

California State University San Bernardino

Internship Executive Summary

Water Resource Institute

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The project that I was tasked with was one of variable nature. First I was required to learn the 20 essentials of Geographic Information System using ESRI's, "GIS 20 Essential skills". In order to complete this task, I became familiar with ArcMap 10 through the completion of modules which required practical application of the necessary skills. This was accomplished both through the use of ESRI's handbook and web resources. Secondly, I was taught how to modify data sets from mosaic to new raster, clipping and processing the data set to one which would be relevant for projection onto a 3D terrain model. I also worked closely with the staff at the Water resource institute learning skills that extended beyond the scope of the handbook

Eventually, I was also tasked with developing maps that would be projected on the 3D terrain model. Utilizing ESRI's ArcGIS software, I learned how to make various maps related to the Santa Ana Watershed. The maps which I was tasked in developing for the terrain model would have themes involving but not limited to water, land-use, hazards and geology. I learned about 3D projection and the process of troubleshooting issues through examination of the surface geometry and projection capabilities of the actual projector.

In conclusion, I learned a great deal during my time spent working at the Water Resource Institute. I learned about the Santa Ana watershed and the potential hazards within it. I learned about our environment and how fragile it really is. I learned about Alluvial fans, the misuse of water, hazards caused by fire and much more. Building maps through the utilization of Arcmap10 did more than teach

me 20 essential skills, it made me more aware of my surrounding environment, the hazards and issues that are associated with it and I am very grateful to have had an opportunity to learn about those matters.

I would like to acknowledge the professional and wonderful staff at the Water Resource Institute, Boyin Witherspoon, Julie Ippin, Suzie Earp, Steve Keough and Nicole Barnhart for giving me the opportunity to research and learn about the Santa Ana watershed. I appreciate all of their support and efforts throughout the tenure of my internship. I also would like to thank Mr. Cory Silva, for his outstanding leadership, support and advice throughout the duration of my project.