

BRENT GRAY
DIRECTOR OF ENGINEERING PROJECTS

Mr. Gray has 32 years of experience in the water and wastewater fields with a major emphasis on project and construction management over the past 14 years. Mr. Gray was the project manager for an \$8 million dollar expansion of the Mission Springs Water District's (District) wastewater treatment plant from 1998 to 2002, project manager through completion for the following projects over the past 10 years, USDA Improvements to IDE (water tank, 2 wells and pipeline), The 900 zone project (2000 gpm well, 2 MG prestressed concrete tank, booster station and pipeline), sewer mainline projects for Projects 37 A & C, Two Bunch Sewer Interceptor, and the following AD-11 Septic Abatement projects including both sewer mainline installation and the separate septic systems abatement projects for Areas B, C-1, C-2, E 1 & E 2. In addition to these projects Mr. Gray has overseen numerous wastewater, potable well, booster station and tank rehabilitation projects, and in all total 10's of millions of dollars in infrastructure project management performed successfully for the District.

Mr. Gray has held progressively higher levels of responsibility and management with the District, beginning with becoming the Wastewater Department supervisor in 1987, Superintendent of Field Operations for Water and Wastewater from 1999 to 2004, Project Manager 2004 to 2005, Director of Operations – Wastewater July 2005, Director of Operations (Wastewater and Water Production) July 2006, and currently holds the title of Director of Engineering Projects March 2010, overseeing all of the District Engineering Department needs, and managing multiple Professional Engineering Consultant contracts.

Mr. Gray has an AA Degree in Business Administration from College of the Desert, holds a Ca. DOHS Grade 5 Water Distribution Operators Certificate, a SWRCB Grade 4 Wastewater Treatment Plant Operators Certificate, a Ca. DOHS Grade 2 Water Treatment Operators Certificate and both a Collections Maintenance Grade 2 and Lab Analyst Grade 1 Certificate from the CWEA.

Mr. Gray's background, knowledge and experience uniquely qualify him to manage and oversee construction projects.



Mr. Michael Thornton, P.E., P.L.S., M.S.

Project Role

Consulting Project
Manager

Education

MS, Civil Engineering,
California State
University, Long
Beach

BS, Civil Engineering,
California State
Polytechnic University,
Pomona

Registration

Registered Civil
Engineer, PE 44226
(CA), Exp 6/20/13

Professional Land
Surveyor, LS 6867
(CA), Exp 9/30/12

Affiliations

American Society of
Civil Engineers

American Water
Works Association

Mr. Thornton, TKE's President, is in charge of all TKE projects. He has over 26 years of experience in engineering planning, design, land surveying and construction management for public works projects. He has worked on a variety of public works engineering projects including sewer improvements, street improvements, park improvements, bike trail improvements, drainage improvements, and reclaimed water system improvements projects. Mr. Thornton has been responsible for managing including funding administration, planning, evaluating, and designing these projects and has provided construction engineering and surveying services for many of these same projects.

Current and Recently Completed Projects:

- Mead Valley Community Center, Riverside, California – 2011
- Pacific Electric Trail Phase 6, Fontana, California – 2010
- Jerry Eaves Park, Rialto, California – 2007
- San Antonio Community Park, Upland, California – 2006
- Arden Drive Street Improvements, El Monte, California – 2010
- Upland Basin, Upland, California – 2008
- San Bernardino Avenue Trunk Sewer, Fontana, California – 2007
- San Bernardino Avenue Street Improvements, Fontana, California – 2011
- Presley Estates Sewer Analysis and Improvements, Fontana, California – 2007
- City of El Monte City Engineering Services, El Monte, California – 2010
- Southwest Sewer Analysis, Fontana, California – 2010
- South Fontana Sewer Study, Fontana, California – 2009
- Pit 3 – Upland Sports Park Grading, Upland, California – 2008
- Fontana Campus Parking Improvements, Fontana, California – 2011
- Vulcan Basin, Fontana, California – 2012
- City of Upland Staff and City Engineering Services, Upland, California – 2012
- City of Fontana Master Planning, Fontana, California – 2011
- City of Fontana Master Drainage Plan Revision, Fontana, California – 2011
- City of Upland Master Plan of Drainage Revision, Upland, California – 2008
- Stuart Avenue Storm Drain, Redlands, California – 2010
- Sewer Master Plan Update, El Monte, California – 2011
- Mission Springs Water District, Desert Hot Springs, California – 2012

Affiliations (cont.)

American Public Works Association

American Council of Engineering Companies

Transportation Design

Construction Plans, Specifications, and Estimates

Street and Highway Design

Project Study Reports

Project Reports

Intersection Geometrics

Signing and Striping Plans

Construction Detour Plans

Work Area Traffic Control Plans

Traffic Management Plans (TMP)

On-Site Circulation Design

Traffic Calming Design

Drainage Design

Related Experience

- **Mead Valley Community Center, Riverside County, CA** – Mr. Thornton served as principal in-charge and is currently providing construction management services for the Riverside County Economic Development Agency (Agency) owned Mead Valley Community (MVCC) Center, a 5.4 acre site located on Rider Street, approximately 0.1 mile east of the intersection of Clark Street and Rider Street. Services include hydrology and hydraulic analysis together with WQMP and SWPPP design. The project was processed through RCFCWCD and other county departments.



- **Pacific Electric Trail Phase 6, City of Fontana, CA** - TKE provided constructability review and construction engineering and staking services for this 1.5 mile trail project, located along a Southern California Edison easement in the City of Fontana. TKE's constructability review and field engineering services corrected a grading issue with the original construction documents, ultimately avoiding a change order and providing the City a cost savings estimated at \$50,000 in earthwork costs.
- **Jerry Eaves Park, City of Rialto, CA** – Mr. Thornton was the Principal-in-Charge for this project, for which TKE prepared a topographic design survey of the park and worked directly with the lighting manufacturer and local sports associations to field engineer the lighting locations and field layouts and grades. TKE utilized the field topographic information and designed an efficient layout to maximize the number of fields while minimizing the need for grading improvements and tree removals. During the construction process, TKE coordinated with the lighting manufacturer, and provided construction staking and field reviews for the approximately 25-acre site.
- **San Antonio Community Park, City of Upland, CA** – The San Antonio Community Park Project is located in the City of Upland at the northwest corner of Mountain Avenue and 24th Street. Prior to project design TKE performed an aerial target layout survey and supplemental conventional survey to collect appropriate information for street and parking lot design. TKE prepared construction drawings and specifications for the construction of the street improvements, including retaining walls, sewer improvements, electrical lighting improvements, parking lot, playground, sidewalk and overflow lot grading plans. Park design was prepared utilizing all generated material onsite within a landscape mound feature at the center of the parking lot to avoid any cost for material export. During construction TKE performed construction management, administration and staking for the approximately 4-acre park site.
- **Arden Drive Street Improvements, City of El Monte, CA** – Mr. Thornton provided construction administration services for the Arden

Land Development

- Planning and Zoning Entitlement
- Site Design
 - Grading, Street, Sewer, Water and Storm Drain Pipe Plan Preparation
- Final Site and Precise Grading Plan Preparation
- Wall and Retaining Wall Plan Preparation
- Utility Coordination
- Cost Estimating

Water Resources

- Water Resources Management
- Feasibility and Rate Studies
- Master Planning and Computer Modeling
- Construction Plans, Specifications and Estimates
 - Hydrology and Hydraulic Analysis
- Energy Management Services
 - Water Quality Management (WQMP)
- Storm Water Pollution Prevention Plan (SWPPP)

Drive Water System, Sewer, and Street Improvements Project, which is located in the City of El Monte north of the Interstate 10 Freeway on Arden Drive between Valley Boulevard and the BNSF Railroad crossing. The proposed water system, sewer, and street improvements, including traffic signal installation and interconnect conduit were constructed with ARRA funding and schedule requirements. The project provided water line upgrades and construction of additional sewer and street improvements to serve a proposed development for the new public works yard and Department of Motor Vehicles office. Supplemental ground design survey and design services, including preparation of plans, specifications and estimates were provided by TKE for approximately 1,600 linear feet of water, sewer and street improvements, traffic signal and interconnect wiring, and signing and striping improvements.

- **Upland Basin, City of Upland, CA** - Mr. Thornton provided project and construction management services for the 1300 acre-foot flood control and aquifer recharge basin project that included DSOD jurisdictional facilities, inlet and outlet facilities, permitting with the US Army Corps of Engineers California Department of Fish and game, and related work. The project included preparation of basin, street improvements, storm drain, spillway, and structural detail construction documents (drawings, specifications, and estimates), hydrology and hydraulic analyses, environmental compliance, storm water pollution prevention plan preparation, right-of-way acquisition, aerial mapping, and related civil engineering services.



- **San Bernardino Avenue Trunk Sewer, City of Fontana, CA** - Mr. Thornton was Principal-in-Charge for services on the San Bernardino Avenue Trunk Sewer and provided project and construction management, coordination with stakeholders and agencies, flow generation calculations, model preparation, flow monitoring analysis, cost estimating and report preparation for the San Bernardino Avenue Trunk Sewer System, an area encompassing approximately 9,400 acres covering the majority of the San Sevaire redevelopment project area. The study limits were State Route 210 to the north, Maple Avenue to the east, San Bernardino Avenue to the south and East Avenue to the west. The trunk sewer construction included 22,000 linear feet of 42" and smaller diameter lined RCP and VCP sewer pipe, two siphon structures, interconnections with gated manholes to major sewer crossings and residential and commercial laterals.
- **San Bernardino Avenue Street Improvements, City of Fontana, CA** - Mr. Thornton provided Construction Administration services for the San Bernardino Avenue street and storm drain improvements project which is located in the City of Fontana north of Interstate 10 Freeway and East of

*Water and Waste
Water Systems*

Energy Management
Services

Feasibility and Rate
Studies

Master Planning and
Computer Modeling

Construction Plans,
Specifications and
Estimates

Project Budgeting

*Utility Coordination
and Design*

Records Research

Feasibility Studies

Dry Utility Design

Agency Coordination

Cost Estimating

the Interstate 15 Freeway from Commerce Drive to Cherry Avenue. The proposed median and sidewalk improvements minimize turning movements providing for increased vehicular capacity, corridor beautification, and improved traffic and pedestrian safety. Construction Management, Inspection and construction staking is being provided by TKE for approximately 8,800 linear feet of street median, sidewalk and storm drain improvements. TKE provided utility and railroad coordination for the relocation and adjustment of various utility improvements (i.e., power poles, meters, vaults, etc.) and the railroad crossing upgrade. TKE prepared all legal descriptions, right-of-way acquisition plats, temporary construction easement plats and negotiated with property owners for 5 separate parcels.

- ***Presley Estates Sewer Analysis and Improvements, City of Fontana, CA*** – Mr. Thornton was Principal-in-charge for this project, located in the City of Fontana south of the Interstate 10 Freeway between Slover Avenue and Santa Ana Avenue in the north-south direction and between Sierra Avenue and Juniper Avenue in the east-west direction. A sewer study was generated for approximately 80 acres. Design and construction engineering services included 5,300 linear feet of proposed 8" vitrified clay pipe sewer improvements were constructed including 88 laterals and septic system abandonments. The project also included the construction of street improvements consisting of asphalt concrete pavement and overlay. TKE's project services included land surveying, preparation of improvement plans, specifications and estimates, construction management, construction staking, inspection and as-built verification.



- ***City of El Monte City Engineering Services*** - During 2009 and 2010, Mr. Thornton provided on-call City Engineering services to the City. While providing these services to the City, Michael represented the City with other agencies at numerous meeting, represented engineering with the City's council and other public meetings, managed engineering budgets and project schedules, retained other consultants to prepare improvement design projects, managed funding programs, and various related work. He managed more than \$20 million of public improvements. Michael was responsible to train staff to operate the engineering department and Capital Improvement Program.

Drainage

Regional and Sub-Regional Master Drainage Plans

Area Drainage Plan Updates

Stream Bank Revetment and Protection

Landscape Multi-Use Facilities

Construction Plans, Specifications, and Estimates

Hydrologic Modeling

Hydraulic Floodplain Analysis

Floodplain Modification Design

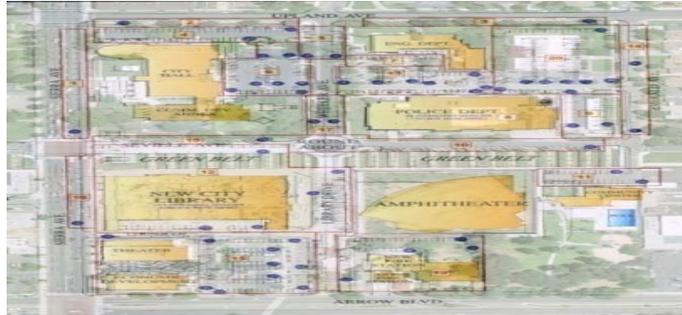
FEMA CLOMR Updates

FEMA LOMR Updates

Water Quality Management Plan (WQMP)



- **Southwest Sewer Analysis, City of Fontana, CA** – Mr. Thornton is Principal in charge for this Sewer Analysis for the Southwest Fontana area. This study includes approximately 6,700 acres in an area bounded by Foothill Boulevard to the north, Citrus Avenue to the east, Jurupa Avenue to the south and Etiwanda Avenue to the west. The project services included meetings, records research, coordination with stakeholders and agencies, area map exhibit preparation, flow generation calculations, model preparation, flow monitoring, cost estimating and report preparation.
- **South Fontana Sewer Study, City of Fontana, CA** –Mr. Thornton served as Principal-in-Charge and Project Manager for the South Fontana Sewer Study is located in the City of Fontana between Jurupa Avenue and El Contento Street in the north-south direction and between Mullberry Avenue and Rancherias Street in the east-west direction, an area that encompasses approximately 136 acres. The project services included meetings, records research, coordination with stakeholders and agencies, area map exhibit preparation, flow generation calculations, model preparation, flow monitoring, cost estimating and report preparation.
- **Pit 3-Upland Sports Park Grading, City of Upland, CA** - The Upland Sports Park/Pit 3 Project is located in the City of Upland generally bounded by Baseline Road to the South, SR-210 Freeway to the North, Benson Avenue to the East and Monte Vista Avenue to the West. Prior to project design TKE prepared an ALTA Survey for the property. TKE also preformed hydrology studies on the property to define the flood protection required as the pit is still an active flood control basin. The City of Upland reclaimed the 50-acre, flood control basin to construct a sports park complex within the basin. The grading plan design allows for the basin to be utilized as a sports park with no interruptions during small and intermediate storms and still provides 100-year flood control protection. During construction, TKE provided construction staking, quantity verification surveys and as-built verification for the approximately 400,000 cubic yards of import.
- **Fontana Campus Parking Improvements, City of Fontana, CA** - Mr. Thornton provided project quality assurance and quality control reviews for the design and reconstruction of three major parking areas across the 26 acre City Hall site to create additional parking space for City Staff, Police and visitors of the civic center area. The project included complete parking lot redevelopment, relocation of existing storm drain lines and catch basins, pedestrian and vehicular access to all buildings within the civic center area and themed landscaping and lighting scenarios. The project provided more than 200 additional parking spaces and increase parking lot efficiency.



- **Vulcan Basin, City of Fontana, CA**-Michael is managing development, design, and construction administration for a flood control and aquifer recharge basin project located in the central part of the City. The site is current a formerly mined pit that has no community benefit. The City has essentially completed site acquisition negotiation and Michael, on behalf of the City, prepared a Proposition 1E application for funding. The project includes preparation of basin, storm drain, spillway, and structural detail construction documents (drawings, specifications, and estimates), hydrology and hydraulic analyses, environmental compliance, storm water pollution prevention plan preparation, right-of-way acquisition, aerial mapping, and related civil engineering services.
- **City of Upland Staff and City Engineering Services**-between 2000 and 2007, Michael provided on-call civil engineering services to the City, including one year as City Engineer. He managed more than \$200 million in public improvements. While providing these services to the City, Michael represented the City with other agencies at numerous meeting, represented engineering with the City's council and other public meetings, managed engineering budgets and project schedules, retained other consultants to prepare improvement design projects, managed funding programs, and various related work. Michael was responsible to train staff to manage many of these projects. In addition, Michael managed major infrastructure development projects; one in particular included a flood control basin project with related conveyance (e.g. reinforced concrete boxes, open channels, storm drains).
- **City of Fontana Master Planning**-Michael is currently working with the City to update its drainage master plan to improve water recharge and conservation. The revised master plan will add detention facilities throughout the region and change major portions of the existing master plan conveyance routes. Services included hydrology and hydraulic analysis, alignment alternative analyses, costs estimating, program scheduling and cost estimating.
- **City of Fontana Master Drainage Plan Revision, City of Fontana, CA** – Mr. Thornton is currently serving the City of Fontana in the process of preparing a master plan of drainage revision to reevaluate their existing and proposed drainage structures and develop new alternatives to more adequately utilize existing inadequate drainage structures by constructing strategically placed detention basins to reduce peak flow rates. In addition, the City desires to capture, retain and infiltrate existing storm and recycled water by increasing the size of the detention basins to allow for water retention. TKE is preparing drainage analysis for the City to determine the required locations for basins and providing modeling of the

existing and proposed drainage systems. TKE is also developing various alternatives for basin locations based on available property, existing basins, and blighted areas.



- **City of Upland Master Plan of Drainage Revision, City of Upland, CA** – Mike recently served the City of Upland in preparing a revision to their master plan of drainage to combine the three existing drainage plans that separated the City into individual areas, analyze their existing model and assess various alternatives to reroute drainage flows in a manner to reduce the cost of proposed drainage facilities. TKE reviewed the City's three existing drainage plans and provided hydraulic modeling and alternatives to successfully reroute existing flows and reduce the size of proposed drainage structures, saving the City an estimated \$5 million dollars in proposed drain facility construction.
- **Stuart Avenue Storm Drain, City of Redlands, CA** – The Stuart Avenue Storm Drain Improvements Project is located in the City of Redlands south of the Interstate 10 Freeway between Texas Street and Orange Street. Proposed drainage improvements provided for 100-year flood protection for downtown businesses. Conventional ground survey and construction staking was provided by TKE for approximately 4,400 linear feet of storm drain improvements. TKE prepared legal descriptions, right-of-way acquisition plats, temporary construction easement plats and grant and easement deeds for 2 separate parcels.
- **Sewer Master Plan Update, City of El Monte, CA** – Mr. Thornton is Principal in charge for this Sewer Master Plan Update for the City of El Monte. This study includes approximately 9.67 square miles in an area located northwest of the Interstate 10 and 605 Freeways. The project services included meetings, records research, coordination with stakeholders and agencies, area map exhibit preparation, flow generation calculations, model preparation, flow monitoring, cost estimating, capital improvement programming and report preparation.



- **Mission Springs Water District**-Michael is currently serving Mission Springs Water District and its District Engineer. He is working with staff to manage more than \$20 million in water and wastewater improvement projects. Services include budget development and management,

management of other consultants and presentations to their board of directors.

- ***Alessandro Boulevard Street Improvements, City of Riverside, CA*** - The Alessandro Boulevard Street Improvements Project is located in the Eastern Riverside Canyon Crest area between Chicago Avenue and Trautwein Road. The project improvements provided street widening, median improvements, storm drain and culvert crossing improvements, traffic signal construction and modifications, street lighting, undergrounding of existing power poles, and landscaping and irrigation for corridor beautification and improved traffic and pedestrian safety. Supplemental conventional ground survey and field reconnaissance was provided by TKE for approximately 11,900 linear feet of street widening and median improvements. TKE prepared legal descriptions, right-of-way acquisition plats, temporary construction easement plats, slope easement plats, and grant and easement deeds for 7 parcels. This project resulted in changed conditions that reduced the contract amount by approximately 5%.
- ***Tyler Street, Street Improvements, City of Riverside, CA*** - The Tyler Street, street improvements project is located in the Southwest Riverside area between Wells Avenue and Hole Avenue. Proposed improvements will provide for corridor beautification and improved traffic and pedestrian safety. Conventional ground survey was provided by TKE for approximately 6,200 linear feet of street widening, bike lane extension and median improvements. TKE prepared all legal descriptions, right-of-way acquisition plats, temporary construction easement plats and grant and easement deeds for 49 separate parcels. TKE is providing conventional survey for public and private improvement areas, street improvement and on-site improvement plans, environmental initial study, right-of-way documentation preparation, and specification and estimate preparation.
- ***Wilson Street, Street improvements Project, City of Rialto, CA*** – Mr. Thornton was Principal in charge for this 1,500 linear feet of street widening improvements and extensive private improvements for the project tie-in to existing private property improvements.
- ***Construction Stormwater Program Management, City of El Monte, CA*** – TKE is currently providing Construction Stormwater Program Management and Inspection services to the City of El Monte, California. We are currently providing full inspection services, including stormwater inspection, for the six capital projects under construction, as well as the ongoing private development projects in the City. Additionally, Mr. Petersen is currently acting as the Water Pollution Control Manager for the Rosemead/Telstar improvement project, under review by Caltrans District 7. During the six months we have provided these services to the City of El Monte, the City has made the transition to the new Integrated Water Quality System (IWQS) and the Stormwater Multiple Applications and Reporting Tracking System (SMARTS).
- ***NPDES Program Management, City of Upland, CA*** – Michael Thornton, serving as Contract City Engineer to the City of Upland, managed the City's Capital Improvement Program, Public Works permits and inspections, development review, Storm Water Pollution Prevention and

Water Quality Management Plans (SWPPP & WQMP), operations and maintenance of facilities, streets, parks, landscape and drainage districts. While administering these programs, Michael worked closely with San Bernardino County Flood Control District to prepare and submit the City's NPDES Annual Report to the California Regional Water Quality Control Board. During his tenure as City Engineer, Michael was successful in implanting a dry weather monitoring program as well as securing programmed funding for the staff time for compliance activities. Additionally, TKE staff provided plan checking services for the City, including SWPPP and WQMP plan checking services.

- ***Foothill Vision: Street and Recycled Water Improvements, City of Upland, CA*** - The City of Upland developed a corridor master plan for Foothill Boulevard through the City. The master plan appointed vision for Foothill Boulevard dictated the ultimate street section with landscaped median, parkway and right-of-way. The Foothill Vision Project was the first reach of Foothill Boulevard to be improved within the City. The project included 2,800 linear feet of street and recycled water main design along Foothill Boulevard from Redding Way to 2nd Street. The vision project reconstructed Foothill Boulevard to eliminate the existing frontage road and provide a wider street section with large amounts of landscaping to beautify the corridor. Conventional ground design survey, design and construction management services, including preparation of plans, specifications and estimates were provided by TKE for approximately 2,800 linear feet of street improvements, 1,600 linear feet of recycled water improvements, and signing and striping improvements.
- ***11th Street Improvements, City of Upland, CA*** - The 11th Street Water System, Sewer, Storm Drain and Street Improvements Project is located in the City of Upland north of the Interstate 10 Freeway on 11th Street between Monte Vista Avenue and Benson Avenue. Proposed water system upgrades were designed for pipe sizes of 8" through 12" to replace existing under sized and aged water mains. Proposed 8" sewer was constructed to allow service to all businesses within the improvement area. 100 year storm protection was installed by constructing the 90" through 54" storm drain main line and complete street improvements were provided to serve and better protect new proposed developments and existing businesses. Conventional ground design survey and design services, including preparation of plans, specifications and estimates were provided by TKE for approximately 2,600 linear feet of street improvements, 4,000 linear feet of drainage improvements, 1,600 linear feet of sewer improvements, 5,000 water improvements, lighting and signing and striping improvements.
- ***Foothill Blvd. Street Improvements, City of Fontana, CA*** - The Foothill Boulevard street, sewer and storm drain improvements project is located in the City of Fontana north of Interstate 10 Freeway and East of the Interstate 15 Freeway from Illex Avenue to Redwood Avenue. Proposed street widening and sidewalk improvements provided for increased vehicular capacity, corridor beautification, bike lane extension and improved traffic and pedestrian safety. Conventional ground survey and construction staking was provided by TKE for approximately 11,800 linear feet of street widening, sewer and storm drain improvements, bike lane extension and median improvements. TKE prepared all legal descriptions, right-of-way acquisition plats, temporary construction easement plats and

grant and easement deeds for 33 separate parcels.



- **"I" Street Pipeline** – *City of San Bernardino, CA* – Mr. Thornton is Principal in charge of this project, which consists of the construction of 2,300' of 16" and 3,700' of 20" ductile iron pipe, including restrained length calculations, joint specifications, system appurtenances, connections to the existing system, San Bernardino County Flood Control District permitting for pipeline hanging under "I" Street bridge crossing of the Lytle Creek Channel, and SANBAG permitting for bore and jack crossing of railroad at Rialto Avenue. Proposed water system improvements provide a transmission main from the newly constructed pipelines in 2nd Street, Mill Street and Inland Center Drive for adequate water system conveyance
- **1720 Zone West Transmission Main Pipeline** – *City of San Bernardino, CA* - Mr. Thornton was Principal-in-charge for this project. This project consisted of the construction of 14,500' of 36" cement mortar lined and coated steel pipe, including restrained length calculations, joint specifications, system appurtenances, connections to the existing system, Metropolitan Water District and San Gabriel Valley Water district encroachment permits, San Bernardino County Flood Control District, US Army Corp of Engineers, and Department of Fish and Game permitting for pipeline bore and jack crossing of Devil's Creek Diversion Channel/Cable Creek, BNSF permitting for bore and jack crossing of railroad at Palm Avenue, and coordination with other agencies for tie-ins to the proposed reservoir site. Proposed water system improvements provided a transmission main from the Palm Avenue Reservoir to the newly constructed Ogden Reservoir for adequate water system conveyance.
- **Ogden Reservoir Pipeline** - *City of San Bernardino, CA* - Mr. Thornton was Principal-in-charge for this project. This project consisted of the construction of 7,385' of 36" ductile iron pipe, including restrained length calculations, joint specifications, system appurtenances, connections to the existing system, transit analysis, coordination with Caltrans to tie into a proposed waterline and Department of Water Resources for encroachment permits, and coordination with other agencies for tie-ins to the proposed booster station and reservoir site.



- **College Pipeline** - *City of San Bernardino, CA* - Mr. Thornton was Principal-in-charge for this project. This project consisted of the

construction of 2,500' of 24" and 36" ductile iron pipe, including restrained length calculations, joint specifications, system appurtenances, connections to the existing system, coordination with San Bernardino County Flood Control and BNSF Railroad for a railroad crossing encroachment permit, and coordination with other agencies for tie-ins to the proposed booster station.



- ***Palm/Cable Creek Crossing Pipelines*** - *City of San Bernardino, CA* - Mr. Thornton was Principal-in-charge for this project. This project consisted of the construction of 300' of 20" ductile iron pipe, including restrained length calculations, joint specifications, system appurtenances, connections to the existing system, Metropolitan Water District and San Gabriel Valley Water district encroachment permits, San Bernardino County Flood Control District, US Army Corp of Engineers, and Department of Fish and Game permitting for pipeline bore and jack crossing of Devil's Creek Diversion Channel/Cable Creek, BNSF permitting for bore and jack crossing of railroad at Palm Avenue, and coordination with other agencies for tie-ins to the proposed reservoir site. Proposed water system improvements provide a transmission main from the Palm Avenue Reservoir to the newly constructed Ogden Reservoir for adequate water system conveyance.
- ***Devil Canyon/Azusa Pipeline Emergency Interconnection Pipeline*** – *City of Upland, CA* - Mr. Thornton was Principal in charge of this project. Water system improvements provided an interconnection with the San Gabriel Valley Municipal Water Department's 54" Azusa Pipeline to provide WFA with an emergency interconnection transmission main to deliver flows when MWD's Inland Feeder Pipeline is out of service or unable to deliver the amount of water needed. Conventional ground design survey, preliminary engineering/hydraulic analysis and design services, including preparation of plans, specifications and estimates were provided by TKE for pump station and approximately 3,020 linear feet of 36" cement mortar lined and coated steel water improvements.
- ***Arrow Route Improvements***, *City of Upland, CA* – Mr. Thornton is Principal in charge for this mile long widening of Arrow Route between Monte Vista Avenue and Central Avenue. This project involves coordination with US Army Corps of Engineers, San Bernardino County Flood Control, and compliance with requirements of a wide variety of permit requirements.
- ***Arrow Highway Pavement Rehabilitation***, *City of Upland, CA* – Michael is Principal-in-Charge for this project, which provides for pavement rehabilitation, water and sewer line installation along Arrow Highway between San Antonio Avenue and 8th Avenue.



City of Fontana - Public Works Department

Chuck Hays, Director of Public Works

909-350-6530

Noel Castillo, Senior Engineer

909-350-7632

Projects: Pacific Electric Trail Phase 6, San Bernardino Avenue Trunk Sewer, San Bernardino Avenue Street Improvements, Southwest Sewer Analysis, South Fontana Sewer Study, Fontana Campus Parking Improvements, Vulcan Basin, Foothill Boulevard Street Improvements



City of El Monte

Cesar Roldan, Senior Engineer

626-580-2087

Projects: Arden Drive Street Improvements, Sewer Master Plan Update, Construction Stormwater Program Management



City of Riverside

Ewina Lau, Senior Parks Planner

951-826-2038

Projects: Hunt Park Community Center and Gymnasium



RIVERSIDE COUNTY, CALIFORNIA
Economic Development Agency

County of Riverside EDA

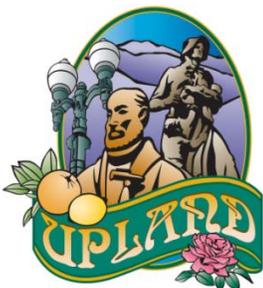
Aurelio Aguirre, Regional Manager

951-955-6682

Terry Woodruff, CSA Senior Facilities Caretaker

951-461-3258

Projects: Mead Valley Community Center, Windsong, Heritage Regency, Marna O'Brien, and Perret Park, Riverside County EDA, California



City of Upland

Rosemary Hoerning, Public Works Director

909-291-2931

Projects: San Antonio Community Park, Upland Basin, Pit 3 – Upland Sports Park Grading, City of Upland Master Plan of Drainage Revision, NPDES Program Management, 11th Street Improvements, Devil Canyon/Azusa Pipeline Emergency Interconnection Pipeline, Arrow Route Improvements, Arrow Highway Pavement Rehabilitation



San Bernardino Municipal Water Department

Steven Ledbetter, Water Utility Construction Projects Manager

909-384-7225

Projects: Ogden Reservoir Pipeline, "I" Street Water Main Replacement

GSi / water

Geothermal Surveys, Inc. (dba GSi/water) was established in 1961 to specialize in ground water exploration and development. Our mission is to help our clients meet their ground water needs and address problems with migrating fluids.

Programs of integrated geology, geophysics and hydrology are utilized to reduce the risk and cost associated with water well drilling. We design and oversee the processes of drilling, construction and testing as part of our routine work.

Geologists, geophysicists and ground water hydrologists make up our highly skilled staff. We apply over five decades of experience to our clients' projects involving such diverse applications as water supply, agriculture, dams, mining, landfills and tunnels.

We use various geophysical techniques to help us solve complex ground water questions. Two of these methods were developed by this company. We pioneered the use of temperature as a tracer of moving fluids and we developed a method to analyze bedrock fractures in situ.

Personnel

J.H. Birman, Ph.D.
PG 994, CHG 125, CEG 396, PGP 513
President

Ronald Sorensen, B.S.
PG 6702, CHG 643, PGP 957
Senior Geologist

Hector Hernandez, B.S.
Project Geologist

Rachel Ridgway, M.S.
GIT 351
Project Geologist

Jessica Chaney, B.S.
Staff Geologist

Angelica Amezcuita, B.S.
Staff Geologist/Admin. Assistant

SERVICES PROVIDED FOR GROUND WATER WORK

- Ground water resource exploration and development
- Well location and design
- Design and execute aquifer and well performance testing
- Dam leakage detection and monitoring
- Environmental hydrology and monitoring
- Hydrologic modeling
- Geothermal resource exploration
- Aerial and satellite imagery analysis
- Hydrogeological database acquisition
- Field reconnaissance and detailed mapping
- Stream stage and flow velocity measurement
- Water sampling, preservation and delivery to laboratory
- Down-hole video analysis in bedrock wells to measure fracture intensity, aperture and orientations*
- Thermal logging to assess aquifer depths, thickness and conditions*
- Oversight, analysis and synthesis of down-hole geophysical logs with lithologies
- Use of stable isotopes as ground water tracers
- Geophysical surveys: gravity, seismic, thermal
- Multiple hypothesis analysis

** Developed in-house by GSi/water*

Tom Dodson, Environmental Specialist
Tom Dodson & Associates

M.A., *Geography*, University of California, Berkeley, 1973

B.A., *Geography*, University of California Berkeley, 1968

Tom Dodson is the President of Tom Dodson and Associates, an environmental consulting firm in San Bernardino, California. He has more than 30 years of experience in land use planning, and environmental and resource management, with special expertise in CEQA, NEPA, regulatory compliance, expert witness testimony and communication/facilitation for resolution of environmental issues. He personally prepares environmental documentation for a broad variety of projects and acts as a resource person in working with clients, governmental agencies, and decision-makers in finding solutions to complex problems. He negotiates with regulators at the state and local level, designs formal presentations to committees. Mr. Dodson has prepared over 200 CEQA and NEPA documents over this 30-year period.

Mr. Dodson has served as a facilitator in resolving environmental issues for several agencies, including the Bureau of Land Management, San Bernardino County, City of San Bernardino, and other agencies. Mr. Dodson also provides expert witness testimony on land use and environmental issues on a variety of court cases, primarily in CEQA litigation, takings, land use and regulatory cases. He serves as program manager on most projects undertaken by the firm and maintains close contacts with subconsultants and specialists who can provide technical information, as needed, in a timely manner. Mr. Dodson also serves as the environmental advisor/consultant to the San Bernardino County Local Agency Formation Commission, San Bernardino International Airport Authority, Inland Valley Development Agency, Inland Empire Utilities Agency, the San Bernardino County, Office of Special Districts, cities of Hesperia, Murrieta and El Monte, and several other agencies.

Title

President /
Environmental Specialist

Education

M.A., *Geography*, University of
California, Berkeley, 1973
B.A., *Geography*, University of
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Experience

30+ years

Summary

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Relevant Experience

San Bernardino County Local Agency Formation Commission

Beginning in 1989 Tom Dodson & Associates became the sole environmental consultant for the San Bernardino County Local Agency Formation Commission (SBCLAFCO). For the past 20 years Tom Dodson has served as the individual overseeing and coordinating all environmental determinations for the SBCLAFCO. This has included review of all reorganizations, annexation, detachments, incorporations and other actions by the Commission. Over 400 CEQA determinations have been overseen by Tom Dodson on behalf of and in coordination with the SBCLAFCO staff. The vast majority of LAFCO projects have consisted of exemptions, but many negative declarations have been prepared and a few environmental impact reports have been coordinated on behalf of LAFCO. Tom Dodson is considered an expert on CEQA compliance for LAFCO projects and has made several presentations at CAL LAFCO annual meetings and on behalf of the SBCLAFCO.

Negotiation of Stream Alteration Agreements and Section 404 Permits

Since 1988 Mr. Dodson has been involved in more than 20 projects that required acquisition of Stream Alteration Agreements from the State Department of Fish and Game and Section 404 Permits from the U.S. Army Corps of Engineers. This includes several permits in Big Bear Valley, along the Santa Ana River and its tributaries, and southern California in general.

Burlington Northern Santa Fe Projects

Over the past fifteen years Mr. Dodson has conducted the environmental assessments and provided regulatory consulting support for more than a dozen projects with BNSF. This includes projects in San Diego, Orange, Los Angeles, and San Bernardino Counties and the Central Valley of California. Projects have ranged from track improvements to new facilities for maintenance of train equipment, two extensive double and triple tracking of existing rail corridors in the San Joaquin Valley and in Los Angeles (Hobart Yard to Fullerton). Detailed environmental documents (Categorical and Statutory Exemptions; Negative Declarations; and Program Environmental Impact Report) and regulatory consulting responsibilities (endangered species, regulatory permits for discharge of fill, and biological and cultural resources surveys). Documents have been prepared for individual cities, counties and for the California Department of Transportation Division of Rail. The most recent environmental document completed for Division of Rail was the Program EIR for the Third Main Track and Seven Grade Separations from Hobart (City of Commerce) to Basta (City of Fullerton)

City of San Bernardino, Various CEQA/NEPA Documents

Over the past ten years, TDA has prepared environmental documents to comply with both the California Environmental Quality Act and National Environmental Policy Act for a variety of City projects. These projects include: Orange Show Road Extension, involving two bridges, one over Twin Creek and the other over the Santa Ana River; the downtown movie theater sponsored by the City Economic Development Agency (EDA); installation of sewer lines along Cajon Boulevard for the City EDA; and most recently, several demolition projects, also initiated and carried out by the EDA. All of these documents have been successful in accomplishing full compliance with both CEQA and NEPA and other regulatory requirements, such as Corps of Engineers and endangered species permits.

Searles Valley Minerals (formerly IMC Chemicals)

Environmental consultant on a variety of projects in the Trona-Boron area, including the Argus Cogeneration Facility Ash Disposal Site and the Mining/Reclamation Plan for the Panamint Valley limestone quarry operation.

Inland Valley Development Agency (IVDA)/San Bernardino International Airport Authority (SBIAA) (1992-Present)

Environmental manager for the IVDA and SBIAA in their role as the redevelopment and reuse agency for Norton Air Force Base located in San Bernardino, California. Assisted the Air Force in completing its' first and only air conformity determination for reuse of a closing military base. The analysis was used in presentations to the federal Environmental Protection Agency (EPA) to revise the Conformity Regulations to exclude transfers of military bases from conformity findings. TDA has been involved in every facet of base closure, working closely with the Air Force Base Closure Agency (AFBCA) at Norton and in Washington D.C. to complete the Final EIS and issue the Record of Decision. This support effort includes endangered species management programs at the former Base and consultations with the State and Federal government under endangered species laws.



Inland Empire Utilities Agency (IEUA, 1999-Present)

As environmental consultant to the IEUA, TDA prepared the Program EIR for the Optimum Basin Management Program which evaluated the whole program that is proposed to be implemented to remove groundwater contamination from the Chino Basin. This EIR was prepared to meet court mandated deadlines and was certified in a timely manner by the IEUA. TDA has continued consulting with IEUA and recently completed a Program EIR for IEUA Facilities Masters Plans, which examined the long-term implementation of wastewater, recycled water and organic waste management programs. TDA is currently working with ASL/Tetra Tech to implement a major expansion in the organic composting operations currently being carried out by IEUA as part of the Chino Basin groundwater aquifer remediation. Site selection, due diligence, and CEQA documentation are part of the tasks that TDA has assisted with on this project.

Expert Witness Support for Litigation

Beginning in 1988, Tom Dodson began providing expert witness testimony. The first case involving expert witness testimony was an inverse condemnation suit that went before the federal court regarding a Corps of Engineer rejection of a permit in the City of Big Bear Lake. Beginning with extensive efforts in front of the Riverside Superior Court, Mr. Dodson provided expert witness testimony and guidance to the court for land use development within the City of Indian Wells. Mr. Dodson was qualified as a “land use expert” with the Fourth District Court of Appeals. For more than one year, Mr. Dodson was successful in serving as the land use expert for development within the City of Indian Wells. In 1993, Mr. Dodson testified in a case of inverse condemnation against a property in the City of Indian Wells where the City assigned a residential designation to a parcel of land that had previously been designated for commercial uses. The resolution of the case resulted in the property being valued for commercial, not residential uses, partially based on Mr. Dodson’s testimony as a land use expert.

In 1996, Mr. Dodson and other TDA staff provided expert witness testimony regarding “wetland” issues in relation to a takings case against the City of Lake Elsinore. This court effort was the culmination of several years of effort that resulted in TDA’s client prevailing against the City regarding taking of property under a pretense that the property was wetland. Most recently, Mr. Dodson is providing expert witness testimony for the City of Redlands regarding endangered species issues in relation to a takings case. In 1996, Mr. Dodson testified as an expert regarding the desert tortoise, habitat, regulatory process to obtain incidental take permits and appropriate mitigation before the San Bernardino Superior Court.

Professional and Community Affiliations

Association of Environmental Professionals
California Nature Conservancy – Conservator Program
San Bernardino County Museum Association
San Bernardino Area Chamber of Commerce
University of California at Berkeley Alumni Association

Professional Experience

United States Navy: August 1976 - April 1985

Served as the civilian Environmental Protection Officer for the Naval Weapons Center (now the Naval Air Weapons Station), China Lake, California, for nine years. This was a GS-13 supervisory position with responsibility for managing the total environmental program for a 1700 square mile (1.1 million acres) naval research laboratory and test facility located in the Upper Mojave Desert. Maintained a secret



security clearance at China Lake and was cleared for certain color coded projects that required environmental review. Security clearance not currently in place, but no events have transpired in the intervening eight plus years that would prevent it from being reissued if required.

Major accomplishments and responsibilities included:

- a. Management of a staff of ten with responsibility for compliance with all federal, state and local environmental laws and regulations. Preparation and development of all environmental documentation, initial studies, comprehensive environmental impact statements, and compliance strategies.
- b. Represented the Center before decision-making bodies, including the state legislature and county boards of supervisors.
- c. Provided key expert witness support during litigation in federal court regarding a burro management plan contested by the Fund for Animals.
- d. Development of the Center's hazardous waste management program - the first of its kind in the Navy. The Plan's methodology was later adopted for all Navy facilities on the West Coast.
- e. Two-time recipient of the Center Commander's Award for Excellence in mission support.

Sonoma County: April 1976 to August 1976

Served as a private environmental consultant to Sonoma County. Developed a Geothermal Coordination Program between agencies with regulatory jurisdiction over geothermal energy development in the County.

San Bernardino County: May 1974 to April 1976

Environmental Specialist for San Bernardino County supervising a staff of eight in compliance with state and local guidelines. Assisted in the development of a national award-winning streamlining of the environmental guidelines for the local level. Served as technical advisor to the Environmental Review Committee. Made presentations to the Board of Supervisors, Planning Commission and to the public.

Private Consultant: June 1970 to May 1974

Consultant to private industry conducting environmental evaluations and resource analyses, including major land development projects in California, Minnesota, and Florida. Served as visiting lecturer in environmental planning in fall quarters of 1972 and 1973 at Cal Poly San Luis Obispo.

References

- Ms. Kathleen Rollings-McDonald, Executive Director
Local Agency Formation Commission
215 North “D” Street, Suite 204
San Bernardino, CA 92415-0490
Tel: (909) 383-9900

- Mr. Thomas Love, General Manager
Inland Empire Utilities Agency (IEUA)
6075 Kimball Avenue, Building A
Chino, CA 91710
Tel: (909) 993-1600

- Mr. Mark Ostoich
Gresham, Savage, Nolan & Tilden
550 East Hospitality Lane, Suite 300
San Bernardino, CA 92408
Tel: (909) 884-2171

- Mr. Walter Smith, General Director
Commuter Construction
BNSF Railway Company
740 Carnegie Drive
San Bernardino, CA 92408
Tel: (909) 386-4910

- Mr. Logan Olds, General Manager
Victor Valley Wastewater Reclamation Authority (VWVRA)
15776 Main Street, Suite 3
Hesperia, CA 92345
Tel: (760) 948-9849

- Mr. Jack Safely, Water Resources Director
Western Municipal Water District
14205 Meridian Parkway
Riverside, CA 92518
Tel: (951) 571-7241

- Mr. Carlos Quintero, Project Manager
Santa Ana Watershed Project Authority (SAWPA)
11615 Sterling Avenue
Riverside, CA 92503
Tel: (951) 354-4234

- Mr. Michael Burrows, Assistant Director
**Inland Valley Development Agency /
San Bernardino International Airport Authority**
294 S. Leland Norton Way, Suite 1A
San Bernardino, CA 92408
Tel: (909) 382-4100

Shay Lawrey, Ecologist/Regulatory Specialist
Tom Dodson & Associates

M.S., *Biology*, Occidental College, Los Angeles, California, 1997

B.A., *Environmental Studies*, University of California Santa Cruz, 1993

Shay Lawrey is a Regulatory Specialist / Ecologist for Tom Dodson & Associates. She conducts habitat assessments, biological surveys, and jurisdictional delineations. Specialize in surveys for desert tortoise, southern rubber boa, southwest arroyo toad, burrowing owl, least Bell's vireo, southwest willow flycatcher, and San Bernardino kangaroo rat. Prepare Western Riverside County and Coachella Valley Multiple Species Habitat Conservation Plans consistency analyses. Prepare and implement Habitat Mitigation and Monitoring Plans. Prepare Biological Assessments, Environmental Assessments, and Impact Analyses as per federal funding and federal regulatory permitting requirements. Obtain required environmental permits for clients that have proposed infrastructure, development, and emergency projects. Ensure project compliance with regulatory permit conditions and relevant local, state, and federal environmental regulations. Prepare California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents and place them for public comment.

Title

Regulatory Specialist/Ecologist

Education

M.S., *Biology*, Occidental College, Los Angeles, California, 1997

B.A., *Environmental Studies*, University of California Santa Cruz, 1993

Experience

10+ years

Summary

Shay Lawrey is a Regulatory Specialist / Ecologist for Tom Dodson & Associates. She conducts habitat assessments, biological surveys, and jurisdictional delineations. Specialize in surveys for desert tortoise, southern rubber boa, southwest arroyo toad, burrowing owl, least Bell's vireo, southwest willow flycatcher, and San Bernardino kangaroo rat. Prepare Western Riverside County and Coachella Valley Multiple Species Habitat Conservation Plans consistency analyses. Prepare and implement Habitat Mitigation and Monitoring Plans. Prepare Biological Assessments, Environmental Assessments, and Impact Analyses as per federal funding and federal regulatory permitting requirements. Obtain required environmental permits for clients that have proposed infrastructure, development, and emergency projects. Ensure project compliance with regulatory permit conditions and relevant local, state, and federal environmental regulations. Prepare California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents and place them for public comment.

Permits and Licenses

U.S. Fish and Wildlife Service Federal 10(a) Recovery Permit (TE-094308-0) to survey for San Bernardino kangaroo rat (*Dipodomys merriami parvus*) and Southwestern willow flycatcher (*Empidonax traillii extimus*)

California Department of Fish and Game Scientific Collecting Permit (SC-007256)

Relevant Experience

- Arrowhead Lake Association's Maintenance Dredging Project (2010)
- City of Highland's Greenspot Road Bridge Project (2007-2011)
- City of Riverside, Orange County Water District, San Bernardino Valley Municipal Water District, and Western Municipal Water District's Riverside Groundwater Aquifer Storage and Recovery System Project (2008-2010)
- Cucamonga Valley Water District's Cucamonga Creek Emergency Rehabilitation Project and restoration monitoring (2006-2011)
- Eastern Municipal Water District's Murrieta Sewer Relief Project (2007-2011)

- Lake Arrowhead Community Services District's Grass Valley Treatment Plant Emergency Discharge Permit (2008)
- Mojave Water Agency's R³ Project (2008-2011)
- San Bernardino Valley Municipal Water District's Enhanced Recharge Project (2010-2011)
- Santa Ana Watershed Project Authority's Santa Ana River Interceptor (SARI) Repair and Rehabilitation Project (2008-2011)

Publications

Feather Lead Concentrations and 207Pb/206Pb Ratios Reveal Lead Exposure History of California Condors (*Gymnogyps californianus*) Environ. Sci. Technol. doi:10.1021/es903176w (2010)

Professional Experience

Ecologist/Regulatory Specialist, Tom Dodson & Associates

Specializes in environmental compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) and acquisition of federal Clean Water Act Sections 404 and 401 discharge of fill permits, California Fish and Game Code Section 1600 Streambed Alteration Agreements, and incidental take permits under the California Endangered Species Act (CESA) and federal Endangered Species Act (ESA). Conducts constraints analyses, general biological surveys, jurisdictional delineations, habitat suitability evaluations for endangered species, biological resources damage assessments, impact analyses, mitigation plans, implementation plans, and construction monitoring. Conducts focused, protocol-level, surveys for speckled dace, desert tortoise, southern rubber boa, southwestern arroyo toad, red-legged frog, mountain yellow-legged frog, burrowing owl, least Bell's vireo, southwest willow flycatcher, coastal California gnatcatcher, southern spotted owl, and San Bernardino kangaroo rat. Provided rebuttal evidence in legal argument as an expert witness on behalf of the Eastern Municipal Water District at the January 12, 2011 State of California Regional Water Quality Control Board San Diego Region hearing in the matter of Order No. R9-2000-0165 identified in Complaint No. R9-2010-0085. (10/04 to present)

Senior Associate Planner, San Bernardino County Department of Public Works (DPW). Ensure DWP compliance with local, state and federal environmental regulations. Obtain all required regulatory permits for DPW operations and maintenance, flood control, transportation, and emergency projects. Prepare CEQA and NEPA documents for DPW projects. Manage and attend public hearings. (10/02 to 10/04)

Ecologist, San Bernardino County Department of Public Works. Conduct focused biological surveys, habitat assessments, develop re-vegetation plans, and prepare mitigation proposals. Prepare programmatic maintenance agreements for DPW facilities. (11/01 to 10/02)