	51,600	96,843
1975	321	2,256	439	0	1,266	99	1,817	0	1,136	40,287	0	511	46,062	15,644	77,301	62,217	139,518
1976	0	992	0	0	785	0	301	0	889	29,992	0	684	51,629	9,402	55,555	61,715	117,270
1977	0	5,084	996	0	1,031	0	1,820	0	891	39,332	0	0	41,549	16,139	67,814	57,688	125,502
1978	893	478	1,384	55	1,811	440	1,858	44	537	36,679	0	334	49,690	11,499	77,555	61,523	139,078
1979	50	1,926	714	0	2,944	0	1,944	0	1,104	45,973	0	105	49,179	11,419	83,774	60,703	144,477
1980	130	1,799	553	0	678	0	746	0	546	70,432	0	2,736	57,422	18,776	102,981	78,934	181,915
1981	153	2,586	1,585	109	1,473	0	2,466	50	230	72,234	0	1,308	36,556	14,362	175,757	52,226	227,983
1982	217	416	965	0	1,337	0	1,109	0	1,974	56,999	0	296	39,142	11,501	114,908	50,939	165,847
1983	56	1,872	421	0	1,366	0	1,250	34	826	46,003	0	139	47,330	6,071	114,256	53,540	167,796
1984	220	5,827	1,490	0	1,982	259	2,258	0	804	65,357	143	147	38,330	14,504	146,617	53,124	199,741
1985	62	1,400	1,077	61	1,789	161	1,446	0	1,644	43,833	0	0	39,207	11,990	98,539	51,197	149,736
1986	0	666	1,067	0	2,430	154	1,654	0	153	27,767	0	546	38,023	20,292	67,907	58,861	126,768
1987	29	831	489	0	896	166	904	0	386	51,315	0	119	40,123	13,417	87,373	53,659	141,032
1988	31	125	176	0	364	0	280	0	153	60,592	0	0	20,942	17,879	96,163	38,821	134,984
1989	58	1,449	4,331	99	1,244	95	657	0	495	72,034	34	145	36,558	19,131	128,950	55,868	184,818
1990	0	1,604	2,539	0	3,320	68	977	71	1,293	63,139	0	105	27,118	17,118	143,795	44,341	188,136
1991	0	864	1,970	0	1,097	0	394	0	513	49,672	0	512	32,175	11,679	127,968	44,366	172,334
1992	128	1,082	508	0	1,228	0	479	0	337	38,521	0	633	21,683	9,005	97,784	31,321	129,105
1993	120	0	564	0	342	0	183	0	567	63,043	168	0	21,804	6,982	107,016	28,954	135,970
1994	0	2,164	1,066	0	567	0	632	0	1,150	56,202	0	0	29,538	8,741	149,745	38,279	188,024
1995	91	829	964	0	1,178	0	824	0	403	56,725	0	79	45,011	14,888	130,045	59,978	190,023
1996	106	2,365	368	299	1,080	0	1,668	0	1,226	69,105	69	924	57,676	17,939	193,505	76,608	270,113
1997	481	2,295	2,824	84	1,226	0	1,637	0	731	51,003	0	296	37,326	15,009	183,158	52,631	235,789
1998	424	1,651	4,573	0	863	0	2,534	72	926	40,664	0	1,046	51,204	26,671	160,814	78,921	239,735
1999	246	740	834	0	219	0	3,129	0	1,250	113,738	0	0	47,316	15,033	265,322	62,349	327,671
2000	289	3,300	2,039	0	586	0	10,727	34	3,518	51,663	0	0	86,586	19,963	208,915	106,549	315,464
2001	491	2,457	1,174	0	454	361	5,408	0	864	54,026	0	0	61,389	31,722	137,196		230,307
2002	188	272	810	0	715	83	10,652	135	850	63,663	0	0	39,870	10,690	186,383	50,560	236,943
2003	0	435	1,607	0	2,205	1,158	9,735	0	2,953	61,924	0	0	48,987	15,293	190,721	64,280	255,001
1999 ¹	265	1,118	1,006	0	224	0	5,482	0	2,244	103,670	0	0	47,316	15,033	257,549		319,898
2000 1	528	2,347	1,768	0	554	0	11,303	60	3,378	162,405	0	0	86,586	19,963	309,862	106,549	416,411
2001 1	212	1,932	921	0	631	225	4,662	0	421	82,434	0	0	61,389	31,722	230,149	93,111	323,260
2002 1	188	272	810	0	715	83	10,652	135	850	63,663	0	0	39,870	10,690	219,318		269,878
2003 1	0	435	1,607	0	2,205	1,158	9,735	0	2,953	61,924	0	0	48,987	15,293	102,045	64,280	166,325

¹ HIP Data is shaded







APPENDIX F

U.S. Federal Frameworks for the hunting of the Mid-Continent Population of Greater White-fronted Geese in the Central (West and East Tier States), Mississippi, and Pacific (Alaska) Flyways, 1971-98.

				CENTRAL 1	AL FLYWAY					
	V	VEST TIER	STATES		E	AST TIER	STATES 2	}		
YEAR	OPEN	CLOSE	DAYS	BAG ⁴	OPEN	CLOSE	DAYS	BAG ⁴		
1971	Oct 01	Jan 16	90	2 3	Oct 01	Jan 16	75	1 5,6		
1972	Oct 01	Jan 24	93	4 3	Oct 01	Jan 24	72	1 5,6		
1973	Sep 29	Jan 20	93	2^{3}	Sep 29	Jan 20	72	1 5,6		
1974	Sep 28	Jan 19	93	2 3	Sep 28	Jan 19	72	1 5,6		
1975	Oct 04	Jan 18	93	2 3	Oct 04	Jan 18	72	1 5,6		
1976	Oct 02	Jan 23	93	2 3	Oct 02	Jan 23	72	1 5,6		
1977	Oct 01	Jan 22	93	2 3	Oct 01	Jan 22	72	1 5,6		
1978	Sep 30	Jan 21	93	2 3	Sep 30	Jan 21	72	1 5,6		
1979	Sep 29	Jan 20	93	2 3	Sep 29	Jan 20	72	1 5,6		
1980	Oct 04	Jan 18	93	2 3	Oct 04	Jan 18	72	1 5,6		
1981	Oct 03	Jan 17	93	2 3	Oct 03	Jan 17	72	1 5,6		
1982	Oct 02	Jan 23	93	2^{3}	Oct 02	Jan 23	72	1 5,6		
1983	Oct 01	Jan 22	93	2^{-3}	Oct 01	Jan 22	72	1 5,6		
1984	Sep 29	Jan 20	93	2^{-3}	Sep 29	Jan 20	72	1 5,6		
1985	Sep 28	Jan 19	93	2 3	Sep 28	Jan 19	72	1 5,6		
1986	Oct 04	Jan 18	93	2 3	Oct 04	Jan 18	72	1 5,6		
1987	Oct 03	Jan 17	93	2 3	Oct 03	Jan 17	72	1 5,6		
1988	Oct 01	Jan 22	95	2 3	Oct 01	Jan 22	72	1 5,6		
1989	Sep 30	Jan 21	95	2^{-3}	Sep 30	Jan 21	72	1 5,6		
1990	Sep 29	Jan 20	100	3 3	Sep 29	Jan 20	72	1 5,6		
1991	Sep 28	Jan 31	107	3 3	Sep 28	Jan 31	79 8	1 5,6		
1992	Oct 03	Jan 31	107	3 ³	Oct 03	Jan 31	79 ⁸	1 5,6		
1993	Oct 02	Jan 31	107	3 3	Oct 02	Jan 31	79 8	1 5,6		
1994	Oct 01	Jan 31	107	3 3	Oct 01	Jan 31	86 ⁸	1 5,6		
1995	Sep 30	Jan 31 9	107	1 5	Sep 30	Jan 31	86	1 5,6		
1996	Sep 28	Jan 31 9	107	4 3, 10	Sep 28	Jan 31	86	1 5,6		
1997	Oct 04	Jan 31 ⁹	107	4 3, 10	Oct 04	Jan 31	86	1 5,6		
1998	Oct 03	Feb 14	107	4 3, 10	Oct 03	Jan 31	72/86	2/1		
1999	Oct 02	Feb 13	107	4 3,10	Oct 02	Feb 13	86/107	2/1		
2000	Sep 30	Feb 18	107	4 3,10	Sep 30	Feb 18	86/107	2/1		
2001	Sep 29	Feb 17	107	4 3,10	Sep 29	Feb 17	86/107	2/1		
2002	Sep 21	Feb 15	107	4 3,10	Sep 21	Feb 15	86/107	2/1		
2003	Sep 27	Feb 15	107	4 3,10	Sep 27	Feb 15	86/107	2/1		
2004	Sep 25	Feb 13	107	4 3,10,13	Sep 25	Feb 13	86/107	2/1		

West Tier States = MT/WY/CO/TX (W. Goose Zone)

² East Tier States = ND/SD/NE/KS/OK/TX (E. Goose Zone)

³ Aggregate dark-goose bag limit

 $^{^{\}rm 4}$ The possession limit is twice the daily bag limit

⁵ Aggregate dark-goose bag limit with the indicated white-front restriction

⁶ Daily bag limit 2 in ND

⁷ Closing date Feb. 14 in LA, 1971-94; Feb. 15 in AR and LA, 1998

⁸ 72 days in the Eastern Goose Zone of TX

⁹ Sunday nearest Feb. 15 in the Western Goose Zone of TX

 $^{^{\}rm 10}$ Excluding the TX (W Goose Zone), where the bag/possession limit is 1/2

¹¹ Aggregate goose bag limit with the indicated white-front restriction

¹² Aggregate Canada/White-fronted goose bag limit

 $^{^{\}rm 13}$ CO and TX have a 3 bird aggreagte bag with no more than 1 WFGO

U.S. Federal Frameworks for the hunting of the Mid-Continent Population of Greater White-fronted Geese in the Central (West and East Tier States), Mississippi, and Pacific (Alaska) Flyways, 1971-98.

	I	MISSISSIPI	PI FLYW	AY		PACIFIC	FLYWA	Y
		ALL S	TATES			ALA	ASKA	
YEAR	OPEN	CLOSE	DAYS	BAG^4	OPEN	CLOSE	DAYS	BAG^4
1971	Oct 01	Jan 16 7	70	2 11	Sep 01	Jan 26	107	4 12
1972	Oct 01	Jan 20 7	70	2 11	Sep 01	Jan 26	107	4 12
1973	Oct 01	Jan 20 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1974	Oct 01	Jan 20 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1975	Oct 01	Jan 20 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1976	Oct 01	Jan 20 7	70	2 11	Sep 01	Jan 26	107	4 12
1977	Oct 01	Jan 20 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1978	Oct 01	Jan 20 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1979	Sep 29	Jan 20 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1980	Oct 04	Jan 20 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1981	Oct 03	Jan 20 7	70	2 11	Sep 01	Jan 26	107	4 12
1982	Oct 02	Jan 20 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1983	Oct 01	Jan 20 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1984	Sep 29	Jan 20 7	70	2 11	Sep 01	Jan 26	107	4 12
1985	Sep 28	Jan 20 7	70	2 11	Sep 01	Jan 26	107	4 12
1986	Oct 04	Jan 20 7	70	2 11	Sep 01	Jan 26	107	4 12
1987	Oct 03	Jan 20 7	70	2 11	Sep 01	Jan 26	107	4 12
1988	Oct 01	Jan 22 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1989	Sep 30	Jan 21 7	70	2 11	Sep 01	Jan 26	107	4 12
1990	Sep 29	Jan 20 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1991	Sep 28	Jan 31 7	70	2 11	Sep 01	Jan 26	107	4 12
1992	Oct 03	Jan 31 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1993	Oct 02	Jan 31 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1994	Oct 01	Jan 31 ⁷	70	2 11	Sep 01	Jan 26	107	4 12
1995	Sep 30	Jan 31	70	2 11	Sep 01	Jan 26	107	4 12
1996	Sep 28	Jan 31	70	2	Sep 01	Jan 26	107	4 12
1997	Oct 04	Jan 31	70	2	Sep 01	Jan 26	107	4 12
1998	Oct 03	Jan 31 7	70	2	Sep 01	Jan 26	107	4 12
1999	Oct 02	Feb 14	86/107	2/1	Sep-01	Jan 26	107	4 12
2000	Sep 30	Feb 18	86/107	2/1	Sep-01	Jan 26	107	4 12
2001	Sep 29	Feb 17	86/107	2/1	Sep-01	Jan 26	107	4 12
2002	Sep 21	Feb 16	86/107	2/1	Sep-01	Jan 26	107	4 12
2003	Sep 27	Feb 15	86/107	2/1	Sep-01	Jan 26	107	4 12
2004	Sep 25	Feb 13	86/107	2/1	Sep-01	Jan 26	107	4 12

¹ West Tier States = MT/WY/CO/TX (W. Goose Zone)

² East Tier States = ND/SD/NE/KS/OK/TX (E. Goose Zone)

³ Aggregate dark-goose bag limit

⁴ The possession limit is twice the daily bag limit

 $^{^{\}rm 5}$ Aggregate dark-goose bag limit with the indicated $\,$ white-front restriction

⁶ Daily bag limit 2 in ND

⁷ Closing date Feb. 14 in LA, 1971-94; Feb. 15 in AR and LA, 1998

 $^{^{8}}$ 72 days in the Eastern Goose Zone of TX

⁹ Sunday nearest Feb. 15 in the Western Goose Zone of TX

 $^{^{\}rm 10}$ Excluding the TX (W Goose Zone), where the bag/possession limit is 1/2

¹¹ Aggregate goose bag limit with the indicated white-front restriction

¹² Aggregate Canada/White-fronted goose bag limit

	WHITE-FI	RONTED G	OOSE SEASONS	IN SASKA'	ГСНЕWAN	
	ZONE 1		ZONE 2		ZONE 3	
YEAR	DATES	BAG/POSS	DATES	BAG/POSS	DATES	BAG/POSS
1970						
1971	SEP. 27 - DEC 31	2/4	SEP.6 - DEC. 23	3/6	SEP. 27 - DEC. 31	2/4
1972	SEP. 27 - DEC.30	2/4	SEP.4 - DEC.23	5/10	SEP. 27 - DEC.30	3/6
1973	SEP. 26 - DEC. 29	2/4	SEP.3 - DEC.22	3/6	SEP. 26 - DEC. 29	3/6
1974	SEP. 25 - DEC. 28	2/4	SEP. 2 - DEC. 21	3/6	SEP. 25 - DEC. 28	3/6
1975	SEP. 29 - DEC. 20	2/4	SEP. 1 - DEC. 13	3/6	SEP. 22 - DEC. 20	3/6
1976	SEP. 29 - DEC. 18	2/4	SEP. 1 - DEC. 11	3/6	SEP. 22 - DEC. 18	3/6
1977	SEP. 28 - DEC. 17	2/4	SEP. 1 - DEC. 10	3/6	SEP. 21 - DEC. 17	3/6
1978	SEP. 27 - DEC. 16	2/4	SEP. 1 - DEC. 9	3/6	SEP. 20 - DEC. 16	3/6
1979	SEP. 26 - DEC. 15	2/4	SEP. 1 - DEC. 8	3/6	SEP. 19 - DEC. 15	3/6
1980	SEP. 24 - DEC. 13	2/4	SEP. 1 - DEC. 6	3/6	SEP. 17 - DEC. 13	3/6
1981	SEP. 23 - DEC. 12	2/4	SEP. 1 - DEC. 5	3/6	SEP. 16 - DEC. 12	3/6
1982	SEP. 22 - DEC. 11	2/4	SEP. 1 - DEC. 4	3/6	SEP. 15 - DEC. 4	3/6
1983	SEP. 21 - DEC. 10	2/4	SEP. 1 - DEC. 3	3/6	SEP. 14 - DEC. 10	3/6
1984	SEP. 19 - DEC. 8	2/4	SEP. 1 - DEC. 8	3/6	SEP. 12 - DEC. 8	3/6
1985	SEP. 25 - DEC. 7	2/4	SEP. 2 - DEC. 7	3/6	SEP. 18 - DEC. 7	3/6
1986	SEP. 24 - DEC. 13	2/4	SEP. 1 - DEC. 13	3/6	SEP. 17 - DEC. 13	3/6
1987	SEP. 23 - DEC. 12	2/4	SEP. 1 - DEC. 12	3/6	SEP. 16 - DEC. 12	3/6
1988	SEP. 21 - DEC. 10	2/4	SEP. 1 - DEC. 10	3/6	SEP. 14 - DEC. 10	3/6
1989	SEP. 20 - DEC. 9	2/4	SEP. 1 - DEC. 9	3/6	SEP. 13 - DEC. 9	3/6
1990	SEP. 26 - DEC. 15	2/4	SEP.1 - DEC. 15	3/6	SEP. 19 - DEC. 15	3/6
1991	SEP. 25 - DEC. 14	2/4	SEP. 2 - DEC. 14	3/6	SEP. 18 - DEC. 14	3/6
1992	SEP. 23 - DEC. 12	2/4	SEP. 1 - DEC. 12	3/6	SEP. 16 - DEC. 12	3/6
1993	SEP. 22 - DEC. 11	2/4	SEP. 1 - DEC. 11	3/6	SEP. 15 - DEC. 11	3/6
1994	SEP. 19 - DEC. 10	2/4	SEP. 1 - DEC. 10	3/6	SEP. 12 - DEC. 10	3/6
1995	SEP. 11 - DEC. 9	3/6	SEP. 1 - DEC. 9	3/6		
1996	SEP. 9 - DEC. 14	3/6	SEP. 2 - DEC. 14	3/6		
1997	SEP. 8 - DEC. 13	3/6	SEP. 1 - DEC. 13	3/6		
1998	SEP. 7 - DEC. 12	5/10	SEP. 1 - DEC. 12	5/10		
1999	SEP. 8 - DEC. 11	5/10	SEP. 1 - DEC. 11	5/10		
2000	SEP. 8 - DEC. 16	5/10	SEP. 1 - DEC. 16	5/10		
2001	SEP. 8 - DEC. 16	5/10	SEP. 1 - DEC. 16	5/10		
2002	SEP. 8 - DEC. 16	5/10	SEP. 1 - DEC. 16	5/10		
2003	SEP. 8 - DEC. 16	5/10	SEP. 1 - DEC. 16	5/10		
2004	SEP. 10 - DEC. 16	5/10	SEP. 1 - DEC. 16	5/10		

	WH	ITE-FRONTI	ED GOOSE SI	EASONS IN A	LBERTA	
YEAR	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	
1970	SEP. 4 - DEC. 5	SEP.1 - DEC. 5	SEP. 14 - DEC. 31	SEP. 14 - DEC. 31	SEP. 21 - JAN. 7	
1971	SEP. 1 - DEC. 4	SEP. 1 - DEC. 4	SEP. 13 - DEC. 31	SEP.13 - DEC. 31	SEP. 20 - JAN. 6	
1972	SEP. 1 - DEC. 9	SEP. 1 - DEC. 9	SEP. 11 - DEC. 30	SEP. 11 - DEC. 30	SEP. 6 - SEP. 20	OCT. 6 - JAN. 4
1973	SEP. 1 - DEC. 8	SEP. 1 - DEC. 8	SEP. 10 - DEC. 29	SEP. 10 - DEC. 29	SEP. 5 - SEP. 19	OCT. 5 - JAN. 3
1974	SEP. 2 - DEC. 7	SEP. 2 - DEC. 7	SEP. 9 - DEC. 28	SEP. 9 - DEC. 28	SEP. 4 - SEP. 18	OCT. 4 - JAN. 2
1975	SEP. 1 - DEC. 6	SEP. 1 - DEC. 6	SEP. 8 - DEC. 25	SEP. 8 - DEC. 25	SEP. 6 - SEP.17	OCT. 3 - JAN. 3
1976	SEP. 1 - DEC. 11	SEP. 1 - DEC. 11	SEP. 8 - DEC. 25	SEP. 8 - DEC. 25	SEP. 4 - SEP. 15	OCT. 5 - JAN. 1
1977	SEP. 1 - DEC. 17	SEP. 1 - DEC. 17		SEP. 7 - DEC. 24	SEP. 7 - SEP. 14	SEP. 28 - DEC. 31
1978	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16	SEP. 6 - DEC. 23	SEP. 6 - DEC. 23	SEP. 6 - SEP. 13	SEP. 27 - DEC. 30
1979	SEP. 3 - DEC. 15	SEP. 3 - DEC. 15	SEP. 10 - DEC. 22	SEP. 10 - DEC. 22	SEP. 7 - SEP. 15	SEP. 26 - DEC. 29
1980	SEP. 1 - DEC. 13	SEP. 1 - DEC. 13	SEP. 8 - DEC. 20	SEP. 8 - DEC. 20	SEP. 5 - SEP. 13	SEP. 24 - DEC. 27
1981	SEP. 1 - DEC. 12	SEP. 1 - DEC. 12	SEP. 8 - DEC. 19	SEP. 8 - DEC. 19	SEP. 8 - SEP. 14	SEP. 23 - DEC. 26
1982	SEP. 1 - DEC. 18	SEP. 1 - DEC. 18	SEP. 7 - DEC. 24	SEP. 7 - DEC. 24	SEP. 7 - SEP. 14	SEP. 22 - DEC. 31
1983	SEP. 1 - DEC. 17	SEP .1 - DEC. 17	SEP .6 - DEC. 17		SEP. 6 - SEP. 14	SEP. 22 - DEC. 17
1984	SEP. 1 - DEC. 15	SEP. 1 - DEC. 15			SEP. 7 - SEP. 14	SEP. 21 - DEC. 15
1985	SEP. 2 - DEC. 14	SEP. 2 - DEC. 14			SEP. 9 - SEP. 14	SEP. 25 - DEC. 21
1986	SEP. 2 - DEC. 13	SEP. 2 - DEC. 13	SEP. 8 - DEC. 20	SEP. 8 - DEC. 20	SEP. 8 - SEP. 13	SEP. 24 - DEC. 20
1987	SEP. 1 - DEC. 12	SEP. 1 - DEC. 12			SEP. 7 - SEP. 12	SEP. 23 - DEC. 19
1988	SEP. 1 - DEC. 10	SEP. 1 - DEC. 10	SEP. 6 - DEC. 17	SEP. 6 - DEC. 17	SEP. 5 - SEP. 10	SEP. 21 - DEC. 17
1989	SEP. 1 - DEC. 9	SEP. 1 - DEC. 9	SEP. 5 - DEC. 16		SEP. 4 - SEP. 9	SEP. 20 - DEC. 16
1990	SEP. 1 - DEC. 8	SEP. 8 - DEC. 8	SEP. 4 - DEC. 15		SEP. 3 - SEP. 8	SEP. 19 - DEC. 15
1991	SEP. 2 - DEC. 7	SEP. 2 - DEC. 7	SEP. 3 - DEC. 14	SEP. 3 - DEC. 14	SEP. 2 - SEP. 7	SEP. 18 - DEC. 14
1992	SEP. 1 - DEC. 12	SEP. 1 - DEC. 12	SEP. 9 - DEC. 19	SEP. 9 - DEC. 19	SEP. 23 - DEC. 26	
1993	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16	SEP. 8 - DEC. 23	SEP. 8 - DEC. 23	SEP. 22 - DEC. 30	
1994	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16	SEP. 8 - DEC. 23	SEP. 8 - DEC. 23	SEP. 15 - DEC. 30	
1995	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16			SEP. 15 - DEC.30	
1996	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16			SEP. 15 - DEC. 30	
1997	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16			SEP. 8 - DEC. 23	
1998	SEP. 1- DEC. 16	SEP. 1 - DEC. 16		SEP. 1 - DEC. 16	SEP. 8 - DEC. 23	
1999	SEP. 1- DEC. 17	SEP. 1 - DEC. 16			SEP. 8 - DEC. 24	
2000	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16			SEP. 8 - DEC. 23	
2001	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16			SEP. 8 - DEC. 24	
2002	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16			SEP. 8 - DEC. 25	
2003	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16		SEP. 1 - DEC. 16	SEP. 8 - DEC. 23	
2004	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16	SEP. 1 - DEC. 16	SEP. 8 - DEC. 23	

ALBERTA WHITE- FRONTED GOOSE BAG LIMITS

 $\textbf{1970-93:} \quad \text{Total goose aggregate bag limit (dark and white)} = 5 \text{ bird/day, of which no more than 2 may be white- fronted geese}$

1994: Dark and white goose limits split

1994-95: Dark goose limit = 6 birds/day, of which no more than 2 may be white-fronted geese
 1996-97: Dark goose limit = 8 birds/day, of which no more than 3 may be white-fronted geese
 1998: Dark goose limit = 8 birds/day, of which no more than 5 may be white-fronted geese

WHIT	TE-FRONTED (GOOSE SEASON	IS IN ALBERTA
YEAR	ZONE 6	ZONE 7	ZONE 8
1970	SEP. 21 - JAN. 7	SEP. 21 - JAN. 7	SEP. 14 - DEC. 31
1971	SEP. 20 - JAN. 6	SEP. 20 - JAN. 6	SEP. 7 - DEC. 4
1972	OCT. 6 - JAN. 4	OCT. 6 - JAN. 4	SEP. 5 - DEC. 9
1973	OCT. 5 - JAN. 3	OCT. 5 - JAN. 3	SEP. 5 - DEC. 1
1974	OCT. 4 - JAN. 2	OCT. 4 - JAN. 2	SEP. 4 - NOV. 30
1975	OCT. 3 - JAN. 3	OCT. 3 - JAN. 3	SEP.1 - NOV. 29
1976	OCT. 5 - JAN. 1	OCT. 5 - JAN. 1	SEP. 1 - NOV. 27
1977	SEP. 28 - DEC. 31	SEP. 28 - DEC. 31	SEP. 7 - NOV. 26
1978	SEP. 27 - DEC. 30	SEP. 27 - DEC. 30	SEP .6 - NOV. 25
1979	SEP. 26 - DEC. 29	SEP. 26 - DEC. 29	SEP. 10 - NOV. 24
1980	SEP. 24 - DEC. 27	SEP. 24 - DEC. 27	SEP. 8 - NOV. 22
1981	SEP. 23 - DEC. 26	SEP. 23 - DEC. 26	SEP. 23 - DEC. 26
1982	SEP. 22 - DEC. 31	SEP. 22 - DEC. 31	SEP. 22 - DEC. 31
1983	SEP. 22 - DEC. 17	SEP. 22 - DEC. 31	SEP. 15 - DEC. 3
1984	SEP. 21 - DEC. 29	SEP. 21 - DEC. 29	SEP. 15 - DEC. 1
1985	SEP. 25 - DEC. 28	SEP. 25 - DEC. 28	SEP. 16 - DEC. 7
1986	SEP. 24 - DEC. 27	SEP. 24 - DEC. 27	SEP. 15 - DEC. 6
1987	SEP. 23 - DEC. 26	SEP. 23 - DEC. 26	SEP. 14 - DEC. 12
1988	SEP. 21 - DEC. 24	SEP. 21 - DEC. 24	SEP. 12 - DEC. 10
1989	SEP. 20 - DEC. 23	SEP. 20 - DEC. 23	SEP. 11 - DEC. 9
1990	SEP. 19 - DEC. 22	SEP. 19 - DEC. 22	SEP. 10 - DEC. 8
1991	SEP. 18 - DEC. 21	SEP. 18 - DEC. 21	SEP. 9 - DEC. 7
1992	SEP. 23 - DEC. 26	SEP. 14 - DEC. 26	SEP. 9 - DEC. 19
1993	SEP. 22 - DEC. 30	SEP. 22 - DEC. 30	SEP. 8 - DEC. 23
1994	SEP. 15 - DEC. 30	SEP. 15 - DEC. 30	SEP. 8 - DEC. 23
1995	SEP. 15 - DEC. 30	SEP. 15 - DEC. 30	SEP. 8 - DEC. 23
1996	SEP. 15 - DEC. 30	SEP. 15 - DEC. 30	SEP. 8 - DEC. 23
1997	SEP. 8 - DEC. 23	SEP. 8 - DEC. 23	SEP. 1 - DEC. 16
1998	SEP. 8 - DEC. 23	SEP. 8 - DEC. 23	SEP. 1 - DEC. 16
1999	SEP. 8 - DEC. 23	SEP. 8 - DEC. 23	SEP. 1 - DEC. 17
2000	SEP. 8 - DEC. 23	SEP. 8 - DEC. 23	SEP. 1 - DEC. 16
2001	SEP. 8 - DEC. 23	SEP. 8 - DEC. 23	SEP. 1 - DEC. 17
2002	SEP. 8 - DEC. 23	SEP. 8 - DEC. 23	SEP. 1 - DEC. 18
2003	SEP. 8 - DEC. 23	SEP. 8 - DEC. 23	SEP. 1 - DEC. 16
2004	SEP. 8 - DEC. 23	SEP. 8 - DEC. 23	SEP. 1 - DEC. 16

APPENDIX G

