

FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581 p: (508) 389-6300 | f: (508) 389-7890 M A S S . G O V / M A S S W I L D L I F E

Request for Certificate of Inclusion for Piping Plover Habitat Conservation Plan MESA Review Checklist & Application Cover Page

Project Location:							
Address/Location	Nauset	Beach, 239 Beach I	Road				
City(ies)/Town(s)	Orleans, MA						
Applicant:							
Individual	John Ke	elly					
Organization	Town	of Orleans					
Mailing address	19 Scho	ool Street, Orleans,	MA 02653				
Phone & Email	508-24	0-3700 x2415 / jkel	lly@town.orlean	s.ma.us			
Property Owner(s)	Informat	ion (if different fro	m Applicant): *F	rovide separa	te sheet if multi	iple landowners	
Individual(s)							
Organization(s)							
Mailing address							
Phone & Email							
Representative (if a	any):						
Individual	nsears@	@town.orleans.ma.u	us				
Organization	Town o	f Orleans					
Mailing address	40 Gidd	diah Hill Road, Orlea	ns, MA 02653				
Phone & Email	5608-240-3755 / nsears@town.orleans.ma.us						
		een issued a NHESP Yes If yes, Tracking		er (either by pr	evious NOI Subr	nittal or MESA	
Is coverage for Least also being requested:	Terns	Yes					
List additional MESA- species in project area known):	Diamond-backed Terrapins			_ 4 1 -			

REQUESTED ACTIVITIES FOR PIPING PLOVER

Covered activity:	Use of roads and parking lots in the vicinity of unfledged chicks	Recreation and beach operations	Oversand vehicle use in vicinity of unfledged chicks	Total*
Mitigation ratio (mitigation credits: exposures)			2.5: 1	
Mitigation fee (per pair, nest, brood, or territory)			\$5800	
No. requested take exposures*			2	2
Max. % of total pairs at site to be exposed				2
Specific activities requested: (mark with "X")				
· Reduced proactive symbolic fencing				
· Reduced fencing around the nest				
· Beach raking				
· Chick herding				
· Nest moving				
· Other				
Acreage affected				1.44
Max. % of total nesting acreage affected at site				.48%

^{*} As beach operators may not be able to predict precisely which combination of Covered Activities may be carried out in a given year, a range of values for *No. requested take exposures* may be presented for individual Covered Activities; however, the *Total* should be a single not-toexceed value.

PROPOSED MITIGATION

Туре	Y/N	Total amount	Pairs to benefit/Credits
Pay fee for offsite mitigation (\$5800 - \$6150 per take exposure; see above)	Yes	\$11,600	2
Applicant-implemented activities:			
· Selective predator management			
· Increased education & outreach		Submit details in IAMP (see below)	*
· Increased law enforcement			*

· Habitat management	*
· Other	*
* MassWildlife will determine value (credits) for non-selective pred	dator management options
OTHER REQUIRED ELEMENTS OF REQUEST FOR COI	
(Please attach. Additional guidance is available to applicants,	
Site map – showing boundaries and provide proof of owne	
☐ Written assent of landowner(s) to request coverage, if app	
Site-specific Impact Avoidance and Minimization Plan (IAM	1P)
Mitigation plan, including budget	
MA Endangered Species Act filing fee	State State of American State of the Colored State
(\$300 payable to "Comm of MA – NHESP"; https://www.m	nass.gov/how-to/how-to-file-for-a-mesa-project-review)
Conservation and Management Permit fee	
(\$600 payable to "Comm of MA – NHESP"; https://www.m	nass.gov/how-to/apply-for-a-conservation-management-permit)
	pecific edits in Track Changes/redline (if mitigation fee will be
paid) Contact: Coastal.Waterbirds@mass.gov for template	agreement.
SUBMITTAL	
Mail a hard copy of entire application (including signed cov	
Environmental Review-HCP, MassWildlife-NHESP, 1 Rabl	
Also email entire application to: Coastal.Waterbirds@mass	s.gov.
REQUIRED SIGNATURES	
Provide separate sheet if multiple landowners	
hereby certify under the penalties of perjury that the forego supporting data are true and complete to the best of my know	oing HCP/MESA filing and accompanying plans, documents, and wledge.
Ment	- 1/7/22
Signature of Property Owner/Record Owner of Property	Date

Date

Signature of Applicant (if different from Owner)





Request for Certificate of Inclusion for the Statewide Habitat Conservation Plan 2022



Project Location:

Location/Address: Nauset Beach, 239 Beach Road, Orleans, MA.

Property Owner: Town of Orleans

Representative:

Individual: Nathan Sears, Natural Resources Manager

Organization: Town of Orleans

Mailing Address: Department of Natural Resources

40 Giddiah Hill Road, Orleans, MA. 02653

Phone & Email: 508-240-3755 / nsears@town.orleans.ma.us

Has this project previously been issued a NHESP Tracking Number (either by previous COI Submittal or MESA Information Request form)? Y/N

If yes, tracking no. NHESP File # 16-35397 / Conservation Permit No: 021-375.DFW

TABLE OF CONTENTS

Introduction 4	
1.0 Site Description 4	
1.1 Physical Description of Property and Piping Plover Habitat 5	
A. North Spit 6	
B. Nauset Public Bathing Beach 6	
C. Nauset Beach South 7	
1.2 Description of Piping Plover Populations and Reproductive Success	7
A. Piping Plover Egg Loss 8	
1.3 Other State-Listed Species 9	
A. Least Terns 9	
B. Roseate Terns 10	
C. Oystercatchers 10	
D. Diamond-backed Terrapins 10	
2.0 Responsible Staff 11	
2.1 Names and Technical Staffing 11	
3.0 Beach Management Plan 13	
3.1 Beach Operations 13	
A. Recreational Activities 13	
B. Parking and Roads 14	
C. Beach Cleaning and Refuse Management 14	
D. Rules and Regulations 15	
E. Law Enforcement 15	
F. Fireworks 15	
G. Dogs 15	
4.0 Shorebird Monitoring and Impact Minimization Measures 16	
4.1 Symbolic Fencing 16	
4.2 Predator Controls and Exclosures 20	
4.3 Seasonal OSV Use Closures 20	
4.4 Monitoring and Data Collection 21	
4.5 Compliance Monitoring and Frequency Monitoring 22	
4.6 Data Reporting 23	
5.0 Covered Activities 23	
5.1 HCP Covered Activities 23	
5.2 Impact Minimizations Measures for Covered Activities 24	
A. OSV Use in the Vicinity of Unfledged Piping Plover Chicks 24	
B. HCP Monitoring 25	
C. OSV Escort Program 26	
D. Self-Escort OSV Corridor Dimensions and Locations 26	
5.3 Self-Escorting Procedures 26	
A. Procedures for Escorting Past One Brood 26	
B. Procedures for Escorting Past Two Broods 27	
C. Caravans 28 D. Inclement Weather 28	
E. Medical or Family Emergencies 28	
F. Escorting Program Reporting 295.4 OSV Use in the Vicinity of Least Tern Chicks 29	
	0
5.5 OSV Use in the Vicinity of Nesting Diamond-backed Terrapins 30	U
3.3 334 336 in the vicinity of Nesting Digitionia-backed Terraphits 30	

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6.0 Effectiveness Monitoring
7.0 Mitigation Monitoring
8.0 Budget
              41
Figures
Figure 1 Locus Map - Location of Nauset Beach and HCP Area
                                                             3
Figure 2 Property Map – North Spit
Figure 3 Property Map – Nauset Public Bathing Beach and Nauset Beach South
Figure 4 Property Map – Nauset Beach South
Figure 5 Symbolic Fencing – North Spit
Figure 6 Symbolic Fencing – Public Beach and Nauset Beach South
Figure 7 Symbolic Fencing – Nauset Beach South to Chatham Town line
                                                                      22
Charts
Chart 1 1998-2020: Fledged Rate per Productive Pair by Year on Nauset Beach
                                                                            10
Chart 2 2015-2021: Summary of Total Fledge Count
Tables
Table 1
         1998-2021: Piping Plover Abundance and Productivity
Table 2
         2015-2012: Summary of Egg Loss
                                           11
Table 3
         2017-2021: Summary of Least Tern Abundance and Productivity
                                                                        12
Table 4
         2017-2021: Diamond-backed Terrapin Productivity
Table 5
         2007-2021: North Spit OSV Closure
Table 6
         2006-2021: Nauset Beach South OSV Closure
Table 7
         Example: HCP Implementation –HCP Monitoring Schedule
                                                                  26
Table 8 Compliance Monitoring and Reporting Requirements
Table 9 2017-2021: Vehicle Passes through the HCP Self-Escort Zone
                                                                    32
Table 10 Effectiveness Monitoring
                                   38
Table 11 Estimated Cost for Implementing HCP
Appendices Index
                   40
Appendix 1 Nauset Beach, Town of Orleans, Certificate of Inclusion, February 26. 2019
Appendix 2 MESA Conservation and Management Permit, February 26, 2019
Appendix 3 ERSI ARC GEODATABASE COLLECTOR
Appendix 4 Datasheets to Document Events
Appendix 5 Nauset Beach Rules and Regulations for OSV
Appendix 6 Town of Orleans OSV HCP User Guide and Procedures
Appendix 7 Town of Orleans and Chatham Beach Agreement
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Appendix 8 Mitigation Escrow Agreement Orleans

Appendix 10 Budget Assurance Documentation

Appendix 9 Proof of Ownership: Assessor's Map of Nauset Beach Parcels



Figure 1: Locus - Location of Nauset Beach, Orleans - 41.788377 / 69.935542

Introduction

The Town of Orleans (the Town) is requesting a renewal of the Certificate of Inclusion (COI) for Nauset Beach as part of the Town's application to participate in the statewide Piping plover Habitat Conservation Plan (HCP). This document also serves as an application for a Conservation and Management Permit (CMP) pursuant to the Massachusetts Endangered Species Act (MESA; MGL c. 131A; 320 CMR 10.00). Therefore, the Town is requesting the opportunity to implement the following Covered Activities as described in the HCP that might expose Piping plovers to potential take. The covered activities requested include: (1) Over-Sand Vehicle Use in Vicinity of Unfledged Piping plover chicks (Section 3.2.3); (2) Over-Sand Vehicle Use in the Vicinity of Unfledged Least tern chicks.

To provide that there is a long-term 'Net Benefit' to the conservation and mitigated impacts to the State-listed species consistent with the COI, the Town employs associated impact minimization measures to reduce risk when carrying out the covered activities. A maximum of 2 broods or nests of Piping plovers and up to 20 unfledged Least tern chicks can be exposed to Over-Sand Vehicle (OSV) use in the vicinity of unfledged chicks. Similarly, the State-listed Diamond-backed Terrapin adults and hatchlings are exposed to mortality risk when crossing the OSV Trail and minimization measures are required by way of this Permit request.

The intent of the implementation of the HCP covered activities is to address repeated closures of OSV access to the majority of Nauset Beach South, and the potential of an OSV closure on North Spit, as well as our priority to meet the performance standards described in our 2019 permit to provide a long-term 'Net Benefit' to the affected State-listed Species.

The Town is also proposing that mitigation continue to be in the form of funding to implement selective off-site predator management.

1.0 Site Description

The entire Plan Area covered under this application is the geographic area known as Nauset Beach (Orleans), which includes North Spit and Nauset Beach South as described within two separate Orleans Conservation Commission's Order of Conditions (OOC SE-54-723) and (OCC SE-54-2246). The Plan Area for this COI includes all vegetated communities, wetlands and water resources, wildlife and their habitats, threatened and endangered species and their habitats, land uses, and any other relevant natural resources or existing conditions as described in the OOC's.

The portion of Nauset Beach that the Town of Orleans patrols and monitors is approximately 7.35 miles of ocean barrier beach shoreline along the Atlantic coast. It is located on the portion of the Cape Cod peninsula known as the Lower Cape, and the patrolling and monitoring of the Plan Area stretches from the northernmost sector of North Spit at Nauset Inlet in Eastham southward to the Orleans / Chatham town line.

The Town has a history of managing pedestrian and OSV use in the Plan Area, as well as specific conservation actions designed to ensure that a "net benefit" is provided to the Massachusetts population of Piping plovers (321 CMR 10.23) all the while maintaining and improving the public access and recreational opportunities associated with Nauset Beach. The covered activities permitted under this application include all suitable Piping plover habitat along and around the described length and width of the beach. The dynamic setting of Nauset Beach results in complex and constantly changing management requirements. Due to the natural erosion and accretion of shoreline features, the exact total site acreage of Nauset Beach may vary from year to year.

Figure 2: Property Map - North Spit



Figure 3: Property Map - Nauset Public Bathing Beach and Nauset Beach South

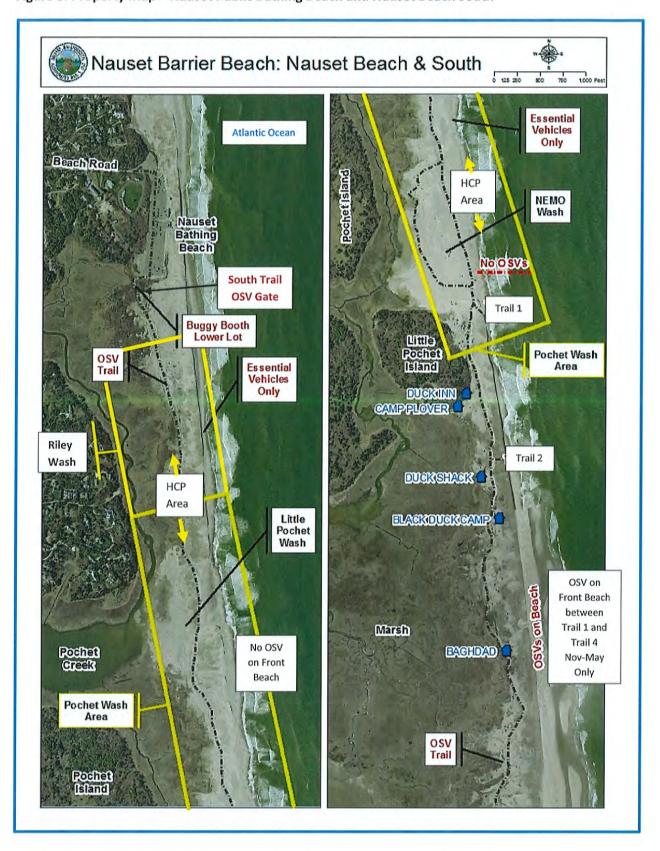
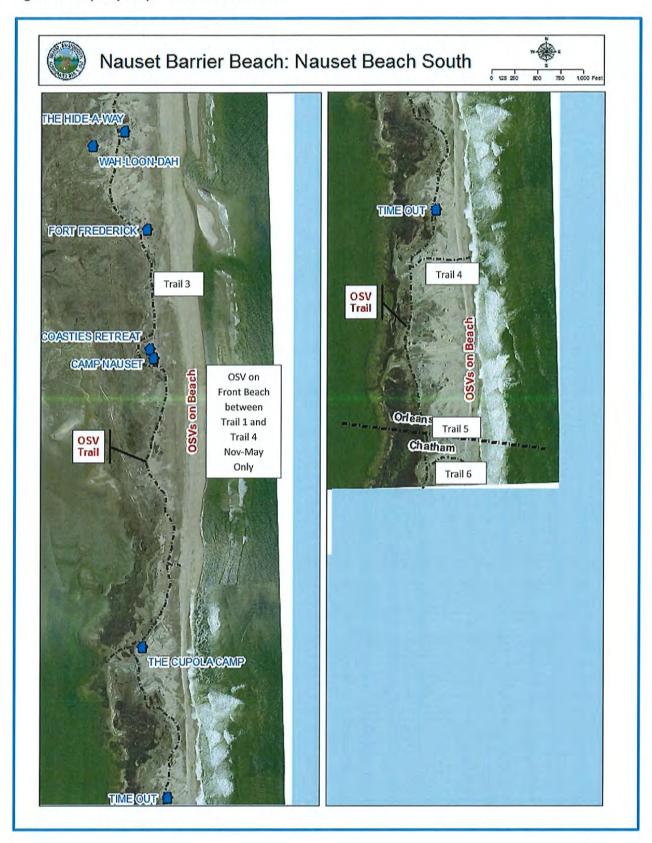


Figure 4: Property Map - Nauset Beach South



1.1 Physical Description of Property and Piping Plover Habitat

Nauset Beach is a barrier beach system in Orleans and includes the North Spit, Nauset Public Bathing Beach, and Nauset Beach South. These areas are owned and operated by the Town of Orleans and managed by the Department of Natural Resources.

The area is classified as a Barrier Beach (310 CMR 10.29), a resource area which itself contains the following resource areas: (A) Land Subject to Coastal Storm Flowage (310 CMR 10.02 (1d): (B) Land under the Ocean (310 CMR 10.25); (C) Coastal Beaches (310 CMR 10.27); Coastal Dunes (310 CMR 10.28); (D) Salt Marshes (310 CMR 10.32): and (E) Rare Species Habitat (310 CMR 10.37).

Nauset Beach is located within the Natural Heritage Endangered Species Program (NHESP) Estimated Habitat of Rare Wildlife and NHESP Priority Habitat of Rare Species. While the whole beach is potential habitat, historically, the majority of Piping plover nesting has been located towards the northern area of Nauset Spit and within the first mile of Nauset Beach South.

Between 1998 and 2018, the total population of breeding Piping plover pairs on North Spit and Nauset Beach South has averaged 24.25 pairs, ranging from a low of 15 breeding pairs in 2003 to a high of 32 breeding pairs in 2010, 2011, and 2013. During that same period of time, Piping plovers have averaged 1.34 fledges per pair from 1998 – 2018 with an average of 31.4 fledged per year.

A. North Spit

The North Spit contains beach and shoreline with berms and scarps, over-washes too. Dunes and, what remains for bluffs, create the upland. North Spit lies to the east and adjacent New Island (Cape Cod National Seashore) and Nauset Marsh Estuary, with marshes, harbor area, tidal flats, and Town Cove. It is at the border of the colder, arctic currents and the warmer Gulf Stream, and as such is in a unique environmental position.

Over time, tidal storm surge and damaging winds have breached the primary dune system on this barrier beach in numerous areas. Consequently, the development of expanding and also flattening of over-wash area fans continues to increase.

North Spit is approximately 2.3 miles in length. Over half of North Spit centers on the use of Over-Sand Vehicles (OSVs) in accordance with the DEP Order of Conditions (OOC) SE 54-723. The maximum number of OSV's allowed on the beach at any one time is 200, dependent upon general beach and nesting considerations.

The OOC contains key provisions requiring the protection of critical habitat on North Spit. A network of symbolic fencing and educational signs alert beach walkers and OSV's users that the natural habitat is managed in accordance with the performance standards set forth in the OCC.

Managed by the Cape Cod National Seashore (CCNS), New Island is in Orleans and located on North Spit in the south end of Nauset Marsh. It is monitored by both National Park Service staff and Town of Orleans staff. The Town conducts daily monitoring of New Island during shorebird monitoring season. If Piping plover and Least tern activity is observed, the Town works incorporation with CCNS to protect nesting Piping plovers or Least terns.

B. Nauset Public Bathing Beach

Nauset Public Bathing Beach is a 3/4-mile-long public bathing beach in front of the public parking lot. It is a Coastal Beach that faces east towards the Atlantic Ocean. The beach is staffed by 3 lifeguard towers and 8 lifeguard stands that provide safety coverage to roughly .25 miles where most of the pedestrian

and beach bathing activity is focused. The habitat in this area is predominantly Coastal Beach backed by a Coastal Dune system that is adjacent to a parking lot that hosts administration and bathhouse facilities. A food court area offers food trucks, picnic tables, dressing rooms, portable bathrooms, and outdoor shower areas.

Beach parking lot stickers can be purchased at the Nauset Beach Administration Building beginning Memorial Day weekend. Daily sales begin in mid-June. No OSVs are allowed on this area of Nauset Beach from the public bathing beach north to the entrance to North Spit at Callanan's Pass, and south (1.25 miles) from the public bathing beach to Trail 1. This area does not have a historic nesting population of Piping plovers nor Least terns.

C. Nauset Beach South

Nauset Beach South extends south from the Public Bathing Beach area and continues 4.6 miles in a southerly direction to the Orleans/Chatham town line. It contains 700+ acres of Coastal Beaches, Coastal Dunes, Coastal Banks, tidal creeks, tidal flats and salt marsh. The beach and dunes run parallel to the coastline and are separated from the mainland by Pleasant Bay and the Pleasant Bay marsh system.

Nauset Beach South is accessible via OSVs and managed in accordance with an Order of Conditions (OCC) that governs the use of the OSVs on the beach. Nauset Beach South, like North Spit, has many areas of storm over-washes. Three of the more significant areas of over-wash are located within the first 1.25 miles on Nauset Beach South between the OSV entrance and Trail 1 and include: (A) Riley Wash, from an over-wash created by the Nor'easter storm named Riley in 2018; (B) Little Pochet Wash area; and (3) Nemo Wash (named for the Nor'easter Nemo in 2012). Together, these three areas are generally referred to as the Pochet Wash area.

The habitat in this area extends west to Pochet Creek and Pochet Island and contains large areas of flat Coastal Beach (over-wash). Vegetation consists of Cape American Beach Grass, Smooth Cordgrass, Slender Glasswort, Seaside Lavender, Salt Marsh Hay, Spikegrass and a variety of typical woody coastal shrubs.

The remaining 3.12 miles of Coastal Beach south of Trail 1 to Trail 6 consists of large Coastal Dunes. There are 5 historical crossover trails known as Trail 1 through Trail 5 located in Nauset Beach in Orleans. They provide access to the beachfront from the back trail that runs the length of the barrier beach on the west side (landward) of the primary coastal dune.

There are also twelve private camps along the back trail. The historic camps date back to the early 1900s. They are privately-owned and all have executed leases with the Town of Orleans for occupation.

1.2 Piping Plover Nesting

Since 2016, after receiving our first MA Endangered Species Act Conservation and Management Permit incorporating the Massachusetts Statewide COI, HCP, and IAMP into the Town's beach management plan, overall Piping plover productivity over the last six years has averaged 2.21 fledges per productive pairs from 2016-2021.

Over the last 24-year period (1998-2021) the productivity for Piping plovers on Nauset Beach Orleans has averaged 1.66 fledges per pair, in line with the USFWS recovery goal of 1.5 fledged chicks per pair per year.

2016-2020 HCP Implementation: 100% of HCP unfledged Piping plover chicks fledged. (Did not implement HCP in 2021)

Chart 1: 1998 - 2020: Fledge Rate per Productive Pair by Year on Nauset Beach, Orleans, MA.

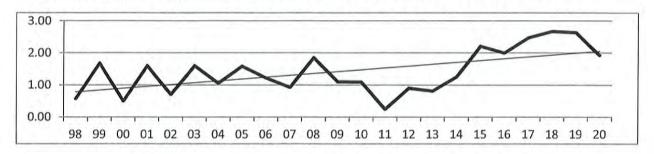


Chart 2: 2015-2021 Summary of Total Fledges Count

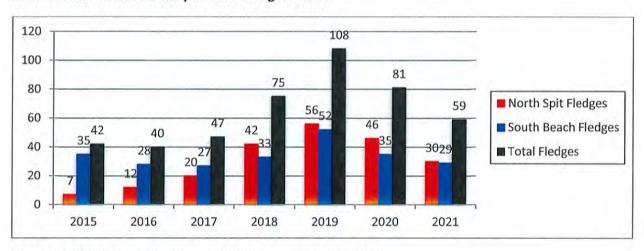


Table 1: 1998-2021 Piping Plover Abundance and Productivity

	North Spit	North	South Beach	South	Total	Total	Recovery Goal
Year	Pairs	Fledges	Pairs	Fledges	Pairs	Fledges	Net Benefit
1998	20	7	8	9	28	16	0.57
1999	15	27	7	10	22	37	1.68
2000	13	7	7	3	20	10	0.50
2001	14	23	6	9	20	32	1.60
2002	13	9	4	3	17	12	0.71
2003	11	9	4	15	15	24	1.60
2004	12	16	5	2	17	18	1.06
2005	15	27	2	0	17	27	1.59
2006	16	17	2	5	18	22	1.22
2007	23	20	5	6	28	26	0.93
2008	22	40	5	10	27	50	1.85
2009	22	21	7	11	29	32	1.10
2010	21	23	11	12	32	35	1.09
2011	24	2	8	6	32	8	0.25
2012	11	4	10	15	21	19	0.90
2013	16	14	16	12	32	26	0.81
2014	9	12	15	18	24	30	1.25
2015	5	7	14	35	19	42	2.21
2016	9	12	10	28	19	40	2.11

2017	10	20	9	27	19	47	2.47	******
2018	15	42	13	33	28	75	2.68	
2019	23	56	18	52	41	108	2.63	
2020	27	46	15	35	42	81	1.98	
2021	21	29	22	30	43	59	1.37	

A. Piping plover Egg Loss

The primary cause of egg loss on Nauset Beach is storm over-wash, nest abandonment, unhatched eggs and predation. Major predators on the site are Eastern Coyote, American Crow, Red Fox, Peregrine Falcon, and Great Horned Owl.

Table 2: 2015-2021 Summary of Egg Loss

Year	Crow	Coyote/	Over	Sanded-	Abando	Unhatch	Unknow	Total	Total	Percent
		Fox	wash	in	nment	ed	n	Loss	Laid	age
2017	12	0	8	1	5	6	7	39	91	43%
2018	16	7	7	4	0	5	0	39	139	28%
2019	8	11	12	0	0	10	31	72	199	37%
2020	9	15	0	0	0	12	27	63	180	37%
2021	3	1	36	32	30	7	31	140	248	56%
Total	48	34	63	37	35	40	96	353	857	

Average Egg Loss 2017 – 2021:

40.2%

The Town uses Standard type "A" predator control exclosures wherever possible to protect 'active' Piping plover nests. The installation of predator control exclosures is carried out in accordance with the USFWS guidelines by the NRO and two staff monitors at all times. Exclosures are monitored daily. (See Section 4.2 – Predator Controls and Exclosures)

1.3 Other State-Listed Species

Piping plovers are not the only listed avian species of special concern present on the Nauset Barrier Beach. State-listed (State Special Concern) Least terns and Common Terns nest on Nauset Beach. American Oystercatchers (State Threatened), Roseate (Federal and State Endangered) and Arctic terns (State Special Concern), Black Skimmers (not listed), and Red Knots (Federal and State Threatened) are species of conservation concern.

Northern Diamond-backed Terrapins inhabit the marshes which border Nauset Beach and nest in the dunes, particularly in the vicinity of the Pochet Wash on Nauset Beach South. The Northern Diamond-backed terrapin is considered Threatened in Massachusetts.

A. Least terns

Least terns are present in fair numbers on Nauset Spit. They are also present in the Pochet Wash on Nauset Beach South. The North Spit colony has ranged from 35 to 70 pairs from 2012-2018. The Pochet Wash colony ranged from 17 to 63 pairs observed in 2017 and 2018, respectfully. Productivity has been poor over due to storm over-wash and coyote predation during July full moons.

Nauset Beach, in total, has seen a comeback in the Least tern population since 2016 when zero Least terns were recorded on both North Spit and Nauset Beach South. Historically, the colony at Nauset Spit, on North Spit Beach, is more abundant and productive, and in 2017 and 2018 that remained true.

Table 3: 2017-2021 Summary or Least Tern Abundance and Productivity

	Location	Pre-A Count	A Count	B Count	Productivity
2017					
	North Spit		62		Fair
	Little Pochet South		17		Fair
2018					
	North Spit		70	21	Poor
	Pochet Wash South		63	11	Poor
	Trail 5.5 South			12	Unknown
2019					
	The Spit - North		83		Poor
	Priscilla Wash - North			25	Poor
	Riley Wash - South			12	Fair
	Pochet Wash South		50		Fair
2020					
	The Spit - North		20	30	Fair
	Priscilla Wash - North		25	20	Fair
	Riley Wash - South		20	13	Fair
	Pochet Wash South			22	Fair
2021					
	The Spit - North	57	135	25	Poor
	Priscilla Wash - North	102	148	45	Poor
	Riley Wash - South	20	10	15	Poor
	Pochet Wash South	20	80	15	Poor

A. Roseate Terns

Roseate Terns have been observed in small numbers, showing up towards the end of August. They have been observed from afar on the sand flats off Nauset Inlet, but bands have yet to be read with confidence due to the distance.

B. Oystercatchers

Oystercatchers are observed yearly on Nauset Beach, but Oystercatcher nests have not been in Orleans. They are often seen flying north or south along the barrier beach. However, nesting Oystercatchers have been observed in Eastham and Chatham on Nauset Beach.

C. Diamond-backed Terrapins

Diamond-backed Terrapins (DBT) nest within the dunes and over-washes on Nauset Beach South, particularly in the vicinity of where the Pochet Wash connects with Pleasant Bay. The primary "Search

Area" for Diamond-backed terrapins extends from Riley Wash to Little Pochet Wash and further south to the vicinity of "Bagdad-Camp 5" by Trail 3, a total of 2.3 miles.

Table 4: 2017-2021 Diamond-backed Terrapin Productivity

	Location	Nests	Eggs	Relocated	Released
				Nests	Hatchlings
2017					
	Pochet Wash South	3	37	3	37
2018					
	Pochet Wash South	1	12	1	11
2019					
	Pochet Wash South	4	70	4	53
2020					
	Pochet Wash South	4	61	4	60
	Wild - Riley - South	2	29	0	29
2021					
	Pochet Wash South	6	87	6	87
	Wild - Riley - South	3	36	0	21
	Total	23	332	18	298

Beginning the last week of May and continuing through mid-August, the Orleans NRO is assigned the lead role of monitoring Diamond-backed terrapins for the Town of Orleans during daily OSV Trail and shorebird monitoring patrols.

Experienced Wellfleet Bay Wildlife Sanctuary (WBWS) terrapin monitoring volunteers assist with daily monitoring starting in mid-August. This group patrolled each morning, looking for tracks and checking the "Garden" exclosures for hatchlings. Each afternoon, it is the responsibility of the NRO to survey for tracks and checked the DBT exclosures.

Volunteer DBT Training is provided by WBWS in early August and includes the biological behavior of terrapins, including nesting behavior, identifying and locating nests and tracks of adult females and hatchlings. A backpack kit is left for the season in the buggy booth for daily monitoring patrols. The kit is comprised of nest data sheets, water spritzer, paper towels, and DBT carrier.

As a matter of "Standard Operating Procedures", when a DBT nest is located on the east side of Nauset Beach South OSV Trail, the Town executes an "Action Plan" in agreement with Mass Audubon Wellfleet Bay Wildlife Sanctuary (WBWS) to relocate the nest to Pochet Wash Turtle Garden on the west side of Nauset Beach South OSV Trail. This is performed by WBWS staff with assistance from the Town. The nest is moved so that when the DBT eggs hatch and the hatchling instinctively move west towards the marsh and Pleasant Bay Estuary, they are not crossing the OSV Trail.

When a DBT nest is found on the east side of Nauset Beach South OSV trail the following "Procedures" are followed: (1) location in decimal degrees is collected on the NRO "Collectors App"; (2) data is imported, and the nest is flagged. This data includes, dates and times of all track surveys, personnel, GPS coordinates for any tracks observed crossing the OSV corridor, GPS coordinates for all nests, nest dispositions and fates, hatch dates, number of hatchlings, and protective measures taken by the NRO. (3) WBWS is contacted immediately. (4) Relocating a nest in undertaken by a trained WBWS staff

member within hours of discovery. The nest is excavated and eggs moved to "Pochet Wash Turtle Garden", on the west side of the OSV Trail, until hatchlings appear 60 to 90 days later. (5) A Wellfleet Bay Wildlife Sanctuary staff member also processes the nest data prior to relocating the eggs to the "Pochet Wash Turtle Garden", where a predator wire excluder and wooden stakes is installed for each relocated nest. A numbered metal tag is attached to the excluder in order to distinguish the nest.

Regarding the entering of DBT data into VPRS, a staff member from Mass Audubon Wellfleet Bay Wildlife Sanctuary submits the NHESP information on behalf of the Town of Orleans.

2.0 Responsible Staff

Names and Technical Staffing

Natural Resources Manager, Nathan Sears

Mr. Sears is the Town of Orleans Natural Resources Manager. He has a BS in Natural Resources and Wildlife Conservation, University of Massachusetts at Amherst, 1998. Mr. Sears has worked for the Town of Orleans for 12 Years and reports to the Town Administrator and the Board of Park Commissioners. Mr. Sears is also responsible for reporting to the Orleans Conservation Commission as it relates to beach operations under Order SE 54-723 or Order SE 54-2246. He is charged with all beach operations including the Over-Sand Vehicle program, the Shorebird program, and the Habitat Conservation Plan for the Town of Orleans.

Natural Resources Officer / Endangered Species Specialist

Assists in overseeing the Town's natural resource activities and programs related to beach management and other coastal resources; assists in enforcing all related environmental laws.

Supports overall beach OSV operations, monitoring traffic and maintaining security in accordance with applicable Town regulations. Checks vehicles for valid OSV stickers. Responsible for managing the Nauset OSV program consistent with the local Orders of Conditions.

Advises Beach Director and Natural Resource Manager as to daily beach conditions and numbers of vehicles present. Responsible for protecting all rare species consistent with State and Federal Guidelines provided by Fish and Wildlife Service.

Coordinates and assists staff and volunteers in the posting of nesting areas, erection of Piping plover exclosures, symbolic fencing, and other posts/fencing, and monitoring of nesting activities. Responsible for implementing and managing Habitat Conservation Plans.

Monitors shorebird nesting activities on Nauset Beach to include nest establishment, egg-laying, hatching, predation, chick rearing and fledging. Documents field observations for use in end of season reports and future management consideration. Records must be well organized and summarized into an annual report.

Responsible for creating and enforcing all Rules and Regulations for OSVS on Nauset Beach in Orleans, Chatham, and Eastham. Communicates in the field with beach visitors to explain management objectives, actions and results.

Maintains communications through regular meetings with MA Fish and Wildlife Service, Natural Heritage for Endangered Species, U.S. Fish and Wildlife Service, Department of Environmental Protection, and Massachusetts Environmental Protection Agency.

Natural Resources Officer / Beach Director, Brandon Burke

Year-round Position: Mr. Burke is the Town of Orleans full-time Natural Resources Beach Director. His experience is in Beach Management and he has held this position for 7 years as Assistant Director and the last two years as Year-round Beach Director. Mr. Burke is responsible for the daily operations of the Public Bathing Beach at Nauset Beach. He over-sees seasonal employees, comprised of lifeguards, EMTs, Beach Rangers, sticker booth staffing, parking attendants, and the maintenance of facilities at the Nauset Beach Administration Building. Mr. Burke reports directly to the Natural Resources Manager.

Assistant Endangered Species Field Technician / Lead Shorebird Monitor

A seasonal position April – September, the Assistant Endangered Species Field Technician (AES) specializes in the management of the Endangered Species Program and the implementing of the Habitat Conservation Plan, focusing on Piping plover, Least tern and Diamondback Terrapin monitoring. The AES reports directly to and works alongside the Natural Resources Officer / Endangered Species Specialist. The AES is responsible for data entry in PIPLODES/TERNODES.

Beach Rangers

A Season Position May – October: A core of veteran Beach Rangers are primarily responsible for code enforcement of all the required Special Conditions in the Orders of Conditions as well as all of the Nauset Beach Rules and Regulations for ORVs. They report to the Natural Resources Manager, NRO and Beach Director. They assist the NRO and the HCP Shorebird Monitors when enforcement of any violations concerning rare and endangered species is required.

HCP Shorebird Monitors / Endangered Species Monitors

The Town employs 8-12 seasonal monitors. Monitors focus on the HCP program. The shorebird monitor / endangered species monitor starts July 1 and monitors up to August 31.

The Town of Orleans Seasonal HCP Shorebird Monitors are responsible for the following:

Locating and identifying endangered shorebird nesting and feeding areas, as well as identifying Diamond-backed terrapin tracks, locating nest, and assisting in the moving of nest located on the east side of Nauset Beach South OSV.

Responsible for setting up exclosures with the NRO, as directed by the Natural Resources Manager, signage, and symbolic fencing, conducting surveys and counts of birds.

Working in assigned habitat areas, must be able to: identify Piping plover, least and common terns, American oystercatcher, and other shorebird species as required; identify and locate shorebird nesting and feeding areas; and map the identified areas.

Data collection and note taking to document nest establishment, egg laying, hatching, predation of nests, chick rearing, and fledgling activities.

Set up and maintain signage, symbolic fencing, and protective exclosures such that critical habitat areas are protected from human disturbance.

Interact with and educate the public to increase awareness of the birds and nesting/feeding areas.

Re-route vehicles around protected areas and escort essential vehicles through protected area as necessary.

3.0 Beach Management Plan

Both the North Spit and Nauset Beach South are managed by the Board of Selectmen who serve as Orleans Park Commissioners. Nauset Spit operates under an Order of Conditions SE 54-723 issued in 1991. Nauset Beach South operates under an Order of Conditions SE 54-2246 issued in 2015. Each Order contains a comprehensive Off Road Vehicle (ORV) and Beach Management Plan that includes adherence to the Massachusetts Division of Fisheries & Wildlife, Natural Heritage and Endangered Species Program, *Guidelines for Managing Recreational Use of Beaches to Protect Piping plovers and Terns and Their Habitat* (1993); U.S. Fish Wildlife Service (1994) and compliance with Coastal Resource area performance standards defined in the Massachusetts Wetland Protection Act, M.G.L. c 131 § 40 and 310 CMR 10.00 including 310 CMR 10.37 Protection of Rare and Endangered Species Habitat.

On the Nauset Beach South, a Habitat Conservation Management Plan (HCP) is in effect until 2020 and authorizes an "incidental take" of up to 2 broods (8) Piping plover chicks in the Pochet Wash area. The Town of Orleans and the Town of Chatham have entered into an Agreement to manage Nauset Beach South jointly.

3.1 Beach Operations

Beach operations are managed on a daily basis beginning from April through the Columbus Day Weekend. Up to 65+ seasonal employees are hired annually working under the daily supervision and direction of the Natural Resources Manager, the NRO, the Beach Director and the Assistant Beach Director. Seasonal employees, comprised of lifeguards, EMTs, Beach Rangers, parking attendants, and shorebird monitors, operate out of the Nauset Beach Administration Building. All staff are equipped with radio communications. Video surveillance occurs 24 hours a day over the entire facility. The Nauset Spit OSV program and the Nauset South OSV program incorporate detailed traffic management protocols in order to alleviate OSV congestion. Beach Rangers are responsible for patrolling the entire Nauset Beach and ensuring compliance with the Nauset Beach Rules and Regulations for ORVs. Nauset Beach Rangers are staffed from 8:00 a.m. to 12 midnight, daily from mid-June to October 15 each season.

A. Recreational Activities

The Nauset Barrier Beach system is host to many recreational opportunities. Activities such as the OSV program, surfing, bathing, hiking, bird watching, fishing, hunting, metal detecting, photography, and fattired bike riding.

Beach Walking

There are four boardwalks heading to the Nauset Public Bathing Beach from the parking lot that offer safe and easy path to the beach. Three of the four boardwalks have Mobi-mats, a non-slip semi-rigid ground protecting mat that provides ideal beach access over the dunes that slope and incline between the parking lot and the beach front. Railings are constructed for additional safety, wide enough apart to give wheelchair and stroller access.

Beach wheelchairs are also available at the Administration Building or First Aid shed to make travelling across sand possible. They have large ball-shaped balloon tires that spread the weight over a large area which stops the wheelchair from getting bogged down.

Symbolic fencing and signage remain up year-round in areas with high pedestrian walking to ensure beach walkers stay off dunes and beach grass. From April 1 – October 15, much of the 8 miles of front beach is designated nesting habitat and is patrolled and monitored daily. Crossover pathways are fenced off and designated with white signs to a pathway from the east side beach to the west side beach.

Swimming

Three lifeguard towers and eight lifeguard stands line the shoreline at the protected public swimming beach at Nauset Beach. Numerous Great White Shark sighting temporarily close the swimming in the protected water at Nauset Beach. If a shark is observed or a sighting reported, the lifeguards close the beach for at least an hour. Sightings are reported by Nauset Beach staff to the Atlantic White Shark Conservancy to be posted on their Sharktivity app.

Lifeguards are on duty the third weekend in June through Labor Bay. Nauset Beach Safety Officers are on duty Labor Day — Columbus Day weekend.

Fishing

Fish gear must be kept at water's edge at all times while in the act of fishing. There shall be no more than five (5) fishing rods per person or more than twelve (12) fishing rods per vehicle to be in use at any one time.

Bicycles

No motorized bicycles are allowed on Nauset Beach. Regarding Fat-tire bicycles on Nauset Beach, any recreational activity in the vicinity of nesting shorebirds is managed specific to the "Guidelines for Protecting Piping plovers from Recreational Disturbance". These areas are fenced at least 170 feetradius around nests above the high tide line and delineated with warning signs and symbolic fencing.

Kites and Drones

Kites and Drones are prohibited April 1 – Labor Day.

Kiteboarding

Kiteboarding, also known as kite surfing, is prohibited April 1 through Labor Day on all open waters on ocean and marsh side at Nauset Beach.

B. Parking & Roads

The Nauset Public Beach parking lot is the primary parking lot for all beach activities and is accessible from Beach Road in Orleans. The main parking lot accommodates 300 vehicles per day.

Parking fees begin Memorial Day weekend and are collected only on weekends (Saturday/Sunday) through the third weekend in June. Starting the third weekend in June parking fees are collected through Labor Day.

Parking fees are collected 7:30 AM – 4:30 PM Parking fees are \$30 per vehicle per day. Weekly fees are \$125 per vehicle per week. \$300 per season.

C. Beach Cleaning and Refuse Management

Leave no trace. Each visitor shall remove all property and trash from the beach. There are several dumpsters provided at the beach and access areas for beachgoers. They are emptied when full and

maintained yearly. Visitors are also encouraged through signage and literature to take all trash off the beach.

Emptying of holding tanks and disposal of human waste on Nauset Beach and its adjoining waters is prohibited.

All pet owners are responsible for removing their animal's waste. Mutt mitt dispensers are located at all beach access points and maintained year-round by the non-profit organization, Orleans Pond Coalition.

No beach raking is allowed or conducted.

D. Rules and Regulations

The general rules and regulations for Nauset Public Beach, as well as all public beaches in Orleans, are provided in the Nauset Beach Rules and Regulations for OSVs, a seven-page document/handout. (See Appendix C).

The OSV programs on both North Spit and Nauset Beach South are subject to detailed Rules and Regulations for ORVs. They are updated annually by the Natural Resources Manager in consultation with the Board of Park Commissioners and the Conservation Commission.

E. Law Enforcement

The Town of Orleans employs 4-5 full time seasonal Beach Rangers. They patrol day and evening shifts and are trained each season on any new regulations or policies which have been adopted by the Park Commissioners. Several of the Beach Rangers are former retired police officers, who have lived and worked in Orleans for decades. They are provided with all necessary equipment, communication radios, and enforce all of the rules and regulations. In addition, the Town has a working relationship with the Massachusetts Environmental Police who are occasionally called in for assistance in more serious violations. The Orleans Police Department also works in close concert with the Beach Rangers.

Patrols are conducted on the North Spit and Nauset Beach South throughout the entire day during May to September. Patrols are conducted from 9:00 a.m. to 4:00 p.m. and from 4:00 p.m. to 1:00 a.m. The beach is cleared north and south by midnight and the patrol ends at 1:00 a.m. In the off season, a Natural Resource Officer patrols on days and weekends. All Beach Rangers follow the written protocols established by the Natural Resources Manager and Beach Director.

F. Fireworks

Fireworks are strictly prohibited on Nauset Beach April 1 – October 12, 2021. Should an occasional report of fireworks be reported to the police department, officers are dispatched and work cooperatively with Natural Resources Officers and Beach Rangers to stop the lighting of fireworks.

G. Dogs

No dogs are allowed on Nauset Public Bathing Beach and North Spit from April 1 through Labor Day. After April 1 signs are posted prohibiting dogs anywhere on the beach as well as prohibiting kite flying.

From Trail 1 north to Nauset Spit on North Spit Beach, dogs are prohibited from April 1 through Labor Day. From Trail 1 south to the Chatham Inlet, all dogs must be on a leash no longer than 30 feet at all times from April 1 through Labor Day. Dogs must be transported by OSV to areas open to dogs south of Trail 1 from April 1 through Labor Day. Dogs are prohibited in closed areas at all times. (This is a zero tolerance policy in accordance with Appendix 5, Section 11). Owners are responsible for all cleaning up

after their dogs. (See Appendix 5 Nauset Beach Rules and Regulations for OVS, Section 11). Between Labor Day and April 1, dogs are allowed on all Town of Orleans beaches.

4.0 Shorebird Monitoring and Impact Minimization Measures

The NRO begins patrolling and installing symbolic fencing the first week of March covering a 40+ hourly week over the course of 7 days. Installing symbolic fencing during the month of March affords the NRO the opportunity to walk the entire length of the barrier beach avoiding installing fencing and signage when shorebirds are present. Suitable Piping plover and Least tern nesting habitat is identified and delineated with symbolic fencing by April 1 in accordance with the Guidelines.

The Assistant Endangered Species Specialist (AESS) starts full time during the first week of April. Together, the NRO and the AESS monitor Nauset Spit and Nauset Beach South on daily patrols for returning Piping plover who display territorial behavior, and courtship dancing or flights. Daily logs are mapped and all activity is recorded including identifying possible breeding pairs, territorial behavior, scrapes, foraging range, tolerance to human disturbance, and predator activity.

The NRO and AESS are equipped with smart phones containing GPS programs and Excel Spreadsheet programs to record daily activities, identify trends, and provide abundance and productivity date for the Annual NHESP Census. NRO, AESS and HCP Monitors are provided with work trucks and utility vehicles.

4.1 Symbolic Fencing & Signage

Each year the Natural Resources Manager, Conservation Agent and Shorebird Specialist meet with representatives from MassWildlife/NHESP staff to review the symbolic fencing installed prior to April 1 and identify additional potential areas of plover and tern habitat. Fencing locations are examined and adjusted based on input from all parties. As indicated in the Beach Management Plans, Orleans has been following the criteria from the Massachusetts Barrier Beach Guidelines and the State and Federal Guidelines for Managing Recreational Activates in Piping plover and Least tern Habitat. Fencing is adjusted periodically to increase buffer zones to nesting plovers and terns.

By April 1, symbolic fencing is installed around the perimeter of all areas of suitable habitat for Piping plover and Tern colonies. This includes both sides (east and west) of the barrier beach on the north side of Nauset Beach from the public beach north to the Nauset Spit for a total of 5 miles of symbolic fencing. On Nauset Beach South, there is symbolic fencing from the public beach south to the Chatham town line where suitable along the ocean side. The OSV corridor has symbolic fencing year-round from entrance to the Trail 1 Rotary for a total of 6 miles. Symbolical fencing continues south along the dune toe on the beach from Trail 1 rotary to Trail 6, a total of 4 miles.

Durable, bright yellow signs indicating nesting habitat as a "Restricted Area" are placed at frequent intervals along the symbolic fencing. The yellow "Area Closed: Threatened Birds Nesting" signs are attached to symbolic fencing by April 1 and removed at the conclusion of the shorebird season. "No dogs, No kites" signs are posted from April 1st through Labor Day.

Large educational posters, detailing nesting and breeding behaviors are secured year-round at the Nauset Beach South Trail OSV entrance and at the administration building for viewing. This outreach program educates user groups and beachgoers in the identification and protection of shorebirds. The signs contain images of the shorebirds and penalties for entering the restricted nesting habitat.

Fencing and signs are maintained by the NRO year-round and replaced following weather events where necessary.

Figure 5 - Perimeter Areas Symbolically Fenced on North Spit

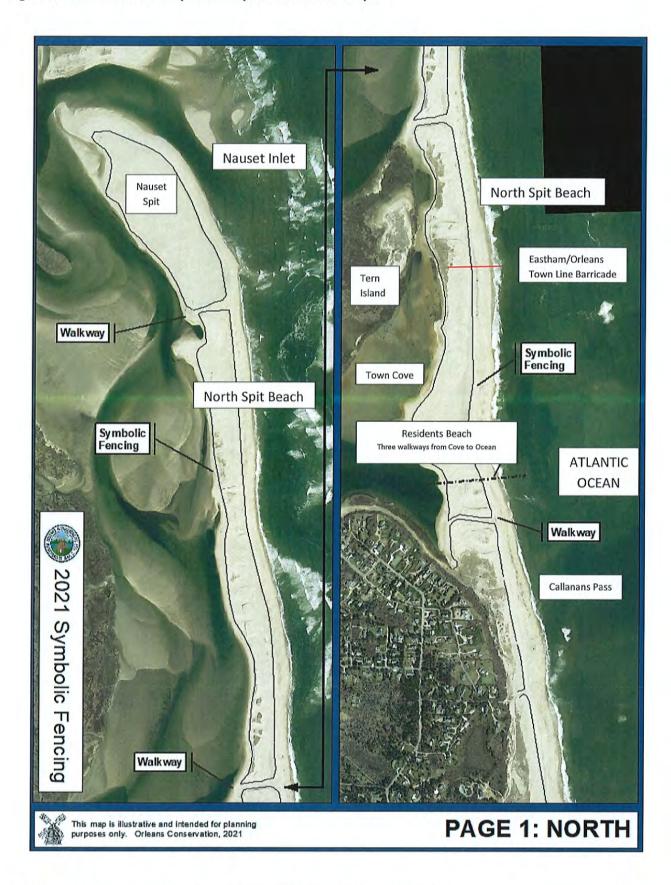


Figure 6 – Perimeter Areas Symbolically Fenced on Public Beach and Nauset Beach South

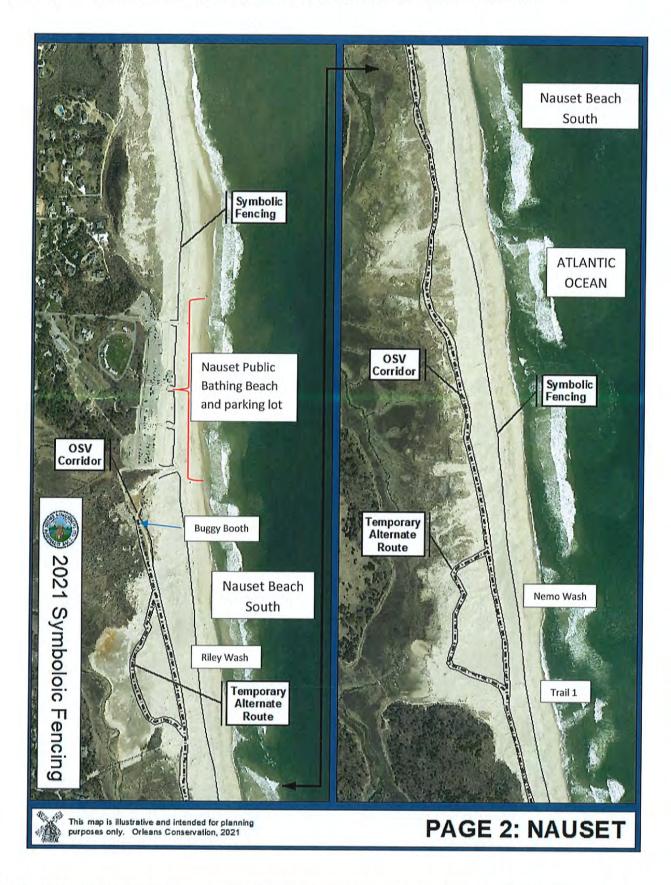


Figure 7 - Perimeter Areas Symbolically Fenced on Nauset Beach South



4.2 Predator Controls and Exclosures

To better manage avian and mammal threats to Piping plovers the use of predator control exclosures are installed around active Piping plover nests to reduce impacts of predation and other factors limiting Piping plover productivity. The Towns predator control program is subject to a permit issued annually by MassWildlife.

The Standard type "A" exclosure is installed in accordance with the USFWS guidelines.

Once a nest has been identified and the clutch reaches 3 eggs, the Natural Resources Manager, NRO, and AESS consult on whether the nest should or should not be exclosed before the fourth egg is laid.

The criteria for exclosing are based on accepted practices and experience with exclosures and are listed below:

- Tolerance to human activity
- Relationship of location to ongoing OSV corridors
- Consistent shared incubation
- Location of nest, i.e. on a dune slope or in the dune grass
- Is the exclosure creating risk of abandonment
- Historic or active predator activity
- Proximity to other ongoing recreational activities

Each circular exclosure is constructed of galvanized 2 inch by 4 inch wire mesh and installed 10 feet in diameter, with the nest located in the middle of the exclosure, and 48 inches tall.

Three to four shorebird monitors install the exclosure. Exclosure fencing is placed upright in a 6 to 12-inch-deep trench, dug around the 10-foot exclosure perimeter, and 7 five-foot tall wooden stakes are spaced equally around the perimeter to support the exclosure and the stakes are pounded into the sand. Sand is smoothed around the outside of the exclosure by hand to provide easy access for Piping plovers and to reduce accretion of windblown sand. The top of the stakes are pounded into the sand to the top of the wire mesh fencing to discourage perching by avian predators. Piping plovers are therefore able to walk through the mesh, but mammalian predators can not enter. Bird control netting is placed atop the exclosure fencing to keep crows and other avians out of the exclosure.

The Town of Orleans will continue the non-lethal predator control program that was initiated in March 2015. A series of baited decoy electrified predator exclosures will continue to be deployed on the beach with the purpose of modifying the behavior of targeted smart predators. These decoy predator control exclosures are deployed in March. The decoy electrified exclosures are regularly baited with fish racks and monitored through August. The locations of the decoy electrified exclosures are changed periodically and predator behavior is tracked and recorded.

4.3 Seasonal OSV Use Closures

The Town of Orleans complies with the MA Wetlands Protection Act, MESA, and IAMP/COI, and the Town's Conservation Orders of Conditions. During the breeding season, if there is more than eight unfledged Piping plover chicks (or two broods) remaining in a territory within the vicinity of the OSV Trail, the town restricts OSV use, seasonally June-July.

On the North Spit (Residents only use) up to the Orleans/Eastham town line has been reshaped into sharp slumping dunes and tidal heights washing to the dune toe, regularly. Subsequently, the vertical dune face is not categorized as favorable or productive for Piping plovers and Least terns.

Consecutively since 2006, the Nauset South Trail closed from the last week of May to the second week of August. On an average, Nauset Beach South closes for OSV use for the month of June and the first three weeks in July. An average of 54 days of trail closures per year for 16 years.

Table 5: 2007 -2021 North Spit OSV Closure

Year	Date of Closure	Date Re-Opened	Number of days closed
2007	June 6	August 11	66
2008	May 31	August 15	77
2009	May 30	August 16	77
2010	June 6	August 18	83
2011	May 31	August 15	77
2012	July 2	August 14	43
2013	May 26	August 15	91
2014	No Closure	-	0
2015	No Closure	-	0
2016	No Closure	-	0
2017	No Closure	-	0
2018	No Closure	•	0
2019	No Closure	-	0
2020	No Closure		0
2021	No Closure	-	0

Table 6: 2006 -2021 South Trail OSV Closure

Year	Date of Closure	Date Re-Opened	Number of days closed
2006	June 22	July 25	33
2007	June 22	August 1	40
2008	June 16	July 24	38
2009	May 30	August 4	66
2010	May 27	August 9	74
2011	June 3	August 5	69
2012	June 6	August 14	69
2013	June 3	August 23	81
2014	June 11	August 15	65
2015	June 4	July 26	53
2016	June 10	July 14	34
2017	June 6	July 15	39
2018	June 1	July 19	48
2019	May 31	July 23	54
2020	June 8	July 18	40
2021	June 3	July 30	57

4.4 Monitoring and Data Collection

All monitoring associated with the shorebird monitoring program, the endangered species program, and the HCP Covered activity, including the daily shorebird monitoring log and data collection, is the responsibility of the NRO and the AESS, and reported weekly to the Natural Resources Manager.

Beginning mid-March, the first Piping plovers arrive to Nauset Beach, and the location coordinates of Piping plover activity is mapped using a geodatabased ERSI Arc Collector. Data is imputed, on a handheld unit in the field, into the ERSI Arc Collector. This technology of logging shorebird activity contains a narrative of observed Piping plover and Least tern activity, including movement, behavior, and trends. This information also contains specific dates on breeding pairs, egg counts, predator activity, and exclosure installation and removal dates.

Monitoring the population of Piping plovers and Least terns on Nauset Beach is the primary goal of the Shorebird Monitoring Program. Since 1998, shorebird monitoring on Nauset Beach has provided data to help manage and map the distribution of Piping plovers and Least tern. Based upon intensive monitoring of breeding pairs, the Town has been able to maintain a sustainable and successful reproductive rate for Piping plovers on North Spit and Nauset Beach South.

In early June (usually June 1-June 9) the Town participates in the Massachusetts annual Index Count period that estimates the Piping plover population on Nauset Beach. This provides the Town with a solid "reporting" number for Nauset Spit and Nauset Beach South based on observed territoriality, pair longevity at a certain location, pair courtship habits, and nests counts. It also provides the MASSWILDLIFE with a number to estimate statewide populations of Piping plovers.

The Least tern survey extends to mid-June (usually June 20) at which time the number of adults within or flying near the immediate vicinity of a colony is counted by the NRO and AESS. The NRO and AESS use the Adult Count method of surveying the Least tern census. Nests, either on the beach or in a colony, with at least one egg are GPS-ed and the nest is logged on a map. Each survey is taken with reasonable confidence that we are accurate and thorough.

4.5 Compliance Monitoring and Frequency of Monitoring

In 2017, the Town of Orleans committed to hire a full-time Natural Resources Officer (NRO) to enforce beach rules and regulations year-round, the endangered species program, and the HCP.

Compliance monitoring is shouldered by the NRO and documented in the daily log. Nesting Piping plovers are identified and monitored throughout the nesting season by the NRO and AESS beginning the first week of April. All Piping plovers observed during the Annual Index Count (June 1-9) are submitted to MassWildlife on the Massachusetts Piping plover Census Form via internet and assists in documenting trends in abundance and distribution.

Predator management is also conducted by the NRO and AESS working in unison, to minimize impacts to Piping plovers. All temporary predator exclosures on Piping plover nests are installed by the NRO and AESS, and a third trained staff monitor. Exclosures are generally installed within eight minutes. Generally, the nesting Piping plover is disturbed for 10-12 minutes before returning to incubate the eggs. Exclosures are not installed during inclement weather. Prior to installation, the NRO or AESS confirm that the nest is active and being incubated. After the exclosure is installed, staff remain on scene at a distance >150 ft. to confirm the pair resumes incubation immediately after being installed.

The Piping plover data collected throughout the shorebird monitoring season is submitted to MassWildlife in the Annual Statewide Piping plover Census through the web-based portal "PIPLODES". The HCP Annual Report is sent to MassWildlife by October 15

During the HCP implementation, a weekly activity report is submitted to MassWildlife via online email, and included in the HCP Annual Report.

Public outreach is conducted through a multi-media campaign, which includes regularly published articles in the local newspapers, and an active social media presence on Facebook through the Natural Resources Department. OSV users receive an HCP user guide and are required to watch an instructional video on nesting and breeding habits of Piping plovers and Least tern.

Monitoring of Piping plovers and Least terns not associated with the covered activities begins when shorebirds start to arrive towards the end of March and wrap up the end of September. Monitoring patrols occur daily from dawn to dusk, seven days per week, by the NRO and AESS on North Spit and Nauset Beach South, logging, mapping and collecting GPS coordinates of Piping plover and Least tern activity.

During the HCP, HCP Staff Monitoring occurs daily during the HCP implementation 7 days per week from 6:30 a.m. to 6:30 p.m. Monitors meet at the end and beginning of their shifts to discuss the daily observations and to share the most recent observations and activity. This allows monitors to share observations that are unique to a specific time of day (i.e. lower light vs mid-day sun). Daily observations are relayed to the NRO or AESS, whose shifts are schedules to ensure 7 days a week compliance

HCP traffic monitors are assigned to track daily vehicle passes through the Self-Escort Zone from 8:00 a.m. to 6:00 p.m. during the three access / egress windows.

Table 7: Example: HCP Implementation - HCP Monitoring Schedule

		Sunday	Monday	Tuesday	Weds	Thursday	Friday	Saturday
6am-	Brood 1	Terry	Maya	Maya	Maya	Matt	Colton	Colton
12:30pm	Road 1	Mere	Mere	Laura	Laura	Laura	Mere	Mere
	Road 1	Chris	Terry	Terry	Terry	Maya	Terry	Terry
	Brood 2	Will	Will	Kasey	Jessica	Kasey	Jessica	Matt
	Road 2	Matt	Matt	Will	Kelly	Jessica	Kelly	Kasey
	Road 1&2	Dick/JM	Dick	Dick/JM	JM	Dick/JM	Dick/JM	Dick/JM
12 noon-	Brood 1	Colton	Colton	Colton	Colton	Chris	Maya	Chris
6:30pm	Road 1							
	Road 1	Chris	Chris	Chris	Terry	Kelly	Chris	Maya
	Brood 2	Jessica	Jessica	Matt	Matt	Will	Will	Kelly
	Road 2	Kelly	Kelly	Kasey	Will	Kasey	Matt	Jessica
	Road 1&2	Dick/JM	Dick	Dick/JM	JM	Dick/JM	Dick/JM	Dick/JM
6:30am- 6:30pm	Buggy Booth	Sam	Kasey	Sam	Sam	Sam	Sam	Sam

4.6 Data Reporting

The HCP Annual Report is submitted to MassWildlife by October 15 of each year.

Prior to the Annual Report, the Index Count is recorded June 1 - June 9 annually for Piping plovers and the Index Count for Least terms is recorded June 6 - June 20 annually. The Town submits the Index Count through an online census form in a timely manner.

Logs are maintained to document timing and frequency of activities such as installation of symbolic fencing, monitoring of plover activity, beach patrols, and enforcement of regulations. A nest data map is posted which shows all relevant dates including dates eggs appear, predation issues, nest failure, predicted hatch dates, and chick fledging rates. All nest data is recorded on the GPS APP. As required in the Compliance Monitoring section of the HCP, all logs will be made available to MassWildlife upon request.

Table 8 - Compliance Monitoring and Reporting Requirements

Annual Limit on Statewide Take exposure

The Town has requested two takes each of the last threeyears based upon broods in the vicinity of OSV use.

HCP 2018: 2 Allowable Takes 1 Brood, 1 Take 100% Fledge: 3 chicks fledged

*HCP 2019: 2 Allowable T*akes 2 Broods, 2 Takes

100% Fledge: 6 chicks fledged

HCP 2020: 2 Allowable Takes 2 Broods, 2 Takes 100% Fledge: 6 chicks fledged

HCP 2021: 2 Allowable Takes
HCP not Initiated

Provide Piping plover census data including index and total counts in proper formats with maps

By September 15, each year, the Town submits index and total count to the Statewide data collection census to PIPLODES and TERNODES for Piping plover, Least terns, and Oystercatchers

The Diamond-backed terrapin finalized count, with google maps attached, is submitted to HERITAGE HUB / Statewide Habitat Conservation Plan Annual Report due September 28

Reporting to MassWildlife by Town of Orleans

June 1-June 9 survey Nauset
Beach as part of the Annual
STATE CENSUS for Piping
plovers, Least terns, and
Oystercatchers. Submitted
Census Short Form by late-July
to MassWildlife

PIPLODES and TERNODES submitted by September 30

Reported Diamond-backed terrapin observations through HERITAGE HUB by October 15

HCP ANNUAL REPORT is provided to MassWildlife by October 15

REQUEST FOR CERTIFICATE OF INCLUSION TO THE PIPING PLOVER HABITAT CONSERVATION PLAN

Element Tracked: Compliance with the Guidelines

Monitoring Objective:
Avoid and minimize
impacts/take associated
with the
implementation of
routine recreational
beach uses and
operations

The Town of Orleans maintains logs to document timing and frequency of activities such as installation of symbolic fencing (Installed by April 1), monitoring of plover activity (March 1-Oct 15), beach patrols (May 20-Oct 15), enforcement of ordinances such as leash rules (April 1-Labor Day), timely total beach closures due to OSV use in the Vicinity of Unfledged chicks (Nauset Beach South Closures begin end of May and open early August. North Spit limits OSV use).

Shorebird Monitors / Endangered Species Monitors arrive for intensive training July 1. Beach Rangers patrol and enforce the Nauset Beach Rules and Regulations in conjunction with applicable Federal and State laws and regulations, town by-laws, town rules and regulations and fire regulations. (Appendices 5)

The Town of Orleans Shorebird Monitoring Season starts mid-February and continues to October 15. All management activities are logged in the log sheet (Appendix 4) or in ERSI Arc Collector (Appendix 3)

Element Tracked:

Compliance with impact minimization protocols

Monitoring Objective:
Avoid and minimize
impacts/take associated
with implementation of
covered activities

During HCP Implementation, staff monitors maintain customized, daily, site-specific implementation logs as described in the site-specific IAMP (e.g., to document staffing, frequency of brood monitoring, compliance with OSV escorting procedures).

The Natural Resources Manager notifies MassWildlife at least 24 hours in advance of initiation of any covered activity and self-escort windows.

Notify MassWildlife 24 prior to initiating covered activity and open self-escort zone windows of access.

During HCP Implementation, the self-escort zone is staffed each day, 6:30am-6.30pm

HCP Brood Monitoring: 6:30am-6:30pm, two bird monitors

Traffic Monitoring: 7:00am – 6:30pm, one traffic monitor staffs the Buggy Booth to log OSV activity on and off. Two traffic monitors staff the Self-Escort Zone and Corridor, one at the start, the other at the end, and log OSV passing through the Self-Escort Zone.

Element Tracked: Compliance with mitigation requirements	Off-site mitigation funds are deposited into escrow account prior to February 15 annually.	Breeding pairs within site distribution are monitored and recorded in the ERSI Arc Collector, as well as paper datasheets. (Appendix 4)

5.0 Covered Activities

Monitoring of Piping plovers, Least terns, Diamondback terrapins, and other State-listed species of special concern on Nauset Beach is a multifaceted stewardship effort that includes providing a balanced management strategy with a wide variety of recreational opportunities to the public, ensuring endangered species protection, and providing public outreach and environmental conservation education.

Minimization measures start before OSV users even get on the OSV Trail. Applicants for an OSV permit follow steps one (1) through ten (10) to be eligible for an OSV sticker. Once you have read, printed, signed and watched the required documents/videos, you may apply for a sticker. Applications are only required to be filled out for applicants who mail-in their sticker. Applicants who come in-person, or need to be inspected prior, may fill out an application at the sticker office.

- 1. **2021 OSV Mail-In Program Requirements** (you must read this entire document before continuing)
- 2. Sticker Eligibility Requirements (for residents/Orleans tenants only)
- 3. **2021 Habitat Conservation Plan (HCP) OSV User Guide** (print, read, sign and keep in vehicle) (see Appendix 6)
- 4. OSV Rules & Regulations (print, read and keep in vehicle)
- 5. **Watch the OSV Movie** (you are required to watch before registering vehicle)
- 6. Watch the HCP Movie (you are required to watch before registering vehicle)
- 7. Over Sand Sticker Fees and Information (review document to verify cost, requirements, etc)
- 8. **Required Tire Sizes** (verify your vehicle meets tire size requirements)
- 9. Over Sand Mail-In Application Form (mail-in only, in person- fill out at the sticker office)
- 10. Sign Up for E-Alerts! (Sign up for OSV Updates regarding closures, capacity, etc)

It is so important that we continue to provide access and recreational opportunities to areas as natural and pristine as Nauset Beach. By managing the resource effectively, we can orchestrate how it is possible to protect these rare and endangered species while keeping the OSV trails open at the same time. We believe, the HCP allows future generations of beachgoers and OSV users to learn to embrace the fact that we share Nauset Beach with these amazing creatures and do not resent their presence

The combination of the popularity of recreational opportunities offered at Nauset Beach to vacationers, visitors, beach and OSV permit holders, and residents tied into the importance of protecting nesting habitat create a challenge as well as an opportunity for habitat conservation planning.

5.1 HCP Covered Activities

The Town of Orleans is requesting a renewal of the 2016 Certificate of Inclusion for Nauset Beach as part of the Town's application to participate in the Statewide Piping plover Habitat Conservation Plan. These covered activities are applied to Piping plovers as well as Least terns.

- 1. OSV Use in the Vicinity of Unfledged Piping plover Chicks
- 2. OSV Use in the Vicinity of Least terns

Should the take exposure rise above the 15% maximum ratio (nests to HCP broods) prescribed in the HCP, or should the population decline to <14 pairs, the Town is aware that MassWildlife may require the number of take exposures in the subsequent beach season to be reduced to one, during the three-year COI term, as set forth in the HCP. All other management will be implemented in accordance with state and federal guidelines, as has been the case for the past 20 years or more.

If a pair attempts to establish a nest on North Spit adjacent within or adjacent to the main access corridor, it may be necessary to request a symbolic fencing buffer well below 50 yards and/or nest moving (see Section 5.2.2.1.3). If this occurs, the Town would follow the Guidelines established by MassWildlife.

Additionally, The Town of Orleans is requesting a three-year COI for the ability to escort vehicles in the vicinity of Least tern chicks and nesting Diamondback Terrapins. Least terns are listed as a species of Special Concern in Massachusetts.

Since 2013 a Least tern colony has appeared in the Pochet Wash area. A single colony or sub-colonies defined as (20) pairs may develop in an area that is less than 2 acres. However, the colony appears to be one connected group. The location of the colony begins at the southern edge of the Little Pochet wash and continues north along the Coastal Beach, landward of the toe the Coastal Dunes and terminates 200 yards south of Trail 1. The size has varied from an estimated 65 pairs in 2013 to 35 pairs in 2015.

Female Diamondback Terrapins are present, depending upon weather conditions, in June and early July during full moon tides cycles. Unlike most other turtles, terrapin's nest during the day and night. Because small numbers of Diamondback Terrapins cross the OSV corridor to nest, there is some risk of adult and hatchling mortality as individual turtles cross the OSV corridor. Therefore, the Towns program of daily terrapin monitoring during nesting season, protects crossing adults and protect nests from predators.

5.2 Impact Minimization Measures for Covered Activities

The HCP Monitoring Protocols as described in this document will be utilized to cover the use of OSVs in the presence of unfledged chicks for one or two of the authorized incidental take exposures.

Impact minimization measures will limit the number of takes by reducing exposure of adults and chicks to vehicles traveling on Nauset Spit or Nauset Beach South.

A. OSV Use in the Vicinity of Unfledged Piping plover Chicks.

The Orleans IAMP covers the following elements, as described in the statewide HCP:

- 1. Beginning July 1, annually, daily staff training for bird monitors and self-escort traffic monitors commenced under "COVID-19 Guidelines and social distancing protocols"
- 2. Delineate and symbolic fence 15 foot-wide self-escort travel corridor.
- 3. Travel restrictions were posted for access/egress. The access windows are as follows: 8am-10am / 12pm-2pm / 4pm-6pm.
- 4. The maximum number of OSV passes in the vicinity of the two broods of Piping plover chicks was reduced from 750 passes per day (under the OOC) to 360 passes per day during the HCP.
- 5. Traffic monitors were positioned at both the start and end points of the self-escort zones, and these points were clearly delineated by signage.
- 6. Intensive brood monitoring of the HCP PIPL chicks was performed during vehicle passage.
- 7. Mandatory OSV operator education at OSV sticker purchase.
- 8. OSV ruts smoothed in escort zones at the end of day.

Under the HCP, the number of vehicles that will be able to access Nauset Beach South (drive past unfledged chicks) has been reduced from 375 vehicles allowed under the OOC to 180 vehicles. This reduces the maximum number of vehicle passes in the vicinity of no more than two broods of Piping plover chicks from 750 passes per day to 360 passes per day.

The number of vehicles allowed to pass Piping plover chicks is set at not more than 180 in order to reduce the likelihood of a take by ensuring a manageable number of vehicles that may be self-escorted during the time allotted for beach access. To further reduce the likelihood of a take through harm, harassment or mortality of recently hatched chicks, escorting will be initiated past a brood no sooner than 24 hours after all chicks have hatched.

B. HCP Monitors

The Town of Orleans employs up to 12 HCP Seasonal Shorebird Monitors that are responsible for the same tasks of an Endangered Species Shorebird Specialist (see Section 4.2.2). The NRO is responsible for training the HCP shorebird monitors in locating the Piping plovers and identifying their nests and chicks.

12 HCP monitors are hired and trained beginning on or before July 1st. Training occurs for a period of approximately 1-2 weeks and focuses on procedures to protect Piping plover, Least tern, and Diamond-backed terrapins. Multiple impact avoidance and minimization measures including but not limited to enhanced monitoring broods and unfledged chicks during the HCP implementation, especially during limited OSV travel windows, monitoring OSV traffic passes during the self-escort windows, speed limits and public outreach education. Monitors demonstrate that they can locate chicks, assess age, and track the brood's movement, from a distance, without interfering with the chick's natural behavior. Monitors are also trained in the HCP Procedures and Conditions enabling them to effectively provide outreach education to beachgoers, be aware of beach violations and conscious of OSV permit holders. HCP monitors report to the NRO and AESS.

Monitors are equipped with hand-held radios for communications with the NRO and AESS. Orleans provides all necessary equipment including binoculars, daily traffic and monitoring log sheets, rain gear, and transportation. If it is decided that an incidental take will be applied to one or more broods, then HCP staff will begin HCP self-escort monitoring 24 hours after the last egg has hatched from the specified brood.

HCP monitors are assigned schedules and the daily HCP monitoring shifts are divided into a morning shift from 6:30 a.m. - 1:00 p.m. and an afternoon shift from 12:30 p.m. - 6:30 p.m. A minimum of four HCP monitors are staffed for each shift depending on the number of broods involved. (1) One monitor is

responsible for keeping visual contact with each brood; (2) one monitor is responsible for logging OSV use within the self-escort corridor during HCP implementation and is positioned at one end of the self-escort zone; and (3) one monitor is staffed at the other end of the self-escort zone. The remaining HCP monitor, as well as the NRO and AESS are positioned where necessary. All monitors will be responsible for assisting in locating the chicks prior to opening the Self-Escort Corridor during the specified access and egress windows.

Nauset Beach Rangers will be on duty from 7:30 a.m. -11:00 p.m. daily during the HCP self-escort program. The gate attendant staffed in the Buggy Booth at the entrance gate is responsible for ensuring that all OSVs participating in the HCP are in possession of a signed copy (by the operator) of the HCP Procedures and Conditions and that they are fully aware of the protocols. To ensure accuracy, the gate attendant is also responsible for recording the OSV activity (# of passes) in the Buggy Booth daily log.

Signage reiterating the HCP Procedures and Conditions are displayed at the gate. Once the brood monitor has confirmed the corridor is clear prior to the scheduled self-escort windows, the NRO is also responsible for recording the OSV activity (# of passes) in the Buggy Booth daily log.

The Nauset Beach Ranger is responsible for clearing the beach of vehicles by 6:00 p.m. and raking the ruts with a beach drag at the end of the afternoon egress window. Unfledged chicks are located and monitored during rut smoothing.

C. Vehicle Self-Escort Program

The Town of Orleans vehicle escort protocol is administered by the Orleans Natural Resources Manager and the NRO. The protocol is as follows:

Start date: No Specific Start Date annually; Natural Resources Manager notifies MassWildlife at least 24 hours in advance of initiating the program.

Frequency: Three times daily (times may be flexible within one hour based on weather and chick locations)

Morning Session: 08:00 – 10:00

Mid-Day Session: 12:00 noon - 2:00 p.m.

Afternoon Session: 16:00 - 18:00 (upon written notice to MassWildlife, the Town may change the designated travel times provided they total no more than six hours in up to three travel windows during daylight hours)

Number of vehicles: 180 self-escorted vehicles for a maximum of 360 vehicles passes per day.

Table 9: 2017-2021 Vehicle Passes through the HCP Self-Escort Zone

Year	Dates of HCP Self-Escort	Total Days	Total Passes
2016	July 14 – August 2. 2016	20 Days	1,911
2017	July 15 – August 1, 2017	18 Days	1,360
2018	July 19 – August 4, 2018	17 Days	1,864
2019	July 24 – August 8. 2019	16 Days	2,362
2020	July 18 – July 26, 2020	9 Days	1,775
No HCP Implementation		0 Days	0

D. Self-Escort OSV Corridor Dimensions and Locations

The specific location of the Self-Escort OSV Corridor is intended to be adaptive and variable to reflect the location of the brood(s). The Self-Escort OSV Corridor may shift north or south along the identified route depending on Piping plover locations and/or movements. The Self-Escort OSV Corridor(s) will not exceed 4,000 feet in length and 15 feet in width (for vehicle traffic), with occasional turnouts for two-way traffic for a total impact area of approximately 60,000 square feet or 1.38 acres. Additionally, 100 feet laterally on either side of the OSV sand trail will be included in the corridor as the "safety zone" for Piping plover chicks (vehicle traffic will be halted should Piping plover chicks enter this zone).

The Self-Escort Corridor will not be moved laterally and is clearly marked at the beginning and termination points and has the 15-foot travel width delineated with wooden stakes. Updated corridor boundaries shall be reported daily to the Natural Resources Manager by the NRO, and that information is passed along to the Beach staff prior to commencement of vehicle access.

5.3 Self-Escorting Procedures

A. Procedures for Escorting Past One Brood

- 1. A pre-determined area of the Nauset Public Beach parking lot, or other area free of protected species, will be identified for staging of OSVs.
- 2. At least 1 hour prior to commencement of vehicle escorts, the shorebird monitor(s) will proceed along the designated vehicle route and surrounding area to determine locations of Piping plover chicks. Each shorebird monitor will be responsible for monitoring the location of one brood. Once the shorebird monitor(s) have established the locations of chicks, they will notify the NRO of the brood location. At this time, personnel at the entrance booth, as well as the traffic monitor will be notified that the Self-Escort Zone is open for travel. In the event that all chicks are not located, opening the OSV trail will be delayed until such time that all chicks are accounted for or it has been determined by the shorebird monitor(s) that there are no chicks in the OSV trail. The shorebird monitor(s) will communicate their determination(s) to the NRO for confirmation to open the trail. The self-escort duration of two hours will be implemented per the HCP protocols although the time of closing may be adjusted accordingly to respond to a later opening.
- 3. Prior to opening the OSV trail, the vehicle monitor will contact the shorebird monitor(s) to confirm that the locations of all chicks are still being monitored, that all chicks are accounted for, and/or it is safe for the trail to open. During the two-hour self-escort period, monitor(s) shall maintain constant visual on any plover chicks using binoculars from a distance of no less than 200 feet. Disturbance, if any, of the chicks shall be minimized. Once vehicles have passed through the Self-Escort Zone, OSVs may proceed to use the sections of beach previously determined to be free of Piping plover and Least tern chicks, in accordance with state and federal Guidelines (including but not limited to restrictions on parking.
- 4. Each vehicle must have at least one passenger 16 years of age or older to walk approximately 10 feet in front of the vehicle in the self-escort corridor. The escort will look for chicks in the road and stop the vehicle if either a chick is observed or one of the monitors (shorebird or vehicle monitor) requires the vehicle to stop. All self- escorted vehicles must maintain a safe distance of at least 15 feet from the vehicle in front.
- 5. In order to avoid adverse effects to the habitat and allow unimpeded chick passage across the OSV corridor when vehicles are not present, the vehicle "ruts" will be raked at the end of

the afternoon self-escort period. Mechanized raking will be utilized only with a trained observer walking in front of the vehicle to search for chicks.

- 6. If at any time during the escorting process, the shorebird monitor(s) lose visual contact with one or more chicks, the vehicles will be allowed to continue on their way and the period between the self-escort time frame (or after the afternoon session) will be used to determine the presence of the chick(s) in the area or absence of chicks in the corridor. Shorebird monitors will document in the daily report the approximate time that visual contact with the chick(s) was lost and efforts made to relocate it.
- 7. The Natural Resources Manager, NRO, AESS, and each individual shorebird monitor will have the independent authority to temporarily close the trail at any time for any reason. For example, if at any time a shorebird monitor determines that chicks have approached within 100 feet of the Self-Escort Corridor, the monitor will immediately notify the gate and corridor monitors by radio to temporarily halt traffic and allow the chicks to cross the corridor and/or move >100 feet from it. The OSV trail will not reopen until the NRO or AESS determines that it is safe to do so. Monitors will document in the daily report the approximate time that the OSV trail was closed and the duration of the closure.

B. Procedures for Escorting Past Two Broods

The following procedures are in addition to applicable actions outlined under Basic Procedures for Escorting Past One Brood (see above):

- 1. Two broods in close proximity (<1,200 feet apart): Only one segment of the OSV trail will require self-escorting due to the close proximity of the two broods and a single vehicle monitor will ensure compliance. Two shorebird monitors will be deployed to monitor the chicks; one for each brood. The corridor in front of the broods will have beginning and end points clearly marked for self-escorting and the monitors will follow each brood. The shorebird monitors and vehicle monitor will be in close communication to ensure that chicks are not moving towards the OSV trail.
- 2. Two broods are more than 1,200 feet apart: Two segments of the OSV trail will require self-escorting. In this case, a second vehicle monitor will be assigned to monitor escorting compliance. Both sections will have beginning and end points clearly marked to delineate the separate self-escort corridors. Beginning and end points of the self-escort corridor may be moved in response to linear chick movements (information provided by the shorebird monitors). Two shorebird monitors are deployed to monitor the brood chicks; one monitor per each brood.

If a contingency plan is necessary, two shorebird monitors (i.e., one monitor per brood) will locate and observe chicks prior to and during the self-escort periods. A minimum of one vehicle monitor will oversee the self-escort corridor to ensure compliance by the self-escorted vehicles. Should two self-escort corridors be required (see above) then a second vehicle monitor will be required. In the event that one of these employees is unavailable, the Natural Resources Manager, Beach Director or their designee shall assume this duty.

C. Caravans

The Town reserves the right to substitute escorted caravans for self-escorting as described in the HCP. Under this scenario, groups of up to 50 OSVs would stage in the parking lot or other areas free of unfledged chicks and protected species. Once the caravan reaches the area where unfledged chicks are

present and escorting is required, a trained and qualified shorebird monitor (see requirements above) would lead the caravan through the escort area either on foot or in an open top OSV. All other requirements including but not limited to brood monitors, compliance monitors, and speed limits would remain in place as described in the self-escorting protocols.

D. Inclement weather

The Natural Resources Manager and NRO will monitor weather forecasts on a daily basis. In the event that a storm warning is predicted by the National Weather Service, or any other weather warning that could jeopardize public safety within a 24-hour period, the OSV trail shall be closed for the duration of the hazard or the start time may be moved one hour later or earlier. The OSV trail may not reopen until the NRO has given the all clear. It shall be presented in writing prior to purchasing an OSV sticker that all users shall use the beach at their own risk. Exiting escorts will not take place due to unpredicted weather. OSV sticker holders shall be informed in writing that a "shelter in place" policy will go into effect until the inclement weather has passed, or scheduled exiting escorts have begun.

E. Medical or family emergencies

OSV sticker holders shall be advised verbally and in writing at the time of OSV sticker application, via affidavit, that egress from the beach outside of the self-escort windows shall be strictly prohibited (see permit Rules and Regulations for information to report an emergency). In the event of a life-threatening medical emergency, the staff of the Nauset Beach Administration Building and/or emergency responders should be notified. The NRO, AESS or Beach Patrol will assist in escorting the vehicle off of the beach.

Any violations of the aforementioned protocol will not be tolerated. A zero-based tolerance policy will be fully enforced. Monitors and Beach Rangers will be in constant contact to ensure enforcement. Beach Rangers will be authorized to revoke OSV stickers and eject the violators from the beach immediately. Violators of the escort protocols shall be subject to OSV sticker revocation and shall have their rights to operate an OSV on Nauset Beach suspended immediately for a period of one year from the date of the violation.

F. Escorting Program Reporting

Chick numbers, chick locations, and travel corridor locations/dimensions shall be provided to the Natural Resources Manager by the NRO daily, prior to commencing OSV escorts. As required by the HCP, a daily implementation log will be kept to document staffing, frequency of brood monitoring, and compliance with OSV escorting procedures, and will be made available to MassWildlife upon request. Any violations, incidents or accidents associated with the vehicle escort program, including take of a chick(s) shall be immediately reported to MassWildlife and USFWS staff. In the event of an alleged incident related to the escort program, the Natural Resources Manager, NRO or AESS, in coordination with a shorebird monitor shall cooperate with and assist Town, State and Federal officials with the investigation of the incident. Depending on the nature of the incident, the Town of Orleans, MassWildlife and USFWS reserve the right to suspend all vehicle escorts for such time as they deem appropriate.

Every week, a summary report will be submitted to MassWildlife. The report will include; (1) daily vehicle trip count (distinguishing counts for self-escorts versus caravans); (2) for each affected brood, daily observations of chick numbers and behavior including a daily sketch map of the observed range of the brood on the beach; (3) weekly tally and description of any rules violations and enforcement actions taken; (4) weekly tally and description of all observations of broods crossing or approaching <100 feet from the vehicle corridor; both during the OSV travel windows and any other such observations during

routine monitoring; (5) any other notes, observations, or recommendations relevant to operating the escorting program.

By October 15th of each calendar year, the Town of Orleans will submit an escort monitoring report to MassWildlife describing at minimum, estimated age of chicks in each brood when self-escorting was initiated. Fledging success, escorting dates, number of broods, number of chicks present during self-escorting on each date, estimated daily chick survival based on daily brood counts, number of vehicle passages, and any documented "take" of chicks resulting from the vehicle escorting program shall be included in this report. The report will also contain recommendations for improving the efficiency and or effectiveness of the escorting program in the future.

5.4 OSV Use in the Vicinity of Least Tern Chicks

The Town of Orleans will include the same protective elements for Least tern chicks as it does for Piping plovers. Based on past years' shorebird monitoring it is anticipated that OSV use in the vicinity of unfledged Least tern chicks will be limited to a subsection of the Pochet Overwash, the same section of beach where escorting past unfledged Piping plover chicks is likely to occur. Because Pochet Overwash is very wide and the bulk of the Least tern Nesting activity is located along the east (seaward) section of the overwash, it may be possible to reroute the OSV corridor to the west, subject to MassWildlife and Conservation Commission approval, thereby minimizing risk to Least tern chicks. Historically, Least tern colonies are separated from the OSV corridor by an expansive dune system, and will not be exposed to potential take, as per the State Guidelines. Regardless of location, in no event will >20 unfledged Least tern Chicks be exposed to OSV traffic. Again, based on past Least tern nest locations and nesting phenology, the actual number of tern chicks to be exposed is likely to be considerably <20.

A. Impact Avoidance and Minimization Measures for Least terns

- 1. Monitoring of colony sizes and chick exposure Because Least tern chicks spend much time hiding in vegetation or other cover, and are fed by parents, they are much more difficult to count than Piping plover chicks. In order to estimate the number of chicks exposed to OSVs, the following procedures will be followed. In addition to obtaining an estimate, the amount of mitigation to be provided will be sufficient to mitigate the exposure of 20 unfledged Least tern chicks, a conservative assumption to address potential undercounting (see mitigation section, below). First, shorebird monitors will obtain at least two independent nest/chick counts by HCP monitors in the five days prior to the anticipated start of the escorting program including one count with 24 hours of the start date. Estimates of number of active nests and chicks will be obtained for all sections of beach located within 200 yards of the anticipated escorted OSV corridor. The bulk of the counting and sketch mapping of nest and chick locations will be conducted from a distance with binoculars to minimize disturbance, using standard procedures to observe incubation, eggs, chicks, and (inferred) chick provisioning. In some cases it may be necessary to enter the colony to confirm the presence of nests. Sketch maps will include key landmarks (i.e. fence post numbers or distinctive beach debris) to aid in recounting. Detailed notes will be kept on all counts including, date, time begun, time ended, personnel, whether each nest/chick was confirmed or inferred to be present and the basis of the inference. The approximate age of all chicks that are directly observed will be estimated based on the attached Least tern Aging Guide (See Appendix H). The maximum 15 foot-wide travel corridor will be delineated with fencing and "no parking" areas will be delineated on the beachfront to prohibit parking within 200 yards of unfledged chicks.
- 2. Travel restricted to 6 hours/day; at preset times of day; daylight hours.
- 3. Monitoring of chicks during vehicle passage One hour prior to the start of each daily OSV travel window, HCP Shorebird Monitors will locate unfledged Least tern chicks. The search will

be monitored by the NRO, or if carried out by the AESS, information about chick locations will be conveyed to the NRO prior to the start of the escorting period.

- 4. Staff training, enforcement, and communication protocols as described above.
- 5. Mandatory OSV operator education as described above.
- 6. Vehicle ruts will be smoothed out at least once/day when young chicks (estimated <10 days old) are present as described above.

The Town of Orleans will notify Masswildlife at least 24 hours prior to carrying out the covered activity affecting Least terns, and will include a map and estimate of the length of the escort travel corridor as it affects unfledged Least terns. Should the distribution of Least tern chicks lead to changes in corridor length and location, MassWildlife will be provided with updated maps and length calculations as quickly as possible, and no more than 24 hours after adjustments are made. In no event shall more than 20 unfledged chicks be exposed to escorted OSVs, cumulatively across the site.

Detailed reporting on the Least tern escorting program, and distribution, exposure, and impacts to unfledged Least tern chicks will be included in the annual report to be provided to MassWildlife by October 15.

5.5 OSV Use in the Vicinity of Nesting Diamond-backed Terrapins

Diamondback Terrapins nest within the dunes of Nauset Beach, particularly in a section south of Little Pochet Island. As described above Terrapin's nest predominantly in June and July. Nesting females may face some exposure to OSV traffic on the OSV corridor, but the corridor is likely to remain closed for a significant portion of the turtle nesting season for the foreseeable future due to restrictions to protect unfledged Piping plover and Least tern chicks in Pochet Over-wash. However, the corridor may still be used by essential vehicles when closed to recreational OSVs. To the extent that the corridor is open early or late in the Terrapin nesting season prior to Piping plover and Least tern nest hatching or after most Piping plover and Least tern breeding is completed there is some risk to nesting Terrapins. In addition, without protective measures there is some risk of hatchling mortality in the late summer and early fall as hatchlings emerge from nests and head to Pleasant Bay.

The Town of Orleans will include the following protective elements for nesting Diamondback Terrapins. Beginning the last week of May through July, the area immediately adjacent to the OSV corridor will be checked on foot at least once daily by trained personnel to check for turtle tracks. During periods of peak nesting activity as determined by onsite track activity and consultation with experts at Mass Audubon, every effort will be made to increase searches to twice daily. Timing and frequency of the track and nest surveys will be adjusted on an annual basis. The area searched will extend from Little Pochet Island to the vicinity of "Bagdad" camp. It will be expanded or increased in consultation with MassWildlife to encompass the entirety of the area of significant turtle activity as refined be additional field observation. Tracks will be used by qualified personnel approved in writing in advance by MassWildlife to locate and protect nests from predators (part of the net benefit mitigation strategy). At times when the corridor is open to OSV traffic (including essential vehicles), standard tracking techniques will be used to determine if one or more females are located near (and in particular east of) the travel corridor.

To the extent that adult turtles are present, temporary turtle crossing signs will be placed on appropriate sections of the OSV corridor and vehicle operators will be advised of the situation at the gatehouse. Vehicle operators will also be requested to immediately report any turtle observations to the beach staff.

Based on ongoing consultation with MassWildlife, Mass Audubon, and experts from the Town of

Barnstable, nests will either be caged on-site or moved and protected elsewhere. Hatchlings will be collected from caged nests following standard protocols to ensure their safety and released into Pleasant Bay.

Detailed information about the Terrapin Protection program will be provided in the October 15 annual report, including but not necessarily limited to dates and times of all track surveys, personnel, GPS coordinates for any tracks observed crossing the OSV corridor, GPS coordinates for all nests, nest dispositions and fates, hatch dates, number of hatchlings hatchling disposition, protective measures taken (e.g. signage if OSV corridor is open), pit tag codes, standard carapace lengths (SCL) and weights for all DTT individuals.

6.0 Effectiveness Monitoring

In the chain of command, the Natural Resources Manager oversees HCP Implementation and is assisted by the Endangered Species Specialist, combining both to be responsible for adequate monitoring coverage, submits State census forms, collects, compiles, and verifies the data and provides technical assistance.

The cumulative efforts of all involved in the development of the HCP program has helped the Town of Orleans manage a shorebird monitoring program based upon Federal and Statewide recovery goals for Piping plovers. The Town participates in the recovery of the Piping plover population by gathering quantitative census data and implementing a variety of protection measures that fosters an increase in yearly reproduction trends.

The Town collects data on nest initiation dates, nest locations (relative to elevation, the wrack line, and the wildlife corridor), hatching and fledge dates, survival rates of chicks, and causes of mortality.

Table 10: Effectiveness Monitoring and Reporting Requirements

Ensure that mitigation measures are effective and consistent with achieving biological objective	Off-site mitigation funds are deposited into escrow account prior to February 15 annually.	Breeding pairs within site distribution are monitored and recorded in the ERSI Arc Collector, as well as paper datasheets. (Appendix 4)
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Over the last twenty-four years of the program, Piping plovers on North Spit and Nauset Beach South fledged a mean of 1.42 chicks per pair.

Between 2016-2021, Piping plovers on North Spit and Nauset Beach South have fledged a mean of 2.21 chicks per pair.

The first three years of the Town's COI (2016-2018) Nauset Beach Shorebird Monitoring Program showed a Net Benefit of 2.42 fledges per productive PIPL pairs.

Over the last three years (2019-2021) of the Towns second year of Inclusion in the HCP, the Net Benefit is 1.99 fledges per pair towards the State's Recovery Goal.

7.0 Mitigation

Each February the Town provides \$11,600.00 for funding for off-site educational outreach, increased law enforcement and selective predator management to be administered by MASSWILDLIFE. As specified in the HCP, the Town provided \$5,800 per year for each Piping plover brood, nest or territory exposed to covered activities. A maximum of two exposures are permitted per year. Because the funds will be used by MassWildlife to benefit both Piping plovers and Least terns at sites where the two species co-occur, no additional payments will be necessary for Least tern mitigation. In the unlikely event that only Least terns and no Piping plovers are exposed to covered activities, the Town will still provide \$5,800 to mitigate impacts to Least tern. These funds will be sufficient to achieve the 2.5:1 mitigation ratio for both Piping plovers and Least terns as described in the HCP. Prior to carrying out covered activities during a given beach season; during the three-year COI term, the Town will deposit mitigation funds into an escrow account of off-site management to benefit the Piping plover recovery at off-site locations. As the Town has done for the last two years, the \$11,600.00 off-site mitigation funds are placed in an escrow account and MassWildlife NHESP determine how the funds will be applied (based upon MassWildlife criteria) at other beaches in Massachusetts, thus benefiting the statewide population of Piping plovers and contributes to increasing productivity at one or more Piping plover breeding sites in Massachusetts, through funding of off-site mitigation conservation measures. This conservation fund is managed by the Massachusetts Division of Fisheries and Wildlife (MassWildlife) to increase productivity on State beaches through selective predator management.

The Town of Orleans is proposing to provide funding for two "takes" to NHESP to implement predator management, educational outreach and increased law enforcement off site, as described in the HCP. To fund the mitigation, in advance of carrying out covered activities, the Town will establish an escrow agreement. Prior to the implementation of covered activities in any given year, the Town will deposit \$11,600 into said escrow account in accordance with the schedule set forth in the Escrow agreement.

8.0 Budget

The HCP program is self-funded by a surcharge from the sale of OSV stickers.

The approved annual budget covering all management and staff associated with implementation of the IAMP is detailed in Table 11.

Funding sufficient to execute the remainder of the HCP program through each season is approved at the Annual Town Meeting held in the Spring annually, for the purpose of the funding the implementation costs including all expenses incidental and related to the HCP.

In the Appendix is a certified copy of the most recent Town Meeting Warrant and a breakdown of the 2021-2022 Beaches operating budget.

Table 11: Estimated Costs for Implementing HCP

Estimated Costs for Implementing HCP				
ITEM	COST			
Vehicle Monitors	\$12,096			
HCP Monitors	\$15,552			
Public Education Program	\$1,000			
Uniforms	\$975			
Off-site Mitigation (2 takes)	\$11,600			
MESA & Conservation Mgmt Plan Fee (1 time fee)	\$900			
TOTAL	\$43,023			

Appendices Index

- Appendix 1 Nauset Beach, Town of Orleans, Certificate of Inclusion, February 26. 2019
- Appendix 2 MESA Conservation and Management Permit, February 26, 2019
- Appendix 3 ERSI ARC GEODATABASE COLLECTOR
- Appendix 4 Datasheets to Document Events
- Appendix 5 Nauset Beach Rules and Regulations for OSV
- Appendix 6 Town of Orleans OSV HCP User Guide and Procedures
- Appendix 7 Town of Orleans and Chatham Beach Agreement
- Appendix 8 Mitigation Escrow Agreement Orleans
- Appendix 9 Proof of Ownership: Assessor's Map of Nauset Beach Parcels
- Appendix 10 Budget Assistance Documentation

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- Appendix 10 Budget Assurance Documentation

APPENDIX 1 Nauset Beach, Town of Orleans Certificate of Inclusion February 26, 2019

Certificate of Inclusion in the Massachusetts Habitat Conservation Plan for Piping Plover Nauset Beach, Town of Orleans February 26, 2019

The United States Fish and Wildlife Service ("USFWS") issued to the Massachusetts Division of Fisheries and Wildlife ("DFW") an Incidental Take Permit ("Permit") No. TE0128C-0, on July 8, 2016 for a period of 25 years, pursuant to Section 10(a)(1)(B) of the Endangered Species Act of 1973 (ESA), as amended, 16 U.S.C. 1539(a)(1)(B). The Permit authorizes the "Take" of Piping Plover (*Charadrius melodus*) in accordance with the terms and conditions of the Permit, and the Massachusetts Statewide Habitat Conservation Plan ("HCP"). Under the Permit, the Town of Orleans ("Participant") is authorized to perform covered activities that may result in the "Take" of Piping Plover, provided such covered activities are conducted in compliance with all applicable terms and conditions of the Permit and the HCP.

As the owner of the property depicted in Appendix H of Exhibit "A", or an entity with written permission to use property including Piping Plovers or their habitat, attached hereto and incorporated by reference into this Certificate of Inclusion ("COI"), you are entitled to the protection of the Permit for the activities that may result in a Take of Piping Plover as authorized by the HCP and by DFW in Conservation & Management Permit No. 019-335.DFW, including but not limited to the Impact Avoidance and Minimization Plan and the Mitigation Plan and other exhibits attached thereto (collectively, "CMP"), which DFW has issued to you pursuant to the Massachusetts Endangered Species Act, MGL c. 131A, ("MESA") and the MESA regulations at 321 CMR 10.00. The CMP and all attachments thereto are depicted at Exhibit "A," attached hereto and incorporated by reference into this COI.

This COI shall be valid for a period of three (3) years from the date signed by the Director of DFW unless otherwise suspended or revoked by DFW for noncompliance. However, plan participants are required to obtain reauthorization from the DFW on an annual basis, prior to carrying out covered activities in a given year. DFW may grant extensions or renewals of this COI or require the submittal of a new application for a COI, including in cases where your request for continued coverage under a COI would exceed the available number of statewide take allowances under the Permit because DFW cannot grant more take exposure allowances than allowable pursuant to the Plan. As set forth in Exhibit A, DFW reserves the right to unilaterally adjust on an annual basis the amount of take exposure authorized pursuant to this COI.

The undertaking of activities authorized by this COI and the associated CMP does not relieve the Participant of its obligation to comply with any other applicable federal or state law or regulation or municipal bylaw, ordinance or regulation.

In the event the Participant fails to comply with the terms and conditions of the Permit, the HCP or the CMP the Participant shall be subject to enforcement action, including but not limited to, the immediate suspension or revocation of the COI and/or the CMP. DFW shall notify the USFWS within 2 business days of DFW's discovery of the infraction, and within 1 business day of its decision to suspend or revoke

the COI. Administrative, judicial or other action on the part of DFW does not foreclose the possibility that FWS may seek its own remedy against Participant or DFW.

By signing this Certificate of Inclusion, you signify your election to receive Take Authorization to expose up to two Piping Plover broods/nests per year to covered activities under DFW's Permit, subject to the terms and conditions in the Permit and the associated CMP. You also assent to the requirement under both the ESA and MESA, and as explained in the HCP, that beach use and management, excepting the above-listed covered activities, must comply with the State Guidelines and Federal Guidelines, effective at the time of COI issuance, or as amended during the term of the COI.

This Certificate of Inclusion does not impose additional regulatory control over the signatory nor require the signatory to provide additional information not called for in the HCP, Permit or COI, but instead ensures compliance with 50 Code of Federal Regulations, section 13.25(d).

Coverage under the Permit will become effective upon receipt of the executed COI by DFW and Participant, subject to all requirements of the Plan and COI Attachments. In the event the subject property is sold or leased, the Participant must inform the buyer or lessee of these provisions in writing with a copy to DFW. If the new owner or lessee desires to be covered under the ESA and MESA for Piping Plover take, it must: assent to the terms of the HCP, Permit, and CMP; demonstrate its financial ability and provide assurances to undertake the IAMP and mitigation plan requirements; demonstrate its eligibility under the provisions of the HCP. Otherwise the Participant should terminate the COI.

Massachusetts Division of Fisheries and Wildlife

Mark S. Tisa, Director

February 26, 2019

Town of Orleans

John F. Kelly, Town Administrator

Date

EXHIBIT A:

Conservation & Management Permit

(Includes Impact Avoidance & Minimization Plan (IAMP) and Mitigation Plan

as attachments)

APPENDIX 2 MESA Conservation and Management Permit February 26, 2019



DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581 p: (508) 389-6300 | f: (508) 389-7890 M A S S . G O V / M A S S W I L D L I F E

MA ENDANGERED SPECIES ACT (G.L. c.131A) CONSERVATION AND MANAGEMENT PERMIT

DATE	February 26, 2019	
CONSERVATION PERMIT No.:	019-335.DFW	
NHESP FILE NO.	16-35397	
PERMIT HOLDER	Town of Orleans	
ACTIVITY	Oversand Vehicle Use in Vicinity of Piping Plover and Least Tern Chicks, Reduced Symbolic Fencing Around Nests with Nest Movin Nauset Beach, Orleans, MA	g,

Pursuant to the authority granted in the Massachusetts Endangered Species Act ("MESA") (G.L. c. 131A) and its implementing regulations (321 CMR 10.23), the Director of the Massachusetts Division of Fisheries & Wildlife (the "Division") hereby issues a Conservation and Management Permit to the Town of Orleans (the "Permit Holder"). This permit and associated Town of Orleans Certificate of Inclusion in the Massachusetts Habitat Conservation Plan (HCP) issued in accordance with the Endangered Species Act (ESA) for Piping Plover, dated February 26, 2019 (the "COI"), authorize the Taking of the State and Federally listed Piping Plover, which is listed as "Threatened" pursuant to the MESA and "Threatened" pursuant to ESA, arising out of the use of oversand vehicles and other recreational and beach operation activities described in documents attached hereto (the "Activities"), at Nauset Beach, Orleans, Massachusetts (the "Property"). This permit also authorizes the Taking of the state-listed Least Tern (Sternula antillarum) and Diamond-backed Terrapin (Malaclemys terrapin), listed as Special Concern and Threatened, respectively, pursuant to MESA, associated with the aforementioned Activities.

During a given beach season, a maximum of 2 broods or nests of Piping Plovers and up to 20 unfledged Least Tern chicks can be exposed to oversand vehicle (OSV) use in the vicinity of unfledged chicks, or reduced symbolic fencing/nest moving in the case of nests, resulting in heightened risk of chick mortality or nest abandonment. Similarly, Diamond-backed Terrapin adults and hatchlings are exposed to some mortality risk when crossing the OSV corridor. However, a variety of impact avoidance and minimization procedures required by way of this Permit and the HCP will significantly decrease risk.

Under the authority granted by and in accordance with MGL c131A§3 and 321 CMR 10.23, the Director may permit the Taking of a State-listed Species for conservation and management purposes provided that there is a long-term Net Benefit to the conservation of the impacted species. If the Director determines that the applicant for a permit has avoided, minimized and mitigated impacts to the State-listed Species consistent with the following Performance Standards, then the Director may issue a conservation and management permit, provided:

- (a) the applicant has adequately assessed alternatives to both temporary and permanent impacts to State-listed Species;
- (b) an insignificant portion of the local population would be impacted by the Activities, and;
- (c) the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the State-listed Species that has been approved by the Director, as provided in 321 CMR 10.23(5), and shall be carried out by the applicant.

The Director has determined that the applicant for this permit has met the above-noted Performance Standards and that the conservation and management plan described herein provides a long-term Net Benefit to the affected state-listed species.

Pursuant to this permit, multiple impact avoidance and minimization measures -- including but not limited to pedestrian vehicle escorting, limited daily OSV travel windows, enhanced monitoring of unfledged chicks during OSV travel windows, speed limits, narrow width of the travel corridor, and relocation of Diamond-backed Terrapin nests -- will be implemented in order to minimize disturbance and risk of direct mortality. Funding will be provided for off-site selective predator management, experimental habitat management, increased law enforcement, and/or educational outreach to benefit Piping Plovers and Least Terns. Diamond-backed Terrapin nests will be relocated as necessary so that hatchlings will not need to cross the OSV corridor to reach Pleasant Bay. Terrapin nests will also be protected with wire cages, and hatchlings will be made available for headstarting to augment the Pleasant Bay population.

Therefore, the Activity can be permitted pursuant to the MESA. This Conservation and Management Permit (the "Permit") is issued to condition the Activities and to provide a long-term Net Benefit to the affected species.

In accordance with the document submitted to the Division entitled:

- "Massachusetts Piping Plover Habitat Conservation Plan, The Town of Orleans Request for Certificate of Inclusion, Nauset Beach, 2019" (December 2018) (the "Plan"; <u>Attachment A</u>)
- Escrow Agreement (<u>Attachment B</u>)

Incorporated by reference into this permit, and any other plans and documents referenced herein, this Conservation and Management Permit is issued with the following conditions:

Conditions:

- This Permit authorizes the exposure of up to two Piping Plover broods/nests to the Activity and up to 20 unfledged Least Tern chicks to certain covered activities, as well as use of the OSV corridor in the vicinity of Diamond-backed Terrapins, as described in Attachment A, subject to limitations described in Attachment A, and set forth in this Permit and the COI.
- Other than the exceptions authorized by this Permit, the Permit Holder shall carry out beach use and management in compliance with the relevant State Guidelines and Federal Guidelines for management of recreational beaches with breeding plovers and terms effective during the term of the Permit.
- 3. This Permit authorizes only otherwise lawful activities. All activities carried out pursuant to this Permit must be carried out in accordance with applicable local, state, and federal statutes and regulations.

- 4. As set forth in the COI, all activities authorized by this Permit must be carried out in accordance with the Final Massachusetts Division of Fisheries & Wildlife Habitat Conservation Plan for Piping Plover (HCP), dated June 2016, and Incidental Take Permit (ITP) No. TE01281C-0, dated July 8, 2016. The COI, HCP and ITP are incorporated by reference into this Permit. By acceptance of this Permit, the Permit Holder acknowledges receipt of copies of the COI, HCP and ITP, official copies of which are located at the Division's field headquarters, 1 Rabbit Hill Rd., Westborough, MA.
- 5. Division representatives shall have the right to enter and inspect the Property subject to this Permit at reasonable hours to evaluate permit compliance and require the submittal of any reasonable information not otherwise required by this Permit but deemed necessary by the Division to complete its evaluation.
- 6. Any change to the proposed Plan shall require the Permit Holder to inquire of the Division, in writing, whether the change is significant enough to require the filing of a new Conservation and Management Permit Application and/or require additional long-term Net Benefit for affected State-listed species. The Division retains the right to require the submittal of additional, reasonable information to evaluate the plan change.
- 7. Prior to implementing the Plan, the Permit Holder shall notify the Division in writing of the name, address, business and home telephone numbers of the manager responsible for compliance with this Conservation and Management Permit. The Permit Holder shall provide updated information in writing to the Division should a new or additional manager be hired after the Activity has commenced.
- 8. The Permit Holder shall notify the Division at least 24 hours prior to initiating any covered Activity affecting a new Piping Plover brood or nest not previously exposed. 24 hour notice shall also be provided prior to carrying out the covered activity affecting Least Terns.
- 9. Prior to the implementation of the Plan or any covered activity in any given year, the Permit Holder shall provide the Division with proof that it has secured adequate funding to implement the annual requirements of the Plan consistent with the budget provided in the Plan.
- 10. Impact avoidance and minimization procedures to protect Piping Plovers, Least Terns, and Diamond-backed Terrapins shall be carried out for all 3 years and implemented in accordance with the Plan.
- 11. Finding, relocation, and caging of Diamond-backed Terrapin nests shall be carried out by qualified personnel approved and permitted in writing in advance by the Division.
- 12. Interim and annual reporting shall be conducted in accordance with the Plan, including submittal of an annual report by October 15 of each year. Observations of Diamond-backed Terrapin and their nests shall be reported to the Division as detailed in Condition 13.
- 13. The Division shall be notified by October 15 each year, in the form of an NHESP Rare Animal or Plant Observation Form, of any state-listed species other than Piping Plovers and terns that are observed on the Property. Preferably, notification will be through the Division's data submittal tool, the Vernal Pool & Rare Species (VPRS) Information System. VPRS and our paper observations forms can be found at: http://www.mass.gov/dfw/nhesp/vprs.

- 14. Prior to the implementation of covered activities, the Permit Holder shall execute the escrow agreement shown in Attachment B and fund the escrow account with \$11,600. Prior to carrying out covered activities in 2020 and 2021, the Permit Holder shall provide additional funding of up to \$11,600 per year in order to ensure that a minimum of \$5,800 of mitigation funding is provided for each Piping Plover brood or nest exposed to covered activities.
- 15. In accordance with the HCP, the Permit Holder must obtain written reauthorization from the Division to carry out covered activities prior to the 2020 and 2021 beach seasons. No covered activities may be carried out in 2020 or 2021 prior to receipt of written reauthorization. As set forth in the HCP, the Division may, in its sole discretion, reduce the allowable Take exposure for those years or decline to reauthorize any exposure.
- 16. A violation of any condition of this Permit, COI, HCP, or the ITP will result in an unauthorized Take pursuant to M.G.L. c. 131A or under the HCP or ITP may be subject to civil and or criminal penalties pursuant to M.G.L. c. 131A. In the event of such non-compliance, the Division may suspend, or revoke this Permit and the COI. The Permit Holder shall have the right to request an appeal within 30 days of any suspension or revocation of this Permit or COI in accordance with the requirements of Condition No. 16 below.
- 17. <u>Notice of Appeal Rights:</u> This Determination is a final decision of the Division of Fisheries and Wildlife pursuant to 321 CMR 10.23. Any person aggrieved by this decision shall have the right to an adjudicatory hearing at the Division pursuant to M.G.L. c. 30A, s.11 in accordance with the procedures for informal hearings set forth in 801 CMR 1.02 and 1.03.

Any notice of claim for an adjudicatory hearing shall be made in writing and be accompanied by a filing fee in the amount of \$500.00. The notice of claim shall be sent to the Division by certified mail, hand delivered, or postmarked within 21 days of the date of the Division's Determination to:

Mark S. Tisa
Director
Division of Fisheries and Wildlife
Field Headquarters
One Rabbit Hill Road
Westborough, MA 01581

Any notice of claim for an adjudicatory hearing shall include the following information:

- 1. The file number for the Activity;
- 2. The complete name, address and telephone number of the person filing the request, and the name, address and telephone number of any authorized representative;
- 3. The specific facts that demonstrate that a party filing a notice of claim satisfies the requirements of an "aggrieved person," including but not limited to (a) how they have a definite interest in the matters in contention within the scope of interests or area of concern of M.G.L. c. 131A or the regulations at 321 CMR 10.00 and (b) have suffered an actual injury which is special and different from that of the public and which has resulted from violation of a duty owed to them by the Division;
- 4. A clear statement that an adjudicatory hearing is being requested;
- 5. A clear and concise statement of facts which are grounds for the proceeding, the specific objections to the actions of the Division and the basis for those objections; and the relief sought through the adjudicatory hearing; and a statement that a copy of the request has

been sent by certified mail or hand delivered to the applicant and the Record Owner, if different from the applicant.

Mark S. Tisa, Director

Massachusetts Division of Fisheries & Wildlife

On this 26th day of February 2019, before me, the undersigned notary public, personally appeared Mark S Tisa, <u>Director</u>, proved to me through satisfactory evidence of identification, which was <u>personal knowledge</u>, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Emily Melissa Holt, Notary Public My Commission expires: July 12, 2024

Conservation Permit 019-335.DFW

Issued this 26th day of February, 2019

Permit Expires: 1 December 2021



ACKNOWLEDGEMENT AND ACCEPTANCE OF ALL TERMS OF THIS CONSERVATION PERMIT

The undersigned below agrees that commencement of ar and Management Permit constitutes acknowledgement a	
John F. Kelly, Town Administrator	
Town of Orleans	
COMMONWEALTH OF MASSACHUSETTS	
On thisday of, 20, before me, the proved to me through to be the person whose nare who swore or affirmed to me that the contents of the docon of his/her knowledge and belief.	gh satisfactory evidence of identification which was ne is signed on the preceding or attached document, and
Nota	ary Public
SEAL	
Му	commission expires:

Distribution List

Nathan Sears, Town of Orleans Richard Hilmer, Town of Orleans Orleans Board of Selectmen Orleans Conservation Commission DEP Southeast Regional Office, Wetlands Program David Simmons, USFWS Susi von Oettingen, USFWS

APPENDIX 3 ERSI ARC COLLECTOR GEODATABASE

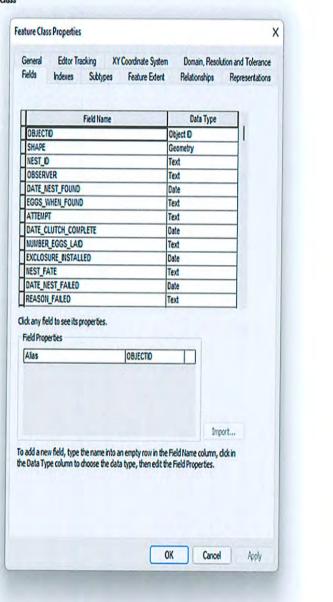




ESRI: Arc Collector

Shorebirds Geodatabase established for each year. User records plover locations with collector and populates data fields. Feature class stored live on ESRI cloud space. Live locations and data can be shared and edited by multiple staff with permissions only





Year-end mapping displays all data.

Data stored on Town server at end of year

ESRI: Arc Collector

Shorebirds Geodatabase is displayed live over base map. Visible with app on a mobile device or a desktop with web map

8:27 4 all LTE < Maps GPS accuracy 37.3 ft · required 30 ft

Shorebirds Geodatabase data entry involves selecting from pre-defined fields and drop downs using domains in feature class.



APPENDIX 4 Datasheets to Document Events

PIPING PLOVER NEST OBSERVATION FORM

Nest NameLoca	ation	Habitat
Date: Nest Found	Complete	Hatched
Number of Eggs when:	Found	Complete
Exclosure: Date	Minutes to Exclose T	ime until adult return
# people	e installing E	Exclosure type: Mesh 1/4" X 3/4"
Hatching:	Estimated hatch date	# days to hatch
Eggs:	# hatched	* # unhatched
Fledging:	# chicks fledged	# days to fledge
Nest failure: Date of failure	e# of eggs lost	Cause of failure
Renest? Yes Date	e No	Name of Renest

CHICK OBSERVATIONS

Age (d)	# Chicks observed	Age (d)	# Chicks observed	Age (d)	# Chicks observed
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9		19		29	
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Continue (incubating/not, behaviors, number of adults, etc) on other side



SHOREBIRD MONITOR DAILY LOG REPORT

Weath	rder ner	·	High Tide	Low Tide
Time	Location		Observations	
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LETE OBSERVATION FORM

NUMBER	DATE	TIME	LOCATION	ACTIVITY	NEST - CHICKS
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AMOY OBSERVATION FORM

NUMBER	DATE	TIME	LOCATION	ACTIVITY	NEST - CHICKS
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DIAMONDBACK TERRAPIN SIGHTINGS

DATE	TIME	LOCATION	TRACKS Y/N	TERRAPIN Y/N	NEST Y/N	NEST LOST REASON
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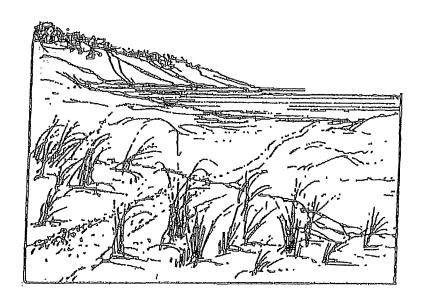
ADD COMMENTS ON OTHER SIDE OF PAGE

Include mortality, photos taken, predation signs, human interference, other

 \Rightarrow

APPENDIX 5 Nauset Beach Rules and Regulations For OSV

Nauset Beach Rules & Regulations for Over Sand Vehicles (OSV)



This unique conservation and recreation area is under joint supervision by the Town of Orleans and the Town of Chatham. We hope that you will enjoy the natural and recreational values of Nauset Beach, as well as observe and obey the rules that have been adopted for its protection.



All applicable Federal and State laws and regulations, town by-laws, town rules and regulations and all fire regulations shall apply and are enforceable.

----- GENERAL RULES & REGULATIONS -----

- 1.) <u>VEHICLE REGISTRATION (STICKERS)</u>: Effective May 1to April 30th (of the following year). Registration shall be obtained from the Orleans Sticker Office and the Chatham Coastal Resources Department. Applicants of Nauset Beach registration cards will be issued stickers that must be affixed to a stationary window on the driver's side of the vehicle. No vehicle shall operate on the beach without a valid registration sticker. All vehicles will be inspected for required equipment prior to issuance of OSV permit. All registration stickers are non-transferable and non-refundable and expire April 30 of the following year. All previous years' stickers must be removed. *Over-sand vehicle permits are not valid for parking in the Nauset or Skaket Beach parking lots*.
- 2.) **REQUIRED EQUIPMENT:** All vehicles must carry the following at all times:
 - a. REGULATIONS a current copy of these rules & regulations (issued at the time of registration)
 - b. SHOVEL
 - c. **TOW ROPE** chain, cable or other towing device that is not less than 14 feet in length with a minimun load strength of 1400 lbs. (chain size 5/16", cable 1/4", nylon 3/4", polypropylene 3/4", hemp 1"). The towing device will be equipped with grab hooks or other suitable attaching device on both ends.
 - d. **JACK SUPPORT** board or similar, to have a surface of not less than 144 square inches. Thickness to be not less than 1-½".
 - e. JACK standard size and type which comes stock with the vehicle
 - f. TIRE GAUGE low pressure, able to register a minimum of 10 psi.
 - g. **TIRE SIZE** Minimum size tires for 13" is 185, 14" 16" is 215. Note: No snow tires will be allowed on the beach except from November 1 through April 13.
 - h. **SPARE TIRE** meeting same standard as other tires required for type of vehicle in which it is carried.

Self-Contained Vehicles must be additionally equipped with (not required for OSV):

- i. ROD and REEL for each occupant over 12 years of age
- j. PERMANANTLY MOUNTED BEDS
- k. PERMANANTLY MOUNTED SELF-CONTAINED WATER OR CHEMICAL TOILET
- 3.) HOURS Permitted non self-contained OSV are allowed on the open areas only between the hours of 6:00 AM and 11:00 PM, unless "actively fishing". To be considered "actively fishing," a person must be taking all reasonable and necessary actions to maximize the probability of hooking and landing fish by rod using a baited rig or artificial lure. Fishing equipment must be kept at the water's edge and regularly tended and casted. For self-contained vehicle hours, see "self-contained vehicles." Please note that hours can be dependent on closures, restrictions, etc. See the Town of Orleans HCP User Guide for more information regarding hours.
- 4.) <u>SPEED LIMIT</u> The speed limit of motor vehicles will not exceed 15 mph. The speed limit in the vicinity of shorebird nests will not exceed 5 mph. Reasonable speed limits will be enforced for low beach driving.

- 5.) ALCOHOL: Open containers of alcoholic beverages are prohibited on Nauset Beach.
- **6.) MOTOR VEHICLE OPERATION**: The provisions of Chapter 90, Mass General laws shall apply to the operation of all motor vehicles on the beach. (This simply means that if it is required on the road, it is required on the beach).
- **7.) TIRE PRESSURE**: Tire pressure shall not exceed 15 psi no exceptions. You are required to decrease your tire pressure before entering the over-sand trails. Courtesy air stations may be available seasonally at the lower entrance lot of Nauset Beach South.
- **8.) RIGHT OF WAY**: Vehicles driving off the beach shall have the right of way. Use the pull-off sections of the trail to clear the way for vehicles traveling off of the beach.
- 9.) <u>LEAVE NO TRACE</u>: Each visitor shall remove all property and trash from the beach. Dumpsters are provided at the beach parking lot. Emptying of holding tanks and disposal of human waste or Nauset Beach and its adjoining waters is prohibited. All pet owners are responsible for removing their animals waste. Always douse hot coals from contained cooking fires and extinguish ashes. In the event of an OSV requiring excavation to improve traction, holes are <u>required</u> to be filled.
- 10.) <u>SELF-CONTAINED VEHICLES</u>: Self-contained vehicles will be allowed to stay on Nauset Beach South for a maximum of ninety-six (96) consecutive hours and a seventy-two (72) hour period must elapse before they may return to the beach. Self-contained vehicles are prohibited on the Nauset Spit The Natural Resources Manager may reduce the maximum stay for self-contained vehicles at any time. All self-contained vehicles remaining overnight shall have permanently mounted self-contained water or chemical toilets and permanently mounted sleeping accommodations sufficient for all persons in the vehicle. All self-contained vehicles will be required to check on and off when the booth is staffed.
- 11.) <u>DOGS</u>: No dogs are allowed on the Nauset Spit from April 1through Labor Day. From Trail #1 north to the Nauset Spit, dogs are prohibited from April 1through Labor Day. From Trail #1 south to the Chatham inlet, all dogs must be on a leash no longer than 30 feet at all times from April 1 through Labor Day. Dogs must be transported by OSV to areas open to dogs south of Trail 1from April 1through Labor Day. Dogs are prohibited in closed areas at all times. (This is a zero tolerance policy). Owners are responsible for cleaning up after their animals.
- **12.)** <u>CLOSED AREAS</u>: Vehicles and pedestrians are prohibited in symbolically fenced and signed areas. No vehicles may park within the OSV corridor. From Callanan's Pass south to Trail 1 is closed to OSV traffic. The Town of Eastham is closed to OSV traffic.
- **13.) LOW BEACH DRIVING**: Seaward of the mean high tide line is closed to OSV traffic on Nauset Spit Seaward of the mean high tide line is closed to OSV traffic on Nauset Beach South from the Friday of Memorial Day weekend until the first Friday of November, unless otherwise directed. While low beach driving is open, driving above the high tide water mark in a closed area is prohibited. Reasonable speed limits will be enforced for low beach driving.

- **14.) LIMITS**: The number and types of vehicles allowed on the beach at one time shall be set each year and may be changed depending on prevailing conditions and the amount of usable beach.
- **15.)** <u>CAMP OWNERS</u>: Beach camps are private property. Motorized equipment or machines taken on the beach for camp maintenance must secure permission from the Orleans Natural Resources Manager. Beach camp lessees retain traditional lease rights for their leased property.
- **16.) SLEEPING**: Sleeping in the open and the use of camping tents between 8:00 pm 8:00 am on all beach areas is prohibited.
- **17.) FIRES**: NO OPEN FIRES ON ANY BEACH AREAS. Contained cooking fires in grills are permitted. Douse coals and extinguish ashes before leaving and leave absolutely no trace.
- **18.)** EVENTS: Groups of more than twenty (20) persons shall be required to carry a special permit (no additional fee) and shall name, in applying for such a permit, one individual in the group who shall agree to assume responsibility for the activities of all members of the group while on the beach. Such a permit shall be applied for forty-eight (48) hours in advance of its proposed use. The permit for the Orleans portion of Nauset Beach shall be issued by only the Orleans Natural Resources Manager, who shall designate the beach area on which such a party may be held.
- **19.)** <u>RAFTS</u>: The use of rafts, tubes, inflatables and other similar types of swimming or bathing devices are *prohibited* on all of Nauset Beach.
- **20.) FISHING**: Fishing gear must be kept at water's edge at all times while in the act of fishing. There shall be no more than five (5) fishing rods per person or more than twelve (12) fishing rods per vehicle to be in use at any one time.
- **21.) SHELLFISH**: The Town of Orleans and the Town of Chatham shellfish regulations pertain to their respective portions of Nauset Beach.
- **22.) PRIVATE PROPERTY**: Persons who visit the beach by boat, motor vehicle or on foot are required to respect private property and to conform to all regulations listed herein.
- **23.) PROHIBITED VEHICLES**: Two-wheeled vehicles, motorcycles, minibikes, mopeds, snowmobile ATV's and trailers are prohibited. No towing of paragliders permitted. Airplanes or helicopters are prohibited, except in emergencies.
- **24.) KITES /DRONES**: Kites <u>and</u> drones are prohibited April 1 through Labor Day. Dates subject to change.

The Order of Conditions issued to the Orleans Park Commission, dated 06/24/14 and 2/13/91 are hereby incorporated herein and made a part of these rules and regulations.

----- VIOLATIONS -----

Penalties for infractions of any of the rules & regulations shall result in revocation of registration sticker, dismissal from the beach and/or a fine of not less than fifty dollars (\$50.00) nor more than three hundred dollars (\$300.00) for each offense.

Fines listed below may be imposed for violations of the Orleans DPW & Natural Resources Rules and Regulations and the Nauset Beach Rules and Regulations for OSV:

- Operation of a motor vehicle on Nauset Beach in closed areas and off marked trails.
- · Emptying of holding tanks and disposal of human waste.
- Violation of Habitat Conservation Plan (HCP)
- Flying Kites and/or Drones at all from April 1 Labor Day
 - o Fine for above offenses: \$200.00 and revocation of OSV Permit.

Unless otherwise specifically provided herein, any person who violates any of the Orleans DPW & Natural Resources Rules and regulations or the Nauset Beach Rules and Regulations for OSV shall be subject to the following penalties:

First Offense: Written warning

Second Offense: \$50.00

Third and Subsequent Offense: \$100.00

- Operation of a motor vehicle on Nauset Beach without a valid OSV Permit.
- · Operation of a motor vehicle on low beach when prohibited
- Failure to air down tires to proper psi.
- Violation to rules and regulations related to dogs. In addition to any other penalties set forth in
 these regulations, any violation of the dog regulations in closed areas due to shorebirds will result
 in no less than automatic revocation of the offender's beach permit rights from the date of
 violation unt May 1st of the following year. Subsequent violations will result in the offender's
 Beach Permit rights being revoked for a period of three (3) full years from the date of the
 violation.
- Operation of a motor vehicle and not having passengers properly seated within the confines of the vehicle.
- Speeding
- Littering
- Open container(s) of alcohol
- Open fire without a permit

An OSV Permit Holder who receives three of any violation of the Rules and Regulations in an: one season (other than operation of a motor vehicle on Nauset Beach in closed areas and off marked trails, the emptying of holding tanks and disposal of human waste and violations of Habitat Conservation Plan rules, which are subject to immediate revocation of the OSV permit shall have his or her OSV permit revoked and shall not be permitted on the beach for ONE YEAR from the date of revocation of the OSV Permit.

Persons whose permits have been suspended or revoked have within seven (7) days a right t appeal to the enforcing authority, who upon receipt of written request shall arrange a hearin on the appeal to the appropriate authority. Authority for the enforcement of the Orleans DPW & Natural Resources Rules and Regulations and the Nauset Beach Rules and Regulations or OSV's shall rest with the Orleans Natural Resources Director, his or her designees, including the Beach Ranger and any Orleans Police Officer.

These Rules & Regulations were adopted at a public hearing of the Orleans Park Commission dated 01/14/15. Copies of changes to be posted in Orleans Town Clerk's Office.

It is the responsibility of the OSV registrant to read and understand the Nauset Beach Rules & Regulations for OSV. The registrant is responsible for the behavior of the passengers and drivers in their vehicle.

Always remember

You are required to decrease the tire pressure before entering the beach OSV corridor. Low tire pressure is critical for successful over-sand driving. Friction may cause pressure to increase while you drive, making it necessary to stop and reduce pressure again. Failure to air down to 15 psi leads to degradation of the OSV trails.

Always check tides before entering the OSV trails. Portions of the beach may be impassable at high tides.

If you feel you are in danger of getting stuck, check your tire pressure and let more air out if necessary. Also try backing up in your tracks before moving ahead. Do not spin your tires – this will only cause the vehicle to dig in.

Always fill in holes made in the sand by beachgoers or stuck vehicles. This will increase safety for all.

Do not speed – experienced beach drivers know that a slow, steady speed and correct tire pressure are more effective than faster speeds.

Always be alert for wildlife when driving on the beach – tern and plover chicks may attempt to hide in vehicle tracks when frightened.

See next page for "Communications"

ALWAYS DIAL 911 FOR EMERGENCIES

Nauset Beach is managed under joint supervision between the Town of Orleans and the Town of Chatham. It is important to direct non-emergency calls to the town in which you are located while on the beach. Use the reference maps (page 8) to clarify your location on the over-sand trails.

When reporting a violation, the following information is needed for enforcement:

- 1.) Date & Time
- 2.) Location/ladmark/trail
- 3.) Vehicle description (license plate, vehicle make/color)
- 4.) Operator/occupant description
- 5.) Violation/incident desctription

Important Contact Numbers

Non-emergencies only. All emergencies, dial 911.

Orleans Police Department (Year-round, 24 hours/day) – (508) 255-0117

Chatham Police Department (Year-round, 24 hours/day) – (508) 945-1213

Nauset Beach Administration (Seasonal, Memorial Day to Labor Day, 9-5pm) – (508) 240-3780

Nauset Beach Tollbooth (Seasonal, Memorial Day to Labor Day, 24 hours/day) – (508) 240-3705

Orleans Sticker Office (Seasonal, Memorial Day to Labor Day, 9-4pm) – (508) 240-3790 x3150

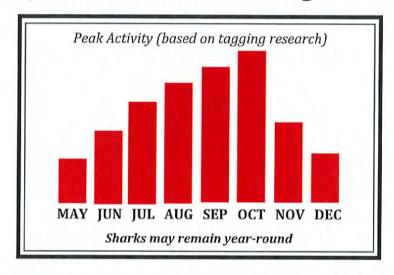
Orleans DPW & Natural Resources (Year-round, 8-4:30pm) – (508) 240-3755

----- WARNING -----

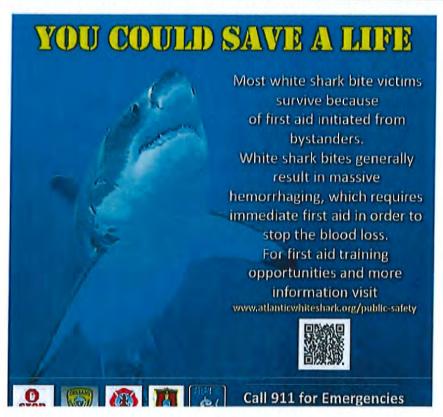
White Sharks hunt seals in shallow water at Nauset Beach. People have been seriously injured and killed by white sharks along this coastline.

Call 911 for emergencies.

Know your risk when entering the water.



Download the Sharktivity App on your smartphone to receive alerts and report sightings. For more info, and to view the latest research, visit www.atlanticwhiteshark.org



APPENDIX 6 Town of Orleans OSV HCP User Guide and Procedures



Town of Orleans, MA Natural Resources Department



40 Giddiah Hill Road - Orleans, MA 02653

Statewide Habitat Conservation Plan (HCP) & Over-Sand Vehicle (OSV) User Guide



Procedures & Conditions

Nathan Sears

Natural Resources Manager

Dick Hilmer

Natural Resources Officer/Shorebird Specialist

Brandon Burke

Natural Resources Officer/Beach Director

Habitat Conservation Plan (H.C.P.)

An introduction

Over the past decade, over-sand vehicle (OSV) access has been precluded to Nauset Beach South due to unfledged piping plover chicks located in an area north of Trail 1 known as the "Pochet Wash". Piping plovers are listed as threatened species under both the U.S. Endangered Species Act and the Massachusetts Endangered Species Act.

To regain access to the area, the Town of Orleans developed a Habitat Conservation Plan (HCP). The HCP allows up to 180 OSV per day to pass through the Pochet Wash where up to eight (8) unfledged piping plover chicks and four (4) adult parents are living.

Piping plover chicks leave the nest about two hours after hatching and are able to feed themselves within a few hours of being out of the nest. Piping plovers eat a variety of aquatic and terrestrial invertebrates such as worms and amphipods. They move from one tidal area to another, multiple times per day, crossing the OSV corridor to feed on the east and west sides of the trail. Chicks blend into their surroundings very effectively because of their camouflaged plumage. They are highly mobile, very fast, and can be observed feeding over large areas of the habitat. When disturbed they may run in spurts, stop, and hide in dune grass or a small depression in the sand.

To lessen the impact from OSV running over chicks and help us implement a successful program, the town adopted a "self-escorting" procedure. It is critical that you adhere to the self-escorting procedure to ensure that the HCP is successful. This means that you *must* have a person with you at least 16 years of age or older that can walk 15 feet in soft sand in front of the OSV looking for chicks and/or adults in the OSV corridor. OSV that are unable to provide a competent self-escorter over the age of 16 will be denied access. The areas where you will be self-escorting are called "self-escort zones". The self-escort zones will be clearly marked with signs giving you notice when to begin and end the self-escorting.

It will be a requirement for all OSV to contain a copy of the Nauset Beach OSV Rules & Regulations, as well as a signed copy of this HCP Procedures & Conditions signed by anybody who will be driving the vehicle. Both copies of regulations will be required to be produced by the OSV operator at the time of check in. In the event that the OSV operator cannot produce both regulations, then he/she shall be provided with a copy at the entrance toll booth. After reading both sets of regulations, the OSV operator will sign the copy of the HCP Procedures and Conditions (this packet), and the operator acknowledges that he/she has read and understands the HCP requirements.

Important Information Regarding Medical or Family Emergencies

When the HCP is in effect, access to and from Nauset Beach South outside of the self-escort access windows shall be strictly prohibited. In the event of a life-threatening medical emergency, the staff of the Nauset Beach Administration Building and emergency responders should be notified. Contact telephone numbers are provided in the Nauset Beach OSV Rules and Regulations. Essential vehicles will assist in escorting the vehicle off the beach. Your stay on the beach could be as long as ten (10) hours with a minimum required stay of two (2) hours. Please plan for less than ideal conditions such as flying insects, bad weather, etc.

<u>Self-Contained Vehicles</u> – All self-contained vehicles will be required to commit to and reserve their day of departure when they check in. All other self-contained check in procedures and maximum stay restrictions remain unchanged while the HCP is in effect. See the Nauset Beach OSV Rules & Regulations for more information regarding self-contained vehicles.

OSV Access Start Date & Access Windows

The HCP start date can change annually and is dependent on the number of un-fledged chicks present. The Natural Resources Officer/Shorebird Specialist will post when the program will start annually.

Important

The times listed below are the times that OSV can travel <u>through the self-escort zone</u>. You must leave yourself enough time to make it on/off the beach, and through the self-escort zones within the time frame.

Example 1: If you are accessing the beach during the 12PM – 2PM window, you must be at the self-escort zone no later than 1:30 PM.

Example 2: If you are exiting the beach during the 4PM – 6PM window, you must be at the self-escort zone no later than 5:30 PM.

Morning Session - 8:00 AM - 10:00 AM* Mid-Day Session - 12:00 PM - 2:00 PM* Afternoon Session - 4:00 PM - 6:00 PM*

*Times may be flexible within one (1) hour of each side of the access windows due to inclement weather or chick location.

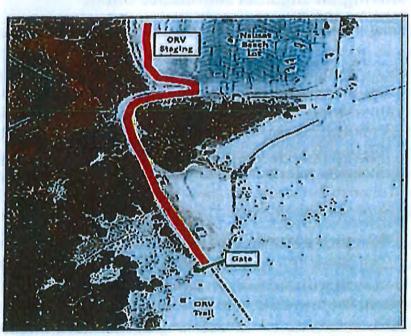
The Natural Resources Manager / Natural Resources Officer(s) will have the independent authority to close the trail at any time for any reason.

The HCP OSV Protocols

Step 1: Accessing Nauset Beach South & Staging:

All OSV must stage in the pre-determined area of the Nauset Beach parking lot shown in (Figure 1). Line up in a single row, air down and check all your gear, safety equipment and supplies. Access will be granted on a first come, first served basis.

Figure 1: Entrance to HCP Staging area and south entrance gate.



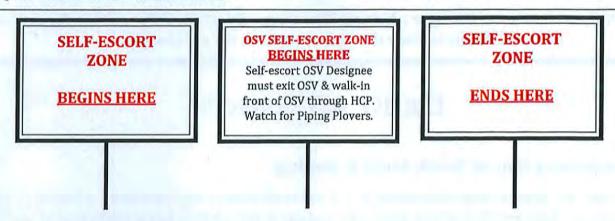
Step 2: From Nauset Beach South Gate (lower lot) to the self-escort zones:

When shorebird monitors have established the locations of the chicks, they will notify staff stationed at the entrance gate and the gate will be opened. The OSV will then proceed through the entrance gate at *no more than* 10 MPH until they arrive at the self-escort zone. Each self-escort zone will be marked with signs as shown below indicating where the self-escort zone begins and ends. Always be on the lookout for these signs. Remember the locations of the signs may change daily due to the chick's locations. When you arrive at a self-escort zone, stop your OSV, have your escorter exit the OSV and walk fifteen (15) feet in front of the OSV. The OSV will follow behind the escorter at walking speed. It is your responsibility to identify the self-escort begin and end signs.

The escort signs you will encounter are shown below in Figure 2.

REMEMBER that the location of these signs can change daily, and it is your responsibility to identify the locations daily.

Figure 2: Example showing two (2) separate self-escort zones. While you proceed through the self-escort zone, be aware that piping plovers are very territorial. Consequently, the broods may be separated, so each escort zone may contain one (1) brood with up to four (4) chicks and two (2) adult plovers. If they are close together there will only be one (1) self-escort zone. Plovers may be moving throughout the habitat area as you are walking and driving through the self-escort zones. They can appear at ANY TIME and ANYWHERE.



Step 3: Moving through the Self-Escort Zones:

While walking and driving through the self-escort zones you should be focused on looking for chicks and/or adults in the OSV corridor. Walk slowly; keep your attention and eyes on the OSV corridor in front of you. Also use your peripheral vision to look for chicks near the edge of the corridor that may dart out. Chicks may also hide in small depressions in the sand including the tire ruts or in dune grass. They rely on blending in with their surrounding habitat. When unfledged chicks are close, the adult parent plover will often get excited and move directly into your path. They may also pretend their wing is broken and cannot fly; they may flap their wing on the ground while moving away from you. This biological defense behavior is commonly referred to as the "broken wing display." If you see this, the adults are attempting to draw attention to themselves and away from the chicks. You may hear the parent adult sounding an alarm call before you see the chicks. The call sounds like "peep-peep" repeated rapidly.

If the escort person or OSV driver sees a chick and/or adult in the OSV corridor or within 100 feet of the self-escort zone, they MUST signal the vehicle behind them to IMMEDIATELY STOP. The signal for this is: the self-escort designee raises his/her right arm and then shouts "STOP." The OSV operator must safely stop the vehicle. The driver will then honk his horn in three (3) short bursts. Monitors will make their way to you. No herding of chicks or adults will be permitted. The Monitor will sweep the area and then determine when the corridor is clear to travel. They will speak through a megaphone, "IT IS SAFE TO

PROCEED." OSV may then proceed. You should proceed with the understanding that chicks may reappear, at any time in the corridor. Chicks tend to travel close together, especially in the first 10 days after they hatch.

Below are photos of chicks and adult plovers acting out the feigned or broken wing display.





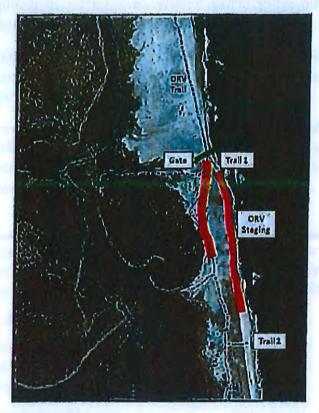




Step 4: Nauset Beach South Exiting Protocols:



Figure 3: Self-escort zones and exiting gate staging area near Trail 1



OSV will be expected to begin preparing at least one (1) hour before planning to exit the beach during the 4:00 p.m. to 6:00 p.m. access window. All OSV are to be clear of the self-escort zones by 6:00 p.m. In order to alleviate traffic congestion, management recommends that OSV begin preparation at 3:00 p.m. for their 4:00 p.m. departure. OSV are required to be at the Trail 1 gate by no later than 5:30 p.m. At approximately 1.5 hours before the 6:00 p.m. closure, Beach Ranger staff will sweep the beach in a patrol vehicle with flashing strobe lights on. Starting in the south and working north. this final drive-through is a directive for all non-self-contained OSV to begin preparations to be at the Trail 1 gate by 5:30 p.m. and clear of the self-escorting corridor and the beach by 6:00 p.m.

Due to varying high tides, changing beach conditions and additional plover related closures outside of the self-escorting zones, portions of Nauset Beach South may be closed to OSV traffic. Therefore, OSV traffic should anticipate having to use a combination of frontal beach and back trails (as we have in the past) to exit the beach. As mentioned, there will be a gate located near Trail 1 staffed with an attendant. All OSV exiting the beach shall line up in a row when approaching the gate. No OSV or their self-escort designee are to pass by the gate prior to 4:00 p.m. At 4:00 p.m., the gate attendant will open it once the shorebird monitors have determined that the corridor is open, and it is safe to proceed. The 4:00 p.m. opening may be delayed up to 1hour due to location of the chicks in the self-escort zone. OSV will proceed at no more than 10 mph driving speed until they reach the boundary of the self-escort zones. Here, you will be

than 10 mph driving speed until they reach the boundary of the self-escort zones. Here, you will be required to repeat the same procedure from when you accessed the beach. Once again, all self-escorting protocols discussed earlier will remain in-effect during the exiting window. Your cooperation with the required protocols will help to promote an enjoyable experience for you and your fellow permit holders.

Use good judgment in planning your day, especially if it is one in which there are many vehicles remaining on beach between 4 and 5 p.m. A congested OSV corridor when leaving will not contribute to an enjoyable experience.

On occasion there could be as many as 180 vehicles attempting to exit during the 4:00 p.m. to 6:00 p.m. window. If everyone waits until the last minute to leave, the Town of Orleans will be unable to meet their legal requirements and conditions of the HCP. Plan your stay accordingly and enjoy.

Airing Stations: As always there may be a line waiting to use the air supply lines at the Nauset Beach South air station. If you choose to wait and use the air station, be patient. During times of intense traffic congestion, management may close the air station in order to move along traffic and keep the corridor open. Please have a backup plan for airing up.

VIOLATIONS: Any violations of the aforementioned protocol <u>will not be tolerated</u>. Violators of the HCP Procedures and Conditions shall be subject to OSV sticker revocation and shall have their rights to operate an OSV on Nauset Beach suspended immediately for a period of one (1) year from the date of the violation.

A zero-tolerance policy will be in effect at all times on all rules regarding the HCP.

The cooperation of the public in complying with the conditions and regulatory requirements of the permits will be critical in determining the success of the HCP program. You should all consider yourselves as active stakeholders in the entire HCP process and its successful implementation.

Enjoy your day at Nauset Beach.

IMPORTANT:

The following page (Step 5) requires anybody operating the OSV to sign and date that they have read and acknowledge all the conditions of the HCP. Please make sure you have read and understand the entire conditions and procedures before signing your name. Remember, the town has adopted a zero-tolerance policy for violations and any violations will result in immediate sticker revocation and a \$200.00 fine.

Remember, staff are here to help you. They are also responsible for making sure the OSV permit conditions are met.

Question: Will the HCP be in effect this year and for how long?

Answer: The HCP will be implemented when there are no more than 2 broods and 8 unfledged chicks remaining in the Pochet Wash area. There is NO GUARANTEE or definitive start and end date for when this scenario will occur.

The Natural Resource Manager, Natural Resource Officer(s), or their designee, will monitor weather forecasts on a daily basis. In the event that a storm warning is predicted by the National Weather Service, or any other weather warning that could jeopardize public safety within a 24-hour period, the OSV trail shall be closed for the duration of the hazard or the start time may be moved one hour later or earlier.

The OSV trail may not reopen until the Natural Resource Manager, Natural Resource Officer(s), or their designee has given the all clear. The OSV sticker purchaser and any operator of the OSV agree to use Nauset Beach South during the time the HCP is in effect at their own risk and have been advised in writing of the HCP Shelter in Place Condition. Exiting escorts will not take place due to unpredicted weather. The OSV Permit purchaser and any operator of the OSV Permit holder's vehicle hereby agree to adhere to a "shelter in place" policy which will go into effect until the inclement weather has passed or scheduled exiting escorts have begun.

Each person operating the OSV must read the HCP Procedures & Conditions and sign this acknowledgment before access to Nauset Beach South will be allowed when the HCP is in effect regardless of whose name the OSV Permit is in.

Step 5: Acknowledgment of HCP Procedures and Conditions:

I, (Print Name & OSV Permit # below), have read the HCP Procedures and Conditions contained herein. By signing this HCP Acknowledgment, I acknowledge that I understand and agree to fully comply with the HCP Procedures & Conditions. I understand that if I or any of my occupants fail to comply with or violate any of the HCP Procedures & Conditions, it shall result in a \$200.00 fine and immediate revocation of the OSV Permit.

I also understand that the Town has adopted a **ZERO TOLERANCE POLICY** for violations of the HCP Procedures and Conditions. I further agree that when requested to do so by Town of Orleans staff, I will produce this signed copy.

Please keep a copy of the HCP Conditions and Procedures in the OSV at all times.

Print Name & Permit #	Sign & Date:
Print Name & Permit #	Sign & Date:
Print Name & Permit #	Sign & Date:
Print Name & Permit #	Sign & Date:
Print Name & Permit #	Sign & Date:

APPENDIX 7 Town of Orleans and Chatham Beach Agreement

NAUSET BEACH AGREEMENT

This agreement made this 5th day of MWM, 2021 by and between the Town of Orleans ("Orleans") and the Town of Chatham ("Chatham") pursuant to the provisions of M.G.L. c. 40 §§4 and 4A, and every other power which they may have, acting by their respective Boards of Selectmen.

WHEREAS, Nauset Beach is a unique conservation and recreation area located in the Town of Orleans and the Town of Chatham;

WHEREAS, the parties desire to provide for the joint patrol and management of Nauset Beach, including, but not limited to, beach patrol, fire protection, rescue services, and endangered shore bird monitoring, within the Town of Orleans and the Town of Chatham from a point south of the Nauset Beach Parking lot to the Chatham Inlet;

WHEREAS, the parties desire to assess the costs of running these programs on Nauset Beach, the parties commit to collecting and sharing the data necessary to achieve this goal;

NOW THEREFORE, in consideration of the foregoing and the mutual promises and agreements contained herein, the parties agree as follows:

I. Responsibilities.

Chatham agrees to:	Orleans agrees to:				
1. Supply qualified personnel to adequately patrol the Chatham portion of Nauset Beach, considering varying seasonal demands and any reasonable contingency which may arise.	1. Supply and maintain a vehicle(s) and qualified personnel to adequately patrol the Orleans portion of Nauset Beach, considering varying seasonal demands and any reasonably contingency which may arise.				
2. Enforce the Rules and Regulations of Nauset Beach in the Chatham portion of Nauset Beach.	2. Enforce the Rules and Regulations of Nauset Beach in the Orleans portion of Nauset Beach.				
 3. Registration-related procedures: a. Inspect all registered Chatham residents' Off Road Vehicles ("0.R.V.") for compliance with the most recently adopted Nauset Beach Rules and Regulations for O.R.Vs; b. Collect registration fees and account for such fees collected; c. Maintain accurate records of vehicles registered in Chatham, including the names of respective owners and provide information to 	3. Registration related procedures: a. Inspect all registered O.R.V.s, except those as registered in Chatham, for compliance with the most recently adopted Nauset Beach Rules and Regulations for O.R.V.s; b. Collect registration fees, except for those vehicles registered in Chatham, and account for such fees collected; c. Maintain accurate records of vehicles registered in Orleans and to non-residents, including the names of respective owners and				

other town within 24 hours of permit provide information to other town within 24 issuance; hours of permit issuance; d. Provide an educational movie on the use d. Provide an educational movie on the use and management of Nauset Beach for and management of Nauset Beach for showing to all O.R.V.s registered to Chatham showing to all O.R.V. operators and Orleans residents. Camp Licensees. 4. Supply and install signs, string, posts, wire 4. Supply and install signs, string, posts, wire fencing, and other necessary equipment, fencing, and other necessary equipment, materials, and personnel to mark trails, materials, and personnel to mark trails, delineate O.R.V. corridors, protect vegetation, delineate O.R.V. corridors, protect vegetation, and protect shorebird species that are listed and protect shorebird species that are listed as Threatened, Endangered, or of Special as Threatened, Endangered, or of Special Concern in the Chatham portion of Nauset Concern in the Orleans portion of Nauset Beach.. 5. Provide protection for shorebird species 5. Provide protection for shorebirds species that are listed as Threatened, Endangered, or that are listed as Threatened, Endangered or of Special Concern in the Chatham portion of of Special Concern in the Orleans portion of Nauset Beach, and monitor the protection Nauset Beach, and monitor the protection measures implemented, including, but not measures implemented, including, but not limited to, the following: limited to, the following: a. Cause a qualified person(s) to monitor the a. Cause a qualified person(s) to monitor the Chatham section of Nauset Beach if shorebird Orleans section of Nauset Beach if shorebird species listed as Threatened. Endangered, or species listed as Threatened. Endangered, or of Special Concern are present, as well as of Special Concern are present, as well as provide protective measures for the birds and provide protective measures for the birds and information to the Town of Chatham in case information to the Town of Orleans in case vehicle closures are needed: vehicle closures are needed; b. Supply the Massachusetts Division of Fisheries and Wildlife with data and year-end b. Supply the Massachusetts Division of reports on shorebird protection on the Fisheries and Wildlife with data and year-end Chatham portion of Nauset Beach; reports on shorebird protection in the Orleans c. Supply and maintain All-Terrain Vehicle(s) portion of Nauset Beach. ("A.T.V.") and/or O.R.V.(s) for the monitoring of shorebirds in the Chatham portion of Nauset Beach as needed. 6. Provide, maintain, operate, and staff a check booth in the Orleans portion of Nauset Beach, as needed. 7. Provide printed regulations, applications, permits, stickers, and educational material for

both Towns to issue, on a uniform basis, to their residents and other users of the beach.

8. Provide a trash dumpster(s) at the gate of
Nauset Beach in Orleans for the use of all
O.R.V. operators, except for use by Orleans
Camp Licensees, and provide for disposal of
the trash collected. Without limiting the
generality of the foregoing sentence, Camp
Licensees are expressly prohibited from using
the dumpster(s) to dispose of any bulky
waste, including but not limited to, household
trash, propane tanks, building debris,
furniture, or the like.
9. Maintain informational signs at the parking
lot of Nauset Beach in Orleans regarding the
appropriate use of Nauset Beach south of the
parking lot.

General

- 1. All O.R.V.s, including those of Orleans Camp Licensees, must check "on" or "off" upon entering or leaving Nauset Beach at the check booth provided for in section I.6. above during the season when the check booth is open South of the Nauset Beach parking lot.
- 2. All persons, including residents, non-residents, and Orleans Camp Licensees, who seek to register vehicles to use Nauset Beach shall yearly submit complete registration forms and all applicable registration fees, as well as view the educational movie, referred to herein on the use and management of Nauset Beach.
- 3. In the event that Nauset Beach is full, visitors to camps may only access the beach provided the Orleans Camp Licensees has delivered a "visitor pass" form, signed by the Orleans Camp Licensees (on a form approved by the Orleans Park Department), to the Orleans gate at least 8 hours in advance. A camp visitor pass will allow vehicle access to the specific camp only. Vehicle access to other areas of the beach is not permitted.
- II. <u>Cross Jurisdiction Patrols</u>. It is agreed that each Town shall be responsible for patrols on their own portion of Nauset Beach.
- III. Annual Review. The Orleans and Chatham Boards of Selectmen shall meet on or before October 30, 2021 to review this Agreement, related fees, and rules and regulations governing Nauset Beach. They may, if deemed appropriate, adopt new fees and/or rules and regulations, revise the provisions contained herein concerning the Responsibilities of each Town (Section I) and Beach Management (Section VIII), and take any other action consistent with this Agreement. Any amendments to this agreement must be expressed in writing and executed by the Boards of Selectmen from both towns.
- IV. <u>Termination</u>. Notwithstanding anything contained herein to the contrary, each Town shall have the right to terminate this Agreement by thirty (30) days prior written notice, at any

time during the period from November 1 to February 1 of any year the Agreement is in effect, for any of the following:

- 1. Material breach by the other Town of any of the provisions contained in this Agreement.
- 2. Lack of appropriation of funds necessary to fulfill the Town's responsibilities set forth in this Agreement.
- 3. Physical changes in Nauset Beach resulting in the Town being unable to fulfill its responsibilities set forth in this Agreement.
- 4. The issuance of a Decision, Order, or Directive from a governmental agency of competent jurisdiction, the effect of which is to prevent the Town from carrying out its responsibilities under this Agreement.
- V. <u>Employee Status.</u> Employees of the Town of Orleans and employees of the Town of Chatham shall, while acting pursuant to the provisions of this Agreement, be deemed to be employees of their respective Towns even though they may be working, under the terms of this Agreement, on a portion of Nauset Beach owned by the other Town.
- VI. <u>Term/ Duration of Agreement.</u> Unless otherwise terminated under the provisions of Section IV of this Agreement, above, the Agreement shall run for a period of one (1) year from May 1, 2021 to April 30, 2022.
- VII. Revenue Distribution. Revenue will be allocated as follows:
 - 1. Chatham keeps all fees charged to Chatham residents and property owners, excluding the Orleans HCP surcharge collected from Chatham residents which shall be paid to Orleans by October 30, 2021.
 - 2. Orleans keeps all fees charged to Orleans residents and Camp Licensees.
 - 3. All non-resident sticker fees charged by Orleans, excluding the Orleans HCP surcharge, shall be allocated 75% to Orleans and 25% to Chatham. Orleans shall pay Chatham its allocated amount by October 30, 2021 and shall pay Chatham its allocated amount of non-resident sticker fees collected after October 30th by February 28, 2022.
 - 4. Orleans shall be under no obligation to provide special escort services for Chatham property owners.

VIII. Beach Management.

- 1. Management of that portion of Nauset Beach located in Chatham shall be as set out in Order of Conditions, DEP SE10-3127, issued April 13, 2016. The provisions of the Chatham order of Conditions are incorporated fully herein by reference.
- 2. Management of that portion of Nauset Beach located in Orleans shall be as set out in Order of Conditions, DEP SE 54-2246, issued June 25, 2014, recorded in the Barnstable Registry of Deeds in Book 28280 Page 185 ("Orleans Order of Conditions"). The provisions of the Orleans Order of Conditions are incorporated fully herein by reference.

- 3. To the extent that the Chatham Order of Conditions is inconsistent with this Agreement, the provisions of the Chatham Order of Conditions shall control, except that Orleans shall not be required to manage and enforce the Special Conditions contained in Sections F and G.
- 4. To the extent that the Orleans Order of Conditions is inconsistent with this Agreement, the provisions of the Order of Conditions shall control.
- 5. To the extent permitted by "Guidelines For Managing Recreational Use Of Beaches To Protect Piping Plovers, Terns, And Their Habitats In Massachusetts," (1993) issued by the Massachusetts Division of Fisheries and Wildlife, the entirety of Nauset Beach will be managed to remain open to all O.R.V. traffic, taking into consideration tide and erosion.

6. Recreational and General Vehicular Access.

a. Recreational and general public access of vehicles shall be permitted only in authorized areas and trails of the beach as posted.

When a Piping Plover or Least Tern nesting habitat is located and identified, it should be clearly marked with symbolic fencing and warning signs. Plover or tern nests that are located and identified shall be mapped by monitors, and the information shall be shared between the Towns as soon as possible.

When vehicular access infringes upon the nesting habitat, vehicle traffic and parking shall be rerouted, or altered, around the outside edge of the nesting habitat for as long as the nesting habitat is active, to ensure the safety of the plovers or terns. Marking and posting of the habitat shall be performed in accordance with the guidelines set forth in the Management Plan.

As long as adequate provisions have been made to alter the traffic pattern around the habitat area, vehicular access may be continued. However, if no viable rerouting of traffic is possible due to the location of the nesting habitat, vehicles shall be prohibited through, or into the delineated nesting habitat area. Vehicular access shall be prohibited for as long as necessary to ensure the proper fledging of the plovers and terns as set forth in this beach management plan.

Only essential vehicles, described below, shall be permitted to have access into or through the nesting habitat area, and only under the conditions described below.

All vehicular access restrictions, and conditions of access, will be consistent with the Massachusetts Division of Fisheries and Wildlife document, known as, "Guidelines For Managing Recreational Use Of Beaches To Protect Piping Plovers, Terns, And Their Habitats In Massachusetts" (1993), utilizing signage, symbolic fencing, use of monitors, and methods that are designed to protect the plover and tern nesting habitat.

b. <u>Definitions of Essential Vehicles.</u>

Essential Vehicles (Category 1): Public Safety Vehicles used for emergency service purposes belonging to a municipality, county, state, or federal entity for a police agency, fire service or rescue service; vehicles belonging to natural resources, and public works of the Towns of Orleans or Chatham providing necessary services or maintenance, and vehicles operated for species monitoring and management.

Essential Vehicles (Category 2): Vehicles bearing an Orleans Camp Licensees sticker and belonging to Licensees of "camps" (structural dwellings), their immediate family members and contractors providing emergency repair.

c. Access of Essential Vehicles.

Under restricted conditions, as outlined below, essential vehicles may be permitted to have access into and through a nesting habitat area containing unfledged chicks. Access will take place only during daylight hours, with the exception of emergency situations involving imminent threat to public health and/or safety. Open, 3 or 4-wheel all-terrain vehicles (ATVs) shall be used whenever possible for monitoring and law enforcement because of the improved visibility afforded the operator.

The access of essential vehicles (Category 1) shall be limited by utilizing monitor(s), who, after determining the location of unfledged chicks, shall accompany and walk in front of the vehicle operating at a speed of five (5) miles per hour proceeding through plover or tern nesting habitat. These essential vehicles (Category 1) will be restricted to operate in this manner, through a plover or tern nesting habitat, on a public safety, need-only basis, and will limit the number of trips through the identified area to only the minimum necessary to accomplish the necessary objective.

Town of Chatham public safety essential vehicles operating through the Orleans portion of Nauset Beach will operate in the above described manner, and additionally, shall be required to notify the Town of Orleans Natural Resources Department, in advance, to make arrangements for access through the Orleans section of Nauset Beach. Emergency situations may require provisional arrangements, but will be conducted as closely in this manner as possible.

Vehicular access for essential vehicles (Category 2) shall be required to make arrangements, notifying Orleans in advance, utilizing the above described method. In addition, essential vehicles (Category 2) shall be required to have the Orleans Natural Resources personnel on scene to supervise the method of vehicular access. It is anticipated that such vehicular access will be limited to 1-2 times per day, and limited to one camp owner pass per day, subject to the availability of personnel. It is further anticipated that any escort service will require the hiring of additional personnel. An operator of an essential vehicle (Category 2) shall be responsible for all incremental escort costs, and shall reimburse Orleans as applicable.

Any decision as to providing vehicular access for essential vehicles (Category 2) to restricted areas of the Beach shall be discussed, reviewed, and approved by the Orleans Natural Resource Manager prior to access being granted, subject to the availability of personnel.

There shall be no vehicular access other than the methods described above, and shall be consistent with the document, "Guidelines For Managing Recreational Use Of Beaches To Protect Piping Plovers, Terns, And Their Habitats In Massachusetts," (1993) issued by the Massachusetts Division of Fisheries and Wildlife.

- 5. <u>Hold Harmless.</u> Each Town agrees to hold harmless and, to the extent permitted by law, to indemnify the other Town and its representatives, employees and agents, from and against any and all liability, suits, claims, losses, injuries or expenses (including reasonable attorneys' fees) brought by a third party, arising from or with respect to any acts or omissions of the representatives, employees and agents of the indemnitor Town as referenced in, related to and/or arising out of this Agreement.
- 6. Representations. Each Town warrants and represents that its Board of Selectmen is duly authorized to enter into this Agreement.

This agreement is binding upon on the respective towns as well as their various boards, commission, departments and officers.

Executed as of the day and the year first above written.

TOWN OF CHATHAM Board of Selectmen

TOWN OF ORLEANS

Board of Selectmen

APPENDIX 8 Town of Orleans Mitigation Escrow Agreement

LAW OFFICES OF MICHAEL D. FORD

ATTORNEYS AT LAW
72 MAIN STREET, P.O. BOX 485
WEST HARWICH, MA 02671
TEL. (508)430-1900 FAX (508)430-9979
mdfesq1@verizon.net

MICHAEL D. FORD JEFFREY M. FORD

Via Email Feb. 24, 2021

Carolyn Mostello Coastal Waterbird Biologist Massachusetts Division of Fisheries and Wildlife 1 Rabbitt Hill Road Westborough, MA 01581

RE: Orleans Conservation & Management Permit 019-355.DFW

Dear Ms. Mostello:

Please be advised that in my capacity as escrow agent, I received Check No. 178727, dated January 13, 2021, from the Town of Orleans and on January 23, 2021, I deposited it in the Escrow Account for the Town of Orleans Conservation and Management.

This brings the balance in the escrow account to \$17,859.85. A copy of the check and the deposit slip showing the balance in the account are attached.

If you have any questions please feel free to contact me.

Very truly yours,

Michael D. Ford, Esq.

CC: Nate Sears, John Kelly, Cathy Doane, Scott Walker, Molly Bates

			·	
CHECK NO. 1 78 7 2 7 5347 CHECK NO. 1 78 7 2 7 5347 TIST ATE CHECKAMOUNT \$11,600.00	VOJD AFTER SG DAYS LALL AUTHORIZED SIGNATURE	21066	РО NO. VOUCHER 1202749	707071
EATURE, A MICROPRINT SIGNATURE LINE AND A SI TO THE CK TUSETTS 1787.27 CHECK DATE VENDOR CHECK DATE 905704 01/13/2021	vojov Soch (hall	2938007693#	11, 600.00	00 003 11
TRAVIOLET FIBERS, A BROWN BLEACH STAIN FE ROCKLAN MASSACH	AND	10113044781	INVOICE DESCHIPTION ASS WILD LIFE	R.S.C.R.O.W. ACENT
THIS DOCUMENT HAS A COLORED BACKGROUND. ULTRAVIOLET FIBERS, A BROWN BLEACH STAIN FEATURE, A MICROPRINT SIGNATURE LINE AND A SIMULATED WATERMARK ON THE BACK ROCKLAND TRUST TOWN OF ORLEANS Orleans, MA 02653 VENDOR CHECK NO. 1 78727 TOWN OF ORLEANS Orleans, MA 02653 SA47 TOWN OF ORLEANS OR	PAV MICHAEL D. FORD, PO BOST 485 WEST HARWICH	2.7 ORLE	01/13/21 019-335.DFW MAS	905704 MICHAEL D. FORD.

.

The Cooperative Bank of Cape Cod rostrosty opposite

1:23 PM 01/23/2021

Br# 8 Ilr# 840 Seq# 14 Account XXXXXXO880 DDA Deposit 11,600.00 Current Balance 17,859.85 *Processed Next Business Day*

Thank you for banking with the Coop!

CCF-192-07/11 THISSIS YOUR RECEIPT ALWAYS OBTAIN A VALIDATED RECEIPT WHEN MAKING A TRANSACTION.
ALL TEMS ARE RECEIVED BY THIS BANK FOR PURPOSES OF COLLECTION AND ALL CREDITS
CCF-1!
C. • Mainba: SIF
FOR ITEMS ARE PROVISIONAL, CURRENCY IS ACCEPTED SUBJECT TO VENIFICATION.

Member EDIC - Member SIF

APPENDIX 9

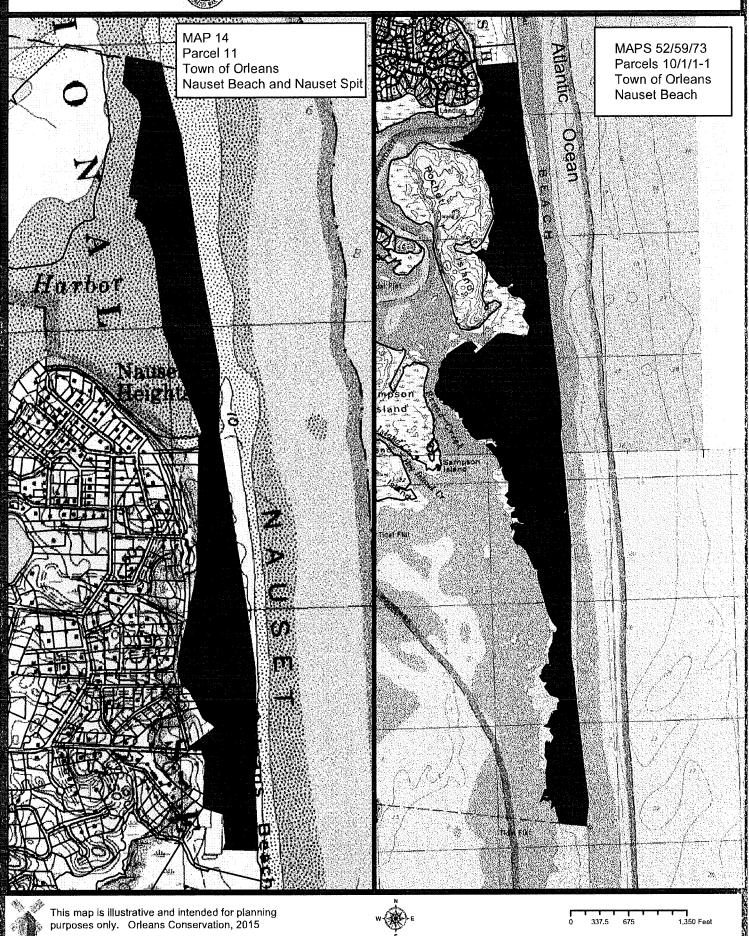
Town of Orleans

Proof of Ownership:

Assessor's map of Nauset Beach Parcels



Assessor's Maps for Beach





Town of Orleans

Natural Resources Division

19 School Rd. Orleans, Massachusetts 02653 Telephone (508) 240-3755 – Fax (508) 240-3388 www.town.orleans.ma.us

June 6, 2021

Carolyn Mostello Coastal Waterbird Biologist Massachusetts Division of Fisheries & Wildlife 1 Rabbit Hill Road, Westborough, MA 01581

Funding sufficient to execute the remainder of the HCP program through June 30, 2022 was approved at the Annual Town Meeting held on June 22, 2021. \$43,023.00 was appropriated under Article 36 for the purpose of funding the implementation costs including all expenses incidental and related to the HCP. A certified copy of the warrant (page 88, Article 41) is attached. Also attached is a breakdown of the budget that was included in the 2019 COI (page 31).

Nathan Sears Town of Orleans Natural Resources Manager

APPENDIX 10 Town of Orleans Budget Assurance Documentation

Beaches Enterprise Fund Proposed Operating Budget For the Fiscal Year July 1, 2021 – June 30, 2022

Estimated Revenues:					
User Fees	\$	2,295,150			
Nauset/Skaket Concessions	\$	70,225			
Investment Income	\$	•		7	
Subtotal	\$	2,365,375		1	· · · · · · · · · · · · · · · · · · ·
Retained Earnings	\$	-			
Total Revenues:	\$	2,365,375			
Operating Expenses:					
Direct Expenses					
Salaries	\$	786,093			
Expenses	\$	318,244			
Capital Outlay	\$	59,000			
Debt Service	\$	39,000		-	
Budgeted Surplus	\$	662 140			~~
Subtotal	\$	663,148 1,826,485	-	į	
345644		1,020,400			
Indirect Expenses				1.	
General Fund Allocated Expenses	\$	235,342			
Fringe Benefits	\$	301,520			
Property/Liab. Insurance	\$	2,028			
Subtotal	\$	538,890		- 	
Total Expenses	\$	2,365,375			
Surplus/(Deficit)	\$	_			
Budgeted Tax Levy Subsidy	\$			ļ.,	
Proposed	Fee Chan	ges:			
Proposed Beach Parking		ges: urrent Fee	Proposed Fee]	Increase
			Proposed Fee \$ 30.00		Increase 5.00
Beach Parking	С	urrent Fee		\$	
Beach Parking Daily Parking Fee - Nauset	C \$	urrent Fee 25.00	\$ 30.00	\$ \$	5.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket	\$ \$	25.00 25.00	\$ 30.00 \$ 30.00	\$ \$	5.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season)	\$ \$ \$ \$	25.00 25.00 25.00 25.00	\$ 30.00 \$ 30.00 \$ 25.00	\$ \$ \$	5.00 5.00 -
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly)	\$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00	\$ \$ \$ \$	5.00 5.00 - 50.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP)	\$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00	\$ \$ \$ \$	5.00 5.00 - 50.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP) Resident/Tax Payer Walk-in	\$ \$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00 100.00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00 \$ -	\$ \$ \$ \$ \$	5.00 5.00 - 50.00 25.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP) Resident/Tax Payer Walk-in Resident/Tax Payer Mail-in/Online	\$ \$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00 100.00 - 80.00 70.00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00 \$ - \$ 120.00	\$ \$ \$ \$ \$ \$	5.00 5.00 - 50.00 25.00 - 40.00 50.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP) Resident/Tax Payer Walk-in Resident/Tax Payer Mail-in/Online Resident/Tax Payer Off-Season	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00 100.00 - 80.00 70.00 50,00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00 \$ - \$ 120.00	\$ \$ \$ \$ \$ \$ \$	5.00 5.00 - 50.00 25.00 - 40.00 50.00 40.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP) Resident/Tax Payer Walk-in Resident/Tax Payer Mail-in/Online Resident/Tax Payer Off-Season Non-Resident	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00 100.00 - 80.00 70.00 50,00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00 \$ - \$ 120.00 \$ 90.00 \$ 370.00	\$ \$ \$ \$ \$ \$ \$ \$	5.00 5.00 - 50.00 25.00 - 40.00 50.00 40.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP) Resident/Tax Payer Walk-in Resident/Tax Payer Mail-in/Online Resident/Tax Payer Off-Season Non-Resident Non-Resident (Off Season)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 100.00 - 80.00 70.00 50.00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00 \$ - \$ 120.00 \$ 90.00 \$ 370.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5.00 5.00 - 50.00 25.00 - 40.00 50.00 40.00 170.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP) Resident/Tax Payer Walk-in Resident/Tax Payer Mail-in/Online Resident/Tax Payer Off-Season Non-Resident Non-Resident (Off Season) Non-Resident Self-Contained	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00 100.00 - 80.00 70.00 50.00 200.00 110.00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00 \$ - \$ 120.00 \$ 120.00 \$ 90.00 \$ 370.00 \$ 280.00 \$ 450.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5.00 5.00 - 50.00 25.00 - 40.00 50.00 40.00 170.00 180.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP) Resident/Tax Payer Walk-in Resident/Tax Payer Mail-in/Online Resident/Tax Payer Off-Season Non-Resident Non-Resident (Off Season) Non-Resident Self-Contained NR Self-Contained (Off Season)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00 100.00 - 80.00 70.00 50.00 200.00 110.00 270.00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00 \$ - \$ 120.00 \$ 120.00 \$ 90.00 \$ 370.00 \$ 280.00 \$ 450.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5.00 5.00 - 50.00 25.00 - 40.00 50.00 40.00 170.00 180.00 105.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP) Resident/Tax Payer Walk-in Resident/Tax Payer Mail-in/Online Resident/Tax Payer Off-Season Non-Resident Non-Resident (Off Season) Non-Resident Self-Contained NR Self-Contained (Off Season) Pochet	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00 100.00 - 80.00 70.00 50.00 200.00 110.00 270.00 145.00 20.00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00 \$ - \$ 120.00 \$ 90.00 \$ 370.00 \$ 280.00 \$ 450.00 \$ 35.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5.00 5.00 - 50.00 25.00 - 40.00 50.00 40.00 170.00 180.00 105.00 15.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP) Resident/Tax Payer Walk-in Resident/Tax Payer Mail-in/Online Resident/Tax Payer Off-Season Non-Resident Non-Resident (Off Season) Non-Resident Self-Contained NR Self-Contained (Off Season) Pochet Camp Owner/Licensee	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00 100.00 - 80.00 70.00 50.00 200.00 110.00 270.00 145.00 20.00 70.00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00 \$ - \$ 120.00 \$ 90.00 \$ 370.00 \$ 280.00 \$ 250.00 \$ 35.00 \$ 120.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5.00 5.00 - 50.00 25.00 - 40.00 50.00 40.00 170.00 180.00 105.00 50.00
Beach Parking Daily Parking Fee - Nauset Daily Parking Fee - Skaket Resident/Tax Payer (Season) Non-Resident (Season) Non-Resident (Weekly) OSV (Does not include HCP) Resident/Tax Payer Walk-in Resident/Tax Payer Mail-in/Online	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	25.00 25.00 25.00 25.00 250.00 100.00 - 80.00 70.00 50.00 200.00 110.00 270.00 145.00 20.00	\$ 30.00 \$ 30.00 \$ 25.00 \$ 300.00 \$ 125.00 \$ - \$ 120.00 \$ 90.00 \$ 370.00 \$ 280.00 \$ 450.00 \$ 35.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5.00 5.00 - 50.00 25.00 - 40.00 50.00 40.00 170.00 180.00 105.00 15.00

PROPOSED MOTION

I move this article be accepted and adopted as printed in the warrant, and that the sum of Eight Thousand and 00/100 Dollars (\$8,000.00) be raised and appropriated for this purpose.

SUMMARY

This article would fund expenses related to the annual July 4th parade in the Town of Orleans. The Town funds will be used to supplement private fundraising activities necessary to support the parade and any unexpended funds will be available for the following year.

Fiscal Year 2022 tax rate impact of \$0.002 per thousand valuation.

SB:

5 – YES

0 – NO

0 - ABSTAIN

FC:

7 – YES

0 – NO

0 - ABSTAIN

ARTICLE 40. FUND CULTURAL COUNCIL GRANTS

To see if the Town will vote to raise and appropriate and/or transfer from available funds the sum of Two Thousand and 00/100 Dollars (\$2,000.00), or any other sum, for the purpose of funding Cultural Council awards to organizations that benefit Orleans residents. Said funds to be expended under the direction of the Town Administrator, or to take any other action relative thereto. (Select Board)

(Simple Majority Vote Required)

PROPOSED MOTION

I move this article be accepted and adopted as printed in the warrant, and that the sum of Two Thousand and 00/100 Dollars (\$2,000.00) be raised and appropriated for this purpose.

SUMMARY

This article would provide additional funding for Cultural Council programs and awards beyond what is provided by the Commonwealth of Massachusetts. The Town funds will be used for awards to benefit Orleans residents. Any unexpended funds will be available for the following year.

Fiscal Year 2022 tax rate impact of \$0.001 per thousand valuation.

SB:

4 – YES

0 – NO

0 - ABSTAIN

FC:

7 – YES

0 – NO

0 - ABSTAIN

ARTICLE 41. AUTHORIZE AND FUND HABITAT CONSERVATION PLAN PERMITS

To see if the Town will vote to raise and appropriate and/or transfer from available funds the sum of Forty Three Thousand Twenty Three and 00/100 Dollars (\$43,023.00), or any other sum, for the purpose of funding the implementation costs, including all expenses incidental and related thereto, of the Habitat Conservation Plan (HCP) approved by the Federal and State Fish and Wildlife Services. The HCP provides for limited over sand

vehicle use of Nauset Beach south of the bathing beach parking lot during the summer migratory bird nesting season, or to take any other action relative thereto. (Select Board)

(Simple Majority Vote Required)

PROPOSED MOTION

I move this article be accepted and adopted as printed in the warrant and that the sum of Forty Three Thousand Twenty Three and 00/100 Dollars (\$43,023.00) be raised and appropriated for this purpose.

SUMMARY

This article will fund the annual cost to implement the statewide HCP permits. The permits are issued for a period of three years and the implementation costs include additional seasonal staff, equipment and predator mitigation funds as conditions of the permits.

Fiscal Year 2022 tax rate impact of \$0.010 per thousand valuation.

SB:

4 – YES

0 - NO

0 - ABSTAIN

FC:

7 – YES

0 – NO

0 - ABSTAIN

ARTICLE 42. FUND ELECTED OFFICIALS COMPENSATION (FY22)

To see if the Town will vote to fix the salaries of elected officials for the twelve month period beginning July 1, 2021 as follows:

1) Select Board (5)

\$3,000.00

2) Board Chairman

\$ 500.00

3) Moderator

\$ 300.00

4) Constables (2)

\$ 150.00

and to raise and appropriate and/or transfer from available funds the sum of Sixteen Thousand One Hundred and 00/100 Dollars (\$16,100.00), or any other sum, for this purpose, or to take any other action relative thereto. (Select Board)

(Simple Majority Vote Required)

PROPOSED MOTION

I move this article be accepted and adopted as printed in the warrant and that the sum of Sixteen Thousand One Hundred and 00/100 Dollars (\$16,100.00) be raised and appropriated for this purpose.

SUMMARY

This article will provide funding for the Select Board, Moderator and Constables compensation for Fiscal Year 2022.

Fiscal Year 2022 tax rate impact of \$0.004 per thousand valuation.

SB:

4 – YES

0 - NO

0 - ABSTAIN

FC:

7 – YES

0 - NO

0 - ABSTAIN

ARTICLE 43. FUND UNANTICIPATED EMPLOYEE BUYOUTS

To see if the Town will vote to raise and appropriate the sum of Eighty Thousand and 00/100 Dollars (\$80,000.00) or any other sum, to fund unanticipated employee-related