Sheri A. Huelster

Current Position
Project Scientist

Discipline Areas
> Project Management
> Water Quality Monitoring and Analysis
> Marine Ecology
> Listed Species Surveys
> Spill Response

Years' Experience
15

Joined Cardno
2005

Education
> MS, Marine Science-Marine Resource Assessment, University of South Florida, 2015
> BS, Marine Science/ Biology, University of Tampa, 2005

Affiliations
> TBAEP Vice President
> FAWQC Committee Member
> University of Tampa Alumni Association Board Member

Continuing education & Certifications
> First Aid, 2019
> CPR, 2019
> MSHA, 2019
> OSHA 40-hr HAZWOPER, 2020
> Respirator Fitted, 2010
> FDEP, SCI, 2011-2020

Summary of Experience

Ms. Sheri Huelster has 15 years of experience in water resource and water quality disciplines. Her work has included one of the largest water quality data collection efforts in Florida's history, FDEP statewide dissolved oxygen, nutrients, and biological monitoring study. Ms. Huelster has expertise in collection and analysis of surface water and sediment samples, biological sampling, and habitat assessments. Ms. Huelster holds numerous FDEP certifications for biological community assessments including the Stream Condition Index, Habitat Assessment, Rapid Periphyton Survey, Lake Vegetation Index, and Linear Vegetation Survey. Along with data collection, Ms. Huelster assists in creating various databases, data management, and corresponding analysis for most of the projects she works on. Some of the statistics used were ANOVA, various non-parametric tests, biological diversity and richness measurements, and trend analysis. She is well-versed in the flora and fauna of freshwater and marine systems. Her main responsibilities have been review and interpretation of water quality data, vegetation monitoring, listed species surveys, freshwater fish sampling and identification, statistical data analysis, and project management. Mr. Huelster is proficient in technical writing, report preparation, summary documentation and presentations.

Significant Projects

Project Management

Project Manager – Peace River Monitoring Program – Polk and Hardee Counties, Florida

Ms. Huelster is the Project Manager and acts as the main client contact for this project, which involves wet and dry season biological monitoring of fish and benthic macroinvertebrates at four locations in the upper Peace River. Twelve locations are sampled for water quality within the upper Peace River, Bowlegs Creek, Whidden Creek, Payne Creek, and Little Charlie Creek; and four locations for biological parameters (analyzed for community structure and diversity). Ms. Huelster coordinates biological sampling events, manages water quality and biological databases, completes rigorous statistical analysis of the data, and writes annual reports.

Project Manager – Mosaic Manatee County Reporting – Manatee County, Florida

Ms. Huelster is the current project manager for five different reporting projects where she acts as the main client contact and coordinates data analysis and annual report writing. Additionally, Ms. Huelster assists with annual data analysis and report preparation for the required annual reports for four Mosaic facilities. This involves comparing current reporting year data to historical and prior operational periods and conducting trend analysis for the required parameters for both surface and groundwater. After report submission, Ms. Huelster assists with answering requests for additional information (RAI) that may be posed by Manatee County and attends any required meetings.

Project Manager – Four Corners Administrative Order – Hillsborough County, Florida

Mosaic applied for a permit modification to install a new outfall in Hillsborough County for the Four Corners Mine. As a response, the Florida Department of Environmental Protection (FDEP) required a minimum three-year in-stream water quality and biological monitoring program in the Little Manatee River and Unnamed Tributary beginning in 2012. As the Project Manager, Ms. Huelster scheduled all field sampling events, coordinated with the client on any changes to the monitoring schedule, produced

- FDEP, HA, 2011-2016
- FDEP, LVI Certified, 2015-2019
- FFWCC, Authorized Gopher Tortoise Agent GTA-11-00047C, 2011
- FL ADaPT, 2011
- SWFWMD, WAP, 2010-2019
- PADI, NITROX Diver, 2004
- PADI, Advanced Open Water Diver, 2003
- PADI, Open Water Diver, 2002

quarterly reports, maintained and reviewed all data provided by Mosaic, and analyzed data for final summary reports.

Project Manager – Spring Water Quality and Biological Monitoring, Nestlé Waters North America, Inc. – Madison County, Florida

As Project Manager, Ms. Huelster is the main client contact, scheduling fieldwork, assisting with permit compliance, and producing annual reports. Ms. Huelster also assists in the field sampling, prepares the statistical analysis, and writes annual reports. This ongoing effort necessitates water quality data collection be paired with benthic macroinvertebrate characterizations for identifying patterns and trends along with monitoring the biological integrity of the spring system. Ms. Huelster has assisted with EMP modifications based on collection and analysis of multiple years' worth of data.

Project Manager – Orlando Utilities Commission (OUC) Water Use Permitting Assistance – Orange and Seminole Counties, Florida

As Project Manager, Ms. Huelster reviews invoices, schedules field work, acts as a client contact, and completes annual summary reports. Ms. Huelster continues to assist with annual wetland monitoring and water level analysis. Water levels in all wetlands were graphed over the period of record and stage exceedance curves were produced for each site. Water levels were compared to local rainfall and overall well production was recorded. This information is used to evaluate the effects of groundwater withdrawal by the OUC for public use.

Project Manager – Crystal Spring Biological Assessment and Herbaceous Vegetation Survey, Nestlé Waters North America, Inc. – Pasco County, Florida

As Project Manager, Ms. Huelster is the main client contact, scheduling fieldwork, assisting with sampling recommendations, and producing annual reports. Ms. Huelster also assists in the field sampling, prepares the statistical analysis, and writes or reviews summary reports. This work product for this effort assists Nestlé Waters with management decisions and provides background information for any potential future permitting requirements.

Project Manager – Horse Creek Stewardship Program – Hardee and DeSoto Counties, Florida

Ms. Huelster prepared monthly reports, participated in biological sampling of fish and macroinvertebrates (three times annually), identified and enumerated freshwater fish, and completed quality assurance/quality control (QA/QC) of all data collected on this long-term project. Water quality data are collected by Mosaic, and water quantity data are compiled from public sources and analyzed in annual reports. Fish and benthic macroinvertebrate data were collected and analyzed for community structure and diversity. Ms. Huelster provided significant assistance in writing annual reports, including preparation of tables and figures and extensive statistical analysis.

Project Manager – City of Tampa Lower Hillsborough River Analysis and Permit Compliance – Hillsborough County, Florida

Ms. Huelster assists the City of Tampa Water Department with their water withdrawal permit compliance for their current water use permit. Annually, she completes a data summary and analysis of the previous water year's water quantity, water quality, and biological data. She also completes statistical analysis and data management for the annual reports. Twice annually, Ms. Huelster reviews wetland monitoring reports for the three Rome Avenue aquifer storage and recovery wetlands.

Project Manager – Four Corners Level I WQBEL – Hillsborough County, Florida

As part of the NPDES renewal process and Numeric Nutrient Criteria (NNC) compliance, a Level I WQBEL analysis was required to ensure that water quality and biological (SCI, RPS, and LVS) criteria were met for downstream waters. Ms. Huelster prepared the Level I WQBEL report utilizing water quality data collected from the NPDES outfalls and instream waters by Mosaic and biological data collected by Cardno staff and FDEP. This effort also included RAI responses and a revision to the final report document after additional biological sampling within two downstream waters was completed.

Project Manager – NPDES Permit Compliance – Various Counties, Florida

As part of the NPDES permit requirements, downstream biological sampling (SCI, RPS, and LVS) is required at least twice during the 5-year permit cycle. For recently renewed permits, Mosaic is required to sample downstream waters during years of discharge or following additional permit specified criteria. Ms. Huelster has been the project manager for multiple sampling efforts for Mosaic's mines with NPDES permits, scheduling field work, assisting with field sampling, and preparing required post-sampling reports to demonstrate compliance.

Project Manager – Cross Bar Ranch Wellfield Hydrological and Ecological Monitoring Program – Pasco and Hernando Counties, Florida

As Project Manager, Ms. Huelster scheduled fieldwork, managed annual budgets, acted as the client contact, wrote annual reports, and provided additional services. Ms. Huelster also assisted with water level monitoring, fish identification, data entry and management, data analysis, QA/QC of the data, and annual and semi-annual report writing. Ms. Huelster conducted Wetland Assessment Procedure (WAP) vegetation assessment for the wellfield from 2010 to 2013.

Project Manager – Morris Bridge Wellfield Hydrological and Ecological Monitoring Program – Hillsborough County, Florida

As Project Manager, Ms. Huelster acted as the client contact, scheduled field work, and wrote annual reports. She also assisted with monthly water level monitoring of the wellfield, completed WAP assessments of wetlands, and conducted the data analysis portion of the semi-annual reports for Tampa Bay Water. Her main responsibilities were data entry and management, data analysis, QA/QC of the data, and report writing. Ms. Huelster also assisted in all annual and semi-annual report analysis and writing.

Project Manager – Wingate Bioassessment – Manatee County, Florida

Ms. Huelster conducted SCI sampling and stream habitat assessments at four streams that are tributaries of the Myakka River to characterize their biological condition. Two of the streams are downstream from an active mine and receive National Pollutant Discharge Elimination System (NPDES) discharge during the wet season, while the other two serve as reference locations. Ms. Huelster also manages the database for calculating the SCI scores and determining the health of the stream along with benthic macroinvertebrate sampling and annual report writing.

Water Quality Monitoring and Analysis

Project Scientist – City of Naples Water Quality Analysis Project – Naples, Florida

The Naples Water Quality Analysis Project is a comprehensive analysis of trends in water quality and biological data collected in Naples Bay and associated stormwater ponds over the last ten years. Ms. Huelster's primary role was to assist in data compilation and analysis of the water quality and quantity data for the first compilation report. She also assisted in fish community analysis and trends discussion. She currently schedules

monthly field work, reviews collected data, acts as database manager, prepares quarterly reports, and completes statistical analysis for the annual reports. Ms. Huelster is currently involved in the statistical analysis and data summary for the updated five and ten year reports for both Naples and Moorings Bay.

Data Manager – Leon County SCI and LVI Sampling – Leon County, Florida

Annually, Cardno assist Leon County with monitoring of various streams and lakes within the county. Ms. Huelster has managed the invertebrate data collected for the SCI analysis and calculated scores for all sampling events. Ms. Huelster has also conducted the annual Lake Vegetation Index (LVI) assessments in 2018 and 2019 and submitted all data for annual reporting and analysis.

Data Manager/Field Scientist – NNC Water Quality Study for St. Marks Powder– Wakulla County, Florida

Annually, Cardno conducts various biological and water quality assessments in the freshwater and tidally influenced waterbodies to study potential impacts of nutrient discharges from St. Marks Powder under the new numeric nutrient criteria rules. Ms. Huelster has managed the invertebrate data collected and calculated any biological integrity scores for all sampling events. Ms. Huelster has also assisted with stream field assessments in the form of Rapid Periphyton Surveys (RPS) and Linear Vegetation Surveys (LVS).

Project Scientist – Eagle Liquefied Natural Gas (LNG) Partners – Jacksonville, Florida

Ms. Huelster is assisting with this permitting project through the Federal Energy Regulatory Commission (FERC) in Jacksonville, Florida. Ms. Huelster provided additional information on the potential impacts to ichthyoplankton in the Lower St. Johns River from this project. She helped create a sampling plan and schedule for ichthyoplankton sampling and will assist with the sampling and reporting tasks with the ultimate goal of estimating adult equivalent loss of fish in the project vicinity.

Resource Area Lead – Haile Gold Mine, Third-Party Environmental Impact Statement (EIS) – Kershaw and Lancaster Counties, South Carolina

Haile Gold Mine Inc. proposed to reactivate the existing Haile Gold Mine near Kershaw, South Carolina for the development of gold resources. Ms. Huelster was the resource area lead for aquatic resources and assisted with draft EIS preparation, which involved reporting on environmental conditions, identifying potential impacts to the resource, proposing potential mitigation measures, and completing an alternatives evaluation. She also worked with the groundwater and surface water teams to complete her analysis.

Project Scientist – Southwest Florida Water Management District (SWFWMD) Lower Hillsborough River Dissolved Oxygen Study – Hillsborough County, Florida

Ms. Huelster assisted with initial data compilation from multiple public sources, quality assurance/quality control (QA/QC) of data used in the analysis, database management, data analysis, and report writing. A complex analysis plan was developed to re-evaluate dissolved oxygen in the lower Hillsborough River after the minimum flow and level (MFL) implementation that used an extensive suite of statistical methods to analyze the data, including Spearman's Rank Correlation, Wilcoxon Rank Test, Seasonal Kendall Tau Test, Welch ANOVA Analysis, and linear regression techniques.

Project Scientist – Jacksonville Electric Authority (JEA) Consumptive Use Permit Monitoring – Clay County, Florida

JEA is the public supply water producer for the City of Jacksonville, Florida, including some surrounding communities. JEA maintains a series of wells in the Lower Floridan

Aquifer. Cardno provides JEA with services related to ecological monitoring, review of MFLs that may affect JEA and its ability to supply water to its service area, and negotiates with the SJRWMD related to permit compliance. Ms. Huelster assists with permit compliance environmental monitoring in the Keystone Heights area. Specific tasks included analysis of water level data for trends and producing the monitoring report for submittal to the District by JEA.

Data Specialist – Four Corners Level II Water Quality-Based Effluent Limitations (WQBEL) – Hillsborough County, Florida

Mosaic applied for a permit modification to install a new outfall in Hillsborough County for the Four Corners Mine. Ms. Huelster assisted in data compilation, water quality data analysis, and report preparation in this Level II WQBEL application effort.

Data Specialist/Staff Scientist – North Prong Alafia River Total Maximum Daily Load (TMDL) Study – Polk County, Florida

Ms. Huelster has been involved in the data collection, management, and analysis for the North Prong Alafia River TMDL study. This project involved a twice quarterly deployment of a multi-parameter data sonde, collection of streamflow measurements, and water quality sampling. Besides the quarterly monitoring, there were also dry and wet season biological collection events and a one-time collection of sediment throughout the marshes that lie within the North Prong basin. Ms. Huelster has assisted with numerous quarterly sampling events, conducted the biological assessments, and managed all the corresponding data. She assisted with the data analysis on both an individual sampling station and overall project scale.

Data Specialist/Senior Staff Scientist – Big Ditch TMDL Study – Hillsborough County, Florida

Ms. Huelster assisted with both regular sampling events and data management and analysis. The purpose of this study was to determine if the TMDL proposed by the FDEP for this waterbody, which passes through a mining facility and receives NPDES discharge, is impaired for nutrients. Ms. Huelster has been involved in numerous water quality sampling events within Big Ditch and background sampling in the Hillsborough River. All data collected is stored in an MS Access database which Ms. Huelster created and manages. She has also assisted in the analysis of all collected data for the project.

Project Scientist – Ona and DeSoto WQBEL Biological Sampling – Hardee and DeSoto Counties, Florida

Ms. Huelster identified suitable locations for biological sampling both upstream and downstream of potential outfalls to be permitted in the beginning stages of this Level II WQBEL effort. Field effort included reconnaissance of locations followed by SCI, Rapid Periphyton Survey, and Linear Vegetation Survey sampling at recommended locations. All data is stored in an MS Access database which Ms. Huelster manages for the project.

Staff Scientist – Water Quality Regulatory Services – Naples, Florida

Cardno provided technical and strategic regulatory support services regarding water quality and biological integrity of the Clam Bay Estuary. Ms. Huelster assisted with the developed a water quality monitoring program focused on dissolved oxygen to characterize the current status of the waterbody, evaluate potential regulatory impacts, and implement strategies to ensure proper water quality management. Ms. Huelster created the database used in the analysis, assisted in analyzing water quality data, and contributed to the summary report and recommendations.

Project Scientist/Data Analyst – Water Quality Monitoring Evaluation and Optimization – Broward County, Florida

Cardno was contracted by the Lake Worth Drainage District (LWDD) to assist in developing a comprehensive database of existing water quality data with the LWDD boundaries, and to provide characterization of water quality in the LWDD canal system and downstream waters. Ms. Huelster created a database of water quality data from the LWDD, Broward County, Palm Beach County, and other public sources, assisted in data analysis, and provided recommendations to LWDD for optimization of their existing monitoring program.

Data Manager/ Environmental Specialist – Statewide Water Quality Monitoring for the FDEP's Strategic Monitoring Program – Throughout Florida

Hundreds of water bodies (WBIDs) ranging from springs to canals, listed as Impaired Waters by the FDEP, were sampled statewide during the project. Most of the WBIDs sampled were within the Northwest Florida, Suwannee River, Southwest Florida, and South Florida Water Management Districts. The data will be used to determine if a WBID can be removed from the Impaired Waters List, or if a TMDL needs to be established. The samples collected were analyzed for a range of inorganic and organic parameters, including nutrients and metals. Field parameters were collected using YSI data sondes, and GPS coordinates are collected at each site. Biological assessments were conducted at selected sites and included collecting benthic macroinvertebrates, periphyton sampling, and habitat assessments. Ms. Huelster assisted in field water quality sampling, database creation and management, as well as reviewing all collected data.

Data Specialist – FDEP Statewide Surface Water Study – Throughout Florida

Ms. Huelster was a team member of this one-year study of approximately 350 stations, including streams, rivers, lakes, and canals throughout Florida. Her roles were to sort collected macroinvertebrate samples, review data collection for quality control, and manage the large and complex project database. Ms. Huelster also assisted in quarterly report writing and project review. Objectives of the project were to collect water, sediment, and biological data from different water body types throughout the state to help develop and refine state water quality standards. This logistically and technically demanding project included quarterly sampling at each station with multi-parameter data sondes, collection of physical samples, and biological assessments (phytoplankton, benthic macroinvertebrate, and periphyton sampling). The study was undertaken to determine the variation in nutrient and dissolved oxygen concentrations in various types of water bodies throughout the state.

Data Specialist/Staff Scientist – Upper Neuse River Basin Association (UNRBA) – Raleigh, North Carolina

Cardno has been working with UNRBA to develop a preliminary evaluation of the Falls Lake Stage II Reexamination process. Two of the tasks are directly related to the Association's efforts to perform monitoring for this process. Ms. Huelster assisted in organizing, formatting, and creating databases for all data collected by various agencies and groups within the Falls Lake watershed.

Data Specialist/Staff Scientist – Tar River Flow Study – North Carolina

Ms. Huelster assisted with data management and organization for this study on hydrodynamic/water quality modeling, habitat analysis, and flow management. Her main focus for this project was dissolved oxygen and salinity and their impacts on aquatic organisms. Ms. Huelster assisted in QA/QC of the modeling results, graphical analysis, and report preparation.

Environmental Specialist/Data Specialist – Aquatic Resource Evaluation – Northeast Cape Fear River, North Carolina

Ms. Huelster has participated in fish, macroinvertebrate, sediment, and water quality field evaluations as part of an ongoing aquatic resource evaluation at a site bordering the Northeast Cape Fear River in North Carolina. As part of the year-long study, Ms. Huelster assisted with analyzing water quality and biological data collected by Cardno with respect to seasonal and geographical patterns and comparisons to data collected by other sources.

Project Manager/Staff Scientist – Walden Woods – Hillsborough County, Florida

Ms. Huelster was the Project Manager for this water quality monitoring project for a 530-acre development. She conducted dry and wet season water quality monitoring events which include field observations, water sample collection, and field data collection. Ms. Huelster was also responsible for the associated reports that are submitted to Hillsborough County.

Environmental Specialist – Stockton Farms Borrow Pit – Hillsborough County, Florida

This borrow pit project involved collection of baseline data as well as compliance during construction. Ms. Huelster worked with the client to establish regular turbidity monitoring based on permit requirements and assisted in training the client in equipment usage. She created daily and monthly monitoring forms to be submitted to the Southwest Florida Water Management District.

Environmental Specialist/Data Specialist – Cypress Creek Town Center – Hillsborough County, Florida

Ms. Huelster participated in water quality monitoring events in both wet and dry seasons. As a part of the permit requirements, Ms. Huelster participated in benthic macroinvertebrate collection from Cypress Creek, fish collection and identification in the wetlands and mitigation areas, and sediment sampling in the creek. Besides normal water quality sampling, she has done turbidity monitoring and compliance as part of NPDES monitoring.

Environmental Specialist/Data Specialist – Progress Energy/Robinson Tract – Levy County, Florida

Ms. Huelster assisted with wetland delineations, habitat mapping, and Uniform Mitigation Assessment Method (UMAM) field assessments in support of the Site Certification Application (SCA) for the Levy Nuclear Plant. Ms. Huelster also assisted with UMAM assessments, data entry, and provided QA/QC of field documents prepared in support of the mitigation component of the SCA and sufficiency responses.

Data Specialist – Sunstone Pipeline Project – Various Counties, Oregon

This project included wetland and waterbody surveys, sensitive species habitat delineation, weed surveys, and protected species protocol development for the 211-mile segment in Oregon of the proposed Sunstone pipeline. The project required close coordination with the Oregon Department of State Lands, U.S. Army Corps of Engineers, U.S. Fish and Wildlife, Bureau of Land Management, and U.S. Forest Service for confirmation of survey protocols, data quality and assurance, and preparation of findings. Ms. Huelster was responsible for all data entry and management for this pipeline project on the west coast of the United States.

Project Scientist/Data Specialist – SCI and Habitat Assessments, Various Projects – Various Counties, Florida

Ms. Huelster has assisted with numerous SCI sampling events in rivers and streams throughout Florida, as well as participating in completing habitat assessments. After the SCI samples are collected, Ms. Huelster has completed the sample preparation according to DEP-SOP SCI 1000, and trained other staff members in these procedures. Ms. Huelster also completes the calculations for the SCI and BioRecon Determination created by the FDEP.

Data Analyst/Project Scientist – NPDES Permitting and WQBEL Studies – Florida

Ms. Huelster assists with NPDES permitting efforts in Florida for a large industrial client. With new and forthcoming water quality regulations, including Numeric Nutrient Criteria, Ms. Huelster assists in the design and implementation of Level I and Level II WQBEL studies to set effluent limits for new discharges and ensure protection of water resources in the receiving and downstream waters. Intensive water quality and biological data collection, client and agency coordination, and water quality modeling are necessary to ensure a smooth permitting process focused on preserving valuable water resources while allowing for beneficial uses of the resource. Ms. Huelster has completed numerous biological surveys, organized data from public and private sources into a database, summarized and analyzed available data, and assisted in the planning process.

Staff Scientist – Wetland Assessments – Hillsborough, Manatee, Hardee, and Polk Counties, Florida

Ms. Huelster has conducted wetland vegetation surveys, hydroperiod determinations, and water level data analysis for wetlands potentially impacted by ground water withdrawal and reference wetlands for numerous projects spanning several wetland types.

Environmental Specialist – Water Quality Assessments for Development and Re-Development Projects – Throughout the Tampa Bay Area and Various Counties, Florida

These efforts include coordination and development of sampling regimes that require 24-hour water and sediment sampling events along with wet and dry season sampling events. Results are analyzed and formulated into reports for various environmental permitting applications. Ms. Huelster has participated in 24-hour water quality monitoring and sampling which included small boat operation for the Renaissance Vinoy Hotel and Marina, Mira Bay coastal development, as well as Andalucia and Snell Isle developments. Ms. Huelster has also done general water quality monitoring for CF Industries, Tarmac (Titan) America, Mosaic, and various other residential and industrial clients.

Marine Ecologist

Project Scientist – NRDA Restoration Monitoring – Hillsborough County, Florida

Two restoration projects were created to restore and enhance the habitat, ecological services, and functions of mangrove and tidal creek areas in Tampa Bay. The projects have a five-year post-construction monitoring program that includes mangrove, marsh, oyster, fisheries, water quality, and water quantity components with specific restoration success criteria for each component. Ms. Huelster assists with the monitoring of mangrove, marsh, oyster, fish, and water quality components and leads the identification of fish for the study.

Staff Scientist – Rattlesnake Key Habitat Mapping – Manatee County, Florida

Ms. Huelster was a team member of this study in Tampa Bay that extended from the north side of the Skyway, south to Rattlesnake Key. She assisted with seagrass, wildlife, and land use identification and mapping in this estuarine environment. During the survey

process she acted as a team lead and assisted with data management and QA/QC along with mapping. As part of the seagrass survey, transects were established and monitored with various seagrass species abundance and distribution recorded for each transect. Meter quadrats were also surveyed along each transect.

Ecological Specialist – Tampa Bay Marina – Tampa, Florida

Ms. Huelster conducted a seagrass and coastal vegetation survey for the marine development project south of the Howard Franklin Bridge. Tasks included aerial mapping and verification of seagrass cover by snorkeling and boating along the banks of the prospective development site, identifying seagrass and mangrove species in multiple transects (including one-meter quadrats), creating vegetative percent cover and dominance maps, and conducting aquatic wildlife surveys.

Ecological Specialist – Little Harbor Marina – Ruskin, Florida

Ms. Huelster assisted with seagrass, mangrove, wetland monitoring, and marine wildlife surveys for this marina refurbishment project. Wetland functional assessments were completed for the estuarine environments, mangrove species were identified and quantified, mussels distribution was mapped and quantified, and seagrass species were identified. As part of the seagrass survey, transects were surveyed by boat (distribution and abundance) and species were identified and additionally quantified with the use of one-meter quadrats while snorkeling. Any marine wildlife both within and surrounding the proposed project area was documented.

Ecological Specialist – Snell Isle Docking Facility – St. Petersburg, Florida

Ms. Huelster assisted with the aquatic survey portion of the permitting process for a private docking facility associated with the re-development of a multi-family housing project. Tasks included snorkeling and boating along the banks, identifying seagrass and mangrove species along transects and 1-meter quadrats within each transect, creating vegetative percent cover and dominance maps, and conducting aquatic wildlife surveys. The purpose of these surveys were to determine current seagrass bed quality and facilitate management of the marine environment.

Ecological Specialist – Harborpointe Seagrass and Marine Wildlife Survey – Port Ritchey, Florida

Ms. Huelster assisted with the seagrass and coastal vegetation survey for marine development in the Harborpointe Community. Tasks included snorkeling along the banks of the prospective development site and identifying seagrass and species, creating vegetative percent cover and dominance maps and conducting aquatic wildlife surveys.

Ecological Specialist – Southeast Area Monitoring and Assessment Program (SEAMAP) – Gulf of Mexico

Ms. Huelster assisted the Florida Fish and Wildlife Conservation Commission (FWC) with their offshore collection and identification of aquatic species in the Gulf of Mexico through bottom trawls. This program was implemented in 1981 by the National Marine Fisheries Service to monitor species throughout their life history stages, and includes the collection of plankton, shrimp/groundfish, adult finfish, reef fish, red drum, and other environmental data. Besides collecting samples for her thesis on trophic spectrum analysis, Ms. Huelster assisted FWC with their required data collection which included: species identification and processing, mercury sampling in fish, otolith extraction, and gut removal for content analysis. Ms. Huelster participated on the leg of this research cruise that collected samples from the central to west Florida Shelf in the Gulf of Mexico.

Listed Species Surveys

Project Scientist – Sabal Trail Pipeline Project – Florida, Georgia, and Alabama

The Sabal Trail project consists of approximately 465 miles of natural gas pipeline construction originating in Alabama and terminating in central Florida. This project required a large data collection and permitting effort for the entire span of the pipeline. Ms. Huelster assisted with aquatic surveys of freshwater fish and mussels in Georgia and Alabama, listed species surveys throughout Florida, gopher tortoise excavations and relocations in Florida, project data management and QA/QC, and data analysis.

Staff Scientist – Crested Caracara Nest Monitoring – Hardee and DeSoto County, Florida

Ms. Huelster conducted daily northern crested caracara nest monitoring during part of the breeding season to locate caracara nests, track nest chronology, and bird sensitivity to human activities as part of a multi-year study for Mosaic Fertilizer, LLC.

Staff Scientist – Listed Species Surveys, Latt Maxcy Ranch – Osceola County, Florida

Ms. Huelster conducted surveys for listed species, including the Florida scrub-jay and Florida grasshopper sparrows on a ± 40,000 acre tract of land during a portion of the breeding season to determine occupancy of the species. Survey techniques included pedestrian and vehicular transects and bird surveys using call recordings.

Staff Scientist – Gopher Tortoise Surveys and Relocation, Newland Communities – Hillsborough County, Florida

Ms. Huelster assisted with gopher tortoise surveys along with excavations, marking/measuring/weighting captured animals, and relocation of tortoises to recipient sites. Work was done on currently developed land, areas to be developed, and roadside right of ways throughout the project site.

Staff Scientist – Gopher Tortoise Permitting – Hillsborough, Manatee, Polk, Hardee, and Desoto Counties, Florida

Ms. Huelster assisted Mosaic Fertilizer, LLC in the development and acquisition of large-scale, multi-year state and federal permits for gopher tortoises for their entire Florida holdings (approximately 350,000 acres). Tasks include evaluation of five years of gopher tortoise relocation data, in-depth tortoise recipient site surveys, tortoise surveys on future donor sites, surveys and habitat management recommendations for future recipient sites, and development of a tortoise permit(s) and management procedures that will result in a net conservation benefit to tortoises.

Staff Scientist – Gopher Tortoise Relocations – Throughout Florida

Ms. Huelster conducted gopher tortoise surveys, obtained relocation permits from the FWC, excavated tortoises from lands slated to be developed, relocated tortoises to recipient sites, mark/measured/weighed tortoises, and assisted with writing relocation reports to FWC for numerous projects throughout Florida.

Data Specialist/Staff Scientist – Avian Protection Plan – Hillsborough, Manatee, Polk, Hardee, and Desoto Counties, Florida

Ms. Huelster assisted Mosaic Fertilizer, LLC in preparing an Avian Protection Plan for their Florida Service Area. Some responsibilities include quality assurance/quality control of all collected data, Access database creation and management, development of criteria of safe versus unsafe structures, and data analysis. This plan is designed to reduce avian interactions with transmission and distribution lines, substations, plant facilities, water re-use systems, and clay settling areas. This plan will help conserve avian wildlife, reduce client costs associated with avian-related power outages, and maintain client compliance

with applicable permits and legal requirements. The plan included mapping the utility infrastructure for 154,000 acres of active mine areas, field evaluation of potential avian interactions with utilities, evaluation of the regional bald eagle and wading bird populations, and a GIS-based avian risk assessment model. This plan will be submitted to the FWC and U.S. Fish and Wildlife Service for approval, and to obtain the appropriate permits to provide protection for potential avian and nest take, including compliance with the federal Migratory Bird Treaty Act and obtaining a federal Bald and Golden Eagle Protection Act Permit.

Spill Response

Environmental Specialist/Data Specialist – BP MC252 Deepwater Horizon, Natural Resource Damage Assessment (NRDA), 2010 – Louisiana

Ms. Huelster acted as the lab sample manager and data manager for all NRDA samples that were collected by Cardno staff. She also provided support for response efforts as a member of one of the Rapid Assessment Teams for Cardno, responding to the Deepwater Horizon accident and oil spill in the Gulf of Mexico on behalf of BP Exploration & Production Inc.

Project Scientist – B-255 Barge Explosion and Release, October 2017– Port Aransas, TX

Ms. Huelster assisted with lab coordinating and sampling in this response effort. She also collected and identified shoreline invertebrate samples within the area of spill response.

Project Scientist – Confidential Client, 2019 – Houston, Texas

Ms. Huelster provided support for response efforts as a member of one of the Rapid Assessment Teams for Cardno, collected water samples at the surface and depth. She also assisted with sample shipment and other on-site sample collection as needed.