

Agenda Item 8.

Memorandum

To: Programs, Projects and Operations Subcommittee

Subject: Tern and Plover Conservation Partnership – Request for Funding

Date: December 6, 2006

From: Gerry Bowen

The District received a funding request (see attached letter) from Renae Held, with the Tern and Plover Conservation Partnership (TPCP), a cooperative venture (see attached description) with twelve entities (see attached list), including the University of Nebraska-Lincoln (UNL) and the Nebraska Game and Parks Commission (NGPC).

The TCPC's mission is to protect the endangered least tern and the threatened Piping Plover and to prevent and resolve conflicts with the sand and gravel industry. The species use the sand and gravel mining areas for nesting.

The request is for a contribution of \$5,000 in 2007 to help fund seasonal personnel to monitor tern and plover nesting sites along the Platte and Elkhorn Rivers, and to help resolve conflicts as they arise throughout the year. They are also requesting a similar amount of funding from the Lower Platte South and Lower Platte North NRDs. As noted in the request letter, the TCPC has also secured partial funding from the sand and gravel industry. The program has been totally grant-funded in the past, with an annual budget of approximately \$50,000.

Management recommends that the Subcommittee recommend to the Board that the District provide financial assistance in the amount of \$5,000 to support the 2007 program activities of the Tern and Plover Conservation Partnership.

Renaë Held
153C Hardin Hall
University of Nebraska - Lincoln
3310 Holdrege
Lincoln, NE 68583-0931

December 5, 2006

Dear Mr. Petermann and Mr. Bowen:

I am writing regarding our request to the Papio-Missouri NRD for \$5,000 in funding for the Tern and Plover Conservation Partnership (Partnership). In Nebraska the *Endangered* interior Least Tern and the *Threatened* Piping Plover nest on dry, sparsely vegetated sandbars in the middle of braided river systems such as the lower Platte River. An alternative nesting habitat, which mimics this habitat in many regards is sand spoil piles at sand and gravel mines adjacent to the river.

The mission of the Partnership is to prevent and resolve conflicts between the sand and gravel industry and least terns and piping plovers that use these areas for nesting. The Partnership is a diverse partnership of 11 organizations including the several sand and gravel industry representatives, the University of Nebraska – Lincoln (UNL), Nebraska Game and Parks Commission (NGPC), and other granting agencies.

In the past the Partnership has been completely grant funded, but with grant funds decreasing in availability and the decrease in budgets of both UNL and NGPC, the Partnership is striving to become more self sustaining and is looking to additional sources for funding. We are currently working with the sand and gravel industry to acquire partial funding for the project and have been successful at procuring \$7,500 in funding at this time with the anticipation of more funding to come. We are confident that adding additional partners and funding sources will help us leverage additional funds from industry, thereby ensuring the continuation of the program.

This is an opportunity for the Papio-Missouri NRD to fulfill its mission to wisely conserve, manage and enhance wildlife resources within the districts boundaries, as many of our largest nesting sites are included within the district. We request \$5,000 to help fund one of two seasonal technicians to help with monitoring and conflict resolution along the Lower Platte and Elkhorn Rivers. In the month of December we will also be contacting the Lower Platte South and North NRD's for financial assistance in this manner. Thank you for your time and consideration, we look forward to meeting with you on December 12th.

Sincerely,

Renaë Held
Tern and Plover Conservation Partnership – Program Coordinator, UNL

Joel Jorgensen
Non-Game Bird Program Manager - NGPC



Tern and Plover Conservation Partnership



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The Tern and Plover Conservation Partnership strives to increase reproductive success of federally endangered least terns and threatened piping plovers nesting at sand and gravel mines, while reducing conflicts between mining operations and nesting birds. The Partnership also strives to understand the relationships between Platte river habitats and nesting and migrating birds, and educates and involves the public in all these efforts.

Primary Program Activities:

- Protect colonies from predation and human disturbance using electrified fences, nest enclosure cages, and posted signs
- Create strong working relationships between gravel mining companies, conservation organizations, and the public
- Head off and mitigate conflicts between nesting birds and business and landowner activities
- Develop, implement, and improve management techniques
- Increase public awareness and appreciation of conservation issues
- Monitor efforts with community based "Adopt-a-Colony" volunteer program
- Evaluate the importance of the Platte river to migrating shorebirds and other waterbirds
- Identify effects of river flows on creation of nesting and foraging habitats for waterbirds

Topics covered on this page:

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Background

Along the Platte River, Nebraska, federally endangered interior least terns (*Sterna antillarum athalassos*) and threatened piping plovers (*Charadrius melodus*) traditionally nest on large, barren, high elevation sand bars. These birds also nest on sand spoil piles (sand pits) created by sand and gravel mining operations. Birds nesting at landlocked sand pits are particularly vulnerable to predators and disturbance from human recreation and mining operations. Additionally, the presence of these protected birds creates the potential for conflicts between business interests and the needs of the endangered species.

In order to recover declining populations of these imperiled birds, it is necessary to understand and manage for the processes that create and maintain river sand bars. These habitats may be important to other species as well, but little is known about the use of Platte river habitats by migrating shorebirds and other waterbirds (such as herons and gulls).



Lower Platte River sand bars

The Tern and Plover Conservation Partnership was initiated by Jeanine Lackey and Ron Johnson from University of Nebraska Cooperative Extension and John

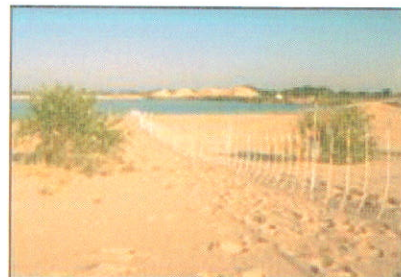
Dinan of the Nebraska Game and Parks Commission to address these challenges. The approach of the Partnership is to work with all interested parties to find sensible approaches to protecting terns, plovers and other components of the Platte River ecosystem, while ensuring that businesses are not unnecessarily harmed.

Management and Monitoring Activities Predators and human recreationists can drastically limit reproductive success of terns and plovers. Predators of eggs and chicks include raccoons and other terrestrial predators. Biologists and volunteers erect temporary, electrified fences around tern and plover colonies to reduce predation and human disturbance.



Raccoon

The fence spans from water's edge to water's edge, often exceeding 1200 feet of fencing material. Individual nest enclosure cages are placed around isolated plover nests. Help is needed to carry out this important work. Learn how you can lend a hand today by joining our [Adopt-a-Colony](#) volunteer program.



Predator Fence

Colonies are monitored biweekly during the nesting season (mid April through August) to obtain estimates of population size and breeding success. In order to reduce disturbance to the birds, colonies are entered only to determine nest fate or to estimate date of hatch by [floating the eggs](#).



Plover nest enclosure cage

In 2000, nesting occurred along the lower Platte at 20 sand pits and 9 river colonies. During our mid-summer census (a population count at the height of the breeding season used for comparisons between years) we counted 329 least terns and 52 piping plovers in this stretch of river. These numbers are still below the recovery objectives for the Platte river.

Applied Research

The Partnership seeks to solve problems and improve management through the use of applied research studies. One problem that is encountered is when terns and plovers nest near planned work activities at gravel mines and construction sites. Work activities can harm nesting birds, and the birds' protected status can delay or alter work activities, causing hardship and economic loss. In the summer of 2000, the Partnership conducted an experiment attempting to direct birds to nest out of harm's way. At



Gravel and driftwood spread on

12 sand pits, the suitable nesting area was divided into three equal study plots, from 1/2 to 1 acre in size. On one plot we spread gravel and driftwood as an attractant, on another we erected mylar streamers as a deterrent, and the third plot was left "as is" (plain sand) as a control.

The results: of 120 nests initiated in the study plots, 71% were in the attractant (gravel) plots, 27% were in the control plots, and only 2% were in the deterrent (mylar) plots. At several sand pits, this experiment helped to get birds to nest away from areas where access was needed to equipment, sand was being removed to be sold, waste sand was to be discharged, new material was being mined, and where recreationists on 4-wheelers frequented. These results suggest that it is possible to get birds to nest in areas where they will be safer and they will not cause conflict.



Mylar streamers to deter tern and plover nesting

In other research, the Partnership is conducting a tracking study to evaluate the effectiveness of the predator fence, and improve its design. A path is smoothed in the sand on either side of the fence and later checked for tracks. Results from 1999 and 2000 indicate that large canines (coyotes and domestic dogs) are the most abundant predator at sand pits. About 2/3 of terrestrial predators are stopped by the fence, but too many predators are still able to make it through. In 2001, we plan to monitor predator encounters with the fence using a remote video camera, and we will hopefully gain some insight in to how to make the fence more effective.



Tracking Study

Future research activities will include evaluating the importance of the Platte river system for migrating shorebirds and other waterbirds, and determining some of the mechanisms that create and maintain river habitats.

Education and Public Outreach

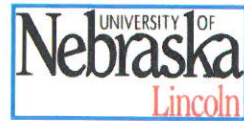
The Partnership seeks to increase public awareness and appreciation for the plight of the birds and the Platte River ecosystem, and the gravel mining process. The Partnership uses slide presentations, brochures, publications, field trips, and newspaper, TV, and radio stories to reach the public. Contact [Chris Thody](#) to schedule a presentation or field trip for your group. The Partnership also encourages involvement by gravel industry workers, community groups, and individuals through the [Adopt-a-Colony](#) volunteer program.

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The Tern and Plover Conservation Partnership brings together conservationists and resource users to find common sense solutions to the challenges of endangered species management.



University of Nebraska Extension



Nebraska Game and Parks Commission



Western Sand and Gravel Company



Nebraska Environmental Trust



National Fish and Wildlife Foundation



Mallard Sand and Gravel Company



Arps Gravel and Concrete



Overland Sand and Gravel Company

2006 Partners include: Arps Gravel and Concrete, Mallard Sand and Gravel Company, Lyman-Richey Corporation, Overland Sand and Gravel Company, Western Sand and Gravel, Nebraska Environmental Trust, National Fish and Wildlife Foundation, US Fish and Wildlife Service, Nebraska Game and Parks Commission, Girl Scouts-Great Plains Council, Nongame Wildlife Conservation Fund, and University of Nebraska-Lincoln.