BEACH MANAGEMENT AGREEMENT
BETWEEN MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE, U.S. FISH AND WILDLIFE SERVICE
AND
TOWN OF SCARBOROUGH, MAINE

February 2018



Town of Scarborough
Beach Management Agreement
2018 through 2020

In 2009, representatives of The Town of Scarborough (the Town), the U.S. Fish & Wildlife Service (USFWS), the Maine Department of Inland Fisheries and Wildlife (MDIFW), and Maine Audubon (hereinafter referred to as "The Parties") developed the initial Beach Management Agreement (BMA) for the Town of Scarborough.

It is recognized that Scarborough Beaches are a multiple-use, natural resource with a significant appeal as a tourist destination and a vital economic component of the Scarborough community. As such, the demands for intensive recreational use by residents and visitors must co-exist with the Town's obligations and desire to preserve piping plover and its habitat. The Parties acknowledge that the Town has ordinances pertaining to beach management, discussed in detail in this BMA and provided in Appendix 2. Additionally, the USFWS suggests the Town of Scarborough, to the extent practicable, follow the *"Guidelines for Managing Recreational Activities in Piping Plover Breeding Habitat on the U.S. Atlantic Coast to Avoid Take Under Section 9 of the Endangered Species Act"* as published by the USFWS. These guidelines are embedded within this agreement and a copy is attached (Appendix 3).

IMPORTANT! This agreement is in effect from April 1st through the day after Labor Day when ***nesting activity*** is occurring, *which is defined as when territorial pairs, nests, and chicks of piping plovers are present*. **When nesting activity is not occurring on The Town's beaches, these guidelines are not in effect.** The Town must keep in weekly communication with MDIFW or its designee to know when piping plover ***nesting activity*** is occurring. MDIFW will verify when nesting activity is occurring and will make the final determination when nesting activity is not occurring. Refer to Appendix 1 for contact information.

In 1998, MDIFW designated Pine Point Beach, Scarborough Beach, Ferry Beach, Western Beach, and Higgins Beach as Essential Habitat for nesting piping plovers and least terns under the Maine Endangered Species Act, which requires that municipal activities on these beaches be reviewed by MDIFW. Compliance with this agreement exempts the Town from Essential Habitat regulations for activities specifically addressed in Section IV. Other activities that occur in mapped Essential Habitat that are not addressed in this Agreement require MDIFW review.

This agreement allows the Town of Scarborough to continue their beach management program without filing state Incidental Take Plan's (ITP) for each Town activity that occurs near or within piping plover nesting and foraging areas, as long as The Town implements protection measures outlined in this agreement.

There is an incentive for The Town to promote the nesting success of piping plovers because the birds that nest successfully in April or May will fledge their chicks by mid-to-late June or early July, thus removing restrictions on the beach. However, if earlier nesting fails, or the birds are forced to nest late,

the nesting and chick rearing season will extend into July and August, the peak summer months for beachgoers.

I) Introduction

The piping plover is a small, sandy-colored shorebird that nests on beaches from Newfoundland to South Carolina. This species is imperiled throughout much of its range in the United States and Canada. Once common on sandy beaches in southern Maine, the piping plover is listed as Endangered under the Maine Endangered Species Act (MESA), and the east coast population is listed as Threatened under the federal Endangered Species Act (ESA). In Maine, the total number of pairs has ranged from a low of 6 pairs in 1983 to a high of 66 pairs recorded in 2002 and 2016. In 2017 only 64 pairs of piping plovers nested in the entire state of Maine.

Habitat loss and lack of undisturbed nest sites are two of the primary factors jeopardizing populations of piping plovers. Historically, Maine had more than 30 miles of suitable nesting beaches that may have supported up to 200 pairs of piping plovers. However, construction of seawalls, jetties, piers, homes, parking lots, and other structures along Maine's sand-beaches has dramatically reduced the extent of suitable nesting habitat. The capability of the remaining habitat to support nesting plovers has been further reduced by continued development and intense recreational use. Ensuring availability of this limited habitat is essential for the continued existence of piping plovers and other coastal wildlife, such as the state-endangered least tern.

II) Authority to Enter Agreement

Maine Endangered Species Act of 1975

Federal Endangered Species Act of 1973

III) Geographic Scope of Agreement

The intent of this agreement is to provide a means to protect piping plovers on Higgins Beach, Pine Point Beach, and Ferry Beach. Western Beach has a separate agreement through the Prouts Neck Country Club and Scarborough Beach is included in the Beach Management Agreement developed by MDIFW, USFWS, and the Bureau of Parks and Lands. The success of this agreement depends on the voluntary participation and cooperation of private landowners, the Town of Scarborough, USFWS, and MDIFW. Private property owners will be encouraged to take advantage of the Town of Scarborough's willingness to assist them with resource management applicable to their property.

This agreement does not supersede or replace any local, state, or federal statutes, regulations, or guidelines that apply to private properties.

IV) Beach Management Guidelines for Piping Plovers

Beach Infrastructure and Maintenance

A) Daily trash pickup of waste in town barrels located on the beaches and rights of way.

The Town does not place trash barrels on the beach near plover nest sites. If the Town does decide to place trash barrels on the beach, the Town must place them as far away from areas of plover ***nesting activity*** as possible but no closer than 250 feet from a nest exclosure and no closer than 100 feet from a stake and twine symbolic fence. Any Town vehicle picking up waste from the barrels each day shall have a trained spotter (trained by the MDIFW or its designee) walk in front of the vehicle which shall proceed no faster than walking speed.

Trash pickup can be done by All Terrain Vehicle (ATV) without a spotter if:

1. Personnel picking up trash are in weekly communication with The Town's piping plover coordinator and MDIFW or its designee to know the location of nesting plovers and their chicks;
2. ATV operators are trained by MDIFW or its designee; and
3. ATV vehicles proceed not faster than walking speed.

B) Seaweed and Debris Cleanup.

Seaweed and debris cleanup may be conducted from April 1st through the day after Labor Day. Beach cleaning shall not occur within 250 feet on either side of nest exclosures or chicks and within 100 feet of stake and twine symbolic fencing. Wrack should remain on the beach within 250 feet of either side of nest exclosures and within 100 feet of stake and twine symbolic fencing. This gives the birds a buffer from disturbance by the vehicles and leaves important foraging habitat intact.

The Town has a Permit by Rule (PBR) for beach cleaning and raking at Pine Point Beach from Hurd Park south to the border of Old Orchard Beach. Beach cleaning activities and procedures authorized within the PBR are in accordance with the following guidelines.

Guidelines for Beach Cleaning Vehicles:

1. All vehicle entrances/exits to the beach shall be at public ways.
2. A spotter or Plover Monitoring Coordinator shall be present with all moving vehicles on the beach between April 1st and day after Labor Day.
3. Between April 1st and day after Labor Day, all vehicles entering the beach shall travel at least 50 ft. from the grass edge of the beach, close to the high water mark, to assure no conflicts between nest initiation and vehicular traffic.
4. Presence of a spotter or Plover Monitoring Coordinator is not needed after the nesting season is complete as confirmed by MDIFW.
5. Instances of need for heavy seaweed removal have historically been few. However, should heavy seaweed removal require using heavy equipment, a trained spotter or Plover Monitoring Coordinator will be required on site. No such work will take place within 250 feet of nest exclosures and within 100 feet of stake and twine symbolic fencing.

Frequency and Reporting of Beach Cleaning Activities:

1. Cleaning crew Supervisor shall maintain a simple logbook or sheet to record the date, time, and location of each beach cleaning activity.
2. The Public Works Department shall maintain records of cleaning activities in their offices.
3. Beach cleaning may be conducted as needed up to March 31st. Beach cleaning shall be conducted only once per week from April 1st through day after Labor Day, unless authorized by the Town Manager for a specific reason.

Guidelines for Spotters during Beach Cleaning Activity:

The following guidelines shall be followed wherever territorial pairs, nests, or chicks of piping plovers are present.

1. One spotter shall guide all vehicle traffic on the beach.
2. All vehicles shall proceed at "walking speed."
3. Spotters shall use the map provided by the piping plover coordinator prior to commencing beach cleaning activities.
4. Spotters shall record observations of eggs, birds, and nests every 100 feet of the beach prior to vehicular access to that section. If the spotter does not observe plover activity, the cleaner will rake that 100-foot section while the spotter stands and watches in that zone.
5. The spotter shall proceed to the next area (approximately 100 feet down the beach), spotting, locating, and watching before giving the signal to allow the vehicles to enter the area.

C) Police, Emergency, and Non-Emergency Vehicle use.

All Public Safety or Town personnel assigned or normally required to use vehicles, including ATV's, on the beach shall annually receive specialized education and training from MDIFW or its designee in the spotting and protection of plover habitat. All other personnel shall have training materials and aids available to assist in spotting plover habitat when required to respond to either an emergency or a non-emergency incident. At least two employees shall respond to any non-emergency incident within a plover nesting area, with one employee acting as the spotter. Training workshops shall be available for the 2018 nesting season and each year thereafter.

Non-emergency activities, such as removal of dead or injured marine mammals, shall require at least two responders, one of which will act as the spotter to and from the scene. All emergency response personnel will account for and avoid nesting sites and chicks to the maximum extent practicable, consistent with the nature and urgency of the emergency. However, it is the policy of the Town of Scarborough that such essential vehicles will avoid driving on the wrack line whenever possible and will avoid frequent driving on the beach in a way that would create deep ruts that could impede movement of piping plover chicks.

D) Recreational Activities

Homeowners are responsible for the protection of any piping plover present on their property and to ensure that their family members and guests are aware of the precautions that must be observed. If plovers are located in the property owners' area, the piping plover coordinator will notify the property owner that such activities as fireworks, beach parties, clam bakes, volleyball, fires, etc., could seriously threaten the birds' survival and must be avoided. Refer to Appendix 2 for additional restrictions.

1) No person shall engage in kite flying or utilize a sand surfer (wind-driven sand cart), kite surfer, parasail, or para board sail within 650 feet of an exclosure or symbolic stake and twine fencing from April 1st through day after Labor Day.

2) No person shall discharge or cause the discharge of any fireworks on any beach on which piping plovers are nesting from April 1st until all chicks are fledged.

Source: Chapter 610, Town Ordinances, Piping Plover Ordinance. (see Appendix 2).

3) No person shall utilize a bicycle within 650 feet of an exclosure or symbolic stake and twine fencing from April 1st through day after Labor Day.

4) No person shall operate a drone within 650 feet of an exclosure or symbolic stake and twine fencing from April 1st through day after Labor Day unless reviewed by MDIFW.

E) Animal Control

Dogs and cats can be a significant source of disturbance and mortality for piping plovers. It is in the best interest for pet owners to keep dogs and cats off beaches during the nesting season to prevent violating the state and federal Endangered Species Acts should their pet kill, harm, or harass a piping plover. Violations will result in State and Federal prosecution of responsible parties.

The Town of Scarborough is responsible for enforcing their Animal Control and Piping Plover Ordinances. Failure to do so will be considered a breach of this agreement and gives MDIFW the option to implement other protective management actions as identified by the Maine Endangered Species Act. Other protective management actions include formal MDIFW evaluation for all beach management projects (trash pickup, seaweed and debris cleanup etc.) within mapped Essential Habitats as authorized under MESA (12 M.R.S. Section 12808) and/or filing state Incidental Take Plan's for each Town activity that occurs near or within piping plover nesting and foraging areas.

See Appendix 2 for Town's Animal Control Ordinance, Chapter 604.

Horses are prohibited on the beaches from April 1st to September 30th.

Source: Chapter 604a, Town Ordinances, Horse Beach Permit Ordinance. (See Appendix 2)

F) Symbolic Stake-and-Twine Fencing and Exclosures

Symbolic Stake-and-Twine Fencing: Symbolic Fencing is temporary fencing and signage used to manage recreational use of the beach in the vicinity of plover nesting areas to protect nesting and feeding habitat for the plovers. Ideally, plover nesting areas will be fenced and signed as soon as courtship and nest scraping activity are observed.

a) Plover nesting areas are fenced using wooden stakes, baling twine, and signs erected by the MDIFW or its designee. Only persons engaged in piping plover monitoring should enter the fenced areas. Ideally, fenced areas should extend 150 feet along the wrack line on either side of the nest.

b) Fenced areas around nests may be smaller than 150 feet if MDIFW or its designee, determines that the birds are accepting of human activity. In other instances, fencing may be expanded if the 150-foot radius is deemed inadequate to protect incubating adults and unhatched eggs. In many instances, fenced areas may encompass more than one nest.

c) Nesting territories shall be monitored frequently (daily if possible) until nests are located. Symbolic fencing shall remain on the beach until all chicks in the vicinity have fledged.

c) Once nesting areas have been identified and staked, town crews will post signage that reads: "Protected Habitat, Dogs Prohibited."

Nest Exclosures: Nest exclosures consist of 2 x 4 inch welded, wire fence supported by metal stakes placed around piping plover nests in an eight-foot radius. Plover nests that are not quickly fenced are vulnerable to predation and disturbance. When piping plover nests are present, the Town of Scarborough, in conjunction with MDIFW or its designee, will create or arrange for the placement of an exclosure around such nests in accordance with USFWS guidelines and authorization issued by MDIFW. In an effort to afford plovers the immediate protection they require, the Town of Scarborough, or MDIFW, will offer landowners the option to sign a blanket permission form approving fencing of plover nests. Nest exclosures shall be removed by MDIFW or its designee, when plover nesting is completed.

[This is an incentive for managers (and landowners) to promote the nesting success of plovers. Plovers that initiate nesting successfully in April will have fledged chicks by mid-to-late June. The nesting and chick rearing season of re-nesting or late nesting plovers will extend into July and August, the peak summer months for beachgoers.]

Once such exclosures have been erected, the following prohibitions shall apply: See Appendix 2 for Town's Piping Plover Ordinance, Chapter 610.

G) Responsibility

Activities within the sand dune system at Scarborough Beaches occur within a protected resource area under the jurisdiction of the Maine Department of Environmental Protection (MDEP). The U.S. Army Corps of Engineers (Corps) has federal jurisdictional responsibilities within the sand dune system. Many projects and activities (such as moving sand, altering vegetation, repairs to jetties and seawalls) require a permit from MDEP and/or the Corps. Therefore, all proposed beach nourishment, sand fencing, planting, and trail plans should be coordinated with the Town of Scarborough and reviewed by MDIFW,

MDEP, USFWS and the Corps to ensure that state and federal regulations are adhered to and that piping plovers are not adversely affected.

H) Monitoring

Piping plover nesting areas shall be monitored by town employees or volunteers each week throughout the nesting season to ascertain nesting status, number and location of nests, nest success, the success of young, and any re-nesting. Frequent visits will track the survival and movements of family groups.

The position of piping plover coordinator shall be incorporated into Community Services Programs and funded as part of that budget for the period April 1st through day after Labor Day, annually.

Responsibilities of the Coordinator include:

- Coordinate activities and communicate notable occurrences with MDIFW who will communicate with USFWS as needed (See Appendix 1 for contact information).
- Visit each beach at least 3 times/week from April 1 until plovers complete nesting (usually mid- to late-August).
- Document the number and location of nests, nest attempts, nest success, number of chicks fledged, and causes of egg or chick mortality if known.
- Maintain temporary fencing and signs and help erect nest exclosures.
- Recruit and train volunteers to regularly monitor the beaches and document piping plover nesting activities.
- Ensure observations by volunteers are recorded on the data sheets provided by MDIFW or its designee.
- The Coordinator will collect weekly reports from volunteer monitors, compile data, and act as liaison with the Town and state officials.
- Provide an end-of-season summary and copies of field data sheets from volunteers and forward them to MDIFW or its designee no later than September 30th.
- With respect to Western Beach, implement "no dog" restriction through public outreach, provide outreach materials to the gatehouse at Ferry Beach, and inform pet owners observed walking from Ferry Beach to Western Beach of the restriction. Immediately report and document violators to MDIFW or its designee.
- Document disturbance from dogs, pedestrians, or predators and report to MDIFW or its designee.
- Participate in training volunteers.
- If possible, attend the statewide pre- and post-season planning sessions for piping plover coordinators hosted by MDIFW.
- The Coordinator will communicate with landowners as to what is planned and will solicit their support for the monitoring project. For Scarborough beaches, letters will be the primary means of communication.

MDIFW or its designee will:

- train the Piping Plover Coordinator and volunteers
- provide stake, twine, signs, and materials for nest exclosures
- provide outreach materials as available
- provide enforcement as needed.

Neither the Coordinator nor volunteer monitors will be involved in enforcement of regulations. The task of negotiating for the purchase and installation of protective fencing will remain the responsibility of MDIFW.

Volunteer monitors shall be required to commit to training and a weekly commitment of time. They shall attend periodic meetings for program review and reinforcement of training. Monitors shall fill out a standardized, daily report including the number of hours spent on the beach and deliver it to established collection point for pick up by the Coordinator. Monitors shall report on the location of piping plover nests and on adherence to the provisions of this beach management plan. Monitors shall be provided free parking in town parking lots while conducting their monitoring duties.

I) Education and Outreach

Educational efforts will take many forms and will be coordinated with MDIFW or its designee. The Scarborough Leader and Current will be the primary newspapers for dissemination of information as well as local public service TV. Information regarding piping plovers will be posted on The Town website and Facebook page:

http://www.scarboroughmaine.org/ or
https://www.facebook.com/ScarboroughPipingPloverMonitoring

Through opportunistic, face-to-face meetings with property owners and beach users, volunteer monitors, the piping plover coordinator, MDIFW or its designee, The Town personnel who work on the beaches, USFWS and others, will help educate the public about piping plover conservation and management and the importance of respecting piping plover nesting habitat.

In support of the volunteer monitoring program, MDIFW or its designee will conduct annual training sessions for beach volunteer monitors and seasonal plover biologists in May; this training will include information regarding plover biology, plover conservation/management, monitoring protocol, recordkeeping, and regulations, including dogs on the beach. Maine Audubon's "Volunteer Monitoring Handbook", which contains background and training materials, regulations, and daily monitoring check-off sheets, will be the primary resource for training.

V) <u>Permit Review Process</u>

Landowners and the Town of Scarborough must apply for and obtain all appropriate, necessary environmental permits before conducting activities or projects that require environmental review. This Agreement <u>does</u> <u>not</u> negate this responsibility and legal requirement, nor does it supersede or replace state and federal laws.

This Agreement does facilitate state and federal environmental review and permitting provided such activities and projects are consistent with other federal and state statutes. Concurrence from USFWS on any future project that could affect plovers or their habitat within the geographic area subject to this Agreement is contingent upon the successful implementation of all piping plover protection measures described in this Agreement and demonstration that these protection measures have proven adequate in avoiding "take" (harass, harm, pursue, hunt, shoot, kill, trap, capture, or collect) of the federally-threatened piping plover (U.S. Fish and Wildlife Service 1973).

Situations, activities, or projects may arise that were not addressed in this Agreement that affect piping plovers on Scarborough beaches. Successful resolution of such eventualities requires communication and coordination – landowners and the Town of Scarborough are encouraged to seek early and frequent consultation with MDIFW and USFWS prior to initiating activities or projects that may affect piping plovers.

VI) Time Frame of Agreement

Recognizing that habitat issues may arise that could require additional management, The Town, MDIFW, and USFWS will meet annually to review this agreement. This Agreement will commence April 1st, 2018 and terminate on day after Labor Day, 2020.

VII) Amendments

Amendments to this agreement can be made with the concurrence of all signatory parties to the agreement. Amendments shall be documented in writing, dated, signed by all parties, and attached to the agreement. Amendments will be considered annually at the pre-nesting season meeting.

Signatories to the Agreement

Scarborough Town Manager — Date: 2/20/18

U. S. Fish and Wildlife Service — Date: 1/30/18

We the U.S. Fish and Wildlife Service approve of the Agreement except for Section IV (E) which references the 2014 Animal Control Ordinance, (Appendix 3). Specifically, the Animal Control Ordinance, Chapter 604-10 specifies that on all Scarborough beaches not designated as Restricted Areas, where piping plovers also nest, dogs are allowed off leash and under voice control all day prior to May 15. From May 15 to Labor Day dogs on these beaches may not be on the beach from 9:00 a.m. to 5:00 p.m., must be on a leash from 5:00 p.m. to dusk, and may be off leash and under voice control from dusk to 9:00 a.m. the following morning. This does not meet the Service's piping plover Guidelines because the Service believes that voice control is not effective at controlling dog behavior, and piping plovers are at risk of take from dogs on these beaches. We clarify our concerns in a letter to the Town dated March 23, 2015.

Please note that we recognize that the Animal Control Ordinance, Chapter 604-2, Section 11 (Appendix 3), specifies Restricted Areas where piping plovers nest and no dogs are allowed during the nesting season (Higgins and Ferry/Western Beach) or dogs are allowed during the nesting season on a leash only (Pine Point Beach) from April 1 to the day after Labor Day. Section 11 meets or exceeds the Services Guidelines.

Maine Department of Inland Fisheries and Wildlife — Date

Appendix 1

WEEKLY CONTACT INFORMATION

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Appendix 2

Town of Scarborough Piping Plover Ordinance

Town of Scarborough Animal Control Ordinance

Town of Scarborough Horse Beach Permit Ordinance

CHAPTER 610

TOWN OF SCARBOROUGH

PIPING PLOVER ORDINANCE

Adopted June 6, 2001
Amended October 2, 2013
Amended May 7, 2014

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CHAPTER 610
TOWN OF SCARBOROUGH
PIPING PLOVER PROTECTION ORDINANCE
Last Amended 04/07/14

1. **Purpose.**
The purpose of this Ordinance is to avoid or minimize adverse effects on Piping Plovers and their young by protecting their nesting, brooding, fledging, roosting and foraging activities on beaches within the Town of Scarborough.

2. **Definitions.**
Beach means any beach area within the Town of Scarborough, which is used by the general public.
Exclosure means an area from which pedestrians and vehicles are excluded by means of symbolic fencing.
Owner of a dog (or owner) means any person having custody, possession or control of a dog.
Piping Plover means the Atlantic Coast Piping Plover (Charadrius melodus), identified as a threatened species pursuant to the Federal Endangered Species Act of 1973, as amended, 16 U.S.C. §§ 1531 et seq.
Sand surfer means a recreational device consisting of a board on wheels attached to a large kite or sail and propelled by wind power.
Symbolic fencing means one or two strands of lightweight string, tied between posts to delineate areas where pedestrians and vehicles should not enter.
Wrack line means the line of dried seaweed, marine vegetation and other debris left on the beach by the action of the tides.

3. **Piping Plover nesting habitat to be identified.**
On or before April 1st of each year, the Town of Scarborough, in conjunction with the Maine Department of Inland Fisheries and Wildlife, the United States Fish and Wildlife Service and/or the Maine Audubon Society, will identify Piping Plover nesting habitat and will mark or arrange for the marking of such habitat with posts and warning signs.

4. **Nests and broods protected.**
When Piping Plover nests are present, the Town of Scarborough, in conjunction with the Maine Department of Inland Fisheries and Wildlife, the United States Fish and Wildlife Service and/or the Maine Audubon Society, will create or arrange for the creation of an exclosure around such nests in accordance with the guidelines of the United States Fish and Wildlife Service and authorization issued by the Maine Department of Inland Fisheries and Wildlife. Once such exclosures have been created, the following prohibitions shall apply:

   (1) No person shall enter into an exclosure, except for wildlife management purposes authorized by the Maine Department of Inland Fisheries and Wildlife or the United States Fish and Wildlife Service.
   (2) No person shall remove or disturb the wrack line located in front of an exclosure located within 330 feet of a Piping Plover brooding site, unless such

activity is approved by the Maine Department of Inland Fisheries and Wildlife or the United States Fish and Wildlife Service.

(3) No owner of a dog shall cause or permit that dog to enter the exclosure or shall fail to prevent that dog from entering the exclosure. All dogs shall be leashed in accordance with the Animal Control Ordinance, Chapter 604.

(4) No person shall drive or operate a vehicle, including a non-motorized vehicle, on the wrack line. (a) Non-emergency activities such as removal of dead or injured sea mammals shall require at least two responders, one of which will act as the spotter to and from the scene. (b) All emergency response personnel will account for and avoid nesting sites and chicks to the maximum extent practicable, consistent with the nature and urgency of the emergency. However, it is the policy of the Town of Scarborough that such essential vehicles will avoid driving on the wrack line where possible and will avoid frequent driving on the beach in a way which would create deep ruts that could impede movement of Piping Plover chicks.

(5) No person shall engage in kite flying, kitesurfing or parasailing within 650 feet of nesting or territorial adult or unfledged juvenile Piping Plovers between April 1st and August 31st.

(6) No person shall discharge or cause the discharge of any fireworks on any beach on which Piping Plovers are nesting from April 1st until all chicks are fledged.

(7) No person shall utilize a sand surfer within 650 feet of nesting or territorial adult or unfledged juvenile Piping Plovers between April 1st and August 31st.

5. **Enforcement and penalties.**

Any person who violates any provision of this Ordinance commits a civil violation for which a civil penalty of no less than $50.00 and no greater than $250.00 shall be imposed. This Ordinance may be enforced by any officer of the Scarborough Police Department.

6. **Relation to state and federal laws.**

This Ordinance is intended to be consistent with state and federal protections of Piping Plovers and Piping Plover habitat. In the event of any inconsistency between this Ordinance and state or federal laws or regulations, the more stringent provisions shall control.

7. **Relation to private protection efforts.**

This Ordinance is not intended to supersede or displace any efforts or activities of private individuals or organizations or any protections afforded to Piping Plovers and their habitat by deed restrictions, conservation easements and other types of private covenants. To the extent any such private covenants are more restrictive than the provisions of this Ordinance, this Ordinance does not authorize any departure from the requirements of such covenants.

CHAPTER 604

TOWN OF SCARBOROUGH

ANIMAL CONTROL ORDINANCE

Adopted 02/16/2000
Amended 05/19/2004
Amended 04/20/2011
Amended 05/07/2014

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CHAPTER 604
TOWN OF SCARBOROUGH
ANIMAL CONTROL ORDINANCE
Last Amended 05/07/14

604-1 Purpose

The purpose of this ordinance is to require that all animals in the Town of Scarborough be kept under the control of their owner or keeper at all times so that they will not injure persons or other animals, damage property or create a public health threat.

The provisions of this ordinance that apply to the owner of an animal apply equally to any person keeping, or having control, custody, or possession of that animal.

604-2 Definitions

1. ABANDONED ANIMAL:
An animal that has been deserted by its owner or keeper.

2. ANIMAL:
Every living, sentient creature not a human being.

3. ANIMAL CONTROL:
Control of dogs, cats and domesticated or undomesticated animals.

4. ANIMAL CONTROL OFFICER:
Any person appointed by the Town of Scarborough to enforce animal control laws.

5. ANIMAL SHELTER:
A facility that includes a physical structure, or part of a physical structure, that provides temporary or permanent shelter to stray, abandoned, abused or owner-surrendered animals.

6. AT LARGE:
off the premises of the owner and not under the control of any person whose personal presence and attention would reasonably control the conduct of the dog.

7. BEACH:
Any beach area within the Town of Scarborough which is used by the general public.

8. DOG:
Any of large and varied groups of domesticated animals in the canine family.

9. LEASH:
Hand held device, 30 feet or less in length, which can be used to restrain a dog if the dog fails to respond to voice commands or if the owner or responsible party is ordered by the Animal Control Officer and a law enforcement officer to leash the dog and at all times when this Ordinance requires dogs to be leashed. A leash of a length no longer than 12 feet shall be used at all time on Beaches of Scarborough from April 1 to Labor Day, unless otherwise stated herein. A failure to comply with this definition shall constitute a violation of this ordinance. (amended 05/19/2004; amended 05/07/2014)

10. OWNER:
Owner or any person or persons, firm, association or corporation owning, keeping or harboring an animal or any person having custody, possession, or control of an animal.

11. RESTRICTED AREAS: Restricted Areas are beach areas that may be designated for special protection for piping plovers or other endangered species based upon scientific and historical data. The following are Restricted Areas and restrictions applying thereto from April 1st to the day after Labor Day [Adopted 05/07/2014]:

a) **Higgins Beach** – The Restricted Area is defined as that part of the beach from Champion Street to the Spurwink River-**no dogs allowed**. See aerial map appended hereto for further details. [Exhibit A]

b) **Ferry/Western Beach** – The Restricted Area is defined as that portion of the beach commonly known as Ferry Beach, beginning at the southerly end of the municipal parking lot and extending south to Ferry Rock and thence southeast the full length of the beach commonly known as Western Beach – **no dogs allowed**. See aerial map appended hereto for further details. [Exhibit B]

c) **Pine Point Beach** – The Restricted Area is defined as that portion of the beach from the main beach access path at Hurd Park north to the Scarborough River-**dogs on leash only**. See aerial map appended hereto for further details. [Exhibit C]

12. RESPONSIBLE DOG OWNER: Is an individual who has possession or custody of a dog and has read and affirmed [at the time of licensure], that they will 1) Maintain control of their dog(s) at all times; 2) They will not allow the dog(s) to charge, chase or display aggression towards any person, other dogs or wildlife; and, 3) Behave in any way that a reasonable person would find disturbing or harassing. Except for hunting purposes a Responsible Dog Owner shall not have more than two dogs under Voice and Sight Control at the same time. A responsible party shall have a leash in his or her possession for each dog off leash. A failure to comply with this definition shall constitute a violation of this ordinance.

13. RESPONSIBLE PARTY:
As used in this ordinance, the term "responsible party" means any person who has possession or custody of a dog. If a dog is present on a beach in violation of the restrictions of this section, the owner of the dog and the responsible party are jointly and severally liable for the violation. (amended 05/19/2004)

14. VOICE AND SIGHT CONTROL:
As used in this ordinance, the term "voice control" means that the dog returns immediately to and remains by the side of the responsible party in response to the responsible party's verbal command. "Sight Control" means that a dog is always within sight of the Responsible Pary and the dog is capable of complying with Voice Control. A violation of this Ordinance occurs upon a failure to comply with the definition of either Voice Control or Sight Control. If a dog approaches or remains within 10 feet of any person other than the responsible party, that dog is not under voice control and a violation of this Ordinance occurs unless such person (or in the case of a minor child, an adult present with the child) has communicated to the responsible party by spoken word or gesture that such person consents to the presence of the dog. (amended 05/19/2004)

604-3 Animal Control Officer

A qualified person shall be employed by the police department who shall be known as and perform the duties of Animal Control Officer. The Animal Control Officer shall be principally responsible for the enforcement of all laws related to dogs, cats, and other domesticated animals and also to undomesticated animals.

604-4 At Large Dogs

Dogs shall be considered at-large unless leashed or under Voice and Sight Control. It is unlawful for any dog, licensed or unlicensed, to be at large, except when used for hunting. The owner of any dog found at large shall be subject to the civil penalties provided in this ordinance.[Amended 05/07/2014]

604-5 Impoundment or Return of At Large Dogs

All dogs found at large in violation to Title 7, M.R.S.A., Section 3911 may be impounded at the animal shelter or returned to the owner, at the discretion of the Animal Control Officer. If the Animal Control Officer returns the dog to its owner, the owner shall pay a $15.00 (fifteen dollars) return fee to the Town of Scarborough before the dog is returned. The payment must be made at the police dispatch center, which shall issue a receipt therefor.

604-6 Disposition of Impounded Animal

An owner is entitled to resume possession of any impounded animal provided that all provisions of this ordinance have been met, and that all impoundment fees due under the provisions of this ordinance have been paid. Any animal not claimed after the owner has been notified may be classified as an abandoned animal, and the animal's owner may be subjected to all civil penalties authorized by this ordinance.

604-7 Impoundment Fee

An owner may reclaim an impounded animal by first paying to the Town of Scarborough at the Town Clerk's Office, a fee of $30.00 (thirty dollars) for each animal impounded. If the Town Clerk's Office is closed, the fee shall be paid at the Police Dispatch Center. Fees must be paid and a receipt from the Town must be presented to the animal shelter before the release of an animal. All fees will be deposited in the separate account required by Title 7, M.R.S.A. 3945.

604-8 Animal Noise

a. Except as provided in subparagraph (b) and (c) below, no owner shall permit or allow any animal to bark, howl or make other sounds common to its species if such sounds recur in steady, rapid succession for 20 minutes or more or recur intermittently for one hour or more.
b. Section 604-8(a) shall not apply if any animal is provoked by trespassing people or animals on private property on which the animal is situated or by other legitimate cause for provocation.
c. Section 604-8(b) shall not apply to farm animals kept on a property located in the R-F or R-F-M Districts under the Scarborough Zoning Ordinance. In all other zoning districts, Section 604-8(a) shall not apply to farm animals kept on a property [the principal use of which is] [a use of which is] the commercial production of farm products and is either a conforming use or a lawful nonconforming use under the Scarborough Zoning Ordinance. For purposes of this exception, dogs are not "farm animals" and kennels are not "farms."

604-9 Control of Animal Waste

An owner must remove and dispose of any feces left by his/her animal on any sidewalk, street, beach, public property or private property (other than the property of the owner of the animal or of a person who has consented to the presence of the animal on his or her property) and deposit such feces into appropriate litter receptacle. An owner whose animal is present on any property from which the animal's feces is required to be removed pursuant to this section must have in his or her possession a plastic bag or similar utensil not part of the human body for collecting and removing the feces. This regulation shall not apply to any person who, by reason of physical handicap, is unable to comply with the requirement.

604-10. Public Beaches and Shores (amended 05/19/2004; [Amended 05/07/2014])

The following restrictions apply to dogs on beaches:

The following restrictions apply to dogs on beaches:

a. From April 1 to Labor Day dogs shall be restricted in the Restricted Areas of each Beach as set forth in Section 604.2(11).
b. From May 15th to Labor Day (i) no dogs on any Beach from 9:00 a.m. to 5:00 p.m.; and (ii) dogs on leash from 5:00 p.m. to dusk.
c. From the day after Labor Day to May 14th dogs on leash from 1:00 p.m. to 3:00 p.m.
d. If directed by the Animal Control Officer or a law enforcement officer a Responsible Party may be required to leash their dog.
e. No dogs on any beach from 30 minutes after sunset (dusk) to 30 minutes before sunrise (dawn).
f. Whenever a portion of a beach has been roped off, fenced off or otherwise demarcated or posted as a protected area in order to protect the nesting site of a piping plover or of any other endangered species protected under federal law, no dog shall approach within 200 feet of such protected area.
g. Dogs shall be on leash while entering or exiting vehicles and the Beach.
h. At all times not otherwise addressed above, dogs shall be under Voice and Sight Control.

604-11 Dangerous Dogs

Any person who is assaulted by a dog or any person witnessing an assault against a person or domesticated animal or a person with knowledge of an assault against a minor, within thirty days of the assault, may make a written complaint to the Animal Control Officer that the dog is a dangerous dog. The Animal Control Officer may issue a civil violation citation for keeping a dangerous dog pursuant to 7 M.R.S.A. §3952. After issuing the citation and before hearing in court, if the dog poses an immediate or continuing threat to the public, the Animal Control Officer shall order the owner of the dog to muzzle, restrain or confine the dog to the owner's premises or to have the dog at the owner's expense at a place determined by the Animal Control Officer. If the owner fails to comply with such order, the Animal Control Officer may apply to the District Court, Superior Court or a Justice of the Peace pursuant to 7 M.R.S.A. §3952 for an ex parte order for authorization to take possession of the dog that poses an immediate or continuing threat to the public.

604-12 Trespass

An owner of an animal may not allow that animal to enter onto the property of another after the owner has been warned by the property owner or a representative of the property owner or by the Animal Control Officer or a law enforcement officer that the animal was found on the property of another.

The owner of an animal is responsible, at the owner's expense, for removing such animal found trespassing. The Animal Control Officer, may, at the owner's expense, remove and control the animal if:

> the owner fails to remove the animal after having been notified by the Animal Control Officer that the animal was trespassing; or the animal is an immediate danger to itself, to persons or to another's property.

Any animal so removed shall be subject to the provisions of Sections 604-5, 604-6 and 604-7 in the same manner as an at large dog.

604-13 Licenses[Amended 04/20/2011; Amended 05/07/2014]

No dog shall be kept within the limits of the Town of Scarborough unless such dog is licensed by its owner in accordance with Maine Law and has acknowledged receipt and affirmation of the requirements of a "Responsible Dog Owner" as defined in Section 604-2-11. The Town Clerk shall provide with each new license issued for a dog a tag indicating the year the license is issued and such other information as may be required under Title 7 M.R.S.A. Part 9 - Chapter 721. Dog Licensing.

604-14 Rabies Tags

Rabies tags obtained from a veterinarian for immunization against rabies must be securely attached to a collar of leather, metal or material of comparable strength that must be worn by the dog for which the tag was issued except when the dog is hunting, in training or in an exhibition or on the premises of the owner. When the dog is hunting, in training or in an exhibition, its owner shall produce proof of licensure and proof of rabies immunization within twenty-four hours upon request for the Animal Control Officer.

604-15 Violations/Penalties

Any persons who violates Section 604-8 (Animal Noise) or Section 604-9 (Control of Animal Waste) shall be subject to civil penalties for each violation, as follows:

> First violation: not less than $50.00 and not more than $100.00, plus costs.
> Second violation: not less than $100.00 and not more than $250.00, plus costs.
> Third and subsequent violations: not less than $250.00 and not more than $500.00, plus costs.

Any person who violates any other Section of this ordinance shall be subject to a civil penalty of not less than $100.00 and not more than $500.00 plus costs for each offense.

All civil penalties collected pursuant to this Ordinance shall be recovered to the use of the Town of Scarborough and deposited in the separate account required by 7 M.R.S.A. Section 3945.

A person issued a civil violation citation for violating this Ordinance may elect to pay the minimum penalty specified above for each violation alleged in the citation, in lieu of appearing in court to answer the citation. Such payment must be received at the Office of the Town Clerk in the amount specified by the Animal Control Officer by the seventh day prior to the court appearance date specified in the citation. Upon receipt of such payment by the Clerk, the Animal Control Officer shall cause the citation to be dismissed. However, the violations alleged in the citation shall be deemed admitted for purposes of assessing any future penalties under this section.

604-16 Severability Clause

If any part of this ordinance shall be held valid, such part shall be deemed severable and the invalidity thereof shall not affect the remaining parts of this ordinance.



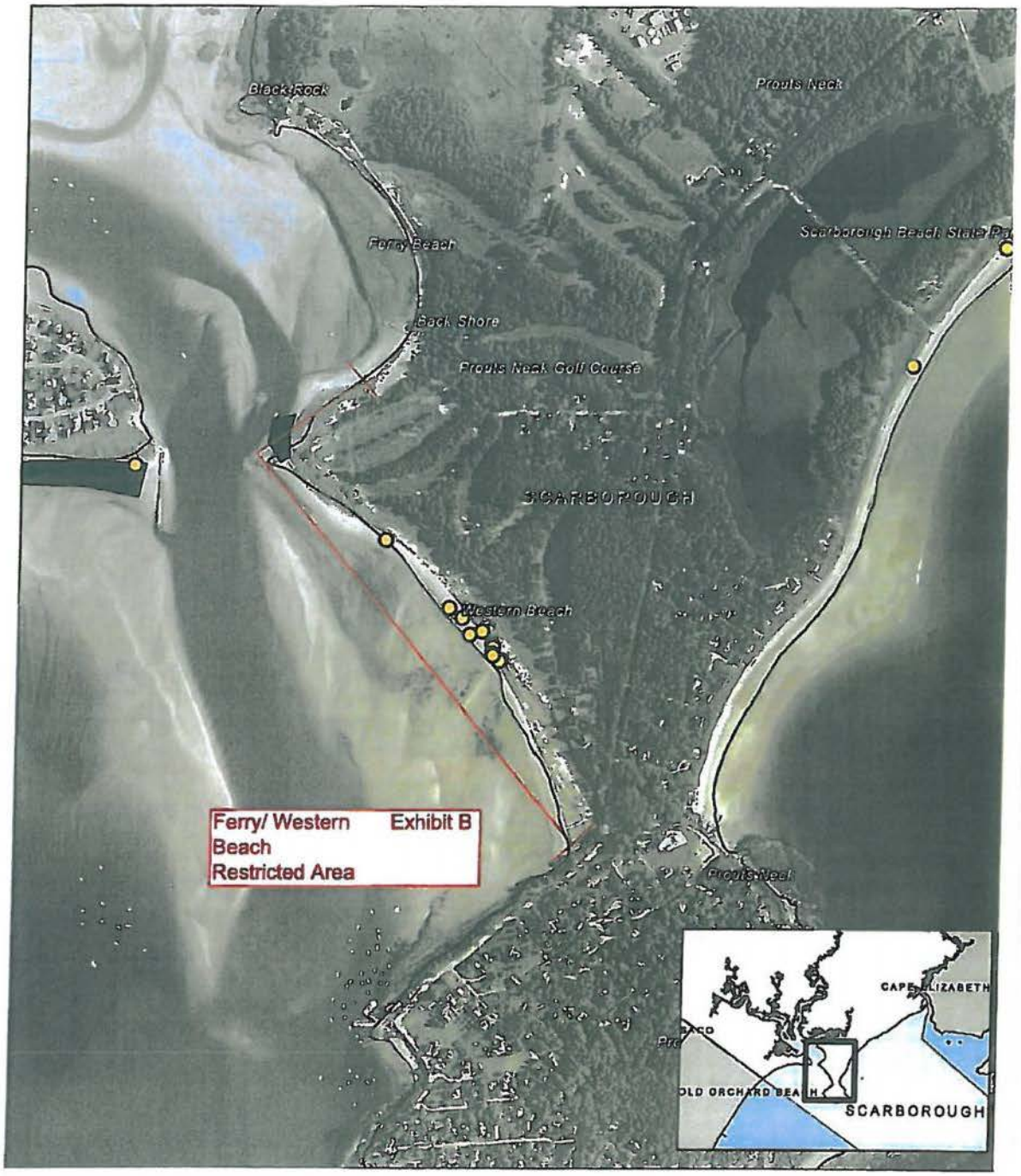
Piping Plover Nest Locations - Town of Scarborough (Higgins Beach)

Maine Department of
Inland Fisheries and Wildlife

Piping Plover Nest Locations *2000-2013*
Piping Plover Brood Locations *2011 & 2012*
Historic Piping Plover Nest Locations

Miles

Projection: UTM, NAD83, Zone 19
Date: 9/11/2013



Piping Plover Nest Locations - Town of Scarborough (Ferry Beach & Western Beach)

Maine Department of Inland Fisheries and Wildlife

- Piping Plover Nest Locations *2000-2013*
- Piping Plover Brood Locations *2011 & 2012*
- Historic Piping Plover Nest Locations

0 0.1 0.2 0.3 0.4 0.5 Miles

Projection: UTM, NAD83, Zone 19

Date: 9/11/2013



Piping Plover Nest Locations - Town of Scarborough (Pine Point Beach)

Maine Department of
Inland Fisheries and Wildlife

- Piping Plover Nest Locations *2000-2013*
- Piping Plover Brood Locations *2011 & 2012*
- Historic Piping Plover Nest Locations

0 0.1 0.2 0.3 0.4 0.5 Miles

Projection: UTM, NAD83, Zone 1E

Date: 9/11/2013

CHAPTER 604A

TOWN OF SCARBOROUGH

HORSE BEACH PERMIT ORDINANCE

Adopted September 16, 2009
Amended May 7, 2014
Amended September 6, 2017

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HORSE BEACH PERMIT ORDINANCE
Last Amended 09/06/17

604A-1. Authority

This Ordinance is enacted pursuant to the authority of 30-A M.R.S.A. § 3001 and also implements 17 M.R.S.A. § 3853-A. The Town Clerk shall have the powers and exercise the duties of the municipal officers under 17 M.R.S.A. § 3853-A.

604A-2. Purpose

The purpose of this Ordinance is to allow horses to be present on Pine Point Beach in Scarborough and Old Orchard Beach in the Town of Old Orchard Beach during appropriate times of year, and subject to appropriate regulation and control. This Ordinance recognizes that Pine Point Beach and Old Orchard Beach form a continuous strand of sand beach and establishes a system of reciprocal licensing for horses on that strand of beach.

604A-3. Definitions

As used in this Ordinance, the following terms have the following meanings:

1. "Beach" means Pine Point Beach and/or Old Orchard Beach.
2. "Old Orchard Beach" means the sand beach bordering the Atlantic Ocean from the Scarborough/Old Orchard Beach town line to the Saco city line.
3. Keeping or having custody, possession or control of a horse.
4. "Pine Point Beach" means the sand beach bordering the Atlantic Ocean from the mouth of the Scarborough River to the Old Orchard Beach town line.
5. "Rider" means any person who rides, leads or drives a horse.
6. "Town of Old Orchard Beach" means the municipality so named.

604A-4. Permit Required

No rider shall bring a horse onto the beach without having a permit and displaying on the rider a permit number tag issued by the Town Clerk of either the Town of Scarborough or the Town of Old Orchard Beach. Every rider must have an individual permit and permit number tag.

604A-5. Procedure for Obtaining a Permit

A rider seeking a permit to bring a horse onto the beach must apply in writing to the Town Clerk of the Town of Scarborough or the Town Clerk of the Town of Old Orchard Beach, using forms supplied by such clerk. The application must be accompanied by identification issued by a government agency and by the application fee required by the Schedule of License, Permit and Application Fees in the municipality where the application is made. If the applicant is a minor, the application must be signed by a parent or guardian, who must supply the required identification (the minor need not supply identification). Along with the permit, the Town Clerk shall also issue a permit number tag, designed to be worn by the rider and visible at a distance, which shall contain the permit number in numerals at least two and one half (2½) inches high,

the name of the permit holder and the name of the issuing municipality, and may contain such other information concerning the permit as the Clerk deems appropriate. A permit issued by either municipality shall be valid in both municipalities. Permits are valid only between October 1st and March 31st. All permits, whenever issued, expire on March 31st. The Town Clerk who issues the permit may suspend or revoke the permit if the rider violates any provision of this ordinance and may decline to issue a subsequent permit to a rider who has violated any provision of this ordinance.

604A-6. Regulation of Horses on the Beach

1. Horses are allowed on the beach only from October 1st[th] through March 31st.
2. Except for gaining access to and egress from the beach, horses are allowed only in the intertidal zone (between the mean high tide line and the mean low water line).
3. Parking of horse trailers is limited to Hurd Park in the Town of Scarborough and the Milliken Street Municipal Parking Lot in the Town of Old Orchard Beach.
4. Any rider or owner who allows a horse to be present on the beach must remove and dispose of animal waste as required by Section 604-9 of the Town of Scarborough Animal Control Ordinance. Violation of Section 604-9 constitutes a violation of this Ordinance. The owner, operator or drive of horses, or horse-drawn carriages operating on the beach shall be required to attach a containment device to the rear of each and every horse so operated, to be maintained and emptied so that manure is completely contained therein, cannot and does not fall upon any surface while operating under the Permit provided for herein, and is carried away for proper disposal. [amended 09/06/17]

604A-7. Violation/Penalties

Any person who violates this Ordinance within the Town of Scarborough shall be subject to civil penalties for each violation as follows:

First violation: not less than $50.00 and not more than $100.00, plus costs.
Second violation: not less than $100.00 and not more than $250.00, plus costs.
Third and subsequent violations: not less than $250.00 and not more than $500.00, plus costs.

A person issued a civil violation citation for violating this Ordinance may elect to pay the minimum penalty specified above for each violation alleged in the citation, in lieu of appearing in court to answer the citation. Such payment must be received at the Office of the Scarborough Town Clerk in the amount specified in the citation prior to the court appearance date specified in the citation. Upon receipt of such payment by the Clerk, the Town shall cause the citation to be dismissed. However, the violations alleged in the citation shall be deemed admitted for purposes of assessing any future penalties under this section.

If a horse is present on the beach in violation of this Ordinance and the rider is not the owner, the owner shall be jointly and severally liable with the rider for civil penalties.

604A-8. Enforcement

This Ordinance may be enforced by any officer of the Police Department of the Town of Scarborough.

604A-9. Severability Clause

If any part of this Ordinance shall be held invalid, such part shall be deemed severable and the invalidity thereof shall not affect the remaining parts of this Ordinance.

Appendix 3

USFWS Guidelines for Managing Recreational Activities in Piping Plover Breeding Habitat on the U. S. Atlantic Coast to Avoid Take Under Section 9 of the Endangered Species Act

GUIDELINES FOR MANAGING RECREATIONAL ACTIVITIES IN PIPING PLOVER BREEDING HABITAT ON THE U.S. ATLANTIC COAST TO AVOID TAKE UNDER SECTION 9 OF THE ENDANGERED SPECIES ACT

Northeast Region, U.S. Fish and Wildlife Service
April 15, 1994

The following information is provided as guidance to beach managers and property owners seeking to avoid potential violations of Section 9 of the Endangered Species Act (16 U.S.C. 1538) and its implementing regulations (50 CFR Part 17) that could occur as the result of recreational activities on beaches used by breeding piping plovers along the Atlantic Coast. These guidelines were developed by the Northeast Region, U.S. Fish and Wildlife Service (Service), with assistance from the U.S. Atlantic Coast Piping Plover Recovery Team. The guidelines are advisory, and failure to implement them does not, of itself, constitute a violation of the law. Rather, they represent the Service's best professional advice to beach managers and landowners regarding the management options that will prevent direct mortality, harm, or harassment of piping plovers and their eggs due to recreational activities.

Some land managers have endangered species protection obligations under Section 7 of the Endangered Species Act (see section I below) or under Executive Orders 11644 and 11989[1] that go beyond adherence to these guidelines. Nothing in this document should be construed as lack of endorsement of additional piping plover protection measures implemented by these land managers or those who are voluntarily undertaking stronger plover protection measures.

This document contains four sections: (I) a brief synopsis of the legal requirements that afford protection to nesting piping plovers; (II) a brief summary of the life history of piping plovers and potential threats due to recreational activities during the breeding cycle; (III) guidelines for protecting piping plovers from recreational activities on Atlantic Coast beaches; and (IV) literature cited.

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[1] Executive Order 11644, Use of Off-Road Vehicles on the Public Lands and Executive Order 11989, Off-Road Vehicles on Public Lands pertain to lands under custody of the Secretaries of Agriculture, Defense, and Interior (except for Indian lands) and certain lands under the custody of the Tennessee Valley Authority.

I. LEGAL CONSIDERATIONS

Section 9 of the Endangered Species Act (ESA) prohibits any person subject to the jurisdiction of the United States from harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting listed wildlife species. It is also unlawful to attempt such acts, solicit another to commit such acts, or cause such acts to be committed. A "person" is defined in Section 3 to mean "an individual, corporation, partnership, trust, association, or any other private entity; or any officer, employee, agent, department, or instrumentality of the Federal Government, of any State, municipality, or political subdivision of a State, or of any foreign government; any State, municipality, or political subdivision of a State; or any other entity subject to the jurisdiction of the United States." Regulations implementing the ESA (50 CFR 17.3) further define "harm" to include significant habitat modification or degradation that results in the killing or injury of wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering. "Harass" means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Penalties for violations of Section 9 are provided in Section 11 of the ESA; for threatened species, these penalties include fines of up to $25,000, imprisonment for not more than six months, or both.

Section 10 of the ESA and related regulations provide for permits that may be granted to authorize acts prohibited under Section 9, for scientific purposes or to enhance the propagation or survival of a listed species. States that have Cooperative Agreements under Section 6 of the ESA, may provide written authorization for take that occurs in the course of implementing conservation programs. For example, State agencies have authorized certain biologists to construct predator exclosures for piping plovers. It is also legal for employees or designated agents of certain Federal or State agencies to take listed species without a permit, if the action is necessary to aid sick, injured, or orphaned animals or to salvage or dispose of a dead specimen.

Section 10 also allows permits to be issued for take that is "incidental to, and not the purpose of, carrying out an otherwise lawful activity" if the Service determines that certain conditions have been met. An applicant for an incidental take permit must prepare a conservation plan that specifies the impacts of the take, steps the applicant will take to minimize and mitigate the impacts, funding that will be available to implement these steps, alternative actions to the take that the applicant considered, and the reasons why such alternatives are not being utilized.

Section 7 of the ESA may be pertinent to beach managers and landowners in situations that have a Federal nexus. Section 7 requires Federal agencies to consult with the Service (or National Marine Fisheries Service for marine species) prior to authorizing, funding, or carrying out activities that may affect listed species. Section 7 also requires that these agencies use their authorities to further the conservation of listed species. Section 7 obligations have caused Federal land management agencies to implement piping plover protection measures that go beyond those required to avoid take, for example by conducting research on threats to piping plovers. Other examples of Federal activities that may affect piping plovers along the Atlantic Coast, thereby triggering Section 7 consultation, include permits for beach nourishment or disposal of dredged material (U.S. Army Corps of Engineers) and funding of beach restoration projects (Federal Emergency Management Authority).

Piping plovers, as well as other migratory birds such as least terns, common terns, American oystercatchers, laughing gulls, herring gulls, and great black-blacked gulls, their nests, and eggs are also protected under the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712). Prohibited acts include pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting such conduct. Violators may be fined up to $5000 and/or imprisoned for up to six months.

Almost all States within the breeding range of the Atlantic Coast piping plover population list the species as State threatened or endangered (Northeast Nongame Technical Committee 1993). Various laws and regulations may protect State-listed species from take, but the Service has not ascertained the adequacy of the guidelines presented in this document to meet the requirements of any State law.

II. LIFE HISTORY AND THREATS FROM HUMAN DISTURBANCE

Piping plovers are small, sand-colored shorebirds that nest on sandy, coastal beaches from South Carolina to Newfoundland. Since 1986, the Atlantic Coast population has been protected as a threatened species under provisions of the U.S. Endangered Species Act of 1973 (U.S. Fish and Wildlife Service 1985). The U.S. portion of the population was estimated at 875 pairs in 1993 (U.S. Fish and Wildlife Service 1993). Many characteristics of piping plovers contribute to their susceptibility to take due to human beach activities.

LIFE HISTORY

Piping plovers begin returning to their Atlantic Coast nesting beaches in mid-March (Coutu et al. 1990, Cross 1990, Goldin 1990, MacIvor 1990, Hake 1993). Males establish and defend territories and court females (Cairns 1982). Eggs may be present on the beach from mid-April through late July. Clutch size is generally four eggs, and the incubation period[2] usually lasts for 27-28 days. Piping plovers fledge only a single brood per season, but may renest several times if previous nests are lost. Chicks are precocial[3] (Wilcox 1959, Cairns 1982). They may move hundreds of yards from the nest site during their first week of life (see Table 1, Summary of Chick Mobility Data). Chicks remain together with one or both parents until they fledge (are able to fly) at 25 to 35 days of age. Depending on date of hatching, flightless chicks may be present from mid-May until late August, although most fledge by the end of July (Patterson 1988, Goldin 1990, MacIvor 1990, Howard et al. 1993).

Piping plover nests are situated above the high tide line on coastal beaches, sand flats at the ends of sandspits and barrier islands, gently sloping foredunes, blowout areas behind primary dunes, and washover areas cut into or between dunes. They may also nest on areas where suitable dredge material has been deposited. Nest sites are shallow scraped depressions in substrates ranging from fine grained sand to mixtures of sand and pebbles, shells or cobble (Bent 1929, Burger 1987a, Cairns 1982, Patterson 1988, Flemming et al. 1990, MacIvor 1990, Strauss 1990).

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[2] "Incubation" refers to adult birds sitting on eggs, to maintain them at a favorable temperature for embryo development.

[3] "Precocial" birds are mobile and capable of foraging for themselves within several hours of hatching.

Nests are usually found in areas with little or no vegetation although, on occasion, piping plovers will nest under stands of American beachgrass (Ammophila breviligulata) or other vegetation (Patterson 1988, Flemming et al. 1990, MacIvor 1990). Plover nests may be very difficult to detect, especially during the 6-7 day egg-laying phase when the birds generally do not incubate (Goldin 1994).

Plover foods consist of invertebrates such as marine worms, fly larvae, beetles, crustaceans or mollusks (Bent 1929, Cairns 1977, Nicholls 1989). Feeding areas include intertidal portions of ocean beaches, washover areas, mudflats, sandflats, wrack lines[4], and shorelines of coastal ponds, lagoons or salt marshes (Gibbs 1986, Coutu et al. 1990, Hoopes et al. 1992, Loegering 1992, Goldin 1993). Studies have shown that the relative importance of various feeding habitat types may vary by site (Gibbs 1986, Coutu et al. 1990, McConnaughey et al. 1990, Loegering 1992, Goldin 1993, Hoopes 1993) and by stage in the breeding cycle (Cross 1990). Adults and chicks on a given site may use different feeding habitats in varying proportion (Goldin et al. 1990). Feeding activities of chicks may be particularly important to their survival. Cairns (1977) found that piping plover chicks typically tripled their weight during the first two weeks post-hatching; chicks that failed to achieve at least 60% of this weight gain by day 12 were unlikely to survive. During courtship, nesting, and brood rearing, feeding territories are generally contiguous to nesting territories (Cairns 1977), although instances where brood-rearing areas are widely separated from nesting territories are not uncommon (see Table 1). Feeding activities of both adults and chicks may occur during all hours of the day and night (Burger 1993) and at all stages in the tidal cycle (Goldin 1993, Hoopes 1993).

THREATS FROM NONMOTORIZED BEACH ACTIVITIES

Sandy beaches that provide nesting habitat for piping plovers are also attractive recreational habitats for people and their pets. Nonmotorized recreational activities can be a source of both direct mortality and harassment of piping plovers. Pedestrians on beaches may crush eggs (Burger 1987b, Hill 1988, Shaffer and Laporte 1992, Cape Cod National Seashore 1993, Collazo et al. 1994). Unleashed dogs may chase plovers (McConnaughey et al. 1990), destroy nests

[4] Wrack is organic material including seaweed, seashells, driftwood and other materials deposited on beaches by tidal action.

(Hoopes et al. 1992), and kill chicks (Cairns and McLaren 1980).

Pedestrians may flush incubating plovers from nests (see Table 2, Summary of Data on Distances at Which Plovers React to Disturbance), exposing eggs to avian predators or causing excessive cooling or heating of eggs. Repeated exposure of shorebird eggs on hot days may cause overheating, killing the embryos (Bergstrom 1991). Excessive cooling may kill embryos or retard their development, delaying hatching dates (Welty 1982). Pedestrians can also displace unfledged chicks (Strauss 1990, Burger 1991, Hoopes et al. 1992, Loegering 1992, Goldin 1993). Fireworks are highly disturbing to piping plovers (Howard et al. 1993). Plovers are particularly intolerant of kites, compared with pedestrians, dogs, and vehicles; biologists believe this may be because plovers perceive kites as potential avian predators (Hoopes et al. 1992).

THREATS FROM MOTOR VEHICLES

Unrestricted use of motorized vehicles on beaches is a serious threat to piping plovers and their habitats. Vehicles can crush eggs (Wilcox 1959; Tull 1984; Burger 1987b; Patterson et al. 1991; United States of America v. Breezy Point Cooperative, Inc., U.S. District Court, Eastern District of New York, Civil Action No. CV-90-2542, 1991; Shaffer and Laporte 1992), adults, and chicks. In Massachusetts and New York, biologists documented 14 incidents in which 18 chicks and 2 adults were killed by vehicles between 1989 and 1993 (Melvin et al. 1994). Goldin (1993) compiled records of 34 chick mortalities (30 on the Atlantic Coast and 4 on the Northern Great Plains) due to vehicles. Many biologists that monitor and manage piping plovers believe that many more chicks are killed by vehicles than are found and reported (Melvin et al. 1994). Beaches used by vehicles during nesting and brood-rearing periods generally have fewer breeding plovers than available nesting and feeding habitat can support. In contrast, plover abundance and productivity has increased on beaches where vehicle restrictions during chick-rearing periods have been combined with protection of nests from predators (Goldin 1993; S. Melvin, pers. comm., 1993).

Typical behaviors of piping plover chicks increase their vulnerability to vehicles. Chicks frequently move between the upper berm or foredune and feeding habitats in the wrack line and intertidal zone. These movements place chicks in the paths of vehicles driving along the berm or through the intertidal zone. Chicks stand in, walk, and run along tire ruts, and sometimes have

difficulty crossing deep ruts or climbing out of them (Eddings et al. 1990, Strauss 1990, Howard et al. 1993). Chicks sometimes stand motionless or crouch as vehicles pass by, or do not move quickly enough to get out of the way (Tull 1984, Hoopes et al. 1992, Goldin 1993). Wire fencing placed around nests to deter predators (Rimmer and Deblinger 1990, Melvin et al. 1992) is ineffective in protecting chicks from vehicles because chicks typically leave the nest within a day after hatching and move extensively along the beach to feed (see Table 1).

Vehicles may also significantly degrade piping plover habitat or disrupt normal behavior patterns. They may harm or harass plovers by crushing wrack into the sand and making it unavailable as cover or a foraging substrate, by creating ruts that may trap or impede movements of chicks, and by preventing plovers from using habitat that is otherwise suitable (MacIvor 1990, Strauss 1990, Hoopes et al. 1992, Goldin 1993).

III. GUIDELINES FOR PROTECTING PIPING PLOVERS FROM RECREATIONAL DISTURBANCE

The Service recommends the following protection measures to prevent direct mortality or harassment of piping plovers, their eggs, and chicks.

MANAGEMENT OF NONMOTORIZED RECREATIONAL USES

On beaches where pedestrians, joggers, sun-bathers, picnickers, fishermen, boaters, horseback riders, or other recreational users are present in numbers that could harm or disturb incubating plovers, their eggs, or chicks, areas of at least 50 meter-radius around nests above the high tide line should be delineated with warning signs and symbolic fencing[5]. Only persons engaged in rare species monitoring, management, or research activities should enter posted areas. These areas should remain fenced as long as viable eggs or unfledged chicks are present. Fencing is intended to prevent accidental crushing of nests and repeated flushing of incubating adults, and to provide an area where chicks can rest and seek shelter when large numbers of people are on

[5] "Symbolic fencing" refers to one or two strands of light-weight string, tied between posts to delineate areas where pedestrians and vehicles should not enter.

the beach.

Available data indicate that a 50 meter buffer distance around nests will be adequate to prevent harassment of the majority of incubating piping plovers. However, fencing around nests should be expanded in cases where the standard 50 meter-radius is inadequate to protect incubating adults or unfledged chicks from harm or disturbance. Data from various sites distributed across the plover's Atlantic Coast range indicates that larger buffers may be needed in some locations (see Table 2). This may include situations where plovers are especially intolerant of human presence, or where a 50 meter-radius area provides insufficient escape cover or alternative foraging opportunities for plover chicks.[6]

In cases where the nest is located less than 50 meters above the high tide line, fencing should be situated at the high tide line, and a qualified biologist should monitor responses of the birds to passersby, documenting his/her observations in clearly recorded field notes. Providing that birds are not exhibiting signs of disturbance, this smaller buffer may be maintained in such cases.

On portions of beaches that receive heavy human use, areas where territorial plovers are observed should be symbolically fenced to prevent disruption of territorial displays and courtship. Since nests can be difficult to locate, especially during egg-laying, this will also prevent accidental crushing of undetected nests. If nests are discovered outside fenced areas, fencing should be extended to create a sufficient buffer to prevent disturbance to incubating adults, eggs, or unfledged chicks.

Pets should be leashed and under control of their owners at all times from April 1 to August 31 on beaches where piping plovers are present or have traditionally nested. Pets should be prohibited on these beaches from April 1 through August 31 if, based on observations and experience, pet owners fail to keep pets leashed and under control.

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[6] For example, on the basis of data from an intensive three year study that showed that plovers on Assateague Island in Maryland flush from nests at greater distances than those elsewhere (Loegering 1992), the Assateague Island National Seashore established 200 meter buffers zones around most nest sites and primary foraging areas (Assateague Island National Seashore 1993). Following a precipitous drop in numbers of nesting plover pairs in Delaware in the late 1980's, that State adopted a Piping Plover Management Plan that provided 100 yard buffers around nests on State park lands and included intertidal areas (Delaware Department of Natural Resources and Environmental Control 1990).

Kite flying should be prohibited within 200 meters of nesting or territorial adult or unfledged juvenile piping plovers between April 1 and August 31. Fireworks should be prohibited on beaches where plovers nest from April 1 until all chicks are fledged. (See the Service's February 4, 1997 Guidelines for Managing Fireworks in the Vicinity of Piping Plovers and Seabeach Amaranth on the U.S. Atlantic Coast.)

MOTOR VEHICLE MANAGEMENT

The Service recommends the following minimum protection measures to prevent direct mortality or harassment of piping plovers, their eggs, and chicks on beaches where vehicles are permitted. Since restrictions to protect unfledged chicks often impede vehicle access along a barrier spit, a number of management options affecting the timing and size of vehicle closures are presented here. Some of these options are contingent on implementation of intensive plover monitoring and management plans by qualified biologists. It is recommended that landowners seek concurrence with such monitoring plans from either the Service or the State wildlife agency.

Protection of Nests

All suitable piping plover nesting habitat should be identified by a qualified biologist and delineated with posts and warning signs or symbolic fencing on or before April 1 each year. All vehicular access into or through posted nesting habitat should be prohibited. However, prior to hatching, vehicles may pass by such areas along designated vehicle corridors established along the outside edge of plover nesting habitat. Vehicles may also park outside delineated nesting habitat, if beach width and configuration and tidal conditions allow. Vehicle corridors or parking areas should be moved, constricted, or temporarily closed if territorial, courting, or nesting plovers are disturbed by passing or parked vehicles, or if disturbance is anticipated because of unusual tides or expected increases in vehicle use during weekends, holidays, or special events.

If data from several years of plover monitoring suggests that significantly more habitat is available than the local plover population can occupy, some suitable habitat may be left unposted if the following conditions are met:

1. The Service OR a State wildlife agency that is party to an agreement under Section 6 of the ESA provides written concurrence with a plan that:

A. Estimates the number of pairs likely to nest on the site based on the past monitoring and regional population trends.

AND

B. Delineates the habitat that will be posted or fenced prior to April 1 to assure a high probability that territorial plovers will select protected areas in which to court and nest. Sites where nesting or courting plovers were observed during the last three seasons as well as other habitat deemed most likely to be pioneered by plovers should be included in the posted and/or fenced area.

AND

C. Provides for monitoring of piping plovers on the beach by a qualified biologist(s). Generally, the frequency of monitoring should be not less than twice per week prior to May 1 and not less than three times per week thereafter. Monitoring should occur daily whenever moderate to large numbers of vehicles are on the beach. Monitors should document locations of territorial or courting plovers, nest locations, and observations of any reactions of incubating birds to pedestrian or vehicular disturbance.

AND

2. All unposted sites are posted immediately upon detection of territorial plovers.

Protection of Chicks

Sections of beaches where unfledged piping plover chicks are present should be temporarily closed to all vehicles not deemed essential. (See the provisions for essential vehicles below.) Areas where vehicles are prohibited should include all dune, beach, and intertidal habitat within the chicks' foraging range, to be determined by either of the following methods:

1. The vehicle free area should extend 1000 meters on each side of a line drawn through the nest site and perpendicular to the long axis of the beach. The resulting 2000 meter-wide area of protected habitat for plover chicks should extend from the ocean-side low water line to the bay-side low water line or to the farthest extent of dune habitat if no bay-side intertidal habitat exists. However, vehicles may be allowed to pass through portions of the protected area that are considered inaccessible to plover chicks because of steep topography, dense vegetation, or other naturally-occurring obstacles.

OR

2. The Service OR a State wildlife agency that is party to an agreement under Section 6 of the ESA provides written concurrence with a plan that:

A. Provides for monitoring of all broods during the chick-rearing phase of the breeding season and specifies the frequency of monitoring.

AND

B. Specifies the minimum size of vehicle-free areas to be established in the vicinity of unfledged broods based on the mobility of broods observed on the site in past years and on the frequency of monitoring. Unless substantial data from past years show that broods on a site stay very close to their nest locations, vehicle-free areas should extend at least 200 meters on each side of the nest site during the first week following hatching. The size and location of the protected area should be adjusted in response to the observed mobility of the brood, but in no case should it be reduced to less than 100 meters on each side of the brood. In some cases, highly mobile broods may require protected areas up to 1000 meters, even where they are intensively monitored. Protected areas should extend from the ocean-side low water line to the bay-side low water line or to the farthest

extent of dune habitat if no bay-side intertidal habitat exists. However, vehicles may be allowed to pass through portions of the protected area that are considered inaccessible to plover chicks because of steep topography, dense vegetation, or other naturally-occurring obstacles. In a few cases, where several years of data documents that piping plovers on a particular site feed in only certain habitat types, the Service or the State wildlife management agency may provide written concurrence that vehicles pose no danger to plovers in other specified habitats on that site.

Timing of Vehicle Restrictions in Chick Habitat

Restrictions on use of vehicles in areas where unfledged plover chicks are present should begin on or before the date that hatching begins and continue until chicks have fledged. For purposes of vehicle management, plover chicks are considered fledged at 35 days of age or when observed in sustained flight for at least 15 meters, whichever occurs first.

When piping plover nests are found before the last egg is laid, restrictions on vehicles should begin on the 26th day after the last egg is laid. This assumes an average incubation period of 27 days, and provides a 1 day margin of error.

When plover nests are found after the last egg has been laid, making it impossible to predict hatch date, restrictions on vehicles should begin on a date determined by one of the following scenarios:

1) With intensive monitoring: If the nest is monitored at least twice per day, at dawn and dusk (before 0600 hrs and after 1900 hrs) by a qualified biologist, vehicle use may continue until hatching begins. Nests should be monitored at dawn and dusk to minimize the time that hatching may go undetected if it occurs after dark. Whenever possible, nests should be monitored from a distance with spotting scope or binoculars to minimize disturbance to incubating plovers.

OR

2) Without intensive monitoring: Restrictions should begin on May 15 (the earliest probable hatch date). If the nest is discovered after May 15, then restrictions should start immediately.

If hatching occurs earlier than expected, or chicks are discovered from an unreported nest, restrictions on vehicles should begin immediately.

If ruts are present that are deep enough to restrict movements of plover chicks, then restrictions on vehicles should begin at least 5 days prior to the anticipated hatching date of plover nests. If a plover nest is found with a complete clutch, precluding estimation of hatching date, and deep ruts have been created that could reasonably be expected to impede chick movements, then restrictions on vehicles should begin immediately.

Essential Vehicles

Because it is impossible to completely eliminate the possibility that a vehicle will accidently crush an unfledged plover chicks, use of vehicles in the vicinity of broods should be avoided whenever possible. However, the Service recognizes that life-threatening situations on the beach may require emergency vehicle response. Furthermore, some "essential vehicles" may be required to provide for safety of pedestrian recreationists, law enforcement, maintenance of public property, or access to private dwellings not otherwise accessible. On large beaches, maintaining the frequency of plover monitoring required to minimize the size and duration of vehicle closures may necessitate the use of vehicles by plover monitors.

Essential vehicles should only travel on sections of beaches where unfledged plover chicks are present if such travel is absolutely necessary and no other reasonable travel routes are available. All steps should be taken to minimize number of trips by essential vehicles through chick habitat areas. Homeowners should consider other means of access, eg. by foot, water, or shuttle services, during periods when chicks are present.

The following procedures should be followed to minimize the probability that chicks will be crushed by essential (non-emergency) vehicles:

1. Essential vehicles should travel through chick habitat areas only during daylight hours, and should be guided by a qualified monitor who has first determined the location of all unfledged plover chicks.

2. Speed of vehicles should not exceed five miles per hour.

3. Use of open 4-wheel motorized all-terrain vehicles (ATVs) or non-motorized all-terrain bicycles is recommended whenever possible for monitoring and law enforcement because of the improved visibility afforded operators.

4. A log should be maintained by the beach manager of the date, time, vehicle number and operator, and purpose of each trip through areas where unfledged chicks are present. Personnel monitoring plovers should maintain and regularly update a log of the numbers and locations of unfledged plover chicks on each beach. Drivers of essential vehicles should review the log each day to determine the most recent number and location of unfledged chicks.

Essential vehicles should avoid driving on the wrack line, and travel should be infrequent enough to avoid creating deep ruts that could impede chick movements. If essential vehicles are creating ruts that could impede chick movements, use of essential vehicles should be further reduced and, if necessary, restricted to emergency vehicles only.

SITE-SPECIFIC MANAGEMENT GUIDANCE

The guidelines provided in this document are based on an extensive review of the scientific literature and are intended to cover the vast majority of situations likely to be encountered on piping plover nesting sites along the U.S. Atlantic Coast. However, the Service recognizes that site-specific conditions may lead to anomalous situations in which departures from this guidance may be safely implemented. The Service recommends that landowners who believe such situations exist on their lands contact either the Service or the State wildlife agency and, if appropriate, arrange for an on-site review. Written documentation of agreements regarding departures from this guidance is recommended.

In some unusual circumstances, Service or State biologists may recognize situations where this guidance provides insufficient protection for piping plovers or their nests. In such a case, the Service or the State wildlife agency may provide written notice to the landowner describing additional measures recommended to prevent take of piping plovers on that site.

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Table 1. Summary of Chick Mobility Data

Source	Location	Data
Patterson 1988 (p.40)	Maryland and Virginia	18 of 38 broods moved to feeding areas more than 100 meters from their nests; 5 broods moved more than 600 meters (distance measured parallel to wrackline).
Cross 1989 (p.23)	Virginia	At three sites, observers relocated broods at mean distances from their nests of 153 m +/-97m (44 observations, 14 broods), 32 m +/-7 m (8 observations, 3 broods), and 492 m +/-281 m (12 observations, 4 broods).
Coutu et al. 1990 (p.12)	North Carolina	Observations of 11 broods averaged 212 m from their nests; 3 broods moved 400-725 m from nest sites.
Strauss 1990 (p.33)	Massachusetts	10 chicks moved more than 200 m during first 5 days post-hatch while 19 chicks moved less than 200 meters during same interval.
Loegering 1992 (p.72)	Maryland	Distances broods moved from nests during first 5 days post-hatch averaged 195 m in Bay habitat (n=10), 141 m in Interior habitat (n=36), and 131 m in Ocean habitat (n=41). By 21 days, average movement in each habitat had, respectively, increased to 850 m (n=1), 464 m (n=10), and 187 m (n=69). One brood moved more than 1000 m from its nest.
Melvin et al. 1994	Massachusetts and New York	In 14 incidents in which 18 chicks were killed by vehicles, chicks were run over $\leq$ 10 m to $\leq$ 900 m from their nests. In 7 of these instances, mortality occurred $\geq$ 200 m from the nest.

Table 2. Summary of Data on Distances at which Piping Plovers React to Disturbance

Source	Location	Data
Flushing of Incubating Birds by Pedestrians		
Flemming et al. 1988 (p.326)	Nova Scotia	Adults usually flushed from the nests at distances <40 m; however, great variation existed and reaction distances as great as 210 m were observed.
Cross 1990 (p.47)	Virginia	Mean flushing distances in each of two years were 47 m (n=181, range = 5 m to 300 m) and 25 m (n=214, range = 2 m to 100 m).
Loegering 1992 (p.61)	Maryland	Flushing distances averaged 78 m (n=43); range was 20 m to 174 m. Recommended use of 225 m disturbance buffers on his site.
Cross and Terwilliger 1993	Virginia	Mean flushing distance for all years on all sites (Virginia plover sites, 1986-91) was 63 m (n=201, SD=31, range = 7 m to 200 m). Differences among years were not significant, but differences among sites were.
Hoopes 1993 (p.72)	Massachusetts	Mean flushing distance for incubating plovers was 24 m (n=31).
Disturbance to Non-incubating Birds		
Hoopes 1993 (p.89)	Massachusetts	Mean response distance (all ages, all behaviors) was 23 m for pedestrian disturbances (range = 10 m to 60 m), 40 m for vehicles (range = 30 m to 70 m), 46 m for dogs/pets (range = 20 m to 100 m), and 85 m for kites (range = 60 m to 120 m).
Goldin 1993b (p.74)	New York	Average flushing distance for adult and juvenile plovers was 18.7 m for pedestrian disturbances (n=585), 19.5 m for joggers (n=183), and 20.4 m for vehicles (n=111). Pedestrians caused chicks to flush at an average distance of 20.7 m (n=175), joggers at 32.3 m (n=37), and vehicles at 19.3 m (n=7). Tolerance of individual birds varied; one chick moved 260 m in direct response to 20 disturbances in 1 hour.

GUIDELINES FOR MANAGING RECREATIONAL ACTIVITIES IN PIPING PLOVER BREEDING HABITAT ON THE U.S. ATLANTIC COAST TO AVOID TAKE UNDER SECTION 9 OF THE ENDANGERED SPECIES ACT

ADDENDUM REGARDING TIMING OF MANAGEMENT TO PROTECT UNFLEDGED CHICKS

Northeast Region, U.S. Fish and Wildlife Service
March 9, 2015

The purpose of this addendum is to provide recent information regarding the phenology of Atlantic Coast piping plovers that may have management implications for beach managers and property owners seeking to avoid potential violations of Section 9 of the Endangered Species Act (16 U.S.C. 1538) and its implementing regulations (50 CFR Part 17). The guidelines are advisory, and failure to implement them does not, of itself, constitute a violation of the law. Rather, they represent the U.S. Fish and Wildlife Service's best professional advice to beach managers and landowners regarding the management options that will prevent direct mortality, harm, or harassment of piping plovers and their eggs due to recreational activities.

Addendum

1. The April 15, 1994 Guidelines for Managing Recreational Activities in Piping Plover Breeding Habitat on the U.S. Atlantic Coast to Avoid Take under Section 9 of the Endangered Species Act (Guidelines) state that "Restrictions on use of vehicles in areas where unfledged plover chicks are present should begin on or before the date that hatching begins and continue until chicks have fledged. For purposes of vehicle management, plover chicks are considered fledged at 35 days of age or when observed in sustained flight for at least 15 meters, whichever occurs first." This language is now amended as follows:

   > Restrictions on use of vehicles in areas where unfledged plover chicks are present should begin on or before the date that hatching begins and continue until chicks have fledged. *For purposes of management, plover chicks are considered fledged when observed in sustained flight for at least 15 meters, irrespective of age. In most cases, piping plovers attain flight capability by 35 days of age, but longer pre-fledge periods may occur* (italics denotes new wording).

   We note that it is unnecessary and potentially counter-productive to repeatedly attempt to "flight test" piping plover chicks by trying to flush them. Fledglings will readily demonstrate flight capability as soon as their primary feathers become sufficiently developed.

2. The Guidelines also state that, when plover nests are found after the last egg has been laid (making it impossible to predict hatch date), sites without intensive monitoring should begin restrictions on nonessential vehicles on May 15. This language is now amended as follows:

   > When plover nests are found after the last egg has been laid, making it impossible to predict hatch date, restrictions on vehicles should begin on a date determined by <u>one</u> of the following scenarios:

1) With intensive monitoring: If the nest is monitored at least twice per day, at dawn and dusk (before 0600 hrs and after 1900 hrs) by a qualified biologist, vehicle use may continue until hatching begins. Nests should be monitored at dawn and dusk to minimize the time that hatching may go undetected if it occurs after dark. Whenever possible, nests should be monitored from a distance with spotting scope or binoculars to minimize disturbance to incubating plovers.

OR

2) Without intensive monitoring: Restrictions should begin on *May 10* (the earliest probable hatch date). If the nest is discovered after *May 10*, then restrictions should start immediately (italics denotes new wording).

Discussion

The dates and intervals associated with piping plover breeding cycle stages in the 1994 Guidelines were formulated following an extensive review of the large volume of available breeding records. They were intended to furnish reliable advice to land managers seeking to avoid violations of the Endangered Species Act without causing unnecessary restrictions on beach recreation. Review of monitoring reports routinely includes dates of piping plover arrival, nest initiation, hatching, and fledging. As of 2010, the U.S. Fish and Wildlife Service (Service) was unaware of deviations in breeding phenology with implications for management.

Since 2011, however, the Service has received occasional reports of unusually delayed fledging periods, early hatch dates, and other phenological "anomalies." Piping plovers older than 35 days that are incapable of flight have now been reported from several widely distributed sites in Massachusetts, New York, and Maryland. A few hatch dates prior to May 15 have been reported from New Jersey, Virginia, and North Carolina; given the overall synchrony of piping plover chronology across the U.S. Atlantic breeding range, we cannot rule out the potential for early hatching anywhere from Maine to North Carolina. The Service has solicited information about potential contributing factors (e.g., evidence that prey is limited, harsh weather, unusual disturbance), but rare events are inherently difficult to interpret. To the best of our knowledge, these situations remain rare, but we continue to request reports of such instances and any potential causal factors. At this time, the Service is furnishing this information to help managers provide reliable expectations to the beach-going public.