EDUCATION

Associate Degree, Water Utilian ion; NMSU, DABCC, BS Civil Engineering, NMSU, MS Environmental Engineeri U: 36 credit-hours (course work complete); Thesis Remaining: (*Treatability of Neutralized, High-Energy Explosives in an Activated Sludge Wastewater Treatment Facility*)

LICENSES

Operator Certification: State of Hawaii - Distribution System Operator Grade 4; Wastewater Treatment Plant Operator Grade 4. State of New Mexico - Wastewater Systems 4, Water Systems 4, Compost Facility Operator

WORK EXPERIENCE

California Water Service Group

June 2008 - Present - Manager of Wastewater Systems - Responsible for design, compliance, and training for six (6) wastewater treatment systems owned and/or operated by Hawaii Water Service Corporation and four (4) on the mainland.

New Mexico Water Service Company (formerly Rio Grande Utility Corporation-RGUC)

July 1999 – June 2008 – Operations Manager – Responsible for operation of seven (7) water systems and two (2) wastewater treatment facilities. Duties include regulatory monitoring and reporting, process control and optimizing system operations, planning and budgeting, and personnel management.

Molzen-Corbin & Associates

May 1993 - July 1999 - Engineering Intern - Design water and wastewater systems; manage design projects from pre-design through construction phases; prepare water and wastewater facility master plans, preliminary engineering reports, and user rate studies; advise clients with State groundwater and Federal NPDES monitoring, compliance and permit applications.

October 1983 - May 1993 - Operations Specialist - Prepare O&M Manuals and maintenance management and record keeping systems; train operator of water and wastewater systems in facility operation and process control, laboratory testing, and equipment maintenance; establish industrial pretreatment programs for wastewater facilities

Doña Ana Branch Community College, NMSU, Water Technology Program

August 1990 – December 1991 – Part-Time Instructor – Teach water utility systems management, advanced math and system hydraulics

November 1981 – September 1983 Teaching Specialist – Provide on-the-job training for process control, maintenance, laboratory testing, and record keeping; bring municipal wastewater treatment facilities into compliance with NPDES permit requirements

Town of Bernalillo, New Mexico

October 1980 - October 1981 - 1 Wastewater Treatment Facility Superintendent - Responsible for facility operation, management, laboratory testing, and regulatory compliance; supervise municipal employees

AWARDS AND HONORS & PROFESSIONAL AFFILIATIONS

Chi Epsilon (Honorary Civil Engineering Fraternity)

NMSU, DABCC, Water Technology Program Advisory Board Lifetime Membership-New Mexico Water & Wastewater Association Board Member, State of Hawaii Board of Certification of Operating Personnel in Wastewater Treatment Facilities

RONALD G. HAY

General Skills in Water Resources:

years of experience in water and wastewater utility field with wastewater design, project management, State and Federal regulatory compliance, preparation of operation and maintenance manuals and facility process control systems, and preparation of facility and master plans and preliminary engineering reports. Background includes one (1) year as the superintendent of the wastewater treatment facility in Bernalillo, New Mexico; two (2) years as field instructor with NMSU, Doña Ana Branch Community College, Water Utility Technical Assistance Program; three semesters (1½ years) as a part-time instructor for the Water Technology Program at NMSU, DABCC concurrently during fifteen (15) years of employment with a respected engineering firm; and seven and one-half (7½) years as operations manager of seven (7) water systems and two (2) wastewater treatment facilities for New Mexico Water Service Company (formerly RGUC).

As Operations Manager for New Mexico Water Service Company (NMWSC), duties included responding to all permit and regulatory needs, including monitoring and reporting for both water and wastewater systems, and management of all system engineering projects.

As Manager of Wastewater Systems for California Water Service Company duties include process troubleshooting and operator training, regulatory compliance issues for both operators and wastewater treatment facilities, facility permitting, and engineering issues relating to facility evaluation, upgrade and design. Duties also include standardization of all facility procedures by preparation of a Quick Reference manual with valve and gate indices; standard, alternate, and emergency operating procedures; and standard preventive and corrective maintenance procedures.

LIST OF REPRESENTATIVE PROJECTS

Waikoloa Beach Resort Wastewater Reclamation Facility (HWSC) – Directed design of a 1,000,000 gallon per day Kubota Membrane Bioreactor treatment facility that can be easily doubled in capacity by common wall construction. The facility will produce R-1 effluent (equivalent to Title 22 of CA) that is used as irrigation water for a golf course.

Pukalani Wastewater Treatment Facility (HWSC) – Directed design of a 200,000 gallon per day Kubota Membrane Bioreactor treatment facility that can be easily doubled in capacity by installation of membrane cassettes only. The facility will produce R-1 effluent (equivalent to Title 22 of CA) that is used as irrigation water for a golf course.

Rio del Oro Wastewater Treatment Facility (NMWSC) – Directed conversion of a 100,000 gallon per day (gpd) extended aeration activated sludge treatment

facility to an award-winning 400,000 gpd Kubota Membrane Bioreactor treatment facility; directed design, submittal review, operations and process control, and facility start-up.

Wastewater Facility and Master Plans – Prepared comprehensive wastewater facility and master plans outlining the 20-year wastewater needs and funding required for the following New Mexico communities:

- Belen
- La Union
- Berino
- Doña Ana County

Anthony Wastewater Treatment Facility – Served as construction project manager for Anthony Water and Wastewater Sanitation District's Wastewater Treatment Facility; participated in facilities planning, pre-design, final design and managed startup of the wastewater facility; designed lift stations and collection system for Colonias areas of the water and sanitation district; and managed construction of these \$7.6-million-dollar projects that were completed over a seven-year period

Rio Grande Utility Corporation – Provided operational assistance and troubleshooting for wastewater system over a period of fifteen (15) years; provided final design of wastewater effluent reuse system for a 0.30 mgd activated sludge wastewater treatment facility as a member of a three-man report/design team.

City of Las Cruces, Wastewater Collection System - Prepared a wastewater collection system operation and maintenance (O&M) which included standard operating procedures for lift stations, high-pressure sewer cleaning equipment, and sewer line television inspection equipment, and also developed a computerized maintenance management system for work orders, purchase orders, inventory, and man-hours. The maintenance management system provided monitoring and record keeping for line cleaning, root control, roach control, and line and manhole construction and repair, as well as preventive and corrective maintenance for the facility's lift stations and mobile equipment.

Los Alamos National Laboratory – 0.60 mgd activated sludge facility with nitrification/denitrification with effluent reuse for power generation cooling towers – Prepare O&M Manual, startup training manual, process control and effluent monitoring record keeping system, and computerized maintenance management system for the wastewater treatment facilities as well as the collection system lift stations. Provide on-site operator training for process control, laboratory analysis, and administration and management, and preventive maintenance. Filmed and provided edited video tapes for documentation of equipment corrective and preventive maintenance.

Cal Compack Foods, Inc. (subsidiary of Hunt-Wesson Foods) - 0.25 mgd wastewater analysis for red chili processor - Performed industrial pretreatment study to determine the source of heavy metals and provide solution for source

reduction of metals or effluent pretreatment before discharge to the City of Las Cruces wastewater collection system.

City of Alamogordo, Wastewater Treatment Facility – 1.5 mgd activated sludge with effluent reuse and surface sludge disposal – Provided operator training and record keeping system for this newly renovated treatment facility; trained operators for compliance with NMED regulations regarding the effluent reuse for irrigation of a municipal golf course and ball fields.

Peña Blanca Water and Sanitation District – 150 unit septic tank system – Developed record keeping system to monitor the pumping of septic tanks and maintenance of septic system pumps and train the District's employees with use of the record keeping system. Also develop a Bid package for the District to rebid the contract for septic tank pumping services and system maintenance on a regular basis.

Village of Los Lunas and Village of Bosque Farms – Prepared and O&M Manual for the Villages water system to document the operation and preventive and corrective maintenance of the systems control valves, well and booster pumps, and tanks.

City of Las Cruces, Wastewater Treatment Facility - 8.9 mgd activated sludge with roughing filters, anaerobic digestion, and co-generation - Prepared facility O&M Manual, start-up training and services through the first year of operation of the newly constructed facilities.

City of Sunland Park, Wastewater Treatment Facility – 1.21 mgd extended aeration activated sludge with aerobic digestion – Prepared facility O&M Manual and performed start-up training and services through the first year of operation of the newly constructed facilities.

City of Española, Wastewater Treatment Facility – 1.01 mgd activated sludge with aerobic digestion – Prepared O&M manual, performed classroom and on-site start-up training, prepared operation and maintenance record keeping system, and performed the duties of Chief Operator during the initial nine weeks of operation of the new facility while instructing the facility personnel to optimize the facility operations.

City of Gallup, Wastewater Treatment Facility – 6.0 extended aeration activated sludge with pressure sand filter tertiary treatment – Performed a complete facility evaluation, including evaluation of the facility structures and equipment for current status; evaluated facility operations, maintenance, and laboratory procedures and record keeping systems; and gathered design criteria and data to be used for preparation of a facility plan. After design and construction, prepared O&M manual and provided on-site operator training for process control and use of the record keeping systems provided.

City of Socorro, Wastewater Treatment Facility – 1.0 mgd extended aeration activated sludge and tirkling filter with anaerobic digestion – Provided a facility evaluation including evaluation of the facility operations, maintenance, and laboratory procedures and record keeping systems.

Town of Bernalillo – 0.8 mgd extended aeration activated sludge – Performed administration and management, operations, laboratory analysis, personnel management, and maintenance duties as Chief Operator.