

SECTION 7.0 LIST OF PREPARERS

7.1 CDM TEAM MEMBERS

7.1.1 Thomas C. Esqueda, P.E., Associate, Project Manager

Mr. Esqueda has 16 years of experience in the wastewater and water fields. During his career, Mr. Esqueda has provided a full range of professional services, including pilot studies, facility planning, feasibility evaluations, detailed design, construction administration, facility startups, and O&M training. He has managed water and sewer planning, design, and construction projects for various large water and sewer utility systems across the nation.

7.1.2 K. Richard Tsang, P.E., Ph.D., DEE, Associate

Dr. Tsang's 16 years of engineering experience encompasses wastewater and water sludge handling and management, municipal and industrial wastewater treatment. He is experienced in the study, design, and construction of wastewater treatment and residuals processing facilities. He has conducted capacity evaluation for several wastewater treatment facilities, including facilities in Virginia, Tennessee, and North Carolina. Dr. Tsang specializes in wastewater and water sludge handling and treatment technologies, including sludge characterization, drying, dewatering, and stabilization. Various sludge stabilization processes he has evaluated include composting, aerobic and anaerobic digestion, as well as alkaline stabilization.

7.1.3 Kelly R. Boone, P.E., Project Engineer

Ms. Boone is an environmental engineer with 8 years of experience as a project engineer and project manager. Her experience includes design of sewer collection and water distribution systems, stream restoration, federal, state, and local regulatory compliance, Environmental Assessments, identifying and delineating wetlands, and assisting in the design of an extended detention stormwater wetland.

7.1.4 Kevin C. Irby, P.E., Project Engineer

Mr. Irby is a civil engineer with over 10 years of experience as a project manager/engineer. His responsibilities include design, analysis, and services during construction in all phases of wastewater and water infrastructure. His experience ranges from the development of wastewater and water master plans on a countywide

basis to the design and construction of specific treatment facilities. Mr. Irby also has experience in leading hydraulic software packages available to municipal water purveyors and has used the software for master planning and water quality (time of travel) modeling for several municipalities and government agencies.

7.1.5 Jonathan A. French, Ph.D., P.E., Associate

Dr. French is a specialist in hydraulics, as applied to rivers, estuaries, the coastal ocean, canals and culverts, wastewater and water treatment processes, and ocean outfall design. In his more than 35 years with CDM, he has directed or advised on siting, hydraulic design, dilution and dispersion studies, analysis of wave and current forces, structural design, and/or rehabilitation of ocean outfalls. He has specified riprap protection for many of CDM's nearshore wastewater plants and their outfalls to the sea, and even for the banks of large wastewater stabilization ponds.

7.1.6 Keith F. Williams, Project Engineer

Mr. Williams is an environmental engineer experienced with hazardous waste site assessment investigations and design support on water and wastewater projects, including pump stations, sewer flow monitoring, and water distribution system flushing programs. He has coordinated, supervised, and conducted site assessment investigations; characterized the extent of environmental contamination in groundwater, soil, and air; evaluated and selected remedial alternatives; implemented various remedial actions; and prepared reports to support environmental site investigations and remedial cleanup activities for regulatory compliance.

7.1.7 Lee C. Sherman, E.I., Project Engineer

Mr. Sherman is an environmental engineer experienced in water resources and environmental engineering, especially hydrology and water quality. He is also experienced with estimating wastewater flow, evaluating sewer system needs using modeling techniques, and was part of the project team for a sewer system benchmark study. Mr. Sherman is proficient in using several modeling programs such as HEC-HMS and HEC-RAS and GIS programs such as ArcView, ArcInfo, ArcGIS.

7.1.8 Katya A. Bilyk, P.E., Project Engineer

Ms. Bilyk is an environmental engineer with a variety of water and wastewater project experience. Her project experience includes water and wastewater treatment plant design, water and wastewater master planning, collection system capacity studies including SWMM sewer modeling, reclaimed water master planning and design,

biosolids marketing studies, water and sewer line design, analysis of pilot plant data, and watershed planning.

7.1.9 Jonathan B. Treadway, P.E., Project Engineer

Mr. Treadway is an environmental engineer with more than 7 years of experience in wastewater and water engineering. He has worked on projects encompassing water treatment, wastewater treatment process evaluation, wastewater solids management, and wastewater effluent reuse. Mr. Treadway worked on the project team preparing plans and specifications for the Cary/Apex WTP expansion and upgrade. He also worked on the project team that completed a feasibility study and facility plan for a biosolids dewatering and drying program to serve the Town of Cary's water reclamation facilities.

7.2 CH2M HILL TEAM MEMBERS

7.2.1 Ruth Swanek, Project Manager

Ms. Swanek has 17 years experience in the water quality management field. She has expertise in regulatory processes and has managed numerous environmental documents. Ms. Swanek has water quality modeling and monitoring expertise and is familiar with North Carolina's environmental regulations. Prior to joining CH2M HILL, Ms. Swanek served as North Carolina's TMDL coordinator.

7.2.2 Bill Kreutzberger, Senior Advisor

Mr. Kreutzberger is a principal water resources and water quality specialist in CH2M HILL's Southeast Region. He is actively involved with stormwater and watershed management programs throughout the eastern United States. He is actively involved in water quality and water resources issues as they affect local, state and federal clients. He has extensive experience in developing regulatory documents and permitting. Prior to joining CH2M HILL, Mr. Kreutzberger was employed with the North Carolina Department of Environment and Natural Resources where he was supervisor of the Raleigh Regional Office and was responsible for the water quality standards program and developed the state's first set of stormwater rules.

7.2.3 Jaime H. Robinson, Biologist

Ms. Robinson is a certified wetland delineator with vast experience conducting wetland delineations in the Piedmont and Coastal Plain regions of North Carolina. She has extensive experience preparing environmental assessments and environmental impact

statements focusing on secondary and cumulative impact analysis. Ms. Robinson is proficient in ArcGIS and applies it for regulatory assessment projects.

7.2.4 Scott Freeman, Ph.D., Biologist

Dr. Freeman is a biologist with 7 years experience in aquatic biology, amphibian ecology, and general field biology. His broad project experience includes biological water quality measures, state and federal environmental regulations, and stream restoration techniques. Dr. Freeman has been involved in the preparation of environmental assessments and environmental impact statements, water quality sampling, and wetlands delineation.

7.2.5 Adam Sharpe, Project Scientist

Mr. Sharpe is an environmental scientist with experience in watershed studies and GIS applications. Mr. Sharpe has been involved with the preparation of environmental assessments, stream restoration design and construction oversight, and water quality sampling.

7.3 HAZEN & SAWYER TEAM MEMBERS

7.3.1 Robert S. DiFiore, P.E., Vice President

Mr. DiFiore has over 33 years of experience in the environmental engineering field. During his career, Mr. DiFiore has provided a full range of professional services including studies, planning, design, and construction of wastewater, water, and solid waste facilities. As Hazen and Sawyer's Mid-Atlantic Regional Manager, he specializes in managing and directing water and wastewater facility projects performed in the Mid-Atlantic Region and has extensive background in wastewater process, plant operations, biosolids handling and odor control. Mr. DiFiore has served as Project Director or Project Manager on many of the Mid-Atlantic projects. Mr. DiFiore is a Grade IV wastewater treatment plant operator in North Carolina and has had extensive experience in operation and start-up of wastewater facilities. He frequently teaches at the state operators school at the advanced level and has given numerous technical papers related to nutrient removal and wastewater biosolids issues.

7.3.2 Robert A. Berndt, P.E., D.E.E., Senior Associate

Mr. Berndt has 30 years of environmental engineering experience and is a technical specialist in the design of water and wastewater treatment facilities, in operator training and preparation of operation and maintenance (O&M) manuals, and in the preparation

of environmental assessments (EAs) and environmental impact statements (EISs). He was responsible for the preparation of over thirty EAs and EISs for water and wastewater projects in North Carolina. Mr. Berndt was responsible for preparation of environmental assessments for several treatment plant expansion projects, as well as environmental assessments for wastewater collection system improvements projects. His experience also includes process evaluations of biological nutrient removal facilities. He has served as project engineer for environmental impact statements and wetlands mitigation evaluations for tow reservoir projects in North Carolina. Mr. Berndt has updated O&M manuals and completed studies for uprating the capacities of expanded plants. He has served as project engineer for projects including preparing operations manuals, conducting operator training workshops, conducting phosphorus removal and plant expansion studies, preparing a 201 Facilities Plan Amendment for nitrogen removal facilities and conducting a wastewater reuse study.

7.3.3 Ronald L. Taylor, P.E., Senior Associate

Mr. Taylor, with over 23 years of experience, has extensive experience in the planning and detailed design of water and wastewater treatment facilities and pumping systems, advanced wastewater nutrient removal systems, and sludge handling facilities, and in construction administration and supervision of these facilities. Mr. Taylor has managed preliminary engineering and design projects including biological nutrient removal, denitrification tertiary filters and UV disinfection. Projects include tertiary filters, influent pumping stations with capacities of 200 mgd, headworks, primary and secondary clarifiers, conversion of the two-stage activated sludge process to single-stage, evaluation and modifications to existing biological aerated flooded filters (BAFFs), anaerobic digestion upgrades, wet weather treatment facilities, nutrient removal facilities, conversion of a trickling filter secondary plant to an advanced tertiary treatment facility with 5-stage biological nutrient removal, and thermal sludge drying.

7.3.4 Robert Christopher Belk, P.E., Principal Engineer

Mr. Belk has over 8 years of experience in the planning and design of water and wastewater treatment facilities, including raw water pump stations, wastewater pump stations, water storage tanks, various chemical feed facilities, filtration systems, backwash systems, non-potable water systems, and bar screen and grit collection facilities. His experience includes the preparation of preliminary engineering reports, design memorandums, design drawings and specifications, and operation and maintenance manuals for these facilities. Mr. Belk has performed hydraulic analyses for new treatment plant processes and existing treatment plant expansions and upgrades.

Mr. Belk has also assisted in the preparation of environmental assessments (EAs) and environmental impact statements (EISs) for several water and wastewater projects in North Carolina.