# ROSA D. AGUILAR, EIT

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## EDUCATION

Master of Science, Civil Engineering (Water Resources), San Diego State University (Summer 2014). Thesis: Diffusion wave modeling of catchment dynamics using generalized topology and online calculation. Courses: Open channel hydraulics, sedimentation engineering, surface water hydrology, process geomorphology, environmental hydrology, computational hydraulics and hydrology. Online Calculators: Modified Lane relation sediment discharge, FHWA bridge scour, FHWA highway culvert hydraulic design, USGS California flood magnitude and frequency, Shuttleworth-Wallace evapotranspiration.

Bachelor of Science, Civil Engineering, University of California, Davis (June 2010).

# EXPERIENCE

## Engineer Co-op at Geosyntec Consultants, San Diego, CA (July 2013-Present).

Research and review literature of topics related to storm water management. Develop proficiency with the R9 MS4 Permit and its associated deliverables (WQIP, JURMP, BMP Design Manual, HMP). Assist with preparation of reports and proposals. Perform field work related to observation of overnight drilling. Understand operating manuals and field protocols. Interact with scientists, engineers, office administrative staff, and site personnel.

**Graduate Teacher Assistant at San Diego State University CCEE Department**, (January 2013-Present). Assist faculty in the classroom and laboratory settings. Maintain laboratory equipment and curriculum. Lecturer for Open Channel Hydraulics Lab and Civil Engineering and Society courses, oversee 50 students.

### Project Engineer at Ray's Electric, Oakland, CA (December 2011-August 2012).

Assisted with field operations, project scheduling, and progress billing for City of Oakland Public Works projects. Organized and maintained change/task order correspondence. Directly communicated with office and field personnel, owners, and subcontractors to ensure construction activities met code compliance. Ensured projects were on schedule, within budget, and met all safety, environmental, and quality standards.

#### Detailer at Alamillo Rebar Inc., Vallejo, CA (December 2010-December 2011).

Developed proficiency with structural and architectural plans, AutoCAD, and Microstation. Directly communicated with contractors regarding project deadlines, scheduling, project modifications and clarifications. Worked effectively in a team and independently to meet project deadlines for private, commercial, residential, and public utility construction projects costing up to \$400,000.

#### ACCOMPLISHMENTS and EXTRACURRICULAR ACTIVITIES

- International Perspective on Water Resources and the Environment (IPWE), ASCE-EWRI Conference, Quito, Ecuador (2014) and IV National Water Congress, Lima, Peru (2013)
  - Presentation: Efecto de la fricción de forma en la curva de gasto de sedimentos (Effect of form friction on the sediment rating curve)
- Carol Forrest, P.E. Memorial Watershed Management Scholarship (2013-14)
- Richard Brady & Associates Scholarship (2013-14)
- Graduate Equity Fellowship (2012-13)
- Oakland Creek to Bay Day, community park and creek cleanups (2010-12)
- President, UC Davis ASCE Student Chapter (2009-10)
- Davis Community Meals (2009-10)

# **OTHER QUALIFICATIONS**

Proficient in Microsoft Office, AutoCAD, Microstation, HEC-RAS, HEC-HMS, EPA SWMM, StormCAD, CulvertMaster, ArcGIS, Google Earth, HTML, and PHP. Fluent in Spanish (written and spoken).