UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
Florida Power & Light Company	)	Docket No. 50-250-LA
	)	50-251-LA
(Turkey Point Units 3 and 4)	)	
	)	ASLBP No. 15-935-02-LA-BD01

DECLARATION OF JIM M. BOLLETER

I, JIM M. BOLLETER, do hereby state as follows:

1. I am employed by Ecology and Environment, Inc. as Operations Manager. In this position, I am responsible for managing the Uprate Monitoring Program on behalf of Florida Power & Light Company. A statement of my professional qualifications is attached.

2. I am responsible for the paragraphs in the direct testimony on Contention 1 filed today that are marked with my initials.

3. I attest to the accuracy of those statements to the best of my knowledge, information, and belief, support them as my own, and endorse their introduction into the record of this proceeding.

4. I declare under penalty of perjury that the foregoing is true and correct. Executed on November 10, 2015.

Executed in Accord with 10 CFR 2.304(d)

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Jim M. Bolleter
Ecology and Environment, Inc.
12300 South Shore Boulevard, Suite 222
Wellington, FL 33414

As technical operations manager of E & E's West Palm Beach office, Mr. Bolleter provides leadership and management of water resource and coastal environment scientists and planners. He offers over 30 years' experience in a wide variety of environmental, coastal, water resource projects, including watershed and waterfront planning and design; water and wastewater system studies and design; environmental impact assessment; water quality and wetland restoration; environmental monitoring, permitting, and compliance; and contamination site assessment and remediation. Mr. Bolleter has managed multidisciplinary environmental projects with construction costs in excess of $1 billion. He has successfully managed projects in the water resource, ecosystem restoration, power, alternative energy, oil and gas, hazardous waste, and land development market sectors.

Mr. Bolleter brings vast experiences in Florida as well as throughout the United States and internationally. Since many of his projects have been conducted in sensitive environments, he has a strong understanding of the interaction between the built and natural environment.

EDUCATION

M.S., Civil Engineering, Texas A&M University

B.S., Ocean Engineering, Texas A&M University

CERTIFICATIONS

Licensed Professional Engineer, States of Alabama, Florida, Kentucky, Louisiana, Michigan, Mississippi, North and South Carolina, Puerto Rico and Tennessee

Registered Professional Engineer, State of Georgia

Loxahatchee Watershed Restoration Study, Florida. Mr. Bolleter directed E & E's efforts associated with a major watershed feasibility study conducted for the South Florida Water Management District (SFWMD) as part of the Comprehensive Everglades Restoration Plan (CERP). Mr. Bolleter led the multidisciplinary team in the development and evaluation of measures to improve reduction of peak flows to the estuaries; provide base flows to a designated Wild and Scenic River; restore wetlands; increase hydrologic and natural area connectivity; reduce flood damage; and provide public water supply over a 700-square-mile area in northern Palm Beach County and southern Martin County. This was one of the more complex CERP projects due the directivity of goals and project features. Mr. Bolleter and his team, in conjunction with SFWMD and staff of the USACE Jacksonville District, addressed all phases of the six-step USACE planning process. The work effort followed USACE planning guidelines, CERP programmatic regulations, and CERP guidance memoranda and includes watershed and ecological studies, hydrology and hydraulic analysis, flood damage reduction assessment, water quality evaluations, engineering analysis, cost estimating and socioeconomic analysis. Mr. Bolleter was actively involved with stakeholder coordination and consensus building among over 40 stakeholders including the USFWS and the Florida Department of Environmental Protection (FDEP).

The numerous models used for the project included the Lower East Coast Sub-regional LECsR Model, a sub-regional integrated groundwater and surface water model to assess storage requirements, conveyance options, and control structure requirements. Other tools included WAM, a water quality model to assess pollutant load or nutrient concentrations from each basin and potential impact on receiving water bodies; several hydrodynamic/water quality models to assess the impact of freshwater flows on salinity or nutrients in Lake Worth Lagoon or the Loxahatchee Estuary; RMA2/RMA4 to assess the fate of nutrients in Grassy Water Preserve; kNC* for preliminarily assessment of STA size; and HEC-RAS to evaluate level of flood protection associated with various alternatives. Mr. Bolleter oversaw the application and interpretation of all these models and led efforts to identify data and design input for all alternatives and post-processing requirements.

North Springs Improvement District Water Storage Feasibility Analysis, Broward County, Florida. As program manager for E & E's multiyear scientific and engineering support program for SFWMD, Mr. Bolleter

directed and provided QA for E & E's planning-level feasibility analysis regarding flood protection, storage, and canal conveyance capacity in the North Springs Improvement District (NSID) and the impact of increased discharges on L-36 and the Hillsboro Canal. The project objective was to see if stormwater being routed to the Everglades Protection Area could, instead, be stored within the NSID and then discharged to L-36 and subsequently to the Hillsboro Canal. As project manager, Mr. Bolleter oversaw the analysis of flood protection in the NSID, with consideration for reservoir storage options and impacts on the Hillsboro canal as a result of various structural and operational management measures.

SFWMD Ecological Monitoring/Assessment Program, Southern Florida. Under this multimillion-dollar program for SFWMD, Mr. Bolleter was responsible for assigning project managers, providing principal-level technical support, providing QA/QC for deliverables, and ensuring the work was conducted on time and within budget. He oversaw work related to water quality and ecological monitoring in Lake Okeechobee, exotic vegetation monitoring in Water Conservation Areas 2 and 3, plant physiology and landscape change studies at tree islands in the Everglades, and nutrient recycling in Stormwater Treatment Area 1.

Lower West Coast Water Supply Model, Florida. For SFWMD, Mr. Bolleter directed E & E's development and calibration of the Lower West Coast Surficial Aquifer System Model, which is used by SFWMD to support water supply planning for the entire lower west coast of Florida. Mr. Bolleter provided QA/QC and ensured that E & E's technical resources were available as needed for this successfully completed project.

Wastewater Reuse Feasibility Study, Dade County, Florida. Mr. Bolleter managed E & E's high-profile wastewater reuse feasibility study for the Miami-Dade Water and Sewer Department (MDWASD). He led the assessment of baseline conditions and identified constraints and opportunities for the reuse of 90 to 300 million gpd of treated wastewater in a sensitive environmental setting. Mr. Bolleter and his team identified and evaluated wastewater reuse options including public access irrigation, industrial reuse, aquifer (direct and indirect) and wetland recharge, and salt water intrusion barriers. He identified specific reuse projects including those that could serve as alternative water supply options and offset future water demands from the Biscayne Aquifer. His team developed low, medium, and high reuse scenarios; established treatment and conveyance requirements; and determined associated costs. Mr. Bolleter worked closely with MDWASD as well as the regulatory agencies to ensure that the concerns of all parties were addressed in the study. He provided pilot study recommendations and supported MDWASD during public meetings and agency coordination meetings and workshops. The project won a 2008 Diamond Award for Engineering Excellence, which is highest engineering/planning award of the American Council of Engineering Companies.

Mr. Bolleter also conducted a high-level assessment of alternative water supplies. The assessment included alternatives to withdraw water from the poorer quality Floridan aquifer, blend water from the Biscayne and Floridan aquifers, install desalinization plants, and implement inter-basin water transfers..

Countywide Groundwater, Surface Water, and Soil Remediation Program, Dade County, Florida. For the Miami-Dade County Department of Environmental Resource Management, Mr. Bolleter was E & E's senior project director for a multiyear, multitask contract encompassing a variety of environmental and design services primarily related to groundwater and surface water site assessment and remediation. He oversaw E & E teams working at over 30 sites for various county departments including MDWASD, the Miami-Dade County Aviation Department (MDAD), and the Miami-Dade County Parks and Recreation Department. The work locations included numerous sites at Miami International Airport, as well as Tamiami, Homestead, and Opa Locka

Airports; various parks throughout the county; and at several county-owned or controlled properties including the Northwest Well Field.

Miami International Airport (MIA), Florida. E & E has been involved with MIA NPDES compliance monitoring since the early 1990s, both as a prime contractor and as a subcontractor. Under two separate prime contracts with MDAD, Mr. Bolleter was in charge of E & E's stormwater compliance and environmental construction oversight at MIA. The second of these contracts was through the Equitable Distribution Program and involved the environmental oversight of new construction which included subsurface excavation for utilities including drainage pipes. Mr. Bolleter oversaw field personnel who monitored construction activities for environmental compliance and proper handling of contaminated materials. Mr. Bolleter also provided QA/QC reviews for all deliverables associated with both contracts. Under a subsequent, current subcontract with Milian Swain and Associates, he is E & E's program manager for stormwater sampling and reporting to help the airport meet its stormwater discharge permit requirements. Under that same contract, he conducted an assessment of stormwater quality and prepared a Revised Stormwater Monitoring Plan that addressed logistical constraints and allowed MIA to analyze for a more focused set of water quality parameters.

Statewide Assessment/Remediation Programs, South Carolina. Mr. Bolleter has been the lead South Carolina Professional Engineer for remedial investigation/feasibility studies (RI/FSs) under E & E's successive multisite, multiyear programs for the South Carolina Department of Health and Environmental Control (SCDHEC). For sites contaminated with dry-cleaning solvents and other hazardous waste, the program scopes of work (SOWs) include RI/FSs to characterize the extent of site contaminants and evaluate remedial alternatives; ecological and risk assessments; and screening of remedial alternatives on the basis of cost, reliability, constructability, risk reduction, human health/environmental effects, and implementation time. For multiple dry-cleaning sites, Mr. Bolleter led the FSs and the preparation/review of remedial action plans for source removal and soil and groundwater treatment systems.

Turkey Point Nuclear Power Plant Units 3 & 4 Uprate Monitoring, Florida. Mr. Bolleter directed E & E's preparation and implementation of an extensive water quality, hydrogeologic, and ecological monitoring plan to assist Florida Power and Light in complying with discharge and monitoring requirements for a planned uprate at this facility. The purpose of the monitoring effort is to establish baseline conditions for groundwater, surface water, and the surrounding ecosystem in the vicinity of the nuclear plant; and to determine if there are impacts from the facility's hypersaline, closed cooling canal system. The monitoring plan is particularly complex because the project area includes regionally unique geologic conditions and preexisting saline conditions in the groundwater. Also both marine and freshwater ecosystems and adjacent federally protected lands and waters are within the project area, necessitating close coordination with federal, State, and local agencies.

Turkey Point Nuclear Power Plant Units 6 & 7 Technical Support, Florida. Mr. Bolleter assisted Florida Power & Light respond to questions from the regulatory agencies as part of the certification of two new nuclear units. Specifically Mr. Bolleter addressed questions related to the findings associated with the groundwater and surface water monitoring and the cooling canal system conducted as part of Unit 3 & 4 Uprate Project. Also he oversaw an evaluation of the interceptor ditch pumping and addressed questions related to the effect of this pumping on water quality in the interceptor ditch.

Solar Photovoltaic (PV) Facility at Kennedy Space Center, Florida. For Florida Power and Light, Mr. Bolleter managed E & E's preparation of an EA addressing the construction of the first large-scale solar PV energy facility to be proposed in Florida. The EA, which addressed two alternative sites each for a 10-MW and a

2-MW solar facility, was prepared in accordance with NEPA and NASA requirements and required his close coordination with state and local regulatory agencies, including USFWS. To meet the client's highly aggressive schedule, Mr. Bolleter led E & E's completion of the entire project—from kick-off to publication of the Finding of No Significant Impact (FONSI)—in six months. By June 2009, construction was underway and the PV facilities were commissioned on April 10, 2010.

Nam Sang Wai and Wo Shang Wai Wetlands, Hong Kong. For Henderson Land Development Company, Mr. Bolleter addressed wetland-related issues for two major developments that are located adjacent to an internationally significant RAMSAR wetland. For Nam Sang Wai, the client retained E & E to assist when the project became deadlocked with regulatory agencies over environmental issues. Mr. Bolleter and his E & E team of biologists and planners developed and implemented an approach that included collecting additional field data and interpreting time-series aerial photographs to assess baseline conditions and predict future conditions. He interacted extensively with stakeholders and government officials and helped inform the regulatory community about wetland functionality and mitigation—concepts not well known in Hong Kong. He oversaw the collection of avian, terrestrial invertebrate, mammal, herpetofauna, fish abundance, aquatic macroinvertebrate, and water quality data. His team evaluated field results, conducted a geographic information system analysis of aerial photographs, and prepared technical reports addressing agency concerns and providing comments on a wetland mitigation pilot plan. Mr. Bolleter also led efforts to develop a wetland functionality tool patterned after Florida's Uniform Mitigation Assessment Method but with greater emphasis on birds and bird habitat. He interacted with government officials, nongovernmental organizations, and university staff to gain input and support for the project and facilitated educational efforts for the environmental reviewing agency.

For Wo Sang Wai, Mr. Bolleter also introduced the concept of wetland functionality and wetland mitigation and developed wetland functionality scores and mitigation needs. He conducted a peer review and provided comments on the comprehensive environmental sections of the environmental impact assessment prepared by others and led technical efforts to respond to agency comments on the wetland mitigation pilot plan.

Tai Lake Water Quality Evaluation, Jiangsu Province, China. Mr. Bolleter provided technical support to the China Development Bank for the assessment of baseline conditions and development of alternatives to improve water quality in Tai Lake, which has a surface area greater than 900 square miles and provides water to over 37 million residents. The primary problem was eutrophication due to excessive nutrient input from both point and nonpoint discharges. Mr. Bolleter and the rest of the technical team met with local entities and identified projects, provided recommendations to reduce nutrient loads, and helped establish priorities for implementation.

Naval Air Station (NAS) Key West, Florida. Mr. Bolleter managed E & E's assessment of the facility's deteriorating stormwater drainage system at NAS Key West and the extent of mangrove encroachment on the airfield, on behalf of the Navy's Southern Division. Both issues were causing safety concerns and remedial measures for the stormwater system required extensive removal of mangroves, which also are habitat to the Lowe Keys marsh rabbit, a listed threatened and endangered (T/E) species—prompting the need for an EIS. Mr. Bolleter oversaw preparation of the EIS, as well as the preliminary Clean Water Act Section 404 permit application, and participated in negotiations with FDEP and USFWS. He also managed the development of an inventory and evaluation of the drain system around the airfield and ranked the needed drainage improvements by priority. In addition, he worked closely with an E & E aquatic biologist to address issues related to essential fish habitat in the drainage canals.

Naval Station Mayport, Florida. For the Navy's Southern Division, Mr. Bolleter was E & E's project director for E & E's preparation of NEPA documentation and acquisition of state and federal permits for a major harbor expansion project for the second largest naval fleet on the Atlantic Coast. The project team included biologists, engineers, socioeconomists, risk assessors, and planners. Mr. Bolleter successfully addressed issues concerning impacts on water quality and T/E species, the dredging of 130,000 cubic yards of potentially contaminated sediment, and the filling of a tidal marsh. He saved the client millions of dollars by demonstrating a sediment disposal strategy that was commensurate with the risk of exposure. He also addressed water quality flushing issues using cost-effective techniques and avoided having to conduct expensive hydrodynamic modeling. The Navy gave E & E of commendation for completing the project under a very tight schedule.

Punta Pacifica, Panama. For ICA Panama, S.A., Mr. Bolleter was E & E project manager for the preparation of an EIA for a major development project that involved the creation of large islands in Panama Bay in the Republic of Panama. Mr. Bolleter managed the team of scientists, engineers and planners that evaluated alternatives, assessed impacts, recommended actions, and interfaced with the public. Major issues addressed in the EIA included the relocation of a disadvantaged fishing community, removal of contaminated sediment in the bay prior to island construction, and impacts of island creation on hydrological circulation. Mr. Bolleter directed the collection and analysis of multimedia samples, identification of contaminated media on upland property, and development of risk-based remedial measures.

Overstreet Mitigation Bank, Kissimmee, Florida. As E & E project engineer, he conducted site visits, developed restoration strategies, and prepared cost estimates to restore nearly 1,000 acres of wetlands that had been hydraulically altered for cattle grazing. He also reviewed options to optimize mitigation credits associated with the restoration of the wetlands and improvement of habitat for the sand hill crane.

Additional Water Resources/Wetlands

St. Andrew Bay Waste Load Allocation Study, Florida. Mr. Bolleter managed a multidisciplinary, year-long study to assess the carrying capacity of an entire estuary and to establish the discharge limits for a 40-mgd industrial/municipal wastewater facility. The study involved the use of tide gauges and current meters to collect real-time hydrologic data, evaluation/monitoring of seagrass beds and benthic organisms, determination/ estimation of point and nonpoint pollutant loads, and hydrodynamic and water quality modeling. Mr. Bolleter coordinated all team and outside consultant efforts. As part of the nonpoint loading evaluation, he identified drainage basins over several counties and developed a method to estimate nutrient inputs into the system.

Old Pass Lagoon Surface Water Restoration Project and Marina, Florida. He managed the design and construction of an 84-inch-diameter pipeline and intake structure to facilitate flushing in a highly developed lagoon by providing a direct connection with the Gulf of Mexico. Depending on tidal conditions, the system operated by head-induced flow or pumping. Mr. Bolleter's team prepared design plans and specifications, implemented the value engineering review, and oversaw construction under a tight time schedule and within budget. He obtained permits from USACE and FDEP and established a monitoring plan for turbidity and sea turtles.

Mr. Bolleter also managed the permitting, conceptual design, and construction oversight for the 66-slip Old Pass Lagoon Marina (one of the very few new or expanded marinas permitted in the project area). As part of the marina project, he addressed major issues including the relocation of a navigational channel and water quality.

Hurlburt Field Treatment Wetland, Florida. Mr. Bolleter managed the permitting, design, and preconstruction monitoring for an effluent disposal/receiving wetland project. He developed a baseline wetland monitoring plan to assess existing hydrology and biology of the wetland system; prepared an FDEP permit application for a receiving wetland, an environmental resource permit application, and a NPDES permit application; prepared plans and specifications for the effluent discharge structure; and developed a post-construction wetland monitoring plan.

Remote Sensing Studies, Texas. He participated in a remote sensing analysis for Galveston Island, evaluated cumulative impact factors of Galveston Island development, and participated in a wetland photographic analysis for the Chocolate Bay/Hills Bayou area.

Additional Waterfront Facility Design/Permitting

Brown Marine, Bayou Chico, Florida. For this marina and maintenance facility, Mr. Bolleter managed E & E's evaluation of sediment contamination issues and the acquisition of a dredge-and-fill permit for maintenance dredging. He developed best management practices for operations and stormwater runoff as part of the mitigation measures.

Additional E & E Modeling Support, California, Colorado, and Florida. Mr. Bolleter provided QA/QC reviews for water modeling of stormwater discharges at Los Angeles Air Force Base in California, as part of a project for the Air Force Institute for Environment, Safety, and Occupational Health Risk Analysis; and modeling of development impacts on the stormwater system at Fort Carson, Colorado, for the Army and Air Force Exchange Service. Another project included his review of input assumptions and output associated with the use of XPSWMM to assess the effects of various land use scenarios on stormwater quality in South Miami-Dade County, Florida. Mr. Bolleter also provided QA/QC support and a technical review of a report associated with the modeling of an industrial waste discharge in the ocean.

Mexico Beach Waterfront Park, Florida. For this waterfront park, Mr. Bolleter obtained State grant funds, developed a conceptual plan, developed cost estimates, obtained USACE and FDEP permits, and prepared design plans and specifications. The park included a nature trail, board walks, boat ramp, access road, bulkheads, restrooms, picnic areas, signage, and docking facilities. Mr. Bolleter also prepared design plans and obtained permits for the restoration of a jetty extending into the Gulf of Mexico/St. Joe Bay.

Gulf County Nature Park, Florida. For Gulf County, Mr. Bolleter developed a conceptual plan for a regional beachfront nature park with natural trails, educational signage, boardwalks made from recycled plastic, pervious roads, environmentally sensitive restroom facilities, and a playground. He obtained state and federal permits and prepared the park plans/specifications.

Swamphouse, Florida. For a private client, Mr. Bolleter provided permitting and design assistance for upgrades to a fish camp that included new docks, a boat ramp, boardwalks, and other supporting public use facilities. In addition to obtaining permits for the upgraded facilities from FDEP and the USACE, he had to resolve historical compliance violations related to stormwater and wetland filling activities. At project completion, the facility was in full compliance and a long-term maintenance dredging permit was in place.

Patti Shipyard, Bayou Chico, Florida. Mr. Bolleter managed the sediment quality evaluation and permit acquisition for the expansion of this shipyard basin. Because of concern for bayou water quality, all permit

applications received extensive scrutiny. Mr. Bolleter successfully resolved all technical and regulatory issues and obtained the permit.

Milton Riverwalk, Florida. He was project engineer for the design and permitting of a large boardwalk intended to be the centerpiece of a downtown redevelopment project. He designed shoreline protection measures, obtained permits, and acquired a variance for state lands.

Ocklockonee Bay Bridge, Florida. For this bridge design/build project for the Florida Department of Transportation (FDOT), Mr. Bolleter was project engineer in charge of the roadway approach design and permitting of the approaches and bridge. He addressed wetland, seagrass, and water quality issues as part of the design and permitting efforts. In an accelerated effort to support FDOT needs, he obtained state and federal permits in half the time normally required. He also prepared a bridge hydraulics report and designed protection for the bridge abutments.

St. Andrew Bay Bridge, Florida. He managed the planning, conceptual design, and environmental evaluation for roadway approaches and a $100-million bridge across St Andrew Bay. His team identified alternative transportation routes in environmentally sensitive areas with extensive wetlands and seagrasses. He led public meetings and interacted extensively with county commissioners throughout the project.

Scipio Creek Mooring Basin, Florida. As project manager, Mr. Bolleter led a team of engineers and architects in the design of a commercial public marina and harbor master house in a highly sensitive area of Apalachicola Bay. He coordinated efforts with local officials, prepared plans and specifications for the marina design, and provided construction oversight, receiving a design award for his efforts. The project received an engineering design award from the Florida Association of Housing and Redevelopment Council.

Port of Pensacola and Port of Port St. Joe, Florida. Mr. Bolleter led the preparation of the environmental sections of the master plans for these ports, which had primary issues were associated with dredging, sediment quality, water quality and wetlands. The issue of dredged material/maintenance dredged material disposal was the most significant; for Port St Joe, beach renourishment was one option considered. Mr. Bolleter also assessed infrastructure requirements for port expansion.

Additional Waterfront Properties, Florida. Mr. Bolleter evaluated options, prepared shoreline protection designs, and obtained permits for the protection of waterfront property including condominiums at Vista Del Mar and other properties in the Town of Gulf Breeze. He prepared and obtained dredge and fill permits for a variety of projects involving shoreline restoration; fill for single-family homes and residential developments; dredging of marine waters; and restoration of intake structures, groins, revetments, and bulkheads. As part of the permitting efforts, he developed mitigation strategies to offset unavoidable environmental impacts. He also prepared the conceptual design and permitting of a 110-slip wet marina and a 200-slip dry storage facility and breakwater in Niceville; the conceptual design and permitting of a 100+-slip marina and breakwater in Pensacola; the design and hydrodydamic evaluation of a lagoon designated for a marina development near Indian River; and the permitting of a boat lift and repair facility in a sensitive area in Apalachicola Bay.

Water Supply, Wastewater, and Stormwater

Cape Canaveral Air Force Base (AFB), Florida. On behalf of the United States Air Force Space Command, Mr. Bolleter managed E & E's comprehensive evaluation of Cape Canaveral AFB's wastewater treatment facility

and collection and disposal system (percolation ponds) to consolidate separately permitted and disposed waste streams and resolve groundwater compliance problems. His efforts led to the successful consolidation of multiple waste streams and elimination of five separate permits and compliance points. Mr. Bolleter successfully obtained a variance to groundwater standards (the first of its kind for a wastewater facility) that saved the Air Force several million dollars. He closely coordinated all efforts with FDEP and was praised by FDEP for the quality of reports and permit documentation.

Mexico Beach Wastewater/Water Supply Study, Florida. For the City of Mexico Beach, Mr. Bolleter assessed the feasibility of converting the entire City and adjacent communities from septic tanks to a centralized sanitary sewer system. He evaluated various treatment and collection systems and developed capital and operational costs and rates based on various funding options. For conservation measures, and to facilitate effluent disposal, he evaluated reuse of the treated wastewater for green space irrigation and/or wetland rehydration. He also evaluated treatment and alternative water supply options for the City to resolve elevated levels of fluoride in its potable water wells. For one treatment option involving reverse osmosis, he provided extensive interaction with FDEP to address reject stream disposal alternatives. The recommended action entailed blending the deep well water with low-fluoride water in the overlying aquifer.

Destin Wastewater Reuse Project, Florida. This wastewater reuse project involved spraying of treated effluent on golf courses and other public green spaces. As project engineer, Mr. Bolleter prepared design calculations and helped develop the plans and specifications.

Bay County Wastewater Pump Station, Florida. On behalf of Bay County, he evaluated existing inflows to the County's primary wastewater treatment plant and the capacity of the existing pump stations. To understand the significant variations in flow that were occurring, he conducted a systematic assessment of sources with a focus on one key industrial discharger and infiltration and inflow (I/I). Mr. Bolleter's assessment helped identify areas where I/I was a problem and aided in the selection of a pumping system that could accommodate large variations in flow from the industrial discharger.

Gulf County Water/Sewer System, Florida. As project engineer, he assessed the feasibility of installing a public wastewater system and a potable water system to serve southern Gulf County. He evaluated water supply options and well locations along with wastewater collection, treatment, and disposal options. He developed costs and user rates based on various grant and low-interest rate scenarios. Due to low densities and the requisite length of the wastewater collection and water distribution systems, the County determined that project implementation was not feasible at the time.

IP Corporation Sprayfield, Florida. To help a lumber mill dispose of its waste stream, Mr. Bolleter assessed boiler blow down and kiln condensate quality, oversaw geotechnical investigations, and prepared a system design for a spray irrigation disposal system. He prepared all supporting documentation, including the engineers report and groundwater monitoring report and obtained a FDEP permit.

Stormwater Master Plan, Eastpoint, Florida. For the City of Eastpoint, he led a team that inventoried all drainage structures and features, citywide; identified drainage basin boundaries and land uses; conducted stormwater analyses; and identified areas that were most flood-prone and contributed most pollutant load to Apalachicola Bay. His recommendations for drainage and water quality improvements included consideration for wet-weather detention in select wetland areas.

Calhoun County Agricultural Park, Florida. Mr. Bolleter was the design engineer for the water and waste water drainage infrastructure for the County's agricultural/industrial park. He identified likely water demands and wastewater volumes (including the volume from a seafood processing facility), calculated stormwater runoff volumes and stages for variously sized design storms, and determined on-site storage requirements. He prepared plans and specifications and obtained utility and drainage permits from FDEP and a right-of-way connection permit from FDOT.

"Ecology and Environment has performed in an outstanding manner on this contract. They insured that all customer expectations and requirements were not only met, but exceeded. They always provide a quality product."
—Matthew Gapinski, USACE Savannah District

Wastewater Master Plans/Hydraulic Evaluations, Florida. As part of his preparation of wastewater master plans for several communities, Mr. Bolleter identified existing conditions and future needs, ranked priorities for implementation of improvements, and developed capital and operational costs. He developed maps of the major piping system for the Towns of Bagdad, Milton and Malone; and he conducted hydraulic analyses to assess existing system capacities and pressures, as well as future upgrades. His efforts led to the enhancement of each water distribution system, including the looping of lines and the installation of water storage tanks.

Frenchport Cove, Florida. He prepared plans and specifications for the water supply and wastewater collection system for a private development, then prepared the permit applications and coordinated permit procurement of permits from FDEP and local utilities.

Hazardous Waste

Hazardous/Toxic Waste Program, Southern US and Puerto Rico. For the USACE Savannah District, Mr. Bolleter was program manager for E & E's multisite hazardous, toxic, and radioactive waste investigation and remediation contract. He was responsible for resource allocation/scheduling, overall direction of task/project managers, budget control, and work scope negotiation for the over $10-million program, which included several tasks over $1 million and required careful coordination as the work was often conducted simultaneously. Mr. Bolleter was noted for his successful service and E & E received excellent performance ratings from USACE.

For example, he was responsible for all technical and administrative aspects of the preparation of the environmental management action plan for over 20 complex Installation Restoration Program sites at Air Force Plant 6, Georgia. The plan addressed all elements of environmental compliance under RCRA, CERCLA, SARA, TSCA, the Safe Drinking Water Act, and the Clean Air Act and included pollution prevention strategies.

At Fort Jackson, South Carolina, Mr. Bolleter directed RCRA facility investigations (RFIs) for 15 solid waste management units (SWMUs), assessment/remedial designs for 12 UST/petroleum oil and lubricant (POL) sites, natural attenuation evaluations for two UST sites, and RCRA closure of an open burn/open detonation area for ordnance and explosive waste.

The RFIs for 18 SWMUs at Fort Gordon, Georgia, involved preparation of the sitewide community relations plan and the work, sampling, and health and safety plans for various operable units, followed by collection of nearly 500 multimedia samples; evaluation of risks to human and ecological receptors; development of a geographic information system database; and preparation of interim data summary and final RFI reports.

Mr. Bolleter also directed the RI/FS for two landfills at the former Keystone Army Airfield, Florida; the RI and risk assessment for a buried drum site in a residential subdivision at the former Weeksville Naval Air Station,

North Carolina; a UST site assessment/remedial design and an air sparging/vapor extraction FS for another site at the former Turner AFB, Georgia; site assessments and remedial designs for three POL sites at the Military Ocean Terminal Lumberyard, North Carolina; and the site assessments and risk evaluations for a landfill at the former Ramey AFB and a scrap disposal area at the former Naval Air Station San Juan, Puerto Rico.

Seymour Johnson AFB, North Carolina. As project director, Mr. Bolleter provided project direction and QA for the contamination assessment of an open burn pit. The project was completed under E & E's multisite program for the United States Air Force Headquarters Air Combat Command.

Statewide Hazardous Waste Compliance, Remedial Design, and Construction Management, Florida. Under several FDEP contracts, Mr. Bolleter has managed E & E hazardous waste compliance investigations and remedial design/construction projects at numerous sites. He has identified, screened, and provided detailed life-cycle cost evaluations for site-specific remedial alternatives; led remedial design and construction oversight activities; and supervised characterization/compliance investigations.

Warrington Village Dry-Cleaning Site, Pensacola, Florida. For Hancock Realty Investors, Inc., he managed E & E's CERCLA/SARA-driven environmental compliance project at Warrington Village Shopping Center, a 10-acre, former dry-cleaning site with a rapidly spreading PCE contaminant plume. He developed and implemented the multimedia environmental compliance sampling program, led the public well survey, and prepared the comprehensive report that included engineering recommendations to achieve compliance with federal and state regulations. Mr. Bolleter identified potential remedial alternatives, performed a life-cycle cost evaluation for each option, conducted groundwater modeling, and developed the remedial design to reduce contaminant migration potential. Subsequently, he provided construction oversight for a granular activated carbon treatment system; oversaw system operation and maintenance (O&M); and periodically evaluated analytical data, adjusting system operation and incorporating design modifications as needed to enhance remediation.

Additional Air Sparging and Soil Vapor Extraction (SVE) Feasibility Studies, Michigan, California, and New York. Mr. Bolleter evaluated the feasibility of remedial alternatives involving air sparging at the Schilling Farm site in Michigan (for a private-sector client) and the Modesto Groundwater site in California (for EPA). For the New York State Department of Environmental Conservation, he evaluated the feasibility of SVE application at the Dearcop Farm site.

American Creosote Works, Pensacola, Florida. Mr. Bolleter managed E & E's technical assistance to Bayou Chico Association, a citizen's environmental group. He reviewed documents associated with EPA's planned remedial activities for the Superfund site, prepared presentations for Association meetings to summarize the very technical documents in layman's terms, and formulated written comments for the Association to present to EPA during the public comment period.

Gasoline and Asphalt Refinery, Alabama. For Chevron Real Estate Management Company, he was E & E project engineer for the preparation of a corrective action plan for this former refinery. After carefully demonstrating that sitewide remedial measures were marginal, he implemented a risk-based cleanup approach that successfully brought the facility into full regulatory compliance ahead of schedule, below anticipated cost.

Pipeline Rupture/Release Site, Austin, Texas. Mr. Bolleter was E & E project engineer for the preparation of a corrective action report and design of a dual-phase vacuum extraction system for a pipeline rupture/release site.

At the site's bulk terminal facility, he reviewed data and conducted a pilot test to evaluate the effectiveness of an existing air sparging/vapor extraction system.

Diamond R Fertilizer, Florida. Mr. Bolleter conducted an assessment of historical and current groundwater, surface water and soil analytical data; previous contamination site investigations and remedial measures; hydrogeologic conditions; and operational procedures for an active fertilizer facility located adjacent to Taylor Creek, a tributary to Lake Okeechobee. The contaminated of most interest were nitrate and ammonia. Mr. Bolleter also provided input on risks, regulatory requirements and strategy.

UST

Statewide UST Investigation Program, Mississippi. As program manager for three successive contracts since 1996, Mr. Bolleter is responsible for all aspects of site assessment, remediation, and system O&M. He is managing pump-and-treat system (air stripping tower) O&M for one of the largest UST plumes in the state.

Escambia County Petroleum Cleanup Program, Florida. As program manager, Mr. Bolleter provided technical direction and QA for all assignments. Moreover, he personally managed key projects involving the contamination assessment planning and soil and groundwater sampling (11 sites); planning and implementation of an air sparging and SVE pilot test (one site); remedial alternatives evaluation and development of remedial action plans involving SVE (five sites), air sparging (two sites), a pump-and-treat system (one site), dual-phase vacuum extraction (one site), and excavation (two sites); as well as system O&M management (four sites).

Mocar Oil Wetland, Florida. Under E & E's statewide petroleum cleanup program for FDEP, Mr. Bolleter conducted a feasibility study to use a constructed wetland to treat crude oil that was seeping from a bulk storage facility into a receiving body of water. His team collected and analyzed surface water, sediment, and crude oil samples; assessed the technical feasibility of using a constructed wetland; developed associated costs; and identified regulatory constraints.

11 UST Site Remedial Designs, Alabama and Florida. Under two consecutive, indefinite-delivery contracts for the USACE Mobile District, Mr. Bolleter managed E & E's remedial design activities for nine UST sites at Anniston Army Depot, Alabama, utilizing innovative horizontal trenching technology. He led a free product system optimization study; managed the development of product recovery designs, corrective action plans, construction specifications, piping and instrumentation diagrams, and construction bidding documents; and oversaw the application of bioventing to address soil and groundwater remediation. He also managed site assessments at Hall Station, Alabama; and Panama City, Florida.

Brownfields

Mr. Bolleter was the program manager for E & E's indefinite-delivery, multisite Brownfield site investigation contract for Escambia County, Florida. The SOW included Brownfield site preliminary assessments and Phase I and II environmental site assessments, plus coordination of Brownfield site rehabilitation. Under Mr. Bolleter's leadership, E & E assessed the existing and required infrastructure for site development and developed/ implemented remediation plans for property reuse. In addition, project staff assisted Escambia County in its community education/solicitation of public comments concerning Brownfield sites.

Additional Oil and Gas

SunShine Pipeline, Alabama, Florida, and Mississippi. He provided engineering support for E & E's natural resource evaluations for ANR Pipeline Company's proposed 760-mile, $1.2-billion SunShine natural gas pipeline system. He reviewed environmental data concerning geophysical conditions in the project area; summarized engineering constraints and the construction feasibility of alternative pipeline routes; and addressed these concerns in the certification application submitted to FDEP and the comprehensive ER filed with FERC.

Destin Dome, Gulf of Mexico. Serving as liaison during joint meetings, Mr. Bolleter facilitated resolution of technical issues between DOI's Minerals Management Service (now Bureau of Ocean Energy Management), EPA; and E & E's client (Chevron).

Alvenus Oil Spill Cleanup, Gulf of Mexico. He compiled scientific data, documented cleanup operations, and helped prepare the technical report.

Oceanographic Research, Texas. He gathered, processed, and evaluated oceanographic data for a project in support of the Strategic Petroleum Reserve. He also evaluated design criteria and conducted model tests concerning wave transmission and reflection on pile breakwaters.

Additional Air Quality

Mr. Bolleter has reviewed and managed the implementation of air-sampling plans for soil and groundwater remedial systems to ensure compliance with regulatory emission standards. He determined ambient air quality conditions based on computer screen modeling.

Dalton Doors, Pensacola, Florida. For Wayne-Dalton Corporation, Mr. Bolleter evaluated system operations and calculated projected emissions. He obtained specifications for the baghouse design and implemented the control system at the facility. He successfully negotiated with FDEP to exempt the facility from air permits based on projected emissions.

Ore Transfer Operation, Charleston, South Carolina. For Stevedoring Services of America, Mr. Bolleter reviewed an air permit application for a coke/coal ore transfer operation at a shipyard. He calculated facility emissions and reviewed the process operations to ensure that the application was complete and accurate.

EMPLOYMENT:

Ecology and Environment, Inc., West Palm Beach, Florida, 1993-present
Baskerville-Donovan, Inc., Pensacola, Florida, Civil Engineer, 1985-1993
University of West Florida at Pensacola, Department of Civil Engineering, Adjunct Professor, 1987-1989
Texas A&M University at College Station, Environmental Engineering Department, Graduate Research Assistant, 1984-1985; Remote Sensing Center, Graduate Research Assistant, 1983-1984; Ocean Engineering Department, Student Technician, 1982-1983

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Barranco, M., J.A. Moretz, J.M. Bolleter, and M. Voich, 2007, Lake Worth Lagoon Salinity Variability and Sediment Loading, paper presented to 18th Annual Conference of Florida Lake Management Society, Naples, Florida.

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Bolleter, J.M., August 2004, Reducing Compliance Concerns at Cape Canaveral Air Force Station, paper presented to 9th Annual Joint Services Environmental Management Conference and Exhibition, San Antonio, Texas.

Bolleter, J.M., November 2007, Challenges and Opportunities for Wastewater Reuse in Miami-Dade County, paper presented to 2007 Annual AWRA Conference, Albuquerque, New Mexico.

Bolleter, J.M., September 2008, Water Supply Problems, paper presented to Eagles Nest Seminar Water on Water Strategies for a Water Constrained World; Meeting Future Demand through Technology, Innovation and Sustainability, Blue Mountain Lake, New York.

Bolleter, J.M, Wastewater Reuse in Miami-Dade County, February 2010, paper presented to 82nd Annual Meeting of New York Water Environment Federation, New York City, New York.

Bolleter, J.M., and J. Fernandez, September 2008, Solutions to Meeting Water Supply—Case Study in Miami-Dade County, paper presented to Eagles Nest Seminar on Water Strategies for a Water Constrained World; Meeting Future Demand through Technology, Innovation and Sustainability, Blue Mountain Lake, New York.

Bolleter, J.M., and R.W. Freeman, March 29-April 1, 1999, How Clean Is Clean, paper presented to NDIA 25th Environmental Symposium and Exhibition, Denver, Colorado.

Bolleter, J.M., and B. Kacvinsky, November 2008, Real World Issues in Implementing Large Scale Water Resource/Environmental Restoration Projects, paper presented to Annual AWRA Conference, New Orleans, Louisiana.

Bolleter, J.M., and M. Voich, November 2005, Challenges and Lessons Learned on the North Palm Beach Everglades Restoration Project, paper presented to Annual AWRA Conference, Seattle, Washington.

Bolleter, J.M., and M. Voich, April 2006, North Palm Beach County CERP Project, paper presented to Loxahatchee River Watershed Science Symposium, Jupiter, Florida.

Bolleter, J.M., and M. Voich, May 2007, Lake Worth Lagoon Challenges and Project Update, paper presented to Lake Worth Lagoon Symposium, West Palm Beach, Florida.