



Addendum to Lipcius and Seitz Proposals:

Utility of Alternative Oyster Reefs to Enhance Production of Recreational Fish

P.I.: R.N. Lipcius

Prey Availability and Enhanced Production of Artificial Reefs for Recreational Fish

P.I.: R.D. Seitz

Original Total of 2 Budgets =      \$ 199,643 + \$ 45,944 =      \$ 245,587

Revised Total of 2 Budgets =      \$ 156,071 + \$ 64,430 =      \$ 220,501

Total Reduction of 2 Budgets =      \$ 25,086

In response to the advice of the Recreational Fishing Advisory Board, PIs Lipcius and Seitz have made the following adjustments to the budget and scope of work for the proposals:

- 1) **Total Cost:** Total cost of the two proposals for VMRC is now \$220,501, a reduction of \$25,086.
- 2) **Personnel:** For the two projects, we have eliminated one staff member (the student) and changed to budget for two full-time technicians, one dedicated to the Lipcius project (a more experienced technician capable of diving) and one dedicated to the Seitz project (a lower-level technician). Both technicians will work together to accomplish all tasks.
- 3) **Vessel and travel charges:** Vessel charges for the Seitz portion have been reduced to 24 days (6 days on each of four sites), with only 4 total days of the more expensive vessel necessary for box coring (\$125/day, total of \$500) plus 20 days of a privateer (\$90/day, total of \$2300), which reduces vessel costs by \$1450. In addition, fuel charges were reduced by \$300. With the reduced field days, travel charges were also reduced by \$269. Though the number of sites has increased, the boat trips and personnel will be combined for the two proposals to reduce costs. On the Seitz proposal, we also eliminated the publication costs of \$500 per year that will be covered by other funds.
- 4) **Construction charges:** In the Lipcius proposal, reef materials were reduced by \$20,000 because we are collaborating with Mike Myers (see accompanying letter of commitment) to construct reefs at each of four sites. Because of this collaboration, subcontract construction charges were also reduced by \$2,000.

- 5) **Changes to scope of work: Deployment at Four Sites:** The advisory board suggested increasing the number of sites so that we can better discern environmental conditions that are best for reef success. Our scope of work has changed so that we will deploy reefs at additional sites (Poquoson and Mobjack Bay) in conjunction with Mike Myers. These two sites are in addition to one in Linkhorn Bay and one in Broad Bay, for a total of four reef sites.
- 6) **Changes to scope of work: Fish stomachs used from nets:** In response to comments from the advisory board, our main method of collecting fish for stomach-content analysis will be from circular nets. As available, fish guts will be collected from recreational fishers fishing directly on reefs.
- 7) **Changes to scope of work: Location of reef structures:** Each reef type will be located > 5ft from the next type to allow independent assessment of success of each reef type (but close enough for logistics of deployment and diver surveys).

## **BRIEF ROJECT BUDGET JUSTIFICATION**

The Project Director Seitz, will oversee and manage the project, sample collection, and data analyses. We are requesting funds for one month of salary (\$5,283/mo). We include 12-months support for an entry-level technician at VIMS (\$2333/mo) to sample invertebrates on the replicate reef structures, and to conduct gut-content and production analyses. We apply the allowable 30% fringe for faculty, 7.65% for classified staff.

We request 24 days of boat time on a VIMS vessel (large privateer) for sampling of all reef types and fish collection for diet analysis (6 work days for each of the 4 sites). This vessel costs \$125/day for the Ellis Olson x 4 days (\$500) and \$90/day for a privateer 20 days (= \$1800) plus fuel (listed in supplies).

Supply costs including vexar baskets for supporting movable reef structures (\$2,000)(these will be moved for sampling) sieves, formalin preservation chemicals, glassware, and forceps (\$1,600), suction sampling bags and other field sampling supplies (\$500) totaling \$4,100. Supplies also include vessel fuel: 24 boat days @ \$50 fuel per day (\$1200).

Travel includes trucks for trailering boats from the VIMS main campus to field sites on the Lynnhaven Bay at 41 miles away (0.58 per mile x 2 ways= \$47/day) for 24 days (\$1,141). Indirect costs are charged at the rate of 25% with 20% match, with the exception of service center charges (vessels) and equipment. The total funds requested from the Virginia Marine Resources Commission Recreational Fishing License board are \$64,430, with \$ 9941 in match, totaling \$ 74,371 for the project.

## VMRC Recreational Fish/Oyster Reef

### R.D. Seitz, PI

		monthly sal	VMRC	Match
<b>Salaries</b>				
Seitz, PI - 1 mon	1	5,283	5,283	
Marine Scientist1 (BS entry level) - 12 mon	12	2,333	27,996	
<b>Fringe, 30% salaries; 7.65% waged</b>			9,984	
<b>Supplies</b>				
Reef sampling baskets, sieves, formalin, glassware, forecepts, suction sampling bags, 24 days fuel				
			5,300	
<b>Travel</b>				
Travel to Field sites - ~41 miles one way @\$.58/mile				
VIMS truck for 24 days				
			1,141	
<b>Vessel Rental</b>				
Rental - \$125/day x 4 days, \$90 x 20 days	24	96	2,300	
<b>Facilities &amp; Administrative Costs</b>			12,426	9,941
<b>Total</b>			64,430	9,941
<b>Grand Total</b>				74,371



# COMMONWEALTH of VIRGINIA

L. Preston Bryant, Jr.  
Secretary of Natural Resources

## ***Marine Resources Commission***

*2600 Washington Avenue  
Third Floor  
Newport News, Virginia 23607*

Steven G. Bowman  
Commissioner

October 26, 2006

### MEMORANDUM VIA FAX

TO: R. N. Lipcius  
Dept. of Fisheries  
Virginia Institute of Marine Science

FROM: M. H. Meier *M.H.M.*  
Virginia Marine Resources Commission  
Fisheries management Division  
Artificial Reef Program

RE: Program cooperation with Lipcius & Seitz proposals, items "L" and "M" on the current list of RFAB proposals.

Per our telephone conversation on October 24<sup>th</sup>, 2006, the Artificial Reef Program would look forward to cooperating with the referenced proposals by providing space on permitted reef sites for placement of experimental structures.

Cc:  
Original to Sonya Davis, VMRC  
Jack Travelstead, VMRC  
Rob O'Reilly, VMRC

*An Agency of the Natural Resources Secretariat*

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**DEPARTMENT OF THE ARMY**  
**NORFOLK DISTRICT CORPS OF ENGINEERS**  
**FORT NORFOLK 803 FRONT STREET**  
**NORFOLK VIRGINIA 23510-1096**

October 26, 2006

Planning and Policy Branch

Ms. Sonya Davis  
Virginia Marine Resources Commission

Dear Ms. Davis:

The USACE Norfolk District confirms our commitment to collaborate with the Virginia Institute of Marine Science in accomplishing the research and construction objectives outlined in the proposals submitted to the Virginia Recreational Fishing Development Fund of the Virginia Marine Resources Commission entitled:

“Utility of Alternative Reefs to Enhance Production of Recreational Fish and Oyster Simultaneously” (PI: Romuald N. Lipcius), and

“Prey Availability and Enhanced Production of Artificial Reefs for Recreational Fish and Native Oysters” (PI: Rochelle D. Seitz).

David Schulte will work with Drs. Lipcius and Seitz and other participants to help accomplish the research and construction objectives.

If you have any questions or need additional information, please contact Mr. Dave Schulte of my staff at 757-201-7007 or via e-mail at [david.m.schulte@usace.army.mil](mailto:david.m.schulte@usace.army.mil).

Sincerely,

Mark T. Mansfield  
Chief, Planning and Policy Branch



## CHESAPEAKE BAY FOUNDATION

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*Resource Protection  
Environmental Education*

October 23, 2006  
VMRC  
Recreational Fishing License Board

To Whom it May Concern:

The Chesapeake Bay Foundation is highly supportive of the following two proposals:

“Utility of Alternative Reefs to Enhance Production of Recreational Fish and Oyster Simultaneously” by Romuald N. Lipcius

and

“Prey Availability and Enhanced Production of Artificial Reefs for Recreational Fish and Native Oysters” by Rochelle D. Seitz.

These proposals are exemplary of a cooperative approach to artificial fish reef restoration involving federal, state and local agencies, VIMS, the community, recreational anglers, and environmental organizations such as CBF. We expect there to be direct and measurable benefits of the reefs in Linkhorn Bay, Broad Bay, Mobjack Bay and the York River to the local community, to recreational anglers, and to the environment.

As evidence of our support of these projects, CBF will provide in-kind support with personnel time and use of our vessel.

Sincerely,

A. Thomas Leggett, Jr.  
Virginia Oyster Restoration and Fisheries Scientist