



Modification 003
to
Task Agreement P11AC90896 (Formerly P11AT40625)
Cooperative Agreement P09AC00212 (Formerly H4503090700)
between
United States Department of the Interior
National Park Service, Northeast Region
and
Stony Brook University

PROJECT TITLE: Monitoring Estuarine Condition at Gateway National Recreation Area

CFDA Number: 15.945 - Cooperative Research and Training Programs – Resources of the National Park System

GENERAL: The purpose of this modification is to:

- a) Add funds in FY2014 in accordance with the budget proposal in Attachment A.
- b) To add deliverables including data and reports in accordance with Attachment A and Article VI of this agreement.
- c) To modify Article VII by adding Attachment A titled: Monitoring Estuarine Condition at Gateway National Recreation Area

MODIFICATION:

ARTICLE V – Award and Payment is modified as follows;

NPS will provide funding to Stony Brook University in an amount not to exceed \$21,658.00 for work described in Attachment A. This Task Agreement may be modified to provide additional deliverables and funding in FY2015 and FY2016.

The chargeable appropriation for this Task Agreement is:

FY 2014 Appropriation Data: \$21,658.00

Cost Center: PPNENEIM1C

Functional Area Code: PPMRSNR1Y.AM0000

Under Task Agreement P11AT40625/P11AC90896

FY 2011 \$34,571

Mod 001-FY2012 \$35,437

Mod 002-FY2013

\$171,988

Total Federal Funds awarded to date under this Task Agreement: \$263,654.

This task agreement may be modified to provide additional funding in additional fiscal years subject to the availability of funds and upon NPS approval of annual work plans and budgets.

Stony Brook University shall request payment in accordance with the following:

1. **Method of Payment.** Payment will be made by advance and/or reimbursement through the Department of Treasury's ASAP system.
2. **Requesting Advances.** Requests for advances must be made submitted via the ASAP system. Requests may be submitted as frequently as required to meet the needs of the Cooperator/Recipient to disburse funds for the Federal share of project costs. If feasible, each request should be timed so that payment is received on the same day that the funds are dispersed for direct project costs and/or the proportionate share of any allowable indirect costs. If same-day transfers are not feasible, advance payments must be as close to actual disbursements as administratively feasible.
3. **Requesting Reimbursement.** Requests for reimbursements must be submitted via the ASAP system. Requests for reimbursement should coincide with normal billing patterns. Each request must be limited to the amount of disbursements made for the Federal share of direct project costs and the proportionate share of allowable indirect costs incurred during that billing period.
4. **Adjusting payment requests for available cash.** Funds that are available from repayments to, and interest earned on, a revolving fund, program income, rebates, refunds, contract settlements, audit recoveries, credits, discounts, and interest earned on any of those funds must be disbursed before requesting additional cash payments.
5. **Bank Accounts.** All payments are made through electronic funds transfer to the bank account identified in the U.S Treasury ASAP system by the Cooperator/Recipient.
6. **Supporting Documents and Agency Approval of Payments.** Additional supporting documentation and prior Agency (NPS) approval of payments may be required when/if a Cooperator/Recipient is determined to be "high risk" or has performance issues. If prior Agency payment approval is in effect for an award, the ASAP system will notify the Cooperator/Recipient when they submit a request for payment. The Cooperator/Recipient must then notify the NPS Awarding Officer identified on the Assistance Agreement that a payment request has been submitted. The NPS Awarding Officer may request additional information from the Cooperator/Recipient to support the payment request prior to approving the release of funds, as deemed necessary. The Cooperator/Recipient is required to comply with these requests. Supporting documents may include invoices, copies of contracts, vendor quotes, and other expenditure explanations that justify the reimbursement requests.

ARTICLE VI – REPORTS, RECORDS AND DELIVERABLES:

B: What and When to Submit – The recipient will submit to the NPS the following reports at the specified times:

1. Annual Progress Data Report due December 15, 2014 - The progress report will include:
 - (a) A one page summary of data collection activities for the summer sampling period at Gateway National Recreation Area (GATE), as well as a summary of the data collection and processing.
2. Final Data Report and Data due March 31, 2015-The final report and data will include:
 - (a) Gateway NP spatial and continuous water quality monitoring data collected.
 - (b) Data sheets and associated metadata for data collected during the summer of 2014 at GATE.
 - (c) The cooperator will be responsible for all data reduction and data quality assurance and control for both the continual and spatial water quality and seagrass data collected. All data reduction will follow the appropriate SOPs outlined in "Monitoring Protocols for the National Park Service Northeast Region Coastal Parks: Estuarine Nutrient Enrichment." In addition, all data, after reduction and quality assurance, will be archived electronically and delivered to the NPS in a MicroSoft® Access™ -based template, called NPSTORET. The database will be delivered to the NPS with the final report.
 - (d) In addition to the electronic data files, metadata for all spatial and non-spatial data describing the history of where, when and why the data were collected, who collected the data and the methods used to collect and process the data will be provided with the final report.

ARTICLE VII – Attachments

The following documents are attached and made a part of this Modification:

A. The Stony Brook University scope of work entitled "Monitoring Estuarine Condition at Gateway National Recreation Area"

All other terms and conditions remain unchanged.

ARTICLE VIII – Signatures

IN WITNESS WHEREOF, the parties hereto have executed this Task Agreement on the date(s) set forth below.

FOR STONY BROOK UNIVERSITY

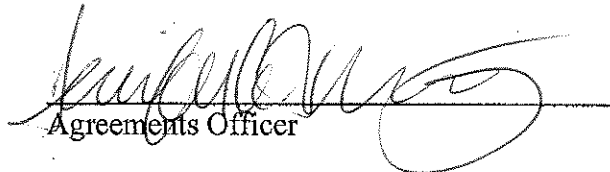


Director, Office of Sponsored Programs

**ANNETTE DEPIETRI
CONTRACTS ADMINISTRATOR**

8/8/14
Date

FOR THE NATIONAL PARK SERVICE



Agreements Officer

08/19/2014
Date

ATTACHMENT A

Monitoring Estuarine Condition at Gateway National Recreation Area

Bradley James Peterson

School of Marine and Atmospheric Sciences
Marine Sciences Research Center
239 Montauk Hwy
Southampton, NY 11968
(305) 632-5044

2014 Scope of Work

This proposal is submitted to conduct the spatial water quality monitoring for Gateway NP and to deploy, maintain and retrieve the continuous water quality sonde at the Gateway NP for the 2014 summer sampling season.

Monitoring responses to estuarine nutrient enrichment incorporates several spatial sampling designs to address questions at a hierarchy of scales. Vital signs related to estuarine water quality and sediments are sampled using a probability design throughout the boundaries of the Gateway NP submerged resources. For water quality vital signs, spatial sampling is coupled with continuous monitoring at a representative site.

Estuarine Water Chemistry, Water Quality and Water Clarity at Gateway NP

We will conduct all field sampling and processing of water samples according to the standard operating procedures outlined in "*Monitoring protocols for the National Park Service North Atlantic Coastal Parks: Estuarine Nutrient Enrichment*." Spatial sampling of estuarine water chemistry, water quality and water clarity will use a probability-based systematic survey design. The sampling framework for Gateway NP is a grid of tessellated hexagons that encompasses the entire submerged boundary of the park. This boundary contains 30 hexagons, and vital sign sampling will occur at a random location within each hexagon. The number of hexagons was determined based on the known spatial variability of vital sign measurements and the desired degree of change detection. The systematic survey of water column measurements will occur weekly during a four-week summer index period (July 2014). Because the survey is probability based, it allows inferences to be drawn regarding the status of entire park submerged resources. In addition to this spatial survey, one station will be established for continuous monitoring of water chemistry, water quality, and water clarity measures throughout the index period. This station will not be part of the probability design. The continuous monitoring station will be selected to be representative of the overall estuary. Continuous monitoring data will not be used to make inferences to other locations beyond the sampling stations. However, estuarine vital signs are known to exhibit a high degree of temporal variability, with important events occurring more frequently than weekly sampling may detect. Thus the continuous data are valuable in interpreting the patterns observed through systematic sampling.

Estuarine water chemistry, estuarine water quality, and estuarine water clarity measurements will be made using the YSI 6600 multi-parameter water quality monitor (sonde) for spatial surveys and the complementary YSI 6600 EDS (extended deployment system) for continuous monitoring of dissolved oxygen, turbidity, chlorophyll *a*, salinity, and temperature. Attenuation of Photosynthetically Available Radiation (PAR) will similarly be monitored discretely and continuously using LiCor PAR sensors. Continuous monitoring of chlorophyll will be achieved using the YSI optical chlorophyll sensor. Data from this continuous record will be post calibrated against discrete water samples that are collected periodically throughout the monitoring period adjacent to the YSI sonde. These discrete samples will be filtered through glass fiber filters and analyzed for

chlorophyll *a* by extractive methods. For spatial surveys, chlorophyll *a* is determined directly from near-surface water samples that are filtered and analyzed by extractive methods.

Deliverables

A final report will be submitted (March 2015) incorporating all of the Gateway NP spatial and continuous water quality monitoring data collected. Peterson will be responsible for all data reduction and data quality assurance and control for both the continual and spatial water quality and seagrass data collected. All data reduction will follow the appropriate SOPs outlined in *"Monitoring Protocols for the National Park Service Northeast Region Coastal Parks: Estuarine Nutrient Enrichment."* In addition, all data, after reduction and quality assurance, will be archived electronically and delivered to the NPS in Northeast Coastal and Barrier Network Inventory and Monitoring Program. In addition to the electronic data files, metadata for all spatial and non-spatial data describing the history of where, when and why the data were collected, who collected the data and the methods used to collect and process the data will be provided with the final report. Prior to the submission of the final report, an oral presentation will be made to park staff or other designees of the National Park Service and a draft final report will be circulated. Below is a timeline of project tasks including the anticipated dates of all deliverables.

PROJECT TIMELINE

[illegible]

Proposed Budget

A. Salaries and Wages		
	Graduate student	\$6,500
	Undergraduate research assistant	\$4,000
	Total	\$10,500
B. Fringe Benefits		
	Grad Student Benefits (16%)	\$1,040
	Undergraduate research assistant (5%)	\$200
	Total	\$1,240
C.	Equipment	\$0
D.	Travel (Domestic)	\$2,282
E.	Supplies and Expendable Equipment	\$2,500
F.	Other (Boat fuel and oil, hazardous shipping and data storage costs)	\$1,910
	Total Direct Costs	\$18,432
	Total Indirect Costs (17.5%)	\$3,226
	Total Proposal Costs	\$21,658

Budget Justification (\$21,658)

Salary and Wages (\$10,500)

This project will require intensive field and lab work as well as data analysis. Therefore, the equivalent of 3 months of summer salary is requested for one graduate student (\$6,500) and one undergraduate research assistant (\$4,000). Peterson will have overall responsibility for the conduct of the project at Stony Brook University, for the supervision of project personnel and will have primary responsibilities for report preparation and documentation of results.

Fringe Benefits (\$1,280)

Fringe associated with this request is calculated at 16% for the graduate student summer salary support and 5% for the undergraduate research assistant.

Travel (\$2,282)

Funds are request to travel to and from the Stony Brook-Southampton campus to Gateway National Recreation Area. Ten (10) field days are scheduled to accomplish the water quality survey at the Gateway National Park. These funds include ten round trips from Southampton, NY (1800 miles @ \$0.89/mi = \$1,602). Finally travel funds are requested for two (2) trips to trailer an "emergency" boat and set-up the installation mechanism for the continuous water quality sonde and to dismantle the mechanism and return the boat to Stony Brook Southampton (360 miles @ \$1.89/mi = \$680).

Supplies and Expendable Equipment (\$2,500)

These funds will be used to purchase expendable supplies for the instrument calibration, instrument maintenance and field sampling such as chlorophyll and turbidity standards, antifouling paint, copper screen and tape for the sensors and materials needed to construct the housing for the permanent sonde in the field. In addition, funds are requested to purchase GF/F filters, syringes, coolers, 1L polycarbonate bottles for the collection and filtration of Chl *a* from the Gateway water quality monitoring.

Other (\$1,910)

These funds will be used to purchase fuel and oil for the ten (10) field days at Gateway for the water quality monitoring ($\$85/\text{day} * 10 \text{ days} = \$850$). Funds are also requested for two "emergency boat days" to be used if a NPS boat operator or vessel is not available during the index period ($\$360/\text{day} * 2 \text{ days} = \$720$). During each of the previous monitoring efforts at Gateway NP these "emergency boat days" were required. In addition, funds are requested to cover hazardous shipping costs for the Chl *a* samples collected as part of the water quality protocol. These validation samples must be shipped overnight on dry ice (2 shipments @ $\$120 = \$240$). The remaining funds are requested for data storage material and office supplies used in the performance of this project (\$100).

Indirect Costs (\$3,226)

The Indirect Costs rate is 17.5%

** Note that this budget has been prepared under the assumption that NPS boats will be available for use at Gateway NP. If this is not true, then the additional costs will be \$4,200 for boat use.*