# **Graduate Student Opportunity 11/20/2019**

National Science Foundation Research Project – University of California, Santa Cruz

"Comparative Analysis of Institutions to Govern the Groundwater Commons"

Ruth Langridge, UC Santa Cruz – PI,

Christopher Ansell, UC Berkeley - Co-PI

#### **Project Description:**

Groundwater, a classic common pool resource, is an essential resource worldwide, yet governance is challenging. Our project will provide a comparative analysis of the evolution of groundwater institutions and how this process can incentivize sustainable resource use and more inclusive management. Our study site is California, including new groundwater institutions (GSAs) under SGMA, adjudicated groundwater basins, and non-GSA managed basins. Types of structures for comparison are:

- Stakeholder motivated bottom up
- Government motivated top down
- Hybrids Interactions between state and locals in the creation of the institution e.g. GSAs under SGMA

Our theoretical and practical questions are:

- 1) How do the initial conditions of different institutions incentivize specific developmental pathways over time to manage CPRs like groundwater? Were there differences in how particular structures emerged? What were the major influences on institution formation? What is the relationship of groundwater users/stakeholders to big interests in a basin pre & post SGMA?
- 2) How does each approach generate specific patterns of institutional interdependence over time that characterizes polycentric arrangements?
- 3) What are the implications of these different developmental pathways and interdependencies for resource and community outcomes? What structures promoted "adaptive governance"? What governance approaches yield the most robust resource sustainability outcomes pre & post SGMA

# **Responsibilities:**

The graduate student will participate in all phases of this research and will work closely with PI Langridge and Co-PI Ansell. Responsibilities include:

- Data collection on specified California groundwater management institutions including both archival and from field interviews
- Participate with PI and Co-PI in the comparative analysis of different institutions
- Participate with PI and Co-PI in the preparation of reports and manuscripts, and in the preparation of presentations for conferences.

#### **Details:**

This is initially a 2-quarter (6 months) position (or one semester if institution is on a semester timetable) and 2 summer months. The academic year position is at 51% with full tuition coverage.

Start date is flexible, preferred start is winter or spring quarter 2020, or winter semester 2020)

### Applicants are expected to be highly motivated with:

- Ability to work independently;
- Experience and enthusiasm for team research;
- Knowledge (theoretical and practical) of institutions in general, and specifically of California groundwater institutions and management;
- Proficiency in the acquisition and analysis of data

To apply, please email the items listed below to Ruth Langridge - rlangrid@ucsc.edu

- \* 1-2 page cover letter with a brief review of your research experience and expertise, broad interests and goals, and how they align with those associated with this project
- \* CV with your contact information
- \* Contact information for at least two academic or in-the-field references.