

**SOAH Docket No. 582-08-2178
TCEQ Docket No. 2007-1774-MSW**

**IN RE THE APPLICATION OF BFI WASTE § BEFORE THE
SYSTEMS OF NORTH AMERICA, LLC § STATE OFFICE OF
PERMIT NO. MSW-1447A § ADMINISTRATIVE HEARINGS**

**APPLICANT BFI WASTE SYSTEMS OF NORTH AMERICA, LLC.
RESPONSES TO REQUESTS FOR DISCLOSURE**

To: Executive Director, Texas Commission on Environmental Quality (TCEQ), by and through his attorney of record, Steve Shepherd, TCEQ Office of General Counsel (MC-173) P.O. Box 13087, Austin, Texas 78711-3087.

Office of Public Interest Counsel (OPIC), by and through its attorney of record, Christina Mann (MC-103), Office of the Public Interest Counsel, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087.

Travis County, by and through its attorney of record, Kevin Morse, Assistant Travis County Attorney, Travis County Attorney's Office, P. O. Box 1748, Austin, Texas 78767.

City of Austin, by and through its attorney of record, Holly Noelke, Assistant City Attorney, City of Austin Law Department, P. O. Box 1088, Austin, Texas 78767.

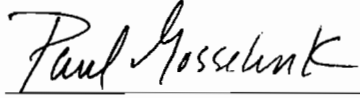
Northeast Neighbors Coalition and Individual Protestants, by and through their attorney of record, Jim Blackburn, Blackburn & Carter, LLP, 4709 Austin Street, Houston, Texas 77004.

TJFA, L.P., by and through its attorneys of record, Bob Renbarger and J.D. Head, Fritz, Byrne, Head & Harrison, LLP, 98 San Jacinto Blvd., Suite 2000, Austin, Texas 78701.

Giles Holdings, L.P., by and through its attorney of record, Paul M. Terrill, The Terrill Law Firm, 810 West 10th Street, Austin, Texas 78701

Applicant BFI WASTE SYSTEMS OF NORTH AMERICA, LLC serves these responses to requests for disclosure pursuant to the Texas Rules of Civil Procedure and the ALJ's Order No.1

Respectfully submitted,

By: 
Paul G. Gosselink
Texas Bar No. 08222800

LLOYD, GOSSELINK, ROCHELLE & TOWNSEND, P.C.
816 Congress Ave., Suite 1900
Austin, Texas 78701
Phone: (512) 322-5800
Fax: (512) 472-0532

**ATTORNEYS FOR APPLICANT
BFI WASTE SYSTEMS OF NORTH
AMERICA, LLC**

OF COUNSEL:

John E. Carlson
Texas Bar No. 00790426

Certificate of Service

I hereby certify that a true and correct copy of the foregoing motion was served on the following counsel/parties of record by certified mail (return receipt requested), regular U.S. mail, facsimile transmission and/or hand-delivery and via e-mail on May 29, 2008:

FOR THE CHIEF CLERK:

LaDonna Castañuela
Texas Commission on Environmental Quality
Office of Chief Clerk, MC-105
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239-3300
Fax: (512) 239-3311

FOR THE PUBLIC INTEREST COUNSEL:

Christina Mann
Texas Commission on Environmental Quality
Public Interest Counsel, MC-103
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239-4014
Fax: (512) 239-6377

FOR THE EXECUTIVE DIRECTOR:

Steve Shepherd, Staff Attorney
Texas Commission on Environmental Quality
Environmental Law Division, MC-173
P.O. Box 13087
Austin, Texas 78711-3087
Tel: (512) 239-0600
Fax: (512) 239-0606

REPRESENTING NORTHEAST NEIGHBORS
COALITION AND INDIVIDUALS:

Jim Blackburn and Mary Carter
Blackburn and Carter, LLP
4709 Austin Street
Houston, Texas 77004
Tel: (713) 524-1012
Fax: (713) 524-5165

REPRESENTING TJFA, L.P.:

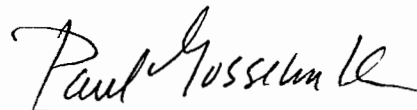
Bob Renbarger and J. D. Head
Fritz, Byrne, Head, & Harrison, LLP
98 San Jacinto Blvd., Suite 2000
Austin, Texas 78701
Tel: (512) 476-2020
Fax: (512) 477-5267

REPRESENTING TRAVIS COUNTY:

Kevin Morse
Assistant Travis County Attorney
Travis County Attorney's Office
P. O. Box 1748
Austin, Texas 78767
Tel: (512) 854-9513
Fax: (512) 854-4808

REPRESENTING CITY OF AUSTIN:

Holly Noelke
Assistant City Attorney
City of Austin Law Department
P. O. Box 1088
Austin, Texas 78767
Tel: (512) 974-2630
Fax: (512) 974-6490



Paul G. Gosselink

I. RESPONSES TO REQUESTS FOR DISCLOSURE

Rule 194.2(a) The correct names of the parties to the lawsuit;

RESPONSE:

1. BFI Waste Systems of North America, LLC
2. Giles Holdings, LP
3. Executive Director, Texas Commission on Environmental Quality
4. Office of Public Interest Counsel, Texas Commission on Environmental Quality
5. Travis County, Texas
6. City of Austin
7. Northeast Neighbors Coalition
8. Mark and Melanie McAfee
9. Roger Joseph
10. Delmer Rogers
11. Williams, Ltd.
12. Pioneer Farms (by and through Celeste Scarborough)
13. TJFA, L.P.*

(* Applicant does not believe that TJFA, L.P. is a proper party to this proceeding.

Rule 194.2(b) The name, address and telephone number of any potential parties.

None at this time.

Rule 194.2(c) The legal theories and, in general, the factual bases of the responding party's claims or defenses.

The Sunset Farms Landfill is a 349.363-acre existing Type I MSW landfill facility located at 9912 Giles Lane in Travis County, Texas. A portion of the permitted boundary is located within the City of Austin, and the remainder of the site is located within the extraterritorial jurisdiction of Austin. BFI Waste Systems of North America, LLC (formerly BFI Waste Systems of North America, Inc.) submitted its application to the Texas Commission on Environmental Quality (TCEQ or the Commission) for a major permit amendment (proposed Permit No. MSW 1447A) in January 20, 2006 to expand the permitted height, and reduce the footprint, of the existing waste disposal area. (The application, as amended, is on file with TCEQ. A copy of the application has been provided to all parties pursuant to the ALJ's Order No. 1. The application is incorporated by reference for all purposes herein.)

The application was declared administratively complete by TCEQ in January 31, 2006. The application was declared technically complete, and the Executive Director recommended approval of the draft permit, in March 21, 2007. Several entities and individuals protested the application and requested contested case hearings. On February 29, 2008, the Commission issued its interim order referring 26 listed issues to SOAH for adjudication in this contested case hearing.

The application was prepared by an array of professionals – including licensed professional engineers, licensed professional geoscientists and municipal solid waste (MSW) professionals – who have extensive education, skill and experience in matters pertaining to the design of MSW facilities and the collection, storage, handling, transportation and disposal of solid waste. The application was prepared using (among other things) site-specific data, surveys, maps, diagrams, photos, studies, analyses, tests and historical information, as well as a variety of technical guidelines, learned treatises, computer programs, models and other materials that are generally recognized and accepted in the fields of engineering, geology, hydrogeology, science and MSW landfill design, operation and management. Sound engineering, scientific and operational principles and practices were employed in preparing the application. The application is detailed, complete and accurate. All required notices were published and/or mailed according to TCEQ regulations. All necessary coordinations, approvals or consents incident to the application were made with and/or obtained from federal, state and local agencies (*e.g.*, Texas Parks and Wildlife and the Federal Aviation Administration). The vertical expansion of the existing landfill, which has been legally permitted for use as a solid waste disposal for a number of years, is compatible with surrounding land uses.

The application and the proposed expansion meet or exceed the design criteria and operational standards contained in the MSW regulations (30 TAC §§330.1 *et seq.*¹) for all issues that were referred (and, more generally, satisfy the regulatory requirements in all respects). The expansion will safeguard human health, safety and welfare and will be protective of the environment. As such, the permit amendment application should be approved in all respects, and the permit should be granted for the expansion.

The original permit application and draft permit were properly modified on April 3, 2008 to reflect the change in corporate form only from BFI Waste Systems of North America, Inc. to BFI Waste Systems of North America, LLC (a change that was made for tax reasons only and has no effect on the substance of the application, draft permit or operation of the landfill).

In addition to the foregoing, with respect to each of the issues that were referred to contested case hearing by the Commissioners in their Interim Order of February 29, 2008:

- (A) *Whether the application demonstrates that natural drainage patterns will not be significantly altered by the expansion, in accordance with agency rules, including 30 TAC §330.56(f)(A)(iv);*

The existing drainage patterns around and downstream from the landfill will not be significantly altered as a result of the expansion. See (without limitation) the detailed design drawings (including but not limited to engineering drawings for chutes, swales, drainage ditches and detention ponds), analyses, calculations, descriptions and discussions contained in Part II, Section II.G and Part III, Attachment 6 (and the appendices thereto) of the application, which are incorporated for all purposes herein.

¹ All references to 30 TAC §300.1 *et seq.* refer to regulations that were effective prior to March 27, 2006, unless otherwise noted. See 30 Tex. Admin. Code § 330.1(a)(2) (2007) ("Applications for new permits and major amendments to existing permits that are administratively complete... as of the effective date of the 2006 Revisions [March 27, 2006], shall be considered under the former rules of this chapter unless the applicant elects otherwise").

(B) Whether the application includes adequate provisions to control disease vectors, in compliance with agency rules, including 30 TAC §§330.126 and 330.133(a);

The application provides for adequate control of vectors. See (without limitation) Part IV, Section 16 of the application, which is incorporated for all purposes herein, for discussion, analysis and procedures pertaining to control of vectors.

(C) Whether the application proposes adequate protection of ground water and surface water, in compliance with agency rules, including 30 TAC §§330.55(b)(I), 330.56(f), 330.134 and 330.200-206;

The facility will be protective of groundwater. See (without limitation) Part III, Attachment 5 (Groundwater Characterization Report); Part III, Attachment 6 (Groundwater and Surface Water Protection Plan); Part III, Attachment 10 (SLQCP) and Part III, Attachment 11 (Groundwater Sampling And Analysis Plan) of the application, which are incorporated for all purposes herein, for discussions and analyses pertaining to groundwater, groundwater monitoring, groundwater sampling and analysis, and the protection of groundwater.

The application provides for the protection of surface waters. See (without limitation) Part I, Section 1.B Supplementary Technical Report (Surface Water Protection Section); Part II, Section II.G, Ground And Surface Water Statement; Part II, Section II.H (Floodplains and Wetlands Statement); Part III (Site Development Plan); Part III, Attachment 6 (Groundwater and Surface Water Protection Plan); Part III, Attachment 15 (Leachate And Contaminated Water Plan) and Part IV, Section 29 of the application, which are incorporated for all purposes herein, for design drawings, discussion and analyses pertaining to protection of surface waters. (The facility has also obtained a TPDES permit from TCEQ.)

(D) Whether the application includes adequate provisions to control odors, in compliance with agency rules, including 30 TAC §§330.125(b) and 330.133(a);

The application complies with odor management provisions contained in the MSW regulations. See (without limitation), Part III, Attachment 14 and Part IV (including but not limited to Section 15.2 (Odor Management Plan)) of the application, which are incorporated for all purposes herein, for discussion, analyses, and procedures pertaining to odor management and control.

(E) Whether the application includes adequate provisions to manage landfill gas, in compliance with agency rules, including 30 TAC §§330.56(n) and 330.130;

The application provides for the management of landfill gas. See (without limitation) Part III, Attachment 14 and Part IV (including but not limited to Sections 15.2 and 20) of

the application, which are incorporated for all purposes herein, for design drawings, discussion, analyses and procedures pertaining to landfill gas and management of landfill gas.

(F) Whether the application includes adequate provisions for proper slope stability, in compliance with agency rules, including 30 TAC §§330.55(b)(8) and 330.56(1);

The application provides for slope stability. See (without limitation) Part III, Attachment 4; Part III, Attachment 10; and Part III, Attachment 12 of the application, which are incorporated for all purposes herein, for discussions, analyses and calculations pertaining to slopes and slope stability.

(G) Whether the application includes adequate provisions to control spilled and windblown waste and cleanup spilled waste, in compliance with agency rules, including 30 TAC §§ 330.117, 330.120, 330.123 and 330.127;

The facility will be designed, operated and managed in a manner that controls windblown waste. See (without limitation) Part IV, Sections 5.5, 13 and 26, which are incorporated for all purposes herein, for discussions and procedures pertaining to control of windblown waste.

(H) Whether the application includes adequate provisions for groundwater monitoring, in compliance with agency rules, including 30 TAC §§ 330.230-.233;

The facility adequately provides for monitoring of groundwater and will otherwise be protective of groundwater. See (without limitation) Part III, Attachment 5 (Groundwater Characterization Report); Part III, Attachment 6 (Groundwater and Surface. Water Protection Plan); Part III, Attachment 10 (SLQCP); and Part III, Attachment 11 (Groundwater Sampling And Analysis Plan) of the application, which are incorporated for all purposes herein, for discussions and analyses pertaining to groundwater, groundwater monitoring, groundwater sampling and analysis, and the protection of groundwater.

(I) Whether the application includes adequate provisions calculating the estimated rate of solid waste deposition and operating life of the site, in compliance with agency rules, including 30 TAC §330.55(a)(4);

Applicant provided calculations for the estimated rate of solid waste deposition and the operating life of the site in the application. See (without limitation) Part I, Section 1.B (Supplementary Technical Report) and Part III, Site Development Plan, Section 6.0, and Appendix III-A of the application, which are incorporated for all purposes herein, for estimated rate of solid waste deposition and site operating life calculations.

- (J) *Whether the application includes adequate provisions for closure and post-closure, in compliance with agency rules, including 30 TAC §§330.56(1) and (m);*

The application adequately provides for closure and post-closure. See (without limitation) Part I, Section I.N (Evidence of Financial Assurance) and Part III, Attachments 8, 12 & 13 of the application, which are incorporated for all purposes herein, for discussion, analysis and procedures pertaining to closure and post-closure.

- (K) *Whether the application includes adequate provisions to manage and dispose of special waste, in compliance with agency rules, including 30 TAC § 330.136;*

The application includes a plan for disposal of special wastes that complies with 30 TAC §330.136 and all other applicable regulations. See (without limitation) Part I, Part A Application Form and Part IV, Sections 4.1.2.1, 4.1.2.6, 4.4 (dealing with hazardous waste), 7.1 (dealing with waste acceptance), 18, 26, and 26.5 of the application, which are incorporated for all purposes herein, for discussion, analyses, plans and procedures pertaining to disposal of special waste.

- (L) *Whether the application includes adequate provisions designating the owner, operator, responsible parties, and qualified personnel, in compliance with agency rules, including 30 TAC §§330.52(a)(1), 330.52(b)(7-10), and 330.114(1);*

The application properly identifies and describes the site owner, operator, responsible parties and qualified personnel per the applicable rules. See (without limitation) Part I, I-J Property Owner Affidavit; Part I, Part I, Part A Application Form, Core Data Form; Part I, Section 1.B Supplementary Technical Report; Part II, Section II.A, Existing Conditions Summary and Part II, Owner/Operator information also reflected in Subtitle D Location Restriction of the application, as well as the completed core data form, which are incorporated for all purposes herein.

- (M) *Whether the application includes adequate provisions to prevent unauthorized wastes from being disposed in the landfill, in compliance with agency rules, including 30 TAC §330.114(5);*

The application provides adequate procedures to prevent unauthorized wastes from entering the landfill. See (without limitation) Part IV, Section 26.3.3 (Unauthorized Waste Shipments), 4.4 (Prohibited Waste Detection and Prevention), 26.5 (Contingency Plan) of the application, which is incorporated for all purposes herein, for discussion and procedures pertaining to prevention of unauthorized wastes from entering the landfill.

- (N) *Whether the application provides adequate information related to transportation, as required by agency rules, including 30 TAC §330.53(b)(9);*

The application complies with transportation requirements. See (without limitation) Part I, Section I.D (General Location Map); Part II, Section II.E (Transportation Study); Part II, Section II.K (Agency Coordination); Part III (Site Development Plan) and Part IV, Sections 9 (Signs) and 11 (Site Access Roads) of the application, which are incorporated for all purposes herein, for discussion, analyses, projections, photos and maps pertaining to transportation to and from the site.

(O) Whether the application includes adequate provision for dust control and maintenance of site access roads, in compliance with agency rules, including 30 TAC § 330.127;

The application includes adequate provisions for dust control and maintenance of site access roads that comply with applicable agency rules. See (without limitation) Attachment 6, Section 2.3; Part IV (including but not limited to Sections 11, 17 (Access Roads) and Part IV Sections 17.1 (Dust Control), 17.2 (Wheel Wash and Mud Control) of the application, which are incorporated for all purposes herein, for discussion, analyses, and procedures pertaining to control of dust and maintenance of site access roads.

(P) Whether the application includes adequate provisions to protect endangered or threatened species, in compliance with agency rules, including 30 TAC §§330.53(b)(13) and 330.129;

The application considers the impacts of the expansion upon endangered or threatened species, and the proposed expansion will avoid any impacts on endangered or threatened species and/or their critical habitat. See (without limitation) Part II, Section II-I (Endangered Species Statement) (contains the Threatened and Endangered Species Habitat Review); Part II, Section II.K (Agency Coordination); Part III, Site Development Plan, Section 13.0 (Protection of Endangered Species) and Part IV, Section 19 (Endangered Species Protection) and Appendix B (Threatened and Endangered Species Habitat Review, May 8, 2006) of the application, which are incorporated for all purposes herein. Among other things, the application includes coordination letters with the U.S. Fish and Wildlife Service and the Texas Parks and Wildlife Department to determine the effect of the proposed expansion on any endangered or threatened species and confirm that the facility and the operation of the facility will not cause or contribute to the taking of any endangered or threatened species or result in the destruction or adverse modification of the critical habitat of endangered or threatened species. Moreover, the application does not propose any lateral expansion, and the site is in an area that has been developed for many years. There are no known sightings of endangered or threatened species at the site.

(Q) Whether the application includes adequate provisions for cover, in compliance with agency rules, including 30 TAC §330.133;

The application provides for adequate daily, intermediate and final cover. See (without limitation) Part III, Attachment 2 (Fill Cross Sections) (final site cover system and cover system details are presented); Part III, Site Development Plan, Sections 12.0 (Final Cover System), 15.0 (Alternative Material Daily Cover Plan) (no ADC proposed for this site), Appendix III-B (Soil Loss Calculations), Appendix III-D (Estimated Final Cover Runoff Velocities); Part III, Attachment 4 (Geology And Geotechnical Report); Part III, Attachments 6 & 12, (Final Closure Plan) (including Appendix 12A, Final Cover Quality Control Plan); and Part IV - Site Operating Plan, Section 23 of the application, which are incorporated for all purposes herein, for discussion, designs, analyses and procedures pertaining to daily, intermediate and final cover

(R) Whether the application should be denied based on the Applicant's compliance history, in accordance with state laws and agency rules, including Tex. Health & Safety Code § 361.089, 30 TAC § 305.66 and 30 TAC ch. 60;

Applicant's compliance history does not warrant denial of the permit. Among other things, the applicant's compliance history, as calculated in accordance with §361.084 of the Texas Health and Safety Code and the Commission's compliance history regulations, is acceptable and does not serve as a basis for denial of the permit application.

(S) Whether the application includes adequate provisions for fire protection, in accordance with agency rules, including 30 TAC §330.115;

The application provides adequate provisions for fire protection. See (without limitation) Part IV, Sections 4.6 (Fire Protection Procedures) and 5 (Fire Protection Plan) of the application, which are incorporated for all purposes herein, for discussion, analysis and procedures pertaining to fire protection, prevention and control.

(T) Whether the Applicant has complied with financial assurance requirements, in accordance with agency rules, including 30 TAC §§ 330.52(b)(11) and 330.281;

The application complies with all applicable financial assurance requirements in accordance with applicable rules. See (without limitation) Part I, Section I.N Evidence Of Financial Assurance and Part III, Attachment 8, Cost Estimate For Closure And Post-Closure Care, Attachment 12 of the application, which is incorporated for all purposes herein, for a discussion of financial assurances.

(U) Whether the proposed expansion is compatible with land use in the surrounding area;

The application meets all of the land use, design criteria and operational standards set forth in the MSW regulations, and the proposed expansion is compatible with land use in the surrounding area. See (without limitation) See without limitation; Part I, Section 1.B Supplementary Technical Report (Surface Water Protection Section); Part II, II-B, Aerial

Photograph; Part II, II-C, Land Use Map and Part II, II-D, Land Use Report of the permit application, which are incorporated for all purposes herein.

(V) Whether the provisions proposed for buffer zones and landscape screening comply with agency rules, including 30 TAC §§330.121 (b) and 330.138;

The provisions in the application for buffer zones and landscape screening comply with all applicable agency rules. See (without limitation) Part III, Site Development Plan and Part IV, Site Operating Plan, Section 11 of the permit application, which is incorporated for all purposes herein.

(W) Whether the application proposes sufficient provisions to protect the health of requesters and their families, and to avoid causing a nuisance, in violation of Commission rules, including 30 TAC §330.5(a)(2);

The application meets all of the design criteria and operational standards set forth in the MSW regulations - including those specifically applicable to each of the other issues that the Commission referred to contested case hearing. As such, the proposed expansion will safeguard the health of the requesters and their families. For reasons stated in more detail in its response to comments and requests for contested case hearing that Applicant filed with the Commission prior to referral of this case to contested case hearing at SOAH, such response being fully incorporated for all purposes herein, Applicant believes that the individual health effects of requesters and their families is not a proper issue for referral for adjudication.

(X) Whether the landfill's operational hours are appropriate;

The operational hours for the landfill are appropriate. Among other things, the site location, buffer, screening and methods of operation all minimize the effect of any late-night or early morning operations on surrounding properties. See (without limitation) Part IV, Site Operating Plan, Section 8 (Hours of Operation) & 4.3.2 (Site Operations During Power Outages).

(Y) Whether the erosion control methods identified in the application and draft permit are sufficient;

The methods identified in the application for erosion control are sufficient and comply with all applicable agency rules. See (without limitation) Part III, Attachment 6 and Part III, Attachment 12 of the permit application, which are incorporated for all purposes herein.

(Z) *Whether the storage, treatment, and disposal of contaminated water is adequately addressed in the application and draft permit.*

The storage, treatment and disposal of contaminated water is adequately addressed in the application, and the draft permit complies with all applicable statutes and agency rules. See (without limitation) Part III, Attachment 6, Section 2.2 Minimization And Management Of Contaminated Water and Part III, Attachment 15, Leachate and Contaminated Water Plan (including but not limited to Section 5.6 Contaminated Stormwater Storage, Treatment And Disposal) of the permit application, which are incorporated for all purposes herein.

Rule 194.2(d) The amount and method of calculating economic damages.

Not applicable.

Rule 194.2(e) The name, address, and telephone number of persons having knowledge of relevant facts, and a brief statement of each identified person's connection with the case.

RESPONSE:

Name	Address & Phone Number	Brief Description
Applicant		
Gary McCuiston	Allied Waste Industries, Inc. Greenspoint Park 2 16800 Greenspark Park Drive Suite 225N Houston, Texas 77060 (281) 673-2046	Project Development Manager for Allied/BFI
Lee Kuhn	Allied Waste Industries, Inc. Greenspark Park 2 16800 Greenspoint Park Drive Suite #225N Houston, Texas 77060 (281) 673-2046	South Region Director of Engineering and Environmental Management for Allied/BFI for landfill facilities in Southwest District
Brad Dugas	Allied Waste Industries, Inc. South Central Texas District Manager 2575 IH 35 South, Suite 103 San Marcos, TX 78666 (512) 392-9101	Market Vice President for Allied/BFI for South Central Texas District
Michael Stewart	Allied Waste Industries, Inc. District Environmental Manager 2572 IH 35 South, Suite 103 San Marcos, TX 78666 (512) 392-9105	District Environmental Manager for Allied/BFI
Mark Allendorf, Ph.D.	Allied Waste Industries, Inc.	Hydrogeologist for Allied/BFI

Name	Address & Phone Number	Brief Description
	1001 S. Dairy Ashford/ Suite 400 Houston, Texas 77077 (281) 848-3705	
Randy Bodnar	Allied Waste Industries, Inc. 15880 N. Greenway-Hayden Loop Suite 100 Scottsdale, Arizona 85260 (480) 627-2664	Former Southwest Regional Engineer for Allied/BFI; currently National Engineer for Allied Waste, Inc.
Dave Hildreth	Allied Waste Industries, Inc. 6200 Elliott Reeder Road Fort Worth, Texas 76117 (817) 509-0777	Manager of Landfill Development for Allied/BFI
Niki Wuestenberg	Allied Waste, Inc. 15880 N. Greenway-Hayden Loop Suite 100 Scottsdale, Arizona 85260 (563) 285-1404	Air Compliance Officer for Allied/BFI
Bill Rich	Allied Waste Industries, Inc. General Manager 3424 FM 973 Del Valle, TX 78617-3626 (512) 247-5647	Responsible for all landfill operations in Austin market.
Everett Moore	BFI Waste Systems of North America, LLC Sunset Farms Landfill 9912 Giles Road Austin, Texas 78754	Landfill Manager for Sunset Farms Landfill
Jon Anstey	BFI Waste Systems of North America, LLC Sunset Farms Landfill 9912 Giles Road Austin, Texas 78754	Assistant Landfill Manager, Sunset Farms Landfill.
Bill Davis John Fields Paul Floyd Dozie Ony Bill Davis Rick Krall Joe Mrjenovich Steve Hall Jim Hortenstine Gordon Spradley Peyton Gray Heath Eddleblute Mitch Noto	[present addresses and phone numbers unknown -or- c/o Paul G. Gosselink Lloyd, Gosselink, Rochelle & Townsend, P.C. 816 Congress Ave., Suite 1900 Austin, Texas 78701 (512) 322-5800	Current or former employees of Allied Waste/BFI who formerly had Central Texas responsibilities
Paul Gosselink John Carlson	Lloyd, Gosselink, Rochelle & Townsend, P.C. 816 Congress Ave., Suite 1900 Austin, Texas 78701	Counsel for Applicant
TCEQ*		
Glenn Shankle	Texas Commission on Environmental Quality Executive Director P.O. Box 13087	TCEQ Executive Director

Name	Address & Phone Number	Brief Description
	Austin, Texas 78711 (512) 239-3900	
Mark R. Vickery	Texas Commission on Environmental Quality Deputy Executive Director P.O. Box 13087 Austin, Texas 78711 (512) 239-3900	TCEQ Deputy Executive Director
Dr. Richard Carmichael	Texas Commission on Environmental Quality Manager, Waste Permits Division MSW Permits Section MC-124 P. O. Box 13087 Austin, Texas 78711 (512) 239-6784	Manager, Waste Permits Division
Arten J. Avakian	Texas Commission on Environmental Quality Project Manager, Waste Permits Division MSW Permit Section, MC-124 P. O. Box 13087 Austin, Texas 78711 (512) 239-4419	Project Manager, Waste Permits Division
Jeff Davis	Texas Commission on Environmental Quality Team Leader, Waste Permits Division MSW Permit Section, MC-124 P. O. Box 13087 Austin, Texas 78711 (512) 239-6228	Team Leader, Waste Permits Division
Jeff Holderread	Texas Commission on Environmental Quality (MC-124) P.O. Box 13087 Austin, Texas 78711-3087 (512) 239-6136	Team Leader, Waste Permits Division
Karen Cleveland	Texas Commission on Environmental Quality Waste Permits Division MSW Permit Section, MC-124 P. O. Box 13087 Austin, Texas 78711 (512) 239-4519	Reviewed permit amendment application for technical completeness
Matthew Udenenwu	Texas Commission on Environmental Quality Waste Permits Division MSW Permit Section, MC-124 P. O. Box 13087 Austin, Texas 78711 (512) 239-6229	Reviewed permit amendment application for technical completeness
Kim Sladek	Texas Commission on Environmental Quality Waste Permits Division MSW Permit Section, MC-130 P. O. Box 13087 Austin, Texas 78711 (512) 239-1588	Reviewed permit amendment application for administrative completeness
Jodena Henneke	Texas Commission on Environmental Quality (MC-108) P.O. Box 13087 Austin, Texas 78711 (512) 239-4085	Organized public meeting held on May 24, 2007
Tara Drissell	Texas Commission on Environmental Quality	Conducted public meeting held on

Name	Address & Phone Number	Brief Description
	Office of Public Assistance, MC-108 P.O. Box 13087 Austin, Texas 78711 (512) 239-6230	May 27, 2007
Bob Brydson	[present address and phone number unknown]	Former TCEQ employee involved in review of permit amendment application for administrative completeness
Bobbie Rogans	Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711 (512) 239-6197	Signed Declaration of Administrative Completeness
Wade Wheatley	[present address and phone number unknown]	Former Director of the Waste Permits Division for TCEQ; Currently employed by affiliate of TJFA, LP
Patty Reeh	Texas Commission on Environmental Quality Region 11, Austin Regional Director 2800 S IH 35, Suite 100 Austin, TX 78704 (512) 339-2929	TCEQ Region 11 Director
Heather Parscal	Texas Commission on Environmental Quality P.O. Box 13087, MC-204 Austin, TX 78711	Current TCEQ Employee; former CAPCOG Solid Waste Coordinator
Barry Kalda	Texas Commission on Environmental Quality Region 11, Austin, Waste/Air Section Manager 2800 S IH 35, Suite 100 Austin, TX 78704 (512) 339-2929	TCEQ Region 11 Waste/Air Section Manager
Christopher Wiatrek	Texas Commission on Environmental Quality Region 11, Austin 2800 S IH 35, Suite 100 Austin, TX 78704 (512) 339-2929	TCEQ Region 11 Investigator
Jeff Lewellin	Texas Commission on Environmental Quality Team Leader, TCEQ Strike Team, MC-126 P. O. Box 13087 Austin, Texas 78711 (512) 239-2597	Team Leader, TCEQ Strike Team
Dale Vodak	Texas Commission on Environmental Quality Region 5, Tyler, Texas (903) 535-5147	TCEQ Region 5 Investigator
Ben Milford	Texas Commission on Environmental Quality Region 11, Austin 2800 S IH 35, Suite 100 Austin, TX 78704 (512) 339-2929	TCEQ Region 11 Investigator
Jennifer Sidnell	Texas Commission on Environmental Quality Field Operations Division, Director MC-174 P.O. Box 13087	Director, Field Operations Division

Name	Address & Phone Number	Brief Description
	Austin, Texas 78711 (512) 239-2597	
Pat Fontenot	Texas Commission on Environmental Quality Waste & Emergency Response Program Support, Manager, Field Operations Division, MC-133 P.O. Box 13087 Austin, Texas 78711 (512) 239-2220	Manager, Field Operations Division
Vincent A. Leopold	Texas Commission on Environmental Quality Toxicology & Risk Assessment Section Office of Permitting, Remediation & Registration, MC-168 P.O. Box 13087 Austin, Texas 78711 (512) 239-1784	Member of Source Sampling Team that conducted ambient air monitoring in 2002
David Carmichael Gary Whitely Edward Ragsdale	Texas Commission on Environmental Quality Laboratory and Mobile Monitoring Section Monitoring Operations Division, MC-165 P.O. Box 13087 Austin, Texas 78711 (512) 239-1679	Members of Source Sampling Team that conducted sampling in 2002
Melonie Knussman	[present address and phone number unknown]	Former TCEQ Investigator
David Speaker	[present address and phone number unknown]	Former TCEQ enforcement attorney
Lawrence (Larry) King	Enforcement Division Region 11 2800 S IH 35, Suite 100 Austin, TX 78704 (512) 339-2929	TCEQ Region 11 Enforcement Division Staff Member
Carolyn Runyon	Texas Commission on Environmental Quality Water Section Manager Region 11 2800 S IH 35, Suite 100 Austin, TX 78704 (512) 339-2929	TCEQ Region 11 Water Section Manager
Julie Pevehouse	Texas Commission on Environmental Quality Region 11 2800 S IH 35, Suite 100 Austin, TX 78704 (512) 339-2929	TCEQ Region 11 Investigator.
Steve Shepherd Susan White	Texas Commission on Environmental Quality Staff Attorney Environmental Law Division, MC-173 P.O. Box 13087 Austin, Texas 78711 (512) 239-0464	Counsel for Executive Director
Christina Mann	Texas Commission on Environmental Quality Public Interest Counsel, MC-103 P.O. Box 13087 Austin, Texas 78711 (512) 239-4014	Counsel for OPIC
Giles Holdings, L.P.		

Name	Address & Phone Number	Brief Description
Steve Mobley	c/o Giles Holdings, LP 2205 Westover Road Austin, Texas 78703 (512) 478-6545	Co-owner of landfill property
Paul M. Terrill	The Terrill Law Firm 810 W 10th St Austin, TX 78701 (512) 474-9100	Counsel for Giles Holdings
Legislators		
Hon. Gonzalo Barrientos	[present address and phone number unknown]	Former State Senator
Hon. Kirk Watson	Senate District 14 P.O. Box 12068 Austin, TX 78711 (512) 463-0114	State Senator
Susan Nold	Senate District 14 P.O. Box 12068 Austin, TX 78711 (512) 463-0114	Legislative Aide to Hon. Kirk Watson
Hon. Mark Strama	House District 50 P.O. Box 2910 Austin, TX 78768 (512) 463-0821	State Representative
Hon. Dawnna Dukes	House District 46 P.O. Box 2910 Austin, TX 78768 (512) 463-0506	State Representative
Hon. Jack Stick	[present address and phone number unknown]	Former State Representative
Engineers/Consultants/Expert Witnesses		
Ray L. Shull, P.E.	Associated Consulting Engineers, Inc. Barton Oaks Plaza 901 South Mopac Expy., Bldg Two, Ste. 165 Austin, Texas 78746 (512) 329-0006	Lead Project Engineer for Expansion Project/Expert Witness for Applicant
Gregory J. Lewis, P.E.	Associated Consulting Engineers, Inc. Barton Oaks Plaza 901 South Mopac Expy., Bldg Two, Ste. 165 Austin, Texas 78746 (512) 329-0006	Registered Professional Engineer/Expert Witness for the Applicant
Adam W. Mehevec, P.E.	Associated Consulting Engineers, Inc. Barton Oaks Plaza 901 South Mopac Expy., Bldg Two, Ste. 165 Austin, Texas 78746 (512) 329-0006	Registered Professional Engineer' Expert Witness for the Applicant
John Michael Snyder, P.G.	Biggs & Matthew Environmental 1700 Robert Road Mansfield, Texas 76063 (817) 563-1144	Licensed Professional Geoscientist/Expert Witness for the Applicant
Gregory W. Adams, P.E.	Biggs & Matthews Environmental 1700 Robert Road, Suite 100 Mansfield, Texas 76063	Registered Professional Engineer/ Expert Witness for the Applicant

Name	Address & Phone Number	Brief Description
	(817) 563-1144	
John Worrall	500 Camino Barranca Round Mountain, TX 78663 (830) 825-3029	Expert Witness for Applicant
Lee Sherrod	Horizon Environmental Services, Inc. P. O. Box 162017 Austin, Texas 78716 (512)328-2430	Expert Witness for Applicant
Mike McInturff	WHM Transportation Engineering Consultants, Inc. 504 Lavaca Street, #1175 Austin, Texas 78701 (512) 473-8343	Expert Witness for Applicant
Matt Stutz, P.E.	Weaver Boos Consultants, LLC-Southwest 6420 Southwest Blvd., Suite 206 Fort Worth, Texas 76109 (817) 735-9770	Expert Witness for Applicant
Bill Southern	W. 4147 County Hwy. F Springbrook, WS 54875 (715) 466-2583	Expert Witness for Applicant
Shari B. Libicki, Ph.D.	ENVIRON International Corporation 6001 Shellmound Street, #700 Emeryville, California 94608 (510) 420-2533	Expert Witness for Applicant
Scott Quinn	Weaver Boos Consultants, LLC-Southwest 6420 Southwest Blvd., Suite 206 Fort Worth, Texas 76109 (817) 735-9770	Prepared 2004 Permit Modification to revise closure/post closure cost estimate.
Donna Carter	Carter and Associates 817 W 11th Austin, TX 78701 (512) 476-1812	Land use consultant
Michael Hunt	Hunt Air Strategies 1611 Taylor Gaines Austin, Texas 78741 (512) 447-8082	Air consultant
Brian E. Olson, P.E.	Associated Consulting Engineers, Inc. Barton Oaks Plaza 901 South Mopac Expy., Bldg Two, Ste. 165 Austin, Texas 78746 (512) 329-0006	Registered Professional Engineer/Worked on Application
Timothy M. Holland, P.E.	Associated Consulting Engineers, Inc. Barton Oaks Plaza 901 South Mopac Expy., Bldg Two, Ste. 165 Austin, Texas 78746 (512) 329-0006	Registered Professional Engineer/Worked on Application
Beth Gross, P.E.	GeoSyntec Consultants 3600 Bee Caves Road, Suite 101 Austin, Texas 78746 (512) 451-4003	Registered Professional Engineer/Worked on Application
David Klotz	Chaparral Professional Land Surveying, Inc. 2507 Manchaca Road, Building One Austin, Texas 78704 (512) 443-1724	Surveyor

Name	Address & Phone Number	Brief Description
Kevin Carel, P.G.	The Carel Corporation 136 Pecan Street Keller, Texas 76248 (817) 337-0112	Performs groundwater sampling at landfill
Catherine A. Skurow	LNV Engineering 801 Navigation Blvd., Suite 300 Corpus Christi, TX 78408 (361) 883-1984	Engineering consultant
Other Consultants		
Phil Bullock, P.G.	Geomatrix 5725 Highway 290 West Suite 200 B Austin, TX 78735 (512) 494-0333	Geosciences consultant
H.C. Clark, Ph.D.	2300 Bolsover Houston, Texas 77005 (713) 529-0090	Geosciences consultant
Rex Hunt	Alan Plummer Associates, Inc. 6300 La Calma, Suite 400 Austin, Texas 78752 (512) 452-5905	Engineering consultant
Trey Salinas	Barton Skyway III, Suite 115 1221 S. Mopac Expressway Austin, Texas 78746 (512) 328-4055	Public Relations consultant
Governmental Coordination		
Lauraine Rizer Ron Solbach	City of Austin Attn: Real Estate P. O. Box 1088 Austin, Texas 78767-1088 (512) 974-7078	Listed as contact person with regard to easements holder of on-site easements on Part A application form.
Wayne A. Lea Kelly Allen	U.S. Army Corps of Engineers Fort Worth District P.O. Box 17300 Fort Worth, Texas 76102-0300 (817) 886-1326	Reviewed the project information and made a determination that the project did not involve any discharge into waters of the United States
Dwayne Schlitter Celeste Brancel	Texas Parks and Wildlife Department 4200 Smith School Road Austin, Texas 78744 (512) 389-4800	Reviewed application project summary and issued determination that TP&WD does not anticipate significant adverse impacts to rare species, natural communities, or special features at project site
Robert Pine Jana Milliken	U.S. Department of the Interior Fish and Wildlife Service Austin Ecological Services Office Hartland Bank Building 10711 Burnet Road, Suite 200 Austin, Texas 78758 (512) 490-0057	Stated that no impacts to endangered or threatened species would occur at the project site
Joseph G. Washington	U.S. Department of Transportation	Reviewed the application project

Name	Address & Phone Number	Brief Description
Faye Nedderman	Federal Aviation Administration Safety and Standard Branch Fort Worth, Texas 76193-0600 (817) 222-5656	summary and issued the determination of no hazard to air navigation
Laurie Curra	Texas Commission on Environmental Quality Team Leader Watershed Management Team Monitoring Operations Division, MC-165 P. O. Box 13087 Austin, Texas 78711 (512) 239-4627	Reviewed the application for compliance with the federal Clean Water Act and issued a determination that the proposed modification would comply with the Act if constructed/operated in accordance with TCEQ rules and guideline
James E. Bruseth, Ph. D.	Texas Historical Commission Archeology Division P. O. Box 12276 Austin, Texas 78711 (512) 463-6096	Reviewed project summaries and determined no historic properties would be affected by the expansion
Robert B. Daigh, P. E.	Texas Department of Transportation Austin District Engineer P. O. Drawer 15426 Austin, Texas 78761 (512) 832-7000	Was provided with application project summary for conformance determination
Gary Morris	Texas Department of Transportation Driveway and Utility Permit Coordinator Austin District P. O. Drawer 15426 Austin, Texas 78761 (512) 832-7000	Reviewed application project summary and issued letter that Department had no objections with Transportation Study for project site
David Magana, P.E.	City of Austin Street & Bridge Division, Manager 4411A Meinardus Austin, Texas 78704 (512) 974-7042	Listed as contact person under agency responsible for road maintenance on Part A application form
Lloyd A. Hake	Federal Emergency Management Agency Hazards Study Branch Federal Insurance and Mitigation Administration Washington, D.C. 20472 (877) 336-2627	Determined Conditional Letter of Map Revision (CLOMR) meets minimum floodplain management criteria of the National Flood Insurance Program
CAPCOG		
Betty Voights	CAPCOG 6800 Burleson Road Building 310, Suite 165 Austin, TX 78744 (512) 916-6000	CAPCOG Executive Director
Kelly Freeman	CAPCOG 6800 Burleson Road Building 310, Suite 165 Austin, TX 78744 (512) 916-6040	Solid Waste Program Coordinator Center for Regional Development
Sean Moran	CAPCOG 6800 Burleson Road	CAPCOG Director

Name	Address & Phone Number	Brief Description
	Building 310, Suite 165 Austin, TX 78744 (512) 916-6030	
Lucy Buck Keith Helmers Rick Huckfeldt	[present addresses and phone numbers unknown]	Former regional directors or coordinators for CAPCOG
Travis County		
Judge Samuel Biscoe	314 W. 11th St., #520 Austin, TX 78701 (512) 854-9555	Travis County Judge
Commissioner Ron Davis	314 W. 11th St., #510 Austin, TX 78701 (512) 854-9111	Travis County Commissioner, Precinct 1
Commissioner Sarah Eckhardt	314 W. 11th St., #530 Austin, TX 78701 (512) 854-9222	Travis County Commissioner, Precinct 2
Commissioner Gerald Daugherty	314 W. 11th St., #500 Austin, TX 78701 (512) 854-9333	Travis County Commissioner, Precinct 3
Commissioner Margaret Gomez	314 W. 11th St., #525 Austin, TX 78701 (512) 854-9444	Travis County Commissioner, Precinct 4
Karen Sonleitner Margaret Moore	[present addresses and phone numbers unknown]	Former Travis County Commissioners
Jon White	Travis County Transportation and Natural Resources 411 W. 13th Street, 11th Floor Austin, TX 78701 (512) 854-9383	Travis County Environmental Officer in Transportation and Natural Resources Department
Tom Nuckols	City of Austin Law Department Assistant City Attorney 301 W. Second St., Fourth Floor (512) 974-2268	Former legal advisor to Commissioners Court
David Escamilla	Travis County County Attorney 314 W. 11th St., #300 Austin, TX 78701 Phone: (512) 854-9415	Travis County Attorney
John Hille	Travis County Assistant County Attorney 314 W. 11th St., #300 Phone: (512) 854-9642	Travis County Assistant Attorney
Joe Gieselman	Travis County Transportation and Natural Resources Dept. 411 W. 13th Street, 11th Floor Austin, TX 78701 (512) 854-9383	Executive Manager, Travis County Transportation and Natural Resources Dept.
Stacey Scheffel	Transportation and Natural Resources Floodplain Manager 411 W 13th Street, 8th Flr. P.O. Box 1748	Floodplain Administrator for Travis County

Name	Address & Phone Number	Brief Description
	Austin, TX 78767 512-854-7565	
John Kuhl	Hicks & Company 1504 W. 5th Street Austin, Texas 78703 (512) 478-0858	Former Travis County Environmental Officer in Transportation and Natural Resources Department
Kevin Morse	Assistant Travis County Attorney Travis County Attorney's Office P. O. Box 1748 Austin, Texas 78767 (512) 854-9513	Counsel for Travis County.
City of Austin		
Chuck Lesniak	Watershed Protection and Development Review Department City of Austin	Environmental staff member
Mike Heitz	[present address and phone number unknown]	Former Director of Watershed Protection and Development Review Department
Carl McClendon	[present address and phone number unknown]	Former employee in the Watershed Protection and Development Review Department
Willie Rhodes	City of Austin Solid Waste Services Department 1520 Rutherford Lane Austin, Texas 78754 (512) 974-1949	Director of Solid Waste Dept.
Holly Noelke Meitra Farhadi	Law Department City of Austin 301 W. Second St., Fourth Floor Austin, Texas 78701 (512) 974-2630	Counsel for City of Austin
Others		
Bart Eklund	Project Manager URS Corporation P. O. Box 201088 Austin, Texas 78720	Oversaw Travis County odor study
Commenters/Hearing Requesters/Protestants		
Alice Penney	1411 Alma Drive Austin, Texas 78753 (512) 835-2401	Commenter
Allan Luttig	11105 Seay Street Austin, Texas 78754 (512) 420-5275	Commenter
Alfred Wendland	16519 Mahlow Road Manor, Texas 78653 (512) 278-0835	Commenter
Alto S. Nauert	11201 Aus-Tex Acres Ln. Austin, Texas 78653	Hearing Requestor

Name	Address & Phone Number	Brief Description
	(512) 272-5769	
Amber Buonodono	11105 Seay Street Austin, Texas 78754 (512) 417-2830	Commenter
Anne McAfee	4831 Timberline Drive Austin, Texas 78746 (512) 327-0854	Hearing Requestor
Amy Kersten	9038 Wellesley Drive Austin, Texas 78754 (512) 927-9600	Hearing Requestor
Amy Williamson	11017 Reliance Creek Drive Austin, Texas 78754 (512) 784-0710	Commenter
Bill McAfee (?)	4831 Timberline Drive Austin, Texas 78746 (512) 327-0854	Hearing Requestor
Bob Renbarger	98 San Jacinto Blvd., Suite 2000 Austin, Texas 78701 (512) 476-2020	Counsel for TJFA, L.P.
Cam Junker	11709 Lunsdowne Road Austin, Texas 78754 (512) 278-8108	Commenter
Cecil Remmert	11815 Cameron Road Manor, Austin, Texas 78653 (512) 272-8352	Hearing Requestor
Celeste Scarborough	1632 Payton Falls Drive Austin, Texas 78754 (512) 658-8961	Protestant (Pioneer Farms)
Chuck Dabbs	11410 Birchover Lane Austin, Texas 78754 (512) 272-4438	Commenter
Cheryl Bowles	7117 Whiffelwind Way Austin, Texas 78754 (512) 272-4174	Commenter
Cloyce Sprading	5913 Boyce Ln Manor, Texas 78653 (512) 278-0453	Commenter
Dan Pyka	8807 Newport Ln Austin, Texas 78754 (512) 928-3010	Commenter
David Williams	11604 Rydalwater Lane Austin, Texas 78754 (512) 468-4073	Hearing Requestor
Delmer Rogers	5901 Speyside Dr. Manor, Texas 78653 (512) 278-9188	Protestant
Dennis L. Hobbs	TJFA, LP P. O. Box 17126 Austin, Texas 78760 (512) 619-9103	Representative of TJFA, LP
Evan M. Williams	Williams Ltd. 524 North Lamar, #203	Protestant

Name	Address & Phone Number	Brief Description
	Austin, Texas 78703 (512) 477-1277	
Evelyn Remmert	11815 Cameron Road Manor, Texas 78653 (512) 272-8352	Hearing Requestor.
Leahbeth Prince	11613 Rydalwater Lane Austin, Texas 78754	Commenter
J.D. Head	98 San Jacinto Blvd., Suite 2000 Austin, Texas 78701 (512) 476-2020	Counsel for TJFA, LP
James Daniel	11333 Aving Lane Austin, Texas 78754 (512) 272-4263	Commenter
James Marchak	6300 Thirlmare Court Austin, Texas 78754 (512) 272-5375	Commenter
Janet Klotz	11100 Terrace Bluff Austin, Texas 78754 (512) 837-5600	Commenter
Janet Smith	11815A Cameron Road Manor, Texas 78753 (512) 251-5193	Commenter
Joyce Thoresen	3600 Carla Drive Austin, Texas 78754 (512) 926-6204	Commenter
Jeffrey Seider	6605 Cairsbroke Lane Austin, Texas 78754 (512) 382-5417	Commenter
Jeremiah Bentley	12100 Kilmartin Lane Manor, Texas 78653 (512) 272-4038	Protestant (Harris Branch Homeowner's Assn)
Jeremy Vest	5917 Boyce Lane Manor, Texas 78653 (512) 272-9875	Hearing Requestor
Jim Blackburn	4709 Austin Houston, Texas 77004 (713) 524-1012	Counsel for Northeast Neighbors Coalition
Jim Bowles	7117 Whiffelwind Way Austin, Texas 78754 (512) 272-4174	Commenter
Joyce Best	4001 Licorice Lane Austin, Texas 78728 (512) 531-9430	Hearing Requestor
Juan DeAnda	6916 Thistle Hill Way Austin Texas 78754 (512) 740-9349	Commenter
K.C. Walter	8602 Karling Drive Austin, Texas 78724 (512) 301-0018	Commenter.
Karen Vest	5917 Boyce Ln Manor, Texas 78653 (512) 272-9875	Hearing Requestor
Kathryn Albee	11406 Birchover Lane	Hearing Requestor

Name	Address & Phone Number	Brief Description
	Austin, Texas (512) 272-9043	
Kim Jones	7024 Thistle Hill Way Austin, Texas 78754 (512) 272-8578	Commenter
Lee Cook	9500 Highway 290 East Austin, Texas 78754 (512) 928-2795	Commenter
Linda Bullock	11501 Loweswater Lane Austin, Texas 78754 (512) 272-4459	Hearing Requestor
Lionel Bess	4713 Fort Moultrie Lane Austin, Texas 78754 (512) 928-3634	Commenter
Mandy Doctoroff	6417 Boyce Lane Austin, Texas 78754 (512) 272-9870	Commenter
Mark McAfee Melanie McAfee	10463 Sprinkle Road Austin, Texas 78754 (512) 517-6552	Protestants (Barr Mansion)
Mark Wilkerson	5905 Boyce Lane Manor, Texas 78653 (512) 272-9025	Commenter
Mary Carter	4709 Austin Houston, Texas 77004 (713) 524-1012	Counsel for Northeast Neighbors Coalition
Melissa Fields	3521 Long Day Drive Austin, Texas 78754 (512) 491-9839	Commenter
Merry Rightmer	6325 Thirlmare Court Austin, Texas 78754 (512) 272-8556	Commenter
Michael Young	8901 Newport Ln Austin, Texas 78754	Commenter
Mike Rountree	6920 Thistle Way, Austin, Texas 78754 (512) 272-8225	Protestant.
Neil J. Carman	1202 San Antonio Street Austin, Texas 78701 (512) 472-1767	Clean Air Program Director Lone Star Chapter Sierra Club
Nora Longoria	7005 Dagon Drive, Austin, Texas 78754 (512) 272-2968	Hearing Requestor
Pam Luttig	11105 Seay Street Austin, Texas 78754 (512) 420-5275	Commenter
Ramona Rountree	6920 Thistle Way, Austin, Texas 78754 (512) 272-8225	Hearing Requestor
Robert G. Andrews	6815 Ashprington Lane Austin, Texas 78754 (512) 272-9333	Commenter
Rex Yocum	11712 Dunfries Lane	Commenter

Name	Address & Phone Number	Brief Description
	Austin, Texas 78754 (512) 784-8428	
Robert Lanford	P. O. Box 141411 Austin, Texas 78721 (512) 385-2800	Commenter
Robin Schneider	611 South Congress, Suite 200 Austin, Texas 78704 (512) 326-5655	Executive Director, Texas Campaign for the Environment
Roland Valles	8805 Newport Lane Austin, Texas 78754	Commenter
Ronald Junker	11709 Lunsdowne Road Austin, Texas 78754 (512) 278-8108	Commenter
Rosemary M. Nauert,	11201 Aus-Tex Acres Ln Austin, Texas 78653 (512) 272-5769	Hearing Requester
Roger Joseph	P. O. Box 7 Austin, Texas 78767 (512) 459-5997	Hearing Requestor
Roy Smith	11815A Cameron Road Manor, Texas 78753 (512) 251-5193	Hearing Requester
Sean Cottle	11009 Silo Valley Drive Austin, Texas 78754 (512) 833-5706	Commenter
Tim Fleetwood	9011 Magna Carta Loop Austin, Texas 78754 (512) 792-6679	Commenter
Terry Cainal	11017 Reliance Creek Drive Austin, Texas 78754 (512) 784-0710	Commenter
Tony Buonodono	11105 Seay Street Austin, Texas 78754 (512) 417-2826	Commenter
Trek English	3705 Toby Court, Arlington, Texas 76001 (817) 478-6198	Hearing Requester
Vu Tran	6854 Thistle Hill Way Austin, Texas 78754 (512) 278-1649	Hearing Requester

Note: Applicant incorporates any and all persons identified as persons with knowledge of relevant facts by any other party in its disclosures.

Rule 194.2(f)(1)-(3) For any testifying expert:

- (1) The expert's name, address, and telephone number.**
- (2) The subject matter on which the expert will testify.**
- (3) The general substance of the expert's mental impressions and opinions and a brief summary of the basis for them, or if the expert is not retained by, employed by, or otherwise subject to the control of the responding party, documents reflecting such information.**
- (4) if the expert is retained by, employed by, or otherwise subject to the control of the responding party;**
 - (A) all documents, tangible thing, reports, models, or data compilations that have been provided to, reviewed by, or prepared by or for the expert in anticipation of the expert's testimony; and**
 - (B) the expert's current resume and bibliography.**

RESPONSE:

Retained Testifying Experts

1. Ray Shull, P.E.
Associated Consulting Engineers, Inc.
Barton Oaks Plaza
901 South Mopac Expy., Bldg Two, Ste. 165
Austin, Texas 78746
Phone: (512) 329-0006

Mr. Shull, a principal with Associated Consulting Engineers, Inc., was the lead project engineer responsible for the preparation of the permit amendment application. He is a registered professional engineer in Texas. He has extensive experience managing and directing solid waste management design and permitting projects, and has served as engineer of record on numerous MSW permit applications.

Mr. Shull will provide expert opinion and factual testimony on overall issues related to the preparation and completion of the permit application in compliance with applicable regulations, coordination with TCEQ's professional staff, and other issues related to the permit application and proposed vertical expansion. Mr. Shull may also provide testimony regarding coordination of the application with various federal, state and local governmental agencies. Mr. Shull will testify that, in his opinion, the application includes adequate provisions to control disease vectors; proposes adequate protection of surface water; includes adequate provisions to control odors; includes adequate provisions to control spilled and windblown waste and clean up spilled waste; includes adequate provisions calculating the estimated rate of solid waste deposition and operating life of the site; includes adequate provisions for closure and post-closure; includes adequate provisions to manage and dispose of special waste; includes adequate provisions designating the owner, operator, responsible parties and qualified personnel; includes adequate provisions to prevent unauthorized wastes from being disposed in the landfill; provides adequate information related to transportation; includes adequate provisions for dust control and

maintenance of site access roads; includes adequate provisions to protect endangered or threatened species; includes adequate provisions for cover; includes adequate provisions for fire protection; complies with financial assurance requirements; provides for buffer zones and landscape screening; by complying with appropriate regulatory provisions proposes sufficient protection of the health of requesters and their families and to avoid causing a nuisance; proposes appropriate operational hours; contains sufficient erosion control methods; and adequately addresses the storage, treatment and disposal of contaminated water. He will also testify that the application should not be denied based on the applicant's compliance history (including its compliance history rating), and that the application satisfies the agency's land use compatibility requirements. He will also testify that the proposed Site Operating Plan is compliant with all applicable regulatory requirements. Detailed descriptions of Mr. Shull's observations, analyses and mental impressions and conclusions, as well as the factual bases for his mental impressions and conclusions, are contained throughout the relevant portions of the permit application, including but not limited to Parts I, II, III (Attachments 1-3, 6-10, Attachments 12-13 & Attachment 15) and IV.

Mr. Shull bases his opinion on his knowledge, skill, experience, training, education and his extensive involvement in this project. He was the primary engineer responsible for the preparation of the permit application, conducted multiple site visits, and was integrally involved in every aspect of site analysis, landfill engineering and design, coordination with the various reviewing agencies, coordination with other professionals, and all other relevant issues.

A copy of Mr. Shull's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

2. Gregory J. Lewis, P.E.
Associated Consulting Engineers, Inc.
Barton Oaks Plaza
901 South Mopac Expy., Bldg Two, Ste. 165
Austin, Texas 78746
Phone: (512) 329-0006

Mr. Lewis is a licensed professional engineer who was worked extensively on Parts I, II and III of the application and was primarily responsible for preparing Attachment 6 in Part III of the permit application. Mr. Lewis may provide expert opinion and factual testimony regarding (among other things) drainage at and around the facility, protection of surface waters, solid waste deposition and site life calculations, cover, financial assurance, erosion controls, and the storage, treatment and disposal of contaminated water. In addition to analyzing drainage at and around the facility, Mr. Lewis will testify that, in his opinion, the facility has been designed to comply with applicable TCEQ regulations. He will testify that the application demonstrates that natural drainage patterns will not be significantly altered by the proposed expansion. He will also testify that the application proposed adequate protection of surface water; includes adequate provisions calculating the estimated rate of solid waste deposition and operating life of the site; includes

adequate provisions for closure and post-closure; includes adequate provisions for cover; complies with financial assurance requirements; provides sufficient erosion control methods; and adequately addresses the storage, treatment and disposal of contaminated water. A detailed summary of Mr. Lewis's observations, analyses and mental impressions and conclusions, as well as the factual bases for his mental impressions and conclusions, are contained in relevant portions of the permit application. The drainage analysis is located at Part III, Attachment 6 of the application, Mr. Lewis bases his mental impressions and opinions on his education, experience and involvement in this project – which has included, without limitation, visits to the site and surrounding areas; his general understanding of engineering and hydrology; reviews of historical data and reports related to local and regional drainage; reviews of hydrology treatises, texts and studies; and coordination with professional engineers, geoscientists and hydrologists.

A copy of Mr. Lewis's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

3. Adam W. Mehevec, P.E.
Associated Consulting Engineers, Inc.
Barton Oaks Plaza
901 South Mopac Expy., Bldg Two, Ste. 165
Austin, Texas 78746
Phone: (512) 329-0006

Mr. Mehevec is a licensed professional engineer who worked extensively on Attachments 1,2, 3, 6, 8, 12, 13 and 15 in Part III of the permit application as well as the site life calculations for the proposed facility. Mr. Mehevec may provide expert opinion and factual testimony regarding (among other things) drainage at and around the facility, protection of surface waters, , solid waste deposition and site life calculations, cover, financial assurance, erosion controls, and the storage, treatment and disposal of contaminated water. In addition to analyzing drainage at and around the facility, Mr. Mehevec will testify that, in his opinion, the facility has been designed to comply with applicable TCEQ regulations. He will testify that the application demonstrates that natural drainage patters will not be significantly altered by the proposed expansion. He will also testify that the application proposes adequate protection of surface water; includes adequate provisions calculating the estimated rate of solid waste deposition and operating life of the site; includes adequate provisions for closure and post-closure; includes adequate provisions for cover; complies with financial assurance requirements; provides sufficient erosion control methods; and adequately addresses the storage, treatment and disposal of contaminated water. A detailed summary of Mr. Mehevec's observations, analyses and mental impressions and conclusions, as well as the factual bases for his mental impressions and conclusions, are contained in relevant portions of the permit application. Mr. Mehevec bases his mental impressions and opinions on his education, experience and involvement in this project – which has included, without limitation, visits to the site and surrounding areas; his general understanding of engineering and hydrology; reviews of historical data and reports related to

local and regional drainage; reviews of hydrology treatises, texts and studies; and coordination with professional engineers, geoscientists and hydrologists.

A copy of Mr. Mehevec's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

4. John Michael Snyder, P.G.
Biggs& Matthews Environmental
1700 Robert Road
Mansfield, Texas 76063
Phone: (817) 563-1144

Mr. Snyder is a licensed professional geoscientist who was primarily responsible for preparing Attachments 4 and 5 in Part III of the permit application. Mr. Snyder may provide expert testimony regarding (among other things) regional and site geology, geologic characterization, regional and site hydrogeology, hydrogeologic characterization, groundwater and groundwater monitoring, the potential effect of the expansion on groundwater flow, groundwater monitoring, location restrictions (including fault studies), and related issues. In addition to characterizing the geology and hydrogeology at and around the site, Mr. Snyder will testify that, in his opinion, the facility has been designed to comply with applicable regulations and will be protective of groundwater. He will also testify that the vertical expansion will have no effect on groundwater flow or groundwater monitoring. A detailed summary of Mr. Snyder's observations, analyses and mental impressions and conclusions, as well as the factual bases for his mental impressions and conclusions, is contained in Part III, Attachments 4 and 5 of the permit application. Mr. Snyder bases his mental impressions and opinions on his education, experience and involvement in this project – which has included, without limitation, visits to the site and surrounding areas; his general understanding of geology, hydrogeology and groundwater monitoring; reviews of historical data and reports related to geology, hydrogeology and groundwater monitoring; reviews of geology and hydrogeology treatises, texts and studies; and coordination with professional engineers and geoscientists.

A copy of Mr. Snyder's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

5. Gregory W. Adams, P.E.
Biggs& Matthews Environmental
1700 Robert Road
Mansfield, Texas 76063
Phone: (817) 563-1144

Mr. Adams is a licensed professional engineer who was primarily responsible for preparing the geotechnical report in Part III, Attachment 4 of the permit application as well as associated geotechnical appendices to that report. Mr. Adams also prepared the Soil and Liner Quality Control plan contained in Attachment 10 of the permit application. Mr. Adams may provide expert testimony regarding (among other things) geotechnical engineering aspects of the permit application; geotechnical lab testing data and material properties; liner construction; slope stability analysis; settlement and heave; final cover construction; and related geotechnical issues. Mr. Adams will testify that, in his opinion, the proposed facility has been designed to comply with applicable regulations and will thus be protective of groundwater, provide for adequate slope stability, and provide for adequate final cover. A detailed summary of Mr. Adams's observations, analyses and mental impressions and conclusions, as well as the factual bases for his mental impressions and conclusions, is contained in Part III, Attachment 4. Mr. Adams bases his mental impressions and opinions on his knowledge, skill, experience, training, education and involvement in this project – which has included, without limitation, visits to the site and surrounding areas; his general understanding of engineering and geotechnics; reviews of historical data and reports related to soils, geotechnics, geology, hydrogeology and groundwater monitoring; reviews of geotechnical, geology and hydrogeology treatises, texts and studies; and coordination with professional engineers and geoscientists.

A copy of Mr. Adams's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

6. Matt Stutz, P.E.
Weaver Boos Consultants, LLC-Southwest
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
Phone: (817) 735-9770

Mr. Stutz is a licensed professional engineer who is primarily responsible for the design of the landfill gas collection system at the facility. Mr. Stutz has extensive experience and expertise in matters pertaining to air emissions and in designing landfill gas collection systems. Mr. Stutz may provide expert opinion and factual testimony regarding the landfill gas collection systems, landfill gas migration, gas probes, beneficial use of landfill gas, air emissions and airborne particulates (including dust), and related issues (including matters pertaining to odors associated with landfill gas). In addition to describing the landfill gas collection systems and matters pertaining to landfill gas at the site, Mr. Stutz will testify that, in his opinion, the permit application provides for managing landfill gas and that the landfill gas collection systems comply

with all regulatory requirements, and that the landfill complies with federal and air emission requirements. Mr. Stutz will also testify that the landfill gas system will operate in a manner such that any odors associated with landfill gas are controlled. A summary of Mr. Stutz's observations, analyses and mental impressions and conclusions, as well as the factual bases for his mental impressions and conclusions, is contained in Attachment 14 of the permit application. Mr. Stutz bases his mental impressions and opinions on his education, experience and involvement in this project – which has included, without limitation, visits to the site and surrounding areas; reviews of historical data and reports related to landfill gas, his general understanding of landfill gas and collection of landfill gas; and coordination with professional geoscientists and engineers.

A copy of Mr. Stutz's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

7. Lee Sherrod
Horizon Environmental Services, Inc.
P.O. Box 162017
2600 Dellana Lane, Suite 200
Austin, Texas 78746
Phone: (512) 328-2430

Mr. Sherrod has a Bachelor's degree in Forestry/Wildlife Management/Zoology and a Master's degree in Botany and Wetlands Ecology. He is a principal at Horizon Environmental Services, Inc. He has extensive professional experience and expertise in matters pertaining to wetlands, biological and ecological assessments, endangered and threatened species, and the critical habitat of endangered and threatened species. Mr. Sherrod will testify that the application includes adequate provisions to protect endangered or threatened species in compliance with TCEQ rules. Mr. Sherrod bases his mental impressions and opinions on his education, skill, experience and involvement in this project – which has included, without limitation, visits to the site and surrounding areas; reviews of endangered and threatened species lists and related materials, and his general understanding of biology, zoology and wildlife management.

A copy of Mr. Sherrod's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

8. John Michael McInturff, P. E., PTOE
HDR Engineering Inc.
504 Lavaca Street, #1175
Austin, TX 78701
Phone: (512) 904-3720

Mr. McInturff is a licensed professional traffic engineer who conducted traffic studies and analyses in connection with the permit application. Mr. McInturff will provide expert opinion and factual testimony regarding transportation, traffic patterns (current and projected), area roadways (current and planned), access to the landfill and related issues. In addition to describing regional and local transportation, traffic patterns, roadways and site access, Mr. McInturff will testify (without limitation) that, in his opinion, the application provides adequate information related to transportation and complies with TCEQ transportation requirements; that the area roadway system providing access to the landfill is good; that current and future planned improvements to these roadways will continue to provide good access because the planned expansion of capacity on area roads will be more than adequate to accommodate the forecasted waste haul trips to the landfill. A summary of Mr. McInturff's observations, analyses and mental impressions and conclusions, as well as the factual bases for his mental impressions and conclusions, is contained in Part II, Section II.E (Transportation Study) of the permit application. Mr. McInturff bases his mental impressions and opinions on his knowledge, skill, experience, training, education and involvement in this project – which has included, without limitation, reviews of area roadways, performing traffic counts and analyses, coordination with TxDOT and the City of Austin, reviews of forecasted visits to the site and surrounding areas; and reviews of regional transportation and roadway plans.

A copy of Mr. McInturff's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

9. Dr. William E. Southern
W. 4147 County Hwy. F
Springbrook, WS 54875
Phone: (715) 466-2583

Dr. Southern is an ornithologist and principal of WES Ecological Consulting. He assisted in the development of the bird control plan for the facility.

Dr. Southern will provide expert testimony regarding vectors and scavengers. Dr. Southern will testify (without limitation) that, in his opinion, the facility's Bird Control Plan does control on-site populations of birds; that the Bird Control Plan does not allow scavenging by birds; that the Bird Control Plan prevents nuisance conditions from birds from being released from the property boundary of the authorized facility; that the Bird Control Plan prevents the creation of nuisances or public health hazards due to birds; and that the Bird Control Plan prevents propagation and attraction of birds and the creation of public health nuisances.

A copy of Dr. Southern's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

10. Larry Dunbar
Dunbar, Harder & Benson, L.L.P.
One Riverway, Suite 1850
Houston, TX 77056
(713) 782-4646

Mr. Dunbar is a licensed professional engineer and practicing attorney who has reviewed Attachment 6 in Part III of the permit application. Mr. Dunbar may provide expert testimony regarding (among other things) drainage patterns at the proposed facility. In addition to analyzing drainage at and around the site and the proposed facility, Mr. Dunbar will testify that, in his opinion, the application demonstrates that natural drainage patterns will not be significantly altered by the proposed expansion and the facility has been designed to comply with applicable TCEQ regulations. Mr. Dunbar bases his mental impressions and opinions on his education, skill, experience and involvement in this project – which has included, without limitation, visits to the site and surrounding areas; his general understanding of hydrology; reviews of historical data and reports related to local and regional drainage; reviews of hydrology treatises, texts and studies; and coordination with professional engineers, geoscientists and hydrologists.

A copy of Mr. Dunbar's resume will be provided. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

11. Shari B. Libicki, Ph.D.
ENVIRON International Corporation
6001 Shellmound Street, #700
Emeryville, California 94608
Phone: (510) 420-2533

Dr. Libicki has Masters and Doctoral degrees in Chemical Engineering. She is a principal at ENVIRON International where she serves as Air Quality Practice Area Leader. She is also an adjunct professor at Stanford University. She has extensive professional experience and expertise in matters pertaining to air quality, air emissions from industrial facilities and landfills, and the management and control of odors and dust from such facilities. Dr. Libicki may provide testimony regarding the impact of air emissions from the landfill, odor management and control, dust control and related issues. She will testify that, in her opinion, the application complies

with regulatory odor management provisions and that the Site Operating Plan and other ancillary policies, procedures and practices at the landfill will provide effective means to control odors (including but not limited to odors associated with landfill gas). Dr. Libicki bases her mental impressions and opinions on her education, experience, and involvement in this project – including but not limited to site visitation, interviews of site personnel, review of the Site Operating Plan and other documents, regional meteorological data, information regarding site topography, and her general understanding of air quality, air emissions and odor management and control.

A copy of Dr. Libicki's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

12. John Worrall
John Worrall Consulting
500 Camino Barranca
Round Mountain, TX 78663
Phone: (830) 825-3029

Mr. Worrall is a land planning expert who has reviewed land uses in the vicinity of the landfill. Mr. Worrall will provide expert opinion and factual testimony on issues related to land use in the vicinity of the landfill, land use compatibility, visual impacts, zoning, buffer zones, screening, landfill configurations, compliance with applicable regulations and any other matter deemed relevant in these proceedings. Mr. Worrall will testify that the proposed facility is compatible with surrounding land uses and zoning requirements; that the proposed buffer zones meet or exceed all applicable regulations; that the visual screening of the facility meets or exceeds all applicable regulations; and that due care was taken in the development of the design of the configuration, shape and height of the proposed facility. Mr. Worrall bases his opinions on area and site investigations; his review of regulations, zoning ordinances, local and regional governmental data and forecasts, and other materials; and his experience as a land planning consultant.

A copy of Mr. Worrall's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

13. Charles Heimsath
Capitol Market Research
605 Brazos, Suite 300
Austin, Texas 78701
(512) 476-5000

Mr. Heimsath is a real estate and land development and valuation expert who has reviewed land uses and growth trends in the vicinity of the landfill. Mr. Heimsath will provide expert opinion and factual testimony on issues related to land uses and growth trends in the vicinity of the facility. He will testify that the proposed facility is compatible with surrounding land uses, particularly (but not exclusively) in light of past and projected growth trends. Mr. Heimsath bases his opinions on area and site investigations; his review of regulations, zoning ordinances, local and regional governmental data and forecasts, market research, and other materials; and his experience as a real estate and land development and valuation consultant.

A copy of Mr. Heimsath's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

14. Donna Carter
Carter and Associates
817 W 11th Street
Austin, TX 78701
(512) 476-1812

Ms. Carter is an architect and land planner who has reviewed land uses in the vicinity of the landfill and worked on the structural design of the landfill. BFI anticipates that she will provide testimony on the subject matters discussed in the disclosure pertaining to John Worrall above. Ms. Carter bases her opinions on area and site investigations; her review of regulations, zoning ordinances, local and regional governmental data and forecasts, and other materials; and her experience as an architect and land planning consultant.

A copy of Ms. Carter's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

15. Michael S. Hunt, P.E.
Hunt Air Strategies
1611 Taylor Gaines
Austin, TX 78741
Phone: (512) 447-8082

Mr. Hunt is a professional engineer and has reviewed portions of the application regarding air emissions and controls. BFI anticipates that Mr. Hunt will provide expert opinion and factual testimony on issues related to air emissions and controls and compliance with applicable regulations and any other matter deemed relevant in these proceedings. Mr. Hunt bases his opinions on site investigations, regulations and his experience as in the field of air emissions. Mr. Hunt may also provide rebuttal testimony.

A copy of Mr. Hun's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

16. Mitcheal David Wilson
Titanium Environmental Services, LLC
P.O. Box 4029
Longview, Texas 75606-4029
903-234-8443

Mr. Wilson is a principal in Titanium Environmental Services, LLC, an environmental consulting firm located in Longview, Texas. Mr. Wilson has extensive experience and expertise in matters pertaining to air quality, air emissions from industrial facilities and the detection and management of odor from such facilities. Mr. Wilson may provide testimony regarding air emissions including the detection, control and management of landfill odor. Mr. Wilson bases his mental impressions and opinions on his education, experience and his involvement in this project – including but not limited to site visits, interviews, review of application documents, regional meteorological data and information regarding site topography and his general understanding of odor management and control.

A copy of Mr. Wilson's resume is attached. Documents and other tangible items responsive to Tex. R. Civ. P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas 78701 beginning on a mutually agreed upon time and date. Please contact Mr. Joe Jimenez at 512-322-5852 to set up a time to inspect the documents and to arrange for copying.

Rebuttal Experts

17. Kevin Carel, P.G.
The Carel Corporation
136 Pecan Street
Keller, Texas 76248
Phone: (817) 337-0112

Mr. Carel is a licensed professional geoscientist. He has extensive experience with landfill groundwater monitoring systems and, more particularly, groundwater sampling, statistical analyses and report preparation for landfill groundwater monitoring systems. Mr. Carel may provide expert testimony regarding (among other things) the GWSAP and its preparation, groundwater sampling practices and procedures, statistical analyses of groundwater, and preparation of reports. In addition to describing the foregoing, Mr. Carel will testify that, in his opinion, the GWSAP is based on sound scientific and statistical principles and practices, complies with applicable MSW regulations, will assist in monitoring groundwater at and around the site to ensure prompt detection and reporting of any potential release, and will otherwise be protective of groundwater. He will also testify that the proposed vertical expansion will not have any effect on the GWSAP and groundwater sampling, analysis and reporting.

A copy of Mr. Carel's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

18. H. C. Clark, Ph.D.
2300 Bolsover
Houston, Texas 77005
Phone: (713) 529-0090

Dr. Clark has Master's and Doctoral degrees in geophysics. He is a licensed professional geoscientist who participated in the review of Attachments 4 and 5 in Part III of the permit application. Dr. Clark may provide expert testimony regarding (among other things) regional and site geology, geologic characterization, regional and site hydrogeology and hydrogeologic characterization, and groundwater monitoring and remediation. In addition to describing the geologic and hydrogeologic characterizations at and around the site, Dr. Clark will testify that, in his opinion, the facility has been designed to comply with applicable regulations and will be protective of groundwater. He will also testify that the vertical expansion will have no effect on groundwater flow or the groundwater monitoring and remediation systems. Dr. Clark bases his mental impressions and opinions on his education, experience and involvement in this project – which has included, without limitation, visits to the site and surrounding areas; review of the application; reviews of historical data and reports related to geology, hydrogeology and groundwater monitoring; reviews of regional geology treatises and texts; library research regarding site history, his general understanding of regional geology; and coordination with professional geoscientists and engineers.

A copy of Dr. Clark's resume is attached. Documents and other tangible items responsive to Tex.R.Civ.P. 194.2(f)(4)(A) are voluminous and will be made available for inspection and copying at the office of Lloyd Gosselink Rochelle & Townsend, P.C., 816 Congress Avenue, Suite 1900, Austin, Texas, 78701, beginning on a mutually agreed-upon date and time. Please contact Mr. Joe Jimenez at (512) 322-5852 to set up a time to inspect the documents and to arrange for copying.

Non-Retained Experts

BFI reserves the right to elicit expert opinion testimony from the following non-retained experts:

19. Brad Dugas
Allied Waste Industries, Inc.
South Central Texas District Market Vice-President
2575 IH 35 South, Suite 103
San Marcos, TX. 78666
Phone: (512) 392-9101

Mr. Dugas is employed by Allied Waste, Inc. and serves as Market Vice-President for its South Central Texas District. He has extensive professional experience, skill and knowledge in matters pertaining to operation and management of MSW facilities. Among other things, Mr. Dugas may provide expert testimony regarding site operation and landfill management, site operation and management, the Site Operating Plan, and general environmental compliance. Mr. Dugas will testify that, in his opinion, the Site Operating Plan – including but not limited to those aspects of the Site Operating Plan that have been referred by TCEQ for contested case hearing – complies with the MSW regulations pertaining to site operation. Mr. Dugas bases his mental impressions and opinions on his education, skill, knowledge and experience, his general understanding regarding operation and management of MSW facilities, and his specific knowledge of the Sunset Farms Landfill.

All documents and other tangible items responsive to Texas Rule of Civil Procedure 194.2(f)(4)(A), as well as a copy of Mr. Dugas' current curriculum vitae and bibliography, will be made available consistent with the provisions of the ALJ's Order No. 1 in this case.

20. Lee Kuhn
South Region Director, Engineering Environmental Management
Allied Waste
Greenspoint Park 2
16800 Greenspoint Park Drive, Suite #225N
Houston, Texas 77060
Phone: (281) 673-2036

Mr. Kuhn is employed by Allied Waste, Inc. and serves as Director of Engineering and Environmental Management for the South region. He has extensive professional experience,

skill and knowledge in matters pertaining to landfill gas collection systems and the operation and management of MSW facilities. Among other things, Mr. Kuhn may provide expert testimony regarding landfill gas, odor control, dust control, site operation and landfill management, general environmental compliance. He will testify that, in his opinion, application provides for managing landfill gas and that the landfill gas collection systems comply with all regulatory requirements. He will also testify that the Site Operating Plan – including but not limited to those aspects of the Site Operating Plan that have been referred by TCEQ for contested case hearing – complies with the MSW regulations pertaining to site operation. Mr. Kuhn bases his mental impressions and opinions on his education, skill, knowledge and experience, his general understanding of landfill gas collection systems and understanding regarding operation and management of MSW facilities, and his specific knowledge of the Sunset Farms Landfill.

All documents and other tangible items responsive to Texas Rule of Civil Procedure 194.2(f)(4)(A), as well as a copy of Mr. Kuhn's current curriculum vitae and bibliography, will be made available consistent with the provisions of the ALJ's Order No. 1 in this case.

21. Scott Trebus
Regional Environmental Manager
Allied Waste
Greenspark Park 2
16800 Greenspoint Park Drive, Suite #225N
Houston, Texas 77060
Phone: (281) 673-2036

Mr. Trebus is employed by Allied Waste, Inc. and serves as Regional Environmental Manager for the Houston region. He has extensive professional experience, skill and knowledge in matters pertaining to landfill gas collection systems and the operation and management of MSW facilities. Among other things, Mr. Trebus may provide expert testimony regarding landfill gas, odor control, dust control, site operation and landfill management, general environmental compliance. He will testify that, in his opinion, application provides for managing landfill gas and that the landfill gas collection systems comply with all regulatory requirements. He will also testify that the Site Operating Plan – including but not limited to those aspects of the Site Operating Plan that have been referred by TCEQ for contested case hearing – complies with the MSW regulations pertaining to site operation. Mr. Trebus bases his mental impressions and opinions on his education, skill, knowledge and experience, his general understanding of landfill gas collection systems and understanding regarding operation and management of MSW facilities, and his specific knowledge of the Sunset Farms Landfill.

All documents and other tangible items responsive to Texas Rule of Civil Procedure 194.2(f)(4)(A), as well as a copy of Mr. Trebus's current curriculum vitae and bibliography, will be made available.

Others

22. Richard Carmichael, Ph.D., P.E.
Jeff Holderread, P.E.
Jeff Davis
Arten Avakian, P.G.
Karen Cleveland
Matthew Udenenwu
Kim Sladek
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087
(512) 239-1000

Carmichael, Holderread, Davis, Avakian, Cleveland, Udenenwu and Sladek are with TCEQ's Office of Permitting, Remediation and Registration, and may testify as to matters pertaining to the Executive Director and agency staff's administrative and technical evaluation of the application and regulatory compliance.

Rule 194.2(g) **Any indemnity and insuring agreement described in Rule 192.3(f).**

None.

Rule 194.2(h) **Any settlement agreements described in Rule 192.3(g).**

None at this time.

Rule 194.2(i) **Any witness statements described in Rule 192.3(h).**

None.

Rule 194.2(j) **In a suit alleging physical or mental injury and damages from the occurrence that is the subject of the case, all medical records and bills that are reasonably related to the injuries or damages asserted or, in lieu thereof, an authorization permitting the disclosure of such medical records and bills.**

Not applicable to Applicant.

Rule 194.2(k) **In a suit alleging physical or mental injury and damages from the occurrence that is the subject of the case, all medical records and bills**

obtained by the responding party by virtue of an authorization furnished by the requesting party.

Not applicable to Applicant.

Rule 194.2(l) The name, address and telephone number of any person who may be designated as a responsible third party.

Not applicable.

RESERVATION OF RIGHTS:

BFI Waste Systems of North America, LLC reserves the right to supplement these disclosures (including disclosures pertaining to testifying expert witnesses), to designate rebuttal experts, and to cross-designate experts who have been designated by other parties.

\\1635\12 Mccarty Road\Discovery\Disc080529jec -- Bfis Resp To Rfds.Doc

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 Troglitic 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 Burleson 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 Westminster 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

C. Lee Sherrod

Instructor

William J. ...

Regional Director, Region 8

Wetland Training Institute

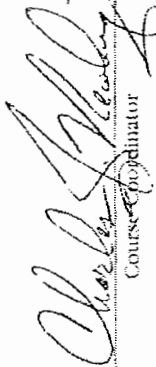
This certifies that

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.*

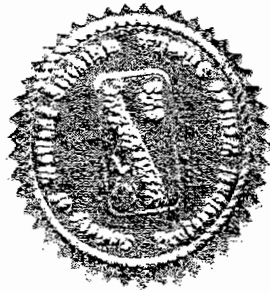
grants the designation

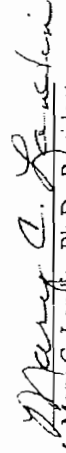
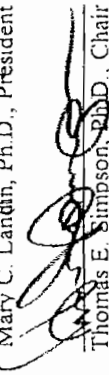
Professional Wetland Scientist

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 Signing, 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, Halco Texas, Inc. for Halco 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, 199-2000
- **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
Shipley, 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 Col., 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.

Resume

Larry Dunbar

(To Be Supplemented)

Resume

Shari B. Libicki, Ph.D.

ENVIRON International Corporation

Shari B. Libicki, Ph.D.

Education

- 1985 Ph.D., Chemical Engineering, Stanford University
- 1981 M.S., Chemical Engineering, Stanford University
- 1979 B.S.E., Chemical Engineering, University of Michigan

Experience

Dr. Libicki is a Principal at ENVIRON Corporation. She has technical expertise in chemical fate and transport, including estimation and measurement of air emissions from industrial processes, and landfills; and air dispersion and deposition modeling to evaluate chemical movement in the air. She has conducted this type of work to support risk assessments, emergency release evaluations and other evaluations involving airborne contaminants. She uses this information to negotiate complex technical agreements and permits with agencies, assist facilities with compliance programs, and provide technical expertise to litigation teams. She has also conducted extensive air quality regulatory assessments for NSR/PRD permitting and compliance auditing. Dr. Libicki is a member of the faculty of the Chemical Engineering Department at Stanford University. Her work here has included the following:

- Provided technical support to attorneys on a litigation case where an accidental release of a particulate and liquid material from an industrial facility was alleged to have caused harm to thousands of plaintiffs. This included an engineering evaluation of the release quantity, meteorological data analysis, and an evaluation of dispersion and deposition of aerosols in complex and intervening terrain.
- Provide nationwide compliance assistance to six iron and steel mini-mills. Work conducted includes: preparation of Title V permit applications and supporting emissions estimates; preparation of Prevention of Significant Deterioration (PSD) permits and associated emissions and dispersion modeling; evaluation of RACT controls for mini-mills.
- Provided expert assistance on a litigation case where a release of mercaptans from a refinery was alleged to cause harm to students in a nearby school. The work involved analysis of samples to evaluate the composition of the released materials, an analysis of the release quantities, and the dispersion of those emissions.
- Managed PSD permit applications for two aluminum smelting facilities. This work included preparation of the emissions inventories, managing the Class I and Class II modeling effort, conducting the BACT analysis, and preparing the technical document. She also negotiated permit conditions with the agencies, and assisted with cross-border discussions with other impacted agencies.
- Directed a yearlong ambient air-monitoring program to measure particulate matter and diesel particulate matter (DPM) at the boundary of a large landfill in Los Angeles and a nearby school. The results of the monitoring program were analyzed temporally and as a function of meteorology. The results of the program showed that nearby freeways provided an overwhelming fraction of the measured DPM.

Shari B. Libicki, Ph.D.

- Prepared comprehensive air quality analysis for two large municipal solid waste landfills in Southern California. Evaluation included impact of exhaust from non-road heavy equipment, dust from waste operations, and emissions from landfill gas escaping the collection system. Projects included public testimony on results of analysis.
- Managed the preparation of an application for an Authority to Construct for a state-of-the-art hazardous waste treatment storage and disposal facility, which included a risk assessment for the project, and successfully negotiated permit conditions with state and local agencies. Currently working with facility and regulators to implement permit conditions.
- Provided impartial technical assistance to both the plaintiffs and defense in a toxic tort case involving aerosolized air emissions from a large acid manufacturing facility in Arkansas. Particular issues in the case surrounded the potential for particulate formation under certain meteorological conditions; evaluation of control technology, and overall evaluation of emissions from the facility.
- Worked as a technical advisor to the Imperial County Air Pollution Control District for the permitting of a rail-haul landfill. This landfill is proposed to be the largest landfill in the United States, and had monitoring, modeling, and enforceability issues associated with the permit.
- Provided expert assistance on a litigation case where subsurface methane gas from a rogue landfill was alleged to damage property values in a housing development. Developed methods to evaluate trace chemicals and extent of gas migration.
- Evaluated the potential contribution of airborne dioxin releases from a refinery to deposit within a defined boundary and contribute to measured dioxin concentrations in wastewater. Analysis included estimation of dioxin releases from a variety of units; selection of units most likely to contribute to dioxin deposition; selection of deposition modeling technique; and analysis of results.
- Provided independent technical assistance to the court's mediator on landfill gas migration and control issues for a landfill toxic tort litigation involving a very large landfill (several square miles) in the Eastern United States.
- Gave an invited lecture series to senior environmental professionals in Mexico on the technical basis of the estimation of the impacts of sudden releases of toxic and flammable materials, in the wake of the Guadalajara explosions.
- Served as a technical expert in a case to evaluate the potential off-site migration of subsurface landfill gas from a hazardous waste site. Also evaluated impacts from landfill gas that escaped the surface of the landfill.
- Provided expert assistance to attorneys on a litigation case where ammonia was released from a refrigeration system. This included an analysis of the opposing expert's work, creation of a model to describe the release from the system, and evaluating alternative scenarios.
- Managed the consequence analysis for several Risk Management and Prevention Programs (RMPP). Projects included scenarios with acids, toxic gases, and chemical

Shari B. Libicki, Ph.D.

reactions. Analysis involved using standard analytical tools as well as some state of the art tools.

- Designed a complex fourteen-station ambient air monitoring network to measure the concentrations of 19 toxic chemicals in both gaseous and particulate phase for risk assessment purposes and negotiated approval with local, state and federal regulators.
- Provided technical support to attorneys for a litigation case evaluating the potential for cross-contamination via process exhausts, within an industrial facility. The potential for the airborne particulate contaminant to contribute to trace concentrations in the product was analytically evaluated. Provided expert report and deposition.
- Designed and conducted the compliance ambient air monitoring program for a large hazardous waste facility. The ongoing program collects whole air and total suspended particulate samples at five stationary sites. Prepared risk assessment based on the program, and quarterly reports for review by the local air district and the California EPA's Department of Toxic Substances and Control.
- Provided technical support to attorneys in a litigation involving the impacts from a chlorine tank spill. The spill was modeled and the impact of meteorological conditions and varying spill scenarios was evaluated.
- Evaluated the potential of deposited arsenic-based pesticide to contaminate adjacent property. Transport pathways examined included wind-blown dust, surface water transport, and vehicle trackout.
- Conducted preliminary evaluation of whether patterns of measured lead in soil supported contention that lead resulted from airborne emissions from a lead emitting stack located at the site. Concluded that insufficient data was available for analysis.
- Provided litigation support for an evaluation of pesticide contamination to determine whether pesticide at site was a result of spills and leaks or airborne deposition as a result of pesticide milling at the site.
- Gave lecture series on the harmonization of the State and Federal Risk Management Programs in California, and how to best implement the unified program.
- Provided expert assistance in cases where the impacts of facility emissions were compared to Proposition 65 thresholds. Several of the cases were in active litigation.
- Prepared and submitted several Federal Operating Permit Applications under Title V of the Clean Air Act for industrial facilities. Currently working on ongoing negotiation for permits.
- Analyzed the impacts of potential accident scenarios prior to the construction of several new industrial facilities. The results of the analyses were used to make recommendations as to how to improve the safety and minimize the risks to the surrounding community.
- Prepared and negotiated a settlement proposal with regulators for a large facility which included new methods for calculation of organic emissions, additional controls on processes, and monitoring requirements.

Shari B. Libicki, Ph.D.

- Managed technical support team for large toxic tort litigation that involved estimating current and historical emissions from several large facilities, comparing and choosing appropriate meteorological data for the analysis dispersion modeling, mapping of impacts with respect to plaintiffs, and comparison with air quality guidelines and toxicological end points.
- Analyzed the particulate emissions from a basic chemicals processing plant containing over 90 separate sources, conducting a dispersion and culpability analysis, and evaluating the effectiveness of proposed and implemented source controls.
- Designed, negotiated and managed a novel cost-effective ambient air monitoring program that yielded real-time information on the health impacts of a site remediation. This study is the basis of a well-received paper.
- Analyzed the results of a complex multi-year total suspended particulate monitoring program to understand the sources of arsenic in the ambient air, and to evaluate the health risks of the arsenic levels that could be related to nearby facility emissions.
- Estimated emission from contaminated ground water under residential neighborhood and resulting indoor air concentration, using regulatory models and alternative models.
- Designed a protocol for estimating the quantities of specific hazardous chemicals disposed of in California by region and waste type, and worked with the Department of Health Services to verify protocol.
- Participated in the design of a hazardous waste treatment storage and disposal facility.
- Estimated emissions due to volatilization and erosion from hazardous waste sites to support health risk assessments, cleanup levels, and Proposition 65 warning radius.
- Managed AB 2588 emission inventory plans, emissions inventories, and health risk assessments; negotiated reduced emission inventory for a major manufacturer with SCAQMD; conducted AB 2588 screening assessments.
- Estimated emissions and impact of emissions on ambient air quality for a planned municipal solid waste landfills and co-disposal site.
- Modeled dispersion of air emissions from multi-source industrial facilities and estimated increases in ambient air concentration of specific emissions to determine scope of potentially impacted area.

Prior to joining ENVIRON, Dr. Libicki held the following positions:

Physical Sciences Officer; Bureau of Oceans and Environmental and Scientific Affairs, U.S. Department of State.

- Developed and implemented a successful negotiation strategy for cooperative scientific projects with Japan and the Soviet Union.
- Worked with Japan's Science and Technology Agency to initiate a Japanese funding organization for innovative international biotechnological studies.

Shari B. Libicki, Ph.D.**Staff Scientist, Alza Corporation.**

- Led teams that created, designed, tested, and patented controlled release transdermal and osmotic pump drug delivery systems.
- Studied the correlation between drug physical-chemical data and dermal transport and absorption.
- Designed and implemented systems to provide effective membrane thickness control in the manufacture of miniature osmotic pumps.

Lecturer, Department of Chemical Engineering, Stanford University.

- Taught courses in Chemical Engineering Laboratory and Technical Speaking and Writing.

Patents

H.F. Sanders, Y.L. Cheng, D.J. Enscore, S.B. Libicki. *Transdermal Drug Composition with Dual Permeation Enhancers*. Patent Number: 4,820,720. April 11, 1989.

R.M. Gale, D.J. Enscore, D.E. Nedberge, M. Nelson, Y.L. Cheng, S.B. Libicki. *Transdermal Administration of Progesterone, Estradiol Esters, and Mixtures Thereof*. Patent Number: 4,788,062. November 29, 1988.

Awards And Honors

American Association for the Advancement of Sciences Diplomacy Fellow, 1987-1988

United States Department of State Meritorious Honor Award, March 1989

Professional Affiliations

Member, American Association for the Advancement of Science.

Member, American Chemical Society.

Member, Air and Waste Management Association.

Publications And Presentations

Libicki, S.B. When Good Data Goes Bad: What the Numbers Really Mean. American Bar Association Section of Environment, Energy and Resources 7th Section Fall Meeting, San Diego, California. Oct. 1999.

Libicki, S.B. and R. Van de Griend. *RMPs, RMPPs and SB 1889: Consolidation of State and Federal Risk Management Programs*. Presented as a Minimum Continuing Legal Education course at various law firms. San Francisco, California. November-December, 1996.

Shari B. Libicki, Ph.D.

- Stuart, A.L., S. Jain and S.B. Libicki. The Use of Long-Term Meteorological Information to Predict Impact Probabilities Resulting from Toxic Chemical Releases. PSA >96-International Topical Meeting on Probabilistic Safety Assessment. American Nuclear Society, Park City, Utah. October 1996.
- Libicki, S.B. The Use of Simplified Quantitative Risk Analysis in Risk Management Decisions at Small and Medium-Sized Process Plants. 88th Annual Air & Waste Management Association Annual Meeting, San Antonio. June 1995.
- Jain, S. and Libicki, S.B. Estimating the Additional Airborne Release Due to Heat of Reaction and Aerosolization When Strong Acids React With Water During a Release. Air & Waste Management Association Annual Meeting, San Antonio. June 1995.
- Libicki, S.B. Emergency Release Modeling: Software options and usage strategies. Southwest Safety Congress and Exposition. May 1994.
- Libicki, S.B. and R. van de Griend. Practical Compliance Strategies for Laboratory and Production: Ensuring Compliance from the Ground Up. Bio International '94. Toronto. May 1994.
- Libicki, S.B., A. Andersen and R. Scofield. The Use of Ambient Air Monitoring Data for the Evaluation of Risks due to Particulate-Borne Metals: A Case Study. California Mining Association Annual Meeting. April 1994.
- Libicki, S.B. and R. Scofield. *Issues and Solutions in Air Toxics Source Impacted Ambient Air Monitoring for Use in Risk Assessment*. Fourth Annual West Coast Regional Conference: Current Issues in Air Toxics. November 1993.
- Gates, L.J., S.B. Libicki, R. Scofield, and J. Wilhelmi. A flexible real-time ambient air monitoring program during Superfund Site redevelopment. *EPA/AWMA Field Screening Methods for Hazardous wastes and Toxic Chemicals*. February 24-26, 1993.
- P.M. Salmon, S.B. Libicki, and C.R. Robertson. 1988. A theoretical investigation of convective transport in the hollow-fiber reactor. *Chemical Engineering Communications* 66:221-248.
- Libicki, S.B., P.M. Salmon, and C.R. Robertson. 1986. Measurement of inert gas permeabilities in compact bacterial cell aggregates using an annular reactor. *Annals of the New York Academy of Sciences*, Vol. IV; and *Biochemical Engineering* 469:145-151.
- Karel, S., S. Libicki, and C.R. Robertson. 1985. The immobilization of whole cells: Engineering principles. *Chemical Engineering Science* 40(8):1321-1354.
- Campbell, J.H., P. Peters, S.B. Libicki, M.L. Gregg, and J.E. Clarkson. 1981. Analysis of the operation of Occidental's modified *in situ* retort 6. In *Fourteenth Oil Shale Symposium Proceedings*, Golden, Colo.: Colorado School of Mines Press.
- Campbell, J.H., J.H. Raley, F.H. Ackerman, W.A. Sandholtz, and S.B. Libicki. 1980. Investigation of critical parameters in modified *in situ* retorting. In *Thirteenth Oil Shale Symposium Proceedings*, Golden, Colo.: Colorado School of Mines Press.

Resume

John Worrall
John Worrall Consulting

JOHN A. WORRALL

John Worrall Consulting

jworrall@att.net

512.415.9727

EDUCATION

1983 - M.B.A., College of St. Thomas, St. Paul, MN

1976 - B.S., Urban Studies, University of Minnesota, Minneapolis, MN

COMMUNITY ACTIVITIES

Leadership Austin - (1989-1990)

Downtown Commission - Chairman (1988-1990)

Mr. Worrall has been a land planning consultant since 1977, including twenty years as an associate, a principal and senior vice president at RVi Planning + Landscape Architecture. His professional experience encompasses comprehensive community planning, park system planning, and downtown redevelopment planning for cities, as well as land use analyses for solid waste and reclamation projects throughout Texas.

Land Use Compatibility Studies for Solid Waste Facilities

Preparation of land use analyses for solid waste facilities throughout Texas. Managed and provided services including expert testimony, visual and aesthetic analyses, growth trends research, design of entries and screening features, and phasing/operating recommendations. Facilities include:

- 121 Site Landfill Collin County
- Arlington Municipal Landfill Arlington
- Austin Community Landfill Expansion Austin
- Blue Flats Disposal Palo Pinto County
- CSC Landfill Andover
- DFW Recycling and Disposal Facility Lewisville
- Denton Municipal Landfill Denton
- ECD Landfill Ennis
- Lacy Lakeview Landfill Expansion Waco
- Long Point Landfill Ft. Bend County
- North County Type IV Facility League City
- Panama Road Landfill Palo Pinto County
- Ponderosa Regional Landfill Laredo
- Rio Grande Valley Donna
- Skyline Landfill & Recycling Center Ferris
- Spring Cypress Type IV Facility Harris County
- Sunset Farms Landfill Austin
- TASWA Landfill Grayson County
- Tessman Road Landfill Expansion San Antonio
- Trinity Oaks Landfill Dallas
- Waco Municipal Landfill Waco
- Weatherford Landfill Weatherford
- Westside Recycling and Disposal Facility Ft. Worth

Resume

Charles Heimsath
Capitol Market Research

CHARLES H. HEIMSATH

605 Brazos, Suite 300
Austin, TX 78701
(512) 476-5000
cheimsath@cmraustin.com

PROFESSIONAL EXPERIENCE

Capitol Market Research, Austin, Texas *June 1986 - present*
PRESIDENT

Real Estate research, market feasibility analysis, small area forecasting, economic impact assessments.

- Produce comprehensive market studies to determine feasibility of proposed real estate development projects.
- Conduct economic impact studies of policy decisions that affect land values and real estates markets.
- Chief operating officer of the company, project manager and principal client liaison.

R. Robinson & Associates, Austin, Texas *February 1984 – June 1986*
PROJECT MANAGER

Real estate research, market and demographic studies, land-use forecasting.

- Responsible for quality control and all work products.
- Prepared absorption studies to be used in conjunction with real estate valuations.
- Conducted city wide market surveys and trend reports.
- Prepared highest and best use studies and site selection analysis.

South Main Center Assoc., Houston, Texas *February 1983 - February 1984*
ASSOCIATE DIRECTOR

Construction management, office administration, policy development, community outreach.

- Responsible for the construction of the Jesse H. Jones Fountain on Fannin Street.
- Prepared policies and plans for improvement to the area covered by SMCA.
- Responsible for community contact and liaison with property owners.

Rice Center, Houston, Texas *October 1978 – February 1983*
SENIOR ASSOCIATE

- Senior project manager responsible for real estate research, urban development and economic forecasting.

Mayor's Office, Houston, Texas *October 1976 – October 1978*
URBAN ECONOMIST

- Responsible for the development of the Overall Economic Development Plan ROEDP for the Pocket of Poverty in Houston, Texas.
-

EDUCATION

RICE UNIVERSITY, HOUSTON, TEXAS *1980-1981*
Post Graduate Studies

UNIVERSITY OF TEXAS, AUSTIN, TEXAS *August 1976*
M.S. in Community and Regional Planning

UNIVERSITY OF VERMONT, BURLINGTON, VERMONT *June 1972*
B.S. in Economics

Resume

Donna Carter
Carter and Associates

Donna Carter, AIA

President, Carter Design Associates

DONNA CARTER, AIA has extensive experience as both project architect and project manager as well as over twenty years of experience in programming, planning, design, architectural production and management. A substantial portion of this experience has been with institutional governmental entities. She will be an active "hands on" planning and design team member. Her experience extends to transportation and transit related projects involving both long range planning and design. Recent projects include Streetscape Guidelines, transportation improvements plans for The University of Texas and it's surrounding neighborhoods, Downtown Austin, Georgetown, Texas and Fort Worth Texas.

Ms. Carter's community service includes service on the Downtown Revitalization Task Force, the Congress Avenue Task Force, and the Land Development Code Task Force of AustinPlan. She was involved in the R/UDAT effort for Austin and Co-Chaired the Implementation Committee. The implementation effort culminated in the publishing of *A Call To Action*. Past board responsibilities include the Ecology Action, Capital City Chamber of Commerce, Women & their Work, Holy Cross Hospital, Austin Chapter of the American Institute of Architects, Texas Society of Architects, Leadership Austin, Heritage Society of Austin, Texas Historical Commission State Board of Review and Texas Historical Commission Antiquities Advisory Committee.. She is currently serving on the Seton Fund Board, The Seton Hospital Board and the Mueller Implementation Commission.

Donna is a Texas registered architect and is certified by the National Council of Architectural Registration Boards. She received her Master of Architecture from the University of California. She holds a Bachelor of Arts from Yale University. She was a Ford Foundation Scholar at the American University in Cairo, Egypt. Her professional affiliations Fellow, Center for Heritage Conservation, Texas A & M University; Association of Preservation Technology; the Construction Specifications Institute; the American Planning Association and the American Institute of Architects.

Publications: Urban Design Guidelines / Studies

East 11th and 12th Streets Commercial Corridors Urban Design Guidelines (1982); East 11th and 12th Streets Commercial Corridors Master Urban Design Plan (1982); East 11th Street Neighborhood Conservation Combining District Draft(1982); R/UDAT Austin ... A Call to Action (Co-Chair Implementation Committee) (1991); Martin Luther King Boulevard Main Street Plan (Dallas Texas); Pedestrian Gateways (1997); Guide to Better Streets (1999), Southwest Downtown Round Rock Principles of Design (2004).

Recent Urban Design and Guidelines Projects:

Transit Oriented Development Station Area Planning, Regulatory Plan.
Capital Metro Light Rail – Rapid Rail Transit Project; Downtown Access Mobility Study; Design consultation - The Sutton Company; Great Streets, City of Austin; Berry Street Improvements, Fort Worth; Transit Alternatives Analysis, Fort Worth, Great Streets Master Plan, Austin, Texas; South Congress Ave. Improvements, Austin, Texas; University Area Transportation Plan, Austin, Texas; Bicycle and Pedestrian Plan, University of Texas Transportation Plan.

Resume

Michael S. Hunt, P.E.
Hunt Air Strategies

Michael S. Hunt

Fields of Competence

Project management; air emissions inventory; air dispersion modeling; preparation of air quality permits; environmental assessments; regulation interpretation; expert witness; and BACT analysis.

Experience Summary

Twenty-six years of project experience in environmental engineering, air permitting, estimating air emissions, dispersion modeling utilizing ISCST, ISCLT, TEM, TCM, SCREEN, PTPLU, CDM, and RPM-IISS, performing downwash analyses, performing environmental assessments, determining PSD applicability for new and modified sources, and performing health effects assessments.

Registration

Registered Professional Engineer in the State of Texas, No. 76804

Credentials

B.S., Mathematics, University of Texas (1976)
M.S., Civil Engineering, University of Texas (1983)

Publications and Presentations

Hunt, M.S., "Quantification of Emissions at a Hazardous Waste Facility in Texas," proceedings of the APCA Southwest Section 1987 Annual Technical Meeting in Dallas, TX, February 12, 1987.

Hunt, M.S., "Benzene Emissions from a Gasoline Loading Facility," presented January 11, 1988 at the ASME National Conference in New Orleans.

Hunt, M.S. and Parmley, R.D., "Photochemical Modeling of Emissions from an Expansion at a Major VOC Facility," proceedings of the AWMA 84th Annual Meeting in Vancouver, British Columbia, June 16-21, 1991.

Hunt, M.S. and Sloan, R.L., "Ambient Air Management Program at the French Limited Superfund Site," proceedings of the AWMA 88th Annual Meeting in San Antonio, TX, June 18-23, 1995.

Key Projects

- Prepared TACB permit application and PSD application for an industrial hazardous waste incinerator. Calculated emissions, performed BACT analysis and atmospheric dispersion modeling.
- Performed atmospheric dispersion modeling for several expansion projects at major chemical manufacturing facilities.
- Air Quality Manager of French Limited superfund site in Texas. Was responsible for weekly atmospheric dispersion modeling reports utilizing on-site data and monthly Air Management reporting. Responsible for ensuring that at the end of cleanup, projected impacts at nearby residences were below acceptable levels.
- Taught a one week course in atmospheric dispersion modeling at a chemical plant in France.
- Prepared Air Quality Addendum to RCRA Part B application for a commercial hazardous waste incinerator. Emissions of more than 120 "worst-case" compounds were calculated and modeled in atmospheric dispersion models. Testified at the public hearing in support of the project.
- Prepared Air Quality Addendum to RCRA Part B application for an industrial hazardous waste incinerator. Calculated emissions and performed atmospheric dispersion modeling of over 30 compounds.
- Derived an innovative technique to quantify fugitive emissions from process units in lieu of using SOCOMI emission factors which would have greatly over-predicted emissions.
- Performed ozone modeling using the Reactive Plume Model version II-SS for a large chemical plant in Texas.
- Prepared emissions inventories for several facilities in Texas and Louisiana. Identified emission sources, calculated emissions, and prepared EIQ forms.
- Performed emissions calculations and atmospheric dispersion modeling to determine regional air quality impacts associated with the leasing of federal lands for coal mining in Colorado, Wyoming, and Montana.
- Prepared an air permit application for an electronics manufacturer near Dallas. Calculated emissions for over 25 processes using over 170 products resulting in over 100 air contaminants.
- Prepared air permit applications for several railcar painting facilities. Projects included emissions calculations, BACT analysis, and atmospheric dispersion modeling.
- Supervised a test soil-vapor extraction project in New Jersey. Prepared the air permit application to allow the project to proceed.
- Audited a dozen sites in Kansas and Missouri to determine their compliance status in regards to local, state, and federal air regulations.
- Audited seven Air Force bases in Texas, Arizona, Oklahoma, and Illinois to determine their compliance status in regard to local, state, federal, and Air Force regulations.
- Inspected approximately 30 aerial pesticide applicator sites in the RCRA program to determine the extent of soil and ground water contamination. Audits included site visits, interviews with site operators, and review of operating records and permits. Project also included collecting soil and ground water samples.
- Calculated baseline emissions inventory for railcar painting facilities in Texas, California, Indiana, and Georgia. Evaluated impact of Clean Air Act Amendments on the facilities as they are currently operated and based on several future expansion scenarios.
- Expert witness in several civil litigation cases concerning possible exposures to air contaminant emissions.

Resume

H. C. Clark, Ph.D.

H.C. Clark
2300 Bolsover
Houston, Texas 77005
hcclark@rice.edu;
[713]529-0090; [254]7892271

Consulting Geology and Geophysics

Rice University, Geology and Geophysics, retired faculty

Education

PhD, Geophysics, Stanford University, 1967

MS, Geophysics, Stanford University, 1966

BS, Geology and Geophysics, University of Oklahoma, 1959

Teaching

courses in geophysics and geology, geologic hazards, engineering geology, and engineering geophysics

Research Interests: Current - Geophysical techniques applied to the study of shallow features, geophysical measurements and hydrogeologic problems, sustainable pasture development; Past - paleomagnetism, geophysical measurements and crustal studies, detection of dynamic fractures

Texas Registered Professional Geoscientist, number 1777.

Appointed by the Commissioners to the Municipal Solid Waste and Resource Recovery Advisory Council of the Texas Commission on Environmental Quality, 2003, re-appointed in 2007 to term ending 2013, representing the Public

Appointed Director of Student Advising at Rice in 1979 and served in various combinations with Susan Clark until retiring in 1989.

Board of Directors Urban Harvest, Committee Chair--Bayou City Farmers' Market to 2008

Organizations — American Geophysical Union, Society of Exploration Geophysicists [and Near Surface Section], Houston Geological Society, Geophysical Society of Houston

Appointed to Task Force 21 of the Texas Natural Resource and Conservation Commission

Appointed to EPA/ASTSWMO Industrial Waste Management Guidance Stakeholders Group [1997-completion]

At Rice University from 1966 to 1989

Consulting Projects

Browning Ferris- CECOS Gulf West Hazardous Waste Landfill, Chambers Co., Seismic study of active fault, groundwater geology

BFI 521 Municipal Landfill, Fort Bend Co., Texas, Geology, groundwater, active faulting and salt dome
 BFI McCarty Road Municipal Landfill, Harris Co., Texas, Geology, active faulting
 BFI Stratton Ridge Injection Well, Brazoria Co., Texas, Geology, fracture potential
 CECOS Livingston Hazardous Waste Landfill, Livingston Parish, Louisiana, Geology
 BFI Galveston County Landfill, Galveston Co., Texas, Resistivity study, baseline data
 City of Houston, Crystal Chemical Injection Well, Harris Co., Texas, Active faulting, geology of reservoir
 Rice Center for Community Design and Research, Chambers County Natural Factors Study, Chambers
 Co., Texas, Geology components
 Texas Coast Project, Two County Tier, Texas, Geology components
 Metropolitan Transit Authority Project, Harris Co., Texas, Composite fault map metropolitan area
 Citizens, Willis, Montgomery Co., Texas, Municipal Landfill, Geology and groundwater
 Citizens and County, Matagorda Co., Texas, Phillips 66 Landfarms, Landfills, Contaminated
 Water Ponds, Geology, groundwater, systems design
 Fayette County Resource Watch, Fayette Co., Texas, Cummins Creek Lignite Mine Geology, geophysics
 and groundwater
 Citizens, Katy, Texas, CMI Municipal Landfill, Cypress Creek, Geology, faulting
 Citizens, East Houston, Texas, Municipal Landfill—Negev, now Bluebonnet, Geology, faulting
 Citizens, North Houston, Texas Municipal Landfill—Atascocita, Geology, geophysics
 Citizens and Power Systems Equipment, Chappel Hill, Washington Co., Texas Municipal Landfill,
 Geology, geophysics, groundwater
 CASE, Beaumont-Port Arthur, Jefferson County, Texas, CWMI Injection Well
 Campbell, Foss, and Buchannan, Inc. Eureka, Nevada, Mine Exploration
 Magnetic measurements and interpretation Norse-Windfall Mines, Eureka, Nevada
 Magnetic and seismic refraction measurements and interpretation
 Anderson and Frierson, Geologists Central Texas Oil Exploration
 Gravity and magnetic measurements and interpretation
 U S Army Corps of Engineers, Galveston, Texas Galveston Bay Sand Supply Study
 Data compilation and interpretation
 U S Air Force, Office of Ballistic Missile Research Micro-blast rapid tunnel excavation. Sunburst Recovery
 Seismic recording, CSM Experimental Mine, Golden, Colorado
 Tenneco Oil, Exploration and Production, Houston, Texas
 Magnetic ranging system for detection of well blowout, patent
 Allied Chemical, Norfolk, Virginia, Magnetic survey, steel tank construction site
 SanJacinto Development Corp., Landslide and groundwater influence, downstream Livingston Dam; San
 Jacinto Co., Texas
 Vinson and Elkins, Attorneys, Houston, Fault study. West Houston
 Keplinger Associates, Petroleum Engineers, Houston, Oil Mining Study, Ohio, Geophysical measurements
 and interpretation Mining Prospect, Alaska, laboratory magnetic measurements and interpretation
 Universal Savings Association, Houston
 Hazardous waste study—former pipeline terminal and sludge storage pits
 Soil borings, monitor well installation; soil, sludge, groundwater
 sampling, interpretation of chemical test results
 Hazardous waste study—former manufacturing facility
 Waste disposal audit, supervision of testing program
 Active surface fault study—former manufacturing complex Field surface study and interpretation of
 surface, photo, and subsurface data

Hazardous waste study—office park and landfill area
 Soil borings, monitor well installation; soil, sludge, groundwater sampling, interpretation of chemical test results

ERM Southwest, Houston, Texas, Pesticide Manufacturing Plant, Dallas County, Texas
 Seismic refraction interpretation

Testing Unlimited, Houston, Texas, Conroe Jail, Montgomery County, Texas, Seismic study, basement heave

General Dynamics, Fort Worth, Texas Air Force Plant 4, Fort Worth, Texas, Seismic reflection study, groundwater problem

McClelland Engineers, Houston, Texas, Bosque Dam Construction Planning, Seismic refraction study, outlet works

Police Jury, Calcasieu Parish, Louisiana Chemical Waste Management Hazardous Waste Landfill, Lake Charles Facility-Geologic and hydrologic study

Commissioners Court, Matagorda County, Texas -Phillips 66 Landfarm- geohydrologic study of landfarm operation

Citizens of Security, Texas-Montgomery County Contractors Type I Landfill, geology and geohydrology — Permit amendment for special wastes

Texas Environmental Coalition, Concerned Citizens of Winona-Land Banned Waste Exemption Petition - WDW 186, Gibraltar Chemical Resources, Winona, Texas

Citizens, Fort Bend County, Texas-Fort Bend County Landfill - proposed expansion

Resolution Trust Corporation-Former Industrial Facility - ground water contamination
 Fault study - seismic reflection profile study-splay faults and contaminant transport

City of League City, Texas-Waste oil processor-Hazardous waste and ground water

Calhoun County Resource Watch, Texas-Union Carbide Plant Hazardous Waste Landfill Faulting, geology, and ground water; British Petroleum Plant-Hazardous waste landfill geology and performance

Mitchell Development Corporation-Bald Head Island Beach erosion and relationship to Wilmington Channel Dredging

Allen County [Ohio] Citizens for the Environment Workshop on deep well injection

Louisiana Department of Environmental Quality-Workshop on deep well injection

Law Engineering, Houston, Texas-Workshop on landfills

Citizens, Fort Bend County, Texas-Fort Bend County Landfill - methane migration and groundwater

Citizens, Waco, Texas-City of Waco Landfill Expansion,geological and geophysical analysis

City of Petronila, Nueces County, Texas Texas Ecologists Hazardous Waste Disposal
 Analysis of application for two injection wells

Numerous groups in Texas, Louisiana, Ohio: Critical comments on hazardous waste injection wells including: Gibraltar Chemical; Chemical Waste Management, Port Arthur and Corpus Christi, Texas; Vickery, Ohio; DSI, Empak, Waste Water Inc, Dupont, Celanese, American Cyanamid, Cecos, Rollins, BP Green Lake, IMC Fertilizer, BP Lima Harris County, Texas-Westbelt Landfill, geological and geophysical analysis;American Envirotech Hazardous Waste Incinerator, geological and geophysical analysis

City of Houston and Harris County-Hunter Industrial Facilities salt dome storage of hazardous waste, geological and geophysical analysis City of Wilmer, Texas Laidlaw Wilmer Landfill Remand Hearing, geological analysis

Citizens, Lacy-Lakeview(Tirey Trust) Lacy-Lakeview Landfill Expansion, groundwater and geology
 CASE-CWMI Port Arthur Landfill-audit of landfill documents-geologic analysis

Citizens, Fairview (COFF), McKinney Landfill Expansion, geological and geophysical analysis
 Lower Colorado River Authority-Tricil Landfill, Altair, Texas geological and geophysical analysis
 City of Del Rio-CWMI Dryden Landfill, Dryden, Texas
 CONTROL [Citizens of Justin, Texas] Sentry Landfill Proposal, Denton, Texas-geological analysis
 West Harris County MUDS-Madden Road Landfill geological and geophysical analysis
 Sierra Club, Eagle Pass, Dos Republicas Coal Mine
 geological and agricultural analysis of alluvial valley floor
 Citizens Live Oak County, Texas IEC Injection Wells 156, 159, geological and geophysical analysis
 Citizens Winnsboro, Texas East Texas Landfill, geological analysis
 Citizens East Fort Worth, Laidlaw Landfill, MSW 2145, geological analysis
 City of Lancaster, Texas WMX Skyline [Ferris] Landfill, 42-C, geological analysis
 Citizens Walker County, Texas DDI Landfill, geological analysis
 Citizens Palo Pinto County and Fawcett XO Ranches-Blue Flats Landfill, geological analysis
 MOSES [Mothers Organized to Stop Environmental Sins] Injection Wells 186 and 229, Smith County,
 Texas-injection well, geological and geophysical analysis
 Citizen groups Jefferson County NORM facility, geological and geophysical analysis
 CCAP Wharton County-Hazardous waste caverns, injection, geology and geophysics
 Baggett, McCall & Burgess, Lake Charles PPG Plant contamination plume
 ABLE, Canyon, Texas-BFI Canyon Landfill expansion proposal geological analysis
 Frost Family Farms, Liberty County Class I [non-hazardous] injection well proposal, geophysical and
 geological analysis
 Spring Cypress Landfill Coalition, Harris County-Type IV landfill, geology and hydrogeology
 Sierra Blanca Legal Defense Fund, Hudspeth County, Texas, Low Level Nuclear Waste Disposal license
 application, geophysical analysis
 Citizens groups, Kinney County, Adobe Landfill proposal, geophysical and geological analysis
 Bill Sutton family, Fort Bend County Long Point Dome landfill, geophysical and geological analysis
 North Texas Municipal Utility District 121 Landfill design team, geological and geophysical measurements
 Raytheon [McBride Ratcliff Engineers], Active fault and BMC Software complex, Houston
 Limestone County, Texas-Hansen Aggregates quarry design and hydrogeology analysis
 Citizens, Hays County, Texas-Aquasource water treatment and discharge facility, geology and
 hydrogeology
 BFI-Blueridge Landfill expansion geology and hydrogeology
 McFadden Family-Dupont Beaumont no-migration exemption renewals for injection wells, analysis
 Frost, FPL Farming Ltd-Amendment to injection well permits WDW316 and 317
 Chambers County, TSP Cypress Point Industrial Landfill, geologic issues analysis, industrial rules analysis
 Citizens Fort Bend County, Juliff Type IV Landfill application
 Individuals, various LPST and drycleaner contamination cases
 BVSMA, Grimes County, landfill application
 O'Connor Ranches, Victoria, groundwater resources in South Texas and analysis of issues
 BFI-McCarty Landfill expansion
 BFI-Blueridge Landfill expansion
 State of Nevada, Agency for Nuclear Projects, Yucca Mountain, repository geology and geophysics
 Sierra Blanca Ranch, Hudspeth County, quarry site reclamation, geologic issues
 Lafitte's Cove Nature Society, Galveston, comments on hurricane sever potential related to cut and fill
 development
 Cooke County citizens, Salt Water Disposal well and Barnett Shale operations

Erath County citizens, Salt Water Disposal Well and Barnett Shale operations
Goliad County, geologic hazards and uranium exploration project
TJFA as protestant, Williamson County Landfill Expansion
TJFA as protestant, Comal County Landfill Expansion
Goesbeck, Limestone County, rock mining and aquifer system

Publications

- Keller, M.F., and Clark, H. C. Jr., 1964, Prediction of magnetic anomalies due to four buried spheres, in Computers In the Mineral Industries, Stanford University Press.
- Clark, H. C. Jr., 1966, A Study of a Thick Oligocene Sill as a Paleomagnetic Record of Secular Variation, (abs.): Trans. Am. Geophys. Un., V.47,p. 79.
- Clark, H.C. Jr., 1967, A Fused Quartz Curie-point Balance in Methods in Paleomagnetism, Developments in Solid Earth Geophysics: Amsterdam, Elsevier Publ. Co., v. 3, pp. 438-439.
- Clark, H. C. Jr., 1967, Variation of Remanent Magnetic Properties Related to the Differentiation of the Mary's Peak Sill, Oregon, (abs): Trans. Am. Geophys. Union, v. 48, p. 79.
- Lankford, R. R., Clark, H. C. Jr., Warme, J. E., and Rehkemper, L. J. 1969, Galveston Bay Estuarine system - Case study in Case Studies of Estuarine Sedimentation and its Relation to Pollution of the Estuarine Environment: Gulf Universities Research Corporation, Houston, Texas, pp. A-1 - A-64.
- Gilliland, M. W., Clark H. C. Jr., and Sutler, J. F., 1969, Paleomagnetism of the Buck Hill volcanic series. Big Bend, Texas (abs.): Trans. Am. Geophys. Un., V. 50, p. 131. Clark, H. C. Jr., 1959, Remanent Magnetism, Cooling history, and Paleomagnetic Record of the Mary's Peak Sill, Oregon: Journal of Geophysical Research, V. 74, ff. 1, pp. 3143-3160.
- Clark, H. C. Jr., Flournoy, L. D., and Haupt, L., 1969, Late Pleistocene to Holocene Secular Variation Observed in Cores from the Gulf of Mexico: Trans. Am. Geophys. Union, V. 50, p. 606.
- Clark, H. C. Jr., and Hickcox, A. E., 1970, Remanent magnetic stability and cooling history of the Mary's Peak Sill, Oregon (Abs.): Bull. Geol. Soc. Am., V 2, p. 276.
- Clark, H. C. Jr., and Johnson E. A., 1971, Paleomagnetism of Oaxaca State, Mexico (abs), Trans. Am. Geophys. Un., V. 52, p. 190.
- Clark, H. C. Jr., and Kennett, J. P., 1972, Confirmation of the reality of the Laschamp Geomagnetic Polarity Event in cores from the Gulf of Mexico (abs.): Trans. Am. Geophys. Un., V. 53, p. 423.
- Clark, H. C. Jr., and Kennett, J. P., 1973, Paleomagnetic excursion recorded in Late Pleistocene deep sea sediments. Gulf of Mexico: Earth and Planetary Science Letters, V. 19, pp. 267-274.
- Clark, H. C. Jr., Fryer, G. E, Gasparini, P., Roberti, N., Scandone, R., 1973, Il laboratorio de

paleomagnetismo dell'osservatorio vesuviano: Prod. Associane Geofixica Italiana.

- Kennett, J. P., Huddleston, F., Clark, H. C. Jr., 1973, Paleoclimatology, paleomagnetism, and teprochronology of late Pleistocene sedimentary cores, Gulf of Mexico. In CNRS Symposium Volume: Les Methodes quantitative d'Estudes des variations du climat au cours du Pleistocene. No. 219, p. 239-250.
- Clark, H. C. Jr, Remanent magnetism of volcanic rocks, 1974, Physical Volcanology (Gasparini, P. and Civetta, L., Editors), 20 pages, Elsevier. Amsterdam.
- Clark, H. C. Jr., and Bradbeer, G. E., 1974, Geology and natural environmental factors. Chambers County. Texas In Environmental Analysis for Development Planning, Chambers County, Texas. Rice Center for Community Design and Research and Southwest Center for Urban Research. 28 Manuscript pages and figures.
- Clark, H. C. Jr., 1975, Geology, Map 9 In Texas Gulf Coast Project, Research Report 1, Williams, D. L., and Rowe, P.G., ed., Rice Center Community Design and Research, Houston, 261 pages.
- Gevirtz, J. L., Clark, H. C. Jr., Rowe P. G., 1975, Environmental Description for Land-Use planning, Abstracts with Programs, Geological Society of America, Vol. 8, Number 1,p.21.
- Clark, H. C. Jr., Georges, D., and Rowe, P. G., 1976, Geologic Hazards and Land Use Planning in the Gulf Coast, Abstracts with Programs, Geological Society of America, Vol. 8, Number 1, p. 14.
- Anderson, J. B., Weaver, M.F., Clark, H. C. Jr., 1977, Sediments and Sedimentary Processes on High Latitude Continental Shelves, Offshore Technology Conference, V. 9,2738, 8 pages.
- Anderson, J. B., and Clark, H. C. Jr,1977, Geologic Studies for the Galveston County Shore Erosion Study, U.S. Army Corps of Engineers, Galveston District, 52 pages.
- Clark, H. C. Jr., and Gilliland, M. W.. 1975, "Paleomagnetism of Early Tertiary Volcanics, Big Bend, Texas." Cenozoic Geology of the Trans Pecos Volcanic Field of Texas; Conference Proceedings, Alpine, May 21-25,1978.
- Watson, C. W. and Clark, H. C. Jr, 1978, "Gravity measurements and the Big Bend, Texas, as Part of a Continental Rift." Cenozoic Geology of the Trans Pecos Volcanic Field of Texas; Conference Proceedings, Alpine, May 21-25, 1978.
- Clark, H. C. Jr,1978, Geologic Hazards and Houston, Houston Engineer, May-June, 1978, p. 23-24.
- Fainstein. R., and Clark, H. C. Jr., 1975. The Crustal Structure beneath the Victoria-Trinidad Ridge, Revista Brasileira De Geosciencias, v. 8, p. 170-283.
- Metcalfé, C. W. and Clark, H. C. Jr.,1978, Gravity Analysis of the Big Bend, Texas, as part of a Continental Rift, Abs., Transactions Am. Geoph. Union, V. 59, Number 12, p. 1189.
- Gilliland, M. W. and Clark, H. C. Jr., 1979, Paleomagnetism of Early Tertiary Volcanics, Big Bend, Texas,

- Guidebook 19, Cenozoic Geology of the Trans-Pecos Volcanic Field of Texas, Anthony W. Walton and Christopher D. Henry, Texas Bureau of Economic Geology Guidebook Series.
- Metcalf, C. W., and Clark, H. C. Jr., 1979, Gravity Measurements and the Big Bend, Texas, as part of a Continental Rift," Guidebook 19, Cenozoic Geology of the Trans-Pecos Volcanic Field Of Texas, Anthony W. Walton and Christopher D. Henry, eds., Texas Bureau Of Economic Geology, Guidebook Series.
- Clark, H.C. Jr, and Metcalfe, C. W., 1979, Ouachita Orogenic Belt Offset, Central Texas, ABSTRACT, Transactions of the American Geophysical Union, V. 60,46.
- Clark, H. C. Jr., Greene, L. A. Jr., and Sealy, C. O., 1979, Ground and Surface Water, Geologic Hazards, and Waste Disposal: Houston, Texas. ABSTRACT, Trans. Am. Geoph. Union, V. 60,46, p. 230.
- Clark, H. C. Jr., and Georges, D., 1981, Deep Well Injection of Liquid Waste: Hazards and Planning, Abstract, EOS, Transactions of the American Geophysical Union, V, 62, p. 865.
- Clark, H. C., 1982, Ouachita Orogenic Complex, Central Texas - Geophysical Measurements and Basement Offset, Transactions of The Gulf Coast Association of Geological Societies., (M. Malek-Aslani, ed.), 32, p.157-163.
- Clark, H C. Jr., Young, Chapman, Barker, Ronald., 1984, "Field Tests of the Stem-Induced Explosive Fracturing Technique, Society of Petroleum Engineers of the AIME, Proceedings of the Unconventional Gas Recovery Symposium, SPE 12840; May 23, 1984, 8 pages.
- Young, C., Barker, D., and Clark, H. C., 1986, Field Tests of the Stem Induced Explosive Fracturing Technique, Society of Petroleum Engineers, Journal of Production Engineering, p. 266-273.
- Clark, H.C., 1993, Geophysical Measurements and Environmental Problems in the Regulatory Process, Special Session, Third International Congress of the Brazilian Geophysical Society, Rio de Janeiro [Invited Paper].
- Clark, H.C., 1995, Geophysical Measurements and the Public Environmental Process [Best of SEG], American Association of Petroleum Geologists Annual Meeting, p. 17a, Houston.
- Clark, H.C., 1996, Overview of Environmental Problems and Non-Invasive Geophysics and Their Role in the Legal/Regulatory Framework, Looking Into the Earth, Geophysical Society of Houston, Environmental Applications Special Interest Group, p. 19-20.
- Clark, H.C., 2006, Our Bayou City Farmers' Market; a Public Place, Guide, Urban Harvest, Houston, Winter, 2006, p. 1-2.
- Clark, H.C., 2007, Landscape On The Move, Houston Atlas of Biodiversity, Houston Wilderness, p. 2-4, Texas A&M University Press, College Station.
- Patent: Waters; Robert L. (Austin, TX); Roberts; George F. (Georgetown, TX); Walters; Philip H. (Austin, TX); Clark; Howard C. (Houston, TX); Fitzgerald; Don D. (Houston, TX); Stelly, II; Otis V. (Lafayette, LA), 1988, Downhole Combination Tool, 5,064,006 USPO, 1991

Resume

Kevin Carel, P.G.
The Carel Corporation

RESUME

KEVIN T. CAREL

PROFESSIONAL REGISTRATION

Licensed Professional Geoscientist in the State of Texas, License Number 960

EDUCATION

Bachelor of Science in Geology. The University of Oklahoma, Norman, Oklahoma;
1986

Continuing Education:

- “Design and Construction of RCRA / CERCLA Final Covers,” USEPA; 1990
- “Clay Liners and Covers for Waste Disposal Sites,” The University of Texas; 1991
- “Safety at Hazardous Materials Sites,” The National Ground Water Association; 1992
- “Design Operation and Closure of Municipal Solid Waste Landfills,” USEPA; 1992
- “Groundwater Statistics and Regulations.” The International Groundwater Modeling Center; 1995
- “Running a Profitable Small Business,” Texas Wesleyan University, 1997
- “Micropurge Low-Flow Purging and Groundwater Sampling,” The Nielsen Environmental Field School, Inc.
- “Fundamentals of Groundwater Geochemistry,” The National Ground Water Association; 1999
- “Applications of Groundwater Geochemistry,” The National Ground Water Association; 1999

HONORS AND AWARDS

- University of Oklahoma Academic scholarship award, 1984
- University of Oklahoma Academic scholarship award, 1985
- Graduated with Special Honors, 1986

PROFESSIONAL EXPERIENCE

1997 to Present

President, The Carel Corporation

Responsible for completion and coordination of projects related to environmental, groundwater and solid waste management. Services include: Expert witness; permitting support; groundwater sampling, including low-flow purging and sampling; statistical analysis of groundwater data and report preparation; preparation of groundwater

sampling and analysis plans; preparation of statistical analysis plans; monitor well installation; alternate source demonstrations; investigations concerning the nature and extent of environmental releases; assessment of corrective measures; groundwater remediation; and air monitoring.

1993 to 1997

**Director of Environmental Management,
Laidlaw Waste Systems, Inc.**

Responsible for engineering and environmental compliance primarily for Laidlaw's Western US facilities. Responsibilities included a variety of managerial and technical issues including: management of a staff of environmental professionals; environmental compliance reviews of landfills; due diligence; landfill permit modifications and new permits; budget support; support of legal issues associated with environmental contamination, coordination of environmental monitoring activities and project management.

1991 to 1993

**Regional Environmental Manager,
Laidlaw Waste Systems Inc.**

Responsible for engineering and environmental compliance for facilities located within the former Sunbelt Region. Responsibilities included a variety of managerial and technical issues including: recruiting, hiring and management of a staff of environmental professionals; environmental compliance reviews of landfills; due diligence; landfill permit modifications and new permits, coordination of environmental monitoring activities and project management.

1989 to 1991

**Assistant Regional Engineer/Geologist,
Laidlaw Waste Systems, Inc.**

Provided support on environmental compliance for facilities located within the former Sunbelt Region. Responsibilities included environmental compliance reviews of landfills; due diligence; support on landfill permit modifications and new permits, coordination of environmental monitoring activities and project management.

1988 to 1989

**Geoscience Systems Analyst,
CONOCO, INC.**

Provided support to a staff of exploration geologists and geophysicist with computer applications in oil and gas exploration. Activities included computer generation of geological and geophysical maps and cross-sections and analysis of potential and remaining oil and gas reserves.

1986 to 1988

**Project Manager / Office Manager,
Wilson E. Nolan, Inc.**

Responsible for a variety of environmental projects associated with solid waste management, sludge management and environmental consulting. Activities included design and installation of monitoring networks for solid waste landfills and sludge application sites, preparation of permit applications for solid waste landfills and sludge

management plans, attendance at public hearings and meetings; management of sludge application projects, pilot projects and environmental impact studies.

PROFESSIONAL AFFILIATIONS

National Ground Water Association
Association of Groundwater Scientists and Engineers
American Association of Petroleum Geologists

PUBLICATIONS AND PRESENTATIONS

Carel, Kevin T., "A Low Flow Purging and Sampling Demonstration at Three Solid Waste Landfills in East Texas", Proceeding of the 1996 Options for Texas Conference, 1996, pp. 547-557.

Brady, Warren, Allendorf, Mark A., Schramm, William H., Carel, Kevin, and Kerfoot, Henry, "Geochemical and Hydrologic Characterization to Identify the Source of Low Level Benzene in the Chicot Aquifer Groundwater", Proceedings of the First Annual Louisiana Groundwater Symposium, Louisiana Groundwater – A Stressed Resource, 2006.