Task Agreement Number P14AC00859
Under
Cooperative Agreement Number H2370094001
Colorado Plateau CESU
Between
The United States Department of the Interior
National Park Service
And the
Northern Arizona University

FY2014 FIELD ECOLOGY AND TECHNICAL SUPPORT FOR LONG-TERM MONITORING IN NATIONAL PARKS OF THE SOUTHERN COLORADO PLATEAU NETWORK

ARTICLE I – BACKGROUND AND OBJECTIVES

Cooperative Agreement Number H2370094001 was entered into by and between the Department of the Interior, National Park Service (NPS), and Northern Arizona University (NAU) for the purpose of providing field ecology and technical support for long-term monitoring in Southern Colorado Plateau Network (SCPN) parks. The purpose of the monitoring program is to improve our scientific understanding of the status and trends in the condition of a targeted subset of park resources, thus contributing to describing regional resource conditions. Unless otherwise specified herein, the terms and conditions as stated in the Cooperative Agreement will apply to this Task Agreement.

Field Ecology and Technical Support for Long-Term Monitoring in National Parks of the SCPN

As part of the SCPN Vital Signs monitoring program, this project contributes to understanding the current status and tracking trends in condition through time for a selected suite of indicators of ecosystem condition. The purpose of the project described herein is for SCPN and NAU to collaborate to conduct long-term monitoring of upland, riparian/aquatic and landscape-level indicators in targeted park ecosystems and to communicate monitoring results to a broad audience of park managers, partners and the general public. Through this collaboration, NPS and NAU will contribute to describing regional ecological integrity and furthering scientific understanding of the current conditions of park resources, which often serve as reference conditions when evaluating the condition of public lands that are more impacted by human use. Results from this project will be publicly available through the SCPN website (http://science.nature.nps.gov/im/units/scpn/index.cfm) and the Learning Center of the American Southwest website (http://www.southwestlearning.org/).

ARTICLE II 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.

CFDA No. 15.945 Cooperative Research and Training Programs – Resources of the National Park System

ARTICLE III – STATEMENT OF WORK

See the attached Statement of Work, ATTACHMENT A.

ARTICLE IV – TERM OF AGREEMENT

This Task Agreement will become effective on the date of final signature and extend through December 31, 2016.

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:
Lisa Thomas
SCPN Program Manager
Inventory and Monitoring Division, NRSS
National Park Service
Northern Arizona University, P.O. Box 5765
Flagstaff, AZ 86011
Ph: 928-523-9280
Fx: 928-523-2014
lisa_thomas@nps.gov

Awarding Officer:
Andrew Lubner
Contracting Officer
National Park Service
WASO-WCP
12795 W. Alameda Parkway
Lakewood, CO 80338
Ph: 303-969-2378
andrew_lubner@nps.gov

2. **For Northern Arizona University (NAU):**

Principal Investigator:
James Allen
Director CPCESU and Executive Director, School of Forestry
Northern Arizona University
PO Box 15018
Flagstaff, AZ 86011
Ph: 928-523-5894
Fax: 928-523-1080
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Partner Administrative Contact:
Cindy Judge,
Grant and Contract Administrator
Office of Grant and Contract Services
Northern Arizona University

P.O. Box 4130
Flagstaff, AZ 86011
Ph: 928-523-6917
Fx: 928-523-1075
cindy.judge@nau.edu

B. Communications - NAU will address any communication regarding this Agreement to the ATR with a copy to the Awarding Officer. Communication 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 NAU 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 NAU in an amount not to exceed $195,000 for the work described in Article II and in accordance with the approved budget (Attachment A). Any award beyond the current fiscal year is subject to availability of funds.

B. NAU 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 Financial Assistance Officer.

B. Within 90 days of the end of the agreement a final performance report shall be provided to the Financial Assistance Officer.

C. Specific projects or activities for which funds are advanced will be tracked and reported by quarterly submission of a SF-425 Federal Financial Report (FFR). A final SF-425 shall be submitted at the completion of the Agreement. The following reporting period end dates shall be used for interim financial reports: 3/31, 6/30, 9/30, 12/31.

ARTICLE VIII – MODIFICATION AND TERMINATION

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

ARTICLE IX – ATTACHMENTS

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

A. Statement of Work
B. Budget

ATTACHMENT A STATEMENT OF WORK

STATEMENT OF WORK
COLORADO PLATEAU CESU AGREEMENT H2370094001
TASK AGREEMENT NUMBER

FY2014 Field Ecology and Technical Support for Long-Term Monitoring in National Parks of the Southern Colorado Plateau Network

PROJECT ABSTRACT:

As part of the Southern Colorado Plateau Network's (SCPN's) Vital Signs monitoring program, this project contributes to understanding the current status and tracking long-term trends for a selected suite of indicators of ecosystem condition. The overall purpose of the project described herein is for SCPN and NAU to collaborate to conduct long-term monitoring of upland, riparian/aquatic and landscape-level indicators in targeted park ecosystems and to communicate monitoring results to a broad audience of park managers, partners and the general public. Through this collaboration, NPS and NAU will contribute to describing regional ecological integrity and furthering scientific understanding of the current conditions of park resources, which often serve as reference conditions when evaluating the condition of public lands that are more impacted by human use. Results from this project will be publicly available through the SCPN website (http://science.nature.nps.gov/im/units/scpn/index.cfm) and the Learning Center of the American Southwest website (http://www.southwestlearning.org/). The specific objectives of this Task Agreement are to implement long-term monitoring projects for water resources and upland ecosystems, to develop the network's data management system, to prepare reports, articles and other publications describing inventory and monitoring results, and to promote science communication to NPS managers, partners and the broader public.

PRINCIPAL INVESTIGATOR: James Allen, Director CPCESU and Executive Director, School of Forestry, Northern Arizona University

ADDITIONAL NAU INVESTIGATORS: Tina Ayers, Associate Professor, P.O. Box 5640, Department of Biological Sciences, Northern Arizona University; 928-523-9482, tina.ayers@nau.edu

NPS COOPERATORS:
Lisa Thomas, Program Manager, SCPN
Allison Snyder, Data Manager, SCPN
Cindy Parker, Assistant Data Manager, SCPN
Jodi Norris, Quantitative Ecologist, SCPN
Kristin Straka, GIS Specialist, SCPN
Steve Monroe, Hydrologist, SCPN
Stacy Stumpf, Water Resources Crew Leader, SCPN
Jim DeCoster, Plant Ecologist, SCPN
Megan Swan, Botanist, SCPN

(Specific to Learning Center of the American Southwest Website component)
Kirsten Gallo, Program Manager, Chihuahuan Desert Network
Andy Hubbard, Program Manager, Sonoran Desert Network
Robert Bennetts, Program Manager, Southern Plains Network

PROJECT OBJECTIVES: The Southern Colorado Plateau Inventory and Monitoring Network (SCPN) is tasked with implementing a monitoring program to assess status and trends in the condition of natural resources across 19 NPS units on the Colorado Plateau. Since 2005, following a 3-year planning effort, SCPN staff has been working cooperatively with the Northern Colorado Plateau Network (NCPN), other Intermountain Region I&M networks, cooperators from NAU and other universities, and scientists from other agencies to develop long-term ecological monitoring protocols. The emphasis of our collaborative work has now shifted to implementing long-term monitoring in SCPN parks as outlined in the *Vital Signs Monitoring Plan for the Southern Colorado Plateau Network.*

A second important component of the NPS Inventory and Monitoring Division (IMD) mission is to communicate monitoring results and the broader ecological context for those results to a diverse audience of park managers, partners and the general public. Toward that goal, the results of most inventory and monitoring projects are published in the NPS Natural Resource Publication Series and are publicly available through network websites (see http://science.nature.nps.gov/im/units/scpn/ for the SCPN).

In addition to these venues for science communication, SCPN is working collaboratively with three other I&M networks (Chihuahuan Desert Network, Sonoran Desert Network, and Southern Plains Network) in the intermountain west region to develop and maintain the Learning Center of the American Southwest or LCAS (http://www.southwestlearning.org/) – a virtual learning center dedicated to attaining high quality scholarly and scientific information for our parks and protected areas and for making that information accessible to land managers, partners, and the public for use toward better resource stewardship.

The SCPN collaborates with university faculty from NAU, as well as from other CPCESU partners and USGS scientists to develop long-term monitoring plans and protocols and implement these monitoring projects in SCPN parks. NAU employees and students involved in the I&M program gain direct experience with the development and application of a park-based science program.

The specific objectives of this Task Agreement are:

1. To implement long-term water resources monitoring of selected SCPN streams and springs and to collaborate with the SCPN staff toward the completion of water resources monitoring protocols and reports. Monitoring topics include 1) riparian ecosystems, 2) aquatic macroinvertebrates, 3) water quality, and 4) spring ecosystems.
2. To implement long-term upland vegetation and soils monitoring within selected upland ecological sites and to collaborate with the SCPN staff toward the completion of upland monitoring reports.
3. To implement the *SCPN Data Management Plan* and to to collaborate with the SCPN staff toward developing and maintaining the program's data management and GIS capabilities.

4. To collaborate with SCPN staff to provide technical writing, editing, and report preparation. The writer/editor will work in collaboration with SCPN staff to produce Natural Resource Technical Report Series publications and other web-based or printed materials for the program, thus promoting the communication of I&M results to NPS managers, partners and the broader public. NAU will also provide printing services support to prepare final reports for distribution to SCPN parks, cooperators and the public.
5. To collaborate with SCPN staff to develop science communication materials about the natural resources of SCPN parks and related NPS management and science issues/activities. These projects will contribute to public understanding of park resources and resource topics and may be written for the SCPN and/or LCAS websites. A NAU School of Communication Intern will be involved in some of these projects.
6. To provide support for the Learning Center of the American Southwest (LCAS) website in coordination with SCPN and the Chihuahuan, Sonoran, and Southern Plains Networks.
7. Through Deaver Herbarium, to resolve NPS herbarium collection record issues in order to improve tracking of NPS collections. This will also contribute to a more accurate regional understanding of the distribution of plant species across the Colorado Plateau.
8. To provide project oversight and administration. The NAU Principal Investigator will supervise the NAU staff involved with tasks above and will serve as a senior scientist providing scientific review and guidance, as well as coordination with SCPN staff.

PROJECT BACKGROUND:

National Park managers across the country are confronted with increasingly complex and challenging issues that require broad-based understanding of the status and trends of park resources as a foundation for making decisions, working with other agencies, and communicating with the public to protect park natural systems and native species. Monitoring data help to define the normal limits of natural variation in park resources, detect long-term environmental change, provide insights into the ecological consequences of change, and inform stakeholders and the general public of changes in resource conditions that may be caused by stressors operating at regional and global scales.

The NPS monitoring program provides information on the overall condition of park natural resources and the long-term effectiveness of management regimes based on changes in the status and trend of selected park resources. The first few years of monitoring data are being used to document current conditions for selected vital signs across network park ecosystems. Over the long term, consistently collected monitoring data will provide park managers with information describing the status and long-term trends in resource condition. This information is fundamental to natural resources stewardship because it provides the context for interpreting observed changes and may provide the basis for modifying or initiating new management practices. The NPS I&M data will also have broad regional scientific utility because NPS lands often provide the closest approximation of undisturbed reference conditions as a point of comparison for areas that are more impacted by human use.

Southern Colorado Plateau Network Parks: The SCPN includes 19 parks and monuments located throughout the northern Arizona, northwestern New Mexico, southwestern Colorado and southeastern Utah: Aztec Ruins National Monument (AZRU), Bandelier National Monument (BAND), Canyon de Chelly National Monument (CACH), Chaco Culture National Historical Park (CHCU), El Malpais National Monument (ELMA), El Morro National Monument (ELMO), Glen Canyon National Recreation Area (GLCA), Grand Canyon National Park (GRCA), Hubbell Trading Post National Historic Site (HUTR), Mesa Verde National Park (MEVE), Navajo National Monument (NAVA), Petrified Forest National Park (PEFO), Petroglyph National Monument (PETR), Rainbow Bridge National Monument (RABR), Salinas Pueblo Missions National Monument (SAPU), Sunset Canyon National Monument (SUCR), Walnut Canyon National Monument (WACA), Wupatki National Monument (WUPA), Yucca House National Monument (YUHO).

Table 1. Core SCPN monitoring projects and the vital signs to be monitored.

Monitoring Project	Vital Signs
Land surface phenology	Start & end of season, spring peak greenness, monsoon peak greenness, season-long productivity, snow cover extent & duration
Integrated upland ecosystems	Vegetation composition & structure, soil stability & upland hydrologic function
Habitat-based bird communities	Bird community composition & abundance; habitat metrics (vegetation cover by functional group, tree basal area, sapling density, canopy closure)
Aquatic macroinvertebrates	Aquatic macroinvertebrate composition & abundance; habitat metrics (water depth, water velocity, substrate size, canopy closure)
Integrated riparian	Stream flow & depth to groundwater, fluvial geomorphology, vegetation composition & structure
Spring Ecosystems	Spring flow & depth to groundwater, vegetation composition & structure
Water quality of streams & springs	Core parameters (temperature, pH, specific conductivity, dissolved oxygen, turbidity, flow); bacteria, nutrients, trace metals, & major ions

DETAILED TASK DESCRIPTIONS:

1. ***Water Resources Monitoring.*** NAU will support three part-time temporary positions to serve on the water resources monitoring crew. The water resources crew will work with SCPN staff (including SCPN hydrologist, water resource crew leader & hydrologic technician), park staff, and cooperating scientists to develop and implement specific long-term monitoring projects. The water resources crew will be focused on the following tasks during 2015.

    a. Collaborate with SCPN staff by compiling scientific literature, reports, data and other information to support the implementation of water resource monitoring projects and the interpretation of monitoring results.

b. Contribute to the development, testing and revision of protocols related to monitoring riparian ecosystems, stream and spring water quality, and spring ecosystems.

c. Work with SCPN staff to organize, schedule, and execute a wide variety of water resource monitoring projects.

d. Serve as field crew members and/or lead and coordinate field inventory and monitoring activities or related field surveys and research within SCPN parks.

e. Conduct routine data summary and analysis. Write summaries of projects and assist with preparation of reports and publications.

The 2015work will emphasize:

- Final editing of the integrated riparian and water quality monitoring protocols
- Completion of the springs monitoring protocol
- Continued establishment of riparian monitoring sites and implementation of integrated riparian protocol at those sites.
- Continued implementation of aquatic macroinvertebrate protocol at established sites.
- Continued implementation of water quality monitoring protocol.
- Initial implementation of springs monitoring protocol.
- Data summary for monitoring completed in 2014/2015.

2. ***Integrated Upland Monitoring.*** NAU will support four to five part-time temporary positions to serve on the upland monitoring crew. The upland monitoring crew will work with SCPN staff (including SCPN plant ecologist and botanist), and park staff to implement specific long-term monitoring projects. The uplands crew will be focused on the following tasks during 2015.

   a. Collaborate with SCPN staff and cooperators by compiling scientific literature, reports, data and other information to support the implementation of upland vegetation and soils monitoring projects and the interpretation of monitoring results.

   b. Work with SCPN staff to organize, schedule, and execute a wide variety of upland inventory and monitoring projects.

   c. Serve as field crew members and/or lead and coordinate field inventory and monitoring activities or related field surveys and research within SCPN parks.

d. Conduct routine data summary and analysis. Write summaries of projects and assist with preparation of reports and publications.

The 2015work will emphasize:

- Continued establishment of upland monitoring sites and implementation of integrated upland protocol at those sites.
- Resampling of upland monitoring sites previously established.
- Data summary for monitoring completed in 2014/2015.

3. ***Data management and GIS Support.*** NAU will support one part-time temporary position to provide spatial data management and GIS support.

The Sr. Research Specialist (GIS) will work with SCPN staff (including the SCPN data manager and GIS specialist), park staff, and cooperating personnel to assist in the gathering, processing, archival and distribution of spatial data. The following tasks will be the focus of work in 2015.

- Process MODIS data in preparation for statistical analysis of landscape greenness and snow cover in parks and adjacent areas.
- Load and download plot coordinates onto GPS units for SCPN field crew use.
- Create consistent attribute structure and assign attribute metadata for datasets being created as part of the monitoring program.
- Provide map products for routine SCPN tasks including permit applications, and annual reports, and field maps.
- Complete metadata in GIS catalog for inventory and query of SCPN spatial datasets.
- Find and download new and updated spatial datasets from local, state and federal websites.

4. ***Technical writing/editing of SCPN project reports.*** NAU will support one part-time temporary position to provide technical writing/editing and report preparation support. NAU will also provide graphic design and printing of SCPN reports, and other science communication materials.

The Sr. Research Specialist (Science Writer/Editor) will focus on the following tasks in 2015:

a. Collaborate with SCPN staff and cooperators with preparation of technical reports.

b. Confer with authors and other staff members regarding editorial changes and revisions.

c. Edit, write, and revise articles for publication or web-posting.

d. Develop layouts for report publication. Coordinate galley and page proofing, and the generation of tables, graphs, cartographics and other illustrations.

The 2015 work will emphasize:

- Publication of SCPN monitoring protocols within the NPS Natural Resources Series.
- Editing, formatting and publishing of SCPN monitoring reports in the NPS Natural Resources Data Summary Series.
- Working collaboratively with SCPN staff, park staff, and cooperators to publish I&M related research reports in NRTR Series.
- Development of materials for the SCPN website and for the related Learning Center of the American Southwest website.

5. ***Science communication products for SCPN and LCAS websites.***

The Sr. Research Specialist (Science Writer/Editor) and a Communications Student Intern will work with SCPN staff, park staff and cooperators to develop, write and edit science communication products for the SCPN and LCAS websites. These may include written products such as resource and project overviews and summaries, as well as slideshows, videos and podcasts.

6. ***Learning Center of the American Southwest Website Management.***

NAU will hire a part-time temporary Junior Web Designer to oversee content management and maintenance of the LCAS website. Duties will include:

- Maintain the LCAS Virtual Learning Center (VLC) website.
- Assist with management of LCAS website content, to include 1) updating content, graphics and images, 2) assisting with posting of new content, and 3) maintaining content linkages.
- Work with NPS website developers to evaluate the merit of moving the LCAS website to a nps.gov url. If the decision is made to move LCAS, work with NPS website developers during transition. This assessment will involve 1) migrating a range of LCAS content into the NPS CMS, 2) identifying current LCAS features that could not be supported through the NPS CMS, 3) interacting with NRSS web

development staff to solve identified problems, and 4) developing a work plan for the full site migration.

7. ***Deaver Herbarium NPS Collections Record Cleanup.***
Deaver Herbarium houses a significant number of collections from national parks across the southern Colorado Plateau. A recent review of NPS collections revealed a number of collection record issues that need to resolved, in order for Deaver Herbarium to improve tracking of NPS collections and to facilitate the development or update of collection loan agreements between Deaver Herbarium and the respective parks. Correction of herbarium record errors will also improve regional species distribution information for the benefit of scientific understanding. A biology graduate student, Kimberley Hansen, will work with Tina Ayers and Megan Swan to resolve these record collection issues.
8. ***SCPN – NAU Project Oversight and Administration.*** The NAU Principal Investigator will supervise the NAU staff involved with tasks above, will serve as a senior scientist providing scientific review and guidance, and will coordinate closely with SCPN program manager, project managers, and technical staff to ensure that NPS safety procedures & monitoring protocols are followed and science standards are met. The NAU Project Coordinator will coordinate day-to-day activities with the NPS Project Managers and Field Crew Leaders and will provide NAU administrative functions including time-keeping and travel processing. NAU will also assist with hosting meetings and workshops of agency and university scientists to support monitoring program goals.

NPS SUBSTANTIAL INVOLVEMENT: National Park Service staff from SCPN will be fully engaged with NAU staff throughout the course of this project. The NPS will continue to provide overall coordination of the project and to set the priorities and work schedule. NPS will provide relevant reports, data and other supporting materials from SCPN and park files. NPS will also provide timely review of products associated with this project and input as needed. NAU staff will use NPS vehicles to accomplish field work described herein. NPS will provide field and office equipment to accomplish monitoring objectives (e.g. computers, water quality probes, GPS equipment, data loggers, etc.). NPS and NAU will work collaboratively to meet project objectives.

PRODUCTS AND SCHEDULE: All cooperators shall continue to have full opportunity to review, cooperate in the planning, execution, and publication of the results of the work conducted under this agreement. NPS will be responsible for management review and approval of all products. NAU cooperators will prepare I&M annual reports as appropriate to meet NPS deadlines.

1. Trip reports to describe results of riparian, water quality, aquatic macroinvertebrate, and other water resource related monitoring trips – due by December 31 of the year in which the work occurred.

2. Annual reports to summarize data collected during the previous field season -- due six months after field work is completed for riparian and water quality monitoring; due one year after field work is completed for macroinvertebrate monitoring.

3. Trip reports to describe results of upland monitoring trips – due by December 31 of the year in which the work occurred.

4. Annual reports to summarize integrated upland data collected during the previous field season – due six months after field work is completed.

5. Multiple I&M reports and other materials to be published in NRTR Series and posted to appropriate websites.

6. Science communication products (written reports and multi-media products) for posting to park, SCPN and LCAS websites.

7. Brief report abstract suitable for public distribution. 2 hard copies, 1 electronic copy (pdf format) of final report provided to the NPS Research Coordinator.

COOPERATIVE AGREEMENTS OR TASK AGREEMENTS INVOLVING COOPERATORS WORKING ON-SITE

Background

In cooperative agreements or task agreements with universities where the university utilizes interns, student employees, research associates (RAs) or cooperators on-site (hereafter called "cooperator personnel"), these cooperator personnel sometimes work on government sites in close proximity to federal employees. It is illegal (without specific statutory authority) for federal employees to directly supervise the cooperator personnel or any university employees or for the students or other university employees to supervise federal employees. When cooperator personnel are working on an NPS site, it is important that there is a clear distinction between students and federal employees.

Office Environment and Vehicles

- The office space of the cooperator personnel and NPS personnel should be clearly labeled (Name and NPS or University affiliation on office or cubicle space).

- Cooperator personnel should be listed separately from NPS personnel in telephone lists, other identification or organizational rosters, and publication credits.

- Cooperator personnel should not receive "all-employee" e-mail or other communications intended for NPS personnel (unless it relates directly to the work the cooperator is doing for the NPS). When the e-mail does relate to the work being done, a copy of the same e-mail message should be sent to the University or cooperator's supervisor.

- Cooperator personnel may use NPS e-mail systems when the communication relates directly to the work the cooperator is doing for the NPS. The e-mail addresses of the cooperator personnel must include a label associated with their NPS e-mail address that identifies the cooperator's status (i.e., "Linda Webb, Cooperator" would be the label associated with the e-mail address, linda_webb@contractor.nps.gov). Doing so clearly identifies this individual each time they send an e-mail message using the NPS system,

and it identifies their status as a research associate, student intern or student employee in the e-mail directory.

- Cooperator personnel are allowed to drive government vehicles and ride as passengers in government vehicles.
- Prior written approval by the Park Superintendent or Center Manager must be obtained in order for a task to allow cooperator personnel to drive or ride in government vehicles.

Supervision and Scheduling

- Each task must specify the university's/cooperator's supervisor for the cooperator personnel.
- Unless stipulated in the agreement, NPS staff should not set hours for cooperator personnel, specify where the work should be done, or conduct performance appraisals. National Park Service staff may give performance feedback to the cooperator personnel supervisor.
- Cooperator personnel should report leave, scheduling, and other related issues to the university or cooperator's supervisor, not to NPS employees. The supervisor of the cooperator personnel should then communicate with the NPS. National Park Service employees cannot directly supervise cooperator personnel on a day-to-day basis. Work should be given to the cooperator personnel (via the cooperator's supervisor) on a "task basis." Cooperators should work without NPS supervision to accomplish each task, although technical consultations and cooperation is permissible.
- The Cooperator will be responsible for any disciplinary action needed to correct student employee conduct or performance problems. The NPS agreements technical representative will inform the university/cooperator's supervisor of any conduct or performance problems.
- The Cooperator will remove student employees from their positions if they fail to improve performance or address conduct issues.
- The NPS will review and provide feedback to students or interns regarding work assignments.
- The NPS will inform the cooperator of conduct or performance problems with cooperator personnel so that the university can counsel employees and correct the performance problems.
- The NPS will recommend to the cooperator dismissal of cooperator personnel based on conduct or performance issues.

- The Cooperator will hire students, interns or RAs to work on NPS tasks identified in the agreement. Hiring will be conducted in consultation with the NPS Agreements Technical Representative (ATR).

- The Cooperator will: pay students, interns or RAs for hours they have worked in support of the agreement.

Representation and Communication

- Cooperator personnel cannot in any way represent themselves to the public as NPS employees.

- Cooperator personnel are required to wear visible identification at all times.

Other Issues

- Cooperator personnel should not list an NPS affiliation on publications, but rather should list the cooperative agreement under which the work was performed.

- Cooperator personnel should not be invited to official NPS "social" events.

- Cooperator personnel are not authorized to purchase property and supplies with government funds.

Cooperator personnel will follow the local policy of the facility when federal facilities are closed due to early release for holidays, snow days, etc.