

V. COMPARISON OF ALTERNATIVES

A. SUMMARY TABLE OF ENVIRONMENTAL CONSEQUENCES

A comparison of the impacts by alternative is presented in **Table V-1**. The analyses are based on professional judgement, previous experience, examples of actions and results, and the currently available literature. The impacts presented in the table represent what we consider reasonable outcomes based on the alternatives and current conditions as described in the FEIS. The comparison of impacts is not intended to suggest that other outcomes are not possible. In fact, there may be an infinite number of possible outcomes for these alternatives.

B. CONSISTENCY WITH MANAGEMENT PLANS

The Atlantic, Mississippi, Central and Pacific Flyway Councils make recommendations to the Service on matters regarding migratory game birds and work in a unique partnership with the Service and Canadian Wildlife Service to manage populations of migratory birds. Since the conception of flyway management in the 1930s and the initiation of flyway management in 1948, the Councils stature and influence have grown. As part of this unique relationship, the Service and the Councils have cooperatively developed management plans for a wide variety of migratory bird species and activities, and these plans have been appropriate mechanisms to address national and international issues related to migratory bird population goals and objectives, harvest considerations, and information needs. Since there are large numbers of resident Canada geese in each Flyway, cooperative Flyway management plans were developed to address these populations (see section **I.E. Flyway Council Management Plans** for further discussion). A commonality among the plans' goals is the need to balance the positive aspects of resident Canada geese with the conflicts they can cause. To accomplish these goals, the plans identify objectives in population status, harvest management, and nuisance control/damage relief (see **Table I-4**). In formulating our proposed action, we have tried to incorporate Flyway objectives into our analyses to help define acceptable and desirable population reduction and management.

As we stated in section **I.E.5. Relationship of Flyway Management Plans to the EIS**, “the role of this FEIS is to act as an umbrella document for the management of resident Canada geese and to act as a comprehensive programmatic plan to guide and direct resident Canada goose population growth and management activities in the conterminous United States. In particular, the FEIS evaluates the various alternative strategies to reduce, manage, and control resident Canada goose populations in the continental United States and to reduce related damages. Further, the objective of this FEIS and any ultimate proposal is to provide a regulatory mechanism that would allow State and local agencies, other Federal agencies, and groups and individuals to respond to damage complaints or damages by resident Canada geese. The means must be more effective than the current system; environmentally sound, cost-effective, flexible enough to meet the variety of management needs found throughout the flyways, should not threaten viable resident Canada goose populations as determined by each Flyway Council, and must be developed in accordance with the mission of the Service.” We believe that Alternative F - “Integrated Damage Management and Population Reduction” is consistent with and best accomplishes the various goals and objectives of the individual Flyway management plans while remaining in accordance with the mission of the Service and Wildlife Services. Further, population reductions at the site-specific level within the guidelines and restrictions of this alternative will not be a significant impact on resident Canada geese because these levels maintain viable populations.

Table V-1. Comparison of impacts by alternative.

<u>Impacted Area</u>	<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D</u>	<u>Alternative E</u>				<u>Alternative F</u>	<u>Alternative G</u>
	No Action	Nonlethal Control & Management (Non-permitted Activities)	Nonlethal Control & Management (Permitted Activities)	Expanded Hunting Methods and Opportunities	Airport Control Order	Nest and Egg Depredation Order	Agricultural Depredation Order	Public Health Control Order	Integrated Damage Management and Population Reduction	General Depredation Order
Resident Canada goose populations	Population growth would continue at variable rates, depending on available habitat and conditions until they reach or exceed carrying capacity. At some future point, populations would probably level-off at some unknown but higher level.	Population growth more pronounced than under Alt. A.	Population growth would continue at variable rates, depending on available habitat and conditions. More pronounced than under Alt. A but less than under Alt. B.	Growth less pronounced than under Alt. A. Some localized reductions could occur. Rural populations would likely experience reduced growth rates.	Similar to Alt. A. with localized significant reductions to populations at or near airports.	Localized reductions in population growth rates and gradual stabilization of population. Overall, slower growth rates than under Alt. A.	Localized reductions in populations causing agricultural damage. Overall, similar to Alt. A.	Localized significant reductions to populations at specific location of management actions. Overall, similar to Alt. A.	Localized reductions in populations (as in Alt. E) and overall reduced growth rates (as in Alt. D) or population reduction depending on State's management actions. Populations would level-off at some unknown but significantly lower level.	Similar to Alt. F but less pronounced.
Natural resources	Negative impacts to soil and water resources would continue and likely increase.	Increased negative impacts to soil and water resources as populations rapidly increase.	Similar to Alt. B.	Similar to Alt. A.	Similar to Alt. A. with localized impacts reduced at participating airports.	Similar to Alt. A. Gradual reduction in impacts at localized areas subjected to actions.	Similar to Alt. A. Reduced localized impacts at agricultural locations.	Similar to Alt. A. Reduced localized impacts at site-specific locations.	Reduced or stabilized impacts to soil and water resources.	Similar to Alt. F.
Other wildlife including protected species	No new impacts. Continued limited impacts to other migratory birds.	Increased impacts to other migratory birds.	Similar to Alt. B.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A. Gradual decrease in impacts to other migratory birds.	Similar to Alt. A.	Similar to Alt. A.	Reduced or stabilized impacts to other migratory birds.	Similar to Alt. F.
Regular hunting seasons	Given continued population growth, hunting opportunities would continue to increase before gradually leveling off.	Hunting opportunities would increase with increased populations and elimination of special seasons. Some new areas could be opened due to these population increases.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A.

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	No Action	Nonlethal Control & Management (Non-permitted Activities)	Nonlethal Control & Management (Permitted Activities)	Expanded Hunting Methods & Opportunities	Airport Control Order	Nest and Egg Depredation Order	Agricultural Depredation Order	Public Health Control Order	Integrated Damage Management and Population Reduction	General Depredation Order
Special hunting seasons	Given continued population growth, hunting opportunities would continue to increase before gradually leveling off.	Significant. Special hunting seasons would be eliminated.	Similar to Alt. A.	With continued population growth and new available methods, opportunities would increase significantly then likely level off.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A.	Greater than Alt. D. New available methods under managed take would significantly increase take opportunities.	Similar to Alt. D.
Wildlife Services program	Workload would increase as complaints continue to increase.	Significant increases in requests for technical assistance as complaints and conflicts would likely increase.	Similar to Alt. B.	Similar to Alt. A but less pronounced.	Similar to Alt. A. with initial workload increase at airports. Subsequent workload reduction at airports once programs are established.	Similar to Alt. A.	Similar to Alt. A. with initial workload increase at agricultural sites. Subsequent workload reduction in agricultural areas once programs are established.	Similar to Alt. A. with initial workload increase at public health sites. Subsequent workload reduction in these specific areas once programs are established.	Similar to Alt. A. with initial workload increase at airports, agricultural sites, and public health sites. Subsequent workload reduction in these specific areas once programs are established and population's decrease.	Similar to Alt. F.
U.S. Fish and Wildlife Service program	Likely continued increase in complaints and conflicts would result in an increased workload and more permits being issued.	Permit workload would decrease significantly since no permits would be issued. Requests for technical assistance would increase significantly.	Similar to Alt. B.	Similar to Alt. A but less pronounced.	Similar to Alt. A. with significant reduction in workload associated with geese at airports.	Significant reduction in workload associated with permits for nest and egg destruction. Other workload would remain largely unaffected and similar to Alt. A.	Significant reduction in workload associated with geese causing agricultural impacts. Other workload would remain largely unaffected and similar to Alt. A.	Significant reduction in workload associated with geese at specific locations, such as beaches, parks, etc. Other workload would remain largely unaffected and similar to Alt. A.	Significant reduction in workload associated with permits for nest and egg removal and for geese at specific locations, such as agricultural sites, public health areas, and airports. Additional costs related to monitoring.	Similar to Alt. F but primary decisions and management would fall to the Service as would all monitoring and evaluation. Significant increase in workload associated with running the entire program over that in Alt. F.
<u>Impacted Area</u>	<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C</u>	<u>Alternative D</u>	<u>Alternative E</u>				<u>Alternative F</u>	<u>Alternative G</u>
	No Action	Nonlethal Control & Management (Non-permitted Activities)	Nonlethal Control & Management (Permitted Activities)	Expanded Hunting Methods and Opportunities	Airport Control Order	Nest and Egg Depredation Order	Agricultural Depredation Order	Public Health Control Order	Integrated Damage Management and Population Reduction	General Depredation Order

State Programs	Increasing populations result in increases in conflicts and workload. States would likely look for increases in funding for goose damage management program.	Significant increases in conflicts would result in increased workload related to technical assistance. States participating in the special Canada goose permit program would have to cease all management activities.	Similar to Alt. B.	Similar, but less pronounced, to Alt. A. Areas open to increased hunting would likely see fewer requests for technical assistance and management activities.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A. except for initial workload associated with geese causing agricultural impacts.	Similar to Alt. A. except for initial workload associated with geese causing public health threats at specific locations, such as beaches, parks, etc.	Depending on State's selection of strategies, workload would vary. In participating States, increases in reporting and monitoring work. In non-participating States, workload would be unaffected and similar to Alt. A.	Similar to Alt. F but the State would not serve as the primary decision maker or manager as under Alt. F. States would experience a significant reduction workload (compared to Alt. F) and oversight as all decisions fall to the Service.
Aesthetics	Likely increase in populations would provide more opportunities for public viewing. However, problems associated with large numbers of geese, i.e., droppings, feathers, etc. would likely increase.	Increase in populations would provide more opportunities for public viewing. However, problems associated with large numbers of geese, i.e., droppings, feathers, etc. would significantly increase.	Similar to Alt. B.	Similar to Alt. A, but less pronounced.	Significant reduction in viewing opportunities at airports. Overall, similar to Alt. A.	Similar to Alt. A. In the long-term, viewing opportunities would slightly decrease and associated problems should slightly decrease.	Similar to Alt. A.	Similar to Alt. A. except for possible reductions in viewing opportunities at public health threat areas.	Likely reduction in viewing opportunities depending on the State's management strategies. Problems associated with large numbers of geese, i.e., droppings, feathers, etc. would also gradually decrease. Overall, viewing still readily available.	Similar to Alt. F.
Recreational use of impacted areas	Continued impacts as populations continue to grow.	Increase in impacts.	Similar to Alt. B.	Similar to Alt. A, but less pronounced.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A. except for areas deemed public health threat areas.	Similar to Alt. A but less pronounced especially in areas deemed public health threat areas.	Similar to Alt. F.
Animal rights and humaneness	Continued use of lethal techniques.	Significantly less human-induced mortality as most lethal take is eliminated.	Similar to Alt. B, with significantly less impacts on adult birds.	Similar to Alt. A.	Similar to Alt. A. Increased impact on birds at airports.	Similar to Alt. A., however groups supporting non-lethal methods would support this alternative.	Similar to Alt. A. Increased impact on birds at agricultural sites.	Similar to Alt. A. Increased use of lethal techniques on birds at or near specific locations.	Similar to Alt. A with increased impact on birds depending on the State's management strategies.	Similar to Alt. F.
<u>Impacted Area</u>	<u>Alternative A</u> No Action	<u>Alternative B</u> Nonlethal Control & Management (Non-permitted Activities)	<u>Alternative C</u> Nonlethal Control & Management (Permitted Activities)	<u>Alternative D</u> Expanded Hunting Methods and Opportunities	<u>Alternative E</u> Airport Control Order Nest and Egg Depredation Order Agricultural Depredation Order			<u>Alternative F</u> Public Health Control Order	<u>Alternative G</u> Integrated Damage Management and Population Reduction	<u>Alternative H</u> General Depredation Order

Residential, commercial, and public property	Continued increase in impacts and conflicts as populations continue to grow.	Probable significant increase in impacts and conflicts.	Similar to Alt. B.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A. Continued impacts and conflicts until populations gradually reduced. At which point, impacts probably lessen.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A until populations gradually reduced.	Similar to Alt. F.
Agricultural crops	Continued increase in impacts as populations continue to grow.	Probable significant increase in impacts.	Similar to Alt. B.	Similar to Alt. A, but impacts less pronounced as populations responsible for damage available to increased hunting.	Similar to Alt. A.	Similar to Alt. A.	Significantly less impacts as birds are aggressively hazed or removed.	Similar to Alt. A.	Significantly less impacts as birds are aggressively hazed or removed.	Similar to Alt. F.
Human safety	Continued increase in impacts as populations continue to grow.	Probable significant increase in impacts.	Similar to Alt. B.	Similar to Alt. A.	Significantly less impacts at airports.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A.	Significantly less impacts at airports.	Similar to Alt. F.
Human health	Continued increase in concerns as populations continue to grow.	Probable significant increase in concerns.	Similar to Alt. B.	Similar to Alt. A.	Similar to Alt. A.	Similar to Alt. A. until populations gradually reduced.	Similar to Alt. A.	Significantly less impacts as birds are removed.	Significantly less impacts as birds are removed.	Similar to Alt. F.

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Administrative costs	<u>FWS</u> - Likely increase costs due to increases in permits issuance. <u>WS</u> - Costs would increase as complaints continue to increase.	<u>FWS</u> - Significant decrease as permits would be eliminated. Increased demand for technical assistance. <u>WS</u> - Significant increase in costs as complaints and requests for technical assistance would substantially increase.	<u>FW</u> - Similar to Alt. B. <u>WS</u> - Similar to Alt. B.	<u>FWS</u> - Similar to Alt. A. <u>WS</u> - Similar to Alt. A.	<u>FWS</u> - Similar to Alt. A. <u>WS</u> - Initial workload increase. Overall, similar to Alt. A.	<u>FWS</u> - Less costs since reduction in workload associated with permits for nest and egg destruction. Overall, similar to Alt. A. <u>WS</u> - Similar to Alt. A.	<u>FWS</u> - Similar to Alt. A with reduced workload concerning agricultural depredation. <u>WS</u> - Initial workload increase. Overall, similar to Alt. A.	<u>FWS</u> - Similar to Alt. A. <u>WS</u> - Similar to Alt. A.	<u>FWS</u> - Depending on State's selection of strategies, costs would vary, but significantly reduced. Most permits would be eliminated. Monitoring costs would increase. <u>WS</u> - Costs would vary depending on State's selection of strategies. Probable initial costs increase assisting implementing other programs. Subsequent costs reduction once programs are established and complaints and conflicts lessen.	<u>FWS</u> - Similar to Alt. F except that program oversight functions and associated costs would increase significantly. Significantly less permit workload costs. <u>WS</u> - Similar to Alt. F.
Monitoring costs	Continued status quo. No new costs.	No new costs. Probable decrease as surveys are eliminated or scaled-back.	No new costs.	No new costs.	No new costs. Significant cost savings to air industry and military.	No new costs.	No new costs.	No new costs.	Significantly increased costs for those States with populations not currently monitored.	Similar to Alt. F.