

**National Water Quality Program
USGS-National Park Service Water Quality Partnership
Call for proposals for projects initiating in FY2022**

Key due dates for proposals:

February 12, 2021 for short (5-page) proposals for regional evaluation

June 11, 2021 for full (expanded) proposals selected by regional evaluation

USGS Partnership National Coordinator: Mike Meador, mrmeador@usgs.gov

NPS Partnership National Coordinator: Andrew Birch, andrew_birch@nps.gov

Partnership web site: http://water.usgs.gov/nps_partnership/

Partnership Fact Sheet: <http://dx.doi.org/10.3133/fs20163041>

Introduction: This partnership employs a USGS-NPS jointly managed competition and project selection process that identifies national park science needs that will be met by USGS scientists. Key elements of the partnership are:

- 1) a well-publicized USGS-NPS partnership-specific call for short (5-page) proposals,
- 2) a regional selection process involving reviewers from both agencies, and
- 3) authors of short proposals selected to advance by regional competition submit full proposals for evaluation by a national panel of USGS and NPS scientists.

Short proposals are submitted by the USGS lead principal investigator(s) (PIs) to Mike Meador, who leads the organization of joint USGS-NPS regional review panels. Regional panels evaluate the short proposals using four ranking criteria (significance, severity, problem resolution, and scientific merit) with equal weighting. Specific proposal ranking criteria for regional evaluation are indicated on page three of this document, and a template for the 5-page proposals is provided on the partnership web site. Following regional selection, the advancing project PIs are requested to develop full proposals that are evaluated by an equally weighted national panel of USGS and NPS representatives including national, regional, park, and Science Center personnel, using nine ranking criteria. While USGS and NPS Regional and HQ staff may assist in proposal preparation or recommend improvements to PIs, selection and rejection of proposals are limited to the regional and national review panels of selected USGS and NPS staff for that purpose.

Timeline:

December 10, 2020

USGS-NPS water quality partnership FY21 project call for proposals from USGS and NPS partnership national coordinators goes out to all USGS areas, Science Centers, NPS regions, and parks by agency memos.

February 12, 2021

Due date for short (not to exceed 5 pages) proposals. Email proposals to the USGS proposal coordinator listed on page 4 of this document.

February 15, 2021 – March 26, 2021

Joint USGS-NPS regional panels evaluate and select proposals to forward to national panel.

On or before April 2, 2021

For those short proposals selected to be forwarded to national panel, USGS project PIs and benefitting parks are notified and instructed to expand proposals to meet national standards for full proposals.

June 11, 2021

Full proposal packages including proposal, response to ranking criteria and approval letters are due to USGS regional proposal team leads.

On or before June 21, 2021

Completed package of full proposals are sent from USGS regional proposal team leads to the NPS-WRD and USGS-NPS Partnership National Coordinators.

June 28, 2021

NPS and USGS Partnership national coordinators commence the national panel review of proposals.

August 11, 2021

National panel concludes and selects projects for funding. Project chiefs are informed of selection or non-selection for FY22 funding immediately following the end of panel (on or before August 13, 2020).

On or before October 1, 2021

The NPS-USGS Partnership web site is updated with FY22 selected projects.

On or about November 19, 2021

Comments from national panel reviewers are posted to the partnership web site. Memos from USGS and NPS partnership coordinators are sent with FY22 newly selected, non-selected and existing (FY20-21 start) projects and new project rankings. USGS-NPS water quality partnership FY23 call for proposals from USGS and NPS partnership coordinators goes out to all USGS regions, Science Centers, NPS regions, and parks by agency memos.

Documentation: USGS Science Centers must submit Adobe PDF versions of their proposals in order to compete for FY22 funding from this partnership. A template for short proposals and guidance for full proposals are available on the partnership web site (http://water.usgs.gov/nps_partnership/admin.php). All full project proposals also require specific responses to all nine ranking criteria and written approval by both USGS Center Directors and Park Superintendents.

Funding amount: There is no minimum funding level. However, the three types of projects described below and addressed by this funding source have the following maximum funding levels:

1. Intensive Studies: up to \$100,000 per year for a maximum of 3 years (\$300,000 overall).
2. Synoptic Studies: up to \$75,000 per year for a maximum of 2 years (\$150,000 overall).
3. Technical Assistance Requests: up to \$50,000 for one year.

Anticipated annual partnership funding is \$1.75M, with 1/3 of this available (on average) annually to initiate new projects. Funding is contingent on USGS final appropriation for each fiscal year.

Project duration: Up to three years for intensive studies, two years for synoptic studies and one year for technical assistance requests.

Number of proposals selected by area/regional panels for the national panel: Three joint agency regional panels with equal representation between USGS and NPS personnel evaluate and select a subset of short proposals for further evaluation and funding by a national panel. Each joint regional panel (A, B, C) will select up to a total of eight proposals in the following funding range for full proposal development and submission to the national panel: four intensive study proposals up to \$100K/year over three years (\$300K total), two synoptic study proposals up to \$75K/year over two years (\$150K total), and two technical assistance proposals up to \$50K for one year. This will result in a maximum of 24 proposals (8 per region) to be considered (but not necessarily funded) by the national panel and provide a range of project scopes and durations. The three regions will be delineated by existing NPS regions (see attached map) as follows:

Region A– NPS Northeast and National Capital Regions

Region B– NPS Southeast and Midwest Regions

Region C– NPS Pacific West, Intermountain, and Alaska Regions

Subject of projects: Projects will be accepted in the three categories below. For intensive and synoptic studies, proposals shall include a data analysis and interpretive product to make the information immediately applicable to NPS resource managers, and to provide interpretive content so that park interpreters and the USGS can present project findings to the public.

1. Intensive Studies: Relatively larger projects that require in-depth study of park water quality. Designed to characterize known or suspected water quality problems, these projects will also focus on understanding causes of contamination and the implications of water quality impairment to aquatic biota. Most intensive

studies are strongly issue driven and oriented towards priority water quality issues confronting the NPS. Intensive studies will be designed to enable park managers to know the health of NPS water resources, evaluate the effects of remediation actions, and/or document whether external activities adversely affect park water quality.

2. **Synoptic Studies:** Shorter-term investigations of water quality. Synoptic studies are intended to provide a timely assessment of aquatic conditions at selected locations and to evaluate the spatial relationships or contributions to those conditions, and/or to provide baseline data and information where little exists. The studies document status in water quality and may determine if management actions are achieving water quality objectives. Monitoring may be implemented using a fixed station or “site rotation” concept.
3. **Technical Assistance:** Short-term assistance provided to the park typically for purposes of installation of instrumentation, training, scoping or limited synoptic water quality studies, synthesis and analysis of existing data sets or providing technical representation to the NPS requiring water quality expertise.

Considerations for proposals: The partnership encourages proposals focused on innovative water-quality monitoring methods that yield data that can guide policy and management decisions in the Park and that are also applicable to other parks. Proposals that benefit parks and are able to complement or expand existing or proposed USGS Program work associated with the [Next Generation Water Observing System \(NGWOS\)](#), [Integrated Water Availability Assessments \(IWAAS\)](#) and [Water Quality Processes Program](#) are encouraged.

In 2019, the USGS WMA began implementing the [NGWOS](#). NGWOS will provide real-time data on water quantity and quality in more affordable and rapid ways than previously possible by integrating fixed and mobile monitoring assets in the water, ground, and air, including innovative webcams and new ground- and space-based sensors. When fully implemented, the NGWOS will provide high temporal and spatial resolution data on streamflow, evapotranspiration, snowpack, soil moisture, water quality, groundwater/surface-water connections, stream velocity distribution, sediment transport, and water use. Contact Mike Meador (mrmeador@usgs.gov) for additional information.

IWAAS is being implemented by the USGS WMA to assess water availability for human and ecological uses. IWAAS will build upon concepts and frameworks to produce data tools and information for water managers to make informed decisions. With water availability, understanding water quality is a key component. Important water-quality concerns for consideration by Partnership proposal to complement or expand IWAAS studies are nutrients, salinity, sediment and water temperature. Contact Mike Meador (mrmeador@usgs.gov) for additional information.

Water Quality Processes Process program supports the methods development and research that the Water Enterprise uses to quantify impacts of constituent fate and transport, including emerging contaminants and pathogens, on changes in water-quality and how those changes impact water availability for both human and ecological uses. Contact Mike Meador (mrmeador@usgs.gov) for additional information.

USGS-NPS coordination: Early in the process of assembling short proposals for regional submission, parks and Science Centers should communicate to identify park needs, USGS expertise, discuss strategies, and coordinate writing or revising project proposals and addressing the ranking criteria. Both a USGS and National Park Service partner are required, and one or more USGS professionals collaborate with the benefiting park to prepare a short proposal (5-page maximum) for the project. The USGS collaborators, cooperating Science Centers, and benefiting park(s) do not necessarily have to be within the same USGS or NPS region.

In order for a full proposal to be considered by the national panel, the USGS Science Center Director(s) that is partnering with the park must certify each submission with an approval letter, indicating the work is feasible and the schedule and costs are appropriate. In addition, the local NPS Park Superintendent(s) must certify each submission with an approval letter, indicating that the park approves the project work and is committed to be involved in the project during its implementation. These letters should be appended to the full PDF proposal so one PDF file for each project contains the full proposal, specific responses to the nine ranking criteria and the approval letters. Project funds will be allocated by the USGS National Water Quality Program to the USGS Cost

Center performing the investigations. Parks will collaborate with the USGS offices that will conduct the water quality assessments and studies necessary to satisfy park needs.

Proposal submission points of contact and regional reviews: NPS and USGS personnel will evaluate the short (5-page) project proposals utilizing a project selection process stated in the introduction of this guidance, with equal representation between NPS and USGS reviewers on the panels. USGS regional proposal coordinators will communicate with NPS regional water resource coordinators in developing the regional panels. **All short (5-page) proposals for projects should be sent in PDF format to the coordinator: Mike Meador, mrmeador@usgs.gov.**

Short Proposal ranking criteria for the regional evaluation: A template for five-page short proposals incorporating the following criteria is available at https://water.usgs.gov/nps_partnership/admin.php. Each proposal is scored on 4, equally weighted criteria from 1 (lowest) to 5 (highest), for a maximum score of 20. The four criteria are:

1. Significance of the resource or issue to the park: Describe why this is an important issue or resource to the park involved. What was the process that identified this as a priority?
2. Severity of resource threat, problem, or need(s): Is there a time-critical or urgent aspect to this project? What causes this to be an urgent need? How imminent is the threat, and what is its extent? What are the consequences of not doing the project now?
3. Scientific merit: The project should have clearly stated objectives, well designed procedures, adhere to the scientific method, contribute to key science questions, and have realistically attainable results. Proposals should describe any new or innovative scientific approaches or techniques.
4. Problem resolution: Describe how the proposed project will resolve the problem, as defined in the proposal. Will the project contribute directly to decisions or actions that will meaningfully resolve a management issue?

Full proposal submission package: 24 short proposals will be selected for development to the full proposal level. Full proposal packages consist of 1) Full Technical Proposals 2) Responses to all nine ranking criteria and 3) approval letters. These sections should be appended in this order resulting in one PDF document per each proposal package. Guidance on submission contacts for full proposals will be provided when selected PIs are invited to prepare them.

Implementation plan and reporting requirements: Brief annual progress reports and a final completion report (for synoptic and intensive studies) are required from USGS for all projects funded with these funds. Detailed implementation plans are not required from parks.

Proposal preparation and technical assistance: Guidance is available from the USGS and NPS regarding the suitability of project concepts for submission, preparing the overall project proposal submissions, and facilitating coordination with project partners. To obtain assistance or information please contact Mike Meador, USGS, Water Mission Area (mrmeador@usgs.gov). For National Park Service specific information, you may also contact Andrew Birch, NPS, Water Resources Division (andrew_birch@nps.gov). For more information, see the partnership web site at https://water.usgs.gov/nps_partnership/index.php.