PROJECT DESCRIPTION
2020 FALL/WINTER

NPS UNIT: YOSEMITE NATIONAL PARK

<table>
<thead>
<tr>
<th>Position Title:</th>
<th>GIS Assistant (1)</th>
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<tbody>
<tr>
<td>Position Type:</td>
<td>Guest Scientist</td>
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<tr>
<td>Primary natural resource discipline:</td>
<td>Multidisciplinary</td>
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<tr>
<td>Project keywords:</td>
<td>GIS, data management</td>
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<tr>
<td>Location:</td>
<td>El Portal, California</td>
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PD #: 2020448

COVID-19 NOTICE

This project description was developed prior to the onset of the COVID-19 outbreak. Therefore, project timelines and structure remain flexible and it may be necessary to postpone start dates, begin work remotely, or reformulate the project’s description. Should any development in the COVID-19 outbreak impair a project’s timeline or results, the GIP Team will work with the park and project mentors to assess the situation and determine the best course of action at that time.

PROJECT DESCRIPTION AND WORK PRODUCTS

Position Description: The enterprise Geographic Information System (EGIS) at Yosemite National Park is administered by an interdisciplinary team for the benefit of all park divisions, such as Resource Management, Protection, Facilities, Planning, Business, and Interpretation. EGIS includes enterprise geodatabases, internal web map viewers, html-based documentation for GIS users, and Python toolboxes.

The participant will deploy a variety of technical skills to assist the park’s EGIS team with developing and managing a growing catalog of GIS data sets; improving and providing tools and applications for data editing, web, and mobile GIS; initiatives to migrate workflows to ArcGIS Pro, publish data to ArcGIS Online, and update technical documents; responding to GIS user issues and requests; and organizing GIS training and outreach, including presenting short technical talks.

The participant will be assigned several principal projects based on their interest and experience. Projects may include scripting tools and/or developing processes for quality assurance/quality control (QA/QC) of EGIS base data, updating mobile maps of special resource concerns for the upcoming fire season, and/or improving layer symbology and web map cartography. Work will occur individually and in a team setting. The position will sit with the branch of Physical Sciences and Landscape Ecology in the division of Resource Management and Science. There may be opportunities to assist with project site visits, surveys, and routine activities as needed, e.g. air quality monitoring; however, the majority of work will be office-based.

As a park of over 748,000 acres, GIS is a valuable tool in understanding the spatial locations and relationships of its natural and cultural resources. GIS data are relied upon for park operations and management. The participant’s work will directly contribute to improving data quality and promoting the effective use of GIS in service of the greater NPS mission.

This position is offered through the National Park Service’s Geoscientists-in-the-Parks (GIP) Internship Program in partnership with Stewards Individual Placement Program (Stewards) and The Geological Society of America (GSA).
**Work Products**: Deliverables for GIS projects will include databases, maps, “how-to” guidance documents, and final reports.

**QUALIFICATIONS**
Advanced GIS skills and knowledge of ESRI ArcGIS software and applications are essential, whether gained through coursework or applied experience. Applicants must be able to demonstrate proficiency in geospatial data management, including editing vector data and working with geodatabases, performing database queries, and producing well-designed cartographic products. Skill and experience with Python, AutoCAD, and/or relational databases may also be considered. Must have an interest and ability to work in a remote, mountainous location and possess strong organizational, teamwork, and communication skills, including technical writing and presenting. A successful applicant must be self-motivated and able to work with limited supervision after the initial training period.

The applicant must be a U.S. citizen or U.S. permanent legal resident ("green-card-holder") between the ages of 18 and 30 years old, inclusive, or veteran up to age 35. Prior to starting this position, a government security background clearance will be required.

**VEHICLE AND DRIVER LICENSE REQUIREMENTS**
**Applicant must have a valid driver license and a good driving record.** Park offices are geographically distributed and the intern will drive a government vehicle between offices for meetings, training, or work projects.

**A personal vehicle is RECOMMENDED but not required for this position.** Park housing is within biking or walking distance to the office (one mile). Public transportation options exist for accessing the park and surrounding communities. Government vehicles will be available for all work-related travel. However, due to the park’s remoteness and fall/winter weather (cold and wet), a vehicle is recommended.

If the GIP is required to drive a park vehicle for their position, Stewards will perform a driving records search, and the GIP’s ability to drive a park vehicle during work hours will be contingent upon the results. GIPs will have to have had their license for 3 years or be over the age of 21 to be insured as drivers under Stewards insurance policy. Examples of things that will preclude a GIP from driving a park vehicle include: GIP under the age of 21 years old that has been licensed less than three years, DUls, multiple moving vehicle violations, suspended or revoked license, or three or more accidents (regardless of fault) in the last 3 years. If the driver’s search is favorable, Stewards will provide driver’s liability insurance while the intern is driving a NPS vehicle for their GIP position. If the GIP is denied coverage by Stewards, they will not be permitted to drive during work hours.

**HOUSING**
**Park housing is available and will be provided at no cost to the participant.** The park will provide housing at no cost to the participant, most likely a shared apartment in the town of El Portal. El Portal is on the western boundary of Yosemite National Park in the Merced River Canyon, and is about a 5-minute drive (10-minute bike ride) to park offices. Seasonal park housing typically consists of a private room with shared bath and kitchen. The setting in the Merced River Canyon is spectacular.

**INTERNSHIP DATES**
Start Date: 11/2/2020  
Number of weeks: 26 weeks  
Flexibility of dates: Yes

**LIVING ALLOWANCE**
26 weeks ($400/week = $10,400)

**RELOCATION ALLOWANCE**
$250
**PROFESSIONAL DEVELOPMENT**

$1,520 (receipt-based reimbursement)

**AMERICORPS PROGRAM**

AmeriCorps is a program that engages individuals in intensive community service work with the goal of “helping others and meeting critical needs in the community”. The GIP Program is supported through AmeriCorps by providing a Segal Education Award in addition to the GIP’s living stipend and relocation allowance.

Upon successful completion of the GIP position, the GIPs (AmeriCorps members) are eligible for a $1,612 - $6,095 pre-tax education award that can be used for paying back student loans or for continuing their education. The amount of the education award is based on the length of the position.

AmeriCorps limits the number of terms an individual can serve to 4 terms. If an applicant has previously completed 4 GIP or other AmeriCorps positions, they will not be eligible to apply for an additional GIP position.

**NATURAL AND PHYSICAL WORK ENVIRONMENT**

**Natural Environment:** Yosemite National Park is famous for its soaring cliffs, spectacular waterfalls, deep glacial valleys, and rugged wilderness. Yosemite Valley includes such geologic landmarks as Half Dome, El Capitan, and Yosemite Falls, the tallest waterfall in North America. The elevation of the park ranges from 2,127 ft. in the western foothills to 13,114 ft. at the crest of the range. Yosemite National Park is in the center of the Sierra Nevada Mountains, which were formed during two phases of mountain building. The Yosemite landscape consists of primarily granitic rocks with sparse metamorphic roof pendants. Small glaciers and snowfields still cling to the highest peaks and feed clear rushing creeks and rivers. The 11,000 feet of altitudinal variation in the park supports a wide variety of life forms.

Mariposa, the nearest community, has a large grocery store, hospital, public library, etc. Smaller versions of these facilities are also located in Yosemite Valley. Fresno (~90 miles away) is the nearest large (university) town with a full range of amenities, including Fresno-Yosemite International Airport. Yosemite National Park has almost unlimited hiking, snowshoeing, and backcountry skiing opportunities in the winter, and hosts a small ski resort at Badger Pass.

**Physical Work Environment:** Work will be primarily based in the office with potential opportunities to work in the field. During the dates of this internship much of the high country above 8,000 feet is under snow, but Yosemite Valley and the Merced River Canyon are generally snow-free for much of the winter. The participant will receive training in backcountry safety, travel, and navigation prior to doing any fieldwork.

**MENTORING AND LEARNING GOALS**

**Mentoring:** The participant will work alongside the interdisciplinary EGIS team, plug into the park GIS user group, and interact with park specialists, scientists, and engineers. The participant and their supervisor will work to identify goals and benchmarks of success with this position. Training and orientation will be provided on park protocols, safety, and general park information and access will be provided to ESRI online learning materials and other GIS training resources. Specialized skills required for projects will be addressed via on-the-job training and self-paced learning.

**Learning Goals:** Principal learning goals will focus on day-to-day practical use of ArcGIS as well as data management and the role of enterprise GIS within the park. The internship will also provide an introduction to resource management, national park operations, government employment, the history and resources of Yosemite National Park, and implementation of park specific protocols.
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<th>SUPERVISORS/MENTORS</th>
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<tr>
<td><strong>Primary:</strong></td>
<td><strong>Secondary:</strong></td>
</tr>
<tr>
<td>Elizabeth Hale</td>
<td>Nicole Belle Isle</td>
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<tr>
<td>GIS Coordinator</td>
<td>Civil Engineer</td>
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<td>5083 Foresta Rd, PO Box 700, El Portal, CA 95318</td>
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<tr>
<td>(209) 379-1307</td>
<td><a href="mailto:Elizabeth_Hale@nps.gov">Elizabeth_Hale@nps.gov</a></td>
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<td><a href="http://www.nps.gov/yose">www.nps.gov/yose</a></td>
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