

James D. Fraser

709 McBryde Drive
Blacksburg, VA 24061
540-553-1531
Jimfraser111@gmail.com

Norfolk District, Corps of Engineers
(ATTN: CENAO-WR-R, George Janek)
803 Front Street
Norfolk, Virginia 23510-1011

Date February 2, 2020

Dear Mr. Janek,

I am writing to comment on the permits requested by the Hampton Roads Connector Partners for expansion of the Hampton Roads Bridge Tunnel (HRBT, CENAO-WR-NAO-1994-1166). Without mitigation in the form of creation of alternate habitat before colony disruption, this project will destroy the seabird colony on the Hampton Roads Bridge Tunnel South Island, and likely will disrupt the rest of the seabird colonies in the state.

In this letter I will

1. Introduce myself
2. Describe the importance of the HRBT seabird colony
3. Provide highlights of a January 2018 report from the Virginia Tech Shorebird Program to VDOT, recommending bird conservation efforts in connection with the project
4. Provide additional insights into the situation that have come to light since our report
5. Request that, due to important new information (see 4, above) and extensive public interest, the corps hold public hearings on this issue.

I am a professor of wildlife conservation at Virginia Tech, but my comments are my own, not Virginia Tech Policy. I have had more than 45 years of experience conducting conservation research, and collaborating with public agencies and private entities to help them use research results to build conservation programs. I have worked on coastal systems in Virginia since 1986. I was one of the principal investigators in a VDOT-funded project to provide conservation recommendations for the birds on HRBT, and a coauthor of the final report for that project (Gibson et al. 2018). Finally, I was a Co-principal investigator on recent projects (2018-2019) that gathered additional information about the seabirds on the Hampton Roads Bridge Tunnel (Hunt et al. 2019)

Mr. Janek,
February 2, 2020
page 2 of 5

The importance of the South Island Seabird Colony

The colony of seabirds on the South Island of HRBT is the largest and most diverse seabird colony in Virginia. According to the most recent survey of the state's colonial nesting waterbirds (Watts et al. 2019), the HRBT colony contains 84% of Virginia's Royal terns, 98% of Sandwich terns, 45% of common terns, 23% of black skimmers, 6.9% of gull-billed terns, and about 24% of the state's laughing gulls, as well as herring gulls and great black-backed gulls. All of these, except herring gulls and great black-backed gulls, are on the state's list of birds of greatest conservation need, and the gull-billed tern is listed as a state endangered species. Unlike seabirds in most other Virginia colonies (see new information, below), black skimmers, royal terns, sandwich terns at HRBT have increased in recent years (Gibson et al. 2018). The South Island colony is also the only large multispecies colony on the western shore of the Chesapeake (Watts et al. 2019). The gull-billed tern and the black skimmer are on the U.S. Fish and Wildlife Service list of species of conservation concern, and are listed as decreasing on the IUCN Red List of threatened species.

Highlights of the Report to VDOT

VDOT contacted the Virginia tech Shorebird Program (Jim Fraser, Sarah Karpanty) by email on April 11, 2017, and asked if we would be willing to examine the situation at HRBT and provide conservation recommendations for the seabirds. We said we would be happy to do so, and had, with other members of our team, our first site visit and meeting with VDOT on May 15, 2017. At that meeting we discussed a number of options, including I recall, the option of moving the birds to barges, but we recommended that, if VDOT didn't want the birds on the island, the best option from a biological point of view, would be to build a new island for them as has been done in other states. Nevertheless, VDOT asked us to think more about it and to evaluate a series of alternatives. We assented.

At VDOT's request, we evaluated 16 potential conservation measures. After an extensive review of the literature and conferrals with species experts, our team recommended creation of "a stand-alone island or island extension (of the South Island) *prior to the HRBT expansion*" (italics added for emphasis). We said we believed that creation of new nesting habitat after the HRBT expansion (that is, after the birds were evicted) would have a lower probability of success than habitat creation beforehand.

We further stated that "it is unlikely that any other site in Virginia can successfully maintain this community of waterbirds in the absence of large-scale habitat restoration or habitat construction efforts..." Thus, if the colony on the South Island is destroyed, at least some of the species nesting there, will be eliminated or nearly eliminated from the

Mr. Janek,
 February 2, 2020
 page 3 of 5

as nesting species in James River Basin, and the populations of these species will be lowered in the state, such that the probability of their persistence in the state will be questionable.

New Information

Since our report to VDOT, new information has become available.

Seabird population size on South Island was about ~ 25,000 in 2018. In 2018, Virginia Tech crews conducted a mark recapture study of some of the species nesting on South Island. Numbers of common terns, royal terns, Sandwich terns, and gull-billed terns on the South Island, added to the state’s estimates of other species, yielded a total estimate of seabirds at approximately 25,000, including adults and chicks (Karpanty and Fraser 2020).

Seabirds are declining throughout the State: The report on the 2018 colonial waterbird survey in Virginia (Watts et al. 2019) reported that the “colonial waterbird community as a whole in coastal Virginia has declined dramatically since 1993.” The following table shows that 5 of 8 species found on HRBT declined substantially statewide in the last 25 years, but have had increasing, stationary or variable populations on HRBT. The very substantial increase in sandwich terns was almost entirely due to its increase on HRBT.

Table 1. Population trends of 6 key species that nest on the Hampton Roads Bridge Tunnel South Island; percent change of statewide population, the percent of the state population on the Hampton Roads Bridge Tunnel in 2018, and the species’ population trend on HRBT.

Species	State Percent change ¹	% of state population on HRBT in 2018 ¹	Trend on HRBT ²
Gull billed tern	-42%	6.9%	Variable
Royal tern	-34%	84%	Increasing
Sandwich tern	+240%	98%	Increasing
Common tern	-80%	46%	Stationary
Black Skimmer	-59%	23%	Increasing
Laughing gull	-63%	24%	Decrease then stationary

¹ (Watts et al 2019)

² (Gibson et al. 2018)

This table illustrates that disruption of the HRBT population may have a very substantial negative effect on statewide seabird populations

Mr. Janek,
February 2, 2020
page 4 of 5

Disruption has already resulted in decreased chick survival on HRBT In 2018 and 2019, under contract to the Virginia Department of Game and Inland Fisheries, Virginia Tech conducted a mark recapture study of the survival of 3 seabird species nesting on HRBT. Before the 2019 season, a part of the habitat used by royal terns was paved. In addition, in 2019 there was considerable disturbance of birds on the island. As a result, colonies moved, and in particular, more terns and skimmers nested close to herring gulls. The median chick survival dropped 81%, 77%, and 34% for black skimmers, common terns, and gull-billed terns, respectively, apparently largely due to increased predation by herring gulls caused by the human-induced movement of colonies (Hunt et al. 2019).

Table 2. Estimated survival of chicks from hatch to fledging age, or three seabird species, on the Hampton Roads Bridge Tunnel South Island, 2018 and 2019, from Hunt et al. 2019.

Species	Cohort	Median Survival Probability
Black Skimmer	2018	0.65
	2019	0.12
Common tern	2018	0.52
	2019	0.12
Gull-billed tern	2018	0.85
	2019	0.56

In summary, eviction of the seabirds from the Hampton Roads Bridge Tunnel, without providing a suitable alternative nesting habitat, will cause a substantial disruption of the Commonwealth's seabird populations. Mitigation in the form of an alternative nesting island in the James River, should be in place by March 1, 2021, and should be part of the project, not administratively separate. Because they need an island, there should be no question that this is a water-dependent activity. Evicting the terns now, but waiting for years to create new habitat is likely to cause a very substantial disruption of state seabird populations, and it is not clear how, when or if the populations will recover. If the birds nesting habitat is removed and not replaced, this will be the greatest single habitat loss (most individual birds affected by a single project) that I have seen in my 39 years in Virginia. I hope the Norfolk District of the U.S. Army Corps of Engineers will become part of the solution to this problem.

Mr. Janek,
February 2, 2020
page 5 of 5

Given the amount of new information that has come to light, and the fact that the EA and Supplementary Environmental Impact Statement did not indicate the birds would be eradicated from South Island, I request that a public hearing be held.

I would be happy to meet with you to discuss these concerns, the nature of needed mitigation, or relevant other issues.

Sincerely,

James D. Fraser

James D. Fraser, Ph.D.
Conservation ecologist

Literature Cited (These reports will be emailed separately, please consider them part of this comment).

Gibson, D., K.L. Hunt, D.H. Catlin, J.D. Fraser, S.J., Ritter, S.M. Karpanty. 2018. An assessment of potential conservation measures to benefit colonial nesting waterbirds using the South Island of the Hampton Roads Bridge Tunnel. Unpublished report for the Virginia Department of Transportation, Virginia Tech Shorebird Program. 150pp.

Hunt, K, D. Gibson, M. Friedrich, C. Weithman, J. Fraser, S. Karpanty, and D. Catlin. 2020. Banding colonial waterbirds to support monitoring the effect of the HRBT expansion. Unpublished final report to the Department of Game and Inland Fisheries. Virginia Tech shorebird program. 31pp.

Karpanty, S.M. and J.D. Fraser. 2020. Draft Response on HRBT Colony Size. January 26, 2020. Unpublished report, Virginia Tech shorebird program. 3pp.

Watts, B. D., B. J. Paxton, R. Boettcher, and A. L. Wilke. 2019. Status and distribution of colonial waterbirds in coastal Virginia: 2018 breeding season. Center for Conservation Biology Technical Report Series, CCBTR-19-06. College of William and Mary & Virginia Commonwealth University, Williamsburg, VA. 28 pp.