

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: James Doswell, Permit Application No.  
98-0275, Mathews County, Virginia

Dear Colonel Reardon:

The U.S. Fish and Wildlife Service has reviewed the Department of the Army permit application, 98-0275, submitted by James Doswell, to construct shoreline stabilization structures in Mathews County, Virginia. Your April 13, 1998 request for formal consultation on this permit application was received on April 15, 1998. This document represents the Service's biological opinion on the effect 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

- 03-23-98      The Service visited the proposed project site with the consultant.
- 04-15-98      The Service received the U.S. Army Corps of Engineers' request to initiate formal consultation.
- 04-22-98      The Service sent the Corps a letter indicating that the request for formal consultation had been received and was complete.

### II. BIOLOGICAL OPINION

#### DESCRIPTION OF PROPOSED ACTION

The proposed project is located along the Chesapeake Bay in Mathews County, Virginia (Figure 1). The applicant proposes to construct 150 linear feet of riprap landward of mean high water (MHW) (no Corps' permit required) (Figure 2). Ninety-five feet of the riprap will be parallel to the shoreline. The remaining 55 feet of riprap will be located perpendicular to the shoreline to prevent a community drainage ditch from continuing to erode and traverse the applicant's beach. Two 90-foot long low

profile timber groins are also proposed for construction. The construction area for the groins is 10 feet wide.

### RANGEWIDE STATUS OF THE SPECIES

This information on the northeastern beach tiger beetle was provided to the Corps in a biological opinion dated April 2, 1998 for permit application 97-1951-30.

### 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 action 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 that the action area for this project to be the applicant's property between mean low water (MLW) and the landward edge of the beach.

Description of the Action Area - The proposed project site is located south of the confluence of Kibble Pond and the Chesapeake Bay on Gwynn Island. The shoreline is subdivided into lots for single-family residential development. The site has a sandy beach averaging 20 feet wide from the base of the eroding band to MHW. The lot is approximately 100 feet wide. It is a high energy beach with an easterly fetch. The intertidal zone is approximately 15 feet wide. The shoreline on both sides of the project area contains existing groins and bulkheads except for a small area to the south/southeast that has not been altered.

Status of the Species in the Action Area - The proposed project is not located within the Gwynn Island tiger beetle site. Northeastern beach tiger beetle surveys (larval or adult) have not been conducted at this site. However, appropriate tiger beetle habitat was observed by the Service during the site visit. The applicant will assume that the tiger beetle is present at the project site.

### EFFECTS OF THE ACTION

Direct Effects - Direct impacts to the tiger beetle will result from 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 materials 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 - 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). The riprap will prevent larvae from being able to migrate landward as they mature, resulting in an inability to survive winter storms and erosion. In addition, the riprap will eliminate the natural sloughing and erosion of sand from the banks and, subsequently, the upland replenishment of sand to the beach. However, because this shoreline has already been significantly altered, it is not likely that construction of the riprap will result in loss of the existing beach. Groins are designed to capture sand from longshore movement and will help ensure that a beach continues to exist at this site.

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.

Interrelated and Interdependent Actions - As defined in 50 CFR 402.02, interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. No activities interrelated to and interdependent with the proposed action are known at this time.

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. The Service is not aware of any cumulative effects at this time.

## 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 riprap and 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

The Service anticipates that incidental take of the northeastern beach tiger beetle will be difficult to quantify and detect because the population density of the beetle within the project area has not been determined, and any beetles (adult or larvae) that are killed during project construction, stockpiling of equipment and materials, and habitat loss will be difficult to observe or locate due to their coloring, small body size, and tendency for larvae to remain beneath the surface. However, the level of take of this species can be anticipated by the areal extent of the potential habitat affected. This incidental take statement anticipates the taking of adult and larval northeastern beach tiger beetles between the landward edge of the beach and MLW on the applicant's property (approximately 3,500 square feet). However, most of the impacts are expected to occur within the 700 square feet along the groin alignments resulting from construction activities, stockpiling of materials and equipment, and temporary and permanent (140 square feet within the footprint of the groins) habitat loss between the landward edge of the beach and MLW within a 10-foot wide construction area for the groins.

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

### TERMS AND CONDITIONS

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 reporting requirements. Monitoring is not required for this project because only a small number of northeastern beach tiger beetles are likely to be affected and this area is not considered necessary for recovery/survival and delisting of the species. 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 applicant's property.
4. No refueling of equipment or vehicles will occur on the beach.
5. No use of pesticides on the beach.
6. 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.
7. 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

#### IV. CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to further minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans and other recovery activities, or to develop information to benefit the species.

Due to the amount of shoreline stabilization/alteration taking place along the shoreline of the Chesapeake Bay, the Service recommends that compensation for adverse impacts to and loss of northeastern beach tiger beetle habitat be undertaken. Since its listing in 1990, the Service has written biological opinions for 28 projects adversely impacting 13 tiger beetle sites in Virginia. As the Corps continues to issue permits for shoreline alteration, the amount of habitat available for the continued existence of this species is decreasing. For recovery and subsequent delisting of the tiger beetle within the Chesapeake Bay of Maryland and Virginia, at least 26 populations must be permanently protected at extant sites (U.S. Fish and Wildlife Service 1994). In Virginia, 4 large (> 500 adults) populations and 4 other populations must be protected on the Eastern Shore; 3 large populations and 3 others must be protected on the western shore of the Chesapeake Bay north of the Rappahannock River; and 3 large populations and 3 others must be protected on the western shore of the Bay south of the Rappahannock River. Presently, there are 6 large and 6 other (100 to 499 adults) populations on the Eastern Shore; 7 large and 2 others on the western shore north of the Rappahannock; and 4 large and 5 others on the western shore south of the Rappahannock.

The Service is concerned that in the near future, projects proposed in areas of the Chesapeake Bay and its tributaries critical to the continued existence of the tiger beetle will result in jeopardy to the species. Therefore, the Service recommends that the Corps require compensation for permitted projects. Alteration of tiger beetle sites necessary for recovery/survival and delisting that support more than 500 adult beetles should be compensated at a ratio of 3:1. Areas necessary for recovery/survival and delisting that support less than 500 adult beetles should be compensated at a ratio of 2:1. Areas not necessary for recovery/survival and delisting, should be compensated at a ratio of 1:1. As the Service receives additional information on the location and status of tiger beetles, the relative importance of a given tiger beetle site may change.

Because the proposed project is located in an area not deemed necessary for recovery by the Service,

compensation of 1:1 is recommended. That is, 200 linear feet of shoreline with an appropriate upland buffer should be permanently protected via a permanent conservation easement. The Service will be glad to work with the Corps and the applicant to locate and preserve such an area.

In order for the Service to be kept informed of actions that minimize or avoid adverse effects or benefit listed species or their habitats, the Service requests notification of the implementation of any of these conservation recommendations by the Corps.

#### 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

Enclosures

## LITERATURE CITED

U.S. Fish and Wildlife Service. 1994. Northeastern beach tiger beetle (*Cicindela dorsalis dorsalis* Say) Recovery Plan. Hadley, MA.

(CSchulz:4/22/98)

(filename:opinions/doswell/doswillbo)

bcc: AGARD-South, Region 5  
ARD-ES, Region 5  
Endangered Species Coordinator, Region 5  
CBFO Reading File  
Endangered Species Biologist, CBFO  
Endangered Species Biologist, NEFO  
Endangered Species Biologist, NJFO  
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

(Attn: John Tate)

Jay Foster

R&W Construction

P.O. Box 229

Cobbs Creek, VA 23035