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Saving a National Treasure

June 10, 2022

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Mr. Randal D. Owen
Chief, Habitat Management Division
Virginia Marine Resources Commission
380 Fenwick Road, Building 96
Fort Monroe, VA 23651

Re: Stop Work Order Response and Proposed Phase I Remediation Plan

Dear Mr. Owen:

We are in receipt of your June 2, 2022 Stop Work Order (the Order) related to the Chesapeake Bay Foundation's (CBF) Pleasure House Creek Oyster Reef (VMRC Permit #2021-0632, 36.903331 N, -76.100893W), Browns Cove Reef P (VMRC Permit #2021-0631, 36.875681 N, -76.061678 W), and Keeling Drain Reef M (VMRC Permit #2021-0011, 36.895318 N, -76.078682 W). We appreciate the long and productive relationship that CBF and the Virginia Marine Resources Commission (VMRC) have had which allows us to work in a collaborative manner to improve water quality and habitat through the restoration of oysters and their habitat in Virginia's waterways. CBF has been working to restore native oysters to the Lynnhaven River and other tidal waterways in Hampton Roads for several decades. Our record shows that we take very seriously the need to conduct restoration activities safely and in conformity with our permits and other legal requirements. Thank you for providing, in response to our requests, evidence associated with the Order, including three sets of photographs from January 5, February 10, May 31, and June 1, and for meeting with staff from CBF and Lynnhaven River Now (LRN) on June 7 to further discuss and clarify issues identified in the Order. Through this correspondence, we are memorializing that conversation and also providing our Phase I Remediation Plan addressing paragraphs 2 and 3 of the Order, as we continue to evaluate options to meet the other components of the Order.

Pleasure House Creek

LRN (a sub-awardee on a National Fish and Wildlife Foundation grant to CBF) and Seaduce LLC (its subcontractor) began placing substrate in the Pleasure House Creek reef area the week of January 24, 2022. The substrate consisted of recycled concrete material from multiple sources, including recycled concrete donated by the City of Virginia Beach. On February 11, VMRC verbally contacted CBF to raise concerns regarding the level of debris identified in substrate that was placed in Pleasure House Creek. In response, CBF and its contractors discontinued the use of recycled concrete from Dunn Demolition's Witchduck pile, a source identified as having a higher

degree of debris, crafted a 10-point Debris Mitigation Plan, circulated such plan to VMRC staff, and identified the acceptable sources for all future recycled concrete to be used in Pleasure House Creek. VMRC verbally acknowledged and accepted CBF's Debris Mitigation Plan and to CBF's knowledge any alleged asphalt and metal wiring remaining in the Pleasure House Creek reef is a result of recycled concrete placed in the reef prior to the implementation of the Debris Mitigation Plan. VMRC staff accompanied Seaduce crews on at least one deployment of recycled concrete in Pleasure House Creek subsequent to the Debris Mitigation Plan being in place and VRMC raised no concerns with the deployment. CBF staff also met with VMRC staff on March 15, 2022, to discuss recycled concrete placement on the reef.

CBF proposes, subject to VMRC approval, to have LRN and Seaduce survey the reef and remove asphalt and metal wiring and properly dispose of the same, and tamp down all reef areas higher than the maximum one-foot elevation above the substrate during the week of June 13-17 (as further discussed in the attached Phase I Remediation Plan). LRN and Seaduce are standing by to undertake this work and next week is an ideal time in the tidal cycle to complete this work. We welcome VMRC's inspection of the reef after this removal effort is complete. In its Order, VRMC requests that the final layer of oyster shell and spat on shell not be installed at the Pleasure House Creek reef prior to VRMC confirmation and approval. CBF notes that prior to receipt of the Order, from May 31-June 2, CBF placed approximately 640,000 spat on shell on the Pleasure House Creek reef. CBF will await VMRC review and approval of the asphalt and metal wiring removal effort before placing any additional spat on shell in Pleasure House Creek.

Finally, VMRC provided CBF with photographs taken by VMRC staff on January 5 that depict a pile of material that contains significant amounts of asphalt and brick.¹ As confirmed during our June 7 meeting, this pile of material was not used, and was never intended to be used, as reef substrate. Rather, this material was specifically ordered as size 21A material to be spread on the roadway at Lesner Wharf to improve ingress and egress of heavy machinery at the wharf.

Browns Cove Reef

The Order alleges that concrete was placed outside of the permitted footprint for this reef. Staff from CBF, LRN, and VMRC met with Senator Bill DeSteph on Friday May 27, 2022, to discuss the concrete placement at the Browns Cove Reef and agreed upon a smaller area for substrate placement than that identified in the approved permit, focusing the reef on the western portion of the permitted area. During that meeting, VMRC relayed to CBF that CBF should not move any concrete substrate until CBF could evaluate how much material has been placed outside the permitted area. CBF will also need to consult with the U.S. Army Corps of Engineers, Norfolk District prior to moving any substrate material. As of the issuance of the Order, no final conclusions had been reached as to removing concrete placed outside the permitted area. Rather, the next step identified during the meeting was for CBF staff to evaluate, using a side scan survey where materials were placed both inside and outside of the permitted area. Prior to receipt of the Order, CBF intended to conduct the side scan the week of June 6. The side scan effort was completed on June 6 and as of this writing, CBF continues to analyze its results. Based on the results of the scan, CBF will work with VMRC and the Corps to finalize a plan for this concrete substrate and will provide a separate written plan for VMRC consideration. CBF is evaluating its

¹ Images IMG_1084, IMG_1085, and IMG_1086.

grant deliverables for this reef to determine if sufficient substrate material has been placed to meet such deliverables. Even if additional substrate deployment is necessary, we anticipate that completing the substrate placement for this reef will entail only one more day of deployment consisting of two or three barge loads of substrate. CBF will provide a separate written plan to address point 5 in the Order.

Keeling Drain Reef

CBF's contractors have been deploying recycled concrete at the Keeling Drain Reef in conformance with the Debris Management Plan. The Order alleges that plastic and paper waste was photographed and originated from the deployment of concrete at the Keeling Drain Reef. CBF continues to evaluate options to address debris, including additional evaluation of sourcing options and additional CBF staff oversight for evaluating debris in recycled concrete. CBF will provide a separate written plan to address points 1 and 4.

Conclusion

We appreciate VMRC's willingness to meet with us on June 7 to expeditiously resolve the issues identified in the Order. Attached to this letter is CBF's Phase I Remediation Plan to address points 2 and 3 of the Order consistent with our further discussion of the issues during our meeting. CBF continues to evaluate appropriate plans to address points 1, 4, and 5 of the Order. We appreciate VMRC's review of the proposed Phase I Remediation Plan and look forward to addressing any remaining concerns so that CBF can be authorized to undertake remediation of Pleasure House Creek, and ultimately continue our oyster restoration work.

Should you have any questions regarding this letter, please contact me at PFanning@cbf.org or (304) 952-7496.

Sincerely,



Patrick J. Fanning
Virginia Staff Attorney

cc: Margaret L. (Peggy) Sanner, Virginia Executive Director, CBF
Justin D. Worrell, Acting Commissioner, VMRC
Senator Bill DeSteph
Delegate Anne Ferrell Tata
Karen Forget, Lynnhaven River Now
Michael Steelman, Seaduce, LLC

CHESAPEAKE BAY FOUNDATION PHASE I REMEDIATION PLAN *for*
Pleasure House Creek Oyster Reef (VMRC Permit #2021-0632, 36.903331 N, -76.100893W)
Browns Cove Reef P (VMRC Permit #2021-0631, 36.875681 N, -76.061678 W)
Keeling Drain Reef M (VMRC Permit #2021-0011, 36.895318 N, -76.078682 W)
In Response to June 2, 2022 VMRC Stop Work Order

June 10, 2022

This Remediation Plan: Phase I addresses plan components 2 and 3 identified in the Virginia Marine Resources Commission's (VMRC) June 2, 2022 Stop Work Order (the Order) related to debris in the Pleasure House Creek Oyster Reef and the use of hydraulic water cannons in the deployment of recycled concrete substrate by sub-awardee Lynnhaven River Now (LRN) and its subcontractor Seaduce LLC. The remaining components of the Order will be addressed in a Phase II Remediation Plan to be submitted upon completion.

2. The removal of all unauthorized material from the Pleasure House Creek reef. The final layer of oyster shell and spat on shell shall not be installed prior to VMRC confirmation and approval.

LRN, and Seaduce plan to survey the reef and remove asphalt and metal wiring and properly dispose of this material. LRN and Seaduce will also tamp down all reef areas higher than the maximum one-foot elevation above the substrate. The week of June 13-17 corresponds to a lunar low tide and presents ideal conditions to access the reef for debris removal. Immediately after this effort is complete, CBF will coordinate with VMRC to have the reef inspected and the removal operation approved by Daniel Faggert or other appropriate VMRC staff. Although some oyster shell and spat on shell has been deployed at the reef (prior to the issuance of the Order), CBF will not deploy any spat on shell at Pleasure House Creek until VMRC approves the removal effort.

3. An explanation of how the use of hydraulic water cannons accurately locates and restricts the reef material within the permitted footprint.

As detailed during the June 7 meeting, the use of water cannons to deploy concrete substrate material is a commonly used method for deploying substrate. This process entails deploying concrete from the port side of the barge while the barge moves precisely between poles placed using a high accuracy GIS system. The reef striations are 30-foot-wide sections where the recycled concrete is placed. The barge is 15 feet wide. Water is shot down at an angle at the base of the concrete pile. During deployment, approximately 98% of the concrete falls from the edge of the barge directly down into the water at a distance of about five feet and no further than 20 feet from the side. The reef footprint is larger than the area where stripes are being placed, so all the concrete is being deployed within the permitted area. CBF's contractor Seaduce, LLC has 30 years of experience using water cannons and has built over 100 reefs using this method. This method of deployment is more precise than using an excavator and is a process that VMRC regularly uses to build reefs and for repletion efforts. We understand that Seaduce LLC constructed oyster reefs for VMRC in the Lynnhaven River using a water cannon in

December 2019 and that VMRC has used a water cannon to deploy materials for reef construction in other watersheds as well.