

February 25, 2008

Mr. Scott M. Melvin, P.H.D.
Senior Zoologist
Natural Heritage and Endangered Species Program
Massachusetts Division of Fisheries and Wildlife
Westboro, MA 01851

Dear Scott,

As you are aware the Town of Orleans is currently pursuing a Federal Section 10 permit and State Conservation Permit to allow the passage of Non-Essential vehicles past unfledged piping plover broods and a Least Tern Colony which in the past have been located in the so called Pochet Washover Area.

The area of the activity is located approximately between the areas $\frac{1}{4}$ mile to $\frac{3}{4}$ of a mile south of the Nauset Beach Parking lot (see attached map). In the past two years we have had as many as four Piping Plover pairs and 42 Least Tern Pairs nesting in this area.

The Town would be applying for a three year permit. It would allow for the passage of non-essential vehicles using monitors to escort these vehicles past up to three unfledged piping plover broods and a least tern colony if it is present. This activity would commence on July 15th of each year during the permit period.

The day vehicles would only be escorted past the activity area between the hours of 9 a.m. and 6 p.m. seven days per week. All monitors and Park Police will have radios to keep in contact at all times. Non-essential vehicles will be escorted south on the hour between 9 a.m. and 4 p.m. and will be escorted North off the beach on the half hour starting at 10:30 a.m. to 5:30 p.m.

Self-Contained vehicles would be escorted onto the beach at 5 p.m. on Fridays and off the beach at 4:30 p.m. on Sundays. These vehicles would be required to park South of Trail #4 and would not be allowed to drive anywhere else on the beach until they leave on Sunday. Medical emergencies for this group would be handled by boat from an area just south of Trail #7. The only time an Emergency vehicle would be on the beach at night would be due to inclement weather (fog etc.), tides, or rough seas in Pleasant Bay.

The Town will assign one monitor per Piping Plover brood to keep track of the chicks. If at any time the Monitor loses track of a chick then the Escort Service will be halted until the chick is located. A separate monitor would monitor location of Least Terns in the area.

A trained monitor will lead the non-essential vehicles and a monitor will be at the rear of the caravan of vehicles both on and off the beach.

A Park Police Officer will be assigned to the area to assure compliance. A locked gate will be placed North and South of the activity area to assure that no vehicles will be allowed passage through the area without an Escort.

Pamphlets explaining the escort service will be handed out to all vehicles entering the beach each day.

Starting on July 10th a trained monitor will be assigned to monitor each Piping Plover Brood (one monitor assigned to each Brood to monitor the Broods on a daily basis to determine foraging activities etc.). Other monitors that we currently hire (two) will be monitoring the Least Tern Colony if it is located in this area.

We would start the escort of non-essential vehicles starting the morning of July 15th as outlined previously.

Essential vehicles will be escorted past the activity area starting on the 25th day after the fourth egg is laid in a Piping Plover nest. As was done last year a monitor would walk in front and one monitor would bring up the rear.

The following schedule would be used between the date we first close the off road vehicle trails to the date we open for non-essential vehicles on July 15th.

Monday's	9 a.m. escort on 9:30 a.m. escort off
Wednesday	9 a.m. escort on 9:30 a.m. escort off
Friday	5:00 p.m. escort on 5:30 p.m. escort off
Saturday	9 a.m. escort on 9:30 a.m. escort off 5:00 p.m. escort on 5:30 p.m. escort off
Sunday	9 a.m. escort on 9:30 a.m. escort off 5:00 p.m. escort on 5:30 p.m. escort off

All other activity outside of the permit area regarding off road vehicle travel, pedestrians use protection of Piping Plover and Least Terns, signage, symbolic fencing etc. within the boundaries of the Town of Orleans Nauset Beach would follow Orleans current Order of Conditions (DEP SE-54-723).

Mitigation for the above activity to assure a net gain of both Piping Plovers and Least Terns would include the following measures.

- Experimental nest flood protection to divert water around nests during extreme High Tides (January 17, 2007 P. Fulcher) Nest protection to be included on no more than 3 nests in areas that are not considered high velocity zones. This flood protection would take less time to build than to install an enclosure. If the birds were hesitant to return to the nests then the Berm would be removed.
- Experimental predator fence on Nauset Spit (see attached plan). Install 4' high welded wire fencing with 2 x 4 mesh from the high tide mark to an area 15' above the High Tide mark on the ocean side as shown on the plan.

- Experimental predator fence. Install 4' high welded wire fencing with 2 x 4 mesh around largest Tern Colony area on Nauset Spit (using previous year's data on location). (Enclosure would still be used around Piping Plover nests with netting). This fence will be relocated as needed to keep largest part of Tern Colony fenced.
- Experimental enclosure electrification to discourage fox predation for up to three nests on Nauset Spit. Design will be based on New Jersey use of electrified fencing.
- Experimental Dummy Enclosure (2) at beginning of Nauset Spit and use foul tasting eggs to dissuade predators from other Enclosures.
- First year- Hire USDA to complete a predator assessment of both the Nauset Spit and Pochet wash-over area (South First Mile)
- Second year- Hire USDA to complete predator removal on Nauset Spit. This could include skunks, raccoons, foxes, crows or Black Backed Gulls. This removal would be limited to smart predators' using the previous year's predator assessment.

Sincerely,

Paul O. Fulcher
Parks & Beaches Superintendent

pof/ses

January 17, 2007

Scott M. Melvin, Ph.D.
Senior Zoologist
Natural Heritage and Endangered Species Program
Massachusetts Division of Fisheries and Wildlife
Westboro, MA 01851

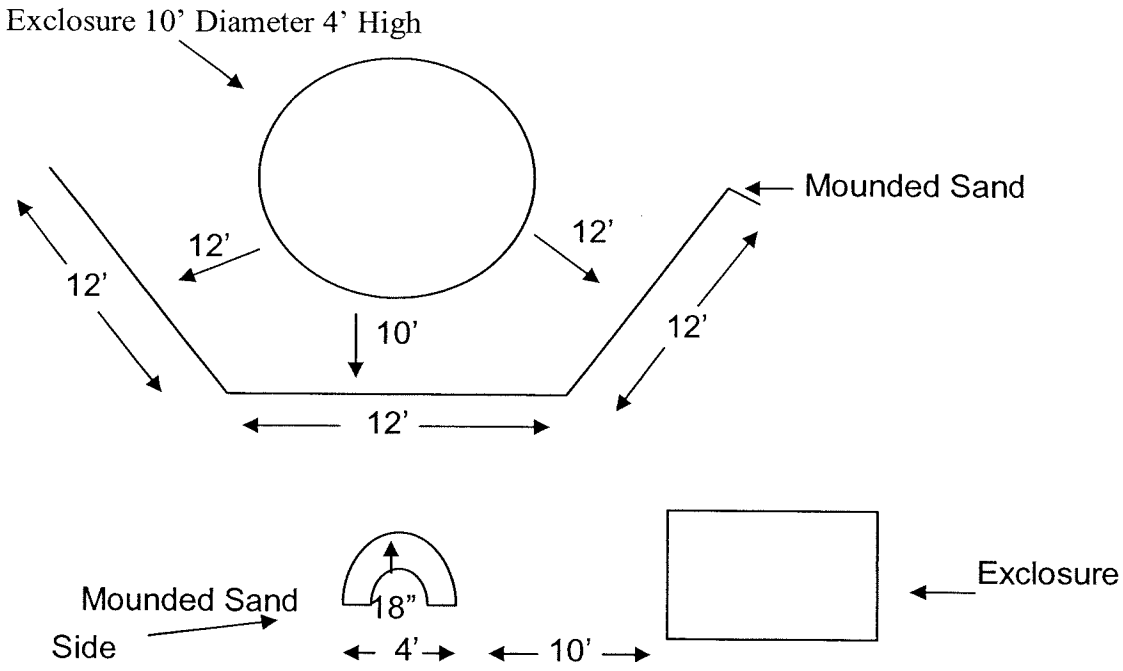
Dear Scott,

During our discussion on January 17, 2007 you asked that the following information be forwarded to your office for consideration as an alternative to predator control to mitigate potential chick loss as part of a Federal ESA Section 10, incidental take permit and State MESA/NHES Conservation and Management Permit.

2006	Total number of nests	18
	Total number of nests lost for High tides	5
	Total number of nests that could have been protected by using a sand mound to protect nests	4
2005	Total number of nests	17
	Total number of nests lost for High tides	7
	Total number of nests that could have been protected by using a sand mound to protect nests	5
2004	Total number of nests	17
	Total number of nests lost for High tides	4
	Total number of nests that could have been protected by using a sand mound to protect nests	3

Due to the current topography of the Beach I would expect the number of nests lost each year to High Tide to continue at a rate of twenty five percent or higher of the total number of nests in Orleans.

Below is a sketch drawing showing an enclosure with the size and height of sand mound which would be used to protect nests from High Tides.



The sand mound would be placed as outlined above using a small unloader. The work would be completed between when the first egg is found and before a full clutch depending on weather forecasts and tide cycles.

The work to complete this sand mound is expected to take approximately the same amount of time as it would take to install an enclosure with netting. After placement of sand the area disturbed would be hand raked.

If you have any questions please call me.

Sincerely,

Paul O. Fulcher
Parks & Beaches Superintendent

pof/ses

Fulcher to Melvin Questions and Information 040108

From: Paul Fulcher
Sent: Tuesday, April 01, 2008 1:15 PM
To: Scott.melvin@state.ma.us
Cc: Susi_vonOettingen@fws.gov; Ann; John Kelly; mdfesq1@verizon.net
Attachments: Section 10.xls

Scott,

I have attached a spread sheet on the information you wanted on Broods and Chicks for Nauset Beach in Orleans for the years 2003-2007.

Below I will try to answer some of your questions from your March 18, 2008 Email.

1. Spread sheet attached with info requested. On the USFWS side they feel July 15 and three broods would be okay under a Section 10.
2. When I met with you, Susi and Ann on Feb.7 2007 I thought we had left that meeting agreeing on a July 15 opening, 3 broods and 1 monitor per brood along with 2 monitors for escorts. Escorts for Tern Chicks would be handled in the same manner using the same routes that were approved in the past to bypass the colony. I am not sure of an exact number of vehicles that would be in each caravan/escort, but I have completed a time study that shows 50 vehicles driving at five miles per hour can pass the habitat in question in Eight and half Minutes.
3. USFWS has agreed with a limited amount of earthen berms (3) as long as they are not in a high velocity zone.
4. Trying anything to increase productivity, which I believe this would.
5. In trying to increase productivity I feel we have to try many devices as predators are smart.
6. We will not know the effectiveness unless we try it.
7. Are you saying the Town needs to submit a preliminary field assessment with our conservation plan. In removing all Coyotes, Foxes, and Skunks in the Months of March, April and May in each year of the three year permit seems like the scorch and burn theory. I thought we were going to try to target nuisance predators. Predator removal on the new island in Chatham is out of the question.
8. The way we currently install our symbolic fencing on April 1 of each year and move as needed for nesting shorebirds meets the criteria of our Order of Conditions, the Federal and State Endangered Species Acts.
9. We have not submitted a formal proposal yet as you told me not to submit one as we need to negotiate back and forth on items to be included in the plan.

Fulcher to Melvin Questions and Information 040108

I am not sure how you would like to proceed. The USFWS seems to be in agreement in theory with what the Town is proposing. Maybe it would be best if you draw the outline of what would be Required of the Town of Orleans to obtain a State Conservation Permit to pass unfledged Piping Plovers and Least Tern chicks in the Pochet Washover area of Nauset Beach so I can submit it to my Board of Selectmen to see if they want to proceed. I will gladly have a telephone conference call or meet with you and the USFWS at Ann's office if you think it would be helpful. I will follow this up with a telephone call. I can be reached 24/7 at 508-962-0882. Thanks for your continued assistance.

Paul

-----Original Message-----

From: Paul Fulcher [mailto:paul.fulcher1@verizon.net]
Sent: Sunday, March 30, 2008 7:21 PM
To: Paul Fulcher
Subject: Section 10.xls

From: John Kelly
Sent: Friday, June 20, 2008 3:05 PM
To: 'Dave Dunford'; John Hinckley (jhinckleyjr@comcast.net); Jon Fuller (Jfuller184@comcast.net); Margie Fulcher; mecarron
Subject: FW: conservation permit - Nauset Beach-Orleans

FYI – this is the latest email to Scott Melvin seeking addition information.

John F. Kelly

Town Administrator
19 School Road
Orleans, MA 02653
jkelly@town.orleans.ma.us
Tel: 508-240-3700 x 415
Fax: 508-240-3703

From: Paul Fulcher
Sent: Friday, June 20, 2008 2:41 PM
To: John Kelly
Cc: mdfesq1@verizon.net
Subject: FW: conservation permit - Nauset Beach-Orleans

From: Paul Fulcher
Sent: Friday, June 20, 2008 2:50 PM
To: 'Melvin, Scott (FWE)'
Cc: 'Susi_vonOettingen@fws.gov'; 'Anne_Hecht@fws.gov'
Subject: RE: conservation permit - Nauset Beach-Orleans

Scott,

I need clarification on a few items in your E-Mail.

1. How many unfledged Least Tern Chicks can the Town escort non essential vehicles past in the Pochet area.
2. Can you clarify your explanation on predator removal. Do you mean we would need to do removal of predators one time during the period Feb. 1 – April 30 or do you mean we would need to do removal of all species you mentioned each month Feb. – April all three years of the permit.
3. Why would we need to negotiate passage of essential vehicles when it is currently allowed under the State And Federal endangered species act.
4. What additional monitoring or reporting Requirements beyond what is currently completed will you require. I need info as detailed as possible to be able to determine total operating costs each year of the permit.
5. If you feel predator mitigation is sufficient then we could withdraw sand berm alternative as it seems reporting monitoring and design would make it impossible to complete.
6. As we are requesting a permit to bypass Unfledged Piping Plovers and Least Terns exclusively in the area south of the Nauset beach parking lot to trail #1 we would only need to do predator removal in this area?
7. Are you going to require any other changes in current management of the south end of Nauset Beach i.e.; location of symbolic fencing or closing any areas to vehicle traffic during the nesting season.

I hired Peter Trull to complete a predator assessment in the area between Nauset inlet to one mile south of the parking lot which I will forward to you. We have found over the last two years that our predator problems have been mostly crows and gulls. Storm over wash has also been a major problem. Foxes have been nonexistent on the beach as mange seems to be taking care of that problem. I feel we could increase productivity of piping Plovers significantly by exclosing at one egg rather than waiting until four eggs. We would not need to do predator removal if this was allowed. We lost five nest with one to three eggs that would not have been lost if they were exclosed earlier. As we have sufficient

monitors to monitor nests on a daily basis I feel we would

Have earlier hatching, higher fledge rate and earlier off Road vehicle trail openings if we were allowed to exclose one egg nests.

Please Respond as soon as you are able. I am available by phone 24/7 and will drive to your office at any time to meet with you in regards to any further negotiations regarding obtaining a State Conservation Permit.

Thanks for your help

Paul

From: Melvin, Scott (FWE) [mailto:Scott.Melvin@state.ma.us]

Sent: Friday, May 23, 2008 10:27 AM

To: Paul Fulcher

Cc: Susi_vonOettingen@fws.gov; Anne_Hecht@fws.gov

Subject: conservation permit - Nauset Beach-Orleans

Paul: Thanks for the additional information provided in your April 1 e-mail regarding management options for off-road vehicles, Piping Plovers, and Least Terns at Nauset Beach that the Town of Orleans may wish to be permitted to carry out pursuant to a Conservation and Management Permit that might be issued by MassWildlife. We believe that your proposal to be permitted for a period of 3 years to escort recreational vehicles past up to 3 unfledged broods of Piping Plover chicks in the Pochet area of Nauset Beach, beginning July 15 each year, could be permitted under a Conservation and Management Permit issued by this agency, provided that: 1) adequate mitigation is provided, in order to meet the performance standard of "net benefit" to the local population, 2) requirements for escorting and managing off-road vehicles that would be conditions of the permit are strictly adhered to, and 3) monitoring and reporting requirements that would be conditions of the permit are strictly adhered to. We would also need to negotiate the details of escorting camp owners, ie. "essential vehicles".

We presume that the town also wishes to be permitted to escort vehicles past unfledged Least Tern chicks in the Pochet area after July 15? With adequate mitigation (see below), we believe this could also be permitted, but limits would need to be set on the number of unfledged tern chicks past which escorted vehicles could pass.

Based on our discussions to date, we believe that the following actions would provide the necessary mitigation for the management actions described above:

1) Contract with staff of U.S. Department of Agriculture – Wildlife Services to remove potential mammalian predators of plover and tern eggs and chicks during the approximate period February 1 – April 30 in each year of the permit. Removal would focus on coyotes, foxes, and skunks, but would also target raccoons and opossums that were encountered. Removal of skunks, raccoons, and opossums could continue later than April 30. Predator removal could occur anywhere along Nauset Beach and Nauset Spit within the Town of Orleans, but would focus primarily on increasing reproductive success of Piping Plovers and Least Terns in the Pochet area and on Nauset Spit.

2) Construct and maintain sand berms to protect up to 3 Piping Plovers nests per year from storm/high tide overwash. Details of design specifications, construction protocols, and monitoring/reporting requirements would still need to be negotiated.

We would expect the permit to contain a condition that prohibits any dune building or beach nourishment activities, including but not limited to installation of sand fencing or plantings, or deposition of sand or other fill on the beach or in overwash areas, unless and until the Town has: 1) submitted to the Massachusetts Division of Fisheries and Wildlife, the Massachusetts Department of Environmental Protection, and the Orleans Conservation Commission written plans for the proposed work, including a detailed description of the design and timing of the proposed work and a map showing the exact location, and 2) received a written opinion from the Division stating that the proposed activity will not have any short or long-term adverse effect on the habitat of state-listed rare species.

We recommend you review this information with the U.S. Fish and Wildlife Service to insure consistency with conditions that they may require in order for the Town of Orleans to be granted a federal "incidental take" permit pursuant to Section 10 of the U.S. Endangered Species Act.

Please contact us if you need additional information or clarification on any of the above points.

Scott Melvin

From: Paul Fulcher
Sent: Tuesday, July 15, 2008 10:47 PM
To: John Kelly
Subject: FW: conservation permit - Nauset Beach-Orleans

From: Melvin, Scott (FWE) [mailto:Scott.Melvin@state.ma.us]
Sent: Tuesday, July 15, 2008 5:26 PM
To: Paul Fulcher
Cc: Susi_vonOettingen@fws.gov; Anne_Hecht@fws.gov; Regosin, Jonathan (FWE)
Subject: RE: conservation permit - Nauset Beach-Orleans

Paul: Answers/comments/ suggestions in bold follow each of your questions below.

Scott

-----Original Message-----

From: Paul Fulcher [mailto:pfulcher@town.orleans.ma.us]
Sent: Friday, June 20, 2008 2:41 PM
To: Melvin, Scott (FWE)
Cc: Susi_vonOettingen@fws.gov; Anne_Hecht@fws.gov
Subject: RE: conservation permit - Nauset Beach-Orleans

Scott,

I need clarification on a few items in your E-Mail.

1. How many unfledged Least Tern Chicks can the Town escort non essential vehicles past in the Pochet area.

As we discussed on the phone, Least Terns (LETE) are complicated, and will require further discussion. We want to avoid a situation where large numbers of vehicles are being escorted over extended periods close to, i.e. less than 50 yards from, many (> 10 perhaps) Least Tern nests or chicks. I understand that you may be able to adjust the location of the vehicle trail to avoid some LETE nests. If the portion of the permit that deals with Least Terns is only for escorting past LETE nests or chicks after July 15, that will be easier. The fact that LETE chicks are generally not as mobile as plover chicks, especially during the first 2 weeks after hatching, also gives us more flexibility in allowing vehicles within 100 yards. You know best what the LETE situation has been at Pochet the past 3 years. If the Town were to receive a permit to allow ORVs to be escorted past up to 3 broods of plover chicks after July 15, how would it need to be worded to prevent continued closure because of proximity to LETE nests or chicks?

2. Can you clarify your explanation on predator removal. Do you mean we would need to do removal of predators one time during the period Feb. 1 – April 30 or do you mean we would need to do removal of all species you mentioned each month Feb. – April all three years of the permit.

We mean that USDA-Wildlife Services staff would begin work on the beach in early Feb. and continue as late as late April (if necessary), in order to first assess presence of potential nest/chick predators, and then attempt to remove all (or as many as time and money allowed) individuals of the various potential mammalian predators identified in the permit.

3. Why would we need to negotiate passage of essential vehicles when it is currently allowed under the State And Federal endangered species act.

We might not need to negotiate anything new, but we would want to see in detail exactly how the escorting and monitoring of essential vehicles would be done, so that all involved would understand how this would fit into the Town's overall plans/staffing for escorting and monitoring, and what additional adverse effects to plovers and terns it might cause.

4. What additional monitoring or reporting requirements beyond what is currently completed will you require. I need info as detailed as possible to be able to determine total operating costs each year of the permit.

Daily log of timing and numbers of vehicles escorted. Daily narrative of activities of plover monitors and status/locations/activities of plover chicks and LETE nests and chicks. We would need to arrive at some methodology for monitors to document any disturbance to the chicks from the escort system. Searches of tire tracks if chicks go missing. Periodic reporting to wildlife agencies (perhaps weekly), with detailed post-season final report. U.S. Fish and Wildlife Service may have other ideas/requirements for monitoring.

5. If you feel predator mitigation is sufficient then we could withdraw sand berm alternative as it seems reporting monitoring and design would make it impossible to complete.

My understanding was that we had agreed that if the Town wants a permit to escort past 3 broods of plover chicks, instead of 2, then both predator removal and limited, experimental protection of nests from overwash will be required as mitigation. I don't understand how "reporting monitoring and design would make it impossible to complete"?

6. As we are requesting a permit to bypass Unfledged Piping Plovers and Least Terns exclusively in the area south of the Nauset beach parking lot to trail #1 we would only need to do predator removal in this area?

Our position is that predator removal would be required both north and south of the Nauset Beach parking lot, given the desire of the town for a permit to escort past 3 broods of plovers plus Least Terns.

7. Are you going to require any other changes in current management of the south end of Nauset Beach i.e.; location of symbolic fencing or closing any areas to vehicle traffic during the nesting season.

I think we might simply look for some wording that is more explicit than what is contained in the state guidelines, eg. "Vehicle corridors shall be moved, constricted or temporarily closed if requested by MassWildlife in order to prevent disturbance to courting, territorial, or nesting Piping Plovers or Least Terns or their chicks." What we want to avoid is situations where plovers or terns are dissuaded from using certain areas of the front beach because the width of the symbolically fenced habitat is too narrow and/or the level of vehicle/pedestrian activity in front of the fencing is too great.

I hired Peter Trull to complete a predator assessment in the area between Nauset inlet to one mile south of the parking lot which I will forward to you. We have found over the last two years that our predator problems have been mostly crows and gulls. Storm over wash has also been a major problem. Foxes have been nonexistent on the beach as mange seems to be taking care of that problem. I feel we could increase productivity of piping Plovers significantly by exclosing at one egg rather than waiting until four eggs. We would not need to do predator removal if this was allowed. We lost five nest with one to three eggs that would not have been lost if they were exclosed earlier. As we have sufficient monitors to monitor nests on a daily basis I feel we would

Have earlier hatching, higher fledge rate and earlier off Road vehicle trail openings if we were allowed to exclose one egg nests.

We're reluctant to permit exclosing of 1-egg clutches because of the greater potential for nest abandonment, and the difficulty in determining if plovers have "accepted" an exclosure if full -time incubation, or at least frequent nest visitation, hasn't begun (i.e. the clutch is not yet at 3 or 4 eggs). We are willing to consider permitting exclosures around 3-egg clutches, maybe 2.

So far, it seems to be more difficult to remove gulls and crows in a manner that is relatively efficient and effective enough to benefit plovers and terns than to remove potential mammalian predators (by shooting foxes and coyotes, and shooting or box trapping skunks, raccoons, or opossum). Crows seem to quickly become wary of shooting, and scores of loafing gulls might need to be removed in order to get at the few individuals that may be preying on eggs or chicks. Also, as you know, the degree of nest predation, and the primary nest predators, can vary at a site from year to year. As you recall, there have been some years at Nauset Spit when predation and/or harassment at exclosures was so great (sometimes by foxes) that all exclosures had to be removed. In those situations, I doubt that protecting incomplete clutches would help much, if at all. Impacts of mange can vary temporally and spatially; red foxes may become more abundant at Nauset sometime in the next 3 years.

Please Respond as soon as you are able. I am available by phone 24/7 and will drive to your office at any time to meet with you in regards to any further negotiations regarding obtaining a State Conservation Permit.