

Noelle A. Willbanks, PE – Principal Engineer

Professional Background:

Ms. Willbanks has 20 years of experience in civil engineering, environmental engineering, permitting, compliance, and construction. Ms. Willbanks has been an integral part in the design, construction and implementation of groundwater, wastewater, and soil vapor treatment facilities at multiple sites throughout California. Her responsibilities include project management, regulatory agency interaction, remediation technology selection, environmental investigation, civil design, water system well, piping, utility, and pump design, construction oversight, and contractor interaction. She has extensive experience with local regulatory agencies and works closely with the RWQCB, DTSC, CDPH, and local municipal agencies on various projects. She oversees environmental site assessments and subsequent site investigations including soil, groundwater, and soil gas investigations. Her design experience includes groundwater wells and wellhead treatment facilities, soil vapor extraction systems, storm water, sewer and distribution piping systems, pumping systems, grading plans, excavation plans, and site clean-ups.

Environmental Compliance Projects

Pinedale Groundwater Site, Fresno, CA – Project Manager responsible for the oversight of a former industrial facility that includes a chlorinated solvent plume that has impacted more than eight City of Fresno municipal water wells and extends two miles beneath an urban developed area. The project includes a groundwater monitoring network of over 60 wells. She is the primary contact with the City of Fresno Water Division for pumping priority schedules and maintaining treatment at the various supply well locations.

Ms. Willbanks has prepared design plans and specifications for multiple municipal groundwater extraction facilities and has had primary oversight of permitting and construction of the facilities. Several facilities required the installation of stormwater, sewer, and raw and treated water transmission piping design and construction. She is also responsible for compliance with National Pollution Discharge Elimination Systems (NPDES) permits, which includes monitoring and operation of a groundwater treatment facility. In addition, she was responsible for multiple groundwater investigations, including Workplan preparation and multiple monitoring well design and installations.

Project Manager who oversaw the decommissioning of the industrial facility including a Phase I investigation of the 23-acre former industrial property, Phase II environmental investigation and subsequent site remediation work. Ms. Willbanks was responsible for the preparation and implementation of the Removal Action Workplan for site remediation, which included removal and disposal of cyanide and heavy metal contamination in soil. Ms. Willbanks has worked closely with the DTSC as the regulatory agency, architects, engineers, and contractors during the decommissioning and subsequent redevelopment of the facility.

Project Engineer responsible for the soil vapor assessment and indoor air intrusion study for the former manufacturing facility. Ms. Willbanks prepared numerous workplans, conducted soil vapor and indoor air sampling of the facility and aided in



QUALIFICATIONS

Registration:

Civil Engineer, California, C67593
Civil Engineer, Nevada, CE22562

Certification:

Drinking Water
Treatment/Distribution Operator,
T2/D2, California, 31674

Qualified Storm Water Developer
(QSD/QSP), California, 00145
Qualified Industrial Stormwater
Practitioner, California, I67593

Certified Environmental Manager,
Nevada, No. 2363

Education:

BS Civil Engineering, California
State University, Fresno, 2001

Experience:

Willbanks Environmental Cons.
Principal Engineer
2014 to Present

BSK Associates 2002 – 2014
Environmental Group Manager

2001 – 2002, URS Corporation
Graduate Engineer

2001 – Carollo Engineers
Staff Engineer

1999 – 2001 Mauldin Dorfmeier
Field Engineer

1998 – 1999, Caltrans
Engineering Intern

the assistance of the human health risk assessment for the facility. Ms. Willbanks worked closely with the DTSC during all investigations.

Caruthers Raisin Packing, Inc., Caruthers, CA – Project Manager for the wastewater distribution and permitting operations of the food processor. Prepared the Report of Waste Discharge as required for continued packing operation by the Regional Water Quality Control Board. After modifications were implemented at the site, and extensive groundwater and site investigations, the site was issued WDRs for continued operation. Installed a groundwater monitoring network and developed sampling and analysis plan for the Site. Also assisted with modifications to the existing PWS permit through the California Department of Public Health.

Olam Tomato Processing, Lemoore, CA

Project Manager responsible for Waste Discharge permitting, amendment and renewal including preparation of the Report of Waste Discharge. The project included the preparation of work plans for monitoring well installation and monitoring, soil sampling and analysis, and percolation testing. This project required extensive communications with the Central Valley Regional Water Quality Control Board for expedited turn-around to allow for continued discharge under a modified permit. This project was issued a modified WDR by the RWQCB in less than one year, and there were no interruptions to operations.

Confidential Client, Helm, CA – Senior Engineer for organic fertilizer plant site investigation for surface contaminant and stormwater/groundwater run-off assessment as required by the California Regional Water Quality Control Board. Site investigation included sub-surface and surface soil sampling, as well as groundwater sampling and analysis.

Multiple Dry-Cleaning Facilities, CA – Project Manager for former dry-cleaning facilities with PCE contamination in soil and/or indoor air. Project include site investigations, design permitting, installation, and operation of a soil vapor extraction system.

Klein's Truck Stop, Fresno, CA – Project Manager/Engineer for the design, specification preparation, permitting, and construction of a soil vapor extraction system for a former UST facility. The site included an extensive underground piping network, electrical, and propane connections, subsurface investigations, and site closure.

JR Simplot, Helm, CA – Senior Engineer oversaw sampling and analysis of fertilizer waste ponds. Provided laboratory analytical services, disposal recommendations, and disposal contractor coordination. Current drinking water operator for the facility.

Basin II2, Fresno, CA – Project Engineer for the initial investigation and waste characterization for a former clandestine landfill operation located in a Fresno Metropolitan Flood Control District future basin site. The site subsurface was investigated for subsurface debris and heavy metal contamination. The site was overseen by the Regional Water Quality Control Board as well as the County of Fresno CIWMB. Lead was discovered as hazardous concentrations. Waste was characterized for leachability to comply with CIWMB requirements.

City of Firebaugh Former Landfill, Firebaugh, CA – Senior Engineer in charge of Workplan preparation and implementation, site investigation and subsequent waste characterization for the former facility. Prepared a Feasibility Study and Post Closure Land-use Plan for the Site to comply with California Integrated Waste Management Board requirements.

Professional Background:

As a Certified Engineering Geologist, Certified Hydrogeologist, and real-estate broker, Mr. Gilpin's technical expertise and experience has included mineral-resource identification and reserves quantification, mineral-lease negotiation and development, mining and reclamation planning, mine permitting, geologic hazards assessment including slope-stability analyses, water resources management, engineering risk analyses, landfill engineering, mineral exploration and geochemistry, environmental site assessment, regulatory compliance, remediation management for soil and groundwater-contaminated sites, and participation in and management of the preparation of Environmental Impact Reports (EIR). He has served as an instructor for Federal Mine Safety and Health Administration (MSHA) sponsored training courses.

Mr. Gilpin has a complete working knowledge and has successfully navigated California's Senate Bill 4 (SB4) legislation involving oil- and gas-well stimulation (fracking). He has helped a number of O&G companies obtain stimulation permits under SB4 requirements, often negotiating directly with the State Water Board and the California Division of Oil, Gas & Geothermal Resources (DOGGR).

Mining, Petroleum, Permitting, and Water Resources

Project Applicant – Lehigh Hanson, Heidelberg Cement Group - Various Greenfield Mine Projects throughout Central California – Initially as the Permitting Manager, then Operations Manager and then Vice President/General Manager Central California, Mr. Gilpin served a lead role in the strategic development of aggregate operations throughout Central California. At the time, these operations were often designed to dewater large-scale mine pits for dry-mining purposes, and always employed large quantities of water for processing. Groundwater development, consumption and potential impacts due to industrial operations often comprised the most significant challenges to developing and permitting these mine sites. Mr. Gilpin led efforts to assess and acquire property, identify and evaluate permitting and operational issues, and foster political and public support for mine projects/entitlements. He has successfully completed the permitting and development of several mine sites in environmentally sensitive areas of California.

Project Manager/Engineering Geologist - Major, as well as small, Confidential Oil & Gas Producers, California – Assisted producers with well-stimulation permitting.

Project Manager – Vulcan, Fresno County, California - Engineering studies in support of an EIR for a gravel mine on the San Joaquin River. The project included evaluation of geology, hydrogeology and geologic hazards, significance of aggregate resources, compliance of the mining and reclamation plan with SMARA, levee stability, river morphology, flooding and sediment transport, groundwater-surface water interaction, and hazardous material assessment.

Project Manager/Engineering Geologist – Cold Spring Granite, Fresno County, California - Managed and prepared revisions to the CUP Application including preparation of a new Mine and Reclamation Plan. The mine is a granite-boulder quarry located in the foothills of the Sierra Nevada Mountains. Aspects of the plan included



QUALIFICATIONS

Registration:

Geologist, California, No. 5635

Certifications:

Certified Engineering Geologist, California, CHG #1757

Certified Hydrogeologist, California, CHG #362

Education:

Auburn University, BS Geology

San Jose State University, Post Graduate Studies, Engineering Geology/Hydrogeology;

University of Phoenix, MBA;

Experience:

Willbanks Environmental Consulting, Inc. – Principal Hydrogeologist (2015-Present).

Permian Basin Materials, Inc. – CEO, West Texas (2014-2015)

Heidelberg Cement Group – Vice President/General Manager, California (1998-2013).

BSK Associates, Engineers and Scientists – Principal Geologist, California (1990-1995, 2013 - 2014).

Dames & Moore – Managing Principal - San Francisco, CA, (1988 to 1990 & Fresno, CA (1995 - 1998).

Applied GeoSystems - Consulting Geologist - Fremont, CA (1987 – 1988).

E.G. & G. Continental Laboratories – Offshore Well-Site Geologist - Houston, TX (1984 – 1985).

NERCO Coal Company - Consulting Mining Geologist - Evansville, IN (1983 - 1984).

waste-pile stability, erosion and revegetation, and mine and reclamation sequencing. During development of the plan, Mr. Gilpin conducted the annual site review for the mine.

Hydrogeologist and Task Manager – Proposed Texaco Petroleum Reservoir Mining Project, Kern County, California - The proposed project involved the mining of a near-surface petroleum deposit characterized by reservoir rock with high porosity and low permeability. The source rock was to be mined and processed and spent ore would be placed back into the excavation for reclamation. Plans called for the recovery of approximately 300,000,000 barrels of oil from a mine expected to measure approximately 3 miles long, 1 mile wide and 1,000 feet deep. Mr. Gilpin's task was to evaluate groundwater and surface-water impacts associated with the project and manage that aspect of the permitting process.

Consulting Hydrogeologist – Kaweah River Rock, Tulare County, California - Provided technical review and oversight for the groundwater portion of an EIR for an aggregate mine on the Kaweah River. The project involved dewatering of up to 85 vertical feet of aggregate in order to provide "dry" mining below the water table; followed by re-injection of the water downgradient of the mine. Mr. Gilpin's responsibilities included reviewing the groundwater modeling and groundwater impact portions of the EIR, and then representing Tulare County in public hearings regarding the EIR.

Hydrogeologist/Task Manager - Elk Hills Naval Petroleum Reserve No. 1 (NPR-1), California - In the process of petroleum reserves valuation, Mr. Gilpin prepared environmental cost estimates associated with management of wastewater and groundwater. Based on various development scenarios, volumes of co-produced water, water-flooding alternatives, and surface and subsurface disposal (injection) scenarios were considered, as well as regulatory requirements, to identify possible environmental impacts. The environmental liabilities were evaluated based on then-current operations and site conditions and projected out through the life of the project. Costs of environmental liabilities were then incorporated into the value of the reserve for establishing minimum bid requirements. Divestment of the NPR-1 in Elk Hills represented, at the time, the largest-ever divestiture on the part of the United States.

Project Manager/Consultant - Oil/Gas Well Site Screening, Kern County Oil Producer - Managed and conducted environmental studies and assisted in the preparation of Conditional Use Permits for proposed gas development of approximately 10-square miles within the Trico Gas Field located in southwestern Tulare and southeastern Kings Counties, California. In addition, the studies were used to establish baseline environmental site conditions and current and past land-use practices prior to planned lease of selected properties for gas development. The project included hazardous-materials, biological and archaeological assessments, as well as, potential wetlands identification and biological surveys for Threatened and Endangered Species and Species of Special Concern.

Geologist - Highway 1 Expansion, Monterey County, California - Provided baseline geology, geohazards assessment, and environmental characterization for an EIR for Highway 1 widening.

Geologist - Highway 101 Expansion, San Jose, California - Provided baseline geology, geohazards assessment, and environmental characterization for an EIR for Highway 101 widening and improvements.

Environmental Investigation/Remediation Projects

Project Manager - Pinedale Area TCE Contamination RI/FS - Provided management and oversight responsibilities necessary to assess groundwater conditions on a superfund site (Cal EPA) that encompasses several hundred acres. Currently, Mr. Gilpin is providing hydrologic expertise during late stages of site remediation.

Project Manager – Kraft Foods Plant, Visalia, California - Soil-contamination assessment and remediation: diesel and fuel oil. Project included field investigation, chemical analyses, assessment reports, risk assessment, and selection and implementation of various remedial alternatives including in-situ

bioremediation of diesel fuel, excavation and disposal, and risk analysis to support abandoning fuel oil in-place.

Independent Quality Assurance Team (IQAT) Representative - Fairchild/MEW Superfund Site, Mountainview, CA - Oversaw remedial activities conducted by SMITH Environmental at the Fairchild Semiconductor site. Remedial activities comprised primarily excavation, vapor extraction and groundwater extraction for cleanup of volatile chlorinated compounds.

Landfills

Project Manager - Pinedale Area TCE Contamination RI/FS and Landfill SWAT - Engineering Geologist-of-Record for a SWAT performed on an abandoned Army and privately owned and operated landfill on the property. Activities included refuse characterization, soil gas, groundwater and vadose-zone assessment. The landfill investigation was instrumental in assessing possible source areas and soil-and interim groundwater-remedial measures.

Project Manager - Fresno Sanitary Landfill, Design of Source Control Operable Unit - The project, performed under regulatory oversight of the US EPA, included consulting services related to the Gas Control System, the Gas Treatment System, the Landfill Cover Design, Surface-Water Management, and geotechnical investigation associated with relocation of an irrigation-supply pipeline traversing the property. Several cover borrow sources were evaluated on the basis of soil type, quantity and transportation costs.

Project Manager/Senior Geologist - American Avenue Landfill, Fresno County - Provided oversight for the selection, mining and transportation of clay material for a landfill liner from a remote borrow source. Several thousand cubic yards of clay material were taken from the borrow source and the source area was backfilled with material excavated from the landfill module. The geology of the base of the landfill was mapped prior to placing the clay liner.

Project Quality Assurance - Various Tulare County Landfills, Regulatory Compliance - Provided technical review and oversight for the preparation of Compliance Reviews for Tulare County landfills followed by preparation of various regulatory compliance plans for several Tulare County Landfills, including Detection Monitoring and Financial Assurance, Engineering Feasibility, Evaluation Monitoring Programs, and Justification for Concentration Limits Greater Than Background.

Publications:

Engineering Risk Analyses of Sand and Gravel Operations, Annandale, G.W., Gilpin, B.E., 1992, Proceedings of Risk Assessment Management Issues in Environmental Planning of Mines, Society for Mining, Metallurgy and Exploration.