

Colonel Robert H. Reardon, Jr.
U.S. Army Corps of Engineers
Norfolk District
803 Front Street
Norfolk, Virginia 23510-1096

Attn: Adrian Jennings
Regulatory Branch

Re: John O'Connell *et al.*, Project No.
97-1035, Northumberland County, Virginia

Dear Colonel Reardon:

The U.S. Fish and Wildlife Service has reviewed the Department of the Army permit application, 97-1035, submitted by John O'Connell *et al.*, to construct five groins in Northumberland County, Virginia. Your undated request for formal consultation on this permit application was received on August 12, 1997. This document represents the Service's biological opinion on the effects of that action on the northeastern beach tiger beetle (*Cicindela dorsalis dorsalis*) in accordance with Section 7 of the Endangered Species Act of 1973, as amended, (16 U.S.C. 1531 et seq.). A complete administrative record of this consultation is on file in this office.

I. CONSULTATION HISTORY

07-02-97 The U.S. Army Corps of Engineers requested that the Service review the proposed project for impacts to federally listed or proposed species.

07-16-97 The Service sent the Corps a letter stating that the northeastern beach tiger beetle had been documented at the proposed project site.

08-01-97 The Service visited the proposed project site with the Corps.

08-12-97 The Service received the Corps' request to initiate formal consultation.

II. BIOLOGICAL OPINION

DESCRIPTION OF PROPOSED ACTION

The applicants (John and Robynne O'Connell, Jim and Anne Broaddus, Dick and Martha Carter, Tom and Florence Shelburne) are adjacent property owners who propose to construct five 48-foot long timber groins 70 feet apart north of Vir-Mar Beach along the Potomac River in Northumberland County, Virginia (Figure 1).

RANGEWIDE STATUS OF THE SPECIES

This information on the northeastern beach tiger beetle was recently provided to the Corps in a biological opinion dated April 29, 1997.

ENVIRONMENTAL BASELINE

As defined in 50 CFR 402.02 "action" means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies in the United States or upon the high seas. The "action area" is defined as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. The direct and indirect effects of the actions and activities resulting from the federal actions must be considered in conjunction with the effects of other past and present federal, state, or private activities, as well as the cumulative effects of reasonably certain future State or private activities within the action area. The Service has determined the action area for this project to be the applicants' properties (total length of 298 feet) between mean low water (MLW) and the landward edge of the beach.

Status of the Species in the Action Area - The project is located along the Potomac River in an established residential subdivision. The upland contains lots approximately 60 feet wide with single family residences. The upstream and downstream shoreline has been stabilized with riprap and/or groins. The proposed project site has a sandy, unvegetated beach with an average width of 15 feet from the base of the vegetated and stable bank to the mean high water shoreline. It is a high energy beach with a northeast fetch to the Potomac River.

Knisley (1997) provided the following summary of the northeastern beach tiger beetle population at this site known as the Condit-Black Pond site. "This long 1700 m site borders Vir-Mar Beach on the north side, beginning just across the channel from the north end of Vir-Mar. The southern portion of this shoreline is a part of the new Bayview, Harbor Point housing development where several shoreline lots are developed with houses planned. Nearly all of this site has closely spaced low groins, except for the north section. These groins are old and have apparently been in place for over 25 years, like those at Vir-Mar. This is a new site for *C. dorsalis*, and at present a very good one with suitable beach width (mean of 5.3 m). Adults (1128 total) and larvae (152 total) were abundant throughout the site in both the natural northern (groinless) section and the groin portion. Adults occurred at generally consistent densities throughout the length of the site, but larvae were twice as dense (5.3 versus 2.5) in the natural beach which was slightly wider (5.6 versus 4.8 m)." However, the number of adults counted typically provides estimates that are 1/2 to 1/3 of the total adult beetle population at a site (Knisley 1997).

Effects of the Action - Direct impacts to the tiger beetle will result in the crushing of adult beetles, and subsequent injury or death, during construction from use/placement/stockpiling of equipment and materials on the beach and foot traffic within the construction area. Construction will also result in temporary loss of habitat for adults through disruption of their daily activity patterns (i.e., foraging, mating, basking, egg-laying). Larval tiger beetles will be directly affected through crushing, dislodging, and entombment, resulting in death or injury, during construction by use/placement/stockpiling of equipment and material on

the beach and heavy foot traffic within the construction area. Larval beetles will also be prevented from feeding during that time due to their sensitivity to vibrations, movements, and shadows, resulting in injury and potentially death. Existing habitat, for both larval and adult beetles, will be permanently lost within the footprint of the groins between MLW and the landward edge of the beach.

Indirect effects are defined as those that are caused by the proposed action and are later in time, but still are reasonably certain to occur (50 CFR 402.02). Much of the sand supply for this beach is from offshore. The groins are designed to capture sand from longshore movement. However, because this shoreline has many existing groins that have reduced the density of larval beetles, the addition of the proposed groins is not likely to have a noticeable effect on the beach profile nor significantly alter long-term adult and larval tiger beetle densities.

Future maintenance of the proposed shoreline stabilization structures may not require Corps' authorization. These activities may result in injury or death to adult and larval tiger beetles through heavy foot traffic on beach areas, use/stockpiling of heavy equipment, and stockpiling/placement of materials. Maintenance activities may also result in temporary or permanent habitat loss. These activities may result in further impacts to the tiger beetle population at this site.

Cumulative Effects - Cumulative effects include the effects of future State, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of the ESA.

Construction of shoreline stabilization structures (e.g., riprap, bulkhead) landward of mean high water may occur within the action area in the future and such activities would not require Corps' authorization. This type of activity would adversely affect tiger beetles directly through death or injury during pre-construction and construction activities and temporary and permanent habitat loss. However, due to the existing beach stabilization structures, long-term impacts are expected to be minor.

CONCLUSION

After reviewing the current status of northeastern beach tiger beetle throughout its range and in the action area, the environmental baseline for the action area, the effects of the proposed groins, and the cumulative effects, it is the Service's biological opinion that the issuance of a DOA permit for this project, as proposed, is not likely to jeopardize the continued existence of the northeastern beach tiger beetle. No critical habitat has been designated for this species, therefore, none will be affected.

III. INCIDENTAL TAKE STATEMENT

Sections 4(d) and 9 of the ESA, as amended, prohibit taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species of fish or wildlife without a special exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral

patterns such as breeding, feeding, or sheltering. Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns, which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is any take of listed animal species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the federal agency or applicant. Under the terms of Section 7(b)(4) and Section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

AMOUNT OR EXTENT OF TAKE

Based on research conducted by Knisley (1997), the project site is estimated to contain 86 larval beetles and 140 to 210 adult beetles. The Service anticipates that no more than ½ of adult and larval beetles will be taken as a result of construction activity and loss of habitat within the footprint of the groins. The incidental take is expected to be in the form of direct killing, harassment, or harm.

REASONABLE AND PRUDENT MEASURES

The measures described below are nondiscretionary, and must be implemented by the Corps so that they become binding conditions of any permit issued to the applicant in order for the exemption in Section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps (1) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of Section 7(o)(2) may lapse. The Service considers the following reasonable and prudent measures to be necessary and appropriate to minimize take of the northeastern beach tiger beetle.

- o Human activity, materials, and equipment on the beach must be minimized to reduce the impact to adult and larval tiger beetles.
- o Construction activities must be conducted when adult beetles are not present.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of Section 9 of the ESA, the Corps must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline the required reporting/monitoring requirements. Monitoring is not required for this project because extensive shoreline alteration has already occurred. These terms and conditions are nondiscretionary.

1. No construction, earth-moving, placement of materials or equipment, or maintenance of structures will occur on the beach between June 1 and September 15 of any year.

2. Materials will be transported to the beach only on an as-needed basis.
3. No ground disturbance or use of vehicles or heavy equipment will occur on the beach outside of the applicants' property boundaries.
4. No refueling of equipment or vehicles will occur on the beach.
5. No use of pesticides on the beach.
6. The applicant is required to notify the Service before initiation of construction and upon completion of the project at the address given below. All additional information to be sent to the Service should be sent to the following address:

Virginia Field Office
U.S. Fish and Wildlife Service
P.O. Box 99
6669 Short Lane
Gloucester, VA 23061
Phone (804) 693-6694
Fax (804) 693-9032

7. Care must be taken in handling any dead specimens of proposed or listed species that are found in the project area to preserve biological material in the best possible state. In conjunction with the preservation of any dead specimens, the finder has the responsibility to ensure that evidence intrinsic to determining the cause of death of the specimen is not unnecessarily disturbed. The finding of dead specimens does not imply enforcement proceedings pursuant to the ESA. The reporting of dead specimens is required to enable the Service to determine if take is reached or exceeded and to ensure that the terms and conditions are appropriate and effective. Upon locating a dead specimen, notify the Service at the address provided.

V. REINITIATION - CLOSING STATEMENT

This concludes formal consultation on the action outlined in the Corps' request. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If this opinion does not contain national security or confidential business information, the Service will provide copies to the appropriate state natural resource agencies ten business days after the date of this

opinion.

The Service appreciates this opportunity to work with the Corps in fulfilling our mutual responsibilities under the ESA. Please contact Cindy Schulz of this office at (804) 693-6694, extension 127, if you require additional information.

Sincerely,

Karen L. Mayne
Supervisor
Virginia Field Office

Enclosure

LITERATURE CITED

Knisley, C.B. 1997. Distribution and abundance of the northeastern beach tiger beetle, *Cicindela dorsalis dorsalis*, in relation to shoreline modifications, in Virginia. Unpublished report to Virginia Department of Agriculture and Consumer Services, Richmond, VA.

(CSchulz:8/19/97)

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bcc: ARD-South, Region 5
Endangered Species Coordinator, Region 5
CBFO Reading File
Law Enforcement, Yorktown
(Attn: Dan Hurt)
Law Enforcement, Richmond
(Attn: Senior Resident Agent)

10 business days after the date of this letter, mail copies to:

_____ DNH, Richmond
(Attn: Tom Smith)
VDACS, Richmond