Christopher John Malejan, M.S., P.E.

WSC
WATER SYSTEMS CONSULTING, INC.

Education
M.S., Civil and Environmental Engineering, California Polytechnic University, San Luis Obispo

B.S., Environmental Engineering, California Polytechnic University, San Luis Obispo

Professional Registrations
Professional Engineer - Civil, California, No. C80568

Certifications
CADPH Registered T2 Operator #32607

CADPH Registered D2 Operator #41543

Qualified SWPPP Developer and Qualified SWPPP Practitioner #24223

Course Training
Competent Person in Excavation and Trenching

Permit Confined Space Entry Course Completion

NPDES Qualified SWPPP Developer & Practitioner

Professional Affiliations
American Water Works Association, Member

American Society of Civil Engineers, Member

Professional Experience

Mr. Malejan has over four years civil engineering experience including construction management, program management, design, and planning for various water resource projects throughout the State. Mr. Malejan's experience in construction management includes bidding assistance and recommendation, document manager, claims negotiations manager, scheduler, and budget tracker. Mr. Malejan has worked with the USDA to secure funding and has knowledge of the obligations and requirements of USDA throughout the construction project.

Representative Projects

Water Pipelines, Pump Stations and Tanks

City of Arroyo Grande, Alpine Waterline, Arroyo Grande, CA. Engineering Support. Designed over 900-ft of 8-inch mainline in South Alpine Street for the City of Arroyo Grande. Project included the design of a new HDPE storm drain, and road overlay with new ADA compliant curb ramps.

City of Big Bear Lake Department of Water and Power, 2013 Water System Improvements, Big Bear Lake, CA. Project Engineer. Preparing design plans and specifications for the Angel's Camp Reservoir, a 1.0 MG welded steel potable water reservoir. The project includes design of a 1,500 LF paved access road and 2,750 LF of 12-inch transmission main. Also preparing design plans for the Arrastre Creek Well Pumping Plant, which includes the pump station, a CMU building and site improvements. The well is being drilled concurrently under separate contract and the production capacity is anticipated to be 200 gpm. The project includes 5,600 LF of 8-inch transmission main.

California American Water, Design of 300 Linear Feet of 8-inch mainline in Borchard Rd, City of Thousand Oaks, CA. Project Engineer. Design of 300-ft of 8-inch mainline in Borchard Rd. The new pipeline will connect an existing turnout connection with Calleguas Municipal Water District to CAW's system. Project includes the preparation of design drawings and specifications and construction support services.

California American Water, Moorpark Booster Station Replacement, City of Thousand Oaks, CA. Project Manager. Managing the planning, permitting, and design of the Moorpark Booster Station replacement project. Project includes the replacement of an existing 700 gpm booster station in an underground vault with an equivalent sized underground booster station adjacent to the existing. The project also includes the calibration of the existing water model through hydrant testing to assist in the identification of existing fire flows in the service area. Tasks include scheduling and budget management, technical oversight over design, review of fire flow analysis and basis of design report, permitting coordination, overview of design documents, and contract administration.

California American Water, White Stallion Booster Station Replacement, City of Thousand Oaks, CA. Project Manager. Managing the planning, design, permitting, and construction of the White Stallion Booster Station replacement project. Project includes the replacement of an existing 150 gpm booster station with a 450 gpm booster station within the existing CMU building. Prepared water demand memo to evaluate and recommend the capacity of the White Stallion booster station. Tasks include scheduling and budget management, technical oversight over design, review of basis of design report, permitting coordination, overview of design documents, and contract administration.

California American Water, Los Robles Tank #1 Replacement, City of Thousand Oaks, CA. Project Manager. Managing the planning, design, permitting, and construction of the Los Robles Tank #1 replacement project. Project includes the replacement of a 140,000 gallon bolted steel tank with a 400,000 gallon welded steel reservoir. Prepared the grading plans, demolition plan, and site piping plans. Tasks include scheduling and budget management, technical oversight over design, permitting coordination, overview of design documents, and contract administration.

California American Water, Reservoir Replacements, City of Thousand Oaks, CA. Project Manager. Managing the planning, design, permitting, and construction of the Pace, Potrero #1, and Moorpark Reservoir replacement projects. Project includes the replacement of the liner, roof, and structural improvements for three rectangular hopper bottom style reservoirs with capacities of 660,000, 1,600,000 and 1,800,000 gallons. Tasks include scheduling and budget management, technical oversight over design, permitting coordination, overview of design documents, and contract administration.

California American Water, Wildwood Tank Recoating and Rehabilitation, City of Thousand Oaks, CA. Project Manager. Managed the recoating and rehabilitation of an above ground welded steel tank. Project included installing temporary pumping to compensate for the loss of storage in the Wildwood zone. Temporary pumping required changes to the control strategy of the existing booster station. Installing sound mitigation barrier became critical as the booster station was located in a residental neighborhood. Existing tank was coated with a lead based primer, which required the Contractor to follow hazardous waste disposal requirements. Other tasks also incldued scheduling and budget management, technical oversight over design, permitting coordination, overview of design documents, and contract administration.

City of Big Bear Lake Department of Water and Power, 2010-2011 Water System Improvements Program, Big Bear Lake, CA. Assistant Program Manager. Development and implementation of a $13 million capital improvement program which includes four new municipal supply wells, one wellhead water treatment plant, and more than 35,000 LF of distribution and transmission pipeline replacement. Prepared funding applications and supporting documentation to bring more than $11 million in grant and low interest loan financing to support the program through the USDA. Prepared bid packages for three construction contracts, managed the bidding process and prepared final contracts to initiate construction. Prepared requests for proposals for professional design engineering services for the 2011 projects, and participated in consultant selection. Performing design review and contract administration throughout design development, bidding and contracting.

Big Bear Lake Department of Water and Power, Construction Management for the 2010 Water System Improvement Projects: Construction Contract 1 – Pipeline Replacement. Assistant Construction Manager. Project involves installing 6,700 linear feet of 8-inch and 10-inch PVC pipe. Primary point of contact for the Owner and Contractor. Primary involvement in coordinating weekly progress meetings, directing the flow of RFI's and Submittals, Pay Estimates and main negotiator in all Change Orders.

Big Bear Lake Department of Water and Power, Construction Management for the 2010 Water System Improvement Projects: Construction Contract 2 – Well Drilling and Construction. Assistant Construction Manager. Project involved drilling and fully developing two (2) new municipal-supply water wells; one well to a depth of 730 feet and the other well to a depth of 100 feet. Primary point of contact for the Owner and Contractor. Primary involvement in coordinating weekly progress meetings, directing the flow of RFI's and Submittals, Pay Estimates and main negotiator in all Change Orders.

Big Bear Lake Department of Water and Power, Construction Management for the 2010 Water System Improvement Projects: Construction Contract 3 – Well Equipping. Assistant Construction Manager. Project involves equipping two (2) previously drilled municipal-supply water wells. Acting as main point of contact for the Owner and Contractor. Primary involvement in coordinating weekly progress meetings, directing the flow of RFI's and Submittals, Pay Estimates and main negotiator in all Change Orders.

California American Water, Ventura Districts Steel Reservoir Rehabilitation and Restoration. Assistant Project Manager. Providing project management support for the restoration and rehabilitation of 6 separate above ground steel reservoirs for the Ventura Districts. Responsibilities include managing the schedule for which each tank will be taken offline during the restoration. Managing all permits associated with the project. Invoice review and approval and monthly budget tracking.

Water Planning

California American Water, Cr(VI) Treatment and Blending Evaluation. Project Engineer. Evaluated treatment and blending alternatives to assist California American Water in complying with the proposed Cr(VI) MCL. Identified 15 wells which had Cr(VI) levels approaching or exceeding the proposed, for a total combined production capacity of over 11,000 gpm. Developed a cost model that allowed for efficient evaluation of each of the following options for mitigating high Cr(VI) levels in CAW's wells: Onsite Treatment; Decentralized Treatment Blending; and Large Centralized Treatment. Evaluated each of the wells using the identified mitigation techniques, as appropriate. Combined the individual well mitigation alternatives in different combinations to develop a series of system scenarios for each of CAW's impacted water systems. Compared the Capital, O&M and 20-Year Net Present Value cost estimates for each of the system scenarios identify the most cost efficient scenario for each of CAW's systems.

California American Water, 2010 Urban Water Management Plan, Monterey District. Staff Engineer. Prepared the 2010 UWMP to fulfill the requirements of the Urban Water Management Planning Act. Developed 20 year per capita water use projections by census block within the Division's boundary in accordance with California Senate Bill x 7-7. Evaluated supply, supply reliabilty, demand, supply and demand comparison, developed a water shortage contingency plan, and a recycled water plan. CAW's Monterey District serves portions of the citites of Seaside, Carmel, Pacific Grove, Carmel Valley, Pebble Beach, Sand City, Del Rey Oaks and unincorporated portions of Montery County including a population of more than 100,000 with local groundwater, surface water and desalinated seawater.

California American Water, 2005 Urban Water Management Plan Update, Ventura District. Staff Engineer. Prepared an update to the 2005 UWMP to address DWR comments and to bring the draft plan into conformance with the Urban Water Management Planning Act. Developed 25 year population and demand projections by customer sector, evaluated supply reliabilty, and prepared a recycled water plan. CAW's Ventura District serves portions of the citites of Thousand Oaks, Las Posas, and Newbury Park including a population of more than 68,500 with imported water that is purchased from the Callegaus Municipal Water District.

California American Water, 2005 Urban Water Management Plan Update, Monterey District. Staff Engineer. Prepared an update to the 2005 UWMP to address DWR comments and to bring the draft plan into conformance with the Urban Water Management Planning Act. Developed 25 year population and demand projections by customer sector, evaluated supply reliabilty, and prepared a recycled water plan. CAW's Monterey District serves portions of the citites of Seaside, Carmel, Pacific Grove, Carmel Valley, Pebble Beach, Sand City, Del Rey Oaks and unincorporated portions of Montery County including a population of more than 100,000 with local groundwater, surface water and desalinated seawater.

City of Arroyo Grande, 2005 Urban Water Management Plan Update. Staff Engineer. Prepared an update to the 2005 UWMP to address DWR comments and to bring the draft plan into conformance with the Urban Water Management Planning Act. Developed 25 year population and demand projections by customer sector, evaluated supply reliabilty, and prepared a recycled water plan. The City of Arroyo Grande services a population of more than 15,000 residents with local groundwater and surface water.

Wastewater Treatment and Sewer Systems

City of Pismo Beach, Five Cities Lift Station Replacement, Pismo Beach, CA. Engineering Support. Preparing plans and specifications for replacement of an existing self priming solids handling pump station. The new lift station will use two 20-hp submerisble solids handling pumps in pre-rotation basins and will be rated at 625-gpm each. The project includes replacement of 2,300-lf of 8-in force main with a bridge crossing over the Pismo Creek. The project will have a new chemical feed system for dosing of ferric chloride and a control building. WSC is assisting the City with obtaining a Streambed Alteration Agreement from CA Department of Fish and Game for the creek crossing work.

City of Morro Bay, On-Call Construction Management Services, Morro Bay, CA. Resident Engineer. Performing on-call construction management services for several of the City's water and wastewater infrastructure improvement projects including upgrades to two (2) of the City's sewer lift stations, installation of new forcemain, gravity sewer rehabilitation and new water distribution pipelines.

Natural Water Systems

San Lorenzo Valley Water District, Fall Creek Intake Facility Evaluation, City of Felton, CA. Project Engineer. Evaluated options to relocate the Fall Creek surface water intake pumps as a part of Fish Ladder Improvement Plan. WSC prepared preliminary design drawings and developed associated cost opinions for multiple design alternatives. Reviewed the existing pump curve to evaluate how the pumps will operate under a different head conditions.

City of Morro Bay, Chorro Creek Stream Gage, Morro Bay, CA. Project Engineer. Designing and permitting two (2) low-flow stream gages located on Chorro Creek. Stream

gages are designed to measure flow down to 1.5 cfs, the threshold that the City may pump water from well fields located near the Chorro Creek. The stream gages utilize a Palmer-Bowlus flume in a concrete weir to direct low stream flows through the flume. The flume will continuously measure stream flow while providing an unobstructed channel for fish passage. Project required Section 404/401 permits from the U.S. Army Corp and Regional Water Quality Control Board, Streambed Alternation Agreement, and a County Encroachment permit.

Professional Endeavors

Water Systems Consulting, Inc.
March 2010 to present

Los Angeles County Sanitation Districts
2008