# LIST OF PUBLICATIONS KAREN A. WESTPHAL

#### **Referred Book Chapters and Journal Articles**

- Byrnes, M.R., Penland, S., McBride, R.A., Debusschere, K., Westphal, K.A., and Davis, D.W., 1990. Computer mapping, aerial videotape surveys, and geographic information systems: an integrated approach to developing a shoreline change database. In: Delineation of Erosion Hazard Shorelands. Great Lakes Shoreland Management Workshop Series, Cleveland, Ohio, pp. 21-29.
- Byrnes, M.R., McBride, R.A., Penland, S., Hiland, M.W., and Westphal, K.A., 1991. Historical changes in shoreline position along the Mississippi Sound barrier islands. Coastal Depositional Systems in the Gulf of Mexico: Quaternary Framework and Environmental Issues. Gulf Coast SSEPM Foundation, p. 43-55.
- Draut, A.E., Kineke, G.C., Huh, O.K., Grymes, J.M.III, Westphal, K.A., and Moeller, C.C., 2004. Coastal mudflat accretion under energetic conditions, Louisiana chenier-plain coast, USA. Marine Geology 214 (2005) 27-47.
- McBride, R.A., Penland, S., Hiland, M.W., Williams, S.J., Westphal, K.A., Jaffe, B.E., Sallenger, A.H., 1992. Analysis of barrier shoreline change in Louisiana from 1853 to 1989. Chapter in: Louisiana Barrier Island Erosion Study Atlas of Shoreline Changes in Louisiana from 1853 to 1989; Williams, S.J., Penland, S., and Sallenger, A.H. Editors. U.S. Geological Survey Miscellaneous Investigation Series I-2150-A, p. 36-97.
- Penland, S., Westphal, K.A., Zganjar, C., Mathies, L., and Nord, B., Submitted. Contribution of natural and human processes in the development of the Atchafalaya bayhead delta in coastal Louisiana. Journal of Coastal Research.
- Westphal, K.A., and Penland, S., 1992. Aerial photographic mosaics of Louisiana's barrier shoreline, in Williams, S.J., Penland, S., and Sallenger, A.H., Jr., eds., Louisiana barrier island erosion study atlas of barrier shoreline changes in Louisiana from 1853 to 1989: U.S. Geological Survey Miscellaneous Investigation Series I-2150-A, p. 24-35.

# **Technical Reports**

- Louisiana Geological Survey, contributors: Maciasz, E., McBride, R.A., McLaughlin, T.M., Nakashima, L.N., Penland, S., Ramsey, K.E., Scott, D.B., Suter, J.R., Taylor, B.G., and Westphal, K.A., 1988. Database Compilation for Nearshore Sand Resources: Marsh Island to Sandy Point. Technical Report to the Louisiana Department of Natural Resources, 89 pp.
- Penland, S., Ramsey, K.E., McBride, R.A., Moslow, T.F., and Westphal, K.A., 1989. Relative Sea Level Rise and Subsidence in Louisiana and the Gulf of Mexico. Coastal Geology Technical Report No. 3, Louisiana Geological Survey, Baton Rouge, LA, 65 p.
- Penland, S., Ramsey, K.E., McBride, R.A., Mestayer, J.T., and Westphal, K.A., 1987. Relative Sea Level Rise and Delta Plain Development in the Terrebonne Parish Region, La. Coastal Geology Technical Report No. 4, Louisiana Geological Survey, Baton Rouge, LA, 121 p.
- Penland, S., Westphal, K.A., Debusschere, K., McBride, R.A., 1989. The 1985 hurricane impacts on Louisiana's barrier islands: geomorphic changes in the Isles Dernieres: 1984-1985. Report

- prepared by the Louisiana Geological Survey for the U.S. Geological Survey under cooperative agreement No. 14-08-0001-A0416.
- Ritchie, W., Westphal, K.A., McBride, R.A., and Penland, S.P., 1989. Coastal Sand Dunes of Louisiana: The Isles Dernieres. Joint publication of the Louisiana Geological Survey, Baton Rouge, La. and the Dept. of Geography, Aberdeen University, Scotland. Coastal Geology Technical Report No. 5.
- Ritchie, W., Westphal, K.A., McBride, R.A., and Penland, S.P., 1990. Coastal Sand Dunes of Louisiana: The Plaquemines Shoreline. Joint publication of the Louisiana Geological Survey, Baton Rouge, La. and the Dept. of Geography, Aberdeen University, Scotland. Coastal Geology Technical Report No. 6.
- Ritchie, W., Westphal, K.A., McBride, R.A., and Penland, S. 1992. Coastal Sand Dunes of Louisiana: Chandeleur Islands Shoreline. Joint publication of the Louisiana Geological Survey, Baton Rouge, La. and the Dept. of Geography, Aberdeen University, Scotland. Coastal Geology Technical Report No. 7.
- Ritchie, W., Westphal, K.A., McBride, R.A., and Penland, S. 1995. Coastal Sand Dunes of Louisiana: Bayou Lafourche Barrier Shoreline. Joint publication of the Louisiana Geological Survey, Baton Rouge, La., Louisiana State University, Baton Rouge, La., and the Dept. of Geography, Aberdeen University, Scotland. Coastal Geology Technical Report No. 9.

# **Coastal Geology Map Series (Aerial Video Surveys)**

(in chronological order)

- Penland, S., Suter, J.R., McBride, R.A., Westphal, K.A., Reimer, P.D., 1988. Aerial Videotape Survey of Coastal Louisiana 1986. Coastal Geology Map Series No.6, Louisiana Geological Survey, Baton Rouge, LA. 95 pp., 32 20-min videotapes.
- Penland, S., McBride, R.A., Westphal, K.A., Reimer, P.D., 1988. Aerial Videotape Survey of Coastal Louisiana 1987. Coastal Geology Map Series No.7, Louisiana Geological Survey, Baton Rouge, LA. 96 pp., 45 20-min videotapes.
- Penland, S., Westphal, K.A., McBride, R.A., and Reimer, P.D., 1989. Aerial Videotape Survey of Coastal Louisiana 1988. Coastal Geology Map Series No.8, Louisiana Geological Survey, Baton Rouge, LA. 117 pp., 34 20-min videotapes.
- McBride, R.A., Westphal, K.A., Penland, S., and Reimer, D.P., 1989. Aerial Videotape Survey of the Hurricanes Florence and Gilbert Impact zones 1988. Coastal Geology Map Series No.9, Louisiana Geological Survey, Baton Rouge, LA. 70 pp., 17 20-min videotapes.
- McBride, R.A., Debusschere, K., Penland, S., Westphal, K.A., Knox, C., and Reimer, D.P. (in press). Aerial Videotape Survey of Coastal Louisiana, Mississippi, and Alabama 1989. Coastal Geology Map Series No. 10. Baton Rouge: Louisiana Geological Survey. 122 pp., 43 20-min videotapes.
- Westphal, K.A., Davis, D.W., Penland, S., and McBride, R.A. (in press). Aerial videotape survey of coastal Louisiana 1990. Coastal Geology Map Series No. 11. Baton Rouge: Louisiana Geological Survey. 115 pp., 11 2hr videotapes.

- Westphal, K.A., Penland, S., Seal, R.W., Byrnes, M.R. 1992. Aerial videotape survey of coastal Louisiana, Mississippi, and Alabama 1991. Coastal Geology Map Series No. 12. Baton Rouge: Louisiana Geological Survey. 156 pp., 17 2-hr videotapes.
- Westphal, K.A., Penland, S., Seal, R.W., and Morton, R.A. 1992. Aerial videotape survey of Coastal Texas and Louisiana 1992. Coastal Geology Map Series No. 13. Baton Rouge, Louisiana State University. 214 pp., 22 2-hr videotapes.
- Westphal, K.A., Penland, S., Seal, R.W., and List, J., 1993. Aerial videotape survey of the Hurricane Andrew impact zone 1992. Coastal Geology Map Series No. 14. Baton Rouge: Louisiana State University. 4 2-hr videotapes.
- Westphal, K.A., Penland, S., and Seal, R.W., 1994. Aerial videotape survey of the northern Gulf of Mexico 1993. Coastal Geology Map Series No. 15. Baton Rouge: Louisiana State University. 293 pp., 34 2-hr. videotapes.
- Westphal, K.A., Ramsey, K.E., and Zganjar, C.E., 1994. Videotape Survey of the Mississippi River: Baton Rouge to Venice, Louisiana 1994. Coastal Geology Map Series No. 16, Major Inland Waterways Series No. 1. Baton Rouge: Louisiana State University. 78 pp., 18 2-hr videotapes.
- Westphal, K.A., Penland, S., Ramsey, K.E., and Zganjar, C.E., 1995. Aerial Videotape Survey of the Louisiana Shoreline 1994. Coastal Geology Map Series No. 17. Baton Rouge: Louisiana State University. 137 pp., 13 2-hr videotapes.
- Westphal, K.A., Penland, S., Ramsey, K.E., and Zganjar, C.E., 1995. Aerial Videotape Survey of the Intercoastal Waterway; Baton Rouge to New Orleans, Louisiana to Houston, Texas 1995. Coastal Geology Map Series No. 18, Major Inland Waterways Series No. 2. Baton Rouge: Louisiana State University. 217 pp., 11 2-hr videotapes.
- Westphal, K.A., Zganjar, C.E., and Seal, R.W. 1995. Aerial Videotape Survey of the Hurricane Opal Impact Zone October 1994. Coastal Geology Map Series No. 19. Baton Rouge: Louisiana State University. 73 pp., 4 2-hr videotapes.
- Westphal, K.A., Zganjar, C.E., Ramsey, K.E., Maclean, J.L., Penland, S., and Seal, R.W. 1997. Aerial Videotape Survey of the Northern Gulf of Mexico: Brownsville, Texas to Naples, Florida 1996/97. Coastal Geology Map Series No. 20. Baton Rouge: Louisiana State University. 375 pp., 38 2-hr videotapes.
- Westphal, K.A., Zganjar, C.E., Ramsey, K.E., and Maclean, J., 1998. Aerial Videotape Survey of the Mississippi River; Baton Rouge to the Gulf of Mexico 1996. Coastal Geology Map Series No. 21, Major Inland Waterways Series No. 3. Baton Rouge: Louisiana State University. 67 pp., 4 2-hr videotapes.
- Westphal, K.A., Zganjar, C.E., Hoar, P. and Moxey, M., 1999. Aerial Videotape Survey of the Hurricane Georges Impact Zone 1998. Coastal Geology Map Series No. 22. Baton Rouge: Louisiana State University. 5 2-hr videotapes.
- Westphal, K.A., Zganjar, C.E., White, W.A., 2000. Aerial Videotape Survey of the Laguna Madre and Baffin Bay, Texas 1999. Coastal Geology Map Series No. 23. Baton Rouge: Louisiana State University. 54 pp. + app., 6 2-hr videotapes.

- Westphal, K.A., Zganjar, C.E., and Beall, A.D., 2000. Aerial Videotape Survey of the Northern Gulf of Mexico: Louisiana to Florida 1999. Coastal Geology Map Series No. 24. Baton Rouge: Louisiana State University. 102 pp + app., 5 2-hr videotapes.
- Westphal, K.A., Paulsell, R., and Wilkins, J.G., 2001 (in press). Aerial Videotape Survey of Coastal Louisiana 2001. Coastal Geology Map Series No. 25. Baton Rouge: Louisiana State University. 75 pp + app., 7 2-hr videotapes.
- Westphal, K.A., 2002. Aerial Videotape Survey of Coastal Louisiana 2001; Converted to Digital Video on 8DVDs. Louisiana Applied and Educational Oil Spill Research and Development Program Technical Report Series 02-012. Baton Rouge: Louisiana State University. 28 pp + app., 8 DVDs.
- Westphal, K.A., Paulsell, R., and Narayanan, P., 2003. Aerial Video Survey of the lower Mississippi River in Louisiana on DVDs Year One Report: 1996 Baton Rouge to the Gulf of Mexico. Louisiana Applied and Educational Oil Spill Research and Development Program Technical Report Series 03-007. Baton Rouge: Louisiana State University. 24 pp + 3 app., 7 DVDs.
- Westphal, K.A., and Paulsell, R., 2004. Aerial Video Survey of the lower Mississippi River on DVDs Year Two Report: 2003 Baton Rouge to Arkansas. Louisiana Applied and Educational Oil Spill Research and Development Program Technical Report Series 04-010. Baton Rouge: Louisiana State University. 25 pp + 3 app., 8 DVDs.

# **Miscellaneous Investigations Series (I-Maps)**

- McBride, R.A., Penland, S., Jaffe. B., Williams, S.J., Sallenger, A.H., and Westphal, K.A., 1991. Shoreline changes of the Isles Dernieres barrier island arc, Louisiana, from 1853 to 1989. Miscellaneous Investigations Series, Map I-2186, scale 1:75,000 (42 x 58"). U.S. Geological Survey, Reston, Virginia.
- Westphal, K.A., Hiland, M.W., McBride, R.A., and Penland, S., 1991. Historical Shoreline Change in the Northern Gulf of Mexico. Baton Rouge: Louisiana Geological Survey.
- Penland, S., Westphal, K.A., and Zganjar, C., in press. Impact of Hurricane Andrew on the Isles Dernieres in Louisiana. U.S. Geological Survey, Miscellaneous Investigations Series Map I-XXXX.
- Penland, S., Westphal, K.A., and Zganjar, C., in press. Impact of Hurricane Andrew on the Timbalier Islands in Louisiana. U.S. Geological Survey, Miscellaneous Investigations Series Map I-XXXX.
- Penland, S., Westphal, K.A., and Zganjar, C., in press. Impact of Hurricane Andrew on the Caminada-Moreau coast and Grand Isle in Louisiana. U.S. Geological Survey, Miscellaneous Investigations Series Map I-XXXX.
- Penland, S., Westphal, K.A., Zganjar, C. and Williams, S.J., in press. Depositional environments of the Atchafalaya bayhead delta, Louisiana. U.S. Geological Survey, Miscellaneous Investigations Series Map I-XXXX.

# **Conference Proceedings**

- Byrnes, M.R., Penland, S., McBride, R.A., Debusschere, K., Westphal, K.A., and Davis, D.W., 1990. Computer mapping, aerial videotape surveys, and geographic information systems: an integrated approach to developing a shoreline change database. Delineation of Erosion Hazard Shorelands. Great Lakes Shoreland Management Workshop Series, Cleveland, Ohio, p. 21-29.
- Byrnes, M.R., McBride, R.A., Penland, S., Hiland, M.W., and Westphal, K.A., 1991. Historical changes in shoreline position along the Mississippi Sound barrier islands. Coastal Depositional System in the Gulf of Mexico: Quaternary Framework and Environmental Issues. GCSSEPM Foundation 12<sup>th</sup> Annual Research Conference. Houston, TX, December 5.
- Debusschere, K., Handley, L., Michot, T., Penland, S., Reed, D., Seal, R., and Westphal, K., 1990. The geomorphology of the Chandeleur Island wetlands. Transactions, Gulf Coast Association of Geological Societies, Vol.40, pp. 175-176.
- Debusschere, K., Penland, S., Ramsey, K.E., Lindstedt, D., Westphal, K.A., Seal, R.W., McBride, R.A., Byrnes, M.R., and Owens, E.H., 1992. Implementing the shoreline cleanup assessment team process in the Gulf of Mexico. Proceedings of the 1993 International Oil Spill Conference, U.S. Coast Guard, Tampa, Florida, March 29-April 1, p. 95-97.
- Debusschere, K., Penland, S., Ramsey, K.E., Lindstedt, D., Westphal, K.A., Seal, R.W., McBride, R.A., Byrnes, M.R., Owens, E.H., and van Heerden, I.L., 1992. The shoreline cleanup assessment program in the Gulf of Mexico. Seminar on Physical Recovery of Spills. U.S. Coast Guard, 32 p.
- Debusschere, K., Penland, S, Westphal, K.A., and McBride, R.A., 1991. Morphodynamic signature of the storm impact processes at the Isles Dernieres barrier island arc: 1984-1989. GCSSEPM Foundation 12<sup>th</sup> Annual Research Conference Program and Abstracts, December 5, p. 76.
- Debusschere, K., Penland, S, Westphal, K.A., McBride, R.A., Reimer, P.D., 1991. Morphodynamics of the Isles Dernieres Barrier Shoreline, Louisiana: 1984-1989. Coastal Sediments '91: Proceedings of Special Conference, American Society of Civil Engineers, Seattle, WA, June 25-27, p. 1137-1151.
- Debusschere, K., Penland, S., Westphal, K.A., Reimer, P.D., and McBride, R.A., 1991. Aerial Videotape Mapping of Coastal Geomorphic Changes. Coastal Zone '91: Proceedings of 7<sup>th</sup> Symposium on Coastal & Ocean Management, American Society of Civil Engineers, Long Beach, CA, July 8-12, p. 370-390.
- McBride, R.A., Hiland, W.H., Penland, S., Westphal, K.A., and Williams, S.J., 1993. Long-term shoreline change of the Chandeleur Islands barrier system, Louisiana: 1855 to 1989. In: Coastlines of the Gulf of Mexico, Proceedings, 8th Symposium on Coastal and Ocean Management, New Orleans, Louisiana, July 19-23, p. 234-248.
- McBride, R.A., Hiland, M.W., Penland, S., Williams, S.J., Byrnes, M.R., Westphal, K.A., Jaffe, B., and Sallenger, A.H., Jr., 1991. Mapping barrier island changes in Louisiana: techniques, accuracy, and results. Coastal Sediments '91, Proceedings: Specialty Conference, American Society of Civil Engineers, Seattle, WA, June 25-27, p. 1011-1026.
- McBride, R.A., Penland, S., Jaffe, B., Williams, S.J., Sallenger, A.H., and Westphal, K.A., 1989. Erosion and deterioration of the Isles Dernieres barrier island arc, USA: 1853 to 1988. Transactions of Gulf Coast Association of Geological Societies, v. 39: 431-444.

- McBride, R.A., Penland, S., Westphal, K.A., Williams, S.J., and Jaffe, B., (in press). Mapping barrier island changes in Louisiana: Techniques, Accuracy, and Precision. In: Kraus et al. (editors) Coastal Sediments '91. American Society of Civil Engineers, New York, NY (invited paper).
- Penland, S., Debusschere, K., Ramsey, K.E., Lindstedt, D., Westphal, K.A., Seal, R.W., McBride, R.A., Byrnes, M.R., and Owens, E.H., 1993. Implementing the shoreline cleanup assessment team process in the Gulf of Mexico. Proceedings International Oil Spill Conference, American Petroleum Institute, p. 95-97.
- Penland, S., Debusschere, K., Westphal, K.A., Suter, J.R., McBride, R.A., and Reimer, P.D., 1989. The 1985 hurricane impacts on the Isles Dernieres, Louisiana: a temporal and spatial analysis of the coastal geomorphic changes. Transactions of Gulf Coast Association of Geological Societies, v.39: 455-470.
- Penland, S., Suter, J.R., Sallenger, A.H.Jr., Williams, S.J., McBride, R.A., Westphal, K.A., Reimer, P.D., and Jaffe, B.E., 1989. Morphodynamic signature of the 1985 hurricane impacts on the Northern Gulf of Mexico. Coastal Zone '89: Proceedings of 6<sup>th</sup> Symposium on Coastal & Ocean Management, American Society of Civil Engineers, Charleston, SC, July 11-14, p. 4220-4234.
- Penland, S., Westphal, K.A., Mathies, L., Nord, B., Tao, Q., Zganjar, C., 1997. Beneficial Use of Dredged Material in the Mississippi River Delta Plain. Proceedings of the Western Dredging Association Eighteenth Technical Conference and Thirteenth Annual Texas A&M Dredging Seminar, 93pp.
- Westphal, K.A. and S. Penland 2003. Use of Oblique Aerial Video Imagery as a Resource for Coastal Issues. The International Petroleum Environmental Conference, November 13, 2003. Renaissance Houston Hotel, Houston, Texas.

#### **Seminars**

Westphal, K.A., 1995. Applications of Aerial Videotape Surveys in Coastal Research and Planning. LSU oceanography science seminar, Oct 4, 1996. Baton Rouge, Louisiana.

# **Presentations**

- Westphal, K.A., 2002. Digital Access to Aerial Videotape Survey Data. Louisiana Applied and Educational Oil Spill Research and Development Program Conference, May 17, 2002. Pennington Research Center, Baton Rouge, Louisiana.
- Westphal, K.A., 2002. Aerial Video Survey of both Banks of the Mississippi River from Arkansas to Baton Rouge Year One Report. Louisiana Applied and Educational Oil Spill Research and Development Program Conference, May, 2002. Pennington Research Center, Baton Rouge, Louisiana.
- Westphal, K.A., 2003. Aerial Video Survey of both Banks of the Mississippi River from Arkansas to Baton Rouge Year Two Report. Louisiana Applied and Educational Oil Spill Research and Development Program Conference, May 13, 2003. Pennington Research Center, Baton Rouge, Louisiana.

- Westphal, K.A. and S. Penland 2003. Use of Oblique Aerial Video Imagery as a Resource for Coastal Issues. The International Petroleum Environmental Conference, November 13, 2003. Renaissance Houston Hotel, Houston, Texas.
- Westphal, K.A., 2005. Aerial Video surveys on Interactive DVDs 2001 Coastal Louisiana and the Lower Mississippi River Arkansas to the Gulf of Mexico. Minerals Management Service Information Transfer Conference, January 13, 2005. Airport Hilton, New Orleans, Louisiana.

### **Reports and Maps**

- Byrnes, M.R., Hiland, M.W., McBride, R.A., Westphal, K.A., 1991. Pilot erosion rate data study, Harrison County, Mississippi: Final Report, Federal Emergency Management Agency, Office of Risk Management, Washington, D.C.
- Penland, S., Connor, P.F., Cretini, F., and Westphal, K.A., 2003. CWPPRA Adaptive Management: Assessment of Five Barrier Island restoration projects in Louisiana. A report submitted to La. Department of Natural Resources, Baton Rouge, La.
- Penland, S., Ramsey, K.E., McBride, R.A., Mestayer, J.T., and Westphal, K.A., 1987. Relative Sea Level Rise and Wetland Sedimentation in the Teche and Lafourche Delta Complexes: Terrebonne Parish Region, La. Final Report submitted to Terrebonne Parish Consolidated Government, Contract No.83-A/0-36, 231 pp.
- Penland, S., Suter, J.R., McBride, R.A., and Westphal, K.A., 1988. 1985 Hurricane Impacts in the Isles Dernieres: Terrebonne Parish, La. Louisiana Geological Survey, Preliminary Open File Report.
- Penland, S., Suter, J.R., McBride, R.A., and Westphal, K.A., 1988. 1985 Hurricane Impacts in the Bayou Lafourche Barrier Shoreline in Terrebonne, Lafourche, and Jefferson Parishes, La. Louisiana Geological Survey, Preliminary Open File Report.
- Penland, S., Westphal, K.A., Debusschere, K., and McBride, R.A., 1989. The 1985 hurricane impacts on Louisiana's barrier islands: geomorphic changes in the Isles Dernieres:1984-1985. Report prepared by the Louisiana Geological Survey for the U.S. Geological Survey under cooperative agreement No. 14-08-0001-A0416.
- Westphal, K.A. 1986. Indigenous Vegetation of the Proposed Act 41 Pilot Projects: A baseline for Beach Nourishment Recommendations, Louisiana Geological Survey. Coastal Geology Open File Report, 31 pp.
- Westphal, K.A., Hiland, M.W., McBride, R.A., Penland, S., McGraw, D.J., Pond, L.G., and Paulsell, R.L.,1991. Historical Shoreline Change in the Northern Gulf of Mexico. Map prepared for the U.S. Environmental Protection Agency, by the Louisiana Geological Survey, 1 sheet.
- Williams, J.W., Cichon, H.A., Westphal, K.A., and Ramsey, K.R., 1990. Representative publications from the Louisiana barrier island erosion study. U.S. Geological Survey Open File Report 92-530.

# **US Army Corps of Engineers Reports:**

(in chronological order)

- Wayne, L.D., Penland, S., Westphal, K.A., Hiland, M.H., Connor, P., and Zgnajar, C., 1995. Development of a coastal monitoring program to document the benficial use of navigation dredge materials in the U.S. Army Corps of Engineers New Orleans District: Baptiste Collette Bayou Pilot Study. U.S. Army Corps of Engineers New Orleans District, 34p., app.
- Penland, S. and Westphal, K.A., 1996. Part 1: Methodology and Introduction. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 15 p.
- Penland, S., Westphal, K.A., Zganjar, C., Connor, P., Seal, R.W., Mathies, L., Nord, B., and Flanagan, J., 1996. Part 2: Results of monitoring the beneficial use of dredged material at the Lower Atchafalaya River Bay and Bar Navigation Channel: Base year 1985 through Fiscal Year 1994. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 30 p., app.
- Penland, S., Westphal, K.A., Connor, P., Tao, Q., Zganjar, C., Seal, R.W., Mathies, L., Nord, B., and Gunn, R., 1996. Part 3: Results of monitoring the dredged material at the Mississippi River Gulf Outlet Navigation Channel Jetties: Base Year 1985 through Fiscal Year 1994. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 23 p., app.
- Penland, S., Westphal, K.A., Connor, P., Zganjar, C., Wayne, L., Seal, R., Mathies, L., Nord, B., and Gunn, R., 1996. Part 4: Results of monitoring the beneficial use of dredged material at the Baptiste Collette Bayou Navigation Channel: Base year 1976 through Fiscal Year 1994. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 46 p., app.
- Penland, S., Westphal, K.A., Connor, P., Zganjar, C., Tao, Q., Seal, R., Mathies, L., Nord, B., and Gunn, R., 1996. Part 5: Results of monitoring the beneficial use of dredged material at the Mississippi River Gulf Outlet Breton Island: Base year 1985 through Fiscal Year 1994. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 22 p., app.
- Penland, S. and Westphal, K.A., 1997. Part 1: Methodology and Introduction: Base year through Fiscal Year 1996. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 15 p., app.
- Penland, S., Westphal, K.A., Tao, Q., Phillippe, J., Zganjar, C., Connor, R.W., Mathies, L., Nord, B., Creef, E., and Gunn, R., 1997. Part 2: Results of monitoring the beneficial use of dredged material at the Mississippi River Gulf Outlet, Louisiana Inland Reach Vicinity Mile 60-50: Base year 1990 through Fiscal Year 1996. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 30 p., app.
- Penland, S., Westphal, K.A., Tao, Q., Zganjar, C., Phillippe, J., Connor, P., Mathies, L., Nord, B., and Gunn, R., 1997. Part 3: Results of monitoring the dredged material at the Mississippi River Gulf Outlet, Louisiana Jetties Reach: Base Year 1985 through Fiscal Year 1996. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 28 p., app.
- Penland, S., Westphal, K.A., Zganjar, C., Connor, P., Tao, Q., Mathies, L., Nord, B., and Gunn, R., 1997. Part 4: Results of monitoring the beneficial use of dredged material at the Mississippi River Gulf Outlet Breton Island: Base year 1985 through Fiscal Year 1996. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 18 p., app.
- Penland, S., Westphal, K.A., Zganjar, C., Connor, P., Phillippe, J., Tao, Q., Mathies, L., Nord, B., and Gunn, R., 1997. Part 5: Results of monitoring the beneficial use of dredged material at the Baptiste Collette Bayou Navigation Channel: Base year 1976 through Fiscal Year 1996.

- Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 53 p., app.
- Penland, S., Westphal, K.A., Zganjar, C., Phillippe, J., Tao, Q., Connor, P., Mathies, L., Nord, B., Creef, E., and Schilling, F., 1997. Part 6: Results of monitoring the beneficial use of dredged material at the Mississippi River, Baton Rogue to the Gulf of Mexico, Louisiana Southwest Pass: Base year 1985 through Fiscal Year 1996. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 19 p.
- Penland, S., Westphal, K.A., Tao, Q., Zganjar, C., Connor, P., Mathies, L., Nord, B., Creef, E., and Gunn, R., 1997. Part 7: Results of monitoring the beneficial use of dredged material at the Houma Navigation Canal, Louisiana Terrebonne Bay Reach: Base year 1990 through Fiscal Year 1996. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 30 p., app.
- Penland, S., Westphal, K.A., Tao, Q., Zganjar, C., Connor, P., Phillippe, J., Mathies, L., Nord, B., Creef, E., and Flanagan, J., 1997. Part 8: Results of monitoring the beneficial use of dredged material at the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana Lower Atchafalaya River Horseshoe: Base year 1985 through Fiscal Year 1996. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 30 p., app.
- Penland, S., Westphal, K.A., Tao, Q., Zganjar, C., Connor, P., Phillippe, J., Mathies, L., Nord, B., and Flanagan, J., 1997. Part 9: Results of monitoring the beneficial use of dredged material at the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana Atchafalaya Bay/Delta and Bar Channel: Base year 1985 through Fiscal Year 1996. Beneficial Use Monitoring Program, U.S. Army Corps of Engineers New Orleans District, 39 p., app.
- University of New Orleans, 1999. Beneficial use of dredged material monitoring program annual report; Part 1: results of monitoring the beneficial use of dredged material at the Barataria Bay Waterway, La.; Part 2: results of monitoring the beneficial use of dredged material at the Mississippi River Southwest Pass. Report to the U.S. Army Corps of Engineers New Orleans District. University of New Orleans Department of Geology and Geophysics, New Orleans, Louisiana. 117 p., app.
- University of New Orleans, 2001. Beneficial use of dredged material disposal history along select navigational channels in Louisiana and Cumulative Landscape History for the Beneficial Use Monitoring Program sites: 1985-2000. Report to the U.S. Army Corps of Engineers New Orleans District. University of New Orleans Coastal Research Laboratory, New Orleans, Louisiana. 84 p.
- University of New Orleans, 2002. Beneficial use of dredged material monitoring program 2001 annual report; Part 1: results of monitoring the beneficial use of dredged material at the Atchafalaya River Bay and Bar, La.; Part 2: results of monitoring the beneficial use of dredged material at the Atchafalaya River Horseshoe Cut, La; Part 3: results of monitoring the beneficial use of dredged material at the Atchafalaya River Avoca Island, La; Part 4: results of monitoring the beneficial use of dredged material at the Calcasieu Lake. Report to the U.S. Army Corps of Engineers New Orleans District. University of New Orleans Department of Geology and Geophysics, New Orleans, Louisiana. \_\_\_\_ p., app.
- University of New Orleans, 2003. Beneficial use of dredged material disposal history along select navigational channels in Louisiana and Cumulative Landscape History for the Beneficial Use Monitoring Program sites: 1985-2002. Report to the U.S. Army Corps of Engineers New Orleans District. University of New Orleans Lake Pontchartrain Institute, New Orleans, Louisiana. 84 p.

# **US Army Corps of Engineers Map Series:**

(in chronological order)

- Zganjar, C., Westphal, K.A., Tao, Q., Penland, S., Mathies, L., Nord, B., and Flanagan, J., 1995. Habitat inventory map of the Atchafalaya delta in 1985. Beneficial Use Monitoring Program Map Series 1, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Tao, Q., Penland, S., Mathies, L., Nord, B., and Flanagan, J., 1995. Habitat inventory map of the Atchafalaya delta in 1994. Beneficial Use Monitoring Program Map Series 2, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Tao, Q., Penland, S., Mathies, L., Nord, B., and Flanagan, J., 1995. Habitat creation map of the Atchafalaya delta comparing 1985 and 1994. Beneficial Use Monitoring Program Map Series 3, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Tao, Q., Zganjar, C., Westphal, K.A., Penland, S., Mathies, L., Nord, B., and Gunn, R., 1995. Mississippi River Gulf Outlet-Jetties: 1985 to 1995. Beneficial Use Monitoring Program 1995 Map Series 4, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Tao, Q., Penland, S., Mathies, L., Nord, B., and Gunn, R., 1996. Shoreline changes of the Mississippi River Gulf Outlet Breton Island: 1985-1995. Beneficial Use Monitoring Program 1995 Map Series 6, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Tao, Q., Westphal, K.A., Zganjar, C., Penland, S., Mathies, L., Nord, B., and Gunn, R., 1996. Shoreline changes of the Mississippi River South Pass: 1985-1995. Beneficial Use Monitoring Program 1995 Map Series 7, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Tao, Q., Westphal, K.A., Zganjar, C., Penland, S., Mathies, L., Nord, B., and Gunn, R., 1996. Shoreline changes of the Mississippi River Southwest Pass: 1985-1995. Beneficial Use Monitoring Program 1995 Map Series 8, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Penland, S., Mathies, L., Nord, B., and Gunn, R., 1996. Habitat and shoreline changes of the Mississippi River Gulf Outlet, Louisiana Mile 47-59: 1990 to 1996. Beneficial Use Monitoring Program 1996 Map Series #1, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Tao, Q., Zganjar, C., Westphal, K.A., Penland, S., Mathies, L., Nord, B., and Gunn, R., 1996. Habitat and Shoreline changes of the Mississippi River Gulf Outlet, Louisiana Jetties: 1985 to 1996.
  Beneficial Use Monitoring Program 1996 Map Series #2, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Penland, S., Mathies, L., Nord, B., and Gunn, R., 1996. Shoreline changes of the Mississippi River Gulf Outlet, Louisiana Breton Island: 1985 to 1996. Beneficial Use Monitoring Program 1996 Map Series #3, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Penland, S., Mathies, L., Nord, B., and Gunn, R., 1996. Habitat and Shoreline changes of the Mississippi River Outlet, Venice, Louisiana Baptiste Collette Bayou:

- 1975 to 1996. Beneficial Use Monitoring Program 1996 Map Series #4, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Tao, Q., Phillippe, J., Penland, S., Mathies, L., Nord, B., and Schilling, F., 1996. Habitat Inventory of the Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana Southwest Pass: 1985. Beneficial Use Monitoring Program 1996 Map Series #5, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Tao, Q., Phillippe, J., Penland, S., Mathies, L., Nord, B., and Schilling, F., 1996. Habitat Inventory of the Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana Southwest Pass: February 1995. Beneficial Use Monitoring Program 1996 Map Series #6, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Tao, Q., Phillippe, J., Penland, S., Mathies, L., Nord, B., and Schilling, F., 1996. Habitat Inventory of the Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana Southwest Pass: November 1995. Beneficial Use Monitoring Program 1996 Map Series #7, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Phillipe, J., Penland, S., Mathies, L., Nord, B., Schilling, F., 1997. Habitat Inventory of the Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana Southwest Pass: 1996. Beneficial Use Monitoring Program 1996 Map Series #8, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Phillipe, J., Penland, S., Mathies, L., Nord, B., Schilling, F., 1997. Habitat and Shoreline Changes of the Mississippi River, Baton Rouge to the Gulf of Mexico, Louisiana Southwest Pass: 1985 to 1996. Beneficial Use Monitoring Program 1996 Map Series #9, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Tao, Q., Westphal, K.A., Zganjar, C., Penland, S., Mathies, L., Nord, B., Gunn, R., 1997. Habitat and shoreline changes of the Houma Navigation Canal, Louisiana Bay Chaland: 1990 to 1996.
  Beneficial Use Monitoring Program 1996 Map Series #10, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Tao, Q., Phillipe, J., Zganjar, C., Westphal, K.A., Penland, S., Mathies, L., Nord, B., Falanagan, J., 1997.
  Habitat and Shoreline Changes of the Atchafalaya River and Bayous Chene, Boeuf, and Black,
  Louisiana Lower Atchafalaya River Horseshoe: 1985 to 1996. Beneficial Use Monitoring
  Program 1996 Map Series #11, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C., Westphal, K.A., Tao, Q., Penland, S., Mathies, L., Nord, B., and Flanagan J., 1996. Habitat Inventory of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana Atchafalaya Bay/Delta and Bar Channel: 1995. Beneficial Use Monitoring Program 1996 Map Series #12, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C.E., Westphal, K.A., Tao, Q., Penland, S., Mathies, L., Nord, B., Flanagan, J., 1997. Habitat inventory of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana Atchafalaya Bay/Delta and Bar Channel: 1996. Beneficial Use Monitoring Program 1996 Map Series #13, U.S. Army Corps of Engineers New Orleans District, 1 sheet.
- Zganjar, C.E., Westphal, K.A., Tao, Q., Penland, S., Mathies, L., Nord, B., Flanagan, J., 1997. Habitat inventory of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana Atchafalaya Bay/Delta and Bar Channel: 1985 to 1996. Beneficial Use Monitoring Program 1996 Map Series #14, U.S. Army Corps of Engineers New Orleans District, 1 sheet.

# Oil Spill Training Courses Assisted and Manuals Prepared

Tech support at the Kodiak Island Command Center for the 1989 Exxon Valdez Oil Spill.

- LOOP, Inc., 1991. Shoreline cleanup assessment team (SCAT) training program, Burden Plantation, March 19, 1991. Task: SCAT Aerial Video Survey Team/Mapping System.
- LOOP, Inc. Oil Spill Contingency Plan Annual Activation, LOOP Galliano Operations Facility, Galliano, Louisiana, June 29-30, 1993. Role: assisted Operations as aerial video survey team/environmental consultant, as part of Shea Penland's Environmental Field Team for LSU/CCEER.
- 1992 Timbalier Bay Oil Spill Conducted an aerial videotape survey to document oil coverage and condition of the marsh and landscape; trained teams in the biological aspects of SCAT, joined a SCAT team to survey and assess damage. (Greenhill Petroleum Corporation)
- MSRC, 1992. The Coastal Geology and Processes, Habitat Types, and Shoreline Cleanup Methods for the Gulf of Mexico Shoreline Brownsville, Texas to Panama City, Florida. Shoreline Protection and Cleanup Training. 2 Vol. Pp. Marine Spill Response Corporation.

EXXON 1993.

- 1995 San Jacinto Oil Spill Conducted an aerial videotape survey to document the oil coverage and condition of the area; created an "oiling map" from the video showing the degree of oil impact in different areas, for use by the planning and cleanup divisions of the response team.
- 1997 Texaco Lake Barre Oil Spill Conducted an aerial videotape survey to document the oil coverage and condition of the marsh.

#### Bibliography of products and reports from photo-interpretation:

- Penland, S., Mendelssohn, I., Suhayda, J., Westphal, K., Seal, R., 1994. Analysis of the Coastal Land Loss Conditions at the OLGA Southern Natural Gas Facility for the Development of a Site Management Plan. Baton Rouge. 91 pp + appendix.
- Southern Natural Gas Company, 1994. Zinc-Alabaster Pipeline Coastal Erosion Study: 1932-1994. New Orleans, Louisiana. 24 pp.

## Bibliography of products from illustrating:

Kent, G. Comparative Anatomy of the Vertebrates.

Homberger, D.G., and Walker, W.F., Jr., 2000. Vertebrate Dissection, 8th edition.

Homberger, D.G., and Walker, W.F., Jr., 2004. Vertebrate Dissection, 9th edition. Thomson Learning, Inc. Belmont, CA. 377pp – appendices.

Penland, S., and Reed, D., 1995. Coastal Land Loss and management Study of Texaco's Louisiana State Oil and Gas Lease 329 on St. Mary Land and Exploration Company Property. For Texaco Exploration and Production, Inc., New Orleans, La. Baton Rouge, Louisiana. 17pp.

Others not compiled as of this date

#### **CONTRACTS**

<u>LOOP Deepwater Oil Port</u>, 1990. Aerial Videotape Survey of Coastal Louisiana. Principal Investigator with Shea Penland. (\$8,500).

EXXON Company, U.S.A., 1991. Aerial Videotape Survey of Coastal Alabama for Oil Spill Response Planning. Principal Investigator with Shea Penland (\$18,289).

<u>U.S. Coast Guard</u>, 1992. Aerial Videotape Survey of Coastal Texas and Louisiana. Principal Investigator with Shea Penland (\$5,000).

<u>Clean Gulf Associates</u>, 1992. Aerial Videotape Survey of Coastal Texas and Louisiana. Principal Investigator with Shea Penland (\$5,000).

<u>Clean Gulf Associates</u>, 1993. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator with Shea Penland (\$7,500).

<u>Marine Industry Response Group</u> (MIRG), 1994. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator with Shea Penland (\$10,000).

<u>Marine Spill Response Corporation</u> (MSRC), 1994. Aerial Videotape Survey of the Northern Gulf of Mexico and the Intracoastal Waterway. Principal Investigator with Shea Penland (\$49,995).

<u>Unocal</u>, 1994. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator with Shea Penland (\$5,000).

Marathon, 1994. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator with Shea Penland (\$3,750).

<u>Mobil</u>, 1994. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator with Shea Penland (\$2,500).

<u>Louisiana Offshore Oil Port, Inc.</u>, 1994. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator with Shea Penland (\$2,500).

<u>U.S. Geological Survey</u>, 1995. Aerial Videotape Survey of the Hurricane Opal impact zone. Principal investigator with Shea Penland (\$25,000)

<u>U.S. Geological Survey</u>, 1995-1996. Analysis of the impact of hurricane Andrew on Louisiana's barrier islands and coastal wetlands. Principal Investigator with Shea Penland (\$60,000).

<u>U.S. Geological Survey</u>, 1996-1997. Analysis of the 1995 hurricane season on Louisiana's barrier islands. Principal Investigator with Shea Penland (\$35,000).

<u>U.S. Army Corps of Engineers</u>, 1994-1996. Monitoring wetland creation associated with the beneficial use of navigation dredged materials in the Army Corps of Engineers - New Orleans District, Louisiana. Principal Investigator with Shea Penland and Lynda Wayne (\$1,096,342).

Exxon Company, USA, 1996-1997. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator (\$5,000).

<u>Clean Channel</u>, 1996-1997. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator (\$5,000).

<u>Texaco</u>, 1996-1997. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator (\$5,000).

<u>Mississippi Department of Environmental Quality</u>, 1996-1997. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator (\$5,000).

Shell Offshore, 1996-1997. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator (\$5,000).

<u>Marine Industries Response Group.</u> 1996-1997. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator (\$10,000).

<u>Clean Gulf Associates</u>, 1996-1997. Aerial Videotape Survey of the Northern Gulf of Mexico. Principal Investigator (\$5,000).

<u>U.S. Army Corps of Engineers</u>, 1997. Monitoring wetland creation associated with the beneficial use of navigation dredged materials in the Army Corps of Engineers - New Orleans District, Louisiana. Principal Investigator with Shea Penland and Qiang Tao (\$237,600)

<u>U.S. Army Corps of Engineers</u>, 1997. Monitoring wetland creation associated with the beneficial use of navigation dredged material in the U.S. Army Corps of Engineers, New Orleans Solicitaion No. DACW29-97-R-0018. Co-Principal Investigator with Shea Penland (\$81,793).

<u>Texas General Land Office</u>, 1997. Aerial Videotape Survey for shoreline mapping Texas Central Coastal Bay Region. Principal Investigator with Karen Ramsey. (\$36,259)

Aramco, 1997. LSU Aerial Videotape Survey. Principal Investigator (\$5,000).

<u>University of New Orleans</u>, 1997-1998. Shoreline position and shoreline type mapping in the Pontchartrain basin. Subcontract to the U.S. Geological Survey. Principal Investigator (\$40,208).

<u>Entergy Services, Inc.</u>, 1998. Shoreline Change analysis in the Barataria-Terrebonne Mitigation Bank, Louisiana. Principal Investigator with Shea Penland (\$9,998).

<u>University of New Orleans</u>, 1998. Production of digital mosaics of navigation channels operated and maintained by the U.S. Army Corps of Engineers - New Orleans District, Louisiana. Subcontract to the U.S. Army Corps of Engineers, Solicitation No. DACW-29-97-R-0049, Contract No. DACW-29-98-D-0008. Principal Investigator (\$18,082).

<u>University of New Orleans</u>, 1998-1999. Shoreline change and shoreline type mapping in the Pontchartrain basin. Subcontract to the U.S. Geological Survey. Principal Investigator (\$47,538). Amendment 1- added \$18,990 to include post-Hurricane Camille Chandeleur shoreline.

<u>University of New Orleans</u>, 1998-1999. Habitat inventory, habitat change and dredging history of the Barataria Bay Waterway-Bay and Grand Terre and Southwest Pass navigation channels operated and maintained by the U.S. Army Corps of Engineers - New Orleans District, Louisiana. Subcontract to the U.S. Army Corps of Engineers, Solicitation No. DACW-29-97-R-0049, Contract No. DACW-29-98-D-0008. Principal Investigator (\$26,407).

<u>University of New Orleans</u>, 1999. Preparation of the 1999 Annual Report for the Barataria Bay Waterway-Bay and Grand Terre and Southwest Pass navigation channels operated and maintained by the

U.S. Army Corps of Engineers - New Orleans District, Louisiana. Subcontract to the U.S. Army Corps of Engineers, Solicitation No. DACW-29-97-R-0049, Contract No. DACW-29-98-D-0008. Principal Investigator with Chris Zganjar (\$51,709). 4106

<u>Texas General Land Office</u>, 1999. Aerial Videotape Survey of the Lower Laguna Madre and Baffin Bay, Texas 1999. Principle Investigator (\$39,697).

<u>U.S. Geological Survey</u>, 1999. Aerial Videotape Survey of Northern Gulf of Mexico Barrier Shoreline. Principle Investigator (\$9,999)

<u>University of New Orleans</u>, 2000. Continuation of Shoreline Mapping in the Pontchartrain Basin. Principle Investigator (\$20,000) 4111

University of New Orleans, 2000.

Principle Investigator (\$24,204) 4112/6106

<u>La. Applied Oil Spill Research and Development Program</u>, 2001. Digital Access to Aerial Videotape Survey Data.

Principle Investigator (\$42,202) 4116

<u>Department of Natural Resources</u>, 2001. Lafourche Barrier Restoration Cooperative Project. Principle Investigator (\$9,216) 4125

<u>University of New Orleans/ USACE</u>, 2002. Dredging History for the Beneficial Use of Dredged Material Program along Selected Navigation Channels.

Principle Investigator (\$24,000) 4128

<u>University of New Orleans / USACE</u>, 2002. Habitat Inventory and Report Preparation for the Beneficial Use of Dredged Material Program.

Principle Investigator (\$9,997) 4129/5700

University of New Orleans, 2002. Chandeleur Island Habitat Delineation.

Principle Investigator (\$4,700) 4132

<u>University of New Orleans</u>, 2002. Habitat analysis of Select Louisiana Barrier Islands.

Principle Investigator (\$9,999) 6109

<u>University of New Orleans</u>, 2003. Habitat delineation of Selected Reaches of the Louisiana Gulf of Mexico Shoreline.

Principle Investigator (\$31,584) 6114

<u>La. Applied Oil Spill Research and Development Program</u>, 2002/2003. Aerial Video Survey of Both Banks of the Mississippi River in Louisiana - Arkansas to the GOM.

Principle Investigator (\$105,914 for 2 years) 4150/4151

<u>University of New Orleans</u>, 2003. Video as part of the UNO/NOAA Digital Coast Program. Completion date of September 2005.

Principle Investigator (\$9,999)

<u>City of Baton Rouge/Parish of E Baton Rouge and LDEQ</u>, 2003-2005. Mitigating Non-point Source Pollution in Urban Watersheds with Spatial Modeling, Best Management Practices for Wetlands, and Community Outreach. Paul Kemp PI.

Technical support. 2mos/yr. 169-85-4141

<u>University of New Orleans</u>, 2004. Development of a state-wide beneficial use of dredged material program. Principle Investigator (\$9999). 169-85-4148.

<u>LA Department of Natural Resources and the US Army Corps of Engineers</u>. 2005-2008. Coastal Louisiana Ecosystem Assessment and Restoration (CLEAR) Program. Dr. Robert Twilley PI. Project Management and executive assistant. 6-10 mos/yr. 169-54-4118.

169-85-4163 169-85-4156