



earthforensics, inc.

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VITAE

EDUCATION

M.S. (2009), Geology, California State University, Fullerton

Hydrostratigraphy of the Alto Deep Well: Implications for Sustainable Groundwater Recharge Into the Distal Victorville Fan Sediments, Southwestern Mojave Desert, California.

B.S. (2002), Geology, California State University, Fullerton

Genesis of the Quaternary Terraces of the Eastern Sierra El Mayor, Northern Baja California, Mexico

Minor in Chemistry (2002), California State University, Fullerton

PROFESSIONAL SUMMARY

Mr. Rene Perez oversees and leads our data management and data visualization section. Mr. Perez has over twenty years of experience specializing in geologic, groundwater, contaminate transport, hydrometeorologic, aerial photo interpretation, hydrogeologic investigations/modeling including three-dimensional visualization of complex data, and environmental remote sensing/GIS analysis. Mr. Perez also specialized in differential mapping of topographic changes related to landslides, flooding, subsidence, fluvial aggradation/degradation and grading. These efforts are used in our consulting and litigation services to better serve the clients understanding of the nature of a problem and the methods of solving the problems. Our use of technology for communication and information is critical to providing clear and meaningful evaluations of data. Mr. Perez is also a licensed geologist with a master's degree in geology this enables him to create logical links of databases and to pull from them the essential elements into visualization and model independently and interactively with the client and other key team members. He has also been involved in natural hazard assessment and mapping for cities and counties. Mr. Perez has experience in remote sensing and is a certified Unmanned Aerial Vehicle (UAV) Pilot which he employs to obtain high resolution low altitude aerial and thermal infrared photography. The aerial photography is used to produce accurate high resolution topographic maps and 3D photorealistic models. The models offer a way for Mr. Perez to help clients visualize complex sites and quantify changes in topography. He has also been retained and testified in several litigation cases throughout the years.

CERTIFICATIONS

California Professional Geologist (PG-8184)

California Certified Hydrogeologist (CHG-997)

New York Professional Geologist (**001248-01**)
US Department of Transportation FAA Remote Pilot Certificate (**3908785**)

PROFESSIONAL PROFILE

2010 - Present, Senior Hydrogeologist with *Earth Forensics Inc.*

1998 - 2005 and 2010 to Present, Geology and GIS Consulting, Riverside, California for *Animate Digital Studio Inc.*, *Applied Geokinetics, Inc.*, *Advance Earth Sciences*, *Cato Geosciences*, *Carlin Environmental*, *Chang Consultants*, *Environmental Engineering & Contracting, Inc.*, *Evergreen Arborist Consultants*, *Hromadka & Associates*, *Summit Environmental Contractors*, and *Terrax Environmental Consulting*.

2006 - 2009, Project Geologist / GIS Manager with *Hromadka & Associates*.

2002 - 2006, Research Assistant/Project Manager with the *Department of Geological Sciences, California State University, Fullerton, California*.

1999 - 2006, Staff Consultant / GIS Specialist with *Earth Consultants International*.

SELECTED CONSULTING, RESEARCH, AND EMPLOYMENT EXPERIENCE

2010 - Present. Senior Project Hydrogeologist with Earth Forensics, Inc. (www.earthforensics.com, www.aerialforensics.com). Project experience includes scientific research, litigation support, and field work. Projects include Contamination transport and groundwater.

2021

- Cuyama, CA. Hydrogeological Evaluation for a Potential Cannabis Project
- Bell Gardens, CA. Analysis of disposal Cost of lead impacted soil.
- Canoga Park, CA. Litigation support on the fate, transport and cleanup of TCE/PCE contamination
- Midwest City, OK. Litigation support on operations and potential contamination at a former dry cleaner.
- Merrimack, NH. Review of PFAS/PFOS contamination on behalf of plaintiffs.
- Blades, DE. Review of PFAS/PFOS contamination on behalf of plaintiffs
- Encinitas, CA. Hydrometeorological Analysis of April 2020 storm which caused flooding throughout Encinitas, California.

2020

- Marinette, WI. Assessment of PFAS contamination emanating from a former Firefighting FOAM testing facility.
- Topanga, CA. Hydrogeologic Evaluation of Proposed Domestic Groundwater Well
- Malibu, CA. Hydrogeologic Evaluation of Proposed Domestic Groundwater Well.
- San Bernardino, CA. Retained to capture and testify on drainage conditions observed at numerous golf course in the Southern California Area.

2019

- Mount Aragats, Armenia. Mapping of potential archeological site at the peak of Mount Aragats. Involved deployment of UAV at a high altitude during adverse weather conditions.
- Apple Valley, CA. Retained and testified on several issues regarding service connection density, parcel density, and spatial extents of the historical distribution system in a litigation matter for a local water utility company
- Ventura, CA. Retained to testify on drone reconnaissance footage of an unpermitted disposal site. Trial Testimony on extents of the disposal site and magnitude of activities.
- Santa Barbara, CA. Analysis of dry-cleaner operations and potential contamination in a residential neighborhood.
- Cannonsville, NY. Assessment of hydrogeology issues associated with the drilling of boring at the toe of an earthen dam.
- Santa Paula, CA. Analysis of hydrometeorological conditions related to the Thomas Fire.

- La Jolla, CA. Assess magnitude of flooding at a single family residence caused by water discharged from a reservoir.

2018

- Bethpage Long Island, NY. Analysis of groundwater and soil gas contamination in a residential neighborhood.
- Glen Ivy, CA. Analysis of geomorphology, hydrogeological, and hydrometeorological conditions associated with erosion along a stream.
- Portland, OR. Analysis of hydrogeological and hydrometeorological conditions associated with a landslide at a commercial site.
- Newberry Springs, CA. Evaluate water budget and any short comings in the Mojave Judgement.
- Houston, TX. Land use and storm analysis of the Hurricane Harvey Event.
- Torrance, CA. Analysis of the fate and transport of contamination emanating from refinery operations.
- Santa Barbra, CA. Assessment of PCE contamination; fate and transport in a residential neighborhood.
- Chatsworth, CA. Retained to obtain drone footage and prepare 3D model of an unpermitted disposal site.

2017

- Thousand Palms, CA. Hydrometeorologic analysis of historical flooding at a vacant property. Historical aerial photo interpretation of historical flow paths.
- Beverly Shores, IN. Analysis of potential groundwater seepage related to the installation of closed-loop ground source heat pump.
- Roxboro, NC. Analysis of groundwater related issues to coal ash basins.

2016

- Laguna Beach, CA. 3D model of slope failure of beach slope, Differential topographic mapping of areas related to slope failures.
- Malibu, CA. 3D model of landslide. Quantified grading changes using UAV derived topographic models.
- Rancho Palos Verdes, CA. 3D model of landslide.
- St. James River, MO. Analysis of timing of a storm event that resulted in flooding of campground.

2015

- Norwalk, CA. Monitoring of Remediation Site with UAV. Developed 3D Photorealistic Models and Excavation/Stockpile Volumes. Used infrared imagery to monitor soil moisture and UAV derived digital elevation models to quantify changes.
- Orange County, CA. Litigation Support. Groundwater Contamination.
- Malibu, CA. Litigation Support. Groundwater issues associated with landslide.
- Los Angeles, County, CA. Litigation Support. Analysis of well abandonment Issues.

2014

- Los Angeles, County, CA. Analysis of regional hydrogeology issues.
- Rancho Palos Verdes, CA. Analysis of historical aerial photos to develop landslide movement rates.
- Pacoima, CA. Litigation Support. Analysis of Hydrogeology of potential PRPs sites.
- Thornton, CO. Preparation of 3D model showing grading testing for residential tract.
- Loma Linda, CA. Hydrometeorologic Analysis of December 2010 storm event.
- Malibu, CA. Preparation of 3D model of Low Permeability Zone below downtown Malibu.

2013

- Orange County, CA. Litigation Support South Basin groundwater contamination.
- Malibu, CA. 3-D model of hydrogeology and visualization of causation factors of landslide
- Escondido, CA. Hydrometeorologic Analysis of December 2010 storm event.

2012

- Torrance, CA. Analysis of groundwater seepage in a commercial complex.

- Duncan, OK. Analysis of fate and transport of contaminants of concern, geology and hydrogeology. Historical aerial photo interpretation of locations related to historical activities.
- North Central TX. Evaluated possible causation of potable water well failures.
- San Francisco, CA. Evaluation of contaminated soils for CalTrans.
- Fennville, MI. Analysis of fate and transport of contaminants of concern, geology and hydrogeology.

2011

- Santa Ana, CA. Analysis of potential contaminated sources and remediation.
- Baldwin Park, CA. Soil and groundwater sampling for CalTrans freeway expansion in association with FlatIron Corp. Includes both environmental and geotechnical sampling.
- Malibu, CA. Evaluation groundwater conditions of a landslide area in association with geotechnical mitigation. Included overseeing groundwater monitoring, drilling of monitoring wells and meteorological assessment.
- Laguna Beach, CA. Hired to photo-document cave collapse.
- Baldwin Park, CA. Hired to evaluate the soil contamination of several stockpiles in association with FlatIron Corp. road construction.
- San Jose, CA. Aid in development of construction proposal for FlatIron Corp, analysis of contaminated soils.
- Riverside County, CA. Review of ADL reports for SEMA Construction Corp.
- Fullerton, CA. Analysis of contamination source and remedial alternatives conducted at former aerospace site.
- City of Los Angeles and Riverside County, CA. ADL Reports for CalTrans.

2010

- Rancho Palos Verdes, CA. Third Party Review of Geology and Hydrology of Proposed Landslide Mitigation of National Golf Club

1998-2005 and 2010 to Present, Geology and GIS Consulting, Riverside, California for *Applied Geokinetics, Inc., Advance Earth Sciences, Cato Geosciences, Carlin Environmental, Chang Consultants, Environmental Engineering & Contracting, Inc., Evergreen Arborist Consultants, Hromadka & Associates, Summit Environmental Contractors, and Terrax Environmental Consulting.*

2021

- Poway, CA. Analysis of building heights and potential obstructed views due to commercial proposed development.
- Bonsall, CA. Analysis of potential obstructed views due to proposed commercial development.

2020

- Poway, CA. Flood Inundation Mapping for a reach along

2019

- Carlsbad, CA. Dam Break Inundation Mapping for Lake Calavera and Maerkle Reservoir
- San Diego, CA. Hydrometeorological assessment of a February 27, 2017 Storm Event
- San Diego County CA. Dam Break Inundation Mapping for Turner Lake
- San Diego, CA. Hydrometeorological assessment of a December 6, 2018 Storm Event

2018

- San Diego, CA. Hydrometeorological assessment of Storm Events in 2016, 2018, and 2019 that caused flooding in various residential neighborhoods.

2017

- Las Vegas NV. Assessment of Hydrogeologic conditions related to observed water seepage into an underground garage.
- Palmdale, CA. Litigation support. Hydrometeorologic assessment of storm related to residential flooding.

- Douglas County, NV. Hydrometeorologic assessment of flooding in a residential community.
- 2016**
- Los Angeles, CA. Litigation Support. assessment of Hydrogeologic conditions, VOC contamination.
 - Santa Barbara, CA. Litigation Support. Assessment of Hydrogeologic conditions, sewer and utility transport of VOC contamination.
- 2015**
- Irwindale, CA, Litigation Support. Analysis of historical groundwater levels and impacts on fill materials.
 - Las Vegas, NV, Litigation Support. Analysis of potential underground leaks in a Hydronic Closed Loop System.
- 2014**
- Missouri River, IA, NE, SD, ND, KS and MO. Litigation Support. Flood Assessment of Flooding along the Lower Missouri River for the 2007, 2008, 2010, 2011, 2013, and 2014 Floods. Aerial Photo Review, Sedimentation deposition analysis, and Flood Mapping.
 - Carson, CA. Litigation Support, Analysis of Hydrogeologic site conditions, preparation 3D model of Low Permeability Zone.
 - La Quinta, CA. Litigation Support, RADAR analysis
- 2013**
- Highland, CA. Litigation Support, Mapping of hundreds of surficial slope failures
 - El Centro, CA. Flood assessment due to 2012 storm event at Kuhn Hay.
 - Missouri River, IA, NE, and MO. Flood Assessment of Damage to BNSF railroad from the 2011 Floods.
- 2012**
- Catalina Island, CA. Site assessment of soil contamination at a former Manufactured Gas Plant (MGP). Analysis of Aerial photographs and historical photographs in order to identify former site activities and use.
 - Yuma, AZ. (DOJ) Hydrometeorological Investigation of levee failure at JV Farms, Arizona
 - Nashville, TN. Flood Assessment of flooded sites along Cumberland River as a result of the May 2010 flood.
 - Kentucky. Flood Assessment of flooded sites as a result of the May 2010 flood.
 - Ohio. Flood Assessment of flooded sites as a result of the May 2010 flood.
 - Mississippi River, TN and MS. Assessment of flooded sites as a result of the 2011 floods.
 - Upland, CA. Historical Aerial Photo Analysis and analysis of detention basin volumes at the Colonies development.
- 2011**
- Pomona, CA. Analysis of hydrogeology, contaminant sources (perchlorate), and historical fertilizer use.
 - Oakland, CA. Hydrometeorological investigation of McKillop Landslide. Analysis of the historic progression of landslide activity.
 - San Diego, CA. Assessment of flood storage upstream of Mexico Hwy at three canyons that flow into the Tijuana Estuary. Analysis of Sediment Transport down gradient of culverts.
 - Saugus, CA. Hydrometeorological Investigation of Landslides/debris blow.
 - Sacramento, CA. Investigation of VOC groundwater contamination in vicinity of former Industrial Dry Cleaner.
- 2010**
- Carson, CA. Aerial photo analysis of historic oil tank farm, analysis of location of historic tank features, and soil contamination investigation.
 - Merced, CA. Analysis of Hexavalent Chromium contamination in residential neighborhood emanation from form wood treatment plant.
 - Champaign, IL. Review and analysis of Manufactured Gas Plant (MGP) soil and groundwater

contamination and remediation. Historical research of MGP plant's waste practices.

- Oakland, CA. Investigation of unidentified contaminants at industrial building that was refurbished into residential lofts.
- Big Bear, CA. Evaluation of Hydrometeorological condition that caused a landslide/debris flow in residential neighborhood.
- Chicago, IL. Hydrometeorological investigation of flooding throughout Chicago, Illinois.
- Menifee, CA. Preparation of Hazard Maps for the Safety Element of the General Plan.

2005

- Anaheim Hills, CA. Soil water transport and ET studies for several hundred residences. Water balance studies.
- Irvine, CA. Sediment transport in San Diego Creek in 2-mile reach using flexible block lining.
- Yorba Linda, CA. Analysis of sediment transport from large grading project and nursery debris production at school site.
- Yorba Linda, CA. Analysis of sediment transport from large grading project in downstream residential flooding.
- Castaic Lake, CA. Soil water transport and hydrologic balance analysis of residential tract.

2004

- San Bernardino County, CA. Water Quality holding time criteria development, 85-percentile of average storm analysis.
- Santa Clarita, CA. Groundwater and soil water analysis in Los Angeles, California.
- Fullerton, CA. Physical model of storm drain flow into retention basin.
- San Jacinto Mountain, CA. Geologic Feasibility Assessment for the Proposed National Underground Science Laboratory in San Jacinto Mountain.

2003

- Torrance, CA. Sediment transport in Compton Creek downstream of Montrose Plant. Transport analysis of sediment in major/minor events.
- San Clemente, CA. Analysis of landslide development.
- Henderson, NV. Analysis of soil water excess, Highland Glen, Henderson, Nevada. Perchlorate sampling and analysis.

2001

- San Elijo Lagoon Conservancy; Sediment Quality and Depositional Environment of San Elijo Lagoon.
- Los Angeles Regional Water Quality Control Board; The Santa Clara River Watershed; GPS and Observational Report on the Santa Clara River.

2000

- Los Angeles Regional Water Quality Control Board. The San Gabriel River Watershed; GPS and Observational Report on the San Gabriel River from the Whittier Narrows region to Seal Beach.

1999

- Norco, CA. Methane sampling in residential homes built above a historic dairy farm.

2003 - 2009, Project Geologist / GIS Manager with *Hromadka & Associates*.

GIS computer and physical modeling, expert report/deposition review and writing along with managing multiple cases and field-site inspections for the company. Projects include contamination transport, groundwater, sediment transport, hydrometeorologic and hydrologic studies in relation to landslide/mudslides and flooding.

2009

- La Jolla, CA. Hydrometeorological effects on the Mtn. Soledad Landslide and analysis of maintenance and ruptures of city water system.
- Dana Point, CA. Hydrometeorological effects on landslide and analysis of effects of leaky water main.

- Pahrump, NV. Investigation of expansive soils, fissures, groundwater withdraw/recharge, and possible septic system issues in relation to damaged foundation/homes.
- Victorville, CA. Investigation of a damaged BNSF bridge crossing due to August 2003 storm.
- La Jolla, CA. Investigation of the Soledad Mountain Landslide. Analysis of high-pressure leaking water main, rainfall plus irrigation
- La Jolla, CA. Landslides in La Jolla, California. Water line breaks, dry weather (Colony Hills). • Oceanside, CA. Soil-water budget, hydrometeorological analysis of landslides in Oceanside, California
- Newbury Park, CA. Investigation of wetlands due to discharge of remediated groundwater into Caltrans culvert.
- San Juan Capistrano, CA. Hydrometeorological Investigation of landslide in San Juan Capistrano, California (Washington Holdings).
- Chicago, IL. Investigation of flooding throughout Chicago area. Hydrometeorological analysis of storm and previous flooding events.
- Kauai, HI. Ka Loko Dam failure. Hydrometeorological analysis of storm event.
- San Francisco, CA. Investigation of flooding at numerous sites due to large intense storm that overwhelmed combined storm-sewer system. Hydrometeorological Investigation and historical topographic analysis of flooding sites.
- Mission Viejo, CA. Flooding at Saddleback College, California.
- Rancho Palos Verdes, CA. Hydrometeorological investigation of flooding.
- Mission Viejo, CA. Hydrometeorological Investigation and Groundwater of settlement issues at a residential home.

2008

- Pomona, CA. Hydrometeorological effects on landslides.
- La Conchita CA. Hydrometeorological effects on La Conchita landslide.
- Rialto, CA. Groundwater perchlorate and VOC contamination.
- Lake Elsinore, CA. Investigation of automobile accident adjacent to land grading near Lake Elsinore.
- Rancho Palos Verdes, CA. Water budget analysis for Landslide.
- Malibu, CA. Hydrogeological investigation of 2005 landslide.
- Rancho Cucamonga, CA. 2008 Sinkhole near storm drain CMP.
- Topanga, CA. Hydrometeorological Investigation of Landslide in a residential area.
- El Cajon, CA. Hydrometeorological Investigation of Landslide and groundwater.
- Cleveland, OH. Investigation of Flooding in Cleveland, Ohio. Drainage/sump system issues.
- Oceanside, CA. Analysis of floods in Oceanside, California for 2004 season.
- Fontana, CA. Hydrometeorological Investigation of Flooding at San Sevaine Channel.

2007

- Glendale, CA. Hydrometeorological effects on landslide.
- Victorville, CA. Hydrometeorological Investigation for August 2003 Flooding at AFG plant. Analysis of historical aerials and topographic maps.
- San Diego, CA. Sediment and PCB contamination transport in pipelines draining to Convair Lagoon in San Diego Bay. Tidal influence. Back wave/run-up effects.
- Yorba Linda, CA. Hydrometeorological Investigation and analysis of drainage diversions due to grading at newly constructed residential development in relation to mudflows at Mabel Paine Elementary School. Constructed 3D physical models of grading changes.

2006

- Sheep Creek, CA. Reservoir construction and maintenance history, sedimentation and hydrometeorological investigation of earthen dam failure.
- San Diego, CA. Sediment transport of PCBs, VOCs, in Switzer Creek, California.
- San Juan Capistrano, CA. Sediment transport analysis of natural watercourse.
- Anaheim Hills, CA. High groundwater. Preferential pathways. TDS. ET analysis, (Alden Shea).

- Ventura, CA. Evaluation of new water reservoir and leakage (SSC Construction).
- San Diego, CA. Continuous simulation of sediment transport in canyon area of Alta La Jolla Road.
- San Diego, CA. Analysis of water content and tree failure leading to death.
- Beverly Hills, CA. Analyses of possible storm drainpipe leakage and elevated groundwater.
- Henderson, NV. Analysis of perched groundwater in Highland Glen area. Water quality analysis.
- San Francisco, CA. Severe rainfall analysis in four events, flooding, analysis of combined storm-sewer system.

2002 - 2006, Research Assistant/Project Manager with *Department of Geological Sciences, California State University, Fullerton, California*

Project Manager for Mojave Water Agency Research Grant, managed fieldwork and data input activities and performed scientific research. Projects include groundwater flow and recharge studies, water quality surveys, stream gaging, surveying groundwater monitoring wells, and well boring log database.

2004-2006

- Evaluation and Mapping - Mojave Desert Region (Alto, Este, Oeste and Centro Hydrologic Sub-areas). GPS surveyed, down-hole video-camera, and down-hole geophysics of Agencies key wells throughout the basin. Conducted stream gage measurements during dam releases.

2003

- Water Resource Research within the Mojave Desert. Part of this project is to develop a GIS/Database inventory of all wells, groundwater elevations and hydrogeochemistry of each basin within the boundaries of MWA. Specific portions of the grant have been set aside to collect and analyze data from a 2,500-foot-deep multiport monitoring well in the vicinity of Oro Grande Wash. Installed Differential GPS Survey base station.

2002

- Groundwater Investigations to look at potential recharge areas throughout the Southern Mojave Desert Area. Establishment of digital well log inventory and bibliographic search of all documents pertaining to MWA water agency. CSUF was also in charged with developing a key well program for Lucerne Valley based on groundwater basin recharge.

1999 - 2006, Staff Geologist and GIS Analyst with *Earth Consultants International, Inc.*

Projects include GIS hazard mapping, FEMA HAZUS earthquake scenario, fault trenching and fault mapping.

2003

- Hemet, CA. Fault trenching at residential development.

2002

- San Bernardino, CA. San Bernardino Valley Community College fault trenching.

2001

- Honduras, Central America. Fault hazard assessment for a Proposed LNG Terminal Facility.
- Tejon Ranch, CA. Geologic Hazard Mapping and Mitigation Plan. Fault trenching, Percolation testing, and GIS mapping of faults.
- El Paso Pipeline Seismic Hazard Evaluation and Mitigation Plan, Liquefaction-Induced Lateral Spreading and Landsliding along the California Section of the El Paso Pipeline between the California-Arizona border and Wheeler Ridge.

2000

- Los Angeles, CA. Playa Vista Corporation - Groundwater and Methane Migration Investigation on Playa Vista Property.

1999

- Brea, CA. Feasibility investigation to review mitigation options for active crude oil seeps (tar) and methane generation.

1999-2006

Safety Element of the General Plan for the following cities and counties in California.

- County of Riverside • City of Ontario
- City of Fontana • City of Newport Beach • City of Torrance
- City of Pasadena • City of Glendale • City of Rancho Cucamonga • City of Torrance • City of Desert Hot Springs
- City of Palm Springs • City of La Quinta
- City of Palm Desert • City of Beaumont • City of Banning
- Cathedral City • City of Rancho Mirage • City of Brea
- City of Rancho Santa Margarita • City of Moorpark

TESTIMONY EXPERIENCE

Expert Trial Testimony

Wayne Fishback vs County of Ventura
Ventura County, Superior Court
Case No. CIV244304
Trial: August 26, 2019

Karim et al., vs City of Pomona
Los Angeles County, Superior Court
Case No. KC047449J
Trial: February 14, 2008

Expert Testimony

Town of Apple Valley vs Apple Valley Ranchos Water Company
San Bernardino County, Superior Court
Case No. CIVDS1600180
Deposition: September 19, 2019

People of the State of California vs Barton Wayne Fishback
Los Angeles County, Superior Court
Case No. PC056481
Declaration: March 9, 2018
Declaration: July 11, 2018

Retained Expert (No Testimony)

The Estate of Walter Collins vs Arrowhead Country Club
San Bernardino County, Superior Court
Retained: March 7, 2020

TEACHING EXPERIENCE

2002 - 2003

- GEOL 101L. Graduate Student Instructor responsible for Geology Lab Class California State

University, Fullerton Department of Geological Sciences.

SHORT COURSES

2016

- NGWA. geoDRONEology: drones for geoscience mapping. April 24.
- SAGEEP. geoDRONEology: Integrating Drones into the Geoscientific and Engineering Workflow. March 20.

2001

- GIS Short Course for Professors. California State University, Fullerton Department of Geological Sciences

AWARDS, HONORS, SPECIAL QUALIFICATIONS

- 1998-1999 American Geological Institute Minority Participation Program Scholarship.
- 1999-2000 American Geological Institute Minority Participation Program Scholarship.
- 2000-2001 American Geological Institute Minority Participation Program Scholarship.
- 1999-2000 ARCO Foundation/Hispanic Scholarship
- 2000-2001 ARCO Foundation/Hispanic Scholarship
- 1999 Southern California United Food & Commercial Works Unions and Food Employers Scholarship.
- 2001 Outstanding Service Award. California State University Fullerton, Department of Geological Sciences.
- 2021 Alumni of the Year. California State University Fullerton, Department of Geological Sciences.

PROFESSIONAL PUBLICATIONS, ABSTRACTS, PRESENTATIONS and POSTERS

Peer-Reviewed Publications (Published, Accepted, Submitted)

1. Hromadka II, T.V., **Perez, R.A.**, Rao, P., Eke, K.C., Peters, H.F. and McInvale, C.H.D. **2019** Evaluation of Doppler Radar Data for Assessing Depth- Area Reduction Factors for the Arid Region of San Bernardino County. *Journal of Water Resource and Protection*, 11, 217-232.
2. Hood, K., **R.A. Perez**, H.E. Cieplinski, T.V. Hromadka II, G.E. Moglen, and H.D. McInvale, **2018**. Development of an Earthen Dam Break Database. *Journal of the American Water Resources Association* 1–13. <https://doi.org/10.1111/1752-1688.12703>
3. Espinosa, B., Hromadka II, T.V., and **Perez, R.**, **2015**. Comparison of Radar Data Versus Rainfall Data. *MethodsX*.
4. Hromadka II, T.V., Phillips, M., Rao, P., Espinosa, B., **Perez, R.**, and Barton, M., **2013**. What Rainfall Return Frequency? *Atmospheric and Climate Sciences*, Volume 3, p. 385-396.
5. Armstrong, P.A., **Perez, R.A.**, Owen, L., A., and Finkel, R.C., **2010**. Timing and Controls on Late Quaternary Landscape development along the eastern Sierra El Mayor Range Front in Northern Baja California, Mexico, *Quaternary International*, Volume 114:3, p. 415-430.

Abstracts, Presentations and Posters

1. **Perez, R.**, Laton, W.R., Hugh, C., and Cruikshank, M., **2016**. UAV Imagery and Mapping; What Are the Capabilities and Limitations? Environmental and Engineering Geophysical Society SAGEEP 2016.
2. **Perez, R**, **2016**. Low Altitude Photography utilizing UAVS Geological and Hydrologic Applications. South Coast Geological Society.
3. **Perez, R**. **2016**. Application and Use of Unmanned Aerial Vehicles (UAV) in Geologic and

- Engineering Endeavors. Inland Geological Society.
4. **Perez, R. 2016.** Photogrammetry with UAVs. California State University Fullerton Geological Sciences Department
 5. **Perez, R.,** Foster, J., and Laton, W.R., **2005.** *The Redefining of a Groundwater Basin, Alto Sub Basin, Southwestern Mojave Desert, California.* NGWA 2005 Groundwater Summit. (abstract/poster)
 6. **Perez, R.,** Foster, J., and Laton, W.R., **2004.** *Just how deep is it?; Alto Deep Well and its impacts to Alto Groundwater Sub-Basin Geology.* Groundwater Resources Association of California Annual Meeting. (abstract/poster)
 7. Armstrong, P., Owen, L. A., Shinnefield, A., Finkel, R., and **Perez, R. A., 2003.** Terrace Age and Development on the Eastern Sierra El Mayor, Northern Baja. Combined Influence of Tectonics, Sea Level Change, and River Incision (abs). Abstracts with Programs, Geological Society of America, Cordilleran Section, 2003 Annual Meeting, p. 20.
 8. **Perez, R. A.** and Armstrong, P., **2003.** Geomorphology of Terraces Developed on the Eastern Flank of the Sierra El Mayor, Northern Baja California, Mexico (abs). Abstracts with Programs, Geological Society of America, Cordilleran Section, 2003 Annual Meeting, p. 16. (abstract/poster)
 9. Laton, W.R., **Perez, R.,** and Figueroa, O., **2000.** *Natural Hazard Mapping - A GIS Approach.* CSUF Geology Department.

Guidebooks, Full Paper Proceedings and Articles

1. Laton, W.R., **Perez, R.,** and Bausch, D., **2000.** *New Hazard Maps for Riverside County, California.* San Diego Association of Geologists annual field trip guidebook.

Public Reports

1. Hromadka II, T.V., Rao, P., **Perez, R.** and McInvale, D., **2018,** Doppler radar and Precipitation depth correlation for the Arid region of San Bernardino County. Water Resources Division, County of San Bernardino. California.
2. Hromadka II, T.V., **Perez, R. A.,** and Laton, W.R., **2006,** Hydrologic Data Report, Storm of October 17-21, 2004, County of Orange, California, Hydrology Division
3. Hromadka II, T.V., and **Perez, R. A., 2006,** Hydrologic Data Report, Storm of January 7-12, 2005, County of Orange, California, Hydrology Division

AFFILIATIONS

- Association for Unmanned Vehicle Systems International (AUVSI)
- Groundwater Resources Association of California (GRA)
- National Ground Water Association (NGWA)