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GREG "RUDI" RUDOLPH
CHAIRMAN

SPENCER ROGERS
CO- VICE CHAIR

ROBERT OUTTEN
CO-VICE CHAIR

JOHN BRODMAN

JETT FEREBEE

JOHNNY MARTIN

BETH MIDGETT

J. MICHAEL MOORE

DAVID MOYE

Kris Noble

KATHLEEN RIELY

TODD ROESSLER

FRANK RUSH

DEBBIE SMITH

DAVE WEAVER

LEE WYNNS

NC COASTAL RESOURCES ADVISORY COUNCIL

September 27, 2017

New Hanover County Government Center

Wilmington, NC

10:00 CALL TO ORDER*

- Roll Call
- Announcements
- Approval of July 12, 2017 Meeting Minutes

Greg Rudolph, Chair

10:10 CRAC NOMINATION

(Memorandum attached)

Greg Rudolph, Chair

10:20 LOCAL GOVERNMENT TOP ISSUES

(Memorandum and Spreadsheet attached)

Greg Rudolph, Chair

11:20 OLD/NEW BUSINESS

Flood Insurance Rate Maps

Greg Rudolph, Chair

11:30 ADJOURN



N.C. Division of Coastal Management

www.nccoastalmanagement.net

Next Meeting: November 7-8, 2017; Atlantic Beach

**NC Coastal Resources Advisory Council
July 11, 2017
Holiday Inn
Greenville, NC
Meeting Summary**

Attendance

Greg "rudi" Rudolph (Chair)	Spencer Rogers (Co-Vice Chair)
John Brodman	Kris Noble
Jett Ferebee	Robert Outten
Johnny Martin	Todd Roessler
Michael Moore	Dave Weaver
David Moye	Lee Wynns

Call to Order

Rudi Rudolph called the meeting to order with 12 members in attendance and the minutes were approved unanimously.

CRAC Nominations

Rudi Rudolph began discussing possible new members to the CRAC. Rudi explained that the CRAC consists of 20 at-large members and currently there are four vacancies and that the CRAC needs more representation from the inner banks. The CRAC unanimously approved recommending to the CRC the following nominations to the CRAC:

Seth Laughlin
Cindy Bohmert
Nancy White
David Kellum

Prioritizing Top Issues

The council began discussing the need to prioritize top issues that have been submitted by the local governments. The council agreed to create a subcommittee consisting of Johnny Martin, David Moye, Rudi Rudolph, and Robert Outten to help narrow the top issues for the council to discuss.

Adjourn

With no further business the Council adjourned and joined the CRC meeting.

North Carolina Coastal Resources Advisory Council



GREG "RUDI" RUDOLPH
CHAIRMAN

SPENCER ROGERS
CO- VICE CHAIR

ROBERT OUTTEN
CO-VICE CHAIR

CANDY BOHMERT

JOHN BRODMAN

JETT FEREBEE

DAVID KELLAM

SETH M. LAUGHLIN

JOHNNY MARTIN

BETH MIDGETT

J. MICHAEL MOORE

DAVID MOYE

Kris Noble

KATHLEEN RIELY

TODD ROESSLER

DEBBIE SMITH

DAVE WEAVER

NANCY WHITE, PH.D

LEE WYNNS

Memorandum

From: Greg "rudi" Rudolph
Date: September 27, 2017
Re: **CRAC Nomination**

Subsequent to our July meeting, Frank Rush (Emerald Isle) elected to step down from the CRAC creating a vacancy on the Council. To this end, we just solicited nominations for CRAC membership earlier this year and selected four new members at our July meeting that were subsequently appointed by the CRC. Rather than starting a new search for nominations, it is recommended we revisit the nominations that were submitted to us previously and select a nomination for the CRC's consideration at our September 27th meeting. The list of nominations provided to us formerly (and one late submission) is below and the resumes for the individuals are attached. We currently have 19 sitting CRAC members out of the allotted 20.

NOMINATIONS		
Name	By	
Samuel Corbett, III	Pender County	
Harvey M. (Skip) Lee	Town of Bayboro	
Seth M. Laughlin	Beaufort County	
Nancy White, Ph.D.	Town of Nags Head	
Ann Keyes	Washington County	
Candy Bohmert	Pamlico County	
George E. Taylor, Jr., Ph.D.	City of Elizabeth City	
Frank V. Tursi	Town of Swansboro	
David Kellam	Figure Eight Homeowners' Association	
Dallas O. Blackiston	City of New Bern	

Willis, Angela

From: Town of Bayboro <townofbayboro@gmail.com>
Sent: Thursday, June 08, 2017 9:31 AM
To: Willis, Angela
Subject: CRAC Nomination

During the Bayboro Town Council meeting of June 6, 2017, the council nominated and approved Harvey M. (Skip) Lee as it's CRAC member. Skip is the Pamlico County Chief Building Inspector, CAMA LPO and serves as Zoning Administrator and CAMA/LPO for Bayboro.

Thank you,

--

Joan Spain Leary
Town Clerk/Finance Officer
Town of Bayboro
PO Box 519
301 Main Street
Bayboro, NC 28515
252-745-4238 Phone
252-745-6030 Fax

MAYOR
JOSEPH W. PEEL
MAYOR PRO-TEM
ANITA HUMMER
CITY MANAGER
RICHARD C. OLSON
CITY CLERK
VIVIAN WHITE, NCCMC



CITY COUNCIL MEMBERS
JEAN M. BAKER
MICHAEL E. BROOKS
RAYMOND T. DONNELLY
DARIUS J. HORTON
RICKEY E. KING
TONY STIMATZ
JOHNNIE B. WALTON

CITY OF ELIZABETH CITY

May 31, 2017

NC Division of Coastal Management
400 Commerce Avenue
Morehead City, NC 28557

Attn: Angela Willis (Angela.Willis@ncdenr.gov)

Dear Ms. Willis:

Pursuant to a letter received by the City of Elizabeth City dated April 19, 2017 from the North Carolina Coastal Resources Advisory Council, the City Council of the City of Elizabeth City voted unanimously to nominate for appointment Dr. George E. Taylor, Jr. to the Coastal Resources Advisory Council.

Dr. Taylor is a retired professor at George Mason University living in Pasquotank County. As you will see from his attached resume, his background lies in biogeography, the sciences and ecology. The Elizabeth City Council believes that his experience makes him uniquely qualified to serve on the CRAC.

If you require additional information regarding this matter, please feel free to let me know.

Sincerely,

Vivian D. White, CRC/NCCMC
City Clerk

/vdw

Attachment

Resume

GEORGE E. TAYLOR, JR.

Retired Professor
Department of Geography and Geoinformation Science
George Mason University
4400 University Drive
Fairfax, VA 22030-4444

gtaylor@gmu.edu

getaylornc@gmail.com

professortaylorGMU@gmail.com

EDUCATION

B.S., Randolph-Macon College, 1971
Ph.D., Emory University, 1976
Postdoctorate in Plant Physiology and Ecology, National Academy of
Sciences/National Research Council, 1977-1979

CIVIC ACTIVITIES

Coastal Wildlife Refuge Society, Alligator River NWR
Board member (2009-2014) and (2016-present)
President (2010-2014)
Elizabeth City Sunrise Rotary Club (2008-2010)
Fairfax City Rotary, 1998-2006
Vice-President, President-Elect and President (2001-2003)
Executive Committee
Paul Harris Fellow
President, Fairfax Rotary Foundation, 2003-2005
Reno Downtown Rotary Club, 1993-1998
Rotary Youth Exchange Program
Executive Committee

PROFESSIONAL ACADEMIC EXPERIENCE

George Mason University (1998-2016)
Retired - 2016
Professor, Department of Geography and Geoinformation Science
2001-2016
Senior Associate Dean, School of Computational Sciences, 2002-2007
Science Coordinator, Undergraduate Honor's Program, 2000-2007
Chair and Professor, Department of Biology, 1998-2000
University and Community College System of Nevada (1990-1998)
Assistant Dean, College of Agriculture at UNR, 1997-1998
Chair and Professor, Department of Environmental and Resource
Sciences at UNR, 1990-1997
Associate Director, Center for Environmental Sciences and
Engineering (UNR), 1994-1995
Director, Graduate Program in Environmental Sciences and Health
(UNR), 1994-1995
Oak Ridge National Laboratory (1979-1989)
R&D Group Leader in Physiological Ecology, Environmental Sciences
Division, 1985-1989

Research Staff Member, Environmental Sciences Division, 1983-1989
Research Associate, Environmental Sciences Division, 1980-1983
U.S. National Academy of Sciences-National Research Council Postdoctoral
Fellow in Plant Physiology, 1977-1979
Instructor, Agnes Scott College, 1975-1977

RESEARCH INTERESTS

Biogeography
Science and the Public Policy
Science and Mathematics Education and Training
Application of Remote Sensing and GIS to Ecology
Ecology, Physiology and Population Biology of Plants
Ecological Toxicology and Risk Assessment
Atmospheric Chemistry and Air Quality

BUSINESS ENDEAVORS

Scientific and Technical Editing (2015-present)
<http://www.professortayloredit.com/>

COURSES TAUGHT (Graduate and Undergraduate)

Guns, Germs and Steel (Honors Program)
Scientific Thought and Processes (Honors Program)
Astrobiology: Origin of Life in the Universe
Regional and Global Issues in Environmental Science
Biogeography: Distribution of Plants and Animals
Biology of Invasive Species
Plant Ecophysiology
Oral and Written Communication Skills for Scientists
Issues in Atmospheric Chemistry and Air Quality

PROFESSIONAL HONORS, ACTIVITIES, AND APPOINTMENTS

Coastal Wildlife Refuge Society, 2007-2012 and 2106-present
President, 2007-2012
Editor, Terrestrial Ecology and Plants, *Environmental Toxicology and Chemistry*, Society for Environmental Toxicology and Chemistry, 2001-2006
Scientific Advisory Committee, National Park Service, National Capitol Region, 2002-2003
Science Advisory Panel, U.S. Environmental Protection Agency
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Committee, 2001-2005
Food Quality Protection Act Board, 2001-2005
Organizing Committee, International Conference on Ecotoxicogenomics, September, 2002 (Pensacola, Florida)
American Chemistry Council, Environmental Technical Implementation Panel, 2000-2003
Invasive Species Advisory Committee, Risk Assessment and Management

Subcommittee, 2000-2003
 Science Advisory Committee, Department of Environmental Quality, State of Virginia, 2000-2003
 Science Advisory Board, U.S. Environmental Protection Agency
 Member, Ecological Risk Assessment Committee, Iron Smelters, 2000-2005
 Member, Clean Air Act Compliance Council, Physical Effects Review Subcommittee, 1994-2002
 Member, Health and Ecological Effects Subcommittee, 1997-2002
 Member, Residual Risk Subcommittee, 1998-2006
 Member, Clean Air Scientific Advisory Committee, 1986-1997 and 2001-2003
 ESCOP/ACOP Leadership Development Program, US Department of Agriculture, 1996-1997
 Editorial Board, *Journal of Environmental Quality*, 1988-1995
 Editorial Advisory Board, *Tree Physiology*, 1989-1998
 Editorial Board, *Society for Environmental Toxicology and Chemistry*, 1996-1998
 Scientific Planning Committee, "3rd Urals Symposium: Human Health and Radioecology of Contaminated Landscapes in the Ural Mountains", Ekaterinburg, Russia, May 1995
 5th International Conference on Acidic Deposition: Science and Policy, Gothenburg, Sweden, June 1995; Scientific Planning Committee, International Advisory Group, 1994-1995
 Organizer, "Symposium on Mercury Contamination in Arid and Semiarid Landscapes" November, 1994, Denver, Colorado
 Science Advisory Committee, University of California-Davis' Center of Excellence in Ecological Health, U.S. Environmental Protection Agency, 1992-1993
 Organizer, National/International Symposium "National Needs for Controlled Environments in the Ecological and Environmental Sciences" February, 1993, Lake Tahoe, Nevada
 Member, Coal Fuel Cycle Peer Review Panel, Secretary of Energy's Advisory Committee, 1992-1993
 Organizer, International Symposium "Ecological Genetics, Terrestrial Vegetation, and Anthropogenic Changes in the Physical and Chemical Properties of the Atmosphere" April, 1989, Phoenix, Arizona; proceedings published by Springer-Verlag, New York
 Natural Sources Task Group, U. S. Interagency Task Force on Acid Precipitation, 1982-1990
 Editor, Physiological Section Newsletter, Botanical Society of America, 1983-1985
 Executive Steering Committee, International Air Pollution Workshop, 1980-1983
 Society of Sigma Xi, 1974
 Phi Beta Kappa, 2001
 Who's Who in American Colleges and Universities, 1971
 Omicron Delta Kappa, Beta Beta Beta and Chi Beta Phi, 1970

PUBLICATIONS: Book

Taylor, G.E. Jr., L.F. Pitelka and M.K. Clegg (editors). 1991. *Plant Ecological Genetics and Air Pollution*. Springer-Verlag, New York, 354 pp.

PUBLICATIONS: Manuscripts (underlined co-authors are students)

Lostritto, P.L. and G.E Taylor Jr. Effects on Piping Plover (*Charadrius*

melodus Ord) Foraging Habitat from Sea-level Rise: A Geographic Information Systems Approach. Maryland Birding (in press)

- Garnet, K.N., L. Litchfield, P. Megonigal and G.E. Taylor, Jr. 2006. Methane emission from four aquatic macrophytes: variation among species and sites of physiological control. *Aquatic Botany* 81; 141-155.
- Tarnay, L, A. Gertler and G.E Taylor, Jr. 2002. An inferential model for HNO₃ deposition to semi-arid coniferous forests. *Atmospheric Environment* 36: 3277-3287
- Taylor, G.E., Jr. 2002. Ecological risk characterization of low dose, high potency herbicides. pp 129-158 IN S.A. Ferenc (ed) *Impact of Low Dose, High Potency Herbicides on Nontarget Plants*. Society for Environmental Toxicology and Chemistry Press, Pensacola, FL.
- Taylor, G.E., Jr. 2001. Invited review: Risk assessment of tropospheric ozone: human health, natural resources and ecology. *Human and Ecological Risk Assessment* 7:1183-1193.
- Tarnay, L., A.W. Gertler, R.R. Blank and G.E. Taylor, Jr. 2001. Preliminary measurements in the Lake Tahoe Basin air-shed: implications for dry deposition of atmospheric nitrogen. *Environmental Pollution* 113:145-153.
- Taylor, G.E., Jr. 2000. Invited plenary review: Fifty years of ozone research in the United States - a retrospective and prospective analysis. pp 1-11 IN W-J Weigel and M. Finck (editors) *Tropospharisches Ozon*. Kommission Reinhaltung der Luft (KRdL) Im VDI UND DIN - Normenausschuss, Dusseldorf, Germany.
- Taylor, G.E., Jr., K. Beck, L. Tarnay and M. Gustin. 1999. Dry deposition of trace pollutant gases to high elevation forests in the Southern Sierra Nevada Mountains: results from process-level modeling. Pp 555-564 in 5th National Watershed Conference; Living in Your Watershed. Reno, NV.
- Leonard, T.D., G.E. Taylor, Jr., M.S. Gustin and G.C. Fernandez. 1998. Mercury and plants in contaminated soils: 1. Uptake, partitioning and emission to the atmosphere. *Environmental Toxicology and Chemistry* 17: 2063-2071.
- Leonard, T.D., G.E. Taylor, Jr., M.S. Gustin and G.C. Fernandez. 1998. Mercury and plants in contaminated soils. 2. Environmental and physiological factors governing flux to the atmosphere. *Environmental Toxicology and Chemistry* 17: 2072-2079.
- Taylor, G.E., Jr. 1998. Forest ecosystems and air pollution: the importance of multiple stress interactions at a regional and global scale. pp. 23-39 IN J.J. Cech, B.W. Wilson and D.C. Crosby (eds.) *Effects of Multiple Impacts on Ecosystems*, Lewis Publishers, Chelsea, MI.
- Heath, R.L. and G.E. Taylor, Jr. 1997. Physiological processes affecting plant responses to ozone exposure. pp 317-368 IN H. Sander mann, Jr., A.R. Wellburn and R.L. Heath (eds.) *Forest Decline and Ozone: A Comparison of Controlled Chamber and Field Experiments*. Springer-Verlag, New York, NY.
- Constable, J.A. and G.E. Taylor, Jr. 1997. Modeling the effects of elevated tropospheric ozone on two varieties of *Pinus ponderosa*. *Canadian Journal of Forestry Research* 27:527-537.

- Gustin, M.S., G.E. Taylor, Jr. and R.A. Maxey. 1997. Effect of temperature and air movement on the flux of elemental mercury from substrate to the atmosphere. *Journal of Geophysical Research* 102: 3891-3898.
- Gustin, M.S., G.E. Taylor, Jr., T.L. Leonard, and R.E. Keisler. 1996. Atmospheric mercury concentrations associated with geologic and anthropogenic enriched sites in central western Nevada. *Environmental Science and Technology* 30: 2572-2579.
- Taylor, G.E., Jr., K. Beck, J. Geddes, M. Gustin and G. Lorson. 1996. Microbial ecology, toxicology and chemical fate of methylisothiocyanate in riparian soils of the upper Sacramento River. *Environmental Toxicology and Chemistry* 15: 1694-1701.
- Constable, J.A., G.E. Taylor, Jr., J.A. Laurence and J.A. Weber. 1996. Climate change effects on the physiology and growth of *Pinus ponderosa*: expectations from simulation modeling. *Canadian Journal of Forestry Research* 26: 1315-1325.
- Geddes, J., G. Miller and G.E. Taylor, Jr. 1995. Photolysis of methylisothiocyanate. *Environmental Science and Technology* 29: 2590-2594.
- Gustin, M.S., G.E. Taylor, Jr. and T. Leonard. 1995. Atmospheric mercury concentrations above mercury contaminated mill tailings in the Carson River Drainage Basin, NV. *Water, Air and Soil Pollution* 80: 217-220.
- Warwick, J.J., G. E. Taylor, Jr., D.M. Wayne, S.J. Haness and W.B. Lyons. 1994. Understanding the transport and fate of mercury within the Carson River system, Nevada - a rational approach to remediation evaluation. IN C.R. Cothorn (ed.) *Trace Substances, Environment and Health*. Science Reviews, Norwood Press.
- Taylor, G.E., Jr., D.J. Johnson and C.P. Andersen. 1994. Commissioned review - Air pollution and forest ecosystems: a regional to global perspective. *Ecological Applications* 4: 662-689.
- Gustin, M.E., G.E. Taylor, Jr. and T. Leonard. 1994. High levels of mercury contamination in the Carson River Drainage Basin of Nevada: Implication for human health and ecological risk assessment. *Environmental Health Perspectives* 102: 772-778.
- Taylor, G.E., Jr. 1994. Controlled environment facilities in ecology and the environmental sciences.
 Bulletin of the Ecological Society of America 75: 277-280.
 Society of Environmental Toxicology and Chemistry News 14: 12-13.
- Taylor, G.E., Jr. and J.V.H. Constable. 1994. Modeling pollutant deposition to vegetation: scaling down from the canopy to the biochemical level. pp. 15-37 IN: K.E. Percy, J.N. Cape R. Garrels and C.J. Simpson (eds.) *Air Pollution and The Leaf Cuticle*, NATO ASI Series G; Ecological Sciences, Springer-Verlag, Heidelberg, Germany.
- Taylor, G.E., Jr. 1994. Role of genotype in the response of Loblolly Pine to tropospheric ozone: effects at the whole-tree, stand and regional level. *Journal of Environmental Quality* 23: 63-82.

- Kelly, J.M., G.E. Taylor, Jr., N.T. Edwards, M.B. Adams, G.S. Edwards and A.L. Friend. 1993. Growth, physiology and nutrition of Loblolly Pine seedlings as impacted by air pollution stress: the ROPIS-South results. *Water Air Soil Pollution* 69: 363-391.
- Taylor, G.E., Jr. 1993. An a priori screening methodology to identify air toxics of potential ecological concern: a methodology for quantitative risk assessment. pp. 220-234 IN: W. Chow and K.K. Connor (eds.) *Managing Hazardous Air Pollutants*. Lewis Publishers, Ann Arbor, MI.
- Taylor, G.E., Jr., J.G. Owens and T. Grizzard. 1993. Atmosphere-canopy interactions of nitric acid vapor generated during ozone exposure of loblolly pine (*Pinus taeda* L.) seedlings in open-top chambers. *Journal of Environmental Quality* 22: 70- 80.
- Taylor, G.E., Jr. and P.J. Hanson. 1992. Forest trees and tropospheric ozone: role of canopy deposition and leaf uptake in developing exposure-response relationships. *Agriculture Ecosystems and Environment* 42: 255-273.
- Lindberg, S.E., T.P. Meyers, G.E. Taylor, Jr., R.R. Turner and W.H. Schroeder. 1992. Atmosphere/surface exchange of mercury in a forest: results of modeling and gradient approaches. *Journal of Geophysical Research* 97: 2519-2528.
- Taylor, G.E., Jr. and L.F. Pitelka. 1992. Genetic diversity of plant populations and the role of air pollution stress. pp. 111-130 IN: (J. R. Barker and D. T. Tingey, eds.) *Air Pollution Effects on Biodiversity*, Van Nostrand Reinhold, New York.
- Friend, A.L., P.T. Tomlinson, R.E. Dickson, E.G. O'Neill, N.T. Edwards, and G.E. Taylor, Jr. 1992. Biochemical composition of loblolly pine reflects pollutant exposure. *Tree Physiology* 11: 35-47.
- Taylor, G.E., Jr. 1992. Application of the two-layer stagnant film model to atmosphere-leaf exchange of trace gases. pp. 1069-1080 IN: (S. E. Schwartz and W. G. N. Slinn, eds.) *Precipitation Scavenging and Atmosphere-Surface Exchange. Volume 2 - The Semonin Volume: Atmosphere-Surface Exchange Processes*, Hemisphere Publishing Corporation, Washington, D. C.
- Garten, C.T., Jr. and G.E. Taylor, Jr. 1992. Foliar $\delta^{13}C$ within a temperate deciduous forest: spatial, temporal, and species sources of variation. *Oecologia* 90: 1-7.
- Edwards, N.T., G.L. Edwards, J.M. Kelly and G. E. Taylor, Jr. 1992. Three-year growth responses of *Pinus taeda* L. seedlings to rain chemistry, soil magnesium status, and tropospheric ozone. *Water, Air, Soil Pollution* 63: 105-118.
- Edwards, N.T., G.L. Edwards, J.M. Kelly and G.E. Taylor, Jr. 1992. Three-year growth responses of *Pinus taeda* L. seedlings to rain chemistry, soil magnesium status, and tropospheric ozone. *Water, Air, Soil Pollution* 63: 105-118.
- Hanson, P.J. and G.E. Taylor, Jr. 1992. Experimental laboratory measurements

of reactive N gas deposition to forest landscape surfaces: biological and environmental controls. pp. 166-177 IN: (D. W. Johnson and S. E. Lindberg, eds.) Atmospheric Deposition and Forest Nutrient Cycling, Springer-Verlag, New York.

Taylor, G.E., Jr. and M.M. Ross-Todd. 1992. Patterns of tropospheric ozone in forested landscapes of the Integrated Forest Study. pp. 50-71 IN: (D. W. Johnson and S. E. Lindberg, eds.) Atmospheric Deposition and Forest Nutrient Cycling, Springer-Verlag, New York.

Taylor, G.E. Jr., L.F. Pitelka, and M.K. Clegg. 1991. Introduction. pp. 1-16 IN: Taylor, G.E. Jr., L.F. Pitelka, and M.K. Clegg (eds.). Plant Ecological Genetics and Air Pollution. Springer-Verlag, New York.

Lindberg, S.E., R.R. Turner, R.R. Myers, G.E. Taylor, Jr. and W.H. Schroeder. 1991. Atmospheric concentrations and deposition of airborne Hg to a deciduous forest at Walker Branch Watershed. Water, Air, Soil Pollution 56: 577-594.

Gunderson, C.A. and G.E. Taylor, Jr. 1991. Direct effects of ethylene on foliar gas exchange in Glycine max L. Plant Physiology 95: 337-339.

Adams, M.B., J.M. Kelly, G.E. Taylor, Jr. and N.T. Edwards. 1990. Growth of five families of Pinus taeda L. during three years of ozone exposure. New Phytologist 116: 689-694.

Taylor, G.E., Jr., P.J. Hanson and S.E. Lindberg. 1990. Deposition of trace gases in controlled environments: a conceptual model, experimental methodologies, and application of results to the disciplines of physiological ecology and biogeochemistry. pp 194-215 IN: (H. D. Payer, ed.) Environmental Research with Plants in Closed Chambers (Air Pollution Research Report 26, Commission of the European Communities), Brussels.

Adams, M.B., N.T. Edwards, G.E. Taylor, Jr. and B.L. Skaggs. 1990. Whole-plant ¹⁴C-photosynthate allocation in loblolly pine (Pinus taeda L.): Seasonal patterns at ambient and elevated ozone levels. Canadian Journal of Forestry Research 20: 152-158.

Edwards, N.T., G.E. Taylor, Jr., M.B. Adams, G.L. Simmons and J.M. Kelly. 1990. Ozone, acidic rainfall, and soil magnesium effects on growth and foliar pigments of Pinus taeda L. Tree Physiology 6: 95-104.

Hanson, P.J. and G.E. Taylor, Jr. 1990. Modeling pollutant gas uptake by leaves: an approach based on physiocochemical properties. pp. 351-356, IN: Forest Growth: Process Modeling of Responses to Environmental Stress, TimberPress/Auburn University, Auburn, Alabama.

Adams, M.B. and G.E. Taylor, Jr. 1990. Effects of ozone on forests in the northeastern United States. pp. 145-168 IN: E. Calabrese (ed.). Proceedings of Conference on Ozone Risk Communication. Lewis Publishers, Chelsea, Michigan.

Trivelpiece, A.W., P.D. Fairchild, W. Fulkerson, A.E. Green, A.M. Perry, J. D. Regan, G.E. Taylor, Jr., and R.I. Van Hook. 1989. Environmental, health, and CFC substitution aspects of the ozone depletion issue. ORNL/TM -6552, Oak Ridge National Laboratory, Oak Ridge, TN 37831.

- Johnson, D.W. and G.E. Taylor, Jr. 1989. The role of air pollution in forest decline in eastern North America. *Water, Air and Soil Pollution* 48: 21-43.
- Hanson, P.J., K. Rott, G.E. Taylor, Jr., C.A. Gunderson, and S.E. Lindberg. 1989. NO₂ deposition to elements of a forest landscape. *Atmospheric Environment* 23: 1783-1794.
- Lindberg, S.E., D.J. Johnson, G.M. Lovett, H. Van Miegroet, G.E. Taylor, Jr., and J.G. Owens. 1989. Sampling and Analysis Protocols for the Integrated Forest Study. ORNL/TM -11214, Oak Ridge National Laboratory, Oak Ridge, TN 37831.
- Taylor, G.E., S.E. Lindberg, P.J. Hanson, and C.T. Garten. 1989. Research on atmosphere-canopy exchange in forests. IN: C. R. Richmond (ed). *Life Sciences Review*, Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- Gunderson, C.A. and G.E. Taylor, Jr. 1988. Kinetics of inhibition of foliar gas exchange by exogenously applied ethylene: an ultrasensitive response. *New Phytologist* 110: 517-524.
- Taylor, G.E., Jr., B.M. Ross-Todd and C.A. Gunderson. 1988. Action of ozone on foliar gas exchange in *Glycine max* L. Merr: a potential role for endogenous stress ethylene. *New Phytologist* 110: 301-307.
- Taylor, G.E., Jr., P.J. Hanson and D.D. Baldocchi. 1988. Pollutant deposition to individual leaves and plant canopies: sites of regulation and relationship to injury. pp. 227-257, IN: W. W. Heck, D. T. Tingey, and O. C. Taylor (eds.). *Assessment of Crop Loss From Air Pollutants*. Elsevier Publishers, New York.
- Taylor, G.E., Jr. and C.A. Gunderson. 1988. Physiological site of ethylene effects on carbon dioxide assimilation in *Glycine max* L. Merr. *Plant Physiology* 86: 85-92.
- Hogsett, W.E., D. Olszyk, D.P. Ormrod, G.E. Taylor, Jr. and D.T. Tingey. 1987. Air pollutant exposure systems and experimental protocols: A review and evaluation of performance. Vol. I and II. EPA 600/3-87/037a. U.S. Environmental Protection Agency, Office of Research and Development. Corvallis, OR 97330.
- Taylor, G.E., Jr., R.J. Norby, S.B. McLaughlin, A.H. Johnson, and R.S. Turner. 1986. Carbon dioxide assimilation and growth of red spruce (*Picea rubens*) seedlings in response to ozone, precipitation chemistry, and soil type. *Oecologia* 70: 163-171.
- Taylor, G.E., Jr. and C.A. Gunderson. 1986. The response of foliar gas-exchange processes to exogenously applied ethylene. *Plant Physiology* 82: 653-657.
- Norby, R.J., G.E. Taylor, Jr., S.B. McLaughlin, and C.A. Gunderson. 1986. Drought sensitivity of red spruce seedlings affected by precipitation chemistry. pp. 34-41. IN: C.G. Tauer and T.C. Hennessey (eds.) *Proceedings Ninth NorthAmerican Forest Biology Workshop*.
- Taylor, G.E., Jr., D.T. Tingey, and C.A. Gunderson. 1986. Photosynthesis,

carbon allocation, and growth of sulfur dioxide ecotypes of *Geranium carolinianum*. *Oecologia* 68: 350-357.

- McLaughlin, S.B. and G.E. Taylor, Jr. 1985. Effect of SO₂ on dicot crops: Some issues, mechanisms, and indicators. pp. 227-249. IN: W.E. Winner, H.A. Mooney, and R.A. Goldstein (eds.) *Sulfur Dioxide and Vegetation*, Stanford University Press, Stanford, California.
- Squier, S.A., G.E. Taylor, Jr., W.J. Selvidge, and C.A. Gunderson. 1985. Effect of ethylene and related hydrocarbons on carbon assimilation and transpiration in herbaceous and woody species. *Environmental Science and Technology* 19: 432-437.
- Taylor, G.E., Jr., W.J. Selvidge, and I.J. Crumbly. 1985. Temperature effects on plant response to SO₂ in *Zea mays*, *Liriodendron tulipifera* and *Fraxinus pennsylvanica*. *Water, Air, Soil Pollution* 24: 405-418.
- Taylor, G.E., Jr. and R.J. Norby. 1985. Significance of elevated levels of ozone on natural ecosystems in North America. pp. 152-175. IN: S. D. Lee (ed.), *International Specialty Conference on Evaluation of Scientific Basis for Ozone/Oxidant Standard*, Air Pollution Control Association, Pittsburgh, Pennsylvania.
- Taylor, G.E., Jr. and W.J. Selvidge. 1984. Phytotoxicity in bush bean of five sulfur-containing gases released from advanced fossil energy technologies. *Journal of Environmental Quality* 13: 224-230.
- Taylor, G.E., Jr. 1983. The significance of developing energy technologies of coal conversion to plant productivity. *American Journal for Horticultural Science* 18: 684-689.
- Taylor, G.E., Jr., S.B. McLaughlin, and D.S. Shriner. 1983. Author's reply. *Atmospheric Environment* 17: 1033-1034.
- Taylor, G.E., Jr., S.B. McLaughlin, and D.S. Shriner. 1983. The flux of sulfur-containing gases to vegetation. *Atmospheric Environment* 17: 789-796.
- Taylor, G.E., Jr. and D.T. Tingey. 1983. The analysis of sulfur dioxide flux to *Geranium carolinianum* using analogue modeling techniques. *Plant Physiology* 72: 237-244.
- Taylor, G.E., Jr. 1982. Effects of sulfur dioxide and particulate matter on natural ecosystems. pp. 43-56. IN: *Air Quality Criteria for Particulate Matter and Sulfur Oxides Vol. III*. EPA-600/8-82-029c, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina.
- Shriner, D.S., S.B. McLaughlin, and G.E. Taylor, Jr. 1982. Ecological implications of air pollutants from synthetic fuels processing. pp. 669-676. IN: *Proceedings of the International Conference on Environmental-Use-Management Vol. III*. Pergamon Press, New York.
- Taylor, G.E., Jr. and D.T. Tingey. 1982. Flux of ozone to *Glycine max*: Sites of regulation and relationship to leaf injury. *Oecologia* 53: 179-186.
- Taylor, G.E., Jr., S.B. McLaughlin, and D.S. Shriner. 1981. Effective

pollutant dose. pp. 458-460. IN: M. Unsworth and D. Ormrod (eds.) Effects of Gaseous Air Pollutants in Agriculture and Horticulture, Butterworth Publishing Co., London, United Kingdom.

Taylor, G.E., Jr. and D.T. Tingey. 1981. Physiology of ecotypic plant response to sulfur dioxide in *Geranium carolinianum* L. *Oecologia* 49: 76-82.

Tingey, D.T. and G.E. Taylor, Jr. 1981. Variation in plant response to ozone: A conceptual model of physiological events. pp. 113-138. IN: M. Unsworth and D. Ormrod (eds.) Effects of Gaseous Air Pollutants in Agriculture and Horticulture, Butterworth Publishing Co., London, United Kingdom.

McLaughlin, S.B. and G.E. Taylor, Jr. 1980. Relative humidity: important modifier of pollutant uptake by plants. *Science* 211: 167-168.

Taylor, G.E., Jr. and D.T. Tingey. 1980. Population differences in response to sulfur dioxide: A physiological analysis. p. 252. IN: Effects of Pollutants on Mediterranean and Temperate Forest Ecosystems: An International Symposium. Riverside, California, U.S. Forest Service.

Taylor, G.E., Jr. 1978. Plant and leaf resistance to gaseous air pollution stress. *New Phytologist* 80: 523-534.

Taylor, G.E., Jr. 1978. Genetic analysis of ecotypic differentiation within an annual plant species, *Geranium carolinianum* L., in response to sulfur dioxide. *Botanical Gazette* 139: 362-368.

Taylor, G.E., Jr. 1976. The evolutionary process of population differentiation of an annual plant species, *Geranium carolinianum* L., in response to sulfur dioxide. Ph.D. Thesis, Emory University. p. 172.

Taylor, G.E., Jr. and W.H. Murdy. 1975. Population differentiation of an annual plant species, *Geranium carolinianum* L., in response to sulfur dioxide. *Botanical Gazette* 136: 212-214.



Board of Commissioners

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September 6, 2017

Ms. Angela Willis
Division of Coastal Management
400 Commerce Avenue
Morehead City, NC 28557

Dear Ms. Willis:

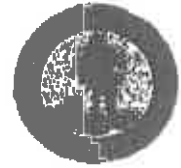
This letter is to inform you that at the September 5, 2017 meeting of the Pender County Board of Commissioners, the Board voted to recommend Samuel Corbett to serve on the Coastal Resources Advisory Council (CRAC). Mr. Corbett's application to Pender County is attached for your review.

If you have any questions or concerns on this matter, please call me directly at (910) 259-1200.

Respectfully,

Melissa Long
Clerk to the Board



PENDER COUNTY**Application for Appointment to Boards/Commissions/Committees**

Appointees to Pender County Boards/Commissions/Committees must be a Pender County resident and must be at least 18 years of age. Please complete this application and return to: Pender County Manager's Office, PO Box 5, Burgaw, NC 28425.

Last Name Corbett, III		First Samuel		M.I. J	Date 8/2/17
Physical Address 691 Washington Acres Road				Apartment/Unit #	
City Hampstead		State NC		ZIP 28443	
Mailing Address (if different from above)					
City		State		ZIP	
Home Phone		Work Phone 910-620-1804		E-mail Address 1 samjcorbett3@gmail	
Fax Number				E-mail Address 2	
Board Interest(s) Coastal Resource Advisory Committee					
How long have you been a resident of Pender County? 17 years					
High School Hoggard High School		Location Wilmington NC			
From	'76	To	'78	Did you graduate?	YES ☒ NO ☐
College		Location			
From		To		Did you graduate?	YES ☐ NO ☐ Degree
Other		Location			
From		To		Did you graduate?	YES ☐ NO ☐ Degree
Current Employment		self employed		Job Title commercial fisherman	
Responsibilities					
Previous Employment		Old Fort and Duck Haven Golf		Job Title General Manager, Head Pro and Sup	
Previous Employment				Job Title	
Previous Employment				Job Title	
Please list current and past membership in civic or other organizations and offices held: 16 years of service on Marine Fisheries Advisory Committees Chairman of NC Marine Fisheries Commission from 2014 to current					

Pender County
Application for Appointment to Boards/Commissions/Committees
Revised 12/2010

Have you ever served or are you currently a member of any Pender County or other local government board/commission/committee?			
YES	☐	NO	☒
If yes, explain (including length of service).			
State reasons why you feel qualified for this appointment(s):			
Growing up on Wrightsville Beach and commercial fishing off of New Hanover and Pender Counties for over forty years, I have seen many changes in the estuaries and beach front communities. As chairman of the Marine Fisheries Commission I handle many cases that are dock related, inlet dredging and beach renourishment related, as well as sediment encroachment in our estuaries. Having oyster leases in the sound, I have interaction with the Army Corp of Engineers and have some knowledge of their rules involving oyster leases. I have worked closely with Braxton Davis, Director of Division of Coastal Management and NC Division of Marine Fisheries.			
Branch		From	To
Rank at Discharge		Type of Discharge (optional)	
Are you aware of any legal, ethical or personal conflict of interest by serving as a member of this Pender County board/commission/committee?			
YES	☐	NO	☒
If yes, explain.			
Are you or any member of your family employed by Pender County, or currently serving on any Boards/Committee/Commission appointed by or affiliated with Pender County?			
YES	☐	NO	☒
If yes, list family member name(s) and position/board or committee(s).			
Please add any additional information you would like to share supporting your interest and qualifications for this appointment.			
NOTE: This information will be used by the Pender County Board of Commissioners in making appointments to Pender County Boards/Commissions/Committees. In the event you are appointed, it may be used as a news release to identify you to the community. This application is considered a public record.			
Signature		Date	
Samuel J Corbett/III		8/2/17	

Willis, Angela

From: Scott Chase <schase@ci.swansboro.nc.us>
Sent: Monday, May 08, 2017 9:52 AM
To: Paula Webb; Willis, Angela
Cc: Andrea Correll
Subject: RE: CRAC Nomination - Swansboro and coastal issues response

Angela

Thank you for taking our nomination. As part of the letter you requested: *What are your local community's two (or more) top coastal issues the CRAC/CRC may be of assistance in coordination with the administrative staff at the N.C. Division of Coastal Management (DCM)? While regulations and permitting are the backbone of the Coastal Management Program, the CRAC and CRC wants to be proactive with respect to your more policy-centric issues.*

1. Land Use Plan (updates). The grant money available most recently is not enough to do updates to our local plans. Our town has seen significant growth since our last update. We have requested grant funding this year however concerned that the amount will not be enough to cover the expenses.
2. CRC/DCM proactive in local planning. When this funding was available, the CRC/DCM used to be more proactive regarding land use. I believe it essential that more resources be given to local governments in the CAMA counties (i.e. follow up from planners at DCM, checking in on local partners on our planning implementation, etc. Would help identify need/shortcomings in local government implementation. Local governments in CAMA counties seeing significant growth and need help with management

Thanks!

Scott

From: Paula Webb
Sent: Monday, May 01, 2017 11:47 AM
To: Angela.Willis@ncdenr.gov
Cc: Scott Chase <schase@ci.swansboro.nc.us>
Subject: CRAC Nomination - Swansboro

Angela – please find attached resume for Commissioner Frank Tursi for consideration as a member of the CRAC. Should you have any questions, please don't hesitate to contact me.

Paula W. Webb, MMC-NCCMC
Town Clerk/Administrative Services Director
601 W. Corbett Avenue
Swansboro, NC 28584
pwebb@ci.swansboro.nc.us
(910) 326-4428 phone
(910) 326-3101 fax
.....><(((*>.....><(((*>.....><(((*>

Frank V. Tursi

270 River Reach Dr., Swansboro, N.C.

252-241-3505

EXPERIENCE

Swansboro Town Commissioner, 2015-present

Founding Editor, Coastal Review Online, North Carolina Coastal Federation, 2011-2016 (retired)

- Conceived the online news service and responsible for its launch in February 2011
- Responsible for the budget and daily content of news service
- Manages a staff of two and about a dozen freelance writers

Coastkeeper, North Carolina Coastal Federation, 2001-2011

- Responsible for directing NCCF's Coastkeeper Program, including policies, plans, budgets and equipment purchases.
- Implement effective programs to improve enforcement of environmental regulations.
- Liaison with Board of Directors' Coastkeeper Committee.

Reporter and Editor, The Winston-Salem Journal, Winston-Salem, N.C., 1978-2001

- Special projects/environmental reporter, June 1988-December 2001. I was the senior environmental reporter in the state. My duties included reporting on CRC meetings and on the N.C. Division of Coastal Management.
- Science/medical reporter, October 1985-June 1988
- Copy editor/Sunday news editor, May 1981-October 1985
- Sports writer, sports copy editor, August 1978-May 1981

Reporter and Editor, The Miami Herald, Miami Fla., 1977-1978

- Suburban sports editor and writer, January 1977-May 1978

News Editor, The Coral Gables Times Guide, Coral Gables, Fla. 1975-1977

- Responsible for the news content of the twice weekly newspaper and managing an editorial staff of five reporters and two photographers.

Reporter, The Key Biscayne Islander News, Key Biscayne, Fla, 1974-1975

Reporter, The Clemmons Courier, Clemmons, N.C, 1973-1974

RELATED EXPERIENCE

BOOKS

- Author, *Lost Empire: The Fall of R.J. Reynolds Tobacco Co.*, John F. Blair, Publisher, 2000
- Author, *The Winston-Salem Journal: Magnolia Trees and Pulitzer Prizes*, John F. Blair, Publisher, 1996
- Author, *Winston-Salem: A History*, John F. Blair, Publisher, 1994
- Author, *Where the Land Meets the Sea*, N.C. Department of Environment, Health and Natural Resources, 1990

AWARDS

- Numerous writing awards from the N.C. Press Association, including four Public Service Awards.
- Directed the staff of Coastal Review Online that won 40 press association awards over two years, including a General Excellence Award.
- Books have won the History Book Award by the N.C. Society of Professional Historians and the Special Commendation Medal of the Society for State and Local History.

EDUCATION

- Bachelor of Science, English and Geology, East Carolina University, Greenville, N.C., 1973

PROFESSIONAL AFFILIATIONS

- Board Member, East Carolina Council
- Former Board Member, N.C. Conservation Network
- Former Member, National Advisory Board, Institute for Journalism and Natural Resources
- Former Member, Waterkeepers' Alliance
- Former Member, Coastal Caucus

COUNTY OF WASHINGTON

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POST OFFICE BOX 1007
PLYMOUTH, NORTH CAROLINA 27962
OFFICE (252) 793-5823 FAX (252) 793-1183

ADMINISTRATION STAFF:

CURTIS S. POTTER
INTERIM COUNTY MANAGER/
COUNTY ATTORNEY
cpotter@washconc.org

JULIE J. BENNETT, CMC, NCCCC
CLERK TO THE BOARD
jbennett@washconc.org

May 8, 2017

Mr. Greg Rudolph, CRAC Chair
Carteret County Shore Protection Office
P.O. Box 4297
Emerald Isle, NC 28594

Dear Mr. Rudolph:

At their regular meeting on May 1, 2017, the Washington County Board of Commissioners nominated Ms. Ann Keyes, Washington County's Planning/Safety and Emergency Management Director, to be a member of the Coastal Resources Advisory Board. Ms. Keyes has worked with the County for over 40 years in these roles and is well-qualified to be on this Board.

Her contact information is below:

Ms. Ann Keys, Director of Planning/Safety and Emergency Management
P.O. Box 1007
Plymouth, NC 27962
252-793-4114
akeys@washconc.org

Washington County's two top coastal issues are flooding and drainage. We do hope that CRAC could coordinate assistant with these issues.

Please don't hesitate to contact me if you need further assistance.

Sincerely,

Julie J. Bennett, CMC, NCCCC
Clerk to the Board

Cc: A. Keyes, Director, Planning/Safety and Emergency Management
Mr. Curtis Potter, Washington County Interim County Manager

North Carolina Coastal Resources Advisory Council



GREG "RUDI" RUDOLPH
CHAIRMAN

SPENCER ROGERS
CO- VICE CHAIR

ROBERT OUTTEN
CO-VICE CHAIR

CANDY BOHMERT

JOHN BRODMAN

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DAVID KELLAM

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JOHNNY MARTIN

BETH MIDGETT

J. MICHAEL MOORE

DAVID MOYE

Kris Noble

KATHLEEN RIELY

TODD ROESSLER

DEBBIE SMITH

DAVE WEAVER

NANCY WHITE, PH.D

LEE WYNNS

Memorandum

From: Greg "rudi" Rudolph
Date: September 27, 2017
Re: **Top Issues – Hierarchy / Prioritization**

At our last meeting in July, we discussed the top coastal issues local governments submitted in response to our request. Subsequent to an initial screening by the CRAC; a committee comprised of members Martin, Moye, Outten, and Rudolph were appointed to group and prioritize the issues – the manifestation of this effort is included in the attached spreadsheet.

The issues were first divided into broad categories such as "Oceanfront", "Permit/Regulatory", "Public Access", etc. and provided a perceived difficulty ranking. Each issue was also assessed to whether or not General Assembly assistance could be required, if the issue would need to heavily involve other Department of Environmental Quality agencies, if the issue is already being addressed by the Coastal Resources Commission, and/or if the issue will require N.C. Division of Coastal Management (NCDQM) assistance (all of the issues do). The "x's" and "o's" in the spreadsheet are very much subjective and it should be a goal of our September meeting to come to a general consensus on the issues to the effects presented in the spread sheet. Moreover, we should be able to identify the top two, three, or four issues (or sub-issues) that we and NCDQM staff can start working upon with respect to rules, policy, or just education.

Top Coastal Issues	Already Being Addressed	Cooperation with other DEQ Agencies.	Will need NCGA Assistance	Staff/CRC	Perceived Difficulty (4 = most)			
					1	2	3	4
Oceanfront								
Beach Nourishment		X	X	X		o		
Removal of condemned houses from the oceanfront	X		X					o
Sand relocation				X			o	
Dune management – integrity of the dune				X		o		
Policy on sand placement landward of frontal dune needs to be reviewed				X		o		
Cape sand exempted from sediment criteria is questionable – should be reviewed			X	X				o
Offshore sand resources – using existing data and coordination			X	X			o	
Erosion control structures along the open oceanfront								
Re-think groins, breakwaters, etc.			X	X				o
Review of sandbags and geotubes	X						o	
Permit/Regulatory								
Streamline residential & commercial waterfront development permitting		X		X				o
Terminal groin permitting – approval needs to be quicker		X		X			o	
Necessity and efficacy of CAMA permit adjacent landowner notification				X		o		
Oceanfront cantilevers should be reviewed				X	o			
CAMA rules are vague, not self-explanatory, and difficult to navigate			X	X				o
Allow wider, public-finger docks to provide more handicap access				X			o	
Funding for Land Use Plan updates and more State coordination/assistance			X	X		o		
Drainage								
Ease permitting and assist in debris removal along waterways and drainage ditches		X	X	X			o	
By mechanical means and/or dredging			X	X			o	
Storm water drainage – canals and ditches		X		X			o	
Public Access								
Increase funding programs for public waterfront access			X			o		
Public water access			X			o		
Public waterway access			X			o		
Other								
Protect active farmland from wetland banking		X		X		o		
Septic tank impacts		X		X		o		
Effectiveness of waterway buffers		X		x		o		
No authority								
Sustained funding to treat the invasive waterweed, <i>Hydrilla</i>								
Insurance rates based on sea level rise								
Impacts of trawling restrictions in Secondary Nursery Areas related to beaches	None in Regs.							