

Resume

Ray Shull, P.E.

Associated Consulting Engineers, Inc.

ASSOCIATED CONSULTING ENGINEERS, INC.

RAY L. SHULL, P.E.

EXPERIENCE Ray is President of Associated Consulting Engineers, Inc. (ACE). He is responsible for management and direction of the day to day operations. Prior to establishing ACE, Ray was Senior Vice-President for RMT/Jones and Neuse, Inc. (RMT/JN), and was responsible for overseeing all engineering projects undertaken by RMT/JN. This responsibility included assuring the accuracy of all plans, specifications, and technical reports and coordination with clients. This included projects in the areas of industrial design, utilities, solid waste management, transportation, recreational facilities, and also fuel storage systems. Prior to joining RMT/JN, Ray worked for the Texas Department of Water Resources as an area engineer administering the construction grant program in Texas for the San Jacinto, Colorado, San Antonio, Guadalupe, Blanco, Red, and Canadian river basins. This included projects in Houston, San Antonio, Austin, Amarillo, Sherman, Galveston, and Baytown. Prior to that Ray was a staff engineer and the Environmental Coordinator for Arnold Engineering Development Center, a major research and development facility for the United States Air Force. His duties included planning, design, and construction engineering for projects at the Center and coordination of all environmental activities at the 3,000-employee facility.

KEY PROJECTS **Municipal Solid Waste Management**
Project Director: Planning, permitting, and design for a twenty-five million yard landfill facility in central Texas, an eight million cubic yard waste disposal facility in the Houston area, a twenty six million cubic yard disposal facility in east Texas, a twelve million cubic yard disposal facility in central Texas, a six million cubic yard facility in south Texas, a twenty-nine million cubic yard disposal facility in south Texas, and an eleven million cubic yard disposal facility in Mexico City. All projects included recycling facilities and material recovery capability. Other Texas projects Ray has directed include the expansion of landfill disposal facilities for the Cities of Kerrville, El Campo, Brownwood, Temple, Copperas Cove, and design and permitting of transfer facilities serving the Cities of Houston and Killeen.

Hazardous Waste Facility-Permitting and Design

Project Director: Overall project director for the preliminary design, permitting, and design of a major hazardous waste management facility in West Texas. The facility included a 12 million cubic yard landfill, stabilization units, storage facilities for liquid wastes, rail storage and unloading facilities, and various bulk waste storage facilities. Presentations were made to local residents, interested citizens, state and federal regulatory agencies, interested citizens in Mexico, and Mexican governmental agencies including sub-committees of the Mexican Legislature.

Non-Hazardous Industrial Waste Facility-Permitting and Design

Project Director: Prepared permit and design documents for a seven million cubic yard non-hazardous solid waste landfill facility and associated waste acceptance and treatment units. Project was one of the first dedicated commercial non-hazardous, landfills in Texas and involved permitting an existing permitted and operating site. The permit was issued without public opposition and without requiring a public hearing. Project Director for a six million cubic yard commercial non-hazardous landfill in south Texas and an eight million cubic yard commercial non-hazardous landfill in east Texas. All these commercial facilities also included extensive waste processing and stabilization facilities.

Solid Waste Planning

Project Director: Regional solid waste management plans were developed for the Capitol Area Planning Council, Central Texas Council of Governments, Heart of Texas Council of Governments, West Central Texas Council of Governments, and the Ark-Tex Council of Governments. Sub-Regional and local solid waste management plans for the Tri-County area of Atascosa, Frio, and Medina Counties and for the Cities of Temple, Giddings, El Campo, and Belton. This includes the development of long range, comprehensive solid waste management plans for over one hundred counties in Texas and a total population of over five million people.

Wastewater

Project Director: Project Director for numerous wastewater planning, design, permitting, and construction projects including a major 48-inch gravity sewer line approximately 13,000 feet in length, the design of the upgrade and expansion of a 5.0 mgd wastewater treatment plant in Harris County, Texas, the cleaning, smoke testing, and evaluation of the entire existing wastewater collection system for El Campo, Texas, a 1.0 mgd industrial laundry wastewater treatment plant near El Paso, Texas, an upgrade and expansion of the 5.0 mgd wastewater treatment plant for Port Neches, Texas, the Lower Colorado River Authority's Innovative/Alternative Wastewater Treatment Demonstration Project, the upgrade, expansion, and consolidation of three wastewater treatment plants for Giddings, Texas. Vice-Chairman of the Innovative/Alternative Technology review committee for the Texas Department of Water Resources.

Water Projects

Project Director: The evaluation, planning, and design of improvements to a water treatment and distribution system containing over seventy miles of water mains serving seven major communities in four counties in north central Texas, the City of Copperas Cove elevated water storage tank and improvements to their water distribution system, the City of Buda elevated/ground storage improvements and water supply improvements, improvements to the City of Taylor's water treatment and distribution system, operations manager for the 500mgd raw water and cooling water supply system for the Arnold Engineering Development Center.

**EDUCATION/
TRAINING**

Bachelor of Science in Civil Engineering with Highest Honors; University of Texas; Austin, Texas; 1975.

Construction Claims Prevention Course; Northwest Professional Education

**REGISTRATIONS/
CERTIFICATIONS**

Registered Professional Engineer; State of Texas; July 1980; No. 47759.

Resume

Gregory J. Lewis, P.E.
Associated Consulting Engineers, Inc.

ASSOCIATED CONSULTING ENGINEERS, INC.

GREGORY J. LEWIS, P.E.

EXPERIENCE

Gregory J. Lewis, P.E. is Vice President and co-founder of Associated Consulting Engineers, Inc., (ACE). Mr. Lewis has over 26 years of experience in environmental and civil engineering. His responsibilities include the management, administration, and technical adequacy of environmental and engineering projects during planning, design, permitting, and construction. He has a diverse range of project experience, which includes solid waste management design, water and sewer system design, wastewater treatment design, water availability and site hydrology, street and drainage design, transportation planning, and parks and recreation planning and design.

Prior to the establishment of ACE, in July 1997, Mr. Lewis served as a Senior Project Manager for RMT, Inc (1993–97) and its predecessor in Texas, RMT/Jones and Neuse, Inc and Jones and Neuse, Inc (1985– 93). During his tenure with Jones and Neuse and its successors, Mr. Lewis' positions included Director of Environmental Engineering, Senior Project Manager, and Project Manager.

Before joining Jones and Neuse 1992 Mr. Lewis worked for the Texas Department of Water Resources as a hydrologist in the Water Availability Section and as a project engineer in the Construction Grants Division. As a hydrologist in the Water Availability Section, his responsibilities included the preparation of engineering studies and reports on water availability throughout Texas. He performed numerous studies concerning reservoir operations modeling, streamflow modeling, and water rights appropriations. Mr. Lewis also prepared dam safety reports and spillway adequacy analyses under the U.S. Corps of Engineers' Dam Safety Program. He testified as an expert witness on these studies and reports at numerous public hearings. As a project engineer with the Construction Grants Division, Mr. Lewis reviewed plans and specifications for federally funded wastewater systems. He was the review project engineer for approximately 30 separate entities within the Trinity and Neches River Basins. He has design experience in the wastewater systems of both small communities and large municipalities, including processes varying from secondary to tertiary treatment.

KEY PROJECTS

Mr. Lewis has experience in a diverse range of solid waste projects including industrial waste facilities, commercial and non-commercial projects, and municipal facilities planning and design. The following listing are examples of some of the projects Mr., Lewis has been involved in:

City of Austin Water and Wastewater LCRA Water Supply Contract

Mr. Lewis served as the project manager and water rights technical expert to the City of Austin on water supply and water rights issues since 1997. ACE was retained by the City's Water and Wastewater Utility to assist the City in negotiating a new long-term water supply agreement

between the City and the LCRA. Mr. Lewis assisted in evaluating engineering considerations concerning the yield of the City's reservoirs and springflows, and in evaluating the City's hydroelectric water rights. The City concluded its negotiations with the LCRA and entered into a 100-year water supply agreement.

City of Austin, Austin Energy
Fayette Power Project
Sand Hill Energy Center
Water Rights

Mr. Lewis served as the project manager and technical expert in assisting the City of Austin efforts to amend its water rights to allow for their use at the Fayette Power Project located in Fayette County. The water rights project involved the development and implementation of a strategy to allow the City to add a downstream diversion points to an existing water right which would allow the City to divert its own industrial cooling water and reduce its dependence on water purchased from the Lower Colorado River Authority. The amended water right was approved by the TNRCC in July 1999. Mr. Lewis continues to assist Austin Energy in evaluating water diversions, both from run-of-the-river and purchased water, and in renegotiating a back-up water supply contract with the LCRA.

US Army Corps of Engineers
Lake Lewisville Reservoir – Reservoir Control Manual
Project Manager / Project Engineer

Mr. Lewis was the Project Manager and technical leader for providing assistance to the US Army Corps of Engineers (USCOE) in the preparation of the Lake Lewisville Reservoir Control Manual. This manual is used by the USCOE to determine release rates during major storm events. Mr. Lewis prepared a technical evaluation of the hydrologic and hydraulic adequacy of the impoundment and dam spillway and structure. Included with this assessment was an evaluation of the downstream impacts for various release rates during major storm events. The downstream studies included the preparation of economic damage versus flow rate curves and emergency measures implementation procedures.

Desarrollo Del Rancho La Gloria LP. (An Allied Waste Corporation)
La Gloria Ranch Landfill, Hidalgo County Texas

Mr. Lewis served as the Engineer of Record and overall project manager for the permit application development of a new MSW Solid waste Facility located north of McAllen, Texas in Hidalgo County Texas. Permit 2348 was issued by the TCEQ in May 2006; the facility includes an 111MCY Type I MSW landfill with a maximum disposal rate of 13,000 TPD. The facility could begin operation on 2010.

BFI Sunset Farms Landfill
Austin, Texas

Since 1998 Mr. Lewis has served has assisted in the supervision and oversight of the ACE engineering and other technical consultants, provided engineering services on a range of design and regulatory efforts at the Sunset Farms Landfill in Austin, Texas. These projects, some of which are on-going, included the preparation of designs and regulatory application materials for permit modifications (mods) and amendments *including: Height and drainage mods, leachate collection and SLQCP mods, facility revisions, cell configuration, and a major expansion amendment.* The expansion amendment is on-going and includes a

vertical expansion to increase the disposal capacity

City of Kerrville, Kerr County Texas

City of Kerrville Type I MSW Permit Modification and Amendment

Project Manager and the Engineer of Record for a permit modification and the preparation of a permit amendment for an expansion of the City's landfill. The modification involved the engineering design for drainage revisions to the landfill cap, and included preparation of the modification submittal documents, and processing through the TNRCC. The major amendment project included the complete engineering of a new cap and height design along with the required assessments of the environmental effects of the height increase. The amended permit 1506-A was issued by the TNRCC in February 2001.

BFI Rio Grande Landfill Permit Modifications

Donna, Texas

Provided project management of engineering design and preparations of permit modifications related to cap and drainage designs, and waste stabilization basins.

BFI Gulf West Permit Modifications

Chamber County Texas

Since 2002 Mr. Lewis has provided engineering services to Gulf West Landfill LP (an Allied Waste Company) at their Gulf West Landfill (SW 39039) Mr. Lewis has the overall project manager and Engineer of Record for permit modifications for operation and design changes to the Gulf West Class I Non-Hazardous Waste facility.

Western Waste Industries, Conroe, Texas

Industrial Waste Landfill for Commercial Class I NHW

Served as the Project Manager for the engineering design portions and regulatory documentation of an industrial waste disposal facility near Conroe, Texas. The facilities included a Class I industrial waste landfill (including dual composite liners, leachate collection, tiered step dike containment, stormwater water segregation, and composite cap components) waste solidification and stabilization facilities, and associated laboratory and entrance structures. The facility was approved and permitted by the TNRCC.

USA Waste/Western Waste, Newton Co Regional Solid Waste Mgmt Complex, Non-hazardous Commercial Disposal Facilities – Industrial Solid Waste Permitting, Texas

Senior Project Manager: Mr. Lewis was the Engineer of Record for the Municipal Solid Waste Consolidated Permit Application from TNRCC (91997). His responsibilities included the preparation of engineering and permit application documents for a 1600-acre commercial waste disposal complex including a 19-million cubic yard industrial non-hazardous landfill and a 17-million cubic yard municipal waste landfill in southeast Texas. The facility is the first of its kind to be permitted as a Consolidated Permit by the TNRCC.

Municipal Solid Waste Planning, Texas

Senior Project Manager: Served as senior project manager on four separate regional solid waste management plans encompassing over 40 central Texas counties for the state planning regions. These regions

include the Capitol Area Planning Council (CAPCO), the West Central Texas Council of Governments (WCTCOG), the Central Texas Council of Governments (CTCOG), and the Heart of Texas Council of Governments (HOTCOG). Each of these RSWMPs included regional siting evaluations and identification of social/land use issues as well as environmental and engineering constraints. All of these plans were reviewed and approved by the TNRCC.

City of Brownwood, Texas - Municipal Solid Waste Permitting

Senior Project Manager: The City of Brownwood (pop. 35,000) required an evaluation of their landfill for compliance with the then pending Subtitle D regulations. An audit of the city's landfill and a rate study of the city's solid waste services were performed. Based on the findings of the Subtitle D audit and the new rates established in the Rate Study, the city elected to continue to operate their landfill. Also required was the preparation and submission of a permit modification to the TNRCC on behalf of the city. Subsequently the city elected to expand their landfill operations and RMT/JN prepared the permit amendment for which Mr. Lewis was the designated Engineer of Record. This involved the design of the new facility, which included a demonstration that the facility would meet the new siting requirements, subsurface investigations, operations plans, waste management plans, monitoring plans, and engineering documents.

**Structural Metals, Inc. (SMI), Sequin, Texas
Hazardous Waste Landfill Closure**

Served as the Project Manager for the redesign and closure of a hazardous waste (arc furnace bag dust) landfill at Structural Metals Inc. in Sequin, Texas. Project included the design of capping components to EPA MTR, and TNRCC technical guidelines. Stormwater runoff controls and design submittal documentation to the TNRCC.

**GNB Technologies, Frisco, Texas
Senior Project Manager**

Served as the Senior Project Manager for the conceptual development of an on-site industrial waste landfill at a lead acid battery recycling facility located near Frisco, Texas. The project included the preparation and submittal to the TNRCC of Registration submittal materials to authorize the location, design and construction of the landfill. Mr. Lewis also supervised the development of the construction plans and specifications.

**Champion International, Lufkin, Texas
Project Manager:**

Mr. Lewis served as the project manager for providing preliminary engineering services related to the design of solid waste treatment and disposal facilities at the Champion paper mill in Lufkin, Texas. Mr. Lewis provided field reconnaissance and investigation surveys of existing and proposed mill disposal operations. Mr. Lewis prepared a preliminary engineering report concerning the findings that was provided to mill management.

**EDUCATION/
TRAINING**

BS, civil engineering; The University of Texas, Austin 1981

REGISTRATIONS/

Registered Professional Engineer - Texas, October 1985, No. 58261

CERTIFICATIONS

**PROFESSIONAL
AFFILIATIONS**

Solid Waste Association of North America (SWANA), American Society of Civil Engineers (ASCE)

Resume

Adam W. Mehevec, P.E.
Associated Consulting Engineers, Inc.

ASSOCIATED CONSULTING ENGINEERS, INC.

Adam W. Mehevec, P.E.

EXPERIENCE

Over thirteen years of experience with civil and environmental projects with a professional focus on municipal and non-hazardous industrial solid waste disposal. Solid waste related projects have included site feasibility studies, permit preparation, disposal facility construction drawings and specifications, and on-site QA/QC construction representative.

KEY PROJECTS

Allied Waste, Inc.-La Gloria Ranch Landfill

Project Manager: Prepared permitting and design drawings for new 2,000 acre (111 million cubic yard) landfill site in Hidalgo County. Project included preparation of TCEQ MSW permit application, Hidalgo County drainage permit application, FEMA CLOMR application, and coordination with three gas companies to relocate six existing natural gas pipelines on the site. Engineering duties included design of 111 million cubic yard landfill, drainage collection and conveyance facilities, two miles of entrance road, 60 acres of detention ponds and 40 acre retention pond.

Allied Waste, Inc.-Channel Modification

Project Manager: Designed earthen channel to re-route existing floodplain at an operating solid waste facility. Prepared HEC-1 and HEC-RAS models, construction drawings and Conditional Letter of Map Revision (CLOMR) application for submittal to FEMA and site development permit application drawings.

BFI Sunset Farms Landfill Vertical Expansion

Project Manager: Prepared permitting and design drawings for ten million cubic yard vertical expansion of existing landfill in Austin, Texas. Project included preparation of TCEQ MSW permit amendment application, City of Austin site development permit application, and Travis County development permit application.

City of Kerrville- Kerrville Sanitary Landfill Permit Amendment.

Project Manager. Prepared various portions of amendment application including: leachate collection system design, landfill gas management plan, and general site maps. Also performed HEC-1 and HEC-RAS modeling of adjacent floodplain.

Inland Paperboard and Packaging – Design of Class II Industrial Landfill.

Project Engineer: Performed preliminary site study and economic analysis to determine feasibility of expanding an existing on-site Class II landfill. Assisted with preparation of Notice of Registration to the TNRCC. Prepared construction drawings and specifications for height extension of existing cell and construction of a new adjacent cell.

BFI Waste Systems – Outbound Scale Project

Project Manager: Designed and permitted bypass lane and outbound scale for operating MSW landfill.

BFI Waste Systems, Inc. – Stabilization Basin Project

Project Manager: Prepared permit drawings to add a new liquid waste stabilization unit at an existing MSW landfill.

ALCOA-CaFI Sludge Lagoon #6 Design and Construction.

Engineer-in-Training: Participated in preparation of construction drawings and specifications for 300,000 CY sludge lagoon. Acted as on-site QA/QC representative during road relocation, excavation, berm construction, and clay liner and HDPE liner construction.

General Tire, Inc.-Remediation of Latex Pond and Solid Waste Area.

Engineer-in-Training: Acted as on-site QA/QC representative during remediation and closure of Latex Pond and Solid Waste Disposal areas. Responsibilities included observation and documentation of excavation and off-site disposal of approximately 3,400 tons of PCB contaminated soils and debris, installation of 48" R.C.P. storm sewer, and placement of final cover over each area.

Georgia-Pacific, Corporation - Erosion Control System Construction.

Engineer in Training: Acted as on-site QA/QC representative during 12 week construction project. Responsibilities included observation and documentation of: installation of approximately 900 feet of steel sheet piling along Kalamazoo River, excavation and storage of 1,100 C.Y. of PCB contaminated paper mill residuals, and backfilling and grading of slope within construction limits.

GNB Technologies, Inc. - Class II Non-hazardous Industrial Landfill Registration and Preparation of Construction Drawings.

Engineer-in Training: Participated in the design and registration of 200,000 cubic yard Class II landfill. Responsibilities included conceptual and final geometric design and preparation of construction drawings.

USA Waste, Inc. - Cell 2 Construction at Countryside Landfill.

Engineer-in-Training: Acted as on-site QA/QC representative during Cell 2 construction project. Responsibilities included observation and documentation of installation of perimeter slurry wall and leachate control trench along existing disposal cell.

Western Waste Industries, Inc. - Existing Municipal Landfill Cover Drainage Improvement.

Engineer-in-Training: Redesigned final cover system and applied for height extension permit modification for an existing municipal landfill in order to improve facility drainage.

Adobe Eco-Systems, Inc. - Municipal Solid Waste Landfill Permit.

Engineer-in-Training: Prepared site layout plan, liner and cover details, temporary erosion control plan, groundwater monitoring plan, supplementary technical report, and leachate evaporation unit details for a 19.7 million cubic yard municipal solid waste landfill.

**EDUCATION/
TRAINING**

M.S., Civil Engineering, Texas A&M University at College Station, 1994
B.S., Civil Engineering, Texas A&M University at College Station, 1993

**REGISTRATIONS/
CERTIFICATES**

Licensed Professional Engineer #84736, State of Texas
40-hour OSHA Hazardous Waste Operator Certification

CapitalMetro-Commuter Rail Train Station Design

Project Manager: Lead engineer and project coordinator for six new commuter rail train stations along proposed MetroRail Red Line. The stations are Leander, Lakeline, Highland, Kramer, Howard, and the initial phase of the Downtown Station. Five of the stations are within the City of Austin jurisdiction and the last is in Leander, Texas. Duties included overall station conceptual design and budgeting, project management of in-house personnel and six sub-consultants, preparation of site development permit drawings, preparation of TCEQ Edwards Aquifer Protection Plans, civil construction drawings and specifications, and construction phase coordination.

CapitalMetro-Leander Park and Ride

Project Manager: Engineer of record for site development plans to construct new 13.5 acre park and ride facility in Leander, Texas. Project consisted of 650 space concrete vehicle parking area, bus lanes and canopies, terminal building, and 1 acre wet pond. Prepared City of Leander permit drawings, TCEQ Contributing Zone Plan application, construction drawings and specifications.

Austin Energy-Sand Hill River Intake and Discharge

Project Manager: Engineer of record for site development plans to construct new raw water intake and discharge structures for the Sand Hill Energy Center on the Colorado River. Project included river bank stabilization, temporary coffer dam system to allow for construction of the intake structure, and installation of the discharge line and outfall structure.

Waters at Bluff Springs Apartment Complex Development

Project Manager: Assisted with design of a 14 building apartment complex, responsibilities included site grading, stormsewer design, box culvert design, and water quality pond design. Also performed floodplain impact modeling on two creek tributaries located on the site utilizing HEC-1 and HEC-RAS computer software and prepared CLOMR application.

Shurgard Storage Facility

Project Manager: Prepared permitting and construction drawings for improvements associated with a new four story self-storage building in Austin, Texas. Improvements included: storm sewer, water and wastewater, detention pond, and concrete parking area.

Texas Parks and Wildlife – Infrastructure Improvements at Three State Parks

Project Manager: Designed and managed construction of water and wastewater system improvements at three park locations. Improvements included new ground storage tank, hydropneumatic tank, chlorination systems, on-site sewage disposal systems, and related water and wastewater line work.

City of Brownwood - Brownwood Regional Municipal Solid Waste Disposal Facility Permit Amendment.

Engineer-in-Training: Participated in the preparation of major permit amendment for existing facility. Duties included worst-case closure and completion plans, soil balance and operating life calculations, and fill cross-sections.

Resume

John Michael Snyder, P.G.
Biggs& Matthews Environmental

MICHAEL SNYDER, P.G.

Education

University of Texas at Arlington, Master of Science in Geology, 1977
University of Cincinnati, Bachelor of Science in Geology, 1975
Oklahoma State University, Graduate Work, Hydrogeology, 1990

Professional Certification

Texas Registered Professional Geoscientist 595
Certified Professional Geologist 7963

Professional Affiliations

American Institute of Professional Geologists
National Ground Water Association
Association of Ground Water Scientists and Engineers
Solid Waste Association of North America (SWANA)
Lone Star Chapter of SWANA
West Texas Geologic Society

Continuing Education

Clay Liners and Cover for Waste Disposal Facilities, University of Texas @ Austin

Technical Publications

Alternate Liner Design Demonstrations for Subtitle D Liners, presented to Texas Chapter of NSWMA, Houston, Texas
Demonstrating the Protective Capability of an Alternate Liner Design for Subtitle D Landfills - presented to Options for Texas Conference, Austin, Texas
Optimizing Your Groundwater Monitoring Expense, presented to TXSWANA Annual Conference, El Paso, Texas

Participation in Policy, Standard, or Rule-Making Committees or Boards

- Leachate Collection System Task Force, 1995, TCEQ
- Waste-as-Ballast Task Force, TCEQ
- Participated in Subtitle D rule writing as staff member of the Solid Waste Program at the Texas Water Commission

Experience Summary

Mr. Snyder is a registered professional geologist and project manager with over 25 years of experience. He has a wide range of hydrogeologic and solid waste permitting experience in the state of Texas. Mr. Snyder served as a permit hydrogeologist in the Solid Waste Division of the Texas Water Commission and Texas Department of Health [both predecessors of the Texas Commission on Environmental Quality (TCEQ)]. While a consultant, he served on the Leachate Collection System Task Force, convened in 1995 by the TCEQ. That task force considered the alternative options for leachate collection systems and the ways that those alternatives might be demonstrated to be acceptable to the TCEQ. Mr. Snyder also served on the Waste-as-Ballast Task Force led by the TCEQ.

As a project manager Mr. Snyder is responsible for municipal solid waste permitting projects including permit applications, major permit amendments, minor permit amendments and modifications. Negotiations with the TCEQ and coordination of project professional team members have been key elements of each of the more than 25 successful solid waste permitting projects completed by Mr. Snyder during the past 5 years. In addition, he has direct experience in performing hydrogeologic and groundwater projects for solid waste facilities in Texas and Oklahoma.

Mr. Snyder currently serves as the Vice President, Solid Waste Services Manager, and Principal Hydrogeologist for Biggs & Mathews Environmental, Inc., a general civil and solid waste consulting engineering firm in Mansfield, Texas.

Selected Project Experience

- Currently serving as Hydrogeologist-of-Record on several solid waste permit applications for municipality and privately operated facilities.
- Mr. Snyder served as the overall project manager for the Texoma Area Solid Waste Authority (TASWA) project. He coordinated the complex technical tasks resulting in the permit being issued for this greenfield landfill facility. Following the issuance of the permit, he coordinated the conceptual design phase that was presented to the TASWA Board. Design decisions by the Board were incorporated into the final design phase before the project moved into the bid and award phase. The final phase of this project included construction management and CQA. Mr. Snyder coordinated the interaction of the Biggs and Mathews staff, the TCEQ, the contractors, and TASWA. The site is due to open during the first quarter of 2005.
- Served as the project manager for several major permit amendment applications that successfully resulted in permit issuance during the past 10 years. Each of those projects included complex negotiations with

the TCEQ. Negotiations with the TCEQ and appearances as a testifying expert in public hearings were important elements of those projects.

- Mr. Snyder has served as the hydrogeologist of record for the design of the Subtitle D groundwater monitoring systems for numerous sites in Texas. Evaluations of groundwater monitoring systems, groundwater flow, potential contaminant pathways, and groundwater chemistry were completed as parts of those projects.
- Mr. Snyder served as a project manager and hydrogeologist on several permitting projects that included demonstrations of alternate liner designs for municipal solid waste landfills.
- Mr. Snyder has testified as an expert hydrogeologic witness for several solid waste permitting actions.
- Mr. Snyder serves as project manager for groundwater monitoring and reporting projects for multiple sites.

Resume

Gregory W. Adams, P.E.
Biggs& Matthews Environmental

GREGORY W. ADAMS, P.E.

Education and Training

B.S., Civil Engineering, University of Texas at Arlington, 1985
Groundwater Hydrology, University of Tennessee, 1992
Solid Waste Management, University of Tennessee, 1992

Professional Registrations

Professional Engineer, Texas No. 73356
Professional Engineer, Oklahoma No. 17626

Mr. Adams has more than 20 years of experience in civil and geotechnical engineering and has managed a wide variety of heavy civil construction projects. Mr. Adams has prepared construction documents, performed geotechnical studies, feasibility studies, prepared hazardous and solid waste permits, designed landfills, foundation systems, roadways, retaining structures, pipelines, dewatering systems and scale facilities in a variety of geologic settings. For the past 13 years, Mr. Adams has served as project manager, construction manager, design engineer, and geotechnical professional of record for solid waste disposal facilities for both private waste companies and municipalities.

Selected Project Experience

- Served as the design engineer and construction manager for over 120 acres of cell construction and site improvements at the McCommas Bluff Landfill in Dallas, Texas.
- Served as the construction manager for a truck dispatch and maintenance facility at the Skyline Landfill in Ferris, Texas.
- Served as the design engineer and construction manager for over 50 acres of cell construction and site improvements at Waste Management sites in North Texas.
- Served as design engineer and construction manager for over 20 acres of cell construction and 50 acres of cover construction at the CSC Landfill in Avalon, Texas.
- Served as the construction engineer and manager for the construction of over 300 acres of composite and alternate liners and 280 acres of final cover systems at solid waste landfills.

- Performed construction quality assurance and served as geotechnical professional of record for Subtitle D liners and leachate collection systems at landfills in Texas, Oklahoma, and at a hazardous waste landfill in New York.
- Served as project manager for the construction of Subtitle D and alternate liner systems at landfills in Texas and Oklahoma. Key project elements included design of the excavations, liner and leachate collection systems, site drainage, leachate transfer systems, preparation of construction plans, specifications, contract documents, construction contract administration, construction quality assurance, and liner certification.
- Served as project engineer for permit amendments and applications for solid waste landfills in Texas. The projects involved design of the landfill footprints, excavations, final contours, drainage systems, liner systems, leachate collection systems, access roads, demonstration of compliance with applicable regulations, and preparation of the permit amendment and application.
- Prepared construction plans, specifications, and construction documents to remediate three hazardous waste sites in Texas.
- Served as project manager for the closure of solid waste landfills in Texas and Oklahoma. Key project elements included final contour design, final cover and drainage system design, preparation of construction plans, specifications, contract documents, construction contract administration, construction quality assurance, and closure documentation.
- Served as project engineer for permit modifications to allow alternate liners to be used at solid waste landfills in Texas. Key project elements included excavation design, liner and leachate collection system design, revising the site operating and quality control plans, preparation of the Alternate Liner Design Demonstration, and coordination with the Texas Commission on Environmental Quality.

Resume

Matt Stutz, P.E.

Weaver Boos Consultants, LLC-
Southwest

MATT K. STUTZ, P.E.

Principal

Fields of Expertise

Mr. Stutz has 10 years of experience in air quality services and landfill gas studies and collection system design. Mr. Stutz has extensive work experience in landfill gas system design, permitting and compliance, and has prepared numerous emission inventories, air quality permits and emission calculations.

Professional experience includes serving as an instructor in air pollution courses for the Center of Environmental Research and Training at The University of Texas at Arlington. He is a principal with the company and manages the landfill gas and air quality services group in the Texas office.

Design experience includes design layouts, design computations, technical specifications, design drawings, and details of landfill gas extraction and energy systems. He has performed emission modeling, inventories, and calculations, as well as economic feasibility studies for landfill gas-to-energy projects. He has worked closely with local, state, and federal regulatory agencies to ensure that engineering deliverables comply with all current applicable requirements.

Registration

Professional Engineer, Texas
Professional Engineer, Oklahoma
Professional Engineer, Louisiana

Education

BS, Civil/Environmental Engineering, 1997,
The University of Texas at Arlington

Select Project Experience

Managed and participated in the design of a LFG collection and control systems for over 100 landfills throughout the United States. Project work included the development, design, permitting and preparation of construction plans, details and specifications for the LFG system. Engineering responsibilities include developing and preparing the LFG generation model and overall system design (well and monitoring probe spacing and depth, flow rate and pressure loss calculations required for sizing the piping, blowers and flare, and selection of construction materials); and coordination of the structural and electrical systems

Registered Emission Reductions Credits for two landfills in Texas.

Prepared over 100 air quality permits and NSPS/NESHAP compliance documents for landfills and LFG flares for various states.

Completed 5 due diligence reports and year-end environmental compliance audits for a national solid waste firm. Compiled data, prepared report, and compiled summary information and data for all aspects of air quality compliance for the sites. and performed an economic analysis to determine gas recovery feasibility.

Prepared 50 Title V Operating Permit Applications for sites in Texas, Oklahoma, Kansas, Nebraska, and Colorado.

Completed 30 NSPS/EG Tier 2 tests including field sampling and reports. Obtained regulatory approval to complete modified Tier 2 tests utilizing LFG collection and control systems existing at the sites. Obtained regulatory approval to complete Tier 2 testing after the regulatory time limit.

Conducted an extensive LFG migration assessment and limits of waste investigation for the Camp Croft Landfill in Spartanburg County, South Carolina. The project included delineation of the LFG plume from the landfill as well as determination of the limits of waste from a previously unknown fill area adjacent to the permitted site. Completed both LFG assessment plans and LFG assessment reports along with remediation plans for the site.

Worked with regulators to obtain regulatory approval for modified NSPS monitoring, reporting, and record keeping plans. Also achieved approval of other variations in NSPS/EG requirements in various states.

Provided design, construction management, and construction quality assurance for the installation of LFG collection and control systems in conjunction with the installation of geomembrane final covers. Worked with geomembrane installation contractor to provide design and sequencing solutions to prevent ballooning of the final cover.

Prepared landfill gas-to-energy feasibility studies with detailed cost analysis and financial pro-forma spreadsheets for options such as electrical generation, direct LFG sales, pipeline insertion, and leachate evaporation.

MATT K. STUTZ, P.E.

Principal

Prepared over 15 LFG Management Plans including LFG collection and control system component description, monitoring, and details and LFG system installation layout.

Prepared O&M manuals including monitoring procedures, wellfield balancing procedures, and LFG system component maintenance for several sites across the nation.

Prepared permit documentations including system description and permit drawings for LFG collection and control systems at over 50 sites nationwide.

Provided construction management and/or construction quality assurance and quality control including certification reports at over 20 sites nationwide.

Assisted the Texas Commission of Environmental Quality on air permit rule making for landfills in Texas (TCEQ). Trained several TCEQ field inspectors on landfill emissions and LFG control systems.

Affiliations

Active Member of Solid Waste Association of North America (SWANA), Mr. Stutz sits on the Rules and Regulations Committee of the LFG Division

Active Member of TxSWANA – Mr. Stutz is part of the LFG Committee

Publications

Emissions Credit Trading for Landfills, Solid Waste Association of North America (SWANA), Paul Stout, P.E., M. Stutz, D. Bubenick, Orlando, Florida, March 1999

Presentations

Emissions Credit Trading for Landfills, Solid Waste Association of North America (SWANA), Orlando, Florida, March 1999

NSPS/EG Compliance – Day to Day Compliance with NSPS/EG – Waste Management, Inc. Dallas, TX and Denver, Co. 2000

How is this Authorized? Am I in Compliance?, Solid Waste Association of North America (SWANA), Denver, Colorado, September 2002

Landfill Gas Collection and Control Design Considerations. Solid Waste Association of North America (SWANA), Brownsville, Texas, March 2004.

Resume

Lee Sherrod

Horizon Environmental Services, Inc.

C. LEE SHERROD
Vice President/Senior Project Manager

TECHNICAL SPECIALTIES

Wetlands ecology, botany, forestry, endangered species, land reclamation, habitat creation and enhancement, environmental permitting.

EDUCATION

B.S., Forestry/Wildlife Management/Zoology, Stephen F. Austin State University, Nacogdoches, Texas, 1975.

M.A., Botany/Wetlands Ecology, The University of Texas at Austin, 1980.

Post-graduate Studies and Research in Botany/Wetlands Ecology, The University of Texas at Austin, 1981-1985.

PROFESSIONAL TRAINING AND REGISTRATIONS

Certified SCUBA diver - NASDS - 1975.

Habitat Evaluation Procedure Training - USFWS - 1988.

Certified Professional Wetland Scientist No. 000155, SWS Certification Program, Inc. - 1995

Wetland Delineation Manual Training - Wetland Training Institute - 1995

MSHA Safety Instructor Training - UT Austin - 1998

Certified Mine Safety Instructor - MSHA - 1998

PROFESSIONAL/TECHNICAL SOCIETIES

Texas Corporate Wetlands Restoration Partnership

Texas Academy of Science.

Society of Wetland Scientists

PROFESSIONAL EXPERIENCE

Horizon Environmental Services, Inc., 1987-present, Vice President and Co-founder.

Espey, Huston & Associates, Inc., Austin, Texas, 1981-1987, last position -- Senior Staff Ecologist, Coordinator of Environmental Services for Land Development.

Department of Botany and Plant Ecology Research Laboratory, The University of Texas at Austin, 1979-1981, Research Assistant in Wetland Plant Ecology/Physiology.

Texas System of Natural Laboratories, Inc., Austin, Texas 1977-1979, Data Compiler (Botany).

FIELDS OF EXPERIENCE

Mr. Sherrod has more than 25 years of training and experience in applied ecological research and consulting. Specific examples of project experience include the following:

- * In excess of 400 Corps of Engineers Section 10/404 permit actions for a wide array of land and water development projects throughout the United States;
- * Wetland delineations and characterizations on more than 300,000 acres throughout Texas, Louisiana, New Mexico, Arkansas, Missouri, and Virginia;
- * Design and implementation of numerous wetland creation and enhancement projects along the Texas coast;
- * Vegetation/habitat delineations and characterizations from aerial photography and ground reconnaissance on more than 500,000 acres in Texas, New Mexico, Louisiana, Alabama, and Virginia including extensive botanical inventories;
- * Design and implementation of land reclamation, habitat creation or enhancement, lake design and management, and erosion control on numerous construction, mining or land development projects in Texas;
- * Participation in Hydrogeomorphic Model (HGM) and Habitat Evaluation Procedures (HEP) to determine quantitative impacts to wetlands and other wildlife habitats associated with various land or water development projects and to assess mitigation requirements;
- * Numerous surveys and evaluations for rare, threatened or endangered plant and animal species in Texas, New Mexico, Louisiana, California, and Virginia;

- * Expert testimony in administrative hearings, court proceedings, and condemnation cases in the areas of wetlands, threatened or endangered species, ecological damage assessment, and land reclamation.

Types of projects in which Mr. Sherrod has participated in or managed ecological services include:

- * Oil and gas exploration, development, and transportation;
- * Coastal and inland residential, commercial, and industrial land development;
- * Amenity lake development;
- * Solid and liquid waste landfills;
- * Dredging activities;
- * Surface lignite mines;
- * Municipal planning;
- * Reservoir development;
- * Wetland creation and enhancement;
- * Coastal port and channel improvements;
- * Transportation corridors;
- * Ecological research;
- * Habitat mitigation.

PRESENTATIONS

Mr. Sherrod is routinely invited to instruct, make presentations or be an active participant in conferences, workshops, and seminars dealing predominantly with wetlands, endangered species, and environmental regulations. Examples are as follows:

- * Appointed to Environmental Task Group of the Austin Plan Regional Planning Task Force - Co-authored Reports - 1987-1988.
- * Invited participant and co-author of reports for the Texas Parks and Wildlife Department Wetlands Plan Workshop - 1987.
- * Invited participant and co-author of reports for the Houston Toad Population and Habitat Viability Assessment Workshop - 1994.
- * Invited participant and co-author of reports for the Golden-cheeked Warbler Population and Habitat Viability Assessment Workshop - 1995.
- * Appointed to Scientific Advisory Committee of the Balcones Canyonlands Conservation Plan - 1998.
- * Principal instructor at the Oil and Gas Industry Wetland Operations Workshop Sponsored by Enron Oil and Gas Company - 1998.
- * Instructor on Non-FERC Environmental Regulations at Southern Union Gas Company Manager Training Seminar - 1998.
- * "The Distributional History and Ecology of Mangrove Vegetation Along the Northern Gulf of Mexico Coastal Region," (with Calvin McMillan), *Contributions in Marine Science* 28:129-140. 1985. Presented at the International Symposium - Tamaulipan Biotic Province, 28-30 October, 1982, Corpus Christi, Texas.
- * "Survival of Red Mangrove, *Rhizophora mangle*, on the Gulf of Mexico Coast of Texas," (with Calvin McMillan and Donald Hockaday), *Contributions in Marine Science* 29:27-36. 1986. Presented at the 89th Annual Meeting of the Texas Academy of Science, 6-8 March, 1986, Kingsville, Texas.
- * "Red Mangrove, *Rhizophora mangle*, in Texas: An Experiment in Establishment and Survival," *In*: Webb, F. J., editor. 1986. *Proceedings of the 13th Annual Conference on Wetlands Restoration and Creation*, pp. 164-171. Presented at the Conference, May 15-16, 1986, Tampa, Florida.
- * "Whooping Crane Habitat Alteration Analysis (1930-1986) at the Aransas National Wildlife Refuge, Texas," (with R. Medina). *In*: Wood, Don A., editor. 1992. *Proceedings of the 1988 North American Crane Workshop*, Florida State Game and Fresh Water Commission, Nongame Wildlife Program Technical Report #12, pp. 87-99. Presented at the Fifth North American Crane Workshop, 23-25 February, 1988, Lake Wales, Florida.
- * "A Technique for the Assessment of Subterranean Invertebrate Fauna," Presented at the 94th Meeting of the Texas Academy of Science, 1991.

- * "Biological Information Requirements for Section 9 Determination," Presented at the Endangered Species Act Conference, Austin, Texas, March 4-5, 1993.
- * "Biological Information Requirements for Section 9 Determination", Presented at the Endangered Species Act Conference, Austin, Texas, April 28-29, 1994.
- * "Planning to Avoid Take (Identifying Habitat and Take Conditions; USFWS Protocols and Survey Methods; Permits," Presented at the Endangered Species Act Conference, Austin, Texas, May 18-19, 1995.
- * "Urban Karst, Geologic Excursions in Travis and Williamson Counties, Texas," (with C. M. Woodruff, Jr.), Guidebook 16, Austin Geological Society, 1996.
- * "Wetland Mitigation Banking," Presented at the Centennial Meeting of the Texas Academy of Science, Sam Houston State University, March, 1997, Huntsville, Texas.
- * "Artificial Establishment of *Spartina alterniflora* on Unconfined Dredged Materials Along the Texas Gulf Coast, (with Gary L. Galbraith)", Presented at the Texas Academy of Science 92nd Annual Meeting, Lamar University, Beaumont, Texas, March 3-4, 1989.
- * "Establishment of *Spartina alterniflora* on Dredged Materials in Texas, (with G. L. Galbraith and R. Medina)", Proceedings of the Sixth Symposium on Coastal and Ocean Management, Coastal Zone >89, Vol. 2, pp. 1167-1177, Presented at the Conference July 11-14, 1989.
- * "Land Development and the Endangered Species Act", Presented at the Centennial Meeting of the Texas Academy of Science, Sam Houston State University, March, 1997, Huntsville, Texas.
- * "Wetland Mitigation Banking for Surface Mining Activities", Presented at the 14th Annual Meeting of the American Association of Surface Mining Reclamation, May, 1997, Austin, Texas.
- * "Coastal Management", Presented at the Sixth Annual Texas Environmental Superconference, Austin, Texas, August, 1994.
- * "Federally-Listed Threatened or Endangered Aquatic Vertebrates and Troglotic Invertebrates of Texas," Presented at the Endangered Species Act Conference, Austin, Texas, May 16-17, 1996.
- * "Science and the Endangered Species Act", Presented at the Endangered Species Act Conference, Denver, Colorado, August 8-9, 1996.
- * "The Endangered Species Act and Land Development Section 10 Permitting", Presented at the Endangered Species Act Conference, Austin, Texas, September 11-12, 1997.
- * "Science and the Endangered Species Act", Presented at the Endangered Species Act Conference, Washington, D.C., March 12-13, 1998.
- * "ESA Section 10 Permitting," Presented at the Endangered Species Act Conference, Austin, Texas, May 14-15, 1998.
- * "Science and the Endangered Species Act", Presented at the Endangered Species Act Conference, Denver, Colorado, September, 1998.
- * "Wetland Delineation Procedures", Presented at the Texas Wetlands Conference, Austin, Texas, February, 2002.
- * "Finding the Cheese", Presented at the Endangered Species Act & Habitat Conservation Planning Conference, Austin, Texas, September, 2002.
- * "Delineation Procedures", Presented at the Texas Wetlands Conference, Houston, Texas, February, 2004.
- * "Water, Wetlands, and the ESA- Endangered Species Issues Associated with Groundwater Production/Use", Presented at the Endangered Species Act & Habitat Conservation Planning Conference, Austin, Texas, October, 2004.
- * "Trip Wires to the Wetland Permitting Can of Worms", Presented at the Texas Wetlands Conference, Houston, Texas, January, 2005.

- * "Alcoa Inc Three Oaks Mine EIS – Using NEPA for Insurance", Presented at the CLE NEPA Conference, Austin, Texas, April, 2005.
- * "NEPA Compliance Requirements", Presented at the CLE NEPA Conference, Austin, Texas, March, 2006.
- * "NEPA and the Endangered Species Act", Presented at the CLE NEPA Conference, Austin, Texas, June, 2007.
- * "NEPA and the Endangered Species Act", Presented at the CLE NEPA Conference, Phoenix, Arizona, October, 2007.
- * "Stories from the Field", Presented at the Endangered Species Act Conference, Austin, Texas, November, 2007.
- * "NEPA and the Endangered Species Act", Presented at the CLE NEPA Conference, Reno, Nevada, March, 2008.

PUBLICATIONS

Mr. Sherrod has published more than 150 science journal papers and technical reports in areas of wetland plant ecology and physiology, botany, habitat creation and management, and environmental impact assessment. The following list of publications/reports provide an overview of Mr. Sherrod's academic and consulting experience.

"Present and Past Distribution of Black Mangrove (*Avicennia germinans* (L.) L.) on the Texas Gulf Coast," Master's Thesis, The University of Texas at Austin, 1980.

"Black Mangrove, *Avicennia germinans*, in Texas: Past and Present Distribution," (with Calvin McMillan), Contributions in Marine Science 24:115-131. 1981.

"Imported Crude Oil Delivery to the Texas Coast: Transshipment Options," Co-author. Civil Engineering Department, The University of Texas at Austin, 1980.

"Laboratory Index Series: Texas. Supplement: Poaceae," Texas System of Natural Laboratories, Inc., Austin, 1978.

"Laboratory Index Series: Texas. Supplement: Hydrocharitales and Najadales." Texas System of Natural Laboratories, Inc., Austin, Texas, 1978.

"Laboratory Index Series: Texas. Supplement: Euphorbiaceae," Texas System of Natural Laboratories, Inc., Austin, 1980.

"Laboratory Index Series: Texas. Supplement: Solanaceae," Texas System of Natural Laboratories, Inc., Austin, 1980.

"Laboratory Index Series: Texas. Supplement: Scrophulariaceae," Texas System of Natural Laboratories, Inc., Austin, 1978 (with David N. Pashely).

"Laboratory Index Series: Texas. Supplement: Lamiaceae," Texas System of Natural Laboratories, Inc., Austin, 1978 (with David N. Pashely).

"Environmental Report: Proposed Deepwater Channel and Multipurpose Terminal Construction and Operation Near Brownsville, Texas," EH&A Doc. No. 81460, March 1981 (with EH&A staff).

"Literature Survey Bibliography for the Nueces River Diversion/Deltaic Marsh System Study," EH&A Doc. No. 81119, March 1981 (with J. M. Wiersema).

"Preliminary Report: Enhancement Potential Determination for the Nueces River Diversion/Deltaic Marsh System Study," EH&A Doc. No. 81143, March 1981 (with J. M. Wiersema).

"Fish and Wildlife Management Recommendations: Aransas Pass Hunting & Fishing Club, McCambell Slough, San Patricio County, Texas," EH&A Doc. No. 81292, June 1981 (with R. R. Reid and C. Perino).

"Mitigation and Marsh Creation Plan," EH&A Doc. No. 81340, July 1981.

"Nueces Marsh Enhancement: A Feasibility Study of the Introduction of River Water," EH&A Doc. No. 81328, July 1981 (with EH&A staff).

"Nueces Marsh Enhancement: A Feasibility Study of the Introduction of River Water: A Summary Report," EH&A Doc. No. 81375, July 1981 (with EH&A staff).

"Environmental Survey of a Proposed Second Well in Cedar Lakes, Texas," EH&A Doc. No. 81565, November 1981 (with EH&A staff).

"Proposed Dredging, Bulkhead and Pier Construction on South Padre Island: An Environmental Assessment in Support of a Corps of Engineers Permit Application," EH&A Doc. No. 81498, November 1981 (with F. LeBlanc).

"Proposed Marina and Condominium on South Padre Island, Texas: An Environmental Assessment in Support of a Corps of Engineers Permit Application," EH&A Doc. No. 81487, December 1981 (with F. LeBlanc and J. O. Jones).

"Oil and Gas Development in Wetlands Handbook," EH&A Doc. No. 82252, June 1982 (with EH&A staff).

"Management Recommendations for the Harris Ranch Development, Fort Bend County, Texas," a series of technical reports dealing with various environmental aspects of a 2,500-acre ranchette subdivision, EH&A Job No. 2287, July 1982 (with EH&A staff).

"Environmental Impact Assessment, Well No. 1, State Tract 260, Aransas Bay, Aransas County, Texas" EH&A Doc. No. 82435, September 1982 (with EH&A staff).

"Wetlands Survey and Potential Permitting Constraints," EH&A Doc. No. 82457, October 1982 (with EH&A staff).

"Environmental Baseline Assessment and Permitting Constraints Analysis for Rio Grande Savings Association Properties Near Boca Chica, Cameron County, Texas," EH&A Doc. No. 82504, January 1983 (with EH&A staff).

"Proposed Townhouse Development, South Padre Island, Texas," EH&A Doc. No. 82500, January 1983 (with EH&A staff).

"Vegetational Analysis of the Baker's Port and San Patricio County Navigation District No. 1 Properties at Ingleside, Texas," EH&A Doc. No. 83177, March 1983 (with EH&A staff).

"Environmental Assessment of a Proposed Stormwater Drainage Improvement Project in Barker Reservoir, Texas," EH&A Doc. No. 83130, May 1983.

"Ecological Evaluation and Reconstruction Recommendations for Instream Pool on Walnut Creek," EH&A Doc. No. 83281, June 1983 (with EH&A staff).

"Environmental Assessment for Proposed Two-Phased Improvements to Eldridge Road in Addicks Reservoir," EH&A Doc. No. 83230, July 1983.

"Permit Support Document, Commercial Marina at Port Isabel, Texas," EH&A Doc. No. 84095, February 1984.

"Engineering Report, Site Development Permit, River Place Raw Water Intake," EH&A Doc. No. 84042, January 1984 (with EH&A staff).

"River Place Development, Site Development Report for Effluent Holding Pond," EH&A Doc. No. 84047, January 1984 (with EH&A staff).

"Engineering Report, Site Development Permit, Jester Estates Section One Phase Two Water Pump Station Improvements," EH&A Doc. 84216, March 1984 (with EH&A staff).

"Engineering Report, Site Development Permit, River Place Wastewater Treatment Plant and Lift Station," EH&A Doc. No. 84306, April 1984 (with EH&A staff).

"Reclamation Assessment of Disturbed Areas Associated with Oil and Gas Development on a 277-Acre Tract in Burtson County, Texas," EH&A Doc. No. 84375, May 1984.

"Engineering Report, Site Development Permit, River Place Elevated Water Storage Tank," EH&A Doc. No. 84402, May 1984 (with EH&A staff).

"Engineering Report, Site Development Permit, River Place Raw Water Intake," EH&A Doc. No. 840402, January 1984 (with EH&A staff).

"Engineering Report, Site Development Permit, The Uplands Wastewater Treatment Plant and Effluent Pond," EH&A Doc. No. 84522, July 1984 (with EH&A staff).

"Engineering Report, Site Development Permit, River Place Ground Storage Tank and Pump Station," EH&A Doc. No. 84533, July 1984 (with EH&A staff).

"Environmental Assessment for Proposed Improvements to Bear Creek Park, Addicks Reservoir," EH&A Doc. No. 84731, September 1984.

"Assessment of Effects of a Brine Leak on Lake Davernia," Technical Memorandum, EH&A Job No. 5519, September 1984 (with EH&A staff).

"Preliminary Engineering and Environmental Assessment, Capacity Improvements for Albert H. Ullrich Water Treatment Plant," 2 Vols. EH&A Job 4434, September 1984 (with EH&A staff).

"The Distributional History and Ecology of Mangrove Vegetation Along the Northern Gulf of Mexico Coastal Region," (with Calvin McMillan), Contributions in Marine Science 28:129-140. 1985.

"Environmental Report, San Marcos MUD," EH&A Doc. No. 85380, April 1985 (with EH&A staff).

"Walnut Creek Watershed Environmental Management and Planning Study," EH&A Job 5376, June 1985 (with Tom Van Zandt).

"Preliminary Route Selection Report for the South Loop," CIP Project No. 627834, EH&A Doc. No. 85668, July 1985 (with EH&A staff).

"Environmental Assessment of the Proposed Decker Creek Municipal Utility Districts 1-5," EH&A Doc. No. 85828, August 1985 (with EH&A staff).

"Habitat Assessment of the R. L. Harris Reservoir and Contiguous Project Lands, Randolph County, Alabama," EH&A Doc. No. 85767, August 1985 (with EH&A staff).

"Environmental Assessment of the Proposed Travis Settlement Municipal Utility District," EH&A Doc. No. 85894, September, 1985 (with EH&A staff).

"An Environmental Overview of Horizon Venture," EH&A Doc. No. 85399, 1985 (with EH&A staff).

"Survival of Red Mangrove, Rhizophora mangle, on the Gulf of Mexico Coast of Texas," (with Calvin McMillan and Donald Hockaday), Contributions in Marine Science 29:27-36. 1986.

"Red Mangrove, Rhizophora mangle, in Texas: An Experiment in Establishment and Survival," In: Webb, F. J., editor. 1986. Proceedings of the 13th Annual Conference on Wetlands Restoration and Creation, pp. 164-171.

"Harris Branch Environmental Analysis," EH&A Doc. No. 861069, September, 1986 (with EH&A staff).

"Harris Branch Water Resources Survey, Assessment, and Management Plan," EH&A Doc. No. 861069, September, 1986.

"Environmental Assessment of Steiner Ranch MUD Nos. 1 and 2," EH&A Doc. No. 851226, October, 1986 (with EH&A staff).

"Environmental Assessment of the Proposed West Travis County Municipal Utility District," EH&A, 1986 (with EH&A staff).

"Environmental Baseline Investigations for the Proposed Widewater Development, Stafford County, Virginia," Espey, Huston & Associates, Inc., 1986 (with EH&A staff).

"The Chilling Tolerance of Black Mangrove, Avicennia germinans, from the Gulf of Mexico Coast, of Texas, Louisiana and Florida," (with Calvin McMillan), Contributions in Marine Science 29:9-16. 1986.

"Monitoring of Transplanted Spartina alterniflora on an Unconfined Dredged Material Disposal Site, Chocolate Bay, Texas," EH&A Doc. No. 861290, February, 1987.

"Monitoring of Transplanted Spartina alterniflora on an Unconfined Dredged Material Disposal Site, Stedman Island, Redfish Bay, Texas," EH&A Doc. No. 861291, February, 1987.

"Monitoring of Transplanted and Naturally Established Spartina alterniflora Marshes on Unconfined Dredged Material Disposal Sites, East Matagorda Bay, Texas," EH&A Doc. No. 861292, January, 1987.

"Report of Investigations, 404 Jurisdictional Determination, Sandow Surface Mine E Mining Area Extension," EH&A Doc. No. 861289, February, 1987.

"Ecology Baseline Report, Sandow Surface Mine E Area Extension," EH&A Doc. No. 861286, February, 1987 (with EH&A staff).

"Report on a Survey for Anthericum chandleri on the Playa del Rio Project Site, Cameron County, Texas," EH&A Doc. No. 870020, May, 1987 (with EH&A staff).

"Mitigation Plan for River Walk Development, Elizabeth River, Chesapeake, Virginia," EH&A Doc. No. 870717, July, 1987.

- "Supplemental Ecology Baseline Report, Sandow E - Extension Area, Spring 1987 Survey," EH&A Doc. No. 870698, July, 1987.
- "Environmental Baseline Investigations and Determination of 404 Jurisdiction for a Proposed Industrial Land Fill Facility, Orange County, Texas," Espey, Huston & Associates, Inc., 1987 (with EH&A staff).
- "Environmental Support Document, Brushy Creek Regional Waste Water Interceptor," Espey, Huston & Associates, Inc., 1987.
- "Environmental Assessment of Proposed Two-Phased Improvements to Barker-Clodine Road Through Barker Reservoir, Harris County, Texas," Horizon Doc. No. 870002-01, December, 1987.
- "Expert Testimony for the Proposed Little Cypress Reservoir Before the Texas Water Commission," Horizon Environmental Services, Inc., November, 1987.
- "Oxbow Lignite Mine, Mine Permit Application, Volume I," Horizon Environmental Services, Inc., April, 1988 (with Horizon staff, Nationwide Water Resource Services, Inc., and DeMent & Associates, Inc.).
- "Oxbow Lignite Mine, Facilities Permit Application," Horizon Environmental Services, Inc., April, 1988 (with Horizon staff, Nationwide Water Resource Services, Inc., and DeMent & Associates, Inc.).
- "Environmental Assessment, Proposed Little Cypress Reservoir, Harrison County, Texas, 2 volumes," Horizon Environmental Services, Inc., May, 1988 (with Horizon staff).
- "Environmental Report for the Proposed Red Oak Reservoir, Ellis County, Texas," Horizon Environmental Services, Inc., June, 1988 (with Horizon staff).
- "Affected Environment: Public Interest Review Considerations Affecting Proposed Low-Level Radioactive Waste Disposal Facility," Hudspeth County, Texas, Horizon Doc. No. 880015, January, 1989.
- "Environmental Report for the Proposed Kelsey Creek Reservoir, Upshur County, Texas," Horizon Doc. No. 880014, April, 1989.
- "Final Report, Padre Island National Seashore Vegetative History," Horizon Doc. No. 880017, June, 1989.
- "Establishment of *Spartina alterniflora* on Dredged Materials in Texas," (with G. L. Galbraith and R. Medina), Proceedings of the Sixth Symposium on Coastal and Ocean Management, Coastal Zone 89, Vol. 2, pp. 1167-1177, July, 1989.
- "Lower Rio Grande Valley Water Conservation Project Baseline Vegetation and Wildlife Ecology," Horizon Doc. No. 880029, December, 1990.
- "Information in Support of a 404 Jurisdictional Determination of the Proposed Kelsey Creek Reservoir, Upshur County, Texas," Horizon Doc. No. 910006, April, 1991.
- "Phase I Ecological Characterization Siting Study of Thirteen Future TU Electric Units 1991," Horizon Doc. No. 910083, July, 1991.
- "Threatened or Endangered Species Investigations, EZ Pipeline Project," Horizon Doc. No. 910023, July, 1991.
- "Whooping Crane Habitat Alteration Analysis (1930-1986) at the Aransas National Wildlife Refuge, Texas," (with R. Medina). In: Wood, Don A., editor. 1992. Proceedings of the 1988 North American Crane Workshop, Florida State Game and Fresh Water Commission, Nongame Wildlife Program Technical Report #12, pp. 87-99.
- "Supplemental Information Document for U.S. Army Corps of Engineers Surface Mining Permit Application for Dolet Hills Lignite Mine 1993-1997 Five Year Permit Area," Horizon Doc. No. 930024, June, 1993.
- "Section 404 Jurisdictional Determination Dolet Hills Lignite Mine 1993-1997 Permit Area," Horizon Doc. No. 930024, June, 1993.
- "Habitat Conservation Plan Westminister Glen Subdivision, Austin, Texas," Horizon Doc. No. 930175, September, 1993.
- "Phase I Environmental Site Assessment State Highway 73 Road Improvement Project, Jefferson County, Texas," Horizon Doc. No. 930184, September, 1993.
- "Environmental Assessment and Habitat Conservation Plan Issuance of an Endangered Species Section 10(a) Permit for the Incidental Take of the Golden-cheeked Warbler (*Dendroica chrysoparia*) During Construction and Operation of the

Approximate 116-Acre Single Family Residential Development, Westminster Glen, Phase I, Austin, Travis County, Texas," Horizon Doc. No. 930078, September, 1993, Revised May, 1994.

"HEP Analysis and Mitigation Plan for Spring Creek Lake,@ Horizon Doc No. 930154, August, 1994.

"Habitat Conservation Plan Barton Creek Preserve - Phase III, Austin, Texas," Horizon Doc. No. 930203, October, 1993.

"Vegetational Resources of the Proposed Spring Creek Lake, The Woodlands, Texas," Horizon Doc. No. 930154.VG, October, 1993, Revised March, 1994.

"Information in Support of a Section 404 Jurisdictional Determination - Proposed Spring Creek Lake Project, Harris and Montgomery Counties, Texas," Horizon Do. No. 930154.WD, October 1993, Revised March, 1994.

"Wildlife Resources of the Proposed Spring Creek Lake, The Woodlands, Texas," Horizon Doc. No. 930154.WL, October, 1993, Revised March, 1994.

"Texas High Speed Rail Project Houston Toad (*Bufo houstonensis*) Survey >Modified Alignment= Route Alternative, Revision Date: 17 November 1993, Final Report," Horizon Doc. No. 930023, November, 1993.

"Recommendations for a Natural Resources Mitigation Plan, Bailey Waste Disposal Site, Orange County, Texas," Horizon Doc. No. 930190, January, 1994.

"Environmental Assessment: Proposed Pleasure Island Park, Jefferson County, Texas," Horizon Doc. No. 940006, February, 1994.

Final Environmental Impact Study, Sessom Drive Site Development," Horizon Doc. No. 940290, January, 1995.

"Draft Wetlands Determination, Hi Yield Site, Sayle Creek, Hunt and Delta Counties, Texas," Horizon Doc. No. 940288, February, 1995.

"Preliminary Planning and Design for Wetlands Mitigation Bank," Horizon Doc. No. 930248, March, 1995.

"Environmental Resources Report, Relocation Line No. 11, Brazos River Crossing, (M.P. 52.25 to M.P. 53.81) Austin and Waller Counties, Texas," Horizon Doc. No. 940330, May, 1995.

"Environmental Resources Report, Petronilla Discharge Copano Creek Pipe Replacement (M.P. 172.440 to M.P. 172.52), Refugio and Aransas Counties, Texas," Horizon Doc. No. 940335, May, 1995.

"Environmental Report, Proposed Raw Water Intake Structure and Pipeline, Stillhouse Reservoir, Bell County, Texas," Horizon Doc. No. 950077, May, 1995.

"Environmental Assessment and Habitat Conservation Plan, Issuance of an Endangered Species Section 10(a)(1)(B) Permit for the Incidental Take of the Golden-cheeked Warbler (*Dendroica chrysoparia*) During Construction and Operation of the 150-acre Summit at West Rim on Mt. Larson Austin, Travis County, Texas," Horizon Doc. No. 950052, September, 1995.

"Environmental Assessment and Habitat Conservation Plan, Issuance of an Endangered Species Section 10(a)(1)(B) Permit for the Incidental Take of the Golden-cheeked Warbler (*Dendroica chrysoparia*) During Construction and Operation of the 32-acre Commercial Development - PARK 22, Austin, Travis County, Texas," Horizon Doc. No. 950132, September, 1995.

"Environmental Assessment and Habitat Conservation Plan, Issuance of an Endangered Species Section 10(a)(1)(B) Permit for the Incidental Take of the Golden-cheeked Warbler (*Dendroica chrysoparia*) During Construction and Operation of the 33-acre Commercial Development - SCHLUETER 33, Austin, Travis County, Texas," Horizon Doc. No. 950213, January, 1996.

"Canyon Ridge Golden-Cheeked Warbler Breeding Survey, Spring 1995," Horizon Doc. No. 950050, January, 1996.

"Environmental Assessment, Research Forest Drive From IH 45 to Greenbridge Drive, The Woodlands, Montgomery County, Texas," Horizon Doc. No. 950142, December 1995 (Revised April, 1996).

"1995 Golden-cheeked Warbler (*Dendroica chrysoparia*) Territorial Delineation Study Jester Point II, Austin, Travis County, Texas," Horizon Doc. No. 950049, January, 1996.

"Environmental Assessment, Spur 93, (West Port Arthur Road) from U.S. 69/96/287 in Beaumont, South 14.32 Kilometers (8.9 miles) to FM 365 in Port Arthur, Jefferson County, Texas, Project Control No. 1075-01-011/012," Horizon Doc. No. 950017, April, 1996.

- "A Study of Natural and Man-Made Ponds at The Woodlands, Montgomery County, Texas," Horizon Doc. No. 940341, June, 1996.
- "Information in Support of a Section 404 Jurisdictional Determination, South Marshall Project Area, South Hallsville Mine No. 1, Harrison County, Texas," Horizon Doc. No. 950137, June, 1996, (Revised July, 1996).
- "Information in Support of a Section 404 Jurisdictional Determination Sandow Surface Mine 661 Acre 1996 Permit No. 1C Extension Area," Horizon Doc. No. 940023, August, 1996.
- "Response to 779.133 Fish and Wildlife Resources Information, Sandow Surface Mine, 1996 Permit No. 1C Extension Areas," Horizon Doc. No. 940023, August, 1996.
- "Response to 779.132 Vegetative Information, Sandow Surface Mine, 1996 Permit No. 1C Extension Areas," Horizon Doc. No. 940023, August, 1996.
- "Phase II Environmental Site Assessment, Catholic Diocese of Beaumont, St. Anthony=s School, Beaumont, Jefferson County, Texas," Horizon Doc. No. 960134, August, 1996.
- "Phase I and Phase II Environmental Site Assessment, Lots 1 Through 12, Van Wormer Addition, Beaumont, Jefferson County, Texas," Horizon Doc. No. 960134, September, 1996.
- "Environmental Assessment, Skunk Hollow Wastewater Line Construction and Access within the Barton Creek Greenbelt, Austin, Travis County, Texas," Horizon No. 960210, December, 1996.
- "Environmental Assessment for the Relocation of Farm-to-Market Roads 2116 and 487, Milam County, Texas," Horizon Doc. No. 970003, March, 1997 (Revised November, 1998 and February, 1998).
- "Preliminary Environmental Assessment, Greenbridge Drive From Research Forest Drive to SH 242, The Woodlands, Montgomery County, Texas," Horizon Doc. No. 970080, May, 1996.
- "Environmental Assessment, Woodlands Parkway from Gosling Road to Kuykendahl Road, The Woodlands, Montgomery County, Texas," Horizon Doc. No. 970080, August, 1998.
- "Environmental Assessment, Lake Woodlands Drive from West Panther Creek Drive to Six Pine Drive, The Woodlands, Texas, Montgomery County, Texas," Horizon Doc. No. 970080, August, 1998.
- "Draft Environmental Assessment, Proposed State Highway 87 Relocation Project, Jefferson County, Texas," Horizon Doc. No. 960095, June, 1997.
- "Biological Assessment of the 798-Acre Dx Permit Expansion Area, Jewett Surface Lignite Mine, Freestone and Leon Counties, Texas," Horizon Doc. No. 970118, November, 1997.
- "1997 Golden-Cheeked Warbler (*Dendroica chrysoparia*) and Black-Capped Vireo (*Vireo atricapillus*) Territorial Delineation Study, D. C. Reed Estate, Austin, Travis County, Texas," Horizon Doc. No. 960184, January, 1998.
- "Environmental Assessment and Habitat Conservation Plan, Issuance of an Endangered Species Section 10(a)(1)(B) Permit for the Incidental Take of the Tooth Cave Ground Beetle (*Rhadine persephone*) During Construction and Operation of the 420-acre Mixed Use Development, Buttercup Creek, Section 4 and Phase V, Williamson County, Texas," Horizon Doc. No. 960205, January, 1998.
- "Executive Summary, Environmental Document, Proposed State Highway 87 Relocation Project, Jefferson County, Texas," Horizon Doc. No. 960095, February, 1998.
- "Biological Assessment of the Proposed Approximate 300-acre Residential Development, Tract 3 of Canyon Springs Ranch, San Antonio, Bexar County, Texas," Horizon Doc. No. 970068, March, 1998.
- "Endangered Species Assessment of the 1998-2003 Permit 32D Renewal/Revision Area, Jewett Surface Lignite Mine, Freestone and Leon Counties, Texas," Horizon Doc. No. 970118, March, 1998 (Revised May, 1998).
- "Pre-Construction Notification for Nationwide Permit No. 21 Authorization of Surface Mining Activities, South Marshall Project Area, First 5-year Mine Increment, Harrison County, Texas," Horizon Doc. No. 950137, April, 1998.
- "Pre-Construction Notification for Nationwide Permit No. 21 Authorization of Surface Mining Activities, Sandow Surface Mine Permit 1D Area, and Associated FM 2116/487 Relocation, Milam County, Texas," Horizon Doc. No. 970003, May, 1998.

"Handbook - Oil and Gas Industry, Wetland Operations," May, 1998.

"1998 Golden-cheeked Warbler (*Dendroica chrysoparia*) Territorial Delineation Study, Jester Point II, Austin, Travis County, Texas," Horizon Doc. No. 980081, August, 1998.

"1998 Golden-cheeked Warbler (*Dendroica chrysoparia*) Territorial Delineation Study, Great Hills Reserve, Austin, Travis County, Texas," Horizon Doc. No. 970217, August, 1998.

"Environmental Assessment, Gosling Road Extension, The Woodlands, Montgomery and Harris Counties, Texas," Horizon Doc. No. 970253, August, 1998.

"1998 Golden-cheeked Warbler (*Dendroica chrysoparia*) Territorial Delineation Study, Mesa Vista Mitigation Site, Austin, Travis County, Texas," Horizon Doc. No. 980084, August, 1998.

"Draft Environmental Assessment , Kuykendahl Road From Woodlands Parkway to FM 1488, The Woodlands, Montgomery County, Texas," Horizon Doc. No. 980188, August, 1998.

"Environmental Assessment of Farm to Market Road 248 at Frazier Creek, Cass County, Texas," Horizon Doc. No. 980008, August, 1998.

"Environmental Assessment of Farm to Market Road 248 at Jim=s Bayou, Cass County, Texas," Horizon Doc. No. 980008, August, 1998.

"Environmental Assessment of Farm to Market Road 251 at Little Cypress Creek, Cass County, Texas," Horizon Doc. No. 980008, August, 1998.

"Environmental Assessment of State Highway 49 at Black Cypress Bayou and Relief, Marion County, Texas," Horizon Doc. No. 980139, August, 1998.

"Biological Assessment: Brownsville Weir and Reservoir Project". Prepared for the Public Utilities Board of Brownsville. Horizon Job No. 990021. June 2002. (with Jim Wiersema and Clay Fischer).

"Project Support Documentation to Aid Production of a Biological Opinion for the Brownsville Weir and Reservoir Project". Prepared for the US Fish and Wildlife Service and the Public Utilities Board of Brownsville. Horizon Job No. 990021. (with Horizon staff and R. J. Brandes & Co. staff).

"Environmental Information Report - Taylors Bayou Flood Relief Project, Taylors Bayou Watershed, Jefferson and Chambers Counties, Texas". Horizon Job No. 000418. December 2001.

"Mitigation Plan for the Proposed Three Oaks Mine, Lee and Bastrop Counties, Texas". USACE Project Number: 1999900331. Horizon Job No. 990022. February, 2003.

U.S. FISH AND WILDLIFE SERVICE



This is to certify that

C. LEE SHERROD

has successfully completed the requirements
of the course in

Habitat Evaluation Procedures

Given at PHOENIX, ARIZONA On

MARCH 14-18, 1988

Handwritten signature of C. Lee Sherrod.

Instructor

Handwritten signature of the Regional Director.

Regional Director, Region 8

Wetland Training Institute

This certifies that

LEE SHERROD

has completed training based in part on the U.S. Army Corps of Engineers
Wetland Delineation Manual Technical Report Y-87-1 (1987 Manual), as
provided for in the training materials developed in conjunction with Section 307(e)
of the Water Resources Development Act of 1990 for the
Wetland Delineator Certification Program

Given at Houston, Texas

On March 2-3, 1995


Course Coordinator



*Society of Wetland Scientists
Certification Program, Inc.*

grants the designation

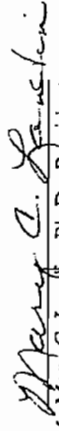

Professional Wetland Scientist

to

C. Lee Sherrod

In recognition of all the professional requirements approved by the Society of Wetland Scientists Certification Program, Inc. and verified by the Society's Certification Review Panel on the 26th day of September, 1994.
Professional Wetland Scientist number 000155




Mary C. Landin, Ph.D., President

Thomas E. Simpson, Ph.D., Chair

Resume

John Michael McInturff, P. E., PTOE
HDR Engineering Inc.

JOHN MICHAEL MCINTURFF, P.E., PTOE
< Vice President >

Mr. McInturff holds a Masters degree in Civil Engineering and has 34 years of experience in the transportation field including employment with TxDOT in both a District office as well as Division office. Mr. McInturff's expertise includes ITS operations and design, traffic control device survey and analysis, traffic data collection, speed zoning, accident analysis, trip generation, signal operations analysis, intersection and roadway capacity analysis, roadway and traffic signal design, roadway network analysis, travel demand modeling, traffic simulation, and traffic impact analysis. His 34 years of experience include work for various private entities, TxDOT, TTA, the Cities of Austin, Laredo, San Angelo, San Antonio, and Waco for improvement of arterial and highway congestion through improved traffic signal operations, geometric design, traffic control modifications and site access and circulation studies. He has provided expert witness services for TxDOT in the Austin, Brownwood, Dallas, Houston, Pharr, San Antonio and Yoakum Districts as well as Harris County and Capital Metro in Austin.

EXPERIENCE	34 Years in Transportation Engineering	
<hr/>		
EDUCATION	B.S., Civil Engineering	Texas A & M University, 1973
	M.Eng., Civil Engineering – Transportation	Texas A & M University, 1974
<hr/>		
REGISTRATION	Professional Engineer, State of Texas #42461 Professional Traffic Operations Engineer #920	
<hr/>		
TxDOT PRECERTIFICATION	Employee Sequence Number: 1595	
	1.2.1 Systems Planning	7.3.1 Traffic Signal Timing
	1.3.1 Subarea/Corridor Planning	7.4.1 Traffic Control Systems
	1.4.1 Land Planning/Engineering	7.5.1 Intelligent Transportation Systems
	3.1.1 Route Studies & Schematic Design	8.1.1 Signage, Pavement Marking and Channelization
	7.1.1 Traffic Engineering Studies	8.3.1 Signalization
	7.2.1 Highway-Rail Grade Crossing Studies	8.5.1 Highway-Rail Grade Crossings
<hr/>		
EXPERT WITNESS	Mr. McInturff has provided expert witness services for TxDOT, Harris County, Capital Metro, Eanes Independent School District and property owners throughout the State of Texas. These services included the following types of projects: landfills, solid waste transfer facilities, sand mining operations, and property condemnation for highway, public school, and transit facility improvements.	

**Projects for Which Testimony was Provided by
Mike McInturff**

Landfill

- Southside Type I Landfill Transportation Study for American Ecology Corporation, August 1996
- Ellis County Landfill Expansion Transportation Study for USA Waste Services, Inc., April 1997
- Spring Cypress Landfill Transportation Study for BMFS, Inc., July 1997
- El Centro Type I Landfill Transportation Study for HMA Environmental Services, Inc., January 1998
- Long Point Landfill Traffic and Roadway Study for Long Point Partners, L.P., February 1998
- Traffic and Transportation System Analysis, Hallco Texas, Inc. for Hallco Texas, Inc., June 1992
- BFI – Sunset Farms Landfill Expansion in Travis County: Transportation Study for Associated Consulting Engineers, Inc., December 2001
- Texoma Area Solid Waste Agency (Grayson County) Solid Waste Disposal and Recycling Facility Transportation Study with Biggs & Mathews Environmental, January 2003

Condemnation

- Ethan Allen Store for Ethan Allen Furniture, August 1999
- US 90A for TxDOT, October 1999
- Ben White Parcel 40 for TxDOT, May 2000
- Ben Hur Shrine for Womack, McClish & Wall, P.C. (Eanes ISD), July 2001
- San Pedro Square-Bitters Road for Barron, Adler & Anderson, L.L.P, August 2001
- SH 121 and Plano Parkway for TxDOT, August 2002
- North Star Mall for Barron, Adler & Anderson, L.L.P, February 2003

13101 Alameda Road for 13101 Alameda Road Partnership, March 2003

Guaranty Federal Building for Barron, Adler & Anderson, L.L.P, May 2003

San Pedro Crossing for Barron, Adler & Anderson, L.L.P, August 2003

La Plaza del Norte for Bracewell & Patterson L.L.P., November 2003

IH 10 Parcel 611 for TxDOT, November 2004

IH 10 Parcels 17 and 18 for TxDOT, August 2005

FM 88 Parcel 19 for TxDOT, May 2006

IH 10 Parcel 126 for TxDOT, August 2006

IH 10 Parcel 623 for TxDOT, November 2006

Resume

Dr. William E. Southern
WES Ecological Consulting

STATEMENT OF TRAINING AND EXPERIENCE

FOR

WILLIAM E. SOUTHERN

Updated: 23 January 2007

WES ECOLOGICAL CONSULTING

**W4147 County Hwy. F
Springbrook, Wisconsin 54875**

**Telephone: 715-466-2583
Facsimile: 715-466-2583
E-mail: solakes-wes@centurytel.net**

BIOGRAPHICAL SUMMARY

NAME:

Dr. William E. Southern
Ornithologist, WES Ecological Consulting

PRESENT ADDRESS:

WES Ecological Consulting
W4147 County Hwy. F., Springbrook, Wisconsin 54875
Telephone: 715-466-2583 (and voice mail) or 715-466-4605 (home)
Fax: 715-466-2583
E-mail: solakes-wes@centurytel.net

EDUCATION:

- **B. S. Degree**, Central Michigan University, 1955; Major in Biology (Ornithology); minors in Geology, Agriculture, and Conservation
- **Graduate studies**, University of Michigan Biological Station, Ornithology, 1955-59; 1962-63
- **Graduate Studies**, University of Oklahoma, Ornithology, 1956-57
- **M. A. Degree**, University of Michigan, 1959 in Zoology (Ornithology)
- **Ph. D.** Cornell University, 1967; Major in Comparative Animal Behavior (Ornithology); Minors in Animal Ecology and Wildlife Management

AREAS OF SPECIALIZATION:

Avian ecology and behavior; gull and colonial waterbird ecology, bird issues at landfills and airports, bird control at landfills; wetland issues and mitigation; gull distribution and behavior; threatened and endangered birds; wildlife management, including limiting factors; and, expert testimony pertaining to these subjects.

PROFESSIONAL EXPERIENCE:

- **High School Teacher**, Lake Fenton Community Schools (Biology and Conservation), 1955-56
- **High School Teacher**, Richland Community Schools (Biology and Agriculture), 1957-58
- **Ornithology Instructor**, National Audubon Society Camp of Wisconsin, 1959-61, summers
- **Assistant Professor**, Department of Biological Sciences, Northern Illinois University, 1959-68

- **Associate Professor**, Department of Biological Sciences, Northern Illinois University, 1968-72
- **Professor**, Department of Biological Sciences, Northern Illinois University, 1972-90, retired
- **President and member of Board of Directors**, ENCAP, Inc. (Environmental Consultants and Planners), 1974-95
- **Professor of Ornithology**, University of Michigan Biological Station, 1975-78, summers
- **Professor of Ornithology**, The Leelanau Experience, Central Michigan University, 1982
- **Director, Cooperative Education Program**, Northern Illinois University, 1984-88
- **Ornithologist**, WES Ecological Consulting, 1995-present

PRESENT MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

- Fellow and Life Member, American Ornithologists' Union
 - Wilson Ornithological Society (Life Member)
 - Pacific Seabird Group (Life Member)
 - National Wildlife Federation
- [Prior to retirement, long-term membership in numerous scientific organizations, including AAAS, AIBS, The Wildlife Society, and Cooper Ornithological Society]

PROFESSIONAL ACTIVITIES (PARTIAL LISTING):

- **Ornithology Teaching Assistant**, University of Michigan Biological Station, 1955-58; 1962-66
- **Ornithology Research Associate**, University of Michigan Museum of Zoology, 1957-58
- **Served on Board of Directors**, Illinois Audubon Society, 1960-63
- **Founder**, Kishwaukee Audubon Society, DeKalb, Illinois, 1960
- **National Science Foundation Science Faculty Fellow**, Cornell University, 1963-64
- **Telemetry Consultant**, Cornell University, Cooperative Wildlife Research Unit, 1964
- **National Science Foundation Desert Biology Fellow**, Arizona State University, 1965
- **Coordinator**, Northern Illinois Deer Checking Program, Illinois Department of Conservation 1965-84
- **Telemetry and Animal Behavior Consultant**, Argonne National Laboratory, Fallow Deer Project, 1966
- **Pesticide Consultant**, Midwest Legislative Council on the Environment, 1971
- **Vice President**, Illinois Chapter of the Wildlife Society, 1971-72
- **Consultant to the governor of Michigan**, Project Seafarer, 1975

- **Gubernatorial Appointee** to the Illinois Endangered Species Protection Board, 1975-93. Appointed to terms by three Illinois governors); Secretary of the Executive Committee
- **Conducted gull research for U. S. National Park Service**, South Manitou Island, 1975-78
- **Consultant for various government agencies**, including Michigan Department of Health, University of Minnesota, U. S. Environmental Protection Agency, Illinois Department of Transportation, Illinois Attorney General's Office, Illinois Department of Conservation, and U. S. Army Corps of Engineers, 1977-90
- **Conducted research for U. S. Air Force** Office of Scientific Research on gull distribution relative to aircraft strike potential, included preparation of a risk assessment model, 1977-78
- **Co-founder of the Colonial Waterbird Society**; Executive Council Member, 1977-80 & 1983-87; Vice President, 1983-84; President 1985-87
- **Chair, Committee for International Coordination of Color-marking Techniques**, Colonial Waterbird Society, 1977-83
- **Consultant, National Academy of Sciences** and National Research Council, Project Seafarer (Sanguine), 1978
- **Consultant, U. S. Environmental Protection Agency**, Des Plaines River Wetlands Project, 1979-83
- **Consultant, City of Chicago**, Lake Calumet Project, 1980-83
- **Consultant** on several hundred wetland and endangered species projects for Chicago Area Communities, developers, engineering firms and property owners, 1980-90
- **Consultant, General Electric Vibrations Laboratory** (bird damage to jet engines), 1978
- **Consultant, DeKalb County Forest Preserve District** (County Management Plan), 1980-81
- **Consultant and expert testimony**, National Wildlife Federation and Isaac Walton League (Bald Eagle habitat, Rock Island, Illinois area), 1977
- **Expert Testimony**, Illinois Department of Transportation Study Commission (ecological value of railroad right-of-ways), 1978
- **Member, Bald Eagle Task Force**, Illinois Department of Conservation, 1980
- **Member, Bird Technical Committee**, Illinois Department of Conservation and Endangered Species Protection Board, 1980-93
- **Consultant, U. S. Fish and Wildlife Service** (Black Tern research and management), 1980-81
- **Consultant, U. S. Steel Corporation** (gull management relative to a Histoplasmosis outbreak, 1980-86
- **Consultant, Naples Florida Municipal Airport** (bird strike problem), 1981
- **Consultant, Illinois Department of Conservation** (Barn Owl hacking), 1982
- **Consultant, DuPage County Forest Preserve District** (Barn Owl captive release program, 1982
- **Appointed member, Citizen's Forestry Advisory Committee**, Illinois Department of Conservation, Division of Forestry and Natural Heritage, 1981-84

- **Consultant, Illinois Department of Transportation** (Bald Eagle management and interstate Highway siting), 1981-82
- **Resource Person**, Great Lakes Region Endangered Species Coordinator's Workshop, 1982
- **Associate Editor** of *The Auk*, scientific journal of the American Ornithologists' Union, 1982-86
- **Consultant, Reader's Digest Scientific Staff**, 1982
- **External Examiner for Ph. D. Committees** at Lakehead University (Thunder Bay, Ontario) Michigan State University, University of South Florida (2 candidates), Yale University, and Northern Illinois University (departments of Psychology, education and Chemistry), 1982-90
- **Consultant, High Peaks Audubon society** (New York), management of gull colonies, 1981
- **Consultant, Illinois Department of Conservation**, native versus introduced plants for use in mine reclamation, 1982
- **Consultant, Shawnee National Forest** (forest quality indicator bird species), 1982
- **Participated in an inventory of avifauna**, Amazon Basin, Peru, Chicago Field Museum of Natural History, 1983
- **Conducted cooperative research project** on Brown Booby life history, U. S. Virgin Islands Department of Fish and Wildlife, 1983-89
- **Consultant, Commonwealth Edison** (Bird Impingement Project), Byron Nuclear Station, 1983-89
- **Consultant, Illinois Department of Conservation**, wetland inventories and evaluation techniques for five northeastern counties, 1981-90
- **Appointed Member, Wetland Advisory Committee**, Illinois Department of Conservation, 1984-87
- **Member, AOU Biographical Committee**, 1983-86
- **AIBS Congressional Fellow**, First Alternate, 1984-85
- **Member, Washburn County (Wisconsin) Land Conservation Committee**, developed Land and Water Resource Management Plan, 1999
- **Member Northwest Sands Steering Committee**, Northwest Regional Planning Commission, Spooner, Wisconsin, 1999-2000
- **Member, Spooner Hatcher Shoreline Demonstration Committee**, Wisconsin, 1999-2000
- **Landfill consultant** regarding bird control, bird/aircraft issues and bird control for various companies and agencies, 1978-present (see below)
- **Threatened & Endangered Bird Consultant** to Atwood-Hicks Environmental Services, 2006 for a Wal-Mart development at Round Lake Beach, IL.

LANDFILL-RELATED PROJECTS & LIST OF COMPANIES INTERACTING WITH WES CONSULTING (PARTIAL LISTING; * = CURRENT PROJECTS):

Client	Project	Date	Subject
--------	---------	------	---------

Eldredge Engineering	Cook Co., IL, Sauk Trail	1976	Siting & testimony
Kirkland & Ellis	Cook Co., IL, Richton Park	1976	Siting & testimony
Sidley & McKenzie	Will Co., IL, McCarthy Road	1976	Siting & testimony
Eldredge Engineering	Cook Co., IL, Lemont	1977	Landfill siting
Baker & McKenzie	Walsh vs. Barter et al.	1978	Meigs Field bird strike
Montgomery Co., MD	Montgomery Co. Landfill	1978	Testimony re gulls
Dames & Moore, Inc.	Montgomery Co. Landfill	1978	Landfill siting
Equitable Environ. Health	Cook Co., IL, Lake Calumet	1978	Landfill siting
Shiple, Knight et al.	Sandy Hill Landfill, MD	1978	Testimony re birds
Waste Management	Sandy Hill Landfill, MD	1978	Bird survey, control
Post, Buckley et al.	Miami, FL airport	1979	Bird/Aircraft issue
Sexton Engineering	Cook Co., IL, Plum Creek	1980	Landfill siting
Jenner & Block	Cook Co., IL, Lake Calumet	1980	Testimony re birds
U. S. Air Force	Gull hazards to aircraft, U. S.	1980-81	Bird strike hazard model
Waste Management	Bird Control Manual	1981	Gull control
Waste Management	Keele Valley, Toronto, Ont.	1981	Testimony re birds
City of Chicago	Lake Calumet, Cook Co., IL	1981-82	Testimony re birds
Eldredge Engineering	Cook Co., IL, Smitty Road	1982	Testimony re birds
Sexton Engineering	LaSalle Co., IL, Ill. River	1983	Barge facility siting
Village of Mundelein	Lake Co., IL	1983	Gulls & aircraft issues
Conklin & Adler	Smith vs. Cleveland Air Show	1985	Testimony-bird strike
Fox Valley Concerned Citizens	St. Charles, IL, Airport expansion	1986	Airport safety/birds
Illinois Attorney General	U. S. Ecology, Sheffield, IL	1987-90	Testimony re birds
Waste Management	Buffalo Valley, San Antonio, TX	1988	Bird survey, siting
Baker-Shiflett Engineers	McKinney Landfill, TX	1988	Testimony re birds
Waste Management	Edmonton, Alberta landfill	1988	Bird control plan
Village of Bartlett	Bartlett Balefill, IL	1988-90	Testimony re birds
Moore Industrial Disposal	Buffalo Valley, San Antonio, TX	1988-90	Bird surveys
Moore Industrial Disposal	McKinney Landfill, TX	1988	Landfill siting
Suntech Development Inc.	Buffalo Valley, San Antonio, TX	1990	Landfill siting; testimony
Mayor, Day & Caldwell	Buffalo Valley, San Antonio, TX	1989-90	Landfill siting
Eldridge Engineering	Stueben Co., IN landfill	1989	Landfill siting; surveys
Eldridge Engineering	DeKalb Co., IL landfill	1989	Landfill siting
Eldridge Engineering	Will Co., IL landfill	1989	Landfill siting
R.C. Campbell & Assoc.	CDT Compost, Lake Co., IL	1989	Compost siting
Andrews Environmental Eng.	ARF Landfill Corp., Ottawa, IL	1989	Testimony re birds
Andrews Environmental Eng.	Cook Co., IL	1990	Petroleum storage site
Texas Waste Systems	Rosillo Creek Landfill, TX	1990	Testimony re birds
Winnebago Reclamation	Rockford, IL landfill	1990-95	Landfill & wetlands
Andrews Environmental Eng.	Livingston Co., IL landfill	1990	T & E species; siting
Waste Management, Inc.	Coval Gardens Landfill, TX	1990	Testimony re birds
Westbelt Development	Houston, TX landfill	1990	Birds at landfill
Lloyd, Gosselink et al	Westbelt landfill, TX	1990	Prep for testimony
Andrews Environmental Eng.	Carus Landfill, LaSalle, IL	1991	Landfill & wetlands
SWANCC	Bartlett Balefill, IL	1991-94	Landfill siting
Sentry Landfill	Justin, TX	1991-94	Landfill siting, birds
Roly Purrington, Attorney	Sentry Landfill, TX	1991-94	Surveys; testimony
Mayor, Day, Caldwell, et al.	Sentry Landfill, TX	1991-94	Testimony; bird study
Andrews Environmental Eng.	Prairie Lakes Landfill, IL	1991-92	Landfill siting
Sanifill, Inc.	Fort Worth, TX landfill	1991	Bird survey
Redwood Landfill, Inc.	Novato, CA	1991-92	Bird survey; control
Sanifill, Inc.	Redwood Landfill, Novato, CA	1992-97	Bird control; surveys
USA Waste Systems	Redwood Landfill, Novato, CA	1997-98	Bird monitoring
Waste Management	Redwood Landfill, Novato, CA	1998-02	Bird monitoring
Waste Management, Inc.	West Edmonton Landfill, Alberta	1992	Bird control
Dane County, WI	Madison, WI landfill	1992	Evaluate bird control plan

Waste Management, Inc.	Atascocita Landfill, Houston, TX	1993-94	Bird control; monitoring
*Waste Management, Inc.	Skyline Landfill, Ferris, TX	1992-07	Testimony; monitoring
Laidlaw Waste Systems	Cherokee Run, Belefontaine, OH	1993-97	Bird control; monitoring
Waste Reduction Systems	Transfer Station, Houston, TX	1993	Landfill siting
Waste Reduction Systems	Madden Rd. Landfill, Houston, TX	1993-94	Bird issues
RMT Engineering	ERC Landfill, Coles Co., IL	1993-94	Subtitle D study
Lloyd Gosselink, et al.	Transfer Station, Houston, TX	1993	Landfill siting
Lloyd Gosselink, et al.	Madden Rd. Landfill, Houston, TX	1993-94	Bird issues
Sanifill, Inc.	Baytown Landfill, Houston, TX	1994	Bird issues
Waste Management, Inc.	West Side Landfill, Ft. Worth, TX	1994-95	Bird control; monitoring
Laidlaw Waste Systems	ERC Landfill, Charleston, IL	1994	Expansion & Birds
USA Waste Services	Ellis Co. Landfill, Palmer, TX	1994	Bird control
USA Waste Services	Countryside Landfill, Grayslake, IL	1994	Bird control; monitoring
Browning Ferris Industries	Zion Landfill, Zion, IL	1994-95	Airport issues; control
County of Sonoma, CA	Central Landfill, Petaluma, CA	1994	Bird control plan
LandComp Corporation	Ottawa, IL landfill	1995-96	Testimony; siting issues
Leatherwood, Inc.	DuBois, PA Landfill site	1995-97	Bird control and survey
Babst, Calland, Clements et al.	Leatherwood Landfill, PA	1995-01	Bird study; testimony
Rochester Coal & Steel	DuBois, PA landfill site	1997	Bird study
Winnebago Reclamation	Rochelle Municipal Landfill, IL	1996-97	Bird control; survey
Allied Waste Systems	Cherokee Run Landfill, OH	1997	Bird monitoring
USA Waste Services	Olympic View Landfill, WA	1997	Bird control
Outboard Marine Corp.	Waukegon, IL Superfund Site	1997-99	Bird control; testimony
City of Waukegan, IL	Gull control at water plant	1999	Bird control; testimony
Allied Waste Systems	ECD Landfill, Ennis, TX	1998-99	Bird survey; testimony
Lloyd, Gosselink et al.	ECD Landfill, Ennis, TX	1998-99	Testimony
Earth Sciences Consultants	Leatherwood Landfill, PA	1999-00	Bird study; testimony
City of Corpus Christi, TX	J.C. Elliott Landfill, TX	1999	Bird control
City of Corpus Christi, TX	New landfill site, TX	1999	Bird control
Lloyd, Gosselink, et al.	City of Corpus Christi, TX	1999	Bird control; testimony
BFI/Allied Waste Systems	Rio Grande Valley Landfill, TX	1999-05	Bird survey; control
Winstead, Suchrest & Minick	Rio Grande Valley, Donna, TX	1999-05	Testimony; surveys
BFI/Allied Waste Systems	Tessman Rd. Landfill, TX	1999-02	Bird control; monitoring
Winstead, Suchrest & Minick	Tessman Rd, San Antonio, TX	1999-03	Testimony; surveys
CONSOL	Leatherwood Landfill,, PA	1999-01	Testimony
Allied Waste Systems	CC Landfill, Charleston, IL	2000-02	Bird survey; testimony
Envirogen	CC Landfill, Charleston, IL	2000-02	Bird control
Youchak & Youchak	Tri-County Landfill, PA	2000-03	Bird survey; control
Youchak & Youchak	Seneca Landfill, Butler Co., PA	2000-01	Bird survey; control
Allied Waste Systems	Sagamon Valley Landfill, IL	2000	Endangered species
Andrews Environmental Eng.	Sagamon Landfill, Springfield, IL	2000	Endangered Species
Texoma Area Solid Waste A.	Sherman, TX	2000-02	Endangered Species
Lloyd, Gosselink, et al.	TASWA Landfill, Sherman, TX	2000-02	Testimony
Picadio, McCall, et al.	Tri-County Landfill, PA	2001-03	Testimony
Griffon & Thompson	Spofford Landfill, Kenny Co., TX	2000-02	Testimony
Adobe Eco-systems	Kinney Co., TX, Spofford	2000-02	Bird survey, deposition
*Lloyd, Gosselink, et al.	Blue Ridge Landfill, Houston, TX	2001-07	Surveys; control
*BFI/Allied Waste Systems	Blue Ridge Landfill, Houston, TX	2001-07	Control; monitoring
Town & Country Utilities	Kankakee Landfill, IL	2001-04	Surveys; control
Crawford, Murphy & Tilly	Kankakee Landfill, IL	2001-03	Bird surveys
Envirogen	Kankakee Landfill, IL	2001-02	Bird surveys; testimony
Andrews Environmental Eng.	ERC Landfill, Charleston, IL	2002	Bird control
*BFI Sunset Farms Landfill	Austin, TX	2002-07	Bird control; monitoring
Eastern Shores Environmental	Transfer Station, Dover, DE	2002-03	Bird surveys; testimony
BFI/Allied Waste systems	Tessman Rd, San Antonio, TX	2002-06	Bird control; monitoring
Lloyd, Gosselink, et al.	Panama Road Landfill, TX	2002-03	Bird issue review

BFI/Allied Waste Systems	Panama Road Landfill, TX	2002-03 Site review re birds
Atascocita Landfill, WMI	Humble, TX	2003 Review control plan
BFI Hauling Facility	San Antonio, TX	2003 Bird control-OSHA
*MacBeth Rd Landf., Republic	Fort Wayne, IN	2003-07 Bird surveys; control
Shaw-EMCON/OWT, Inc.	MacBeth Rd. Landfill, Indiana	2003-05 Bird surveys
Shaw-EMCON/OWT, Inc.	Kankakee Landfill, IL	2003-04 Bird surveys; control
WiTHco, LLC	Nashville, TN Transfer Station	2003-04 Bird survey; testimony
Kankakee Regional Landf.	Kankakee, IL	2004 Bird control plan
*Allied Waste/BFI	Lake Area Landfill, WI	2004-07 Bird surveys; testimony
Allied Waste Services	Newton Co. Landfill, IN	2004 Bird control
Onyx Waste Services	Seven Mile Creek Landfill, WI	2004 Bird control
WM DFW Landfill	Lewisville, TX	2004 Bird control evaluation
McCarty Road Landfill	Houston, TX (BFI)	2005 Bird surveys
*IESI TX Landfill	Austin, TX	2005-07 Testimony; bird control
McCarty Road Landfill, BFI	Houston, TX	2005 Bird control
Waste Management	Crystal Lake, IL	2005 Transfer Station/birds
Shaw Environmental, Inc.	Waste Mgmt Transfer Station	2005 Bird & airport
*Ponderosa Regional Landfill	Laredo, TX	2006-07 Bird control plan
*McElroy, Sullivan & Miller	Reg. Land Mgmt. Serv. Laredo	2006-07 Testimony

PARTIAL LIST OF GOVERNMENT PROJECTS INCLUDING THOSE WITH EXPERT TESTIMONY(*)”

1. *City of Chicago—Lake Calumet Industrial District Ecological Assessment
2. City of Chicago—O’Hare International Airport Bird/Aircraft issue
3. *Lake County Forest Preserve District (Donald Morrison & Assoc.)—wetland delineation, endangered species issues and other topics pertinent to six new forest preserves, including testimony for each.
4. Illinois Department of Transportation—Ecological assessments for proposed highway alignments, including Edens Expressway, IL Route 22, U. s. Route 12, and Elgin-O’Hare Expressway
5. Illinois International Port district—Environmental Impact Analysis for Lake Calumet Port
6. *Illinois Attorney General—several projects pertaining to endangered species and one requiring ecological studies of impacts by a hazardous waste facility and a nuclear waste site
7. *York Center Park District—wetland impact analysis caused by development
8. *Village of Long Grove—wetland inventories, impact assessment for extension of Route 53 toll road, including bird studies
9. SWANCC—bird and endangered species studies, impact evaluation and other issues associated with a solid waste facility in Cook County, IL
10. City of Elgin—wetland studies
11. Geneva Public Schools—wetland studies
12. *Village of Bartlett—wetland and endangered species studies, including testimony
13. Village of Algonquin—wetland studies
14. Village of Barrington Hills—wetland and endangered species studies
15. Village of Hawthorn Woods—heron colony impacts associated with developments and highway construction

16. *Illinois Capital Development Board—wildlife and endangered species studies and impact analysis associated with dam construction at Spring and Rice lakes, IL
17. *Illinois Department of Conservation—series of projects dealing with endangered species impacts and mitigation, including Redwing Slough
18. Village of East Dundee—wetland studies
19. Gurnee Park District—wetland studies
20. U. S. Environmental Protection Agency—bird use of wetlands smaller than 10 acres in northeastern Illinois to affirm jurisdiction under wetland regulations
21. Lemont School district—wetland studies
22. Godley Park District—wetland studies
23. Village of Park City—wetland studies
24. Village of Round Lake Beach—wetland studies and mitigation evaluation
25. Village of Sleepy Hollow—wetland studies

NON-GOVERNMENT PROJECTS INVOLVING TESTIMONY OR PREPARATION FOR TESTIMONY IN COURT OR AT HEARINGS (PARTIAL LISTING):

1. Isaac Walton League—Bald Eagle testimony in Rock Island, IL
2. Moore Industrial Disposal—San Antonio, TX, solid waste facility siting
3. Redwood Landfill—Novato, CA, bird and endangered species studies at solid waste site, including bird control
4. Sentry Landfill Company—Denton, TX, birds at a proposed solid waste site
5. Texas Waste Systems, Waste Management, Inc.—bird issues at a solid waste facility
6. Tenney & Bentley—wetland issues near Chicago, IL
7. Donald Morrison & Assoc.—wetland and endangered species issues
8. Lloyd, Gosselink, et al.—bird issues at several landfill sites in TX
9. Mayor, Day and Caldwell—bird and landfill issues in TX
10. Waste Management of North America—projects in Maryland, Illinois, Texas, California, Ontario and Alberta
11. Roliff Purrington, Jr., Attorney—landfill and bird issues at Justin, TX landfill site
12. Browning Ferris Industries—landfill projects in Illinois, Ohio, and Texas
13. West Belt Development, Inc.—solid waste facility and bird issues near Houston, TX
14. Andrews Environmental Engineering—wetland and landfill siting issues at several sites in Illinois
15. Rathje, Woodward, Dyer & Burt—Downers Grove Park Dist Vs. Good Samaritan Hospital
16. USA Waste systems—bird issues at a solid waste facility at Grayslake, IL
17. Sidley & Austin—Will and Cook County landfill site near Lemont, IL
18. Baker and McKinsie—bird/aircraft collision at Meggs Field, Chicago, IL
19. Shipley, Knight, Manzi & Zanecki—Sandy Hill Landfill near Baltimore, MD
20. Post, Buckley, Schuh & Jennigan—bird/aircraft issue in Miami, FL

21. Jenner & Block—three wetland-related projects in IL
22. Conklin & Adler—Smith vs. Cleveland National Air Show
23. Seyfarth, Shaw, Fairweather & Geraldson—Outboard Marine Corporation, gull control at an industrial site, Waukegan, IL
24. Lloyd, Gosselink, Blevins, Rochelle, Baldwin & Townsend—landfill projects in Houston, Corpus Christi and Ennis, TX
25. Skadden, Arps, Slate, Meagher & Flom—threatened and endangered species issues regarding wetland birds, Long Grove, IL
26. McElrow & Sullivan—bird issues at a Waste Management Inc. Landfill, Ferris, TX
27. Babst, Calland, Clements, & Zomir—Leatherwood Landfill, DuBois, PA
28. John Moore, Attorney—Attorney Ecosystems landfill, Del Rio, TX
29. Winstead, Sechrest & Minick—BFI Rio Grande Valley Landfill, Donna, TX
30. Winstead, Sechrest & Minick—Tessman Road Landfill, San Antonio, TX
31. Griffon & Thompson—Adobe Eco-Systems Landfill, Spofford, TX

RESEARCH GRANTS, CONTRACTS AND FELLOWSHIPS:

- Brown Fund Research Grant—Cornell University, 1963-64
- National Science Foundation—Science Faculty Fellowship, 1963-64
- National Science Foundation—Desert Biology Fellowship, 1965
- Frank M. Chapman Memorial Fund (American Museum of Natural History) Research grants—1961-64; 1965; 1970-71
- Max McGraw Wildlife Foundation Research Grants—1970-71; 1896-87
- Illinois Department of Conservation Research Contracts—1973-75; 1981 (3 contracts); 1982-83 (3 contracts); 1984-85 (4 contracts), 1986 (2 contracts) National Park Service Research Grant—1974-82
- National Science Foundation Research Grants—1959, 1962, 1971-73
- NSF/AAS Fellow in Primate Behavior—University of Wisconsin, 1972
- Northern Illinois University Research Grants—1963, 1965, 1968, 1973-74, 1976-77
- U. S. Navy Office of Naval Research, Project Seafarer, 1973-74
- U. S. Air Force Office of Sponsored research—1977-79
- U. S. Environmental Protection Agency grants—1981-83; 1984-86
- U. S. Department of Education—1984-89
- Illinois Attorney General's Office contract—1987

INVITED LECTURES, SYMPOSIA PRESENTATIONS, AND HONORS (PARTIAL LIST)

- Elected Member, American Ornithologists' Union, 1971
- Fellow, American Ornithologists' Union, 1981
- Invited participant at the following:
- Symposium on the Sensory Basis of Animal Orientation, NY, 1971

- Symposium on the Biological Aspects of the Bird/Aircraft Collision Problem, Clemson University, Clemson, SC, 1974
- First Conference on Research in the National Parks, New Orleans, LA 1975
- Symposium on fish-eating Birds of the Great Lakes, Ottawa, Ontario, 1976
- Symposium on the Behavior of Marine Organisms, St. John's, Newfoundland, 1976
- Bird Hazards to Aircraft Training Seminar and Workshop, Atlanta, GA, 1976
- International Conference on Animal Navigation and Orientation, Tubingen, West Germany, 1977
- Symposium on Birds of the Sea and Shore, Cape Town, South Africa, 1979
- Symposium on Bird Orientation and Migration, Rockefeller University, New York, 1980
- Wildlife Hazards to Aircraft Conference, Charleston, SC 1984
- Bald Eagle Research and Management Workshop, Illinois Dept. of Conservation (co-chaired event), 1984
- Keynote Speaker, Great Lakes Region Endangered Species Coordinator's Workshop, 1982
- Keynote Speaker, Animal Protection Institute of Canada Gull Symposium, Toronto, Ontario, 1985
- Wetland Regulations and Mitigation, Chicago Bar Association, 1989
- Wetland Mitigation Procedures, Illinois Civil Engineers Association, 1989
- Waste Tech '93, National Solid Waste Management Association Meeting, Marina Del Ray, CA, Bird Control at Landfills per Subtitle D, 1993
- Bird Strike USA/Canada '99, Participant, Bird Strike Committee USA/Bird Strike Committee Canada, Vancouver, BC, 1999
- Attendee, Bird Strike 2000, Minneapolis, MN, 2000

OTHER PROFESSIONAL SERVICES (PARTIAL LISTING):

SCIENTIFIC JOURNAL REFEREE FOR:

American Naturalist	Ecology
Animal Behavior	Jack-Pine Warbler
Auk	Journal of Field Ornithology
Canadian Field-Naturalist	Journal of Wildlife Management
Canadian Journal of Zoology	Murrelet
Colonial Waterbirds	Science
Condor	Wilson Bulletin
Ecological Monographs	Wildlife Bulletin

GRANT PROPOSAL REFEREE FOR:

National Science Foundation	National Geographic Society
National Institutes of Health	American Philosophical Society

MISCELLANEOUS ACTIVITIES:

- Associate Editor, *The Auk*, American Ornithologists' Union journal, 1982-86
- Editor, Colonial Waterbird Group Proceedings, 1977-79 (became journal *Colonial Waterbirds* in 1980)
- Bird manuscript reviewer for Brown Publishing Co., Burgess Publishing Co., Princeton University Press, Northern Illinois University Press
- Co-editor, PSG/CWG Gull Symposium Proceedings entitled "Ecology and Behavior of Gulls", 1987
- Presented seminars at the following universities (partial list): Alma College, Central Michigan University, College of Lake County, Cornell University, Hope College, University of Michigan, University of Michigan Biological Station, University of South Florida, Washington University
- Chaired arrangements committees for meetings of: Colonial Waterbird Group (Scientific Program Committee Chair, 1977, 1984, 1989), Illinois Chapter of the Wildlife Society, Animal Behavior Society
- Served on U. S. Department of Education Grant Proposal Review Panel, 1989

PUBLICATIONS OF WILLIAM E. SOUTHERN (DOES NOT INCLUDE HUNDREDS OF UNPUBLISHED ENCAP, INC. AND WES CONSULTING REPORTS TO CLIENTS):

1. Southern, W. E. 1956. The 1955 spring migration of shorebirds at a small pond in Central Michigan. *Jack-Pine Warbler* 34:11-14.
2. Southern, W. E. 1958. Myrtle Warbler feigns injury. *Jack-Pine Warbler* 36:27.
3. Southern, W. E. 1958. Nesting of the Red-eyed Vireo in the Douglas Lake Region, Part I. *Jack-Pine Warbler* 36:104-130.
4. Southern, W. E. 1959. Nesting of the Red-eyed Vireo in the Douglas Lake Region, Part II. *Jack-Pine Warbler* 36:187-207.
5. Southern, W. E. 1959. Foster-feeding and polygamy in the Purple Martin. *Wilson Bulletin* 71:96.
6. Southern, W. E. 1959. Homing in Purple Martins. *Wilson Bulletin* 71:254-261.
7. Southern, W. E. & H. B. Tordoff. 1959. Three birds new to the Straits Region of Michigan. *Jack-Pine Warbler* 37:51-53.
8. Tordoff, H. B. & W. E. Southern. 1959. Caspian Tern and Black Skimmer in Newfoundland. *Wilson Bulletin* 71:385-386.
9. Southern, W. E. 1960. Copulatory behavior of the Red-headed Woodpecker. *Auk* 77:218-219.
10. Southern, W. E. 1960. The birds of Hunt Hill Sanctuary. *Passenger Pigeon* 22:28-29.
11. Southern, W. E. 1960. New breeding locality for LeConte's Sparrow. *Passenger Pigeon* 22:28-29.
12. Southern, W. E. 1960. Name changes affecting the avifauna of Illinois. *Audubon Bulletin* 116:3-5.
13. Southern, W. E. 1960. Dutch elm disease. *DeKalb Daily Chronicle*, October 6, page 12.

14. Southern, W. E. 1960. Second in series on elm trees and blight. *DeKalb Daily Chronicle*, October 17, page 14.
15. Southern, W. E. 1960. Third in series on elm trees and blight. *DeKalb Daily Chronicle*, October 18, page 12.
16. Southern, W. E. 1961. The 1960-61 Christmas bird census. *Audubon Bulletin* 117:8-18.
17. Southern, W. E. 1961. Dichromatism in juvenile Yellow Warblers. *Auk* 78:440-441.
18. Southern, W. E. 1961. Control measures for Dutch elm disease. *Audubon Bulletin* 120:4-8.
19. Southern, W. E. 1961. Copulatory behavior of the Common Loon. *Wilson Bulletin* 73:280.
20. Southern, W. E. 1961. A botanical analysis of Kirtland's Warbler nests. *Wilson Bulletin* 73:148-154.
21. Southern, W. E. 1962. Hybrid flicker (*Colaptes cafer* x *C. auratus*) in northeastern Illinois. *Audubon Bulletin* 121:5.
22. Southern, W. E. 1962. The 1961 Christmas bird census. *Audubon Bulletin* 121:6-10.
23. Southern, W. E. 1962. Distribution of the Blue-winged and Golden-winged Warblers in Wisconsin. *Passenger Pigeon* 24:35-43.
24. Southern, W. E. 1962. Wintering Bald Eagles in northeastern Illinois. *Audubon Bulletin* 124:1-6.
25. Southern, W. E. 1962. Notes on Cerulean Warbler life cycle. *Passenger Pigeon* 24:9-11.
26. Southern, W. E. 1963. Winter populations, behavior and seasonal dispersal of Bald Eagles in northwestern Illinois. *Wilson Bulletin* 75:42-55.
27. Southern, W. E. 1963. Three species observed anting on a wet lawn. *Wilson Bulletin* 75:275-276.
28. Southern, W. E. 1963. The 1962 Christmas bird census. *Audubon Bulletin* 152:11-15.
29. Southern, W. E. 1963. Equipment and techniques for using radio-telemetry in wildlife studies. Report No. 3, Northern Illinois University, Department of Biological Sciences. 37 pp.
30. Southern, W. E. & G. D. Schnell. 1964. Herring Gulls feeding on sea lamprey. *Jack-Pine Warbler* 42:231.
31. Southern, W. E. 1964. Additional observations on winter Bald Eagle populations: including remarks on biotelemetry techniques and immature plumages. *Wilson Bulletin* 76:222-237.
32. Southern, W. E. 1964. Avian navigation research. *IEEE Spectrum* 1:215 (abstract).
33. Southern, W. E. 1964. Biotelemetry: avian navigation. *BioScience* 15:87088.
34. Southern, W. E. 1965. Some additions to the distributional list of Michigan birds. *Jack-Pine Warbler* 43:43.
35. Southern, W. E. 1965. Bio-Telemetry: a new technique for wildlife research. *The Living Bird* 4:45-58.

36. Southern, W. E. 1966. Utilization of shad as winter food for birds. *Auk* 83:309-311.
37. Southern, W. E. 1967. Colony selection, longevity and Ring-bill and Herring gull populations: preliminary discussion. *Bird-Banding* 38:52-60.
38. Southern, W. E. 1967. The role of environmental factors in Ring-billed and Herring gull orientation. Ph. D. Dissertation, Cornell University. 281 pages.
39. Southern, W. E. 1967. Further comments on subadult Bald Eagle plumages. *Jack-Pine Warbler* 45:70-80.
40. Southern, W. E. 1967. Dispersal and migration of Ring-billed Gulls from a Michigan colony. *Jack-Pine Warbler* 46:102-111.
41. Southern, W. E. 1968. Dispersal patterns of subadult Herring Gulls from Rogers City, Michigan. *Jack-Pine Warbler* 46:2-6.
42. Southern, W. E. 1968. The role of environmental factors in Ring-billed and Herring Gull orientation. *Dissertation Abstracts* 28:68-4646.
43. Southern, W. E. 1968. Further observations on foster-feeding by Purple Martins. *Wilson Bulletin* 80:234-235.
44. Southern, W. E. 1968. Age composition of a breeding Ring-billed Gull population. *Inland Bird Banding News* 40:166-167.
45. Southern, W. E. 1969. Experiments on the homing ability of Purple Martins. *The Living Bird* 7:71-84.
46. Southern, W. E. 1969. Orientation behavior of Ring-billed Gull chicks and fledglings. *Condor* 71:419-425.
47. Walley, H. D., W. E. Southern & J. H. Zar. 1969. Big Brown Bat entangled in burdock. *American Midland Naturalist* 82:630.
48. Southern, W. E. 1969. Gull orientation behavior: influence of experience, sex, age, and group releases. *Jack-Pine Warbler* 47:34-43.
49. Southern, W. E. 1969. Sky conditions in relation to Ring-billed and Herring gull orientation. *Transactions Illinois State Academy of Science* 62:342-349.
50. Southern, W. E. 1970. Marsh Hawk chases crows mobbing owl. *Wilson Bulletin* 82:98-99.
51. Southern, W. E. 1970. En route behavior of homing Herring Gulls as determined by radio-tracking. *Wilson Bulletin* 82:189-200.
52. Southern, W. E. 1970. Orientation in gulls: effects of distance, direction of release, and wind. *The Living Bird* 9:75-95.
53. Southern, W. E. 1970. Influence of disturbances in the earth's magnetic field on Ring-billed orientation. *American Zoologist* 10:23 (abstract).
54. Southern, W. E. 1970. For a quality environment – education and action. *Journal Association for the Study of Perception* 10:6-12.
55. Southern, W. E. 1971. Evaluation of a plastic wing-marker for gull studies. *Bird-Banding* 42:88-91.
56. Southern, W. E. 1971. Gull orientation by magnetic cues: a hypothesis revisited. IN: H. E. Adler (editor), *Orientation: Sensory Basis*. *Annals New York Academy of Sciences* 188:295-311.

57. Southern, W. E. 1971. The development and evolution of orientation: a panel discussion. *Annals New York Academy of Sciences* 188:394-396, 403, 405 & 407.
58. Southern, W. E. 1971. Unconventional theories of orientation: panel discussion. *Annals New York Academy of Sciences* 188: 337-338 & 351.
59. Southern, W. E. 1971. Proceedings of the Midwest Legislative Council on the Environment: Pesticide Conference, 27 September 1971, Lincoln, Nebraska.
60. Southern, W. E. 1972. Influence of disturbances in the earth's magnetic field on Ring-billed Gull orientation. *Condor* 74:102-105.
61. Shadt, J. C. & W. E. Southern. 1972. The effects of solar cues on the basic directional preferences of young Mallard. *Bird-Banding* 43:47-53.
62. Southern, W. E. 1972. Use of the cannon-net in Ring-billed Gull colonies. *Inland Bird Banding News* 44:83-93.
63. Southern, W. E. 1972. Magnets disrupt gull orientation during first-flights. *BioScience* 22:476-479.
64. Southern, W. E. & F. J. Cuthbert. 1972. Ring-billed gull relocates nest as a result of egg displacement. *Bird-Banding* 44:224-227.
65. Southern, W. E. 1972. Magnetic storm activity influences directional responses of gull chicks. *Proceedings XV International Ornithological Congress* 15:688 (Abstract)
66. Cuthbert, F. J. & W. E. southern. 1973. Ring-billed Gull relocates nest as a result of egg displacement. *Bird-Banding* 44:224-227.
67. Southern, W. E. 1973. Orientation behavior of Ring-billed Gull chicks (*Larus delawarensis*) exposed to Project Sanguine's electric and magnetic fields. Department of the Navy, Office of Naval Research Report N00014-72-A0050-0002. 34 pages.
68. Southern, W. E. 1974. Copulatory wing-flagging: a synchronizing stimulus for nesting Ring-billed Gulls (*Larus delawarensis*). *Bird-Banding* 45:210-216.
69. Southern, W. E. 1974. The annual range of Ring-billed Gulls in the eastern United States: with comments on potential bird/aircraft collision problems. Pp. 149-190. IN: *Proceedings Conference on the Biological Aspects of the Bird/Aircraft Problem*, Clemson University, S. A. Gauthreaux, Jr., Editor. U. S. Air Force Office of Sponsored Research and FAA.
70. Southern, W. E. 1974. The effects of superimposed magnetic fields on gull orientation. *Wilson Bulletin* 86:256-271.
71. Southern, W. E. 1974. Range extremes for Ring-billed Gulls from the Great Lakes region. *Inland Bird Banding News* 46:83-87.
72. Southern, W. E. 1974. Seasonal distribution of Great Lakes region Ring-billed Gulls. *Jack-Pine Warbler* 52:154-179.
73. Southern, W. E. 1974. American Kestrel transports Norway rat. *Wilson Bulletin* 86:285.
74. Dexheimer, M. & W. E. Southern. 1974. Reproductive success relative to nest location and density in Ring-billed Gull colonies. *Wilson Bulletin* 86:288-290.

75. Southern, W. E. 1974. Florida distribution of Ring-billed gulls from the Great Lakes region. *Bird-Banding* 45:341-352.
76. Southern, W. E. 1974. Orientation of gull chicks exposed to Project Sanguine's electromagnetic field. *Science* 189:143-145.
77. Cuthbert, F. J. & W. E. Southern. 1975. A method for marking semiprecocial young for individual identification. *Bird-Banding* 46:252-253.
78. Walthus, R. S. & W. E. Southern (photography). 1975. Where the gulls are. *Michigan Natural Resources* 44:22-23.
79. Southern, W. E. 1975. Longevity records for Ring-billed gulls. *Auk* 92:359.
80. Hanzely, L., W. E. Southern & D. Molsen. 1975. Ultra-structure of the Ring-billed Gull eye pecten. *Cytobios* 12:191-201.
81. Southern, W. E., S. R. Patton, F. J. Cuthbert & L. K. Kinkel. 1975. Wood Storks in Michigan. *Jack-Pine Warbler* 53:158.
82. Southern, W. E. 1975. Factors controlling the population of Ring-billed Gulls on South Manitou. Pp 318-320. IN: Office of the Chief Scientist, Annual Report CY 1974, U. S. National Park Service.
83. Southern, W. E. 1975. South Manitou Island bird population decline. Event 7-75 (2076). Center for Short-Lived Phenomena, Cambridge Massachusetts.
84. Southern, W. E. 1976. Migrational orientation in Ring-billed Gull chicks. *Auk* 93:78-85.
85. Southern, W. E. & L. K. Kinkel. 1976. Computer-generated migrational phenograms as indicators of the potential hazard of gulls to aircraft. Pp 93-164. IN: *Proceedings Bird Hazards to Aircraft Training Seminar and Workshop*, 8-9 September, Atlanta, Georgia. S. A. Gauthreaux, Jr., Editor. Federal Aviation Administration.
86. Southern, W. E., W. L. Jarvis & L. Brewick. 1976. Foraging ecology of Great Lakes region Ring-billed gulls. Pp 100-144. IN: *Proceedings Fish Eating Birds of the Great Lakes and Environmental Contaminants Conference*, 2-3 December 1976, Ottawa, Ontario. Canadian Wildlife Service.
87. Southern, W. E., F. J. Cuthbert & S. R. Patton. 1976. The influence of predation on colony-site selection and reproductive success in Ring-bill and Herring gulls. Pp 319. IN: Abstracts, *Proceedings First Conference on Scientific Research in the National Parks*. AIBS and National Park Service.
88. Southern, W. E., F. J. Cuthbert & S. R. Patton. 1976. The influence of fox predation on Ring-billed and Herring gull nesting success. Pp 519-524. IN: *Proceedings First Conference on Scientific Research in the National Parks*, 9-13 November, New Orleans. U. S. National Park Service.
89. Jarvis, W. L. & W. E. Southern. 1976. Food habits of Ring-billed Gulls breeding in the Great Lakes region. *Wilson bulletin* 88:621-631.
90. Southern, W. E. 1977. Development of a gull management plan for South Manitou. Pp 408-409. IN: Office of the Chief Scientist, Annual Report CY1975, U. S. National Park Service.
91. Southern, W. E. 1977. Colony selection and site tenacity in Ring-billed Gulls at a stable colony. *Auk* 94:469-478.

92. Southern, W. E. 1977. Recent developments in avian migrational orientation. Pp. 102-139. IN: *Proceedings Northeastern Regional Meeting of the Animal Behavior Society, Behavior of Marine Animals*. St. John's University, St. Johns Newfoundland, Laboratory Technical Report Number 20.
93. Elston, S. F., D. Rymal & W. E. Southern. 1977. Intra-specific kleptoparasitism in breeding Ring-billed Gulls. *Proceedings 1977 Conference of the Colonial Waterbird Group* 1:102-109.
94. Patton, S. R. & W. E. Southern. 1977. The influence of fox predation on gull breeding success. *Proceedings 1977 Conference of the Colonial Waterbird Group* 1:91-101.
95. Zar, J. H. & W. E. Southern. 1977. a computer program for sorting and mapping distributional data. *Proceedings Colonial Waterbird Group* 1:140-153.
96. Southern, W. E. (Editor). 1977. Proceedings of the 1977 Colonial Waterbird Group Conference. Northern Illinois University, 20-23 October 1977. Volume 1:205 pages. (Now journal *Colonial Waterbirds*)
97. Shugart, G. & W. E. Southern. 1977. Close nesting, a result of polygyny in Herring Gulls. *Bird-Banding* 48:276-277.
98. Southern, W. E. 1978. Ring-billed Gull pair with two nests. *Wilson Bulletin* 90:299-301.
99. Southern, W. E. 1978. Orientational responses of Ring-billed Gull chicks: a re-evaluation. Pp. 311-317. IN: *Animal Migration, Navigation and Homing*, K. Schmidt-Koenig and W. T. Keeton, Editors, Springer-Verlag, New York.
100. Kinkel, L. K. & W. E. Southern. 1978. Adult female Ring-billed Gulls sexually molest juveniles. *Bird-Banding* 49:185-186.
101. Southern, W. E. 1978. Development of computer-generated phenograms to forecast regional conditions hazardous to low-flying aircraft. U. S. Air Force Office of Scientific Research, Report AFOSR-773431. 241 pages.
102. Southern, L. K. & W. E. Southern. 1978. Absence of nocturnal predator defense mechanisms in breeding gulls. *Proceedings 1978 Conference Colonial Waterbird Group* 2:162-166
103. Southern, W. E. (Editor). 1978. Proceedings of the 1978 Colonial Waterbird Group Proceedings. Volume 2, 214 pages.
104. Southern, W. E. 1979. Orientation responses of Ring-billed Gull chicks: a re-evaluation. *Animal Behavior Abstracts* 1163-67, page 17 (abstract).
105. Southern, W. E. 1979. Differential response of Ring-billed Gulls and Herring gulls to fox predation. *Proceedings 1979 Conference Colonial Waterbird Group* 3:119-127.
106. Southern, L.K. & W. E. Southern. 1979. Philopatry in Ring-billed Gulls. *Proceedings 1979 Conference Colonial Waterbird Group* 3:27-32.
107. Hanners, L. A. & W. e. Southern. 1979. A management alternative? Aversive conditioning of predators to colonially breeding birds. *Proceedings 1979 Conference Colonial Waterbird Group* 3:245-254.
108. Southern, W. E. (Editor). 1979. Proceedings of the 1979 Colonial Waterbird Group Conference. Southwestern Louisiana University, Lafayette, Louisiana, 25-28 October 1979. Volume 3, 260 pages.

109. Southern, W. E. 1979. Red fox predation of breeding gulls at South Manitou Island, Sleeping Bear Dunes National Lakeshore. Abstracts, Second Conference on Scientific Research in the National Parks. AIBS and U. S. National Park Service.
110. Southern, W. E. 1979. Development of computer-generated phenograms to forecast regional conditions hazardous to low-flying aircraft. U. S. Air Force Office of Scientific Research Report AFOSR-77-3471 (Final), 94 pages.
111. Southern, W. E. 1980. Colonial waterbirds of the Great Lakes region: population trends and management considerations. Pp 28-39. IN: *Proceedings Illinois Non-game Wildlife Symposium*, 3 November 1979. Illinois Department of conservation, Division of Wildlife Resources, Periodic Publication Number 15.
112. Southern, W. E. & L. K. Southern. 1980. A summary of the incidence of cowbird parasitism in northern Michigan from 1911-1978. *Jack-Pine Warbler* 58:77-84.
113. Southern, W. E. 1980. Comparative distribution and orientation of North American gulls. Pp 449-498. IN: *Behavior of Marine Animals*. Volume IV: Marine Birds. J. burger, B. Ollo & H. Winn, editors. Plenum Press, New York.
114. Southern, W. E. 1980. The impact of fox predation on gull breeding success, Sleeping Bear Dunes National Lakeshore. Pp. 11-129. IN: *Proceedings Second Conference on Scientific Research in the National Parks*, San Francisco, California, 26-30 November 1979. volume 12: Terrestrial Biology, Zoology. U. S. National Park Service (NTIS/ST-80/02-1).
115. Southern, W. E. 1980. Flugemarkierte Ringschnalbelmowe in der Brutkolonie. Pp. 84-85. IN: *Markierlungsmethoden fur Vogel*. H. Bub & H. Oelke. A. Ziemsen, Verlag, Germany.
116. Southern, W. E., L. K. Southern, S. F. Elston & F. A. Heinz. 1980. Continued monitoring of gull reproductive success at South Manitou Island. PX6000-9-0886. U. S. National Park Service, Midwest Regional Office. 24 pages.
117. Southern, W. E. & L. K. Southern. 1981. Colony census results as indicators of pre-hatching perturbations. *Colonial Waterbirds* 4:143-149.
118. Southern, L. K. & W. E. Southern. 1981. The influence of habitat alterations on site tenacity in Ring-billed Gulls. *Colonial Waterbirds* 4:201 (abstract).
119. Southern, W. E., M. W. Brown, T. L. Houchens & L. K. Southern. 1981. Northeastern Illinois Wetland Inventory: Cook, DuPage, Kane, Lake and McHenry counties. Volumes 1-6. Distributed by the Illinois Department of Conservation, Natural Heritage Division, Springfield, Illinois.\
120. Southern, W. E., L. K. Southern and B. J. Frantz. 1981. Continued monitoring of gull reproductive success at South Manitou Island. Progress Report, PX60s00-9-0886. U. S. National Park Service, Midwest Regional Office. 19 pages.
121. Southern, W. E., F. A. Heinz & L. K. Southern. 1981. Reproductive success in Illinois Common Terns. Illinois Department of Conservation, Springfield, Illinois, 35 pages.

122. Southern, L. K. & W. E. Southern. 1982. Effects of habitat decimation of colony and nest site tenacity in Ring-billed Gulls. *Auk* 99:328-331.
123. Southern, W. E., L. Hanzely, R. L. Baily & D. V. Molsen. 1982. Is the avian eye pecten a magnetic sensor? Pp 344-351. IN: *Proceedings International Symposium on Avian Navigation*, Tirrenia, Italy. K. Schmidt-Koenig and F. Papi, editors, Springer-Verlag.
124. Southern, L. K. & W. E. Southern. 1982. Mate fidelity in Ring-billed Gulls. *Journal of Field Ornithology* 53:170-171.
125. Southern, W. E. & L. K. Kinkel. 1982. Intensification of Ring-billed Gull aggression during reproduction and its possible consequences. *Colonial Waterbirds* 5:2-10.
126. Southern, L. K., S. R. Patton & W. E. Southern. 1982. Nocturnal predation of *Larus* gulls. *Colonial Waterbirds* 5:169-172.
127. Southern, L. K. & W. E. Southern. 1982. Short-term effects of cannon -- netting and wing-tagging on breeding Ring-billed Gulls. *Colonial Waterbirds* 5:179 (Abstract).
128. Southern, W. E. 1982. Habitat evaluation of the Upper Des Plaines River and adjacent wetlands, 1979-80. U. S. Environmental Protection Agency Report No. EPA-905/3-81-002 (NTIS Accession No. PB83-103242).
129. Brown, M. & W. E. Southern. 1983. Avian ecological investigations, Green River Conservation Area. Illinois Department of Conservation Report. 168 pages.
130. Southern, W. E., L. K. Southern & B. J. Franz. 1982. Quantitative description of Oak Valley Bald Eagle winter area. Preliminary Report. Illinois Department of Conservation, Springfield, Illinois. 98 pages.
131. Southern, L. K. & W. E. Southern. 1983. Responses of Ring-billed gulls to cannon-netting and wing-tagging. *Journal of Wildlife Management* 47:234-237.
132. Elston, S. F. & W. E. Southern. 1983. Effects of intra-specific piracy on breeding Ring-billed gulls. *Auk* 100:217-220.
133. Southern, W. E. & L. K. Southern. 1983. Quantitative description of the Oak Valley (Lock & Dam 14) Bald Eagle wintering area. Final Report. Illinois Department of Conservation, Springfield, Illinois. 118 pages + appendix.
134. Lufty, N. A. & W. E. Southern. 1983. Avian ecological investigations, Rock Cut State Park. Illinois Department of Conservation, Springfield, Illinois. 118 pages + appendices.
135. Southern, W. E. & L. K. Southern. 1984. Bald Eagle management concerns and recommendations for the Mississippi River, Locks and Dams 14-15. Pp 106-113. IN: *Proceedings Midwest Workshop on Bald Eagle research and management*, 2-3 April 1984. Illinois Department of Conservation, Springfield, Illinois.
136. Southern, W. E. & M. J. Sweet (Editors). 1984. Proceedings Midwest Workshop on Bald Eagle Research and Management. 148 pages. Illinois Department of Conservation, Springfield, Illinois.
137. Southern, W. E. & L. K. Southern. 1984. Bald Eagle habitat use in the vicinity of Oak valley Refuge, Hampton, IL. Pp 23-76. IN: *Proceedings Midwest*

- Workshop on Bald Eagle Research and Management*, 2-3 April 1984. W. E. Southern and M. J. Sweet, editors. Illinois Department of Conservation, Springfield, Illinois.
138. Southern, W. E. & L. K. Southern. 1984. Successful control of gulls and other birds at a sanitary landfill. Pp. 231-240. IN: *Proceedings Wildlife Hazards to Aircraft Conference and training Workshop*, 22-25 May 1984, Charleston, South Carolina. FAA and Peer Consultants, Washington, D. C.
 139. Southern, W. E. & M. D. Southern. 1984. Herring Gulls specialize as Ring-billed Gull predators. *Colonial Waterbirds* 7:105-110.
 140. Southern, L. K. and W. E. Southern. 1985. Some effects of wing tags on breeding Ring-billed Gulls. *Auk* 102:38-42.
 141. Southern, W. E., N. Sabine, J. D. Paruk and L. K. Southern. 1985. Winter Bald Eagle aerial surveys, 1984-85. Final Report – Year 1. Illinois Department of Conservation, Springfield, Illinois. 89 pages.
 142. Southern, W. E., S. R. Patton & L. K. Southern. 1985. Effects of nine years of fox predation on two species of breeding gulls. *Auk* 102:827-833.
 143. Paruk, J. d. & W. E. Southern. 1985. Effects of adjacent habitats on avian communities along Illinois highways. Final Report. Illinois Department of Conservation, Springfield, Illinois. 28 pages.
 144. Dudek, T. & W. E. Southern. 1985. Avian community composition in relation to wetland characteristics. Phase 2 Report. Illinois Department of Conservation, Springfield, Illinois. 28 pages.
 145. Southern, W. E. 1986. Commentary: Histoplasmosis in a gull colony. *Colonial Waterbirds* 9:121=123.
 146. Southern, L. K. & W. E. Southern. 1986. Management plan for the Bald Eagle use area at Oak Valley Refuge and Lock and Dame 14. Final Report. Illinois Department of Conservation, Springfield, Illinois. 47 pages + appendices.
 147. Southern, L. K. & W. E. Southern. 1986. Management of northeastern Illinois wetlands for endangered and threatened species. Final Report. Illinois Department of Conservation, Springfield, Illinois. Volumes 1 and 2.
 148. Southern, W. E. 1987. Gull research in the 1980's: Symposium overview. *Studies in Avian Biology*, Number 10. 140 pages.
 149. Hand, J. L., W. E. Southern & K. Vermeer (Editors). 1987. ecology and Behavior of gulls. *Studies in Avian Biology*, Number 10. 140 pages.
 150. Southern, W. E. 1987. The earth's magnetic field as a navigational cue. Pp. 35-70 (Chapter 3). IN: *Modern Bioelectricity*, A. A. Marino, Editor. Marcel Dekker, Inc., New York.
 151. Southern, W. E. 1987. (Book Review) The Ring-billed Gull in Ontario: a review of a problem species. By H. Blokpoel and G. D. Tessier. *Auk* 104:359-361.
 152. Southern, W. E. 1988. (Commentary). Response to H. Blokpoel and G. D. Tessier. *Auk* 105:125.
 153. Parnell, J. F., D. G. Ainley, H. Blokpoel, B. Cain, T. W. Custer, J. L. Dusi, S. Kress, J. A. Kushlan, W. E. Southern, L. E. Stenzel & B. C. Thompson. 1988. Colonial Waterbird Management in North America. *Colonial Waterbirds* 11:129-345.

154. Southern, W. E. 1993. Demonstrating no increase in the likelihood of a bird/aircraft collision. Pp 176-180. IN: *Proceedings of Waste Tech '93*, 14-15 January 1993, Marina Del Ray, California. National Solid Waste Management Association.
155. Southern, W. E. 2000. Checklist of the birds of Southern Thailand. Adventures in Thai Food and Travel Website.