

ROBERT M. TAKEDA, P.E.

Principal

TST Inc. of Denver

Expertise

Treated Water and Wastewater Systems, Water Resources and Raw Water Supply, Construction Management, and Land Development

Education

Colorado State University

B.S. Civil Engineering, 1965

M.S. Civil Engineering, 1967

Registration

Professional Engineer – Colorado

Professional Engineer – Wyoming

Professional Affiliations

American Waterworks Association

American Consulting Engineers Council

Certified Engineer – Colorado

Experience Summary

- **January 1994 to Present** -
TST Inc. of Denver, Consulting Engineers
Senior Project Manager / Owner
- **September 1989 to December 1993**
TST, Inc., Consulting Engineers
Senior Project Manager/Owner
- **July 1985 to August 1989**
Taranto, Stanton & Tagge, Consulting Engineers
- **February 1984 to July 1985**
RBD, Inc. Engineering Consultants
Colorado Springs, CO
Senior Project Manager / Owner
- **February 1982 to July 1984**
RBD, Inc. Engineering Consultants
Fort Collins, CO
Senior Project Manager / Owner
- **May 1970 to February 1982**
M & I Inc., Consulting Engineers
Fort Collins, CO
- **June 1968 to May 1970**
Nelson, Haley, Patterson and Quirk, Inc.
Greeley, CO
- **June 1967 to June 1968**
Soil Conservation Service - USDA
- **January 1965 to June 1967**
Colorado State University

Mr. Takeda has experience as a Project Manager, Design Engineer, and Construction Manager on a variety of projects including water and wastewater conveyance, storage, and treatment systems; roads; drainage systems; environmental studies; and environmental remediation. Projects include water and wastewater treatment facilities, pump stations, water storage tanks, water wells, advanced wastewater treatment and reuse systems, pipelines, drainage and detention facilities, roadways, environmental assessments, and remediation of leaking underground storage tanks.

Project Experience

Water and Wastewater System Planning and Operation

City of Golden, CO – Vulnerability Assessment. Assisted McGuire Environmental with the preparation of a vulnerability assessment of the City's water infrastructure.

City of Golden, CO – Initial Distribution System Evaluation (IDSE). Prepared a water distribution system model to compute the water age as part of the compliance requirements for Stage 2 D/DBP rule.

City of Golden, CO – Water System Master Plan. Prepared a master plan to guide the City's capital improvements priorities in response to growth and safe drinking water regulations.

City of Rocky Ford, CO – Preliminary Engineering Report. Prepared a preliminary engineering report as part of the application requirements for financial assistance from RUS/USDA.

Wyoming Water Development Commission (WWDC) – Town of Sinclair, WY, Level 2. Developed and evaluated water treatment alternatives for the Town's water supply.

WWDC – Town of Saratoga, WY, Level 1. Developed and evaluated water treatment alternatives for the Town's surface water supply.

WWDC – Town of Guernsey, WY, Level 1 & 2. Prepared a master plan for improvements to the water system and water supply.

WWDC – Town of Hartville, WY, Level 1. Prepared a master plan for improvements to the water system and water supply.

WWDC – Town of Pinedale, WY Level 2. Prepared a master plan for the improvements to the water system and water supply alternative.

WWDC – Town of Lander, WY Level 1. Developed and evaluated the water treatment alternatives for the Town's surface water supply.

WWDC – Town of Riverton, WY, Level 1. Developed and evaluated the water treatment alternatives for the Town's surface water supply.

Cucharas Valley Water and Sanitation District – 201 Facility Plan. Prepared a facility plan for the District's collection and interceptor lines and wastewater treatment plant.

Ponderosa Baptist Church Camp – Wastewater Utility Plan. Prepared a wastewater utility plan as part of the requirements to amend the DRCOG Clean Water Plan.

Water Treatment Facilities

City of Golden Water Treatment Facility. Project Manager for planning and design of an 8 MGD expansion to the existing water treatment facility for the City of Golden, CO. Project involved addition of influent pumping, retrofitting existing sedimentation basin for enhanced flocculation and settling, expanded filtration and chemical handling facilities, and provisions for reclamation of backwash water.

City of Golden, CO – High Service Pump Expansion. Project manager for the design and construction of a new high service pumping facility. The project included a new clearwell, high service pumps, variable speed controllers, and chemical storage and feed systems for corrosion control.

City of Rocky Ford, CO – Water Treatment Plant Improvements. Project manager for the design and construction of water treatment plant improvements for a 5.0 MGD plant.

Todd Creek Farms Metro. District – Reverse Osmosis Treatment Plant. Project manager for the design and construction of a 1.0 MGD RO water treatment plant that will remove sodium and alkalinity from the water supply.

Todd Creek Farms Metro. District – NPDES Permit Application. Project manager for the preparation of a NPDES application for the discharge of concentrate from the RO water treatment process. This application is the first NPDES application for RO concentrate processed by the Colorado Department of Public Health and Environment.

Upper Eagle Water Authority – Avon Water Treatment Plant. Project Engineer for the design of a regional water treatment plant that provides water service to the Town of Avon, Co; Town of Edwards, CO; the Eagle Vail Water District; and the Beaver Creek Water District. The treatment processes included ozone for disinfection, organic precursor reduction, and taste and odor control.

Castle Pines Metro. District – Water Treatment Plant Expansion. Project manager for a 2.0 MGD expansion of an iron and manganese removal treatment plant.

City of Golden, CO – Solids Disposal. Project manager for the design of a solids disposal system for the treatment residuals from the City's water treatment plant. The project included solids pumps, polymer feed systems, piping and instrumentation.

Soldier Canyon – Water Treatment Plant Expansion. Project manager for the design and construction of a 6.0 MGD expansion of a regional water treatment plant that serves the North Weld County Water District, the East Larimer County Water District, and the Fort Collins-Loveland Water District.

Town of Windsor, CO – Membrane Treatment Pilot Test. Project manager for the pilot testing of nano and reverse osmosis membranes to evaluate the feasibility of treating the shallow ground water supplies with membrane technology.

Todd Creek Farms Metro. District – Membrane Treatment Pilot Test. Project manager for the pilot testing that evaluated reverse osmosis technology as a treatment process for the sodic groundwater supply.

JFCo – Bridger Valley, WY Joint Powers Water Treatment Plant. Project manager and process consultant to JFCo for construction phase services of a 3.0 MGD regional water treatment plant. Engineering services include process review, construction inspection, operator training, plant start up, and operations and maintenance manual.

Wastewater Treatment Facilities

East Plum Creek Wastewater Treatment Facility. Project Manager for a regional wastewater treatment facility and reuse system. Major components included the first phase of a 15 MGD wastewater treatment facility to provide secondary and tertiary treatment, five miles of interceptor sewer, a 40 million gallon reservoir for storage of secondary effluent, and pump stations and pipelines to deliver reuse water to two golf courses.

Marbleton, WY – Process Evaluation. Process consultant to JFCo. Evaluated wastewater treatment alternatives to achieve ammonia limits.

Guernsey, WY – Wastewater Treatment Plant Expansion. Process consultant to JFCo. Provided the process design for a 0.4 MGD expansion to the Town of Guernsey's wastewater treatment plant.
Project manager for the design and construction of an AWT facility for the removal of phosphorous.

Project manager for the design and construction of 0.8 MGD activated sludge wastewater treatment plant.

Eastern Fremont Co. Regional Wastewater Disposal Authority – Wastewater Treatment Plant. Project manager for the design and construction of a 4.0 MGD activated sludge wastewater treatment plant.

Town of Windsor, CO – Wastewater Treatment Plant Expansion. Project manager for the design of and construction of disinfection systems, contact basin, and aeration systems for the Town's wastewater treatment ponds.

Hach Company – Waste Neutralization Plant. Project manager for the design and construction of a industrial waste neutralization treatment plant for the industrial discharges from the Hach manufacturing plant in Loveland, CO.

City of Northglenn, CO – Wastewater Containment Structure. Project manager for the design and construction of a 0.4 MG concrete structure to contain the overflow from the City's regional lift station.

Distribution and Storage Systems

City of Golden, CO – 6400 Pump Station. Project manager for the design and construction of a 1.2 MGD potable water pump station.

City of Golden, CO – 6170 Pump Station. Project manager for the design and construction of a 1.0 MGD potable water pump station.

City of Aurora, CO – Front Range Airport Pump Station. Project manager for the design and construction of a 2.5 MGD pump station.

Front Range Airport Authority – 0.5 MG Storage Tank. Project manager for the design and construction of a 0.5 MG storage steel ground storage reservoir.

Town of Windsor, CO – Storage Reservoir. Project manager for the design and construction of a 1.5 MG buried post tensioned concrete storage reservoir.

Fort Collins – Loveland Water District – 2.0 MG Reservoir. Project manager for the design and construction of a 2.0 MG buried post tensioned concrete storage reservoir.

East Larimer County Water District – Water Storage Reservoirs. Project manager for the design and construction of 0.5 MG and a 1.0 MG post tensioned concrete storage reservoirs.