## Leah a. Meyer

### **Education**

B.S. in Earth Science, Drake University, Des Moines, IA, 1999

### **Specialty Certifications**

40-Hour OSHA Hazardous Waste Training

Kansas Risk-Based Corrective Action (KRBCA) Certification

ASTM Course Phase I and Phase II Environmental Site Assessments for Commercial Real Estate

Sanitas™ Technologies Applied Groundwater Statistics Course

### **Professional Affiliations**

State of Colorado, Petroleum Storage Tank Committee – REP No. 52

Rocky Mountain Association of Environmental Professionals – Board Member

Colorado Environmental Management Society - Member

Society of Women Environmental Professionals, Rocky Mountain Chapter – Member

### **Professional Experience**

Ms. Meyer is a senior project manager for SCS. Her responsibilities include project management, field site management, geologic mapping, data collection for geologic, hydrogeologic, and environmental studies, geologic research, and preparation of geologic, monitoring, and assessment reports. Ms. Meyer has planned and managed multiple subsurface site characterizations, vapor intrusion assessments, groundwater investigations, and evaluation of environmental impact for risk-based corrective action (RBCA) analysis of leaking underground storage tank (LUST) sites in numerous states. Ms. Meyer has experience preparing groundwater statistical analysis (including Mann-Kendall and Ricker Method Plume Stability), as well as risk assessment, corrective action, and technology evaluations. She is highly experienced in the completion of fieldwork plans, site-specific health and safety plans, and Quality Assurance Project Plans for voluntary and enforcement programs.

Ms. Meyer has completed hundreds of Phase I and Phase II Environmental Site Assessments (ESAs) for lenders, developers, municipalities, and state agencies. This experience includes servicing clients for statewide Brownfields assessment programs and municipal United States Environmental Protection Agency (EPA) Brownfields Assessment Grant contracts. Additionally, Ms. Meyer has researched and compiled information from various government agencies to complete preliminary National Environmental Policy Act (NEPA) screening assessments, and conducted initial coordination with applicable environmental agencies, such as U.S. Army Corps of Engineers (USACE), US Fish and Wildlife Service (USFWS), Colorado Division of Wildlife, Colorado Department of Public Health & Environment (CDPHE), and for multiple projects.

Example project experience includes:

Phase I/II Environmental Site Assessments and NEPA Screening

**Phase I Environmental Site Assessment and NEPA Screening Reports; Colorado, New Mexico, California, Wyoming and Kansas:** Ms. Meyer conducted site inspection, including asbestos surveys, and report preparation of multiple Phase I Environmental Site Assessments and NEPA Screening Reports for various commercial and vacant properties proposed for wireless telecommunications development.

**Phase I Environmental Site Assessments and Limited Compliance Assessments; Bailey and Colorado Springs, Colorado:** Ms. Meyer completed detailed site inspections, historical review, regulatory review, and compliance assessment, and preparation of Phase I Environmental Site Assessments for two waste transfer stations. Preparation of the reports included an extensive review of CDPHE records, including documentation of on-site contamination, soil removal, and other remediation activities, related to former illegal disposal activities at the Colorado Springs site.

**Phase I Environmental Site Assessment; Durango, Colorado:** Ms. Meyer completed a detailed site inspection, historical review, regulatory review, and preparation of a Phase I Environmental Site Assessment for an active Subtitle D landfill. Preparation of the report included an extensive review of EPA and CDPHE records and resulted in the identification of two recognized environmental conditions, including the potential for environmental impacts related to on-site disposal of drill cuttings and drilling fluids, associated with the on-site gas well.

**Phase I Environmental Site Assessment and Update; Aurora, Colorado:** Ms. Meyer conducted site inspection including radon sampling, visual mold/moisture survey, and preparation of a Phase I Environmental Site Assessment and subsequent Phase I ESA Update for a multi-phase residential apartment complex located on the former Lowry Air Force Base. Preparation of the report included an extensive review of EPA and CDPHE documentation of on-site contamination, soil removal, and other remediation activities, all related to former activities at the Air Force Base.

**Phase I Environmental Site Assessments for Utility Corridors; Wyoming:** Ms. Meyer provided project management, site reconnaissance, and preparation of Phase I Environmental Site Assessments for various utility pipeline corridors, ranging from approximately 5 to 35 miles for a private utility provider. The Phase I ESAs included specialized regulatory database report packages and completing research of multiple city/county agency records.

**Phase I/II Environmental Site Assessments; Dodge City, Kansas:** Ms. Meyer provided project management and preparation of Phase I Environmental Site Assessments for the KDHE State Water Plan program, of four separate parcels proposed for redevelopment by the City of Dodge City. The Phase I ESAs resulted in the recommendation and performance of Phase II ESAs at all four properties. Ms. Meyer provided project management of Phase II investigation activities of the four parcels. Phase II field activities included a collection of soil and groundwater samples via Geoprobe. Ms. Meyer also performed delineation of soil and groundwater sampling results and preparation of the final reports.

**Desktop Environmental Review; Proposed E&P Waste Landfill, Panola County, Texas:** Ms. Meyer conducted a desktop environmental review of an approximately 522-acre parcel, largely undeveloped with the exception of two gas production wells. Ms. Meyer prepared a review and assessment of environmental items including a historical review, regulatory review, wetlands, floodplain, biological resources, and cultural resources, using various research sources. In addition, Ms. Meyer conducted a formal consultation with the USFWS and the Texas Parks & Wildlife Department (TPWD). Based on the review of these resources, Ms. Meyer made recommendations for a formal consultation with the State Historical Preservation Officer (SHPO), as well as applicable tribal contacts, to determine if the project would be under regulatory authority with the current funding and public use criteria.

**Environmental Report; Sanitary Wastewater Service Extension, Gassville, Arkansas:** Ms. Meyer prepared an Environmental Report (ER) presenting the potential environmental, social, and economic effects that would result from the Sanitary Wastewater Service Extension Project in Gassville, Baxter County, Arkansas. The project proposed by the City of Gassville consisted of extending approximately 16,900 feet of 8-inch gravity sewer, approximately 3,200 feet of 4-inch force main sewer, and two proposed pumping stations. Ms. Meyer completed research into the affected environment and environmental consequences of the project, as they pertained to land use, floodplains, wetlands, historic properties, biological resources, water quality issues, and socio-economic/environmental justice issues. Agency correspondence included communication with the Arkansas Game and Fish Commission (AGFC), Arkansas Historic Preservation Program (AHPP), Arkansas Natural Heritage Commission (ANHC), Arkansas Natural Resources Commission (ANRC), USDA – Arkansas NRCS Field Office, and USFWS – Arkansas Ecological Field Office. Proposed mitigation was recommended for floodplains and water quality issues.

**Environmental Report; AC Main Rehabilitation Project, Mountain Home, Arkansas:** Ms. Meyer prepared an ER presenting the potential environmental, social, and economic effects that would result from the AC Main Rehab – Mallard Point Project in Mountain Home, Baxter County, Arkansas. The project proposed by the Northeast Public Water Authority (NPWA) consisted of replacing approximately 5,300 feet of 8-inch AC water main, and approximately 7,100 feet of 6-inch AC water main, with C900 PVC water main along Mallard Point Road. Ms. Meyer completed research into the affected environment and environmental consequences of the project, as they pertained to land use, floodplains, wetlands, historic properties, biological resources, water quality issues, and socio-economic/environmental justice issues. Agency correspondence included communication with the AGFC, ARPP, ANHC, ANRC, USDA – Arkansas NRCS Field Office, and USFWS – Arkansas Ecological Field Office.

EPA Brownfield Grant Programs

**Oklahoma City Brownfields Program – Oklahoma City, Oklahoma.** SCS served as an environmental consultant assisting the City of Oklahoma City – Planning Department – Urban Redevelopment Division. This City initiative is a targeted redevelopment program for key downtown public and private projects. Typical services provided include Phase I ESA’s, Asbestos Containing Materials Surveys, Phase II ESA’s, Quality Assurance Project Plans, Analysis of Brownfields Cleanup Alternatives, Site Specific Field Sampling Plans (Work Plans), Health and Safety Plans, remedial feasibility, and corrective action selection. Leah has provided environmental services and program support for multiple downtown redevelopment projects.

**Kansas City, Missouri Planning Department (Brownfields Office) – EPA Brownfields Program, Kansas City, Missouri.** SCS has completed numerous individual environmental site assessment projects included in the City Brownfield Grant programs over the last ten years. The City administers technical work from their grants by issuing project-specific competitive proposals. Supporting the recent trend in promoting property reuse for urban agriculture, SCS has also been selected by the City Brownfields Office as a preferred consultant in this technical specialty market. Leah has been extensively involved with these projects since 2009.

**Kansas Department of Health & Environment (KDHE) –Targeted Brownfields Assessment Program, Statewide throughout Kansas.** Ms. Meyer has managed/performed multiple Phase I and II Targeted Brownfields Assessments (TBAs) for KDHE under their State Water Plan contract. These projects are located throughout the state, with a number of projects requiring expedited schedules and careful planning to minimize costs. She has been extensively involved with these projects since 2005.

**Missouri Department of Natural Resources (MDNR) – Statewide Environmental Contract - Targeted Brownfields Assessment (TBA) and Voluntary Cleanup Program, Missouri.** SCS currently serves the MDNR Hazardous Waste Program as a statewide consultant and contractor. Through this contract, SCS directly assists the regulatory agency with their Brownfields Voluntary Cleanup Program (BVCP) and EPA Brownfield Grant-funded TBA Program. We have supported MDNR for numerous contract periods and have completed Phase I and II ESA services for over 40 projects. Individual projects continue to be obtained and completed on an ongoing basis. Ms. Meyer has been extensively involved with these projects since 2006.

Subsurface Investigation

**KDHE Limited Site Assessment (LSA) Investigation; Tribune, Kansas:** Provided project management for site characterization activities at the United Plains Ag UST facility, including auger-driven soil sampling, mud rotary monitoring well installations, and monitoring well development and sampling. Ms. Meyer also compiled current and historical site data, performed delineation of soil and groundwater sampling results, and evaluated environmental impact for KRBCA analysis.

**KDHE LSA Investigation; Wichita, Kansas:** Provided project management for site characterization activities at a former source area currently occupied by a McDonald’s restaurant. Field activities included auger-driven soil sampling, monitoring well installations, and monitoring well development and sampling. Ms. Meyer also compiled current and historical site data, performed delineation of soil and groundwater sampling results, and evaluated environmental impact for KRBCA analysis. Following multiple add scope well installations, the groundwater contamination plume was found to extend several blocks, and likely comingled from three separate source areas.

**KDHE LSA Investigation; Overland Park, Kansas:** Provided project management for site characterization activities at the Former Phillips Station facility currently occupied by an auto repair shop. Field activities included geoprobe soil sampling, auger-driven monitoring well installations, and monitoring well development and sampling. Ms. Meyer also compiled current and historical site data, performed delineation of soil and groundwater sampling results, and evaluated environmental impact for KRBCA analysis. The groundwater contamination plume from this site was found to be likely comingled from up to two additional source areas.

**KDHE Limited Kansas Risk-Based Corrective Action (LKRBCA) Investigation; Salina, Kansas:** Provided project management for site characterization activities at the Rainbo Bakery Store facility, including auger-driven soil sampling and monitoring well sampling. Ms. Meyer also compiled current and historical site data, performed delineation of soil and groundwater sampling results, and evaluated environmental impact for KRBCA analysis.

**KDHE LKRBCA Investigation; Liberal, Kansas:** Provided project management for site characterization activities at the former Graber Service Station facility, including auger-driven soil sampling, mud rotary monitoring well installations, and monitoring well development and sampling. Ms. Meyer also compiled current and historical site data, performed delineation of soil and groundwater sampling results, and evaluated environmental impact for KRBCA analysis.

**KDHE LKRBCA Investigation; Kansas City, Kansas:** Performed field sampling and oversight for site characterization activities at the Quindaro Power Station LUST facility, including auger-driven soil sampling. Ms. Meyer also compiled current and historical site data, performed delineation of soil and groundwater sampling results, and evaluated environmental impact for KRBCA analysis.

**KDHE Drycleaning Program (DFRTF) Expanded Site Assessment; Mission, Kansas:** Provided project management and prepared the work plan for expanded site assessment (ESA) activities at the former Fashion Care Cleaners facility. Initial ESA field activities included the advancement of Gore-Sorber® (GS) passive soil vapor collection modules for source area characterization.

**KDHE Drycleaning Program (DFRTF) Well Installation; Hesston, Kansas:** Provided project management and work planning for well installation activities at the former Bennett's Laundry facility. Field activities included auger-driven well installations, monitoring well development, groundwater sampling, and coordination of disposal of investigative-derived wastes (IDWs). Ms. Meyer also compiled current and historical site data, performed delineation of groundwater sampling results, and preparation of the final report.

**KDHE Drycleaning Program (DFRTF) Well Installation; Derby, Kansas:** Provided project management and work planning for well installation activities at the former One-Hour Martinizing facility. Field activities included auger-driven well installations, monitoring well development, groundwater sampling, and coordination of disposal of IDWs. Ms. Meyer also compiled current and historical site data, performed delineation of groundwater sampling results, and preparation of the final report.

**KDHE VCP, Dailey Ag; Oskaloosa, Kansas:** The site had entered the Kansas Voluntary Cleanup and Property Redevelopment Program as a result of the detection of ammonia and nitrates impacted soil and groundwater during previous investigations.Ms. Meyer provided project management of Voluntary Cleanup Investigation activities, including onsite surficial soil sampling, and on and off-site groundwater monitoring well installations for an active coop facility, as a part of Voluntary Cleanup Investigation. A VCI Report was prepared, compiling the results of the investigation and recommending further actions. Groundwater monitoring is ongoing.

**KDHE VCP, Prime Investment; Kansas City, Kansas:** Performed an off-site subsurface investigation for an abandoned manufacturing facility. The site had entered the Kansas Voluntary Cleanup and Property Redevelopment Program as a result of the detection of arsenic-impacted soil during previous investigations. A Voluntary Cleanup Plan was approved and the site was remediated by the construction of a protective asphalt/concrete cap which qualified as a no-further action remedy, in addition to the off-site investigation which was required by the KDHE to gain a better understanding of arsenic impact to soils in the area. This work involved direct push sampling and collection of soil and groundwater samples.

**MRBCA Tier 1 Risk Assessment; Carrollton, Missouri:** The former Sinclair West Products Terminal had entered the Missouri Department of Natural Resources (MDNR) Brownfields/Voluntary Cleanup Program (BVCP) as a result of the detection of petroleum-impacted soil and groundwater during previous investigations. SCS conducted a Geoprobe® assessment to characterize the remaining impacted soils at the site. Ms. Meyer, as Project Geologist, performed field sampling and oversight of the direct push sampling and collection of soil and groundwater samples. Ms. Meyer also completed a Missouri Risk-Based Corrective Action (RBCA) Tier 1 Risk Assessment Report for the site, which included compiling current and historical site data, performing delineation of soil and groundwater sampling results, and evaluating environmental impact for Missouri RBCA analysis.

**MRBCA Tier 1 Risk Assessment; Kansas City, Missouri:** SCS completed UST excavation, remediation, and monitoring of the Former Midland Energy gasoline filling station. Following excavation activities and one year of quarterly groundwater monitoring it appeared that, although a majority of the petroleum-impacted source materials had been removed, the remaining impacted soils were acting as a continuing source for groundwater contamination. Subsequently, SCS conducted a Geoprobe® assessment to further characterize the remaining impacted soils at the site. Ms. Meyer, Project Geologist, performed field sampling and oversight of the direct push sampling and collection of soil and groundwater samples. In conjunction with the Geoprobe® assessment, Ms. Meyer also completed a Missouri RBCA Tier 1 Risk Assessment Report for the site, which included compiling current and historical site data, performing delineation of soil and groundwater sampling results, and evaluating environmental impact for Missouri RBCA analysis.

**MRBCA Tier 1 Risk Assessment; Kansas City, Missouri:** Based on results of Phase I/Phase II assessments previously prepared by SCS, Ms. Meyer completed a Missouri RBCA Tier 1 Risk Assessment Report for Columbus Park-area parcels proposed for redevelopment by the City of Kansas City, Missouri (KCMO). Tier 1 report preparation activities included compiling current and historical site data, performing delineation of soil and groundwater sampling results, and evaluating environmental impact for Missouri RBCA analysis.

**MRBCA Tier 1 Risk Assessment; Kansas City, Missouri:** Based on results of a limited Phase II assessment previously prepared by SCS, Ms. Meyer completed a Missouri RBCA Tier 1 Risk Assessment Report for the Missouri Department of Transportation (MDOT) Relocation Site, proposed for relocation from the Columbus Park area by KCMO. Tier 1 report preparation activities included compiling current and historical site data, performing delineation of soil and groundwater sampling results, and evaluating environmental impact for Missouri RBCA analysis.

Vapor Intrusion

**KDHE Drycleaning Program, Vapor Intrusion Assessment and Mitigation; Wichita, Kansas:** SCS was retained by KDHE to prepare a Supplemental Investigation (SI) for the Best Cleaners - Woodlawn project. The former Best Cleaners-Woodlawn facility was identified as a source of tetrachloroethylene (PCE) contamination in both soil and groundwater, including offsite groundwater contamination. The purpose of the SI was to complete a vapor intrusion assessment (VIA) and install vapor intrusion mitigation (VIM) systems in the potentially impacted residential condominium units identified by KDHE in the downgradient Country Lake Condominium Neighborhood. Ms. Meyer provided project management/oversight of the project scope of services, including SI work plan preparation; site reconnaissance/building surveys; installation of long-term Vapor Pin® sampling ports within the sub-slab of the specified units; collection of sub-slab soil gas samples and indoor air samples; selection of a subcontractor oversight of VIM systems in select condo units; sub-slab and indoor air verification sampling following VIM installation; and preparation of a Vapor Intrusion Assessment and Mitigation Report.

**Roofing Products Manufacturer, Vapor Intrusion Assessment; Aurora, Colorado:** The tenant facility is located within a large industrial park in Aurora. Based on historic operations at the facility, including the historic use of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and methylene bisphenyl isocyanate, the Client requested the completion of sub-slab soil and sub-slab soil vapor sampling, as well as concrete wipe testing to evaluate indoor air and health and safety concerns within the tenant space. Ms. Meyer provided project management and field geologist oversight of fieldwork, which included the advancement of eight direct-push soil borings and eight soil gas samples (passive soil vapor collection modules), cored through the concrete-slab floor; as well as 10 concrete surface wipe sample locations. Results of the soil sample, soil vapor, and concrete wipe sampling were summarized in a Limited Phase II Investigation report by Ms. Meyer.

Groundwater

**KDHE Drinking Water Protection Program (DWPP) Comprehensive Investigation; Isabel, Kansas:** SCS was contracted to prepare a Comprehensive Investigation (CI) for the City of Isabel Public Water Supply (PWS) System. The purpose of the CI was to identify potential sources of nitrates in the groundwater with the potential to impact public water supply wells in the City of Isabel (City). Ms. Meyer completed project management/oversight of the KDHE-requested tasks, including records review and site reconnaissance of wells located within a 2-mile radius of the City; GIS mapping of the identified wells and owners; submittal of access request letters to associated well/property owners; coordination of groundwater sample collection from selected private, irrigation, PWS, and/or monitoring wells for nitrates analysis; and CI report compilation with recommendations for further actions.

**City of Steamboat Springs, Colorado:** SCS was retained by the City of Steamboat Springs (City) to perform a Limited Groundwater Assessment of the Big Agnes / Firehouse Facility owned by the City. Previous site assessments identified concentrations of VOCs in exceedance of referenced EPA regional screening levels (RSLs). The City requested the completion of a limited groundwater assessment to further delineate VOCs in groundwater at the site, to evaluate if the site was a potential source for these chemicals of concern (COCs). The City also planned to apply the CDPHE, Voluntary Cleanup and Redevelopment Program (VCUP) for No Further Action Determination (NAD) prior to sale of the subject property. Ms. Meyer evaluated previously collected soil and groundwater data from upgradient sites and prepared a plan for temporary well placement and sampling. Ms. Meyer provided project management including subcontracting with an ODEX (Overburden Drilling EXcentric) drilling system for the installation of the wells in the cobblestone lithology of the nearby Yampa River. Based on data collected during the assessment, the VOC groundwater contamination source was determined to be offsite and upgradient of the property. The site was subsequently recommended for NAD.

**Sheridan Landfill Remediation Project:** Ms. Meyer completed fieldwork at the Sheridan Landfill in Sheridan, Wyoming, consisting of sampling 17 newly installed groundwater monitoring wells, and one existing monitoring well. Field activities consisted of collecting methane, carbon dioxide, and oxygen gas reading upon uncapping the well utilizing a GEM 2000 gas meter. Following the collection of static water levels, low-flow (minimal drawdown) techniques were used to purge each well, using a SS Geosub pump and a YSI flow-through cell. Upon stabilization of designated parameters, including conductivity, dissolved oxygen, oxidation-reduction potential, pH, and turbidity, the wells were considered properly purged, and groundwater samples were collected via low-flow pumping and dedicated tubing. Following receipt of laboratory analytical data, Ms. Meyer also assisted with data analysis.

**Ricker Method Plume Stability Evaluation Reports:** Ms. Meyer has prepared Ricker Method Plume Stability Evaluation Reports for several sites. The Ricker Method (“A Practical Method to Evaluate Ground Water Contaminant Plume Stability”, by Joseph A. Ricker, presented in the journal of *Groundwater Monitoring and Remediation*, Volume 28, Issue 4/Fall 2008/ pages 85-94) evaluates whether the overall groundwater contamination plume is expanding or shrinking, the plume footprint is moving or not moving, and if the plume is at dynamic equilibrium (the rate of chemical mass into the plume is equal to the rate of chemical mass lost from the plume). Ms. Meyer typically utilizes Surfer® (version 25) for the preparation of concentration isopleth maps for each contaminant of interest. The plume area, average concentration, and mass for each sampling event are calculated based on the grid file generated by Surfer®. Linear regression analyses of the data are prepared for each parameter to determine if trends are present. Ms. Meyer also utilizes the Mann-Kendall test for additional statistical analysis for plume stability demonstration.

Risk Assessment, Corrective Action, and Technology Evaluations

**Baseline Risk Assessment, Confidential Client; North Kansas City, Missouri:** SCS was contracted by a confidential paint coating manufacturing facility to prepare a Baseline Risk Assessment (BLRA) for the facility. The facility has been subject to extensive site characterization and remediation efforts for several decades. MDNR and the Client signed a Letter of Agreement (LOA) to formally address contamination at the facility. Under the requirements of the LOA, SCS implemented fieldwork to evaluate data gaps and prepared a Baseline Risk Assessment (BLRA) incorporating the components of a human health risk assessment (HHRA) to address the requirements of the EPA Document, *Risk Assessment Guidance for Superfund: Volume I Human Health Evaluation Manual (Parts A-F)*. The BLRA report largely compiled and prepared by Ms. Meyer evaluates potential human health effects at the site using the four-step paradigm as identified by the US EPA in the *Risk Assessment Guidance for Superfund (RAGS): Volume I Human Health Evaluation Manual*: data collection and evaluation; toxicity assessment; exposure assessment; and risk characterization. The results of the BLRA indicated exceedances of the calculated cancer risks and hazards to the current/future commercial worker or future construction workers. SCS recommended engineering and institutional controls, as well as a deed restriction prohibiting future domestic water use at the site.

**Corrective Action Study, APEX Source Areas; City of Wichita, Kansas:** SCS was contracted by the City of Wichita (City) to prepare a Corrective Action Study (CAS) for the APEX East and APEX West source areas, located within the North Industrial Corridor (NIC) Site. This CAS Report was prepared to satisfy the requirements of a Settlement Agreement established between the City and the KDHE as part of the larger NIC Site. This report was prepared to provide information for evaluating, comparing, and contrasting corrective action alternatives for the APEX Source Areas. Ms. Meyer compiled site use history; a summary of previous investigations and results; and identification of potential receptors and pathways. The CAS report prepared by Ms. Meyer further included the identification and screening of potential remedial technologies; a selection of remedial alternatives retained for the site; and a detailed analysis of remedial alternatives based on the nine criteria used to evaluate remedial action alternatives, as specified in the *Guidance for Conducting CI/CAS* (KDHE BER Policy: BER-RS-20 2005). Based on the comprehensive evaluation, SCS selected a preferred recommended remedial action for both source areas.

**Technology Evaluation Report, Former American Cleaners; Haysville, Kansas:** SCS was contracted by KDHE to prepare a Technology Evaluation Report (TER) for the former drycleaning facility. The primary purpose of the TER is to discuss the soil sampling and groundwater monitoring activities used to collect data to evaluate the current conditions and quality of the aquifer and evaluate those site conditions for the effectiveness of an In-situ Chemical Oxidant (ISCO) injection technology. Ms. Meyer completed project management/oversight of the KDHE-requested field tasks, which included groundwater sampling for evaluation of analytical and geochemical parameters, and soil probing and sampling for evaluation of geotechnical analysis and bioremediation parameters. The TER report prepared by Ms. Meyer included an evaluation of the nature and extent of contamination, contaminant fate and transport, identification of potential receptors, and the general applicability of ISCO based on determined site-specific conditions. Based on applicability and cost, SCS did not recommend the use of the ISCO injection gallery, but instead offered alternative treatment options.

GIS Projects

**Central Missouri Landfill (CML), Fatal Flaw Analysis:** Ms. Meyer created location restriction figures for the Expansion Fatal Flaw Analysis report. Included locating hydrography, flood zones, wetlands, airport facilities, faults/earthquake hazards, soils, and area water supply coverages for the area of the landfill and creating applicable boundaries and buffers for analysis.

**Wyoming Department of Environmental Quality (WDEQ), Landfill Mapping:** Ms. Meyer created a working shapefile of polygon landfill boundaries based on raster images, & 3-mile buffers of created landfill boundaries for WDEQ statewide analysis.

**Raccoon Valley Wastewater Project; Storm Lake, IA:** Ms. Meyer prepared the base map and acquired the necessary watershed and sub-watershed shapefiles, as well as other significant layers, to complete a discharge point evaluation for a proposed bio-diesel plant location.

**Barton County Landfill; Barton County, KS:** In conjunction with a GIS subcontractor, Ms. Meyer helped prepare a beta mapping system for the landfill’s internal use as a comprehensive database for the landfill gas and monitoring well systems.

**Drainage Map (Private Client); Craig, NE:** Ms. Meyer prepared a base map and acquired the necessary watershed and sub-watershed shapefiles, as well as other significant layers, to compile a drainage map for internal use and evaluation of flood elevation boundaries and acreages for potential litigation.

**NPDES Permitting/SWP2 Plans**

**NDPES Permit Renewal, Ellis-Scott Landfill; Clinton, Missouri:** Ms. Meyer prepared the NPDES permit renewal.

**NDPES Permitting, Galena Transfer Station; Galena, Kansas:** Ms. Meyer prepared the Notice of Intent (NOI), as well as the required Storm Water Pollution Prevention (SWP2) Plan.

**NPDES Permitting, Resource Recovery Landfill; Cherryvale, Kansas:** Ms. Meyer prepared the NOI, as well as the required SWP2 Plan.

**Wheatland Landfill; Columbus, Kansas:** Ms. Meyer prepared the NOI, as well as the required SWP2 Plan.