



In Times of Plague: Interdisciplinary Collaboration during the Pandemic

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Our goal



CAHSS:
Multicultural
Studies



SET:
Environmental
Science



Student
success!

Wilzave Quiles Guzmán

- Camuy, Puerto Rico
- Class of 2022
- Double Major:
International and Global
Studies / Environmental
Science
- Certificate in Public
Health
- Commitment to
Community Service
 - *Enactus*



Solea Water Darién Region, Panama

► Environmental Science goals

- Develop understanding of water needs for marginalized community
 - Water sources and water quality concerns
- Conduct water quality analysis
- Communicate effectively key water quality concerns
- Pursue environmental justice

► Multicultural Studies goals

- Create understanding between researchers and Indigenous community
- "Translate" scientific data into culturally meaningful instruction
- Develop culturally sensitive outreach
- Build trust with underserved community to counter power inequalities

WATER FOR PANAMA

Raising hope in indigenous communities.

The problem

- ▶ Initial travel planned for Summer 2021
 - ▶ Spring 2021: U.S. Department of State issued a Level 4 (Do Not Travel) Notice for Panama for Health (COVID-19)
 - ▶ Travel postponed until Summer 2022
 - ▶ Late January 2022: Level 4 Travel Notices issued for Health (COVID-19) and Crime (Darién region)
- ▶ Updated Travel Notice for Panama (U.S. Department of State, April 2022)
 - ▶ "The Centers for Disease Control and Prevention (CDC) has issued a Level 3 Travel Health Notice for Panama due to COVID-19, indicating a high level of COVID-19 in the country."
 - ▶ "Do not travel to parts of the Darién region due to crime ... Criminal elements and drug and human trafficking networks operate in these areas."
- ▶ Need a 'Plan B' (or maybe even a 'Plan C')

Travel Advisory Levels

- 1** Exercise normal precautions
- 2** Exercise increased caution
- 3** Reconsider travel
- 4** Do not travel



We needed a new project!

- ▶ February 2022: Seeking alternative locations
- ▶ Travel within the U.S. to avoid uncertainties with international travel during a pandemic
 - ▶ Puerto Rico?
 - ▶ The Valley?
 - ▶ Another location?
- ▶ Meanwhile: Wilzave applied to and was accepted into graduate school
 - ▶ M.S. in Water, Society and Policy at the University of Arizona
- ▶ What about a project to help Wilzave bridge to her graduate program?



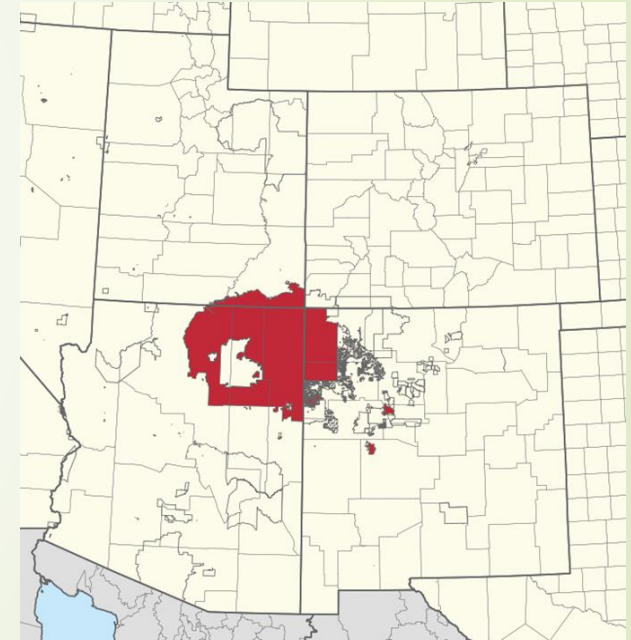
We switch gears...

- ▶ Wilzave contacted Dr. Gregg Garfin, University of Arizona
 - ▶ Are there U of A projects that might match with Peace/Turner Faculty Research grant goals and objectives?
- ▶ Dr. Garfin connected Wilzave with Dr. Karletta Chief, University of Arizona
 - ▶ Member of the Navajo/Diné people
 - ▶ Hydrologist
 - ▶ Specializes in environmental pollution on the Navajo Nation
 - ▶ Seeks to increase participation of Native Americans in STEM disciplines

Current plans

- ▶ May 2022: Wilzave will join Dr. Chief's research group
 - ▶ Field season in Arizona (Tucson, Flagstaff, and the Navajo Nation)
 - ▶ Provide culturally sensitive outreach to Diné with respect to water access, water quality, and public health
- ▶ Peace/Turner plans revised
 - ▶ Modified budget to support Wilzave in new field location
 - ▶ Field equipment, food, housing
 - ▶ Knowledge of previous environmental work in Navajo Nation
 - ▶ CITI training to carry out human subject research

Navajo Nation



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Goals for Wilzave's team

- "[Build] trust between a Diné and non-Diné team and Diné communities" (Teufel-Shone et al., 2021)
- "Be guided by Diné fundamental teaching and life principles [and honor] Diné ways of knowing" (Teufel-Shone et al., 2021)
- "Respond in a culturally appropriate manner ... when working with communities affected [by environmental disasters]" (Van Horne et al., 2020)



Benefits for Wilzave and StMU

- ▶ Transition Wilzave to graduate school (M.S. thesis topic)
- ▶ Work to achieve public communication of science to an under-represented group
- ▶ Present to StMU community on doing public health work in under-represented community
 - ▶ Environmental Science Seminar
 - ▶ Research Week
 - ▶ StMU Research Scholars
- ▶ Have StMU alumna in Arizona as an ambassador for future outreach, recruiting, and connections



References



- ▶ Teufel-Shone, N. I., Chief, C., Richards, J. R., Clausen, R. J., Yazzie, A., Begay, Jr., M. A. ... Chief, K. (2021). Development of a culturally anchored qualitative approach to conduct and analyze focus group narratives collected in Diné (Navajo) communities to understand the impacts of the Gold King Mine Spill of 2015. *International Journal of Environmental Research and Public Health*, 18, 9402.
- ▶ U.S. Department of State. (2022, April 4). Panama. <https://travel.state.gov/content/travel/en/international-travel/International-Travel-Country-Information-Pages/Panama.html#/>
- ▶ Van Horne, Y. O., Chief, K., Charley, P. H., Begay, M.-G., Lothrop, N., Bell, M. L. ... Beamer, P. I. (2020). Impacts to Diné activities with the San Juan River after the Gold King Mine Spill. *Journal of Exposure Science and Environmental Epidemiology*. <https://doi.org/10.1038/s41370-021-00290-z>