

DECISION

ENVIRONMENTAL ASSESSMENT: REDUCING GULL DAMAGE IN THE COMMONWEALTH OF MASSACHUSETTS

I. PURPOSE

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program, in cooperation with the United States Fish and Wildlife Service (USFWS) has prepared an Environmental Assessment (EA) to analyze the potential environmental and social impacts to the quality of the human environment from resolving damage, including conflicts and threats, to agricultural resources, property, natural resources, and human safety associated with herring gulls (*Larus argentatus*), ring-billed gulls (*Larus delawarensis*), great black-backed gulls (*Larus marinus*), and laughing gulls (*Larus atricilla*) (hereafter referred to as “gulls” in this document) in Massachusetts (USDA 2010). The EA documents the need for gull damage management in the Commonwealth and assesses potential impacts on the human environment of three alternatives to address that need. WS’ proposed action in the EA would continue an integrated damage management program to fully address the need to manage damage associated with gulls while minimizing impacts to the human environment.

The EA evaluated the issues and alternatives associated with WS’ potential participation in managing damage and threats caused by gulls in the Commonwealth. The EA was prepared by WS to determine if the proposed action could have a significant impact on the quality of the human environment. Specifically, the EA was prepared to: 1) facilitate planning and interagency coordination, 2) streamline program management, 3) evaluate the potential environmental consequences of the alternatives related to the issues of managing damage caused by gulls, and 4) clearly communicate to the public the analysis of individual and cumulative impacts.

II. NEED FOR ACTION

The need for action arises from requests for assistance received by WS to reduce and prevent damage associated with gulls from occurring to four major categories: agricultural resources, natural resources, property, and threats to human safety. WS only conducts gull damage management after receiving a request for assistance. Before initiating gull damage management activities in the Commonwealth, a Memorandum of Understanding, cooperative service agreement, or other comparable document would be signed between WS and the cooperating entity which lists all the methods the property owner or manager will allow to be used on property they own and/or manage.

Most requests for WS’ assistance are associated with suburban areas where gulls congregate during migration periods and during nesting periods. Those requests for assistance are associated with the hazards gulls pose to aircraft from bird strikes and from gulls nesting on rooftops where nesting debris can clog drains and ventilation systems. Agricultural losses occur primarily in the late winter and spring and are a result of gulls consuming aquaculture resources and threats of disease transmission to livestock associated with fecal droppings. Threats to natural resources associated with gulls also occur in the Commonwealth. Gulls are colonial nesters and often compete with other nesting colonial waterbirds for nest sites. Gulls are also known to feed on the eggs and chicks of other nesting colonial waterbirds.

WS’ activities would only be conducted when requested and only when damage or a threat is occurring to agricultural resources, natural resources, property, or posing a threat to human health and safety. WS may also be requested to participate in disease surveillance and monitoring in the event of a disease outbreak or potential outbreak in a gull population.

III. SCOPE OF ANALYSES IN THE EA

The EA evaluates gull damage management as conducted by WS to reduce threats to human health and safety and to resolve damage to property, natural resources, and agricultural resources wherever such management is requested by a cooperator. If the analyses in the EA indicates the preparation of an Environmental Impact Statement (EIS) is not warranted and a Finding of No Significant Impact (FONSI) is signed by the decision-maker for the EA, the analyses in the EA would remain valid until WS determines that new needs for action, changed conditions, new issues, or new alternatives having different potential environmental impacts must be analyzed. The analyses in the EA are intended to apply to any action taken by WS to alleviate gull damage or threats of damage that may occur in any locale and at any time within the Commonwealth of Massachusetts.

The USFWS is a cooperating agency on the EA to analyze cumulative take of those gull species addressed in the EA from the issuance of depredation permits to entities within the Commonwealth and to ensure compliance with the National Environmental Policy Act (NEPA). The USFWS has jurisdiction over the management of migratory birds and has specialized expertise in identifying and quantifying potential adverse affects to the human environment from bird damage management activities. The analyses in the EA will ensure the USFWS compliance with the NEPA for the issuance of depredation permits for the take of those birds species addressed.

The EA was made available to the public for review and comment by a legal notice published for three consecutive days in the *Boston Herald* newspaper beginning on April 3, 2010. A notice of availability and the EA were also made available for public review and comment on the APHIS website at http://www.aphis.usda.gov/wildlife_damage/nepa.shtml beginning on March 30, 2010. A letter of availability was also mailed directly to agencies, organizations, and individuals with probable interest in gull damage management in the Commonwealth. The public involvement process ended on May 4, 2010. No comments on the EA were received during the public involvement period.

IV. DECISIONS TO BE MADE

Based on the scope of the EA, the decisions to be made are: 1) should WS conduct gull damage management to alleviate damage to agriculture, property, natural resources, and threats to human health and safety, 2) should the Migratory Bird Program in USFWS Region 5 issue depredation permits to WS and other entities to conduct gull damage management activities, 3) should WS conduct disease surveillance and monitoring in the bird population when requested by the Massachusetts Division of Fisheries and Wildlife (MDFW), the USFWS, and other agencies, 4) should WS implement an integrated wildlife damage management strategy, including technical assistance and direct operational assistance, to meet the need for gull damage management in Massachusetts, 5) if not, should WS attempt to implement one of the alternatives to an integrated damage management strategy as described in the EA, and 6) would the proposed action result in adverse impacts to the environment requiring the preparation of an EIS.

V. RELATIONSHIP OF THE EA TO OTHER ENVIRONMENTAL DOCUMENTS

WS has developed a programmatic Final Environmental Impact Statement (FEIS) that addressed the need for wildlife damage management (USDA 1997). The FEIS contains a detailed discussion of the potential impacts to the human environment from wildlife damage management methods and techniques employed by WS, including methods used to manage damage associated with gulls. Pertinent information in the FEIS has been incorporated into the EA and this decision document by reference.

In addition to WS' programmatic FEIS, WS has developed an EA to address the need to reduce threats that wildlife pose at airports in the Commonwealth along with the issues identified to alleviate those

threats and alternatives that were developed to address those issues. The EA also identified gulls as posing threats to aircraft and passenger safety in the Commonwealth (USDA 2002). The analyses in the EA that addressed wildlife hazards at airports were evaluated as part of the issues and alternatives for this EA to ensure cumulative impacts associated with activities address in both EAs are evaluated.

VI. AUTHORITY AND COMPLIANCE

WS is authorized by law to reduce damage caused by wildlife through the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C. 426-426b), as amended and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c). Management of migratory birds, including gulls, is the responsibility of the USFWS under the Migratory Bird Treaty Act (MBTA). As the authority for the management of gulls, the USFWS was a cooperating agency in the development of the EA and provided input throughout the EA preparation process to ensure an interdisciplinary approach according to the NEPA and agency mandates, policies, and regulations. The MDFW is responsible for managing wildlife in the Commonwealth of Massachusetts, including gulls. Information from the USFWS and the MDFW has been provided to WS to assist in the analysis of potential impacts of WS' proposed activities on gull populations in the Commonwealth.

The EA and this Decision ensures WS' actions comply with the NEPA, with the Council on Environmental Quality guidelines (40 CFR 1500), and with APHIS' NEPA implementing regulations (7 CFR 372). All gull damage management activities, including disposal requirements, are conducted consistent with: 1) the Endangered Species Act of 1973, 2) the MBTA, 3) Executive Order (EO) 12898¹, 4) EO 13045², 5) EO 13186³, 6) the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and 7) applicable federal, Commonwealth, and local laws, regulations and policies, including WS' Directives.

VII. AFFECTED ENVIRONMENT

Upon receiving a request for assistance, gull damage management activities could be conducted on federal, Commonwealth, tribal, municipal, and private properties in Massachusetts. The areas of the proposed action could include areas in and around commercial, industrial, public, and private buildings, facilities and properties and at other sites where gulls may roost, loaf, feed, nest, or otherwise occur. Examples of areas where gull damage management activities could be conducted are, but are not necessarily limited to: agricultural fields, vineyards, orchards, farmyards, dairies, ranches, livestock operations, aquaculture facilities, fish hatcheries, grain mills, grain handling areas, railroad yards, waste handling facilities, industrial sites, natural areas, government properties and facilities, private properties, corporate properties, schools, hospitals, airports, parks, woodlots, recreation areas, communally-owned homeowner/property owner association properties, wildlife refuges, and wildlife management areas. The affected environment could also include areas where gulls negatively impact wildlife, including T&E species; and public property where gulls are negatively impacting historic structures, cultural landscapes, and natural resources.

¹ Executive Order 12898 promotes the fair treatment of people of all races, income levels, and cultures with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

² Executive Order 13045 ensures the protection of children from environmental health and safety risks since children may suffer disproportionately from those risks.

³ Executive Order 13186 directs federal agencies to protect migratory birds and strengthen migratory bird conservation by identifying and implementing strategies that promote conservation and minimize the take of migratory birds through enhanced collaboration. A national-level MOU between the USFWS and WS is being developed to facilitate the implementation of Executive Order 13186.

VIII. ISSUES ADDRESSED IN THE ANALYSIS OF ALTERNATIVES

Issues related to wildlife damage management were initially identified and defined during the development of WS' programmatic FEIS (USDA 1997). Issues related to gull damage management in Massachusetts were defined and preliminary alternatives were identified through consultation with the USFWS and with the MDFW. The EA was also made available to the public for review and comment through notices published in local media and through direct notification of interested parties.

Chapter 2 of the EA describes in detail the issues considered and evaluated in the EA (USDA 2010). The following issues were identified as important to the scope of the analysis (40 CFR 1508.25) with each alternative evaluated in the EA relative to the impacts on the major issues:

- Issue 1 - Effects of Damage Management Activities on Gull Populations
- Issue 2 - Effects on Non-target Species Populations, Including T&E Species
- Issue 3 - Effects of Damage Management Methods on Human Health and Safety
- Issue 4 - Effects on Socio-Cultural and Economics of the Human Environment
- Issue 5 - Humaneness and Animal Welfare Concerns of Methods Available

IX. ISSUES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE

In addition to those issues analyzed in detail, several issues were identified during the development of the EA but were not considered in detail. The rationale for the decision not to analyze those issues in detail is discussed in the EA. Those issues not analyzed in detail were:

- Appropriateness of Preparing an EA (Instead of an EIS) For Such a Large Area
- WS' Impact on Biodiversity
- A Loss Threshold Should Be Established Before Allowing Lethal Methods
- Gull Damage Management Should Not Occur at Taxpayer Expense
- Cost Effectiveness of Management Methods
- Effectiveness of Gull Damage Management Methods
- Impacts of Avian Influenza (AI) on Bird Populations
- Gull Damage Should Be Managed By Private Nuisance Wildlife Control Agents
- Effects from the Use of Lead Ammunition in Firearms
- Impacts of Dispersing Gulls on People in Urban/Suburban Areas
- A Site Specific Analysis Should be Made for Every Location Where Gull Damage Management Could Occur

X. DESCRIPTION OF THE ALTERNATIVES

The following three alternatives were developed to respond to the issues identified in Chapter 2 of the EA (USDA 2010). A detailed discussion of the effects of the alternatives on the issues is described in the EA under Chapter 4; below is a summary of the alternatives.

Alternative 1 - Continuing the Current Integrated Approach to Managing Gull Damage (Proposed Action/No Action)

The proposed action would continue the current program of employing an integrated damage management approach using methods, as appropriate, to reduce damage associated with gulls in the Commonwealth. An integrated damage management strategy would be recommended and used, encompassing the use of practical and effective methods of preventing or reducing damage while

minimizing harmful effects of damage management measures on people, other species, and the environment. Non-lethal methods would be given first consideration in the formulation of each damage management strategy, and would be recommended or implemented when practical and effective before recommending or implementing lethal methods. However, non-lethal methods would not always be applied as a first response to each damage problem. The most appropriate response could often be a combination of non-lethal and lethal methods, or there could be instances where application of lethal methods alone would be the most appropriate strategy.

All methods addressed in Appendix B of the EA could be employed by WS to resolve requests for assistance to manage damage associated with gulls in the Commonwealth. Using the WS Decision model discussed in the EA, WS would employ methods singularly or in combination in an integrated approach to alleviate damage caused by gulls.

Alternative 2 - Gull Damage Management by WS through Technical Assistance Only

Under the technical assistance only alternative, WS would address every request for assistance with technical assistance only. Technical assistance would provide those persons seeking assistance with information and recommendations on gull damage management that those cooperators could employ without WS' direct involvement in the action. Technical assistance could be employed through personal or telephone consultations and through site visits. Under this alternative, the immediate burden of resolving threats or damage associated with gulls would be placed on those persons experiencing damage. Those persons could employ those methods recommended by WS, could employ other methods, or could take no further action.

Gulls could still be lethally taken to alleviate damage under this alternative when committing or about to commit damage or posing a human health and safety threat in accordance with depredation permits issued by the USFWS and the MDFW. Similar to Alternative 3, the avicide DRC-1339 would not be available under this alternative to those persons experiencing gull damage. All other methods described in Appendix B of the EA would be available to those persons experiencing damage.

Alternative 3 – No Gull Damage Management Conducted by WS

Under the no involvement alternative, WS would not be involved with any aspect of gull damage management activities in Massachusetts. All requests for assistance received by WS would be referred to the USFWS, the MDFW, and/or other entities. The take of gulls could continue to occur under this alternative when damage or threats were occurring in accordance with depredation permits issued by the USFWS and the MDFW. Most of the methods described in Appendix B of the EA under this alternative to alleviate gull damage and threats would be available under any of the alternatives. The only method that would not be available to manage damage caused by gulls under this alternative would be the avicide DRC-1339.

XI. ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL WITH RATIONALE

Additional alternatives were also evaluated but were not considered in detail in the EA with rationale provided in the EA (USDA 2010). The alternatives analyzed but not in detail included:

- Non-lethal Methods Implemented Before Lethal Methods
- Use of Non-lethal Methods Only by WS
- Use of Lethal Methods Only by WS
- Trap and Translocate Gulls Only

- Reducing Damage by Managing Gull Populations through the Use of Reproductive Inhibitors
- Compensation for Gull Damage

XII. MINIMIZATION MEASURES AND STANDARD OPERATING PROCEDURES

Minimization measures are any features of an action that serves to prevent, reduce, or compensate for impacts that otherwise might result from that action. The current WS program, nationwide and in Massachusetts, uses many such minimization measures and standard operating procedures. Minimization measures and standard operating procedures are discussed in detail in Chapter 5 of WS' programmatic FEIS (USDA 1997) and in Chapter 3 of the EA (USDA 2010). Those minimization measures and standard operating procedures would be incorporated into activities conducted by WS when addressing gull damage and threats in Massachusetts under the proposed action alternative (Alternative 1) and when applicable, under the technical assistance alternative (Alternative 2). If the no involvement by WS alternative (Alternative 3) is selected, the lack of assistance by WS would preclude the employment or recommendation of those minimization measures and standard operating procedures addressed in the EA by WS.

XIII. ENVIRONMENTAL CONSEQUENCES FOR ISSUES ANALYZED IN DETAIL

The EA analyzes the environmental consequences of each alternative as that alternative relates to the issues identified to provide information needed for making informed decisions in selecting the appropriate alternative to address the need for action. The following resource values in Massachusetts are not expected to be significantly impacted by any of the alternatives analyzed in the EA: soils, geology, minerals, water quality/quantity, flood plains, wetlands, critical habitats (areas listed in threatened and endangered (T&E) species recovery plans), visual resources, air quality, prime and unique farmlands, aquatic resources, timber, and range. The activities proposed in the alternatives would have a negligible effect on atmospheric conditions including the global climate. Meaningful direct or indirect emissions of greenhouse gases would not occur as a result of any of the alternatives. Those alternatives would meet the requirements of applicable laws, regulations, and Executive Orders, including the Clean Air Act and Executive Order 13514.

Chapter 4 of the EA analyzes the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on those major issues identified in the EA. The proposed action/no action alternative serves as the baseline for the analysis and the comparison of expected impacts among the alternatives. The analysis also takes into consideration mandates, directives, and the procedures of WS, the USFWS, and the MDFW. The analyses in Chapter 4 of the EA indicate the potential impacts to the quality of the human environment would be similar across the alternatives.

Issue 1 - Effects of Damage Management Activities on Gull Populations

Gulls that could be taken by WS under the proposed action could be taken by those persons experiencing damage or threats in the absence of WS' direct involvement since the take of gulls can occur when a depredation permit has been issued by the USFWS pursuant to the MBTA and a permit has been issued by the MDFW. Since the lack of WS' direct involvement does not preclude the taking of gulls by those persons experiencing damage or threats associated with those gull species addressed in the EA, WS' involvement in the taking of those gulls under the proposed action would not be additive to the number of gulls that could be taken by other entities in the absence of WS' involvement. In addition, most non-lethal and lethal methods available for resolving damage or threats associated with gulls would be available under any of the alternatives. The avicide DRC-1339 would be the only method that would not be available under all of the alternatives. The use of DRC-1339 would only be available under the proposed action since the product is only available for use by WS' personnel. Therefore, WS' use of

those methods available under all of the alternatives would not be additive to the environmental status quo since those methods could be employed by any entity experiencing damage. Based on the evaluation in the EA (USDA 2010) and WS' programmatic FEIS (USDA 1997), the availability of DRC-1339 for gulls under the proposed action would not pose significant environmental risks when used according to label requirements.

Under the proposed action, based on a review of previous activities conducted by WS to alleviate gull damage and in anticipation of an increase in requests for lethal take, WS anticipates that future lethal take would not exceed 500 ring-billed gulls, 1,500 herring gulls, 750 great black-backed gulls, and 500 laughing gulls annually. In addition, up to 50 ring-billed gull nests, 650 herring gull nests, 100 great black-backed gull nests, and 50 laughing gull nests could be destroyed annually by WS to alleviate damage or threats of damage in Massachusetts. The take evaluated in the EA includes the take of gulls that could occur at airports in the Commonwealth that was evaluated in a separate EA (USDA 2002). All take by WS would occur pursuant to the allowed take defined under depredation permits issued by the USFWS and the MDFW. WS may also be requested to assist with sampling and managing the spread of diseases found in gull populations. In the case of a disease outbreak, WS could lethally take gulls for sampling and/or to prevent the further spread of diseases. However, sampling is more likely to occur after a mortality event or after the gulls have been taken to alleviate damage or threats.

WS' take is monitored by comparing numbers of birds killed with overall populations or trends in populations to assure the magnitude of take is maintained below the level that would cause significant adverse impacts to the viability of native species populations (USDA 1997). Magnitude is defined as a measure of the number of animals killed in relation to their abundance. In this analysis, magnitude is evaluated first in terms of total take or population trend, then in terms of WS' proposed annual take of gulls. Magnitude is determined either quantitatively or qualitatively. The quantitative method is more rigorous and used when allowable take, population level, and take data is available. Qualitative methods are based on population trends and take data or regional population trends and population modeling. The analyses in the EA were based on data derived from the Breeding Bird Survey (BBS), the Christmas Bird Count (CBC), and the biological assessment of allowable take.

As was discussed in Chapter 2 of the EA, allowable harvest models for bird species have had a long history of use in the United States, primarily with waterfowl species to determine allowable harvest levels during annual hunting seasons. Although no hunting season exists for gulls, the take of gulls under depredation permits issued by the USFWS and the MDFW to alleviate damage or threats of damage can occur in the Commonwealth pursuant to the MBTA (50 CFR 21). The USFWS recently prepared Potential Biological Removal (PBR) models using population parameters for ring-billed gulls, herring gulls, great black-backed gulls, and laughing gulls to estimate the allowable take level for those gull species in Bird Conservation Region (BCR) 14 and BCR 30 which are the dominant regions in the northeastern United States where those gull species nest. BCRs are regions that consist of landscapes that have similar bird communities, habitats, and resource issues. Massachusetts lies within BCR 30 with portions on the central and western portion of the Commonwealth being within BCR 14. The gulls present in the Commonwealth are those gulls likely to migrate from and have breeding colonies throughout BCR 14 and BCR 30 which covers most of the coastal and inland areas of the northeastern United States. Since population estimates and trends for gulls in the Commonwealth are limited, the PBR models developed by the USFWS for BCR 14 and BCR 30 will be used to analyze potential population impacts since the gulls present in the Commonwealth are likely those gulls migrating from and nesting in BCR 14 and BCR 30. Data used for the PBR model developed by the USFWS for those gulls addressed in the EA and the results of those models are presented in Chapter 4 of the EA (USDA 2010).

Given the close geographical proximity of States in the northeastern United States and given the mobility of gulls, assessing allowable take for each State in the northeast would be difficult. Some concerns arise

regarding the use of regional gull population estimates for assessing allowable take in BCR 14 and BCR 30 as opposed to the more specific breeding population estimates in the Commonwealth. To address those concerns, the analyses in the EA for each species of gulls included the evaluation of proposed take levels as those take levels related to the statewide breeding population and how the proposed take relates to the PBR model for gulls in BCR 14 and BCR 30. Gulls are migratory bird species and the breeding population of gulls estimated at the State-level is only representative of the number of gulls present in a State during a short period of time (breeding season). Colonial waterbird surveys that are conducted at historical nesting sites do not account for migratory gulls that could be present in a State during the migration periods nor do breeding colony surveys account for the population of non-breeding gulls present during the breeding season. Therefore, to better account for the mobility of gulls and the fact that gulls present in the northeastern United States are likely gulls that nest and migrate through BCR 14 and BCR 30, the USFWS developed models based on the geographical scope of the nesting populations of gulls. In addition, the PBR models developed by the USFWS are based on breeding and non-breeding gulls which are often not included in surveys conducted at colonial nesting sites. Since the take of gulls to alleviate damage can occur throughout the year and not just during the breeding season, a comprehensive model like the PBR that includes non-breeding populations of gulls allows for a more systemic analysis of allowable take on gull populations.

Concerns were also identified regarding the potential for the proposed take of gulls under the proposed action alternative to have adverse effects on breeding colonies in the Commonwealth, which have shown recent declining trends. Of those gull species addressed in this assessment, only ring-billed gulls do not have breeding colonies in the Commonwealth. Although nesting start dates vary among the other three gull species in the Commonwealth, nesting generally occurs from April to June with young present in the nests from May through August. The peak nesting period occurs in May for those gull species nesting in the Commonwealth with June through July being the peak time for young to be present in nests. Although requests for assistance to manage damage or threats associated with gulls can occur throughout the year, nearly 84% of the gulls lethally taken by WS from FY 2006 through FY 2009 occurred from September through March. With gull nesting generally occurring from April to June and young present in nests from May through August, most of WS' lethal take of gulls has occurred outside of the nesting season. However, the take of gulls has occurred by WS during those months when nesting is occurring to alleviate damage or threats associated with the nesting behavior. The PBR model developed by the USFWS to estimate allowable take calculated a total population for each gull species using 0.75 non-breeding gulls for every breeding adult. The proportion of non-breeding gulls that have been taken by WS or that would likely be taken by WS under the proposed action alternative is unknown since distinguishing breeding and non-breeding gulls can be difficult based on visual cues once non-breeding gulls have molted into adult plumage.

As stated previously, nearly 84% of the gulls lethally taken by WS from FY 2006 through FY 2009 were taken outside those months when nesting would be occurring. Gulls lethally taken during those months when nesting is not occurring could represent gulls that nest in Massachusetts (except for ring-billed gulls), gulls that nest elsewhere but are present in the Commonwealth during the migration period, or were non-breeding gulls. Since distinguishing gulls that breed at different sites is not possible (unless banding has occurred), the proportion of WS' estimated take under the proposed action alternative that would represent gulls that nest in the Commonwealth, that nest outside of the Commonwealth, or are non-breeding gulls is unknown. Similarly, gulls taken by WS during the nesting season could represent gulls that are nesting in the Commonwealth, are nesting in colonies outside of the Commonwealth but are foraging within the Commonwealth, or are non-breeding gulls. Therefore, the PBR models allow for the most comprehensive approach to analyzing allowable take levels for gulls that nest in and migrate through BCR 14 and BCR 30, which includes Massachusetts.

Ring-billed Gull Population Impact Analysis

The Mid-Atlantic, New England, Maritime (MANEM) Regional Waterbird Plan (2006) reports the populations of ring-billed gulls in the northeastern United States have increased at a rate of 8% to 11% per year since 1976, with a regional breeding population of 40,844 gulls in 13 colonies reported in the 1990s. The overall regional population of ring-billed gulls in BCR 14 and BCR 30 is estimated at 54,000 (see Chapter 4 of the EA). No breeding population estimates are currently available for Massachusetts since ring-billed gulls are not known to nest in the Commonwealth. However, ring-billed gulls do have a year round presence and can be observed throughout most of the Commonwealth. In 1984, the population of ring-billed gulls in the Great Lakes region was estimated at approximately 648,000 pairs (Blokpoel and Tessier 1986). Blokpoel and Tessier (1992) found that the nesting population of ring-billed gulls in the Canadian portion of the lower Great Lakes system increased from 56,000 pairs to 283,000 pairs from 1976-1990.

Ring-billed gulls are considered a species of lowest concern in BCR 14 and BCR 30 which encompass most of the Commonwealth (MANEM Regional Waterbird Plan 2006). Almost 41,000 ring-billed gulls are believed to breed in BCR 14. There are no known breeding colonies in BCR 30. CBC data from 1966-2008 shows a general increasing population trend for wintering populations of ring-billed gulls throughout the Commonwealth (National Audubon Society 2002). In the eastern BBS region, the ring-billed gull population is also showing an increasing annual trend estimated at 1.8% since 1966 with the trend across all routes in the United States estimated to be increasing at 2.6% annually which is statistically significant (Sauer et al. 2008). In the New England/Mid Atlantic region, the number of ring-billed gulls observed along routes surveyed during the BBS has shown an increasing trend since 1966 estimated at 16.7% annually, which is a statistically significant trend (Sauer et al. 2008).

The PBR model developed by the USFWS to estimate allowable take levels for those gulls species address in the EA predicts ring-billed gulls in BCR 14 and BCR 30 could sustain a harvest of 3,065 individuals and maintain current population levels. If WS lethally takes 500 ring-billed gulls and if the take of ring-billed gulls under depredation permits from 2003 through 2007 is indicative of future lethal take in the northeastern United States by all entities, the total take of gulls in BCR 14 and BCR 30 would have ranged from 1,178 gulls to 1,789 gulls with an average take of 1,480 gulls which is below the take level predicted by the PBR model that would cause a decline in the population. Even if the proposed take of up to 500 ring-billed gulls is combined with the highest level of take of ring-billed gulls in the northeastern United States that includes BCR 14 and BCR 30, the overall take would be below the level where a population decline would occur from the proposed take of up to 500 gulls based on the PBR model. WS' take and all known take in the northeastern United States since 2003 has not reached a level that indicates an adverse impact to ring-billed gull populations has occurred. In addition, based on the model, the proposed annual take of ring-billed gulls at the level analyzed in the EA would not reach a level where an undesirable decline in the population would occur.

No exact population estimates are available in Massachusetts for ring-billed gulls. Thus, based on the best available information for the regional gull populations, WS' annual removal of up to 500 gulls would reduce the estimated regional population of 54,000 gulls by less than 1.0% annually. Since population trends continue to indicate an increasing ring-billed gull population, the population of ring-billed gulls in the region and in Massachusetts is likely greater than 54,000 gulls since the population estimated for the PBR is considered a minimum population (N_{min}).

WS may employ nest removal, including eggs, as a method to address damage by ring-billed gulls. Nest removal is not used by WS as a population control method. This method is used by WS to inhibit nesting in an area where damage or threats are occurring due to the nesting activity and is intended to relocate a nesting pair or colony of gulls to an area where there are no conflicts. There may be occasions when nest

treatment, adding, or oiling the eggs and allowing the nesting pair to return to the nest for continued incubation, may be preferable to nest removal. Total nest take at a site is determined by the highest number of active nests with eggs removed and destroyed or treated on a single day during the nesting season. All nests re-built up to the peak and all the nests re-built after the peak are considered re-nests for purposes of reporting the number of nests destroyed to the USFWS.

With management authority over migratory birds, the USFWS could impose stricter take limits if warranted based on population data. The USFWS, as the agency with migratory bird management responsibility, could impose restrictions on depredation harvest as needed to assure cumulative take does not adversely affect the continued viability of populations. This should assure that cumulative impacts on ring-billed gull populations would have no significant adverse impact on the quality of the human environment.

Herring Gull Population Impact Analysis

The population of herring gulls in the southern New England and Mid-Atlantic Regions was estimated at approximately 66,000 breeding pairs (MANEM Regional Waterbird Plan 2006). Herring gulls have decreased approximately 38% in the same area between 1970 and into the 1990s (MANEM Regional Waterbird Plan 2006). In 1990, the statewide population of herring gulls was estimated at 35,000 breeding pairs (Pierotti and Good 1994). The MDFW estimated the number of breeding herring gulls in Massachusetts in 1994-1995 at approximately 17,669 pairs at 62 nesting sites (S. Melvin, MDFW, pers. comm. 2009). In 2006-2007, the number of herring gulls nesting in the Commonwealth was estimated to be at least 9,144 with no census being conducted at Nomans Land Island where nesting is known to have occurred. Although total counts from all sites surveyed during the two survey periods are not directly comparable because of disparities in survey methods between some sites, most sites were surveyed using comparable methods during 2006-2007. For those sites, the results of nesting counts can be compared. For herring gulls, counts from sites that were surveyed using similar methods declined by 42% between the 1994-1995 counts and the 2006-2007 counts (S. Melvin, MDFW, pers. comm. 2009).

According to the MANEM Waterbird Conservation Plan, herring gulls are considered a species of low concern in North America (MANEM Regional Waterbird Plan 2006). Almost 91,000 herring gulls are believed to breed in BCR 30. Of those herring gulls, over 36,000 gulls occur in Southern New England, which includes all of coastal Massachusetts where herring gull nesting is known to occur. In addition, over 196,000 herring gulls are believed to breed in the neighboring BCR 14 which includes north central and western Massachusetts (MANEM Regional Waterbird Plan 2006).

CBC data gathered in Massachusetts from 1966 through 2008 indicates the number of herring gulls observed during the survey has shown a declining trend in the Commonwealth (National Audubon Society 2002). Data available from the BBS indicates the number of herring gulls observed during the survey are showing a downward trend in Massachusetts estimated at -3.6% since 1966 (Sauer et al. 2008). A similar downward trend is occurring across BBS routes in the United States estimated at -2.1% annually since 1966. BBS data currently indicates a declining population in the northeastern United States (USFWS Region 5) estimated at -0.5% annually since 1966 (Sauer et al. 2008). Existing BBS survey routes and coastal counts of nesting herring gulls conducted by the MDFW may not sufficiently take into account the change in nesting behavior from islands to rooftops exhibited by numerous nesting herring gull pairs.

Based on the model, an allowable harvest of up to 16,725 herring gulls in BCR 14 and BCR 30 would maintain current population levels in those two regions. The take of herring gulls also occurs by other entities through depredation permits issued by the USFWS and the MDFW. The take of 1,500 herring gulls would represent 4.2% of the MANEM Regional Waterbird Plan estimated herring gull breeding

population in Southern New England and 8.2% of the estimated 2006-2007 breeding population in Massachusetts. In addition to the lethal take of herring gulls, up to 650 nests could be destroyed annually to reduce and prevent damage to property, agricultural resources, natural resources, and to reduce threats to human safety. The number of herring gulls authorized to be taken by the USFWS and the MDFW has increased annually since 2003. In 2008, the USFWS and the MDFW authorized the take of up to 4,671 herring gulls in Massachusetts to reduce damage and threats associated with herring gulls. If 4,671 herring gulls had been lethally taken in the Commonwealth as permitted by the USFWS and the MDFW, the authorized take would have represent 25.5% of the 9,144 herring gull breeding pairs estimated in the Commonwealth during the 2006-2007 count.

To maintain current population levels, the PBR model developed by the USFWS predicted that 16,725 herring gulls could be taken in BCR 14 and BCR 30 annually. In the northeastern United States (USFWS Region 5), the average annual reported take of herring gulls from 2003 through 2007 has been 3,171 herring gulls by all entities issued depredation permits by the USFWS. Herring gull take by all entities in the northeastern United States has ranged from 2,117 gulls to a high of 3,911 gulls taken under depredation permits issued by the USFWS between 2003 and 2007. Based upon the PBR model, the average annual take of herring gulls in USFWS Region 5 has been below the level of take that would lead to a population decline. To maintain current herring gull populations, the PBR model estimated the allowable harvest of herring gulls in BCR 14 and BCR 30 was over 16,000 gulls annually. With $F_R = 0.5$ (recovery factor), the PBR predicted 8,360 herring gulls could be harvested annually in BCR 14 and BCR 30 which would likely lead to a population increase. The average annual take of herring gulls in the northeastern United States by all entities has been below the level where a population decline would occur based on the model.

The average annual take of herring gulls by all entities in the northeastern United States has averaged 3,171 gulls from 2003 through 2007. If up to 1,500 herring gulls were lethally taken by WS and the average take by all entities in the northeastern United States remains stable, the combined take would be 4,671 herring gulls which is below the level predicted by the PBR that would cause a decline in the herring gull population in the northeastern United States. The take of herring gulls by all entities to alleviate damage or threats has ranged from 2,117 gulls to a high of 3,911 herring gulls from 2003 through 2007. If the range of gulls taken remains stable in the northeastern United States and if 1,500 gulls were taken by WS in Massachusetts, the overall take by all entities would range from 3,617 to a high of 5,411 herring gulls which is below the level that would cause a decline in the breeding population of herring gulls based on the PBR model.

Known take of herring gulls is below the level that the PBR model predicts will cause a decline in the population in the northeastern United States from take permitted by the USFWS. The permitting of take by the USFWS and the MDFW provides outside evaluation to ensure WS' take occurs within the allowed limits to achieve desired population management objectives for herring gulls in Massachusetts and the northeastern United States.

Impacts due to nest removal and destruction would have little adverse impact on the herring gull population regionally and in Massachusetts. Gulls are a long lived species and have the ability to identify areas with regular human disturbance and low reproductive success which causes them to relocate and nest elsewhere when confronted with repeated nest failure. Although there may be reduced fecundity for the individuals affected when nest destruction activities occur, this activity has no long term effect on breeding adult herring gulls. Nest removal is not used by WS as a population management method. This method is used by WS to inhibit nesting in an area experiencing damage due to nesting activity and is intended to relocate a nesting pair or colony of gulls to an area where there are no conflicts. The destruction of up to 650 herring gull nests annually by WS would occur in localized areas where nesting occurs and would not reach a level where adverse affects on gull populations would occur. As with the

lethal take of gulls, the take of nests must also be authorized by the USFWS and the MDFW. Therefore, the number of nests taken by WS annually would occur at the discretion of the USFWS and the MDFW. Take of nests would only occur at levels authorized by those agencies.

Great Black-backed Population Impact Analysis

In BCR 14, the breeding population of great black-backed gulls has been estimated at 115,546 gulls (MANEM Regional Waterbird Plan 2006). In BCR 30, which includes Massachusetts, the breeding population of great black-backed gulls has been estimated at 37,372 gulls (MANEM Regional Waterbird Plan 2006). The population of great black-backed gulls in the southern New England and Mid-Atlantic Regions is approximately 28,000 breeding pairs (MANEM Regional Waterbird Plan 2006). Great black-backed gulls have increased about 39% across the entire 13 northeast state region from the 1970s through the 1990s (MANEM Regional Waterbird Plan 2006). In the United States, great black-backed gulls breeding populations have increased 109% from the 1970s to 1990s (MANEM Regional Waterbird Plan 2006). The Canadian Wildlife Service reports that the population figures for great black-backed gull populations in the Northeast (*i.e.*, along the St. Lawrence River) have increased in the last twenty years (Canadian Wildlife Service 2002). In 1994-1995, the statewide population of great black-backed gulls was estimated at 15,000 breeding pairs (Good 1998) at 62 nesting sites (S. Melvin, MDFW pers. comm. 2009).

During surveys conducted in 2006 and 2007, the breeding population of great black-backed gulls in the Commonwealth was estimated at 9,054 breeding pairs (S. Melvin, MDFW pers. comm. 2009). Methods used to survey gull colonies varied from the 1994-1995 surveys and the 2006-2007 surveys for some of the colonies surveyed which makes comparing the results of the surveys difficult for some colonies. For those colonies in which survey methods used in 1994-1995 are comparable to survey methods used in 2006-2007, the surveys indicated the number of nesting great black-backed gulls declined by 40% between the two surveys (S. Melvin, MDFW pers. comm. 2009).

CBC data gathered in Massachusetts from 1966 through 2008 shows the number of great black-backed gulls observed during the survey to be stable to slightly increasing (National Audubon Society 2002). BBS data indicates a declining population trend for great black-backed gulls in Massachusetts estimated at -1.3% annually since 1966 (Sauer et al. 2008). Across all routes in the United States, BBS data indicates populations are declining at an estimated rate of -2.5% annually since 1966 with similar declining estimates for the northeastern United States estimated at -2.7% (Sauer et al. 2008). However, BBS data compiled for the New England/Mid Atlantic BCRs show an increasing trend in the number of nesting great black-backed gulls estimated at 7.9% annually since 1966 (Sauer et al. 2008). From 1980 to 2007, data compiled from the BBS indicates the number of great black-backed gulls in the New England/Mid Atlantic BCRs has increased 8.7% annually (Sauer et al. 2008).

Great black-backed gulls are considered a species of lowest concern in BCR 30 and of low concern in BCR 14 (MANEM Regional Waterbird Plan 2006). Over 37,000 great black-backed gulls are believed to breed in BCR 30 with over 115,000 great black-backed gulls nesting in BCR 14. Of those, over 43,500 occur in the Gulf of Maine, which includes Massachusetts. The breeding population goal for great black-backed gulls is between 137,626 to 168,210 gulls in BCR 14 and BCR 30 which is below the maximum (MANEM Regional Waterbird Plan 2006). To maintain the current population levels in BCR 14 and BCR 30, the PBR model developed by the USFWS predicts take of 11,234 great black-backed gulls would not cause a decline in gull populations in BCR 14 or BCR 30. With $F_R = 0.5$ (recovery factor), the PBR predicted 5,614 great black-backed gulls could be harvested annually in BCR 14 and BCR 30 which would still allow those populations to increase.

From 2003 through 2007, the number of great black-backed gulls taken in the northeastern United States (USFWS Region 5) has ranged from 404 to 1,203 gulls with an average of 814 great black-backed gulls taken annually by all entities. The average annual take of great black-backed gulls in USFWS Region 5 by all entities authorized to take gulls through depredation permits is below the level of annual take required to maintain current population levels predicted by the PBR model. To cause a population decline, the PBR model estimates that nearly 17,000 great black-backed gulls would have to be taken annually in the region. According to the PBR model, the average annual take by all entities in USFWS Region 5 of 814 gulls is below the allowable harvest for great black-backed gull populations to increase. If WS' annual take reached 750 great black-backed gulls and if the take of great black-backed gulls remains similar to the take that has occur from FY 2003 through 2007 in the northeastern United States, the combined take would not reach a magnitude that the PBR model predicts would result in a decline in the population of black-backed gulls in BCR 14 and BCR 30. The average annual take of great black-backed gulls in the northeastern United States has been 814 gulls taken. When combined with the annually level of take analyzed under the proposed action alternative, the combined take would represent nearly 1,600 gulls taken annually if the average take remains similar in the future. A combined take of 1,600 gulls would not reach the level of take that the PBR models estimates will cause a declining population in BCR 14 and BCR 30.

The destruction of up to 100 great black-backed gull nests annually by WS would occur in localized areas where nesting occurs and would not reach a level where adverse affects on herring gull populations would occur. As with the lethal take of gulls, the take of nests must also be authorized by the USFWS and the MDFW. Therefore, the number of nests taken by WS annually would occur at the discretion of the USFWS and the MDFW. Take would only occur at levels authorized by those agencies.

Laughing Gull Population Impact Analysis

In 2007, laughing gull numbers remained stable at 1,512 pairs and the species added two new sites in Massachusetts. In previous years, nesting only occurred on South Monomoy Island in Chatham (1,498 breeding pairs). Laughing gulls had averaged 1,056 nesting pairs on South Monomoy Island from 1985 to 2007; however, the USFWS has initiated a nest control program for laughing gulls to reduce competition with nearby common tern and federally endangered roseate tern colonies (MDFW 2008).

In 2007, Minimoy Island, near South Monomoy Island, was colonized by 14 pairs of laughing gulls and Plymouth Long Beach in Plymouth was colonized by 59 pairs of gulls. Nesting at the Plymouth site occurred after initiation of a predator damage management project to protect nesting terns and piping plovers during the 2006 nesting season.

Laughing gulls can be found nesting along the coastal areas of BCR 14 and BCR 30 with most breeding colonies occurring in BCR 30 (MANEM Regional Waterbird Plan 2006). Over 200,000 laughing gulls nest along the coastal areas in BCR 30 and have been given a conservation rank of lowest concern (MANEM Regional Waterbird Plan 2006). In BCR 14, nesting laughing gulls are estimated at 2,704 gulls and have also been given a conservation rank of lowest concern (MANEM Regional Waterbird Plan 2006). The breeding population of laughing gulls in the 1970s was estimated at 129,768 laughing gulls in 63 colonies. In the 1990s, the breeding population had increased to 205,348 laughing gulls in 275 colonies which represented a 58% increase in regional abundance (MANEM Regional Waterbird Plan 2006). BBS trend data for laughing gulls in the Eastern BBS Region shows a statistically significant increasing trend estimated at 3.4% annually since 1966 (Sauer et al. 2008). In the northeastern United States (USFWS Region 5), BBS trend data shows an increasing trend estimated at 3.2% annually since 1966 (Sauer et al. 2008). In the New England/Mid Atlantic BCRs, the number of laughing gulls observed along BBS routes has shown an increasing trend estimated at 3.2% annually since 1966 with a relative abundance (*i.e.*, birds/route) of 51.18 gulls (Sauer et al. 2008). No BBS data is currently available for

Massachusetts (Sauer et al. 2008). CBC data for laughing gulls observed overwintering in the Commonwealth has shown a cyclical trend since 1966 (National Audubon Society 2002).

From 2003 through 2007, the lethal annual take of laughing gulls by all entities in the northeastern United States (USFWS Region 5) has ranged from 4,559 to 6,007 gulls with an average annual take of 5,341 laughing gulls. The PBR model for laughing gulls in BCR 14 and BCR 30 estimates that nearly 15,000 laughing gulls can be taken annually with no adverse affect on the current population. Current take levels from all known entities in the breeding range of laughing gulls has not exceeded the level of annual take that would cause a decline in the breeding laughing gull population based on the PBR model. In 2003, permits were issued for the take of up to 15 adult laughing gulls but none were taken and no new permits have been issued to entities in Massachusetts for the take of adult laughing gulls since.

As stated previously, the PBR model predicts that up to 15,000 laughing gulls could be lethally taken annually in BCR 14 and BCR 30 to maintain populations. The PBR model is based on a minimal population estimate for laughing gulls in the northeastern United States. If WS' takes up to 500 laughing gulls annually in the Commonwealth and the number of gulls taken from 2003 through 2007 is indicative of the number of gulls that could be taken in the future in the northeastern United States, then the total take of laughing gulls would range from 5,059 gulls to 6,507 gulls with an average annual take of 5,841 gulls. The highest level of take of laughing gulls estimated at 6,507 would represent 43.4% of the estimated take that could occur and still maintain gull populations in the northeastern United States.

The USFWS authorized the take of up to 2,000 nests in the Commonwealth in 2007 and 2008. If up to 50 nests were taken by WS annually and if the number of nests authorized to be taken by the USFWS remains stable, WS' take of up to 50 nests would increase the total nests taken by 2.5%. If the take of 50 nests had occurred by WS in 2008, the total take of nests would not reach the number of nests authorized to be taken by the USFWS. With management authority over gull populations, the USFWS and the MDFW can adjust take levels, including the take of WS, to ensure population objectives for gulls are achieved. Consultation and the reporting of take by WS will ensure the USFWS and the MDFW considers any activities conducted by WS.

Issue 2 - Effects on Non-target Species Populations, Including T&E Species

Another issue often raised is the potential impacts to populations of wildlife that could be taken as non-targets during damage management activities. While every effort is made to minimize the risks of lethally taking non-target wildlife, the potential does exist for the unintentional take of non-targets during damage management activities. Since FY 2004, no non-targets are known to have been killed by WS during previous gull damage management activities conducted by WS using an integrated approach. Methods available to address gull damage would be similar across all the alternatives. Therefore, risks to non-targets from the use of those methods would be similar across alternatives. The only method available under the proposed action that would not be available under any of the other alternatives would be the avicide DRC-1339. Although some risks to non-targets do occur from the use of DRC-1339, those risks are minimal when the product is used according to WS Directive 2.430 and in accordance with label guidelines. Based on information in the EA (USDA 2010) and WS' programmatic FEIS (USDA 1997), the use patterns of DRC-1339 would not pose increased risks to non-targets.

Under the no WS involvement alternative, WS would not be directly involved with any aspect of gull damage management; therefore, no direct impacts to non-targets would occur from WS. Under the technical assistance only alternative, WS could provide information on the proper use of methods and provide demonstration on the use of methods but would not be directly involved with using methods to alleviate gull damage or threats. Similar to the no WS involvement alternative, under the technical assistance alternative, if methods are applied as intended and with regard for non-target hazards, those

methods would not adversely affect non-target species, including T&E species. If requestors are provided technical assistance but do not implement any of the recommended actions and takes no further action, the potential impacts to non-targets would be lower compared to the proposed action. If those persons requesting assistance implement recommended methods appropriately and as instructed or demonstrated, the potential impacts to non-targets would be similar to the proposed action. Methods or techniques not implemented as recommended or used inappropriately would likely increase potential impacts to non-targets. When employing direct operational assistance under the proposed action alternative, WS could employ methods and use techniques which would avoid non-target take as described in Chapter 3 of the EA under the minimization measures and Standard Operating Procedures and those measures and procedures discussed in WS' programmatic FEIS (USDA 1997).

The ability to reduce negative impacts caused by gulls would be variable based upon the skills and abilities of the person implementing damage management actions under Alternative 2 and Alternative 3. If those methods available are applied as intended, risks to non-targets would be minimal to non-existent. If methods available are applied incorrectly or applied without knowledge of gull behavior, risks to non-target wildlife would be higher under any of the alternative. If frustration from the lack of available assistance under Alternative 2 and Alternative 3 causes those persons experiencing gull damage to use methods that are not legally available for use, risks to non-targets would be higher under those alternatives. People have resorted to the use of illegal methods to resolve wildlife damage that have resulted in the lethal take of non-target wildlife (USDA 1997, White et al. 1989, USFWS 2001, Food and Drug Administration 2003). Under the proposed action alternative, those persons could request direct operational assistance from WS to reduce damage and threats occurring which increases the likelihood that non-target species will be unaffected by damage management activities.

Based on a review of those T&E species listed in the Commonwealth during the development of this EA (see Appendix C in the EA), WS determined that activities conducted pursuant to the proposed action will not likely adversely affect those species listed in the Commonwealth by the USFWS and the National Marine Fisheries Services nor their critical habitats. As part of the development of the EA, WS consulted with the USFWS under Section 7 of the ESA. The USFWS concurred with WS' determination that activities conducted pursuant to the proposed action would not likely adversely affect those species currently listed in the Commonwealth or their critical habitats (S. von Oettingen, USFWS, pers. comm. 2010). WS has obtained and reviewed the list of T&E species and species of special concern (see Appendix D of the EA) designated by the Commonwealth of Massachusetts and has determined that the proposed WS' activities will have no effect on any species listed as vulnerable or threatened and endangered.

Issue 3 - Effects of Damage Management Methods on Human Health and Safety

The threats to human safety of methods available would be similar across the alternatives since those methods would be available across the alternatives. However, the expertise of WS' employees in using those methods available likely will reduce threats to human safety since WS' employees are trained and knowledgeable in the use of those methods. If methods are used incorrectly or without regard for human safety, risks to human safety would increase under any of the alternatives that those methods could be employed. The EA determined that the availability of DRC-1339 under the proposed action would not increase risks to human safety from the use of the method under the alternative (USDA 1997, USDA 2010). Although risks do occur from the use of DRC-1339, when used in consideration of human safety, the use of DRC-1339 does not pose additional risks to human safety beyond those associated with the use of other methods.

Issue 4 - Effects on Socio-Cultural and Economics of the Human Environment

Birds often provide aesthetic enjoyment to many people in the Commonwealth through observations, photographing, and knowing they exist as part of the natural environment. Under all the alternatives, methods available that could be employed are intended to make resources unavailable or unattractive. Therefore, the use of methods often results in the removal of gulls from the area where damage is occurring or the dispersal of gulls from an area. Since methods available are similar across the alternatives, the use of those methods would have similar potential impacts on the aesthetics of gulls. However, even under the proposed action alternative, the dispersal and/or take of gulls under the alternatives will not reach a magnitude that would prevent the ability to view gulls outside of the area where damage was occurring. The effects on the aesthetic values of gulls would therefore be similar across the alternatives and would be minimal.

Issue 5 - Humaneness and Animal Welfare Concerns of Methods Available

The issue of humaneness was also analyzed in detail in relationship to the alternatives. Since many methods addressed in Appendix B of the EA are available under all the alternatives, the issue of method humaneness would be similar for those methods across all the alternatives. As stated previously DRC-1339 is the only method that would not be available under all the alternatives. The ability of WS to provide direct operational assistance under the proposed action alternative would insure methods are employed by WS as humanely as possible. Under the other alternatives, methods could be used inhumanely if used inappropriately or without consideration of gull behavior. However, most methods, when used as intended, would be considered humane and when attended to appropriately, would not increase distress of gulls.

XIV. CUMULATIVE IMPACTS OF THE PROPOSED ACTION

No significant cumulative environmental impacts are expected from any of the three alternatives, including the proposed action. Under the proposed action, the lethal removal of gulls by WS would not have significant impacts on statewide gull populations when known sources of mortality are considered. No risk to public safety is expected when activities are provided and expected by requesting individuals in Alternative 1 and Alternative 2 since only trained and experienced personnel would conduct and/or recommend damage management activities. There is a slight increased risk to public safety when persons who reject assistance and recommendations and conduct their own activities, and when no assistance is provided under Alternative 3. However, under all of the Alternatives, those risks would not be to the point that the impacts would be significant. The analysis in this EA indicates that an integrated approach to managing damage and threats caused by gulls will not result in significant cumulative adverse impacts on the quality of the human environment.

XV. DECISION AND RATIONALE

Based on the analyses of the alternatives developed to address those issues in the EA, including individual and cumulative impacts of those alternatives, the following decision has been reached:

Decision

I have carefully reviewed the EA prepared for this proposal. I find the proposed action alternative to be environmentally acceptable, addressing the issues and needs while balancing the environmental concerns of management agencies, landowners, advocacy groups, and the public. The analyses in the EA adequately addresses the identified issues which reasonably confirm that no significant impact, individually or cumulatively, to wildlife populations or the quality of the human environment are likely to

occur from the proposed action, nor does the proposed action constitute a major federal action. Therefore, the analysis in the EA does not warrant the completion of an EIS.

Based on the analyses in the EA, the issues identified are best addressed by selecting Alternative 1 (proposed action/no action) and applying the associated mitigation measures discussed in Chapter 3 of the EA. Alternative 1 successfully addresses (1) gull damage management using a combination of the most effective methods and does not adversely impact the environment, property, human health and safety, and/or non-target species, including T&E species; (2) it offers the greatest chance of maximizing effectiveness and benefits to resource owners and managers while minimizing cumulative impacts on the quality of the human environment that might result from the program's effect on target and non-target species populations; (3) it presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety; and (4) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of those issues are considered. Further analysis would be triggered if changes occur that broaden the scope of gull damage management activities in the Commonwealth, that affect the natural or human environment, or from the issuance of new environmental regulations. Therefore, it is my decision to implement the proposed action/no action alternative (Alternative 1) as described in the EA.

Finding of No Significant Impact

Based on the analyses provided in the EA, there are no indications that the proposed action (Alternative 1) will have a significant impact, individually or cumulatively, on the quality of the human environment. I agree with this conclusion and therefore, find that an EIS should not be prepared. This determination is based on the following factors:

1. Gull damage management as conducted by WS in the Commonwealth is not regional or national in scope.
2. The proposed action would pose minimal risk to public health and safety. Risks to the public from many of the methods described in the EA were determined to be low in a formal risk assessment (USDA 1997).
3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. Built-in mitigation measures that are part of WS' standard operating procedures and adherence to applicable laws and regulations will further ensure that WS' activities do not harm the environment.
4. The effects on the quality of the human environment are not highly controversial. Although there is some opposition to gull damage management, this action is not highly controversial in terms of size, nature, or effect.
5. Based on the analysis documented in the EA and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.
6. The proposed action would not establish a precedent for any future action with significant effects.
7. No significant cumulative effects were identified through the assessment. The EA analyzed cumulative effects on target and non-target species populations and concluded that such impacts

were not significant for this or other anticipated actions to be implemented or planned within the Commonwealth of Massachusetts.

8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.
9. WS has determined that the proposed program would not adversely affect any federal listed threatened or endangered species currently listed in the Commonwealth. The USFWS has concurred with WS' determination that the proposed action alternative would not adversely affect species currently listed in the Commonwealth (S. von Oettingen, USFWS, pers. comm. 2010). In addition, the WS program has determined the activities proposed would have no effect on species that are currently listed by the Commonwealth.
10. The proposed action would be in compliance with all applicable federal, Commonwealth, and local laws.
11. No significant cumulative effects were identified by this assessment or other actions implemented or planned within the area.

Rationale

The rationale for this decision is based on several considerations. This decision takes into account public comments, social/political and economic concerns, public health and safety, and the best available science. The foremost considerations are that: 1) gull damage management will only be conducted by WS at the request of landowners/managers, 2) management actions are consistent with applicable laws, regulations, policies and orders, and 3) no adverse impacts to the environment were identified in the analysis. As a part of this Decision, the WS program in Massachusetts will continue to provide effective and practical technical assistance and direct management techniques that reduce damage.



Charles S. Brown, Director-Eastern Region
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5/21/10

Date

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