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Agriculture and Natural Resources | California Institute for Water Resources

Assessing Water Quality & Conservation Attitudes in a Low-Income Multi-Ethnic, Urban California Community

Principal Investigators:

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Project Summary

Water supplies are critical to urban populations in southern California. These supplies and the associated ecosystems are impacted by residents' decisions with respect to water conservation, pollution prevention and landscape plants that may infest riparian areas. However, typical public education programs have failed to motivate environmentally sustainable behaviors with respect to watershed and surface water areas of the Chollas Creek south branch in San Diego, CA. A better understanding of the social values (Dietz et al 2005, Daniel et al. 2012) that residents of this urban low-income, multi-ethnic community associate with local ecosystem services is needed to improve effectiveness of educational programs to motivate adoption of environmentally sustainable behaviors and to inform water management programs.

Focus group interviews are needed to guide development of survey instruments to collect such data from a larger sample of the local population and to aid ongoing educational programs. Project findings will be utilized to support the survey research and to utilize the US Geological Survey's SolVES software in analyzing it. SolVES has been applied to social values data collected from visitors to protected areas such as national forests and parks, incorporated into GIS warehouses and analyzed with respect to management policies (Sherrouse et al. 2011, Van Riper et al. 2012). Applying such techniques to urban, low-income and ethnically diverse communities is a novel use of the software.

Continued collaborative partnerships:

- UC Berkeley Extension Natural Resource Specialist Dr. Christy Getz continued to serve as an advisor to the project.
- UCANR 4-H Youth Development Academic Coordinator agreed to and served as an advisor.
- Two community organizations, Jacobs Center for Neighborhood Innovation and Groundwork San Diego – Chollas Creek, worked closely as partners on the project. They contributed the time of three experienced staff, two of whom had grown up and raised children in the neighborhood. Their knowledge of the community and their networks have been invaluable in developing the project. Groundwork has agreed to host a set of focus group meetings at a restoration site they call the Earthlab.
- Jacobs Center and Groundwork will recruit youth to participate. The goal is to include 12 youth per focus group, or a total of 48 youth. They will obtain the documented parental consent and youth assent that the IRB requires. (See below for explanation of IRB.)
- A third community organization, the Jackie Robinson YMCA, has agreed to host a set of focus group meetings, allow us to provide tours of their Chollas Creek restoration site, and to help advertise the project to YMCA members and local high school students.

Continued developing the project:

- As we had decided to work with local youth, instead of adults, the project was restructured to accommodate developmental differences among younger and older youth and compared to adults. Because youth speak English, meeting notes and transcripts will not need to be translated. However, parental consent/youth assent forms and recruitment fliers will need to be translated to Spanish to accommodate parents who do not speak English well.
- We developed a detailed plan comprising four meetings, organized by age group and by topics. Two meetings will be held for youth in 5th-8th grades and two for youth in 9th-12th grades.
 - At one of the two sets of meetings youth will discuss words they associate with each of 12 social values from the academic literature in terms of how they believe these values apply to the Chollas Creek watershed that runs through the community. Youth will also discuss safety, as it is important to people who visit urban, outdoor areas but it does not fit well with the values derived from the literature. At these meetings, youth will work in groups of three (triads). An adult consultant, paid by project funds, will facilitate each triad and create a transcript from notes and recordings of the discussion.
 - At the second set of meetings, youth will discuss their attitudes toward water conservation (framed as the current drought), pollution prevention (framed as polluted runoff to Chollas Creek), and invasive riparian species (framed as *Arundo donax*, the “giant cane” that infests much of the creek’s watershed and that is a subject of local restoration projects). At these meetings, youth will work in groups of four (quads). An adult consultant, paid by project funds, will facilitate each quad and create a transcript from notes and recordings of the discussion.
 - Each of the four meetings will begin with a tour of an adjacent restoration site along Chollas Creek to set the stage for focus group discussions.
 - Meetings will be held on two Saturdays in August 2014 with two meetings per day. Each meeting will be an hour with extra time before and after to allow for arrival, settling in, finishing up and departure.
- Since the January 15, 2014 status report, PI Johnson has met eight times with Jacobs Center and Groundwork representatives and once with YMCA representatives to develop the project, visit venues and seek commitments. She communicated extensively with them via email and telephone between meetings to continue developing the project and materials.
- Logistics and a recruitment plan for each meeting were outlined. Recruitment materials were drafted and provided to the community organizations for review. We will provide an allowed “educational (save the date) flier” before schools close for the summer, while the IRB reviews the “recruitment flier.”
- Johnson also developed the human subjects research protocol and supporting materials for submission to the UC Davis’ Institutional Review Board (IRB). These materials are nearly ready for submission. Johnson is waiting for the three community organizations to confirm dates at

the venues, to provide photographs of local youth (with parental permission) for use in recruitment fliers and to provide layouts of the fliers in a format they felt would attract interest. The goal is to submit materials to the IRB by the end of May 2014.

- Johnson and the two Jacobs Center representatives completed the IRB's required training for human subjects research and were certified by the national CITI organizations. The Groundwork representative had taken the training in 2013, so it is still valid. Johnson has copies on file of the training certifications for all four of us.
- Once the four facilitator-consultants are hired, they must take this training. Johnson will begin the hiring process once materials have been submitted to the IRB. Hiring them too early would risk losing them to other activities and potentially wasting funds spent on their training.
- The IRB representative reviewed and advised on the project planning process, consent/assent forms, recruitment materials, and aspects of the protocol. He said that we could expect one month for review and two more weeks for "modification" approval, for example the Spanish versions of approved, consent/assent and recruitment flier and to add the hired consultants to the list of project staff after they have completed the required CITI certification for human subjects research.