# PROJECT DESCRIPTION
## 2020 FALL/WINTER

<table>
<thead>
<tr>
<th>NPS UNIT: ZION NATIONAL PARK</th>
<th>PD #: 2020413, 2020414</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Position Title:</strong> Hydrology Assistant (2)</td>
<td></td>
</tr>
<tr>
<td><strong>Position Type:</strong> Guest Scientist</td>
<td></td>
</tr>
<tr>
<td><strong>Primary natural resource discipline:</strong> Water resources</td>
<td></td>
</tr>
<tr>
<td><strong>Project keywords:</strong> Spring inventory</td>
<td></td>
</tr>
<tr>
<td><strong>Location:</strong> Springdale, Utah</td>
<td></td>
</tr>
</tbody>
</table>

## 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:** Zion National Park is looking for two hydrology assistants to build upon the first comprehensive spring and seep inventory of the park that began in 2017. Inventory methodology includes collection of discharge and basic water quality measurements, inventory of riparian vegetation and spring-dependent fauna, and recording the spring’s stratigraphic and structural geologic position. Hydrology assistants must be able to work well in a small group, backpack long distances (12+ miles/day) mostly off-trail across rugged and exposed terrain while carrying heavy equipment and maintaining a positive attitude. Hydrology assistants may need to camp up to three nights at a time while inventorizing springs throughout the park. While not in the field, assistants will be digitizing spring data in the park’s GIS database and writing a report which will synthesize data collected in the field season. While spring inventorying will be the main duty of the hydrology assistants, they may have the opportunity to work on other research questions related to the hydrology or geology of the park as time allows.

Despite their importance to park management, Zion has yet to complete a comprehensive inventory of its springs and seeps. Zion’s October 2013 Foundation Document identified springs as a Fundamental Resource and Value in need of data collection and compilation. This spring inventory is the first step in helping the Park understand the effects climate change and development may have on this keystone resource.

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:** Seeps and Springs database in GIS and MS Excel, digitized field data forms, and final report synthesizing activities and data collected in the field season.
QUALIFICATIONS
Graduate or upper-level student studying geosciences, hydrology, or environmental sciences with a focus on hydrology, geology, or ecology. Must have experience in the field collecting hydrologic, geologic, or ecological data. Must have a working proficiency in GIS and MS Excel.

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. Interns will be driving a government vehicle to access some sites.

A personal vehicle is RECOMMENDED but not required for this position. Interns will be living within walking distance (less than one mile) from the duty station, however, they will need a vehicle to get groceries, access health care facilities, and recreate in the region.

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. Private room in a co-ed, shared house or dorm-style building. May or may not have a private bathroom. Basic kitchen materials may be available. Interns should bring their own bedding for a twin-sized bed and will be expected to purchase their own cleaning supplies.

INTERNSHIP DATES
Start Date: 8/31/2020
Number of weeks: 12 weeks
Flexibility of dates: Yes

LIVING ALLOWANCE
12 weeks ($400/week = $4,800)

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: Zion National Park is a high desert ecosystem. Interns will be working anywhere from 4,000 to 7,000 feet elevation. Temperatures can be in excess of 100 degrees Fahrenheit in the early fall and drop well below freezing at nights in the late fall. There is a grocery store, cafe, several restaurants, library, and a small health clinic in Springdale, however, residents of the park often need to drive an hour away to either St. George, UT or Cedar City, UT to satisfy their city needs.

Physical Work Environment: Work will be 75% fieldwork and 25% office work in a shared office space. Fieldwork will require hiking long distances (12+ miles/day) over rugged and exposed terrain carrying heavy equipment.

MENTORING AND LEARNING GOALS

Mentoring: Project oversight and mentoring will be completed by the park’s Physical Scientist. Zion’s Physical Scientist will train the interns in the spring inventorying methodology over their first few weeks of work. The park Physical Scientist will regularly check in throughout the duration of the season, however, Guest Scientists will be expected to work largely independent of supervision after the initial orientation and training. Guest Scientists will have the opportunity to shadow the park Physical Scientist in other duties or work on research questions related to the geology or hydrology of the park as time allows.

Learning Goals: Interns will gain an understanding of duties of a resource manager and scientist in the National Park Service.

SUPERVISORS/MENTORS

Primary:
Robyn Henderek
Physical Scientist
Zion National Park
State Route 9
Springdale, UT, 84767
(435) 772-0158 | robyn_henderek@nps.gov
https://www.nps.gov/zion/learn/resourcemanageme nt.htm

Secondary:
Cass Bromley
Chief of Resources and Research
Zion National Park
State Route 9
Springdale, UT, 84767
(435) 772-0188 | cassity_bromley@nps.gov
https://www.nps.gov/zion/learn/resourcemanageme nt.htm