Members of the CPF Water Quality Improvement Advisory Board:

Thank you for your continued consideration of our funding proposal, *Shellfish and Habitat Restoration in Support of Water Quality Improvement*. As requested, we are sharing with you additional resources and evidence of the efficacy of our proposed methods as a water quality improvement aquatic habitat restoration project, as defined by the Peconic Bay region community preservation fund law.

We previously shared with you the link for CCE Marine's "On the Water & In the Field" annual video production, for which that team has won a prestigious award. The 2022 episode opens with an update on our habitat and shellfish restoration efforts for Southampton Town. While I encourage you to watch the rest of the segment to get a full scope of CCE Marine's work, you can also skip to minute 28:00 for brief coverage on the Back to The Bays program. Our hope is to be able to produce similar expanded coverage highlighting the work we are currently proposing for Shelter Island in the 2023 episode.

In follow up to the video, Southampton Town Councilman John Bouvier has submitted a letter of endorsement for our work based on the town's positive experience over the last couple of years (Attachment 1), and he has offered to speak in more detail with Supervisor Siller. Hard copies of his letter and a letter from Kristen Doulos, Southampton Town Parks Director, have been mailed to Town Hall.

Our habitat team has supplied impressive visual documentation of a nearby eelgrass meadow restoration project. They began work at this site in Sag Harbor in 2016, and it is considered our best success story in the Peconics currently. The team uses PVC pipes as stakes to mark the points where they plant each year, and as you can see in the monitoring videos from 2022, these stakes have become surrounded by dense eelgrass: Video 1 shows older plantings, while Video 2 shows a more recent planting area that has begun to expand. As reported by the team, bay scallops, hard clams, whelks, northern puffer, sea bass and other species are frequently observed in the eelgrass. We have included two additional photos: one of a sea bass enjoying a freshly planted patch of eelgrass, and the other showing PVC stakes demarcating an older eelgrass planting area to the right and a newly completed planting to the left (Attachment 2).

While the use of scallop spawner sanctuaries for bolstering the wild set has been documented many times, we have attached a scientific paper written by CCE scientists that best describes the benefits and successes of this practice (Attachment 3). The entire paper is available for you to read, however I have highlighted in blue the "takeaway" statements at the beginning and end.

Important to note is that oysters, clams, and scallops are all broadcast-spawner bivalve species and benefit similarly to this methodology; more specifically, seeding these species in small areas at higher densities increases the egg fertilization rate, therefore improving the successful rearing of new cohorts of shellfish. In hard clams, this success is evidenced by the increased expression of the notata strain, which is simply a recessive trait exhibited by a rust colored pattern on the shell. Hatcheries select notata broodstock to spawn so as to better track the survival and reproduction success of the clams that are seeded. When elevated volumes of clams being harvested show the

notata markings, it means that the restoration of the species is working (Attachment 4).

With oysters, higher density seeding is not enough; successful restoration is also limited by the availability of suitable substrate onto which the larvae may set. Spat-on-Shell (SOS) oyster deployments supply that necessary setting substrate. We have included photos of SOS the day of being deployed to a restored reef and on a monitoring day 16 months later (Attachment 5).

As we described previously, SOS is used in restoration projects because of the added benefit of crucial habitat that oyster reefs offer, supporting a spawning, nursery and foraging environment for native species that are important for the health of the marine ecosystem and the continuation of the area's maritime heritage. We have supplied two scientific papers evidencing the types of species oyster reefs support (Attachment 6) as well as the additional indirect water quality improvement benefits that are achieved through programs that incorporate community engagement opportunities (Attachment 7), which is the core of the Back to the Bays initiative.

We hope this has helped clarify our proposed methodologies for habitat restoration and water quality improvement. Please do not hesitate to reach out with further questions as you finalize your decision to fund our proposal.

Sincerely,

Kate Rossi-Snook, Back to the Bays Aquaculture Coordinator

Kim Barbour, Back to the Bays Director