

**ENS Justin Rusch
JRCOSTEP Summer 2018
California State University Northridge
Eastern Arizona District Office
Lakeside, AZ**

My name is Justin Rusch, and I am a first-year graduate student at California State University, Northridge, where I am getting my Master of Science in Environmental and Occupational Health. My duty location was the Eastern Arizona District Office (EADO), Phoenix Area, Indian Health Service. My preceptor was CDR Sarah Snyder. This summer was my second COSTEP experience, as I was a COSTEP as an undergrad with the Tucson Area, IHS in 2017.



The Eastern Arizona District provides environmental health services to four tribes: The Hopi Tribe, the White Mountain Apache Tribe; the San Carlos Apache Tribe; and the Kaibab Band of Paiute Indians. Due to the distance from EADO to the Kaibab-Paiute, I did not have a chance to work with that tribe, but I did work with the other three.



One of the first projects I was able to help with was the White Mountain Apache Tribe's efforts to combat Rocky Mountain spotted fever (RMSF), which is a potentially deadly disease that is spread by the bite of the brown dog tick. Given the high prevalence on the reservation, the tribe conducts regular RMSF prevention campaigns. I helped during one of these campaigns by applying pesticide around homes to reduce the tick population. I also assisted with a spay and neuter clinic, which indirectly helps prevent RMSF and rabies. By fixing more dogs, the total dog population on the reservation will go down, which should result in fewer dogs to carry ticks. With fewer dogs, there is less of a risk for them to spread RMSF. There is also less of a risk of physical injuries from car crashes and dog bites.

My project was to conduct surveys of the various campground and recreational areas across the three reservations while pilot testing the eSurvey form, and build a training based on the form. Many of these surveys in the District were overdue.

Additionally, nearly all the Environmental Health Officers (EHOs) in the District were new and had not performed these types of surveys using the form. Over the course of the summer, I managed to survey 21 out of 48 campgrounds and recreational areas. I developed a 2-hour training module with pre/post-test, and activities, which I taught to seven EHOs. During this process, I identified three key references, and with CDR Snyder's help, I created a cheat sheet that allows future surveyors to look up any issue they observe and see which codes justify the reason for the citation. Additionally, I submitted multiple recommendations for improvements to the eSurvey form.



When not surveying campgrounds or writing reports, I assisted the EHOs at each tribe with various environmental health tasks. First, I did some mosquito trapping, which I had plenty of experience with from my time in Tucson, and took the mosquitos to the lab in San Carlos. Once there, I identified and sorted the mosquitos to performed RAMP testing for West Nile virus. The leftover “skeeter juice” was then shipped to a state lab to be tested for St. Louis encephalitis. While in San Carlos, I participated in a Certified Food Manager class. After successfully passing the instructor test, I received my CFM certificate and became qualified to teach the course in the future. Next, I had the opportunity to assist with a survey in the Hopi village of Walpi. Walpi is the longest continuously inhabited settlement in North America. The people who choose to live there today do so without access to running water or electricity.

Additionally, I participated in many other activities including: a 10-hour OSHA course; a landfill training; temporary food vendor surveys; seatbelt observation surveys; pool inspections; and a hospital inspection/tour. Lastly, I attended the COSTEP Symposium in Phoenix. While there I gave a presentation about my summer activities and project to the other COSTEPs who served within the Phoenix Area this summer, their preceptors, and many other IHS employees from the Phoenix Area Office.

Overall I enjoyed my time as a COSTEP. I did a lot of things I had never done before and got to see a lot of places I probably never would have seen or even known about if it weren't for this experience. The whole purpose of externships is to learn real-world skills in your field of study. I don't know if there are any better learning opportunities for those interested in environmental health than as a COSTEP. No matter how much you read books or listen to your professors' lectures, I don't think you will really learn as much as you do working in the field. It's one thing to hear stories or see pictures of environmental health problems, but it's an entirely different experience seeing it in person and being able to do something about it. I highly recommend anyone interested in this field apply for COSTEP next year. I don't think you will regret it.