



February 18, 2016

Dan Ashe, Director
c/o Public Comments Processing
Attn: Docket No. FWS-R5-ES-2015-0182
Division of Policy, Performance and Management
U.S. Fish and Wildlife Service
5275 Leesburg Pike, ABHC-PPM
Falls Church, VA 22041-3803

Re: **Piping Plover Habitat Conservation Plan**

Dear Director Ashe,

On behalf of Mass Audubon, we submit the following comments on the Massachusetts Division of Fisheries & Wildlife Habitat Conservation Plan for Piping Plover. Established in 1986, Mass Audubon's Coastal Waterbird Program monitors and protects approximately 40% of the nesting piping plovers in the state through partnerships with state agencies, local municipalities, and private landowners. Our goal is to recover a self-sustaining plover population in the state in accordance with abundance, productivity, and management objectives set forth in the US Fish and Wildlife Service (USFWS) Recovery Plan for Piping Plover.

General Comments:

While we recognize that Section 10 of the Endangered Species Act (ESA) accommodates the issuance of an Incidental Take Permit (ITP), the decision to do so requires robust analysis to assure that minimization and mitigation of take results in no net loss of plovers. A take permit must be accompanied by a management plan that ensures the species' progress toward recovery is not impeded and is in fact advanced. Mass Audubon believes that a carefully constructed Habitat Conservation Plan (HCP) for piping plovers nesting on state, municipal and privately-owned beaches may advance plover conservation if exposure to take is strongly minimized, if mitigation enables population benefits that are highly probable, and if plan implementation is continuously evaluated and adaptively managed.

As a result of management and outreach efforts by state agencies, municipalities, non-government organizations, and private landowners, piping plover abundance has increased nearly five-fold in Massachusetts since the population was listed under federal and state endangered species laws in 1986. However, the species' recovery is not secure. Since 1992, reproductive success of plovers in the state has

declined from an annual average of 2 chicks fledged per pair to 1 chick fledged per pair (HCP p. 2-17). Redoubled efforts including selective predator management are needed to raise productivity to ensure a stable population in the state.

Mass Audubon provisionally supports the issuance of an ITP to the Massachusetts Division of Fisheries & Wildlife (MADFW) and implementation of a HCP under Section 10 of the ESA. We believe that the HCP has the potential, through avoidance and minimization of take, to strongly protect piping plovers on beaches where flexible management is granted, and to obtain critically-needed relief from predator impacts through mitigation. The expected benefit to both plovers and local communities of a strong HCP and greater recreational opportunity on nesting beaches will be a significant breakthrough in plover recovery.

It should also be noted that other federal- or state-listed rare species may be present on beaches subject to ITPs pursuant to the HCP, and that the Massachusetts Wetlands Protection Act (WPA) also applies to a variety of activities on beaches and associated wetland resource areas (e.g. dunes). It is important that the federal and state permitting procedures and standards for beach management be clear and consistently applied across sites. To the extent the HCP allows activities not previously allowed under the Massachusetts Beach Management Guidelines, updated state guidance is needed to clarify permitting under the Massachusetts Endangered Species Act (MESA) and WPA.

Specific Comments:

HCP Goal: The stated goal of the HCP is to *contribute to achieving the long-term viability of a robust Massachusetts population of the Piping Plover*. Viable and robust is defined as *able to persist near current population size (approximately 666 breeding pairs in 2013) or higher for the long-term* (p.1-1). We are concerned that although the plan includes a “fail-safe” mechanism that will disable the take permit if the Massachusetts population falls below 500 pairs (potentially as a result of permitted take and other factors), this abundance is only 75% of the current population (p. 3-17). We recommend that a more conservative lower population limit, more in line with the goal of the HCP, be considered for modifying or disabling the ITP such that the take permit will be disabled if the population falls to 80% of the current population.

Population under Management: In addition, the “fail-safe” mechanism calculates allowable take based on the entire Massachusetts population including plover pairs nesting on federal lands that are outside the management influence of the MADFW. In 2013, twenty-five percent of the Massachusetts population of Piping Plover (167 pairs) nested at USFWS’ Parker River National Wildlife Refuge and Monomoy National Wildlife Refuge, and the National Park Service’s (NPS) Cape Cod National Seashore¹. These important nesting beaches are managed at a level of protection that exceeds the federal guidelines under ESA and which is consistent with the missions of USFWS and NPS. Requests for flexible management on these lands are pursued under Section 7 of ESA; cumulative impacts from a state ITP and incidental take on federal lands are managed by the USFWS and is outside the scope of the state HCP (p. 1-12). Including pairs on federal lands in the calculation of allowable take inflates the number of exposures to take proposed in the HCP without the ability (or arguably the need) to protectively manage those pairs within the regional framework provided by the HCP. Based on 2013 abundance data, 45 exposures to

¹ 2013 MADFW. Summary of the 2013 Massachusetts Piping Plover Census. NHESP-MADFW. 15 Sep 2015.

take are proposed to be allowed in the first year of plan implementation. With the appropriate exclusion of plover pairs at national wildlife refuges and the Cape Cod National Seashore, allowable take would be 35 exposures.

In addition, mitigation should not be proposed to take place on federal lands. If this occurred, managers and agencies of state and municipal beaches would be requested to shoulder the financial burden of protecting birds on designated federal lands whose mandate and budgets should be held accountable for maintaining robust and viable populations on these federal lands managed for conservation. Allowable take under the state ITP should derive specifically from the part of the Massachusetts population under state control; mitigation should be directed at sites not already employing best practices in plover protection from predators and other threats.

Statewide Plan within Regional Context: The HCP should include a “fail-safe” mechanism that recognizes the Commonwealth’s role and importance in the range-wide recovery of the Atlantic coast population of Piping Plover. Currently 37.3% of the Atlantic coast population nests in Massachusetts (p. 2-15). Abundance of plovers outside of Massachusetts has been declining at a rate of 42 pairs lost per year since 2007 (p. 2-15). It is critical that the HCP for Piping Plover in Massachusetts be framed within the context of the larger regional population. Although abundance of plovers in the state is relatively stable, productivity is below what is needed to maintain the population and it remains a possibility that Massachusetts serves as an ecological “sink” within the regional population². Fledged young from other states may be attracted to nest in Massachusetts but suffer poor reproductive rates. Provisions allowing for take in Massachusetts under the ESA should take into account the overall regional population and trends including productivity, not just number of adults, in Massachusetts. We recommend the HCP include contingency language that modifies the ITP in the event the fragile status of plovers in surrounding regions continues to worsen.

Avoiding and Minimizing Risk of Take: Mass Audubon strongly supports the HCP’s objective to *minimize the impacts of the taking to the maximum extent practicable*. (p. 4-1). We believe that important modifications to the conditions for two covered activities (Recreation and Beach Operations Associated with Reduced Proactive Fencing of Habitat (p.3-7) and Oversand Vehicle (OSV) Use in Vicinity of Unfledged Chicks (p. 3-11) would significantly reduce the risk of a take and not appreciably reduce the flexibility of beach management for recreation.

Recreation and Beach Operations Associated with Reduced Proactive Fencing of Habitat

Mass Audubon supports the inclusion of this covered activity when it does not impact a documented plover nesting territory. Piping Plovers are highly site-faithful with individuals returning to nesting territories established and defended for multiple succeeding years³. Failing to protect these relatively small areas of known historical nesting amounts to eliminating a territory from the population and potentially causing the territorial pair to fail to nest in a given year or to seek open habitat, if it exists, at another location. Forcing a successful pair out of suitable habitat through the withholding of protective fencing increases the risk of adult predation because the birds are forced to be active in unfamiliar surroundings⁴. In addition, it increases stress to the dislocated pair and pairs it might compete with at a

² Robertson and Hutto. 2006. Ecology 87:1075-1085.

³ Ledee et al. 2010. Condor 112: 637-643; Gratto-Trevor et al. 2016. Journal of Field Ornithology (in press)

⁴ Cohen et al. 2006. Journal of Field Ornithology 77: 409-417.

new location. Although not studied in piping plovers, territorial behavior and the fate of dislocated pairs has been well-studied in birds; displaced birds are likely to have reduced reproductive success compared to birds nesting in historically-used territories⁵. Furthermore, long-term withholding of protective fencing for established territories near a beach access point amounts to permanent habitat loss, especially in the context of a 25 year ITP.

In addition, there is evidence suggesting that the Massachusetts population of plovers is at or nearing carrying capacity. This is indicated by the significant negative trend in annual productivity since the mid-1990s when the population had grown to approximately 70% of its current level (p. 2-17), and by the insignificant (<3%) variation in abundance over the past five years⁶. Established pairs forced off beaches through the withholding of protective fencing are unlikely to find suitable habitat elsewhere if the population is at carrying capacity. We strongly recommend that proactive fencing be provided to all historically known (prior five years) nesting territories.

Oversand Vehicle (OSV) Use in Vicinity of Unfledged Chicks

Mass Audubon believes that allowing vehicles to pass within feet of newly-hatched plover chicks poses a very high risk of a take. To comply with the HCP's objective to *minimize the impacts of the taking to the maximum extent practicable*, it is necessary to condition the covered activity to protect newly-hatched plover chicks. We recommend prohibiting OSV travel within 100 m of broods (or larger distance for highly mobile broods per the federal guidelines) less than 7 days old. The conditions currently proposed in the HCP are inadequate to protect newly-hatched plover broods which are typically less mobile than older chicks, more likely to seek shelter in tire ruts, more likely to lie motionless when alarmed, less likely to be able to climb out of tire ruts, and are very difficult to observe even by trained, qualified shorebird monitors⁷. Although the HCP proposes training of OSV operators on rules and policies of the plan, no training in bird identification is proposed. No training of any kind is proposed for the OSV passenger who will escort the vehicle through a brood territory, yet it will fall to this individual to scan for highly camouflaged plover chicks that are a few inches in size. Trained shorebird monitors will be assigned plover broods for continuous monitoring during driving hours, but it happens not infrequently that some plover nests are not detected before hatching and "surprise" broods appear on the beach where none is expected.

Prohibiting vehicles within a minimum of 100 m of broods less than a week old reduces the risk of a take because older chicks are easier to detect, are more mobile and better able to move out of harm's way, and are less impacted by disturbance to foraging that a vehicle corridor through a brood territory poses to newly-hatched chicks. Allowing vehicle travel by broods at least 7 days old represents a significant improvement in beach management flexibility compared with current practice which is to wait approximately five weeks for unfledged plover chicks to grow out of vulnerability to being run over by vehicles.

Finally, Mass Audubon strongly disagrees with the notion that discouraging plovers from nesting in high use recreational areas constitutes a service to the population (p. 3-2) or sound rare species management.

⁵ Newton. 1992. Biological Reviews 67: 129-173

⁶ USFWS. 2016. Preliminary abundance data for Atlantic coast population of Piping Plover; presented 2016 Atlantic Coast Piping Plover and Least Tern Workshop, Shepherdstown, WV.

⁷ USFWS. 1996. Piping Plover (*Charadrius melodus*) Atlantic Coast Population Revised Recovery Plan.

As the HCP states, recent data show that some of the most productive nesting beaches in the state are enjoyed by hundreds to thousands of beach goers (p. 2-21). The five-fold increase in abundance of piping plovers results from the cooperative protection afforded them by coastal communities throughout Massachusetts. Despite the gains made by plovers, their future is not secure and our understanding of them is not complete to allow us to assign nesting to certain beaches and exclude them from other beaches. Fortunately, Massachusetts has proven that plovers can coexist and in many instances prosper with the beach-going public, and the HCP should build on that 30-year legacy.

Net Benefit of Mitigation: Mitigation is a crucial component of the HCP and is the principal means for ensuring that recovery of the plover population continues to advance despite permitted exposures to risk of take under the ITP. *Mitigation is designed to benefit the Piping Plover population and provide a net increase in productivity* (p.1-10).

We support the state's avowed precautionary approach to quantifying and monitoring the benefits of mitigation. A precautionary approach (using an upper-bound estimate of loss in productivity resulting from covered activities to calculate mitigation p. 3-18), is properly identified in the plan as required to account for unknown adverse sub-lethal effects to adults, chicks and post-fledging plovers.

In addition, we support the use of the best available science-based information to develop a mitigation program designed to provide a "net benefit" to the plover population. The USFWS Enhanced Management Program (EMP) developed to restore a local piping plover population impacted by an oil spill serves as the model for science-based mitigation and the state HCP assures an approach *nearly identical* (p. 4-6) to the EMP.

Based on a scientific analysis of predator control programs throughout the piping plover's range, the EMP estimates that every breeding pair benefiting from a three-pronged management program including selective predator management, education and enforcement, will show a 20% increase in productivity.

Calculation of effects of covered activities (excluding possible mortality of adults) and the mitigation required to provide a net benefit are presented in Table 4-4 (p. 4-12). The calculated negative effects to plover productivity as a result of covered activities is based on a precautionary upper-bound (50%) estimate to quantify loss in productivity. The calculation of mitigation uses a 25% estimated increase in productivity to pairs benefiting from selective predator management. There is no explanation for the use of a more optimistic (25% versus the EMP 20%) estimate of productivity benefit. Only with an unjustifiable estimate of benefit that exceeds 20% is there a net benefit in productivity, unless the ratio of pairs benefiting to pairs exposed is increased.

We strongly recommend that three pairs of plovers (rather than 2.5 pairs) benefit from selective predator management for every pair exposed to risk of a take under the ITP. In the case of adult mortality risk associated with operation of roads and parking lots, an additional 0.5 pairs of plovers should benefit from mitigation increasing the ratio to 3.5:1.

In addition, adherence to the EMP for correctly calculating mitigation required to offset loss of productivity resulting from covered activities will require all plan participants to engage in enhanced education and enforcement activities. The USFWS estimated that all three components of management produced a 20% increase in plover productivity; it is assumed that selective predator management alone would produce less than a 20% increase in productivity.

Coordination with Related Regulations: This HCP is focused on a single federally listed species. The activities and associated beach management practices permitted pursuant to the HCP may also affect other species protected under the Endangered Species Act, e.g. Roseate Tern and/or Red Knot. The HCP indicates that these species are not likely to be affected because of the different seasonal timing of the HCP activities vs. use of these same habitats by Roseate Terns or Red Knots. However, the overall annual plans for management of a beach may include activities at locations and times that would affect other protected species and their habitats. State-listed species including the Common and Least Tern and the Diamondback Terrapin are also protected under MESA and the WPA. Beach management plans including OSV recreation need to address all applicable laws. The draft HCP indicated that MADFW intended to file an Environment Notification Form for review under the Massachusetts Environmental Policy Act (MEPA) concurrently with the federal HCP public comment period (p.1-15). That did not occur, although DFW staff have communicated to us that they intend to provide other opportunities for public input. Mass Audubon intends to submit additional comments to the Commonwealth of Massachusetts regarding clarification and coordination of permitting standards and procedures for beach management plans and practices.

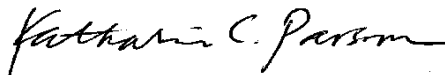
Habitat Management and Climate Change: The HCP has an important role to serve as a tool for plover conservation in the face of climate change. The USFWS recovery plan does not reflect recent information on the vulnerability of beach nesting birds to climate change effects such as accelerated sea level rise and stronger storm events. The HCP is an essential opportunity to incorporate new knowledge, especially through adaptive management, into the conservation of the species in the absence of an updated recovery plan. Nesting piping plovers will feel coastal squeeze most acutely in areas of the coast where beach migration is blocked by infrastructure. In addition, coastal engineering to preserve beaches through renourishment (with unknown consequences to nesting and foraging habitat), and with dune planting (which is known to adversely impact nesting habitat), will position piping plovers in the crosshairs as coastal communities struggle to maintain beaches and protect development.

Thank you for your consideration of these comments.

Sincerely,



John J. Clarke
Director of Public Policy
& Government Relations



Katharine C. Parsons, Ph. D.
Director, Coastal Waterbird Program

Cc: Jack Buckley, Director, Massachusetts Division of Fisheries and Wildlife