



United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

Animal Damage
Control

RD#2, Box 360-C
Locust Grove Rd.
Pittstown, NJ 08867-9529

Mr. Arthur Stewart
Deputy Superintendent
National Park Service
Gateway National Recreation Area
Building 69, Floyd Bennett Field
Brooklyn, New York 11234

April 1, 1993

Dear Mr. Stewart:

Attached is a status report for USDA APHIS ADC's gull management project to protect piping plovers at Gateway National Recreation Area's Breezy Point Unit for the period March 24-April 1, 1993. I look forward to discussing this report with you at our meeting on April 2.

Sincerely,

Janet L. Sillings

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State Director, ADC NJ/PA/LI&NYC

Enclosure

CC: Rick Owens, Assistant Regional Director, ADC
Ann Roethel, National Park Service
David Avrin, NPS
Joseph Avery, NPS
Mary Hake, NPS
Joe Pane and Bob Miller, NY Division of Fish and Wildlife
Anne Hecht, U.S. Fish and Wildlife Service



STATUS REPORT 2: MARCH 24 - APRIL 1, 1993

GULL MANAGEMENT TO PROTECT PIPING PLOVERS
CONDUCTED BY
USDA APHIS ANIMAL DAMAGE CONTROL (ADC)

GULL ABUNDANCE

The number of gulls associated with the Breezy Point colony site continued to increase (Table 1); an estimated 1300 gulls were present on March 29.

Table 1. Approximate number of gulls associated with the colony site each morning prior to initiation of gull harassment activities.

<u>Date</u>	<u>Number of Gulls</u>
3/18	60
3/19	200
3/22	200
3/23	700
3/24	700
3/25 *	200
3/26	1100
3/29	1300
3/30	800
3/31 *	600
4/01	1000

* ADC staff camped out on the colony on the previous night.

ADC presence in the colony during the night and early in the morning resulted in lower numbers of gulls associated with the colony site (March 25 and 31).

GULL MANAGEMENT ACTIVITY

Herring and great black-backed gull distress tapes were broadcast on a number of occasions, but this technique was discontinued because it attracted gulls to the area.

Pyrotechnics were expended to deter gulls from landing on the colony site. To date, a total of 2147 rounds of pyrotechnics have been fired (Table 2).

Table 2. Number of pyrotechnics expended each day in order to deter gulls from landing on the colony site.

<u>Date</u>	<u>Number expended</u>
3/18	15
3/19	383
3/22	116
3/23	254
3/24	205
3/25	177
3/26	177
3/29	201
3/30	264
3/31	96
4/01	259
Total to date	2147

EFFECT OF PYROTECHNICS ON GULLS

Gulls are continuing to be deterred from the nesting colony site by the firing of pyrotechnics. ADC personnel have noted a slight delay in gull avoidance behavior and a greater persistence of gulls attempting to enter the colony, especially during rainy or heavily-overcast days. Despite this slightly depressed response of gulls to the pyrotechnics, the firing of these devices continues to be very effective in clearing the colony site of gulls. When the colony site is left unattended by ADC personnel (weekends and evenings), gulls return to the site.

EFFECT OF GULL MANAGEMENT ACTIVITIES ON PLOVERS

Plovers continue to be unaffected by the firing of pyrotechnics within the gull colony site. NPS biologist Mary Hake continues to monitor potential impacts on plovers and other shorebirds, and has reported that there is no apparent impact to date. Close coordination between NPS biologist Hake and ADC personnel will continue.

HUMAN PRESENCE OTHER THAN NPS AND ADC PERSONNEL

There continues to be some level of pedestrian and vehicular traffic on the beach in the vicinity of the plover nesting habitat. Vehicles were noticed on at least three occasions, and a fisherman reported that he saw a four-wheel drive vehicle driving through the plover habitat, over the primary dunes, and into the gull colony site.

MEDIA CONTACTS

No media contacts were made by ADC personnel during this reporting period.

NPS/ADC COORDINATION

Interagency coordination between NPS and ADC continues to be effective. NPS personnel (Stewart, Avrin, Roethel) visited the colony site on Thursday, March 25, and were given a demonstration of gull harassment techniques, and observed the techniques' effectiveness.

On Wednesday, March 31, ADC personnel were approached and questioned by NPS Park Police who were apparently not informed of the gull management project and the firing of pyrotechnics. This visit was precipitated by complaints of "gunshots" being heard by Co-op residents.

PRELIMINARY CONCLUSIONS

1. Gulls are deterred from the colony site by pyrotechnics.
2. Plovers are apparently not affected by pyrotechnics that are fired within the gull colony site.
3. The number of gulls associated with the colony site is increasing.
4. Better communication with the Park Service Police is needed so they are informed of our activities. ADC will work with NPS to accomplish this.
5. A gull-marking study is proposed to determine the relative effectiveness of egg puncturing and egg destruction. The proposal is included as Attachment A.
6. The NPS's DEC permit should be amended to authorize the treatment of all gull nests on Breezy Point (current limit is 150 nests).

ATTACHMENT A

GOAL: To determine the relative effectiveness of egg-puncturing and egg-destruction in reducing gull impacts on plovers.

BACKGROUND: The puncturing of gull eggs was initially proposed because it was thought to be the best method to eliminate gull reproduction and reduce gull harassment of plovers, since gulls would maintain a strong affinity to their nests. It had been assumed that the physical destruction of the eggs and nests would reduce the adults' affinity to nests, thereby increasing the time and energy they would dedicate to harassing plovers.

The physical destruction of nests and eggs is a proven method to cause the abandonment of gull colonies; egg-puncturing is not. Destruction of eggs and nests is less labor-intensive than egg puncturing, and has been proven to cause colony abandonment.

In order to determine if nest and egg destruction does, in fact, increase gull presence within the plover nesting area, a gull-marking study is proposed.

THE PROPOSAL:

During the first gull egg treatment session (late April), a portion of the eggs will be punctured and a portion of the eggs will be physically destroyed. Two days prior to the physical destruction of the eggs, they will be marked with a red dye that will be transferred to the incubating adults. After the eggs are destroyed, ADC and NPS (Hake) biologists will monitor the plover nesting area for red-dye-marked gulls. If a significant number of dyed birds are observed there, it will be concluded that the physical destruction of eggs can increase the number of gulls in the plover nesting area. In that case, egg-puncturing should be conducted in subsequent egg treatments.

If dyed gulls are not observed within the plover nesting area, the physical destruction of eggs should be considered as the preferred egg treatment technique to be conducted in subsequent treatments.

Costs associated with this proposal would be minimal and would include the purchase of the dye.

PERMITS: If this proposal is accepted, the NPS (Avrin) DEC permit should be amended to authorize the physical destruction of gull eggs at Breezy Point and to dye-mark eggs.