



# **Statement of Qualifications**Resource Recovery Engineering Solutions

September 2021

## FIRM INTRODUCTION

# **The AQUA Engineering Group**

We are the AQUA Engineering Group (AQUA), an assembly of highly-qualified professionals unlike any other. We provide innovative engineering solutions for public and private sector markets nationwide. Our clients look to us for our quality services and our outstanding ability to effectively and efficiently solve complex engineering challenges that achieve sustainable results. AQUA is made up of a team of experienced engineering professionals, leaders, and associates who are experts in their disciplines and fully committed to helping our clients accomplish their project goals while protecting the environment and enhancing the quality of life for the people in our communities. We seek out opportunities to work with others who share our vision for success and promise to give you the best engineering experience possible on every project. Together, we can create a bright and prosperous future.



AQUA Engineering (AQUA) provides innovative engineering, operations, and construction solutions to clients nationwide. Since 1992, we have served the public and private sector. AQUA's proven experience demonstrates our capacity and stability to deliver projects that are sustainable and operable. Our team consists of experienced professionals, designers, programmers, technicians, and associates who are capable of solving your needs and are fully committed to your success. Together, we are able to give you the best project solutions possible. We have offices in Utah and Colorado.

533 W 2600 S Suite 275 Bountiful, UT 84010 801.299.1327

5325 S Valentia Way Greenwood Village, CO 80111 720.667.1250



SKM Engineering (SKM) was founded in 1989. SKM provides sound and proven electrical, instrumentation and control (EI&C) engineering, along with dependable and prompt service at the best value. The SKM team has the knowledge, training, and handson experience required to meet EI&C needs for your facilities. They apply a unique and fresh perspective and are recognized by clients for their ability to solve challenging technical problems quickly with simple and cost effective solutions. SKM provides services for over 100 clients throughout the US and Canada with offices in Utah and Colorado.

533 W 2600 S Suite 25 Bountiful, UT 84010 801.677.0011



Agua Environmental Services, Inc. (AES) was founded in 1991. AES provides contract operations consulting, start-up and commissioning services, and instrument calibration to many public and private sector clients. AES has developed a loyal base of clients in need of assistance with contract operations, small turnkey projects, facility management projects, and systems troubleshooting. With its low overhead, AES is able to offer services to many clients that would be difficult to provide with inhouse staff, or in the case with small systems, with what would be more costly full-time employees.

533 W 2600 S Suite 250 Bountiful, UT 84010 801.209.6382

# **EXPERTISE & CAPABILITIES**

#### **INNOVATIVE ENGINEERING SOLUTIONS**

We specialize in providing engineering solutions that address emerging market challenges and help our clients succeed at achieving their specific project goals. We work closely with our clients to fully understand their needs and deliver the greatest impact for their investment. The qualifications presented display our firm's capabilities in specific industries providing quality and reliable services to our clients. AQUA's principal engineers and project managers take a hands-on approach in overseeing projects from initial planning and funding through final design and construction to ensure that our work is finished on time, within budget, and complies with the highest standards.



Water & Wastewater Treatment



Construction Services / Alternative Delivery



Municipal Services



Asset Management / Master Planning / GIS



Water Resources



Resource Recovery / Renewable Energy

## PROJECT EXPERIENCE

# **Extensive Project Experience Relative to Your Needs**

Over the years, we have worked on major design and engineering projects that have given us valuable experience with the processes and technologies necessary for completing work effectively and efficiently. We are honored by the trust and confidence our clients have in us and look to extend our track record of success in developing new facilities and in improving the performance of existing facilities for many years to come. On each and every project, we demonstrate our ability to provide excellent engineering services that make a difference for our clients and communities.



**AQUA Group Project Sites** 

#### **History of Excellence**

Numbers often speak louder than words. We will bring you success in your projects, as we have with hundreds of our clients across the nation. By designing systems and facilities that perform at the highest level, we can promise you results and unmatched service satisfaction.

AQUA got to where it is today by consistently delivering excellent engineering results that made a difference for our clients and communities. We have created a culture that fosters success and have redefined what it means to be experts in design and engineering.

## **Proven Ability to Achieve Results**

For nearly 3 decades, AQUA has helped clients, big and small, complete thousands of infrastructure engineering and community projects. We are recognized as the top engineering solutions provider because of how well we are able to solve unique project challenges, stay onschedule and within budget, and achieve innovative and lasting results.



**Organic Energy Solutions** 





Blue Mountain Energy Recovery



Wasatch Resource Recovery



Tooele Solar Drying



**Prospect Valley Dairy** 

# **Recource Recovery | Renewable Energy**



Natural resources are precious and limited. Using them wisely, and reclaiming or recovering them for reuse is essential for the continued habitation of our planet. Besides incorporating energy efficient designs, we also incorporate technologies into our designs that allow us to harvest energy from sources that would typically be wasted. Our list of projects is extensive, including the design of waste to energy projects that produce methane gas from municipal bio-solids, animal manure, and food wastes to generate both heat and power. We understand both state and federal programs that provide enhanced payments for renewable energy from waste products. Recently, solar energy has become part of many of our projects. In a recent project we turned biosolids into a fertilizer that is air spreadable. We have incorporated nutrient recovery systems into our designs to recover both nitrogen and phosphorus.

Our capabilities in Resource Recovery / Renewable Energy include:

- Nutrient Recovery
- Biosolids Reuse
- Water Reuse
- Manure to Energy
- LCFS / RIN Markets
- Green Gas Markets
- Biosolids Solar Drying

- Advanced Anaerobic Digestion Technologies
- Biosolids to Fertilizer Facilities
- Energy Efficiency Studies
- Nutrient Recovery using Algae
- Food Waste to Energy
- Photovoltaic Solar Panels
- Food Waste Depackaging and Receiving





#### **TURNING WASTE ORGANICS**

INITO







Waste is generated and placed in designated collection container



**Collection** 

Waste is collected and delivered to the management facility



**Pre-Processing** 

Waste is received and processed for digestion



Digestion

Processed waste is fed into digesters, heated, captured, and purified



**End Products** 

Bioproducts are prepared to be sold as "green" bioenergy

# **Tooele City**

Wastewater Treatment Facility, Screw Press, and Solar Drying Facility





Client: Tooele City

Reference: Jamie Grandpre | 435.882.1952

Location: Tooele, UT Dates: 2014
Capacity: 3.4 MGD
Cost: \$3.2 Million

#### Features

- 3.4 MGD Biological and Solids Treatment Process Expansion Plan
- Hydraulics, Process Overflows, and Plant Improvements
- Conveyance Structures Hydraulic Model
- Hydraulic Capacity Restoration and 3.4 MGD Expansion
- Biological Modeling for Oxidation Ditch Capacity Increase
- Diffused Aeration
- Overall Plant Power Usage Efficiency Increase
- Concrete Sludge Holding Tank
- Fine Bubble Diffusers
- UV Disinfection Building
- Concrete Solar Drying Beds
- Dewatering Building
- Sludge Conveyors
- Rotary Lobe Pumps



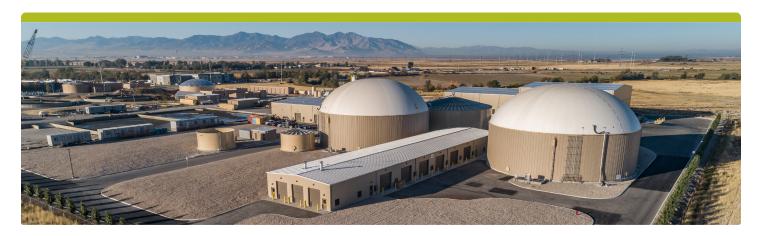




# **Wasatch Resource Recovery**

Resource Recovery, Energy, and Wastewater Treatment Facility





The main focus of the Wasatch Resource Recovery (WRR) project is to divert organic wastes from local landfills, composting operations, and land applications sites which reduces greenhouse gas emissions and converts the wastes into biogas and a carbon-based fertilizer. The incoming organic wastes will be processed at the WRR receiving facilities to remove any plastics and packaging and then on to anaerobic digestion. The organic wastes will include source separated food waste, expired bottled beverages, fats, oils, and grease (FOG), food processing waste, and organic waste. Carbon Dioxide separated from the biogas will be reclaimed for offsite use and to also grow algae onsite. The biosolids will be utilized as a soil amendment and a carbon-based fertilizer. The renewable natural gas will be upgraded to pipeline quality and injected into the Dominion distribution system.

Client: South Davis Sewer District and Alpro Energy & Water Reference: Dal Wayment, WRR General Manager | 801.299.1327

Location: North Salt Lake, UT

Dates: 2017 - 2019 Cost: \$45 Million Size: 400 Ton/Day

#### **Features**

- Start-Up & Commissioning
- Design, Construction Services
- Anaerobic Digestion Technologies
- Renewable Natural Gas (RNG), Bio-Based Fertilizer
- Ammonia Extraction
- Depackaging of Source Separated Organics
- Liquid Waste Receiving
- FOG Receiving
- Digested Solids Dewatering and Separation







# **South Davis Nutrient Recovery**

Resource Recovery and Wastewater Treatment





## **Project Summary**

Design of a general upgrade to the treatment plant and the addition of the ClearAs ABNR system to extract nutrients through algae cultivation and recovery. System includes a large green house, over 150 miles of 4 in. glass pipe, and a 9 mgd MBR for separating the algae. In design and construction as it is a CMGC project.

#### **Project Details**

Owner: South Davis Sewer District, North Plant

Reference: Dal Wayment, General Manager | 801.580.3889 Types: Resource Recovery and Wastewater Treatment

Location: West Bountiful, UT

Timeline: 2022 Cost: \$80 Million

- Design, Construction Management
- Start-up & Commissioning
   Resulting wastewater is devoid of TSS, BOD, and bacteria, suitable
   for Type I Reuse; Total nitrogen is less than 10mg/l and total
   phosphorus is less than 0.10 mg/l.
- Algae is produced and harvested continually, and can be sold for a variety of uses, such as livestock feed, fish feed, bio-diesel, succinic acid, and many other products where petroleum products are typically used.









# **Timpanogos Special Service District**

Solids Disposal Study | Feasibility Study, Biosolids Disposal





Client: Timpanogos Special Service District

Reference: Rich Mickelsen, District Manager | 801.763.5923

Location: American Fork, UT

Dates: July 2019 - November 2019

Cost: \$50K

#### **Features**

- Planning
- Biosolids Management
- Treatment Facility Expansion
- Process Technologies Review Including Biosolids Treatment Capabilities, Necessary Equipment, and Land Area Requirements for Biosolids Application
- Established Treatment Process Capital and O&M Costs
- Established Future Designs Capital and O&M Costs
- 20-Year Project Life Value
- Primary Clarifiers Addition Evaluation
- Class B Alternatives and Hauling Sludge to Disposal Evaluation







# **Organic Energy Solutions**

Resource Recovery and Design/Construction





## **Project Summary**

Owners from OES and BioStar joined efforts to develop this food waste anaerobic digestion facility in southern California. OES teamed with Stellar J Corporation and AQUA Engineering through an EPC contract to perform process engineering, substrate handling, gas conditioning, cogeneration, and wastewater design. Providing a valuable facility for resource recovery, energy production, and financial benefits to the region by utilizing local food waste resources as feedstock to produce renewable energy and other beneficial products.

#### **Project Details**

Owner: Organic Energy Solutions, LLC

Reference: Sergio Perez, President | 951.545.0649

Types: Resource Recovery

Location: San Bernardino, California

Timeline: 2019 - 2021

Cost: 20M Size: 2.6MW

> 1.9M G Digester Capacity 85,000 GPD FeedStock

- Advanced Anaerobic Digestion
- Ammonia Recovery
- Gas Scrubbing System Design & Construction
- Green Energy Market Sales
- Produce 2.6 MW of Power to Southern California Edison
- Daily Energy Production 700 Dekatherms/day









# **Blue Mountain Energy Recovery**

Resource Recovery and Design/Construction



### **Project Summary**

Two 1.6 MW engine generators export power to the grid while heat generated is used to raise the temperature of the mesophilic digesters. Engine generators include all heat recovery, crankcase breathers, turbochargers, synchronizing gear and HMI controls. Manure from 200,000 pigs is collected and digested in two (2), 11 million gallon, heated and mixed anaerobic digesters to produce biogas, which is scrubbed, cleaned and pressurized ahead of the reciprocating engines.

#### **Project Details**

Owner: Blue Mountain Energy Recovery Reference: Kevin Allcott | 801.232.6561

Types: Mesophilic Anaerobic Digesters

Location: Milford, UT

Timeline: December 2010 - March 2012

Cost: \$18M Size: 3.2 MW

800 KG/Day

2 x 11M Gallon Digesters

- 36 Miles of Collection Lines
- 10 Pump Stations
- 2 x 800K Gallons EQ Basins
- 11M Covered, Mixed, and Heated Lagoon/Digesters
- Daily Energy Production 450 Dekatherms/day
- H2S Recovered
- Two (2) 1.6 MW Engine Generators









# **Fair Oaks Fertilizer Plant & Cake Recovery Facility**

Resource Recovery



## **Project Details**

Contractor: Alder Construction Company | Manure Systems

Reference: Eric Alder | 801.266.8856

Location: Fair Oaks, Indiana

Timeline: 2015 - 2016

Cost: \$18M

Size: 200 Ton/Day Fertilizer Output

- 100 Ton/Day Dairy Digester Cake
- 100 Ton/Day and Various Minerals
- Rotary Drum Drying and Prilling for spreadable product
- Large Storage and Dust Feed used products and focused specialty fertilizers









# **Springville City**

Wastewater Treatment Facility - Multiple Projects





Client: Springville City

Reference: Jake Nostrom | 801.830.5027

801.489.2745

Location: Springville, UT

Dates: 1983 - Present (10 Projects)

Capacity: 6 MGD

Cost: \$20 Million, including all engineering, design and

construction

#### **Features**

- Master Planning
- Funding Assistance
- Design
- Pre-Purchase of Major Equipment
- Bidding Services
- Construction Management
- SCADA/Telemetry
- Start-Up Services
- Fixed-Film and IFAS Processes
- Clarifiers
- Headworks
- Anaerobic Digestion
- BioSolids Thickening, Dewatering, Composting
- UV Disinfection







# **Additional Anaerobic Digestion Projects**

South Davis Sewer District, Utah – North Plant(12 mgd) and South Plant(4 mgd). Currently in design for an upgrade to both plants, and also in early 1990's for a complete upgrade to both plants.

#### Rexburg, Idaho (3.5 mgd) - 2018

Conversion of aerobic digestion to anaerobic digestion including a sludge pasteurization process.

#### Western Riverside, California (20 mgd) 2018

Conversion from aerobic digestion to anaerobic digestion including greenhouse solar biosolids drying.

#### Provo, Utah (18 mgd) 2011

Upgraded existing digesters with new linear motion mixers and lids.

#### Orem City, Utah (15 mgd) 2010

In 2010 adding thermophilic digestion, and in 1985 a complete upgrade.

#### Spanish Fork, Utah (6 mgd), 2009

Added another digester and upgraded existing

# **Dairy Project Experience**

#### Cache Valley, Idaho, Bioenergy Project, 2014 (4000 cows)

Designed a new manure collection, pretreatment, digestion, and fertilizer development system for a group of dairies just across the border into Idaho in the Cache Valley area. Estimated cost with engine generators to export power, was around \$15 million. The project did not get funded.

#### Carghill Digester Purchase at the Bettencourt B6 Dairy, Jerome, Idaho, 2015 (8,000 cows)

Designed an upgrade to the process to bring in more dairies and to convert to gas offtake from power generation. On the day of purchase, the dairy owner exercised his purchase rights and bought the project away from our group.

#### Fair Oaks Central Dairy Digestate Treatment System, 2015 (20,000 cows)

Designed a system to separate the solids in the digestate of an AD system at the Fair Oaks Central Dairy. Was based upon the Trident system using a DAF and MD presses.

#### Double A Dairy, Jerome Idaho (20,000 cows)

In design on a fiber recovery for bedding, and a solids separation on an existing digester system.

#### **Lost Creek Dairy, Colorado. (6,000 cows)**

In design on a new AD system to export gas and to recover solids / nutrients for offtake.

#### **Prospect Valley Dairy, Colorado (5,000 cows)**

In design on a new AD system to export gas and to recover solids / nutrients for offtake.

# PROJECT TEAM | KEY PERSONNEL

#### YOUR TEAM OF EXPERTS

The success of this project lies in the skill and capability of the project team. We have structured our team to include experts who have completed successful resource recovery projects and developed alternatives for communities like yours.

Our team is committed to providing quality services to our clients and communities. We approach each project by following a refined yet adaptive process that helps us fully understand the interests of our clients, identify potential opportunities, and dedicate the resources necessary for making the greatest impact for your investment



# L. Scott Rogers, P.E. | Principal

Contact: scott.rogers@aquaeng.com | 801.450.2151 Education: B.S. Civil Engineering, Brigham Young University

M.E. Civil Engineering, Brigham Young University

Licenses: Professional Engineer

Mr. Rogers is the founding partner of AQUA Engineering. He has been heavily involved in developing resource recovery projects and investigating innovative waste to energy technologies for both municipal and agricultural installations. He has over 38 years of experience as a civil engineer, primarily in water and wastewater treatment and most recently in resource recovery. He has been involved in the analysis, design, upgrade or operations of hundreds of treatment facilities. He is known for his ability to improve and upgrade water and wastewater systems innovatively that result in lowered capital and operational costs. Mr. Roger's expertise is in operations consulting, water reuse, instrumentation design, pumping systems, biosolids reuse and disposal and renewable energy. He was the project engineer for the first MBR facility in Utah, an ACEC Grand Award winner for Water and Wastewater. Because of his outstanding reputation, Scott regularly consults for local and international firms and projects.



# **Brad Rasmussen, P.E.** | **Principal**

Contact: brad.rasmussen@aquaeng.com | 801.450.2150

Education: B.S. Computer Drafting Design, Southern Utah University

M.S. Civil Engineering, University of Utah

Licenses: Professional Engineer | UT, NV, CO, MT, IN

Mr. Rasmussen, a Principal at AQUA Engineering, has more than 32 years engineering experience, with the majority spent in the design and project management of wastewater treatment facilities for municipalities and industry. Brad has an extensive computer background, modeling water quality in water distribution systems, sewer system modeling, water quality modeling, and process modeling. He is experienced working with regulators, communities and industrial sectors to coordinate project issues. Brad has done extensive facility planning, facility design and is established as an expert in discharge permit negotiations for numerous facilities.



## **Bob Frachetti, P.E.** | **Principal**

Contact: bob.frachetti@aquaeng.com | 303.995.7800

Education: B.S. Civil and Environmental Engineering Clarkson University Potsdam, New York

Licenses: Professional Engineer | CO

Bob has over 31 years of project management and technical experience in virtually all areas of water and wastewater engineering including facilities planning, permitting, design, construction, facility commissioning, performance evaluations, and energy efficiency audits. His strengths include process modeling and design, technology and equipment selection, detailed design engineering, energy efficiency upgrades, hydraulics, and construction engineering and management. He also has significant experience with integrated project delivery methods including design-build, CMAR, and performance contracting.



# Justin Logan, P.E. | Principal

Contact: justin.logan@aquaeng.com | 801.694.4604

Education: B.S. Civil & Environmental Engineering, Brigham Young University

M.S. Civil & Environmental Engineering, Brigham Young University

Licenses: Professional Engineer | UT, NV, AZ, CA, NM, HI, ID, CO

Mr. Logan is a Vice President and Principal at AQUA Engineering. Justin leads AQUA's efforts in water and wastewater treatment. He focuses on treatment facility planning, design and construction projects, with emphasis on providing clients effective and affordable solutions to their individual challenges. Justin has worked on more than 50 treatment facilities, developing his extensive experience with a variety of processes and equipment. His responsibilities include project master planning, facility evaluations, process development, design layout, plant configuration, design efficiency and construction drawing development of water and wastewater treatment facilities.



Darin Hawkes, P.E. | Principal

Contact: darin.hawkes@aquaeng.com | 801.450.7592

Education: B.S. Civil Engineering, University of Utah

Licenses: Professional Engineer | UT, CO

Mr. Hawkes' has a vast amount of experience in various civil engineering disciplines. He specializes in difficult projects that often have space, access and/or extreme time constraints. He has developed a reputation for being able to view a problem from multiple angles to develop a solution that works for his client. His experience ranges from pumping system design, concrete storage tanks and open reservoir design, to large concrete water storage facilities and high elevation snowmaking reservoirs and dams. Many of his projects are provide as turn-key solutions for his clients with his direct involvement from conceptual design through contract administration and project close-out. As part of the AQUA team, he has lead and assisted in the completion of several System Capacity Analyses, Municipal Capital Facility Plans and large-scale Master Plans for both culinary water and wastewater.



## **Boris Petkovic, P.E.** | **Principal**

Contact: Boris.Petkovic@aquaeng.com | 801.386.1502

Education: B.S. Civil & Environmental Engineering, University of Utah

M.S. Civil & Environmental Engineering, University of Utah

Licenses: Professional Engineer | UT

Mr. Petkovic has nearly a decade of experience in water resources and wastewater engineering with a focus on wastewater treatment facility design. Boris has established a reputation for his extensive expertise in designing headworks, clarification/sedimentation facilities, biological reactors, tertiary treatment processes, disinfection facilities and biosolids stabilization and handling facilities. Boris has a background in modeling wastewater systems, including mass balance and hydraulic profile modeling and calculations. He also has completed several storm water, culinary water, and wastewater master plans and studies.



# Nate Talbot, P.E. | Project Engineer

Contact: nate.talbot@aquaeng.com | 801.299.1327

Education: B.S. Civil & Environmental Engineering, University of Utah

M.S. Civil Engineering, University of Utah

Licenses: Professional Engineer | UT, IN

Mr. Talbot started his engineering career with AQUA Engineering in March of 2008. His emphasis in engineering experience focuses on renewable energy, resource recovery, anaerobic digestion, water and wastewater treatment, nutrient recovery, and solids handling. Nate Is experienced with process design engineering, mechanical installation, and hydraulic modeling. His recent renewable energy projects Involve extensive anaerobic digestion modeling, combined heat and power design and implementation, resource recovery design, product handling, energy recovery, nutrient management, waste collection and conditioning, digester mixing, biogas conditioning, facility operations, and maintenance planning.



Nick Graue, P.E. | Project Engineer

Contact: nick.graue@aquaeng.com | 801.299.1327 Education: B.S. Civil Engineering, University of Utah

Licenses: Professional Engineer | UT

Mr. Graue is an intensely ambitious Professional Engineer and Project Manager backed by over a decade of experience in the Water and Energy sectors with a proven track record of successful project delivery and program implementation. Nick's deep passion for natural resource conservation has steered him to managing engineering projects where technology can be leveraged to achieve a more sustainable infrastructure. Nick's work experience involves the entire life cycle of engineering projects, from capital planning and feasibility analyses and engineering design to contract administration, construction management, facility commissioning and operations consulting



## Naho Garvin, P.E. | Project Engineer

Contact: naho.garvin@aquaeng.com | 801.299.1327 Education: B.S. Civil Engineering, University of Utah

Licenses: Professional Engineer | UT

Ms. Garvin joined AQUA in 2012 with a background in civil/environmental engineering. Her experience with AQUA includes feasibility studies for both municipal and industrial wastewater treatment upgrades, local limit and pretreatment evaluations and document developments, and pretreatment designs for local industrial wastewater. Her responsibilities include facility planning, development of processes, plant configuration, process layout, and construction drawing development. She is also tasked with specifying, procuring, and expediting major owner furnished equipment. She currently is tasked with responsibilities on several major projects including the Provo City, UT headworks HVAC project, Wasatch Resource Recovery Project, and several projects with local industries.



# Craig Matsuda, P.E. | Project Engineer

Contact: craig.matsuda@aquaeng.com | 720.667.1250

Education: Master of Science, Environmental Engineering, Colorado School of Mines

Bachelor of Science, Environmental Engineering, Colorado School of Mines

Licenses: Professional Engineer | CO

Craig has 12 years of project management and technical experience in water and wastewater engineering including facilities planning, permitting, sanitary collection system and lift station modeling and design, water conveyance modeling and design, facility design, construction, capacity and performance evaluations, rate studies, and State and Federal grant and loan funding. His strengths include hydraulics and process engineering. Craig's responsibilities include project management, facility evaluations, master and utility planning, engineering reports, process design and equipment layouts, design efficiency, and construction drawing and specification development of water and wastewater conveyance and treatment facilities.



# Cody Vavra, P.E. | Project Engineer

Contact: cody.vavra@aquaeng.com | 720.667.1250 Education: BS Chemical Engineering, University of Nebraska

Licenses: Professional Engineer | UT

Mr. Vavra recently joined AQUA in our Colorado office and contributes to the team with his knowledge of chemical engineering as a process engineer. His experience includes process computer simulation, pump and pipe hydraulics, equipment sizing, solids processing equipment, renewable fuels, biochemistry, mass and energy transfer, physical and chemical separations, thermodynamics, and reaction kinetics.



# **Kenneth Baetz** | **CADD Manager**

Contact: kenneth.baetz@aquaeng.com | 801.299.1327

Education: Phoenix Institute of Technology (Phoenix, AZ), Architectural Drafting and

Computer Drafting

Glendale Community College (Glendale, AZ),

Computer Drafting Design, Salt Lake Community College (Salt Lake City, UT),

Computer Drafting Design

Mr. Baetz has over 28 years of experience in the design and drafting of wastewater treatment facilities, roadways, site grading, HVAC, and subdivision development. He has designed HVAC and pipe routing under flooring systems, programmed and maintained network and support of computer stations, designed schematics of power supply for the Cable TV industry and air delivery systems for commercial businesses. He has been employed as a senior designer/drafter with AQUA Engineering. Previously he worked for Daw Technologies, Salt Lake City, Utah as an Industrial Designer; Cambric, Inc., Draper, Utah, as a senior drafter; Dumbauld and Associates, Phoenix, Arizona, as a drafter and supervisor.



Cody Lister | CADD

Contact: Cody.Lister@aguaeng.com | 801.299.1327

Education: Dixie College, UT – Architectur801.299.1327d Surveying

ITT Technical Institute, AAS, Computer Aided Drafting Technology

Mr. Lister has an extensive background in construction, including framing, structural concrete, and surveying. His civil design experience is broad based with many projects in water/wastewater and municipal solids handling systems. Water system design projects include wells, booster pump stations, and distribution systems. His experience in wastewater treatment includes all aspects of design for Membrane Bioreactor (MBR), bio-solids, dewatering systems, clarifiers, aeration systems, dissolved air flotation systems, lift stations, and process piping. He has also participated in numerous designs for landfill covers and composting operations.



Mike Fallentine, P.E. | Construction Manager

Contact: Mike.Fallentine@aquaeng.com | 801.520.6800

Mr. Fallentine has over 32 years of experience in industrial construction primarily as a project manager or superintendent on water and wastewater treatment projects. He also has extensive experience in water, chemical and refinery plant projects and heavy highway construction. Mike is an expert with construction path phasing, materials and equipment specifications, contract documents and contract administration. He oversees all financial aspects including project cash flow projections. He conducts regular coordination/progress meetings and shop drawing reviews, processes change orders, develops record drawings, observes construction techniques, oversees quality control and special inspections and enforces contract specification compliance. Mike is known for completing projects on time and within budget.



## **Kevin Allcott, P.E.** | **Construction Manager**

Contact: kevin.allcott@aquaeng.com | 801.232.6561

Education: B.S. Construction Management, Boise State University

Mr. Allcott has over 40 years experience in the construction industry, providing consulting services on numerous large projects for companies including Morrison Knudsen, J.A. Jones Company, Anheuser-Busch Companies, TRW, Southwestern Bell and Honda Motors. His consulting work has included trouble shooting, scheduling, contract dispute resolution and performance measurement systems implementation on projects ranging in value from \$2.5 to \$350 million. Mr. Allcott has developed sophisticated computer models of complex construction projects for use in project management as well as recovery plans. These models have also been used to determine cause and affect relationships between changes and increased costs. He has assisted in the defense of claims for additional compensation on several multi-million dollar constructions projects. Before starting his own company, Mr. Allcott worked for four years with Morrison-Knudsen Company in Boise, Idaho. He was responsible for proposal support, field project support, cost performance analysis and change order preparation and negotiations.



Mark Jeppsen, P.E. | Principal (SKM)

Contact: mark.jeppsen@skmeng.com | 801.694.4529 Education: BS Electrical Engineering, University of Utah

Licenses: Professional Engineer | UT

Mr. Jeppsen is an electrical, instrumentation and controls engineer with 21 years of experience in power design, controls engineering, process and instrumentation design, industrial network design, construction oversight, radio and telemetry systems, SCADA system design and integration and PLC and HMI design and integration. He has designed and integrated multiple potable water, secondary water, water treatment, wastewater collection and wastewater treatment systems. Design tasks include facility power, motor power and control, SCADA systems, instrumentation selection and control, process and instrumentation diagrams, communications networks and systems, control loop diagrams and descriptions. Integration tasks include control and PLC panel design and construction, PLC, OIT and HMI programming and commissioning, radio system integration and testing, instrument calibration, automated reporting systems and operator training and documentation



Mark Taylor, P.E. | Principal (SKM)

Contact: mark.taylor@skmeng.com | 801.694.2599

Education: BS Electronnics Engineering Technology, Weber State University

Licenses: E.I.T.

Mr. Taylor is a programmer and field technician with experience in control systems design and integration, as well as control systems maintenance and support. His experience includes source water, irrigation, water treatment, wastewater collection, and wastewater treatment. In each of these areas, he has been responsible for SCADA system programming, implementation, commissioning, and maintenance. Mr. Taylor has also been responsible for operator coordination and training for many of these projects. He has designed and installed new systems, replaced old systems, and expanded existing control systems. Mr. Taylor has worked with communications systems including radio, fiberoptic, ethernet, serial, and proprietary communications systems such as controlnet. He has conducted numerous path studies, for both licensed and non-licensed radio communications systems. He has installed radio telemetry systems with over 40 remote sites.



# Allen Rogers, P.E. | Principal (SKM)

Contact: alanar@aquaeng.com | 801.497.6847 Education: BS Electrical Engineering, University of Utah

Licenses: Professional Engineer | UT

Mr. Rogers is a programmer and designer with experience in electrical design, control systems, and Telemetry and SCADA systems. Mr. Rogers has assisted in the design, programming, startup and maintenance on several source water, water treatment, wastewater collection, and wastewater treatment projects. Mr. Rogers has experience with many different aspects of SCADA systems. He has worked with many different programmable logic controllers including Allen Bradley, Control Microsystems, and Modicon. He has used many different operator interfaces including Allen Bradley, C-More, and Maple. He has experience with GE Fanuc iFix (Intellution) HMI software. He has assisted in the design and installation of new systems, replacement of old systems, and expansion of existing systems. Mr. Rogers has worked with several different communication systems including radio, Ethernet, serial, and proprietary communication systems. Mr. Rogers has also assisted in several path studies using licensed and unlicensed radios.



# Ryan Pack, P.E. | Principal (SKM)

Contact: ryan.pack@skmeng.com | 801.599.4628

Education: BS Electrical Engineering, University of Utah | MBA , Weber State University

Licenses: Professional Engineer | UT, ID, NV, WY, CO, HI, NM

Mr. Pack has experience with many components of SCADA and controls. He has worked with controls as simple as relay logic and PID loop controllers thru complex radio controlled SCADA systems. He has worked with many different programmable logic controllers and Operator interfaces including Allen Bradley, Control Microsystems, GE, Koyo, Modicon, Siemens, and others. He has utilized many software packages for human machine interface including Allen Bradley, GE Proficy (Intellution), Wonderware, and National Instruments Lookout. He has designed and installed new systems, replaced old systems, and expanded existing control systems. Mr. Pack has worked with many communications systems including radio, fiberoptics, ethernet, serial, and proprietary communications systems such as controlnet and profibus. He has conducted numerous path studies, for both licensed and non-licensed radio communications systems. He has designed and installed radio telemetry systems with over 50 remote sites.



# **INNOVATIVE ENGINEERING SOLUTIONS**

#### **Office Locations & Contact Information:**

AQUA Engineering UT 533 W 2600 S, Suite 275 Bountiful, UT 84010 801,299,1327

AQUA Engineering CO 5325 S Valentia Way Greenwood, CO 80111 720.667.1250

aquaeng.com