

**CARL MOCZYDLOWSKY**

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## B A C K G R O U N D

**Carl Moczydlowski is the president and founding partner of Closed System.** He has more than 7 years experience managing and completing GIS, Graphics, and modeling projects located throughout California and the west. Mr. Moczydlowski is experienced in planning, environmental documentation, and infrastructure planning and assessment. Extensive GIS analyses include vegetative and sensitive habitat impact analysis, cultural resource analysis, watershed management, wastewater asset analysis, lake sedimentation studies, sensitive species conservation, facility-siting analysis, three-dimensional viewshed analysis and simulation as well as zoning, parcel, and 3D mapping and analysis for development and expansion projects. He has experience with numerous software applications, particularly ArcGIS, ArcInfo, ArcView, Spatial Analyst, 3D Analyst, PhotoShop, Illustrator, Freehand, 3D StudioViz/Max, Flash, HTML, and AutoCAD.

## E D U C A T I O N

**5/14/00 | University of Colorado, Boulder**

*B.A. - Environmental Studies; Minor – Geography*

*Specialization – Environmental Analysis, GIS, Cartography*

## P R O F E S S I O N A L   E X P E R I E N C E

**2000 – 2005 | HDR Engineering**

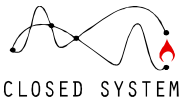
**California GIS Technical Manager | Senior GIS Analyst** - Responsibilities included leadership and mentoring of GIS professionals, providing GIS education and technical support, application and production services to multi-disciplinary teams, project management of GIS operations and developing new GIS business. Management territory included multiple users in 8 California offices. Initially hired as a project employee on a temporary contract, built California GIS operation into a multi-user, multi-platform, 2.3 million dollar business class, with San Diego as the GIS technical center for HDR's western region.

## P R O J E C T   E X P E R I E N C E

**Department of Homeland Security, Immigration and Customs Enforcement, Strategic Facility Relocation and Collocation, Nation Wide.** Compiled a comprehensive listing of Immigrations & Customs Enforcement (ICE) facilities throughout the nation including U.S. territories. This data includes location details, ICE occupied square footage, percentage of total area occupied by ICE, lease expiration dates, annual ICE rent figures, and associated priority analysis criteria. With ICE's geographic footprint beginning to stabilize after establishment as a separate DHS entity, a visual tool became necessary to evaluate opportunities for bureau and group consolidation. Commissioned to develop a GIS mapping application detailing precise facility location, GSA location code, facility group function, and graphical priority criteria. This tool will ultimately help ICE preserve capital and aid in future facility master planning.

**Interstate 405 Rapid Transit Improvements and Congestion Relief General Engineering Contract, Washington Department of Transportation, Seattle WA** - Provided GEC services collaboratively with WSDOT to deliver transportation improvements to the I-405 corridor. The I-405 Corridor is a critical link in the Washington transportation system that is congested many hours of the day, resulting in associated economic impacts. It serves as a vital regional travel corridor east of I-5 within the Puget Sound Region. As a major route for employees, freight, and goods for Microsoft, Boeing, PACCAR, and many other large and small businesses, its importance extends beyond our borders, both nationally and internationally. The I-405 Corridor Program creates an integrated, multi-modal package of transportation improvements that reduces traffic congestion and improves mobility, safety and the quality of life for communities in the I-405 corridor. The I-405 Corridor Program is a joint effort between the WSDOT, the Federal Highway Administration, Federal Transit Administration, Central Puget Sound Regional Transit Authority, King County, local agencies, and the cities and communities in the I-405 corridor.

**Fiber Optic Network Permitting and Environmental Documentation, Level 3 Communications, Southern California** - For the Level 3 Communications broadband fiber-optic cable installation, provided GIS and other mapping and used design skills for a wide variety of project applications, including the rapid production of 1:24,000 scale maps along several hundred miles of proposed fiber optic route in California showing environmental constraints of concern to permitting agencies. Constraints in the GIS database included federal lands, hydrography, topographic contours derived from USGS



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Digital Elevation Model data, Natural Heritage Program element occurrences and sites from the National Register of Historic Places. Project issues included environmental documentation and permitting required for the construction, operation, and maintenance of a buried fiber optic cable project, located throughout southern California. Specific project tasks included corridor feasibility, route definition, design review, environmental documentation, and permit processing.

***The Resort at Levera Beach, Grenada, Caribbean*** Prepared a World Bank environmental impact assessment, socioeconomic impact evaluation, and mitigation monitoring program for the Resort at Levera Beach. Implemented state-of-the-art mitigation measures to ensure minimal impacts on the most important sea turtle nesting site in the Caribbean. In addition, assisted the government of Grenada in establishing the country's first official environmental document review procedures.

***US Army Corps Of Engineers, Sacramento, Spill Response and Emergency Plans. Development, Bakersfield, CA, Fresno, CA, Reno Junction, CA, Sacramento, CA.*** - Performed the environmental reviews, prepared spill prevention containment and countermeasure (SPCC) plans, and prepared contingency plans addressing five hydro-generation plants, 10 marinas, and 15 maintenance yards.

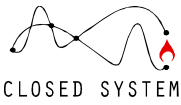
***US Army Corps of Engineers, Base Yard Stormwater Plan Development, Sausalito, CA.*** - Prepared a Stormwater Pollution Prevention Plan (SWPPP) for the Corp's Base Yard facility. This project included a comprehensive site review, implementation of Best Management Practices (BMPs), coordinating meetings with the Regional Water Quality Control Board (RWQCB), training facility staff on plan implementation, performing jetty and breakwater inspections, and updating the Hazardous Communications Plan and Emergency Response Plan.

***US Army Corps of Engineers, Sacramento District, Little Rock District, Bay Model Visitor Center Environmental Audits and Emergency Plan Updates, Sausalito, CA.*** Mr. Moczydlowski served as GIS Analyst for this project. Provided environmental compliance services and hazardous material response planning and mapping for the Army Corps of Engineer's Bay Model Visitor's Center.

***San Diego County Biological Resources On-Call, San Diego County, CA*** - Various projects for an on-call contract serving as a GIS analyst, project designer and GPS mapping specialist. Projects included Lindo Lake Park specific plan, Viejas Bridge Replacement Project, and El Capitan Wetlands restoration project. Responsibilities included: map production, habitat impact quantification, wetland delineation, lake sediment flow modeling, and various GIS analysis and GPS Mapping.

***Coastal and/or Riverine Studies/Restudies Throughout Region IX under an Indefinite Delivery/Indefinite Quantity contract, Federal Emergency Management Agency, California, Arizona, and Nevada*** - Required services include collecting and entering map needs assessment parameters into national database including: Routine data entry and update maintenance of the database; Determining the flood hazard areas in the assigned communities, as appropriate during normal and post-disaster situations and generate data including field surveys and production of topographic map data using LIDAR, aerial, or other procedures as needed; Conducting hydrologic and hydraulic modeling including the use of automated, geo-referenced procedures; Producing flood insurance studies including Digital Flood Insurance Rate Maps (DFIRM) suitable for publication in accordance with FEMA Guidelines & Specifications for Flood Hazard Mapping Partners, dated February 2002 and all subsequent revisions; Collaborating, coordinating, consulting and meeting with local community officials, FEMA staff, FEMA review contractors, and others, as required; Providing disaster recovery maps in a timely manner that could include the use of automated procedures and geo-referenced database applications; and Providing technical assistance to the region during disaster operations.

***Canyon Hills Specific Plan Amendment EIR Addendum, Riverside, CA*** - Prepared an Addendum to the Environmental Impact Report originally certified in 1989 for the Canyon Hills Specific Plan project. Phase 1 of the Canyon Hills Specific Plan is constructed and the remaining phases propose 4,200 residential units and associated commercial, recreational, and public facilities land uses within the 1,225 acre project site. The EIR Addendum updated previously prepared biological resources, traffic, noise, air quality, and specific plan conformance, technical studies, and addressed newly adopted regulatory agency requirements and mandates. A particular concern to surrounding area residents was the improvement of the Lost Road offsite connecting the Specific Plan to Interstate 15 and related construction, air quality and noise impacts. The feasibility study determined that the improvement of Lost Road was not warranted at this time and should be studied further upon build out of the Canyon Hills Specific Plan. Integral to the successful completion of the Canyon Hills Specific Plan is the integration of the substantial natural open space preservation and habitat restoration associated with cottonwood creek and adjacent oak woodland areas. Secured a final Environmental Impact Report and an adopted Lost



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Road improvement Feasibility Study and Mitigation Monitoring Program. The Building Industry Association of California awarded the Master Plan Community of the Year in 2002 to the Canyon Hills Specific Plan.

***Fair Oaks Ranch Specific Plan EIR, Pardee Homes, Los Angeles, CA*** - Provided graphic illustration, maps and assisted in the preparation and production of the EIR for the development of detached and attached residential, commercial, school, parks and open space land uses located on approximately 628 acres within the unincorporated portion of Los Angeles County, known as Canyon Country. Issues addressed were geo-technical hazards, flood hazards, noise, air quality, visual resources, cultural resources, biological resources, traffic/circulation, sewage disposal, education, public services and utilities.

***EIR for Deerlake Ranch, Presidio Group, Los Angeles, CA*** - Provided graphic illustration, maps, and assisted in the preparation and production of the EIR for the development of a single-family residential subdivision located on approximately 236 acres of mostly undeveloped land in the northwestern San Fernando Valley area of Los Angeles County. Issues addressed were land use, geology and soils, biological resources, cultural resources, hydrology and water quality, air quality, noise, traffic/transportation and visual resources.

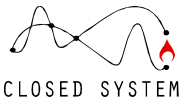
***EIR for Saddleback Meadows, Presidio Group, Orange, CA*** - Provided GIS analysis, graphic illustration and mapping for the supplemental environmental impact report (EIR) for the development of 299 low-density single-family residential lots located on approximately 222 acres of undeveloped land in east-central Orange County within the lower, southwestern foothills of the Santa Ana Mountains. Saddleback Meadows is the longest-running CEQA processing case in the history of Orange County, spanning a 17-year period. Issues addressed were land use, geology and soils, traffic/transportation, biological resources, cultural resources, hydrology and water quality, air quality, noise, recreation, public utilities and services, and visual resources.

***Program Management, City of San Diego Metropolitan Wastewater Division, San Diego, CA*** - This effort included the custom design and integration of GIS facilities and asset management systems, design of a GIS asset maintenance monitoring and scheduling program, and the creation of open space maintenance access plans. A major function was to assist city staff in responding to an EPA administrative order. This required various GIS analysis and mapping including extensive GPS data collection, geographical features, sanitary sewer overflows, age, diameter, material, maintenance history, work order production and tracking, closed circuit televising of facilities, and watershed management assessment. Vegetation, habitat types, land uses, pollution sources, and field sampling data was analyzed and incorporated into the geospatial database along with other watershed resources to identify threats and stressors to the watershed, specifically sewer overflows and urban runoff. As a result, a strategy for BMP implementation projects was developed and integrated into the GIS database and then submitted to Metro Wastewater along with a detailed methodology, technical report, and associated FGDC compliant metadata. Also provided graphics support to successful City Council presentations and proposals.

***Carnegie State Off-Highway Vehicular Recreation Area Environmental Services, California State Parks, Sacramento, CA*** - In 1996, the Off-Highway Motor Vehicle Recreation Division purchased approximately 3,400 acres of land adjacent to and west of the Carnegie State Vehicle Recreation Area for the purpose of enlarging the park to add additional recreational opportunities for visitors (over 100,000 visitors per year). The acquired Alameda/Tesla property had been used primarily for livestock grazing and includes the old historic Tesla town site and mine. A draft environmental impact report (EIR) amending Carnegie State Vehicle Recreation Area to include the Alameda/Tesla property was prepared and circulated for public comment in 2000; however, significant new environmental information became available prior to certification. Provided environmental services associated with certifying the environmental impact report (EIR), developing a biological resources inventory, and preparing a multi-species habitat conservation plan for Carnegie State Vehicle Recreation Area.

***EIR for Water Quality Treatment, City of Lake Elsinore, CA*** - Provided mapping (including maps developed using a geographical information system [GIS]) and graphic illustration for the Initial Study and EIR for the implementation of an in-lake treatment program to improve the water quality and the long-term sustainability of Lake Elsinore. The program elements include the bio-manipulation of the existing warm-water fishery resources, the application of aluminum sulfate, and an aeration system. The lake is located in the City of Lake Elsinore in Riverside County.

***Eastlake/Liberty Specific Plan and General Plan Amendments, Lake Elsinore, CA*** - Prepared a Specific Plan Amendment to the adopted East Lake Specific Plan, and a General Plan Amendment, which affect 706 acres of land divided into 21 planning areas. The project site is located west of the I-15 Freeway and east of the Lake Elsinore flood control levee, within the southern portion of the City of Lake Elsinore.



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***Avian Protection Plan & Procedures Manual, San Diego Gas & Electric, San Diego, CA*** – Prepared an Avian Protection Plan to help establish guidelines and management protection programs to decrease interactions of birds with transmission lines. The emphasis of the Avian Protection Plan focused on power lines of 69 kV or less throughout San Diego County. Mr. Moczydlowsky prepared the written methodology and guidelines for using GIS to prioritize and rank sensitive regions for avian protection and design retrofit.

***Los Angeles Union Station Run-Through Tracks, Amtrak, Los Angeles, CA***, Developed alternatives and evaluated the feasibility of extending bi-directional running tracks from the existing stub-end yard configuration at Union Station, across U.S. 101, reconnecting to the existing mainline along the Los Angeles River. Six alternatives were identified, from which a single preferred alignment was selected. The project included preliminary engineering and cost estimating, as well as a Preliminary Environmental Assessment and preparation of a Project Study Report. Mr. Moczydlowsky was primarily responsible for the visual assessment including extensive modeling and 3D renderings.

***Ramsgate Specific Plan EIR Addendum, Lake Elsinore, CA*** - Prepared a Subsequent Environmental Impact Report for 5 individual tract maps totaling 775 residential units, a neighborhood commercial center and an elementary school located within Phase I of the Ramsgate Specific Plan. A Specific Plan Amendment and conditional use permit is also being prepared/processed for inclusion of a mining operation and deletion of general plan designated circulation elements. Major issues include endangered species, general plan conformance, traffic/circulation, noise and aesthetics.

***California High Speed Rail Authority Phase I CEQA Review, Los Angeles to San Diego Corridor*** - Provided environmental and technical support for a proposed high-speed rail (HSR) system within southern California that will be a part of a statewide HSR network stretching between the northern and southern portions of the State. This project required extensive data collection for 27 technical reports that will be rolled into a state program Environmental Impact Report (EIR) and a federal Tier I Environmental Impact Statement (EIS) for the California High-Speed Rail Authority (CHSRA). Existing data sets make up the majority of the data gaps but required extensive collaboration and coordination between a variety of resource agencies and data providers. GIS analysis will enable the evaluation of multiple alternatives at a conceptual level, thereby narrowing the range of alternatives before detailed project-specific analysis thus contributing the integral components of the program EIR.

***Union Pacific Railroad Phase I, Initial Study, and EIR Mira Loma, Riverside County, CA*** - Served as GIS Analyst and Project Designer for the approximately 132 acre expansion of the existing automobile transloading facility located in the northwestern area of unincorporated Riverside County. Specific issues included soil impact quantification, aerial georeferencing, land use planning, and site mapping. Assisted in the preparation and production of the environmental assessment for the expansion.

***San Diego County Water Authority Emergency Storage Project, San Vicente Pipeline*** – Prepared a program EIR/EIS on the San Vicente pipeline interconnect between the San Vicente reservoir and the Interstate 15 Aqueduct. The project involves the construction of a 12- pipeline, portal access points and roadways, a pump station, electrical transmission lines/towers and a pressure surge facility within the San Diego River watershed. GIS analysis of watershed features, vegetation, sensitive species, cultural resources, and land use is a prime function of the decision support process for the water authority. Impact avoidance particularly to hydrology and sensitive habitat is a driving force behind project feature design. Mapping and analysis by is integrated into the biological monitoring plans to develop monitoring locations and to provide a comprehensive resource management plan.

***Lake Elsinore and San Jacinto Watershed Authority, Canyon Lake Sedimentation Study and Improvement Project*** – Served as GIS analyst for sedimentation study and EIR for a several hundred-acre lake in Riverside County. Using data collected by field biologists with Vibracore technology Mr. Moczydlowsky created 3-Dimensional models of the lakebed surface and the sediment surface in order to assess sediment levels and accumulation. This modeling and analysis was used as the primary decision support tool to determine whether dredging and sediment removal was necessary. Also served with the primary consultant for the environmental impact report on the lake improvements project, which will rely heavily on GIS mapping and analysis.

***Cimarron Valley Estates EIR, Riverside County, CA*** - An Environmental Impact Report is being prepared for the Cimarron Valley Estates project, a 424-unit master planned community in the Menifee area of southwest Riverside County. Major issues include grading, hydrology, traffic and circulation and biological resources. This effort also involved preparing, processing and negotiating associated CDFG, ACOE and RWQCB permits and agreements.

***Otay Water District, Water Resources Master Plan Program EIR, Spring Valley, CA*** - Prepared a Program EIR for the Otay Water District's Five Year Water Resource Master Plan. The EIR will evaluate the environmental effects of



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implementing over 400 capital improvement projects over the next 15 years in one of the country's fastest growing areas. Future environmental clearances for individual projects will be streamlined, with the program EIR serving as a focused environmental compliance and permit requirement guide.

***NCTD-On-call Environmental Consulting, North County Transit District, San Diego County, CA*** - Provided on-call environmental consulting services to NCTD and has completed numerous commuter rail related assignments including CEQA/NEPA documentation, regulatory permitting / coordination and entitlement processing strategy development. Project types include expansion of rail operations including new trackage, bridge rehabilitation/replacement and major drainage structures.