NPS UNIT: GRAND TETON NATIONAL PARK JOHN D. ROCKEFELLER, JR. MEMORIAL PARKWAY

<table>
<thead>
<tr>
<th>Position Title:</th>
<th>GIS Assistant (1)</th>
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<tbody>
<tr>
<td>Position Type:</td>
<td>GIP Intern</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, geospatial, hydrology, geology, glaciers, rockfall, spatial analysis, data management, geohazards, air quality, cartography</td>
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<tr>
<td>Location:</td>
<td>Moose, Wyoming</td>
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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 GIS Assistant will support the geospatial data program by preparing GIS-related graphic material for reports, using GPS data collection software to collect digital spatial data, and use GIS software to create, manage, edit and document geospatial information. Duties will include coordinating with many different internal partners to gather and sometimes collect data, then processing this information and developing a map and/or analysis product that supports natural resource managers in the Park. Additionally, the candidate will have the opportunity to assist in physical science monitoring.

Some specific tasks include:

- The review and validation of existing datasets and associated metadata.
- Field work to verify the spatial accuracy of existing data and to collect new data.
- Developing Survey123 apps, ArcGIS Collector maps and ArcGIS Dashboards.
- Creating new data sets and the associated metadata from remote sensing products such as Light Detection and Ranging data (LiDAR), aerial photography, and satellite imagery.
- Database work - Link photos and external cultural resource and facilities management databases to spatial databases, using methods from brute force data entry to batch file processing.
- Assisting in training park staff in the proper use of GPS, and participating in cooperative GPS projects involving several work groups at a time.
- Assisting in collecting GPS benchmark locations across the park using high accuracy GPS devices.
- Preparing field and office maps for various projects, for all park divisions.
- Digitizing/documenting land use change from orthorectified aerials from 1945 to 2020. This will include air photo interpretation, on-screen digitizing, and creating temporal databases.
- Assisting physical science staff in monitoring and performing duties as needed at an air quality station located within the park.
The GIS Assistant's work and products will directly support the NPS mission by ensuring data quality and integrity, supporting managers ability to make informed decisions with the best available science and information, preserving resources, and educating the public.

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:** Cartographic and spatial analysis products that support sound land management decisions and inform Park staff in a clear, thoughtful way. Creating and maintaining geodatabases across a broad cross section of the Park’s data, ranging from roads and buildings to wildlife, glaciers and vegetation. Create new data sets and associated metadata from remote sensing products (e.g. LiDAR, aerial photography, and satellite imagery).

**QUALIFICATIONS**

1) Have a strong working knowledge of ESRI GIS Software products (ArcMap, ArcPro, ArcGIS Online, Collector and Survey 123)

2) Good, basic knowledge of the concepts of geography (scale, precision/accuracy, datums and coordinate systems, etc.)

3) Basic knowledge of GPS. Some experience in field mapping, differential correction, and downloading GPS data. We use several types of GPS units and software here (Garmin, MobileMapper, and Trimble GeoXTs and XMs), and will train on any and all of them.

4) Basic knowledge of mobile devices and ability to train staff on how to use iOS, Android (Apple iPad and Samsung Tablets) and ESRI’s suite of mobile applications.

5) A background in GIS is strongly encouraged, and additionally, experience in resource management, wildlife management, biology or a related field is desirable.

6) A positive attitude and eagerness to learn and contribute!

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.** Sometimes a Park vehicle will be driven to access field sites.

**A personal vehicle is RECOMMENDED but not required for this position.** The intern will likely need a vehicle to get to the store and duty station.

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, DUIs, 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. Park housing will be provided at no cost to the participant. Housing is shared, but with have private room, and shared kitchen and common space. Please bring your own bedding, kitchen supplies, and other recreational equipment to perform outdoor activities.

**INTERNSHIP DATES**

Start Date: 11/30/2020  
Number of weeks: 20 weeks  
Flexibility of dates: Yes

**LIVING ALLOWANCE**

20 weeks ($350/week = $7,000)

**RELOCATION ALLOWANCE**

$250

**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:** Located in northwestern Wyoming, Grand Teton National Park and the John D. Rockefeller, Jr. Memorial Parkway preserve a spectacular landscape rich with majestic mountains, pristine lakes, and extraordinary wildlife. The abrupt vertical rise of the jagged Teton Range contrasts with the sage covered valley, creating world-renowned scenery that attracts visitors from all over the world.

Park headquarters is located in Moose, Wyoming which is approximately 12 miles north of Jackson. Jackson is a small, outdoor recreation focused, thriving community of 10,000 year round residents. The town caters to four million tourists every summer, has an excellent hospital and medical community, a well-respected public school system, private schools, multiple grocery stores, excellent restaurants, and seasonal music and art festivals. Outdoor activities are available year round and include easy access to three ski resorts (Snow King Resort, Jackson Hole Mountain Resort, and Grand Targhee), back-country and Nordic skiing, snowmobiling, hiking, camping, backpacking, horseback riding, boating, rafting, kayaking, hunting, cycling, mountain biking, and world class fly fishing, climbing, and mountaineering. The climate can be as extreme as the activities that are available. Winter temperatures range between lows of 20 degrees below zero to highs of 30 degrees. Summer temperatures are comfortable, with highs between 65 - 80 degrees.

**Physical Work Environment:** Work will mostly be in an office setting, with occasional requirement to snowshoe or ski into field locations no more than 2 miles from vehicle. During field outings, while infrequent, conditions can be cold and snowy.
MENTORING AND LEARNING GOALS

**Mentoring:** This project is supervised directly by the Branch Chief of Physical Science, and works very closely with the intern and other staff in the Science and Resource Management Division. The supervisor will work closely with the intern to identify strengths and weaknesses, and then identify specific and measurable deliverables that will help ensure that there is professional growth and challenge. Additionally, there are many disciplines and personalities that a person can be exposed to to get a broad sense of intra-organizational work dynamics and thereby develop working relationships.

The Physical Science program has an open, team driven atmosphere that will foster the building of professional relationships that allow for the exchange of information and experience. This will provide the intern with exposure to a wide range of multi-disciplinary experience (geology, hydrology, GIS, etc.), and there will be the opportunity to work with other park Branches and Divisions based on where the intern’s interest lies (e.g. Wildlife, Vegetation, Cultural Resources, etc.). Also, there is a community culture in the park, where there are formal and informal activities that are available for building personal and professional bonds.

**Learning Goals:** Leadership, geography, cartography, app development and geospatial analysis skills, through working with multiple Divisions and disciplines on various data tasks and products.

Specific skill areas of focus:
- GIS/GPS skills related to natural resources
- Perform basic analysis such as data selection (by attribute and location), distance analysis, area calculations, summary statistics for a variety of data types
- Create maps from existing data, for a wide variety of uses and audiences
- Organization skills related to working at Grand Teton National Park, composed of over 150 permanent staff
- Relationship building across Divisions, and working as a collaborative team

SUPERVISORS/MENTORS

**Primary:**
Simeon Caskey  
Physical Science Branch Chief  
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**Secondary:**
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