# Geographic Information Systems (GIS) Intern, University of Redlands

## Undergraduate and Graduate Programs

#### THE POSITION:

The Mojave Water Agency is accepting applications for internships for graduate students enrolled at the University of Redlands who are pursuing a master's degree in Geographic Information Systems (GIS). Students must intend to enroll in GIS 697 to be considered for this opportunity. Undergraduate students of the University of Redlands who took SPA 110 or related GIS classes are also eligible to apply.

The Intern will put into practice the knowledge and skills s/he has learned throughout his/her academic pursuits. Under supervision of Agency staff, the Intern will perform a variety of administrative and project-related tasks.

Reports To: Agency staff

#### **Examples of Duties:**

Duties may include, but are not limited to, the following:

Water Resources (1 opening/16 weeks)

- Workflow planning of data handling
- Assist with data entry, integration and review in accordance with Agency quality assurance/quality control procedures
- Data validation Identify errors in the data and correct it by referencing the original city plans for that feature.
- Data Creation Digitize new features accurately from city engineering plans.
- Work with Engineering and Water Resources staff to digitize and georeference Agency infrastructure and well easements.
- Work with Water Resources and engineering staff to analyze the spatial distribution precipitation stations and the Agency's monitoring well network. Investigate correlations between precipitation events, stream flow and groundwater levels.
- Work with Water Resources and Engineering staff to develop a basin change in storage tool for basin management activities.
- Work with Water Resources staff to georeference historical aerial photographs from Agency archives and evaluate land use changes over time.
- Work with Water Resources staff to map and evaluate bedrock depths across the Agency's Service Area
- Work with Water Resources staff to update annual purveyor hydrograph maps for partner agencies.

### **Knowledge Of:**

- English usage, spelling, grammar, and punctuation
- Microsoft Word, Outlook, PowerPoint, and Excel on a basic level
- Standard reception and telephone techniques
- ArcGIS / ArcGIS Pro / ArcGIS Online

#### **Ability To:**

- Understand and carry out oral and written directions
- Learn new computer software applications and databases
- Communicate clearly and concisely, both orally and in writing
- Complete assignments on time and accurately
- Apply problem-solving and structured thinking skills in the performance of duties
- Work independently and within a diverse and collaborative environment
- Database experience is a plus, but not required

### Qualifications

#### Education:

Equivalent to the completion of the twelfth grade and current enrollment in the MS GIS or MGIS Program at the University of Redlands or an undergraduate program.

For graduate students, successful completion of a BS/BA and the following courses are required:

- GIS 615 Communicating Geographic Information
- GIS 617 Programming for GIS
- GIS 621 Introduction to GI Technology

For undergraduate students, successful completion of the following courses are required:

- SPA 110 Introduction to Spatial Analysis and GIS
- SPA 210 Advanced Spatial Analysis and GIS
- SPA 230 Field Methods in GIS

Experience: Previous office experience desired but not required.

#### **Necessary Special Requirements:**

- For graduate students, enrollment in GIS 697: GIS Internship by the University's deadline, if selected. For undergraduate students, enrollment in an internship course is not required.
- Prior to applying, interested students are highly encouraged to contact the University's Department of Geographic Information Science at (909) 748-8128.

#### **Desired Qualifications**

- 3.0 GPA and above at time of application

#### To Apply:

- Please send a cover letter and resume to Anna Garcia, agarcia@mojavewater.org