

Massachusetts Habitat Conservation Plan for Piping Plover
Emergency Request for Additional Take Exposure

Duxbury Beach Reservation, Inc.

June 12, 2020

In March of 2018, Duxbury Beach Reservation (DBR) submitted a request for a Certificate of Inclusion (COI) in the statewide Habitat Conservation Plan (HCP) for Piping Plover for the 2018 nesting season on Duxbury Beach. The Massachusetts Division of Fisheries & Wildlife (MADFW) Natural Heritage & Endangered Species Program (NHESP) and the U.S. Fish & Wildlife Service (USFWS) issued a three-year Certificate of Inclusion to Duxbury Beach Reservation under the statewide HCP. Duxbury Beach Reservation applied for an amended COI in March 2020 which included a request for 10 take exposures (36% of the 2019 population). The amended COI was approved in June 2020.

The permit includes the covered activities: Use of Roads and Parking Lots in the Vicinity of Unfledged Piping Plover Chicks, Reduced Proactive Fencing, Reduced Symbolic Fencing around Piping Plover Nests, and Nest Moving. The area covered is the length of Gurnet Road from the north edge of the property (Lagerstedt Lot/Northern Lot) to the Gurnet Guardhouse in the south covering 6.4 kilometers (4 miles) of improved gravel roadway. Mitigation is in the form of self-funding to implement selective predator management on-site, implement educational programs, and maintenance of five replicated habitat areas for piping plover nesting. In addition, DBR may receive mitigation through the protection of piping plover broods for the benefit of Gurnet-Saquis traffic (essential traffic) in sections of the roadway where no recreational access is permitted but chicks may cross the road. The Reservation has maintained the extensive monitoring, management, law enforcement, and education programs currently in place as part of the Duxbury Beach Endangered Species Program.

2020 Take Exposures

As of June 10, 2020, there are 26 pairs of Piping Plovers nesting on Duxbury Beach with 13 active nests and 12 total broods. Of these 12 broods, three have crossed or entered the back road of Duxbury Beach. All non-essential traffic on Duxbury Beach was restricted south of Crossover 2 beginning 5/25/20, when the beach reopened to recreational activity. Of the twelve current broods, two are located south of Crossover 2 (in addition six nests are also located south of Crossover 2), and thus are exposed to only non-essential traffic, and do not count towards the take exposures for Duxbury Beach. All three of the current broods that have crossed the road thus far are in areas with recreational traffic. Based on historic activity and suitability of bayside foraging, it is anticipated that more broods will cross the road north of Crossover 2.

In addition to crossing activity, DBR implemented the covered activity "Reduced Proactive Fencing" when a piping plover pair began scraping and courting in a processed gravel parking lot, abutting a saltmarsh on the west and paved roadway and parking lot to the east. Deterrence measures were unsuccessful and the pair laid a 4-egg clutch. Barriers and herding will be implemented upon hatching.

Immediate Concern

As of June 10, 2020, DBR has used four of its allocated 10 take exposures for 2020. During the past two seasons, 12 broods have crossed the road. As stated above, there are currently seven additional broods adjacent to

recreational activity that have not yet crossed the road and another seven nests yet to hatch which will likely be adjacent to recreation if the Oversand Vehicle Area and recreational parking lots north of the Powder Point Bridge remain open.

All of the broods and nests located north of Crossover 2 (and thus adjacent to recreational activity) have access to suitable foraging on the bayside and so are more likely to enter the road or parking lots. As noted during previous seasons, broods do travel north and south on the beach or the back road itself to reach suitable crossing locations and foraging habitat, so the actual number of potential crossing broods may be greater. Therefore, there is a high likelihood that greater than ten broods may cross the road in 2020.

Request to Amend the COI

The Reservation would like to request an emergency increase to the take exposure allowed on Duxbury Beach. The average pair number on Duxbury Beach over the past three seasons (2017-2019) is 25.6 pairs and in 2020, 26 pairs have been observed nesting or displaying nesting behavior this season. The increase to the take exposure limit would allow up to 12 pairs or 46% of the pairs present in 2020 on Duxbury Beach to be exposed.

The additional take exposure will be used to implement the covered activities Use of Roads and Parking Lots in the Vicinity of Unfledged Piping Plover Chicks, Reduced Proactive Fencing, Reduced Symbolic Fencing around Nests, and Nest Moving, as described in the Duxbury Beach Reservation’s Amended Certificate of Inclusion issued in June 2020. The Reservation is not proposing any changes to the impact minimization measures or monitoring and reporting requirements.

Management and Mitigation

Management, monitoring, and protection efforts will remain consistent on Duxbury Beach with the increase in take exposures, consistent with what is outlined in the amended COI issued June 2020.

Implementation of the covered activity Use of Roads and Parking Lots in the Vicinity of Unfledged Piping Plover Chicks requires 3:1 mitigation, while implementation of those activities related to Recreation and Beach Operations requires 2.5:1 mitigation. Assuming all broods for which a take exposure is used cross the road, this increase would require mitigation for 36 pairs of piping plovers this season.

Proposed mitigation includes the following:

<u>Mitigation Source</u>	<u>Mitigation</u>
Carry-over mitigation from 2019	4
On-site predator management	26
Habitat enhancement	2
Education programs	1
Monitoring and protection for broods exposed to essential traffic	3-6
Total	36-39

On-site predator management has been initiated on Duxbury Beach for the 2020 season and is on-going. Habitat enhancement work is complete and two pairs are utilizing the habitat areas for nesting this season. Educational programs provided by Mass Audubon and funded by DBR are scheduled to take place July and August, three days per week.

There are currently six pairs nesting south of Crossover 2 and north of Plum Hills (two currently hatched). The Reservation proposes to protect these broods (at least three) to the level specified in DBR's amended COI submitted March 2020 and issued June 2020 for protection from essential vehicle only traffic. This monitoring and protection work has been implemented for the two current broods and will continue for the nests in the vicinity should they hatch. Monitoring will include brood checks every 3 hours (minimum), with monitors patrolling the road and beach to observe for crossing activity or movement within 100-200m (depending on age) of the Oversand Vehicle Area. Should broods attempt to cross the road, monitors will stop traffic and observe until all chicks have crossed safely. Should the Oversand Vehicle Area close (eliminating recreational traffic south of the Powder Point Bridge), DBR may choose to protect new broods or existing broods who have not yet crossed the road from essential vehicles, thus increasing mitigation.

Duxbury Beach Barrier Use Protocol Update

As outlined in the COI submission dated March 2020, the Reservation proposes to use barriers in limited capacity to protect broods from vehicle traffic in areas without access to habitat and at nighttime when recreation is ongoing. The barrier materials listed in the submission are: silt fence, landscape fabric, chicken wire, plastic jersey barrier, and wooden planks. The Reservation would like to expand the list of potential barrier materials to include coir logs, wattles (9" diameter), and hay bales as these may be particularly useful on impermeable surfaces or in areas where a barrier of short duration is needed.