



PROFESSIONAL PROFILE



Mike Goh, PE Technical Director

CONTACT INFORMATION

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EDUCATION

MS, Engineering Management,
West Coast University, 1990
BS, Mech Engineering,
Oklahoma State University,
1987

PROFESSIONAL LICENSES

Professional Engineer, No. M
28897, California, 1994

PROFESSIONAL TRAININGS

OSHA HAZWOPER 40-hour
Health and Safety Trained (29
CFR 1910.120)

PROFESSIONAL AFFILIATIONS

Asian American Architect and
Engineers
Professional Environmental
Management Association
Society of American Military
Engineers

EXPERIENCE SUMMARY

Mike Goh, PE is a California Professional Engineer (PE) with more than thirty years of diverse experience across environmental, remediation, construction, water, transportation, food and beverage, and manufacturing industries. He began in the retail petroleum industry, where he supported high-volume and fast-paced remediation projects, gaining hands-on experience and building a strong technical foundation. He later expanded his expertise in mechanical, chemical, electrical, and instrumentation and control in the food and beverage and manufacturing industries. Returning to the environmental industry, he has since led multimillion-dollar projects and directed multi-disciplined teams of staff and subcontractors in solving complex environmental groundwater issues and mitigating soil-impacted sites for brownfield redevelopment—establishing him as a subject matter expert and earning the trust of both his companies and his clients. His technical expertise includes scope-of-work development, remedial investigations (RI) and feasibility studies (FS), remedial design, regulatory approval and permitting, cost estimating, bid specifications, contract negotiations, remedial construction, system installation, operations & maintenance (O&M), and closures.

TECHNICAL SPECIALTIES

Mr. Goh has provided a comprehensive range of services including but not limited to:

- Planning Documents (Scope, Budget, Schedules, etc.)
- Technical Writing (RI, FS, RAP, Whitepaper)
- Remedial Design Packages and Specifications
- Regulatory Approval and Permitting (Federal, State & local)
- Engineer’s Cost Estimates and Value Engineering
- Contractor Engagement and Solicitation
- Construction and System Installation
- Construction Management and Resident Engineering
- Startups and Commissioning
- O&M and Performance Monitoring
- Exit Strategy and Closeout

REPRESENTATIVE PROJECTS

Groundwater Remediation and Drinking Water Treatment

- **Groundwater PFAS Mitigation and Drinking Water Treatment, City of Fountain, Colorado.**
In 2015, the City of Fountain shut down its drinking water wells after per- and polyfluoroalkyl substances (PFAS) were detected in their drinking water supply, which serves approximately 5 million gallons per day. The contamination was discovered to have originated from Peterson Air Force Base, located upstream. Served as the Engineer-of-Record on behalf of the US Air Force and led the design and construction of a 1,500-gpm system to mitigate PFAS-contaminated groundwater downstream of Peterson AFB, ensuring the delivery of safe drinking water to 30,000 residents. The design process underwent formal review by US Army Corps of Engineers (USACE) and the Colorado Department of Health and Environment (CDPHE). The construction included the installation of pipelines in city streets via horizontal directional drilling, installation of 20K- and 40K-gallon storage tanks, high-efficiency 50HP and 75HP booster pumps, particulate filtration, two 2000-lb ion exchange vessels, sodium hypochlorite injection, serpentine piping for 4 log disinfection, and integrated Supervisory Control and Data Acquisition (SCADA) controls. Secured the necessary permits from CDPHE for plant operation. The plant received final approval and began operation in the spring of 2023.

- **PFAS Treatability Study, Peterson Air Force Base, Colorado Springs, Colorado.** Served as an Engineer-of-Record on behalf of the US Air Force for a treatability study to address source contamination of PFAS in groundwater at Peterson AFB, Colorado. Mike led the design and construction of a 25-gpm pilot treatment system for groundwater extraction and reinjection into the aquifer. The system consists of four groundwater submersible pumps, raw and finished water storage tanks, booster pumps, particulate filters, Fluoro-sorb® and Granular Activated Carbon treatment vessels and integrated controls, housed inside an environment-controlled metal shipping container. The pilot system began operation in Spring of 2022 and decommissioned in December of 2023.
- **Groundwater Remediation and Drinking Water Treatment, San Fernando Valley Superfund Sites, California.** In 1989, EPA finalized the Record of Decision (ROD) selecting the groundwater cleanup remedy for the San Fernando Valley Operable Units (OU): The groundwater was contaminated by elevated levels of volatile organic contaminants from multiple sources. Served as a technical consultant, providing engineering and operational support for managing the Burbank OU groundwater and drinking water treatment systems. The system consists of air stripping and liquid phase granular activated carbon (GAC) including support equipment, integrated process and supervisory control and data acquisition (SCADA) control. The treated water is chlorinated to meet drinking water standards and blended with potable water to lower nitrate and chrome levels and delivered safe drinking water to the city water system for distribution to the public water supply system.
- **Groundwater Remediation, El Monte Operable Unit of San Gabriel Valley Superfund, California.** Following the 1984 EPA cleanup order, the El Monte Operable Unit (OU) was established to remediate source-area contamination and provide hydraulic containment of volatile organic compounds (VOCs), inorganics, and metals in shallow groundwater. Served a group of PRP clients and led the design and construction of a 250 gpm treatment system using submersible pumps for extraction, 6,000 feet of conveyance pipelines through residential and commercial properties, two 10,000-lb liquid phase granular activated carbon adsorption system for VOC treatment and 10-ft diameter x 25-ft high fluidized bio-reactor for treatment of nitrate (NO₃), perchlorate (ClO₄), hexavalent chromium (CrVI) to meet NPDES discharge standards. The plant received final approval and began operation in Fall of 2012.
- **Wellhead Treatment, Metropolitan Water District, Los Angeles, California.** Served MWD as a technical consultant in the Tujunga Wellfield Recharge project to restore existing groundwater condition. Developed Technical and Functional Requirements (T&FR), performance specifications and

conceptual design for 4,000 gpm VOC treatment consisting of two wellhead treatment and recharge systems with each system consisting of a flow rate of 4,000 gpm using five (5) lead/lag Aqua-Phase GAC vessels (10,000 lbs each) in parallel to treat Volatile Organic Compounds (VOCs) for recharge into the wellfield. Prepared solicitation packages for securing an EPC contractor.

- **Groundwater Remediation, Marine Corp Logistic Base, Barstow, California.** Rehabilitated a 1,600-gpm GPM GWTS system to provide hydraulic containment and source remediation to remediate Jet Fuel (JP5) impacted groundwater at MCLB Barstow. The system consisted of five high-capacity variable frequency drive submersible pumps, two air stripping silos, six 8,000-lbs aqua-phase granular activated carbon vessels, filtration unit, pH control unit and integrated process control at MCLB Yermo and Nebo bases in Barstow.
- **Groundwater Remediation and Free Product Recovery, Denver Federal Center, Denver, Colorado.** Under a "Time is of the essence" contract, implemented a 40-gpm GPM treatment system to remediate TPH and VOC groundwater contamination in compliance with CDPHE cleanup order, successfully mitigating stipulated penalties.

Vapor Intrusion Mitigation, Transportation, and Brownfields Redevelopment

- **Soil Vapor Extraction, Naval Air Station North Island, San Diego, California.** The existing building overlies a floating free-product plume that includes petroleum hydrocarbons as well as chlorinated volatile organic compounds (VOCs). Levels of VOCs in the sub-slab soil gas were over 5,000,000 µg/m³. Indoor air levels exceeded acceptable levels, prompting a Time Critical Removal Action (TCRA) consisting of crack sealing and soil vapor extraction (SVE) to mitigate the vapor intrusion issue. Implemented a 500-scfm SVE system to mitigate vapor intrusion (VI) issues associated with extremely elevated VOCs in the sub-slab soil gas beneath the existing warehouse building, coupled with steam injection into the light non-aqueous phase liquid (LNAPL) zone to enhance volatilization and facilitate plume source reduction. The treatment technology used a cryogenic/compression/condensation process, recycling high concentrations into liquids.
- **Soil Vapor Extraction, Naval Information and Warfare System Command, Old Town Campus (OTC), San Diego, California.** Served as Lead Engineer for Building OTC3 vapor intrusion mitigation. Led the design and construction of an SVE and subfloor ventilation system including a 250 CFM SVE system, aboveground piping inside the building, and vapor phase granular activated carbon for vapor treatment. Led the O&M of existing systems including optimizations and upgrades.

- **Vapor Intrusion Mitigation, Former Lockheed Martin Burbank Brownfield Sites, California.** Represented LMC in managing VI issues at soil impacted sites and redeveloping them into active outlet centers and office buildings. Conducted technical reviews of historical SVE data, closure methods and VI scenario and risks. Participated in collaboration and negotiations among owners, consultants and developers.
 - **Landfill Superfund Cleanup, Methane Mitigation and Treatment and Leachate Management, Operating Industries Inc (OII) Landfill, Monterey Park, California.** Served as design and resident engineer for a \$94.4MM fast-track “design-build” environmental closure of a 145-acre landfill under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) involving the excavation of 6 million cubic yds of existing soil, placement of 2 million cubic yds of engineered monolithic cover, landfill gas collection and treatment system and stormwater management system. Designed and implemented 400 wells to extract 7,000 scfm, 15 miles of pipelines, 100 leachate pumps, 5 pump stations and integrated process control and Landfill Gas Treatment System consisting of two 60,000 scfm thermal oxidizers with 99.99% efficiency, three 150HP vacuum blowers, two 50HP combustion air blowers, source testing, continuous emission monitoring system and integrated process control.
 - **Former Cal Compact Landfill, Carson, California.** Served as the Resident Engineer and Project Manager for ongoing O&M operations of an existing 157-acre parcel of a former Carson landfill site, tasked with facilitating the development of a fashion mall. He managed a team of engineers, operators, and contractors for the management of current O&M of active systems, including Collection Control System (GCCS) of 64 landfill gas wells; two landfill gas flares at 750 scfm total; Groundwater Extraction and Treatment System (GETS) of 29 groundwater extraction pumps; a water treatment system using air stripper and granulated activated carbon adsorbers; Groundwater Monitoring (GWM); and Perimeter Air Monitoring System (PAMS) of 14 perimeter air, dust, and VOC monitoring stations to ensure compliance with regulatory requirements. He collaborated with the California Environmental Protection Agency (Cal EPA), California Department of Toxic Substances Control (DTSC), California Regional Water Quality Control Board (RWQCB), California
 - **Former Union Pacific Railroad, Taylor Yard Site, Los Angeles, California.** Served as a resident engineer under a \$3.5MM removal action contract and led the demolition and excavation of a 50-acre contaminated G2 Parcel under DTSC oversight, transforming it into a river park. The project involved the removal of 10,000 tons of existing concrete infrastructures, removal and disposal of 40,000 tons of hydrocarbon-contaminated soil and a complex network of underground plastic liner and drainage piping system. Successfully resolved SWPPP violations and ensured full environmental compliance.
 - **Metropolitan Transit Authority Eastside Transit Corridor Phase 2 (SR 60 LRT), Los Angeles County, California.** Supported Metro in the preparation of an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the Eastside Extension along State Route 60 in Los Angeles County. This effort focused on evaluating the proposed alignment through the Operating Industries Inc. (OII) Landfill, addressing critical concerns raised by the US Environmental Protection Agency (EPA), including navigating steep and unstable topography, active landfill methane emissions, and traffic management considerations adjacent to a heavily trafficked freeway corridor. The analysis incorporated geotechnical assessments, air quality mitigation, and traffic impact studies to support Metro’s decision-making and regulatory compliance.
 - **Metropolitan Transit Authority (Metro) Lead Abatement at Former Century Park East Parking Structure, Los Angeles, California.** Served as the Engineer of Record and Project Manager for overseeing a multidisciplinary team of lead abatement specialists and subcontractors. He successfully managed the lead abatement of a decommissioned parking structure, facilitating its conversion into future parking facilities for the Century City/Constellation Station as part of Metro’s D-Line Subway Extension.
 - **BNSF Commerce Yard Site Survey, Mapping and As-built Development, Commerce, California.** Served as the Engineer of Record and Project Manager for the comprehensive mapping and documentation of existing storm drain and underground piping systems across the BNSF Commerce Yard using field surveying, CCTV, database maintenance and record drawings development.
- ### Wastewater Treatment
- **Wastewater Treatment, Alcoa Fastening Systems, Fullerton California.** An aerospace manufacturing plant treats process wastewater generated from the metal plating and cleaning operations using an existing wastewater treatment plant (WWTP). Aging equipment, constructed in 1984, has caused occasional exceedances in the wastewater discharge permit conditions that resulted in several notice of violations and potential stipulated penalties. Served as a lead mechanical process engineer and led the multi-disciplined team for the design and implementation of a new wastewater treatment system to remove Sulfide and Chrome from wastewater. The system included Chemical Injection, pH Neutralization, Batching tank and mixers, Clarifiers, Microfiltration, Storage tanks, Integrated Instrumentation and Control devices and HMI controls and the ability to isolate and combine wastewater

sources from general plating, cyanide plating, chrome bearing process, and numerous miscellaneous sources for Chrome and Cyanide treatment.

- **Wastewater Treatment, Optimization and Capital Improvement, California.** Since the startup of a major oil company production facility in 1993, the performance of the Aeration Basin system has gradually decreased, primarily due to the combination of calcium from the offshore formation and carbon dioxide (CO₂) in the biological reactors, which caused severe scaling and the accumulation of scale. Supported the plant by conducting feasibility studies and optimizing the existing water treatment system to enhance oil production efficiency. As part of this effort, he led the design and execution of an \$8 million capital improvement project focused on upgrading the plant's two-train biological aeration process, each rated at 910 GPM involving the replacement of new fine bubble diffuser system inside two existing aeration basins. The improvement yielded more than 40% increased throughput and a return on investment in a few months. Served as the resident engineer during construction and led the startup and commissioning of the system. He collaborated with the County of Santa Barbara during the design and inspection in strict conformance with American Society for Testing and Materials (ASTM), American Society of Mechanical Engineers (ASME) B31.3 Process Piping, and site-specific specifications.

Oil and Gas/Petroleum

- **Major Oil Corporation, Downstream Petroleum, Various Sites throughout California and Neighboring States.** Completed high-volume and fast-paced soil and groundwater remediation projects from conception to closure, requiring streamlined engineering approaches and economical solutions while minimizing disruption to ongoing site operations. Responsible

for RI/FS, workplans, design, permitting, reporting, construction, implementation, monitoring, commissioning, and O&M treatment systems.

- **Charnock EPA Superfund Site, PRP #3 Arco.** Led the implementation of an insitu remediation system at a high-profile former gas station under litigation, bordering an active strip mall, as part of the EPA cleanup order to restore the Charnock sub-basin drinking water supply. Successfully engineered, permitted and implemented an SVE System and insitu Ozone Injection System for source remediation in vadose and groundwater.

Food and Beverage/Manufacturing

- **Facility Improvements and Upgrades, Anheuser-Busch Facility, Van Nuys, California.** Performed various capital improvements and maintenance projects including equipment upgrades, process improvements, automation, etc.
- **Environmental Compliance, Alza Pharmaceutical, a division of Johnson and Johnson, Vacaville California.** Conducted a comprehensive 117,000-SQFT facility-wide environmental audit and developed an Environmental Management Action Plan addressing Hazardous Waste Management, Tank and Piping Systems and Air Quality in accordance with CCR, BAAQMD, state and local ordinances.

CONFERENCES, PUBLICATIONS, AND PRESENTATIONS

- A. McQuire, M. Borovska, M. Goh, Alternative Design for a Vapor Intrusion Mitigation System for a Large Warehouse: Overcoming a Barrier to Redevelopment, AEHS 2026.
- G. Greaning, M. Goh, A. Wilson, 1,2,3-Trichloropropane Regulatory Compliance Strategies and Treatment Design Consideration, Battelle, 2018.