

**Task Agreement Number P14AC01466
Under
Cooperative Agreement Number P14AC00728
Rocky Mountain Cooperative Ecosystems Study Unit
Between
The United States Department of the Interior
National Park Service
And the
Colorado State University**

**SEA LEVEL MONITORING AND GEOGRAPHIC INFORMATION SYSTEMS RESEARCH AND
DEVELOPMENT FOR THE NPS**

**CFDA: 15.945 COOPERATIVE RESEARCH AND TRAINING PROGRAMS
RESOURCES OF THE NPS CESU'S**

ARTICLE I – BACKGROUND AND OBJECTIVES

Cooperative Agreement Number P14AC00728 Rocky Mountain Cooperative Ecosystems Study Unit was entered into by and between the Department of the Interior, National Park Service (NPS), and Colorado State University (CSU) to provide research, technical assistance and education to federal land management, environmental and research agencies and their potential partners; that involves the biological, physical, social, and cultural sciences needed to address resources issues and interdisciplinary problem-solving at multiple scales and in an ecosystem context at the local, regional, and national level; and place special emphasis on the working collaboration among federal agencies and universities and their related partner institutions. This will directly support the NPS mission and, when applicable, the public at large in monitoring the growing effects of sea-level rise. This effort will better prepare the NPS and surrounding public/private lands for coping with, and planning for, the increasing sea levels and storm surges. Unless otherwise specified herein, the terms and conditions as stated in the Cooperative Agreement will apply to this Task Agreement.

The focus of this task agreement is to develop, document, and maintain sea level monitoring protocols to better prepare for increasing sea levels and storm surge. Using geographic information systems (GIS) and other analysis tools, the initial focus of this project, as part of the post-Hurricane Sandy mitigation efforts, will be to install sea level monitoring equipment and associated geodetic monumentation at Fire Island National Seashore (FIIS). FIIS is situated squarely in one of the aforementioned NWLON gaps. After determining the best installation site, installing a temporary tide gauge, and collecting water level data, local tidal datums (mean high water, mean low water, etc.) can be calculated. The local tidal datums can then be used to establish a relationship with datums from nearby NWLON stations, and leverage the long-term sea level trend data from these nearby NWLON stations.

This project will integrate with and provide support to several current critical NE regional projects including benthic habitat mapping, coastal elevation and bathymetry data collection, geodetic benchmark recovery and installation, and salt marsh elevation/accretion (SET) research projects.

ARTICLE II – LEGAL AUTHORITY

NPS enters into this Agreement pursuant to:

- A. 16 U.S.C. §1g authorizes the NPS to enter into cooperative agreements that involve the transfer of NPS appropriated funds to state, local and tribal governments, other public entities, educational institutions, and private nonprofit organizations for the public purpose of carrying out National Park Service programs.
- B. 16 U.S.C. §1a-2(j) Cooperative research and training programs authorizes the NPS to enter into cooperative agreements with public or private educational institutions, states, and their political subdivisions, for the purpose of developing adequate, coordinated, cooperative research and training programs concerning the resources of the national park system. Pursuant to such agreements, the cooperator may accept from or make available to the NPS technical and support staff, financial assistance for mutually agreed upon research projects, supplies and equipment, facilities, and administrative services relating to cooperative research units as the Secretary deems appropriate (research projects subject to Federal Acquisition Regulation excluded).
Modified 5/31/05 – Agreement Handbook Memorandum Number 2
- C. 16 U.S.C. §5933 Cooperative agreements. The Secretary is authorized and directed to enter into cooperative agreements with colleges and universities, including but not limited to land grant schools, in partnership with other Federal and State agencies, to establish cooperative study units to conduct multi-disciplinary research and develop integrated information products on the resources of the National Park System, or the larger region of which parks are a part.

ARTICLE III – STATEMENT OF WORK

- A. Colorado State University agrees to:
 - Provide research associates under the Principal Investigator
 - Colorado State University researchers will participate in cooperative teams with the NPS that may be led by either party. Close working relationships with outside partners and affiliates and substantial involvement of multiple programs will be required to successfully complete this task.
 - Work collaboratively with NPS staff, affiliates, academia, and public (as appropriate) to complete research reports and recommendations, user and stakeholder requirements and engagement, project plans, program code, multiple mapping products, and user and technical documentation.
 - Ensure products will comply with Section 508 (36 CFR Part 1194 Subpart C Section 31 and 41) to the extent possible

- Provide monthly invoices paid upon receipt.

B. NPS agrees to:

- RISD staff members and affiliates will collaborate on this project with the CSU research associates.
- Provide office space and other material support (computer, GPS equipment, travel) for the cooperators.
- Provide the needed data and equipment to allow the researchers to perform their work and publish the products to university affiliates, partners, and the public.
- NPS staff and CSU researchers will participate in cooperative teams. Close working relationships with outside partners and affiliates and substantial involvement of multiple programs will be required for success.

ARTICLE IV – TERM OF AGREEMENT

This Task Agreement will become effective on the date of final signature and extend through June 30, 2015.

ARTICLE V – KEY OFFICIALS

A. Key officials are essential to ensure maximum coordination and communication between the parties and the work being performed. They are:

1. **For the NPS:**

Agreement Technical Representative:
Chris Dietrich
Resources Information Services Division Chief (Acting)
National Park Service
RISD-NISC-OIR
12795 W. Alameda Parkway
Lakewood, CO 80228
Phone: (303) 987-6971
Fax: (303) 987-6736
Email: Chris_Dietrich@nps.gov

Alternate Key Official:
Tim Smith
National Park Service,
12795 W. Alameda Pkwy,
Lakewood, CO, 80228
Phone: (303) 969-2086
Fax: (303) 987-6736
Email: Tim_Smith@nps.gov

Awarding Officer:
Andrew E. Lubner
National Park Service
WASO Washington Contracting and Procurement Office (WCP)
P.O. Box 15287, MSWCP
Denver, CO 80225-0287
Ph: (303) 969-2378
Fax: 303-969-2402
andrew_lubner@nps.gov

2. **For Colorado State University:**

Signatory
David Doty
Associate Director
Colorado State University
Fort Collins, CO 80523

Principal Investigator
Melinda Laituri,
Professor
Ecosystem Science and Sustainability
ESS 1476
Colorado State University
Fort Collins, CO 80523
970-491-0292
Melinda.Laituri@colostate.edu

3. **RM-CESU:**

Lisa Gerloff
Rocky Mountains Cooperative Ecosystem Studies Unit
University of Montana
Missoula, MT 59812
Phone: 406-243-6936
Email: Lisa.Gerloff@cfc.umt.edu

B. Communications – CSU will address any communication regarding this Agreement to the ATR with a copy to the Awarding Officer. Communications that relate solely to routine operational matters described in the current work plan may be sent only to the ATR

C. Changes in Key Officials - Neither the NPS nor CSU may make any permanent change in a key official without written notice to the other party reasonably in advance of the proposed change. The notice will include a justification with sufficient

detail to permit evaluation of the impact of such a change on the scope of work specified within this Agreement. Any permanent change in key officials will be made only by modification to this Agreement.

ARTICLE VI – AWARD AND PAYMENT

A. Financial Assistance: NPS will provide funding to CSU in an amount not to exceed \$135,431.79 for the work described in Article III and in accordance with the approved budget (Attachment A). Any award beyond the current fiscal year is subject to availability of funds.

B. CSU 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 FA 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 FA 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 FA 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 FA recipient when they submit a request for payment. The 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 recipient to support the payment request prior to approving the release of funds, as deemed necessary. The FA 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 VII – REPORTS AND/OR DELIVERABLES

- A. Within 90 days of the end of the agreement a final SF-425 shall be provided to the Contracting Officer.
- B. Within 90 days of the end of the agreement a final performance report shall be provided to the Contracting Officer.
- C. Specific projects or activities for which funds are advanced will be tracked and reported by annual submission of a SF-425 Federal Financial Report (FFR). A final SF-425 shall be submitted at the completion of the Agreement.

ARTICLE VIII – MODIFICATION AND TERMINATION

This task agreement may be modified at any time, prior to the expiration date, by the mutual concurrence of CSU and the NPS. Modifications will be in writing, approved and signed by the NPS Awarding Officer and the CSU signatory official.

ARTICLE IX – ATTACHMENTS

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

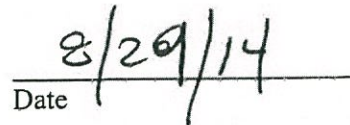
- A. Budget
- B. Background and Rational

ARTICLE X - SIGNATURES

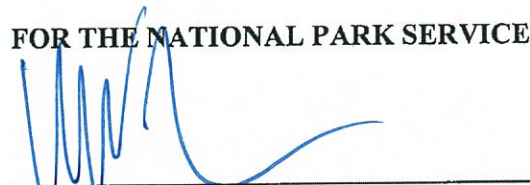
IN WITNESS WHEREOF, the parties hereto have executed this Task Agreement on the date(s) set forth below.

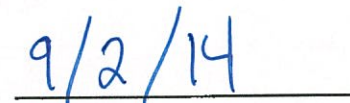
FOR COLORADO STATE UNIVERSITY


David Doty
Associate Directory


Date

FOR THE NATIONAL PARK SERVICE


Andrew E. Lubner
Awarding Officer


Date

ATTACHMENT A BUDGET

P14AC01466 NPS. August 2014
8/18/14 9:00 AM

	Monthly Base Sal	No. of Months	Year 1 1.030
A. Senior Personnel			
1. Melinda Laituri *	11514.00	0.48	<u>5,000</u>
Total Senior Personnel *		0.48	<u>5,000</u>
B. Other Personnel			
1. Other Professional (Research Associate) *	6833.00	12.00	<u>82,000</u>
Total Other Professionals *		12.00	<u>82,000</u>
Total Other Personnel Salaries		12.01	<u>82,000</u>
Total Salaries and Wages		12.49	<u>87,000</u>
C. Fringe Benefits			
1. Benefits @ 25.3% of *		0.253	<u>22,011</u>
Total Fringe Benefits			<u>22,011</u>
TOTAL SALARIES, WAGES & BENEFITS			<u>109,011</u>
D. Travel			
1. Domestic			
a. Site	0	0.00	<u>5,250</u>
Total Domestic Travel			<u>5,250</u>
TOTAL TRAVEL			<u>5,250</u>
E. Other Direct Costs			
1. Consulting Services			
a. Professional Development			<u>1,000</u>
Total Consulting Services			<u>1,000</u>
TOTAL OTHER DIRECT COST			<u>1,000</u>
F. Total Direct Costs			<u>115,261</u>
Indirect Cost Base			<u>115,261</u>
G. Indirect Costs @ 17.5% MTDC			<u>20,171</u>
H. Direct and Indirect Costs			<u>135,432</u>

Project costs used rounded dollars.

ATTACHMENT B- BACKGROUND AND RATIONALE

Climate change is increasingly discussed by park managers as parks develop foundation documents, state of the park reports, general management plans, or various implementation plans that incorporate climate data. A thorough understanding of the rate and scale of climatic change is essential to being able to identify vulnerable areas within the NPS that could be saved if early steps are taken to protect their resources. A significant effect of climate change that we are witnessing today, and are able to measure, is a change in sea levels.

Global sea level rose about 2 mm/year during the 20th century. There is strong consensus in the scientific literature that predicts 1 to 1.9 m of global sea level rise by the end of the century, with extreme projections of several meters of sea level rise in the same time frame. This is a global average and the rates, magnitude, and direction of change vary significantly from region to region and site to site. The ability to monitor sea level on a local scale provides a foundation for climate change science and is critical for parks as they prepare for the impacts associated with sea level rise, yet most coastal parks lack the ability to monitor sea level.

The National Oceanic and Atmospheric Administration's (NOAA's) Center for Operational and Oceanographic Products and Services (CO-OPS) manages the National Water Level Observation Network (NWLON), comprising 210 long-term, continuously operating water-level stations throughout the USA. NWLON stations provide long-term data that can be used to determine local sea level trends, but there are gaps in the system, and many NPS units fall in such gaps. To adequately assess vulnerability to, and prepare for, increasing sea level and storm surge activity, new water level data are needed for areas in these gaps.