AIR QUALITY AGENCY, WNC REGIONAL

- 6 year term

- No special requirements for this position

WNC Air Quality Agency (6 year term)

Dean Kahl
Term to expire 07-01-20
Has served 2 terms - **Not** eligible for reappointment

CURRENT MEMBERS	TERM EXPIRE	APPOINTE	TERMS	RESIDEN	RACE	HOMEOWNER/RENTER	SEX	AREA
CITY APPOINTMEES								
Dean Kahl (open seat) dkahl@warren-wilson.edu	07-01-20	06-24-03	2	City	W		M	East
Joel Storrow joel.storrow@mcgillengineers.com	07-01-22	06-28-16	1	City	W		M	Central
COUNTY APPOINTEES								
Karl Koon karl@ashevilleoil.com	07-01-20	06-17-18	2		W		M	
Britt Lovin (Chairman) nblovin@andyoxy.com	07-10-24	07-10-18	2		W		M	
Vonna Cloninger bimco@bellsouth.net	07-01-22	05-03-16	2		W		F	

WNC Regional Air Quality Agency http://www.wncairquality.org
DIrector: Ashley Featherstone
Phone: 828.250.6778
ashley.featherstone@buncombecounty.org

WESTERN NORTH CAROLINA REGIONAL AIR QUALITY AGENCY

Name	Male	Female	Black	White	Other	North	East	South	West	Central	City	County
Storrow	X			X						X	X	
Koon	X			X								X
Lovin	X			X								X
Cloninger		X		X								X

Western North Carolina Regional Air Quality Agency - Resource List

APPLICANT NAME, ADDRESS, PHONE #	DATE SUBMITTED APPLICATION	RESIDENT	RACE	SEX	AREA	OCCUPATION	OTHER BOARDS
Garry Andrew Whisnant gwhisnant@bellsouth.net	07-28-20	City	W	M	West	Retired	
Robert H. Lane (Bob) lanerh@northstarlane.com	08-30-20	City	W	M	North	Retired	
Evan Couzo ecouzo@unca.edu	08-31-20	City	His	M	North	Professor UNC Asheville	
Drew Ball daballnc@gmail.com	09-11-20	City	W	M	Central	Director/Environmental NC	

City of Asheville

BOARDS & COMMISSIONS

Application Form

Applicants are strongly urged to attend several meetings of a board prior to applying

Name of board or commission: Western NC Regional Air Quality Agency

Your name: Garry Andrew Whisnant Home Phone #: 910-334-0057

Street address: 15 Chester Place City: Asheville Zip Code: 28806

Mailing address (if different): GWHISNANT@BELLSOUTH.NET

Employer: Retired

Your position: GWHISNANT@BELLSOUTH.NET Office Phone #: 910-334-0057

Resident of City Yes County GWHISNANT Race White * Sex M ✔ F ___ * Age 62 *

Are you a Homeowner or a Renter? * Homeowner

Residence location (check one): Central ____ North ____ South ____ East ____ West ✔

Are you aware of any potential conflicts of interest that may arise during your service on this board (i.e., property interest, business interest, etc.)? If so, please explain: _____. Potential conflicts of interest do not preclude appointments.

Please indicate the area(s) of expertise that you can bring to the above board(s), and then in detail list education, experience, reasons for your interest, and other factors that support your interest in serving **Applicants are encouraged to provide a cover letter and/or a brief resume. Please use additional sheets if necessary.**

Background in environmental permitting and compliance. Employed by CP&L/Progress Energy/Duke Energy for 38 years as a plant engineer, environmental engineer, superintendent and plant manager in coal, natural gas, and hydroelectric plants. Served on the industry advisory board for this agency several years in the 1990's.

eSigned via SeamlessDocs.com

Garry Andrew Whisnant

Key: df7872f1e6fe9f1f4d2a81f402f0fc5678

Signature: _____

Date: July 28, 2020

E-Mail: GWHISNANT@BELLSOUTH.NET

Fax #: 910-334-0057

Return to:

Sarah Terwilliger, Deputy City Clerk
Post Office Box 7148
Asheville, N.C. 28802-7148

E-Mail: sterwilliger@ashevillenc.gov
Telephone: 259-5839
Fax #: 259-5499

* This information is requested for the sole purpose of assuring that a cross section of the community is appointed.

GARRY WHISNANT

15 Chester Place
Asheville NC 28806
910-334-0057
gwhisnant@bellsouth.net

EXPERIENCE

AUGUST 2007 – JANUARY 2020 (RETIRED)

PLANT MANAGER, DUKE ENERGY- ASHEVILLE GENERATING STATION

Responsible for event free (safety and environmental) operation of a 600 MW coal and gas fired generating station. Transition to closure of the coal operation and startup of a $1B gas combined cycle plant

- Managed staff transition from 90 people to 31 people at the new plant
- Annual O&M budget $13M. Annual Capital budget $30M-$50M
- Environmental permits signatory authority
- Active with Community Relations (Chamber of Commerce, etc.)
- Led employee volunteer program

FEBRUARY 2006 – AUGUST 2007

PLANT MANAGER, PROGRESS ENERGY- CAPE FEAR PLANT

Responsible for event free (safety and environmental) operation of a 400 MW coal fired generating station

- Managed staff of 65 employees
- Annual O&M budget $6M. Annual Capital Budget $13M

NOVEMBER 2001 – FEBRUARY 2006

HYDRO OPERATIONS MANAGER, PROGRESS ENERGY

Responsible for event free (safety and environmental) operation of a four hydroelectric plants on the French Broad and Pee Dee River Basins including:

- NCDENR Environmental Compliance
- FERC License Compliance
- FERC Relicensing of the Pee Dee Stations
- FERC Dam Safety Compliance

APRIL 1990 – NOVEMBER 2001

ENVIRONMENTAL ENGINEER, PROGRESS ENERGY- ASHEVILLE PLANT

Responsible for environmental compliance of 1000 acre coal fired power plant facility including:

- Water Permitting and Compliance
- Air Permitting and Compliance
- All other Environmental Programs including Migratory Birds, etc.

APRIL 1986 – APRIL 1990
CHEMISTRY SUPPORT SPECIALIST, PROGRESS ENERGY- RALEIGH
Responsible for environmental and process chemistry for the fossil fleet

JANUARY 1982 – APRIL 1990
CHEMISTRY TECHNICIAN, PROGRESS ENERGY- MAYO PLANT
Responsible for environmental and process chemistry startup for a 740 MW Coal Fired Plant

JUNE 1979 – JANUARY 1982
ENVIRONMENTAL MONITORING TECHNICIAN, NCDENR
Responsible for environmental field sampling and analysis

EDUCATION

MAY 1979
BS BIOLOGY, NC STATE UNIVERSITY
Concentration in Freshwater Fisheries

JUNE 1986
BS CHEMICAL ENGINEERING, NC STATE UNIVERSITY

AUGUST 2002
EXECUTIVE DEVELOPMENT PROGRAM, UNC KENAN SCHOOL OF BUSINESS

FEBRUARY 2006
EXECUTIVE DEVELOPMENT PROGRAM, DUKE FUQUA SCHOOL OF BUSINESS

SKILLS

- Track record of leadership and teamwork
- Licensed Professional Engineer (NC)
- Collaboration and Coalition Building
- Technical Expertise

ACTIVITIES

- Trout Unlimited
- Ruffed Grouse Society
- Ducks Unlimited
- Asheville Downtown Association

City of Asheville

BOARDS & COMMISSIONS

Application Form

Applicants are strongly urged to attend several meetings of a board prior to applying

Name of board or commission: Western North Carolina Regional Air Quality Agency

Your name: Robert H. Lane (Bob) Home Phone #: 832 922 9669

Street address: 201 Cumberland Ave. City: Asheville Zip Code: 28801

Mailing address (if different): same

Employer: Retired from Texas A&M University, College Station, TX

Your position: Professor of Petroleum Engineering, Office Phone #: _____

Resident of City Asheville County Buncombe Race White * Sex M ✔ F ___ * Age 75 *

Are you a Homeowner or a Renter? * Homeowner

Residence location (check one): Central ____ North ✔ South _____ East _____ West _____

Are you aware of any potential conflicts of interest that may arise during your service on this board (i.e., property interest, business interest, etc.)? If so, please explain: NO

_____. Potential conflicts of interest do not preclude appointments.

Please indicate the area(s) of expertise that you can bring to the above board(s), and then in detail list education, experience, reasons for your interest, and other factors that support your interest in serving **Applicants are encouraged to provide a cover letter and/or a brief resume. Please use additional sheets if necessary.**

I am a chemist with expertise in the chemistry of water and air pollution issues in the petroleum industry. I have many years of teaching and am versed in explaining scientific concepts to technical and lay people in understandable terms in both English-speaking and non-English-speaking countries.

Education: BS Chemistry, UNC Chapel Hill, 1966; PhD Chemistry, UF Gainesville, 1971

I worked most of my career as a chemist and engineer in the energy industry dealing with minimizing waste water issues. I was peripherally involved with air quality issues, and am knowledgeable of air pollution chemistry. I worked for two international petroleum companies with most of my field experience being in Alaska. For eight years I worked as an independent consultant on water issues in Alaska, Canada, Gulf of Mexico, France, Gabon, India, Malaysia, Mexico, Middle East, Western Siberia. I was an educator in Chemistry and Petroleum Production Engineering (United Arab Emirates and College Station, TX). I am active in the local (WENOCA) Sierra Club and am a member of The Nature Conservancy. I want to contribute my experience in service to my native state. Air quality is not only a good technical fit, but also an emotional one. I love our mountains. I have also suffered lifelong from pulmonary issues: a mild form of cystic fibrosis and asthma. The latter is of major concern with deteriorating air quality and is especially important in communities pushed to the margins.

Return to:

Sarah Terwilliger, Deputy City Clerk
Post Office Box 7148
Asheville, N.C. 28802-7148

E-Mail: sterwilliger@ashevillenc.gov
Telephone: 259-5839
Fax #: 259-5499

Signature: Robert H Lane

Date: 30 August 2020

E-Mail: lanerh@northstarlane.com

Fax #: _____

* This information is requested for the sole purpose of assuring that a cross section of the community is appointed.

City of Asheville

BOARDS & COMMISSIONS

Application Form

Applicants are strongly urged to attend several meetings of a board prior to applying

Name of board or commission: Air Quality Agency Board

Your name: Evan Couzo Home Phone #: 407-697-1555

Street address: 178 Coleman Ave City: Asheville Zip Code: 28801

Mailing address (if different): _____

Employer: UNC Asheville

Your position: professor Office Phone #: 828-251-6026

Resident of City Asheville County Buncombe Race Hispanic/ * Sex M ✔ F ___ * Age 37 *

Are you a Homeowner or a Renter? * Homeowner

Residence location (check one): Central ____ North ✔ South ____ East ____ West ____

Are you aware of any potential conflicts of interest that may arise during your service on this board (i.e., property interest, business interest, etc.)? If so, please explain: none. Potential conflicts of interest do not preclude appointments.

Please indicate the area(s) of expertise that you can bring to the above board(s), and then in detail list education, experience, reasons for your interest, and other factors that support your interest in serving **Applicants are encouraged to provide a cover letter and/or a brief resume. Please use additional sheets if necessary.**

(I sent this cover letter and my CV to Sarah Terwilliger. The letter is reproduced below.)

Dear Asheville City Clerk,

I am writing to apply for a position on the Air Quality Agency Board. I am currently a professor at UNC Asheville, and I teach several courses about air pollution and climate change. My PhD and MS degrees are from UNC Chapel Hill's Gillings School of Global Public Health, where I studied air pollution formation and health effects. I continued my research career as a post-doctoral associate at the Massachusetts Institute of Technology before moving to Asheville. My experience with scientific and regulatory air quality issues will bring a valuable perspective to the board.

My graduate research used computer models to simulate regional air pollution (ozone and particulate matter) in the United States. I gained a deep understanding of source-receptor relationships, emissions inventories, and federal/state regulatory processes. I have vast experience analyzing air quality monitoring data for temporal and spatial trends, and I have a deep understanding of how both meteorology and precursor emissions lead to pollutant formation. In addition to my scientific work, I spent two years at the US EPA in Washington

Return to:

Sarah Terwilliger, Deputy City Clerk
Post Office Box 7148
Asheville, N.C. 28802-7148

E-Mail: sterwilliger@ashevillenc.gov
Telephone: 259-5839
Fax #: 259-5499

Signature: Evan Couzo

Date: August 31, 2020

E-Mail: ecouzo@unca.edu

Fax #: _____

* This information is requested for the sole purpose of assuring that a cross section of the community is appointed.

(I sent this cover letter and my CV to Sarah Terwilliger. The letter is reproduced below.) Dear Asheville City Clerk, I am writing to apply for a position on the Air Quality Agency Board. I am currently a professor at UNC Asheville, and I teach several courses about air pollution and climate change. My PhD and MS degrees are from UNC Chapel Hill's Gillings School of Global Public Health, where I studied air pollution formation and health effects. I continued my research career as a post-doctoral associate at the Massachusetts Institute of Technology before moving to Asheville. My experience with scientific and regulatory air quality issues will bring a valuable perspective to the board. My graduate research used computer models to simulate regional air pollution (ozone and particulate matter) in the United States. I gained a deep understanding of source-receptor relationships, emissions inventories, and federal/state regulatory processes. I have vast experience analyzing air quality monitoring data for temporal and spatial trends, and I have a deep understanding of how both meteorology and precursor emissions lead to pollutant formation. In addition to my scientific work, I spent two years at the US EPA in Washington, DC, helping the National Center for Environmental Research communicate technical research findings to influential policy makers and the general public. More recently, I have focused on air quality issues in Western North Carolina. I am engaged in an air quality modeling investigation (using a US EPA modeling platform) of our airshed's response to the recent retirement of Duke Energy's coal-fired power plant just south of Asheville. Two of my students are helping with the analysis, and we hope to highlight reductions in harmful air pollutant concentrations and exposure risk in nearby communities. Thank you for considering my application. I hope my air quality expertise can serve our community in this important oversight role. Sincerely, Evan Couzo

UNIVERSITY of NORTH CAROLINA
ASHEVILLE

Evan Couzo, PhD
110 Zageir Hall, CPO #1950
UNC Asheville
One University Heights
Asheville, North Carolina 28804

828.251.6026
ecouzo@unca.edu

Asheville City Clerk's Office
PO Box 7148
Asheville, NC 28801

August 31, 2020

Dear Asheville City Clerk,

I am writing to apply for a position on the Air Quality Agency Board. I am currently a professor at UNC Asheville, and I teach several courses about air pollution and climate change. My PhD and MS degrees are from UNC Chapel Hill's Gillings School of Global Public Health, where I studied air pollution formation and health effects. I continued my research career as a post-doctoral associate at the Massachusetts Institute of Technology before moving to Asheville. My experience with scientific and regulatory air quality issues will bring a valuable perspective to the board.

My graduate research used computer models to simulate regional air pollution (ozone and particulate matter) in the United States. I gained a deep understanding of source-receptor relationships, emissions inventories, and federal/state regulatory processes. I have vast experience analyzing air quality monitoring data for temporal and spatial trends, and I have a deep understanding of how both meteorology and precursor emissions lead to pollutant formation. In addition to my scientific work, I spent two years at the US EPA in Washington, DC, helping the National Center for Environmental Research communicate technical research findings to influential policy makers and the general public.

More recently, I have focused on air quality issues in Western North Carolina. I am engaged in an air quality modeling investigation (using a US EPA modeling platform) of our airshed's response to the recent retirement of Duke Energy's coal-fired power plant just south of Asheville. Two of my students are helping with the analysis, and we hope to highlight reductions in harmful air pollutant concentrations and exposure risk in nearby communities.

Thank you for considering my application. I hope my air quality expertise can serve our community in this important oversight role.

Sincerely,

Evan Couzo

evancouzo

assistant professor | STEM education

contact

178 Coleman Avenue
Asheville, N.C. 28801

Department of Education
One University Heights
CPO #1950
UNC Asheville
Asheville, N.C. 28804
USA

m: +1 (407) 697 1555
w: +1 (828) 251 6026

ecouzo@unca.edu
evan.a.couzo@gmail.com

technical skills

Python and UNIX scripting; CAMx, CMAQ, and GEOS-Chem air quality models

personal attributes

effective communicator; interdisciplinary training; enthusiastic team member and leader; creative; curious

education

2010–2013 **PhD** Environmental Sciences and Engineering Univ. of North Carolina, Chapel Hill, N.C.

2008–2010 **MS** Environmental Sciences and Engineering Univ. of North Carolina, Chapel Hill, N.C.

2005–2007 **MA** Curriculum and Instruction Univ. of Mississippi, Oxford, Miss.
Member of the Mississippi Teacher Corps, a highly competitive teacher training program that places teachers in critical-needs school districts in Mississippi

2001–2005 **BA** Physics Williams College, Williamstown, Mass.

current employment

2015–Now **The University of North Carolina - Asheville** Asheville, N.C.
Assistant Professor of STEM Education

Education Courses

Teaching and Learning in the 21st Century	EDUC 210
Physical Activity and Healthful Living	EDUC 219
Introduction to edTPA	EDUC 303
Teaching Mathematics: Content and Process	EDUC 340
Elementary Mathematics Concepts and Applications	EDUC 371
Mathematics Teaching Methods	EDUC 435
Science Teaching Methods	EDUC 436
Student Teaching and Seminar	EDUC 455
The Teacher as a 21st Century Professional	EDUC 456

Environmental Science Courses

Air Pollution Formation and Impacts	ENVR 373
Communicating Climate Change (Honors Program)	ENVR 374
Undergraduate Research in Environmental Studies	ENVR 499
Why You Shouldn't "Believe" in Climate Change	LA 178

Undergraduate Research Projects

Should North Carolina Require More Efficient Water Heaters in Homes? A Cost-Benefit Analysis (2019-2020)
An Assessment of Ambient Air Pollution Reductions and Associated Health Impacts from Retiring Asheville's Coal Fired Power Plant (2019)
CO_2 Emissions from Asheville's Craft Brewing Industry (2018-2019)

teaching experience

2014 **The University of North Carolina** Chapel Hill, N.C.
Lecturer and Course Developer - Painting with Python
- Designed and taught course material to graduate and undergraduate students with differing levels of programming experience
- Developed style guidelines and technical code templates for plotting in Python

2013 **The University of North Carolina** Chapel Hill, N.C.
Lecturer - Modeling Atmospheric Chemistry
- Taught graduate-level module on gas-phase atmospheric chemistry and modeled chemical mechanisms
- Prepared daily materials, assisted with course development, and graded student work

2005–2008 **Quitman County Middle School** Marks, Miss.
Seventh Grade Math Teacher

research experience

2015–Now **The University of North Carolina - Asheville** Asheville, N.C.
Assistant Professor of STEM Education
- (2019-2020) Mathematics Pathways grant evaluator
  - Selected by UNC System office to serve as Principal Investigator
  - Analyzed the effectiveness of several Mathematics Pathways pilot initiatives at four UNC System campuses
- (2018) Redesigning Education - Scholarship of Teaching and Learning
  - Investigated whether specific interventions improve both student achievement and students' perception of achievement on state-mandated assessment
- (2017-2020) Science on the Move: Closing the Opportunity Gap for Migrant Youth with Science, Technology, and Multimedia
  - Co-investigator on a three-year Burroughs Wellcome Fund grant
  - Designed, planned, and conducted a two-week summer science enrichment camp for students in the Buncombe County Migrant Education program
  - Facilitated online learning modules for students during the school year
  - Conducted continuous program assessment to measure the impact on student learning and perceptions of science
- (2016) Houston 8-hr Coalition Ozone Analysis
  - Collaborated with UNC-Chapel Hill to conduct an observational analysis of ozone pollution in Houston, Tex.
  - Created software package capable of acquiring and processing air quality measurement data

2014–2015 **Massachusetts Institute of Technology** Cambridge, Mass.
Postdoctoral Associate (Dr. Noelle Selin)
- Led analysis of air quality and public health impacts of sustainable development initiatives in Saudi Arabia
- Organized regular meetings and coordinated efforts across multiple research groups as a lead project research coordinator at the Center for Complex Engineering Systems
- Trained colleagues in graphical and numerical analysis using Python

2013–2014 **The University of North Carolina** Chapel Hill, N.C.
Postdoctoral Research Associate (Drs. Jason West & William Vizuete)
- Collaborated with multiple institutions and performed air quality analysis on two major projects:
  - Texas Air Quality Research Program 12-028: Implementation and evaluation of new HONO mechanisms in a 3-D chemical transport model for Spring 2009 in Houston
  - U.S. EPA STAR grant 83521901: Dynamic electricity generation for addressing daily air quality exceedances in the U.S.
- Taught students data storage strategies, air quality model setup, data analysis techniques, and computer scripting (e.g. UNIX shells, Python)

2008–2013 **The University of North Carolina** Chapel Hill, N.C.
Research Assistant (Dr. William Vizuete)
- Investigated modeled and observed ozone pollution using large databases of pollutant data and regulatory air quality models
- Major projects:
  - The 8-Hour Ozone State Implementation Plan Coalition 2010 Modeling Program
  - Texas Air Quality Research Program 10-045 Quantification of hydrocarbon, NOx, and SO_2 emissions from petrochemical facilities in Houston: Interpretation of the 2009 FLAIR dataset
  - Houston Advanced Research Center H-97 Multi-model, multi-episode process analysis to investigate ozone formation and control sensitivity in the 2000/2005/2006 Houston SIP episode models

2010–2012 **U. S. Environmental Protection Agency** Washington, D.C.
Atmospheric Sciences Student Contractor at the National Center for Environmental Research
- Synthesized EPA-funded atmospheric research papers into non-technical summaries
- Communicated major EPA-funded research accomplishments to the general public
- Designed and wrote newsletters detailing cutting edge atmospheric science
- Created research portfolios and scientific conference presentations

awards

2019 **Diversity Action Council Grant** The University of North Carolina - Asheville
Faculty award for creating a traveling exhibit explaining the significance and legal reasoning of the 1954 Brown v. Board of Education Supreme Court decision.

2016 **Interdisciplinary Block Grant** The University of North Carolina - Asheville
Faculty award for designing innovative interdisciplinary teaching methods

2014 **Delta Omega Honorary Public Health Society Inductee** Delta Omega Theta Chapter
Students selected for membership must demonstrate academic excellence and leadership qualities in public health

2012 **First Place - Doctoral Student Poster Competition** Air & Waste Management Association
Awarded to the best doctoral student poster at the Annual Conference and Exhibition

2012 **Achievement Award for Excellence in the Environmental Sciences** The University of North Carolina
Awarded to the top student in the Department of Environmental Sciences and Engineering

2011 **Outstanding Student Paper Award** American Geophysical Union
Awarded to recognize quality student research in the geophysical sciences at the Fall Meeting; reserved for the top 3-5% of presenters

2008 **Alliances for Graduate Education and the Professoriate Graduate Fellow** National Science Foundation
Awarded to underrepresented minorities obtaining graduate degress in science, technology, engineering, and mathematics

interests

outdoor activities including hiking, camping, and gardening **educational opportunities** including reading, traveling, and games **creative endeavors** including cooking, do-it-yourself projects, and playing the guitar

service

- Co-director for N.C. Science Olympiad Regional Tournament
- Program coordinator for UNC Asheville secondary Math and Science teacher licensure programs
- Member of the UNC Asheville Sustainability Council
- Chair of the UNC Asheville Transportation Committee
- Vice-president of the Asheville Rugby Football Club
- Research supervisor and mentor in the Massachusetts Institute of Technology Undergraduate Research Opportunities Program
- Peer reviewer for education and scientific conferences and journals
- President of the Environmental Sciences and Engineering Student Organization at The University of North Carolina

publications & presentations (since 2013)

peer-reviewed journals

Should North Carolina Require More Efficient Water Heaters in Homes? A Cost-Benefit Analysis
Z. Carroll and **E. Couzo**
under review

Empirical relationships among wind conditions and ozone exceedances in Houston and other cities in Texas: Implications for State Implementation Plans
W. Vizuete, H.E. Jeffries, Q. Rasool, J. Jielsen-Gammon, **E. Couzo**, P. Breitenbach, and F. Ngan
in preparation

CO_2 Emissions from Asheville's Craft Brewing Industry
E. Couzo, M. Meloche, and J. Taylor
J. Sustain. Dev. 12(5), pp. 131--137, 2019

Toward a consistent modeling framework to assess multi-sectoral climate impacts
E. Monier, S. Paltsev, A. Sokolov, Y.-H. Chen, X. Gao, Q. Ejaz., **E. Couzo**, A. Schlosser, S. Dutkiewicz, C. Fant, J. Scott, D. Kicklighter, J. Morris, H. Jacoby, R. Prinn, and M. Haigh
Nat. Commun. 9(660), pp. 1–8, 2018, DOI: 10.1038/s41467-018-02984-9

Modeled response of ozone to electricity generation emissions in the northeastern United States using three sensitivity techniques
E. Couzo, J. McCann, W. Vizuete, S. Blumsack, and J.J. West
J. Air & Waste Manage. Assoc. 66(5), pp. 456–469, 2016, DOI: 10.1080/10962247.2016.1143412

Impacts of heterogeneous HONO formation on radical sources and ozone chemistry in Houston, Texas
E. Couzo, B. Lefer, J. Stutz, G. Yarwood, P. Karamchandani, B. Henderson, and W. Vizuete
Atmos. Environ. 112, pp. 344–355, 2015, DOI: 10.1016/j.atmosenv.2015.04.048

Implementation and refinement of a surface model for heterogeneous HONO formation in a 3-D chemical transport model
P. Karamchandani, C. Emery, G. Yarwood, B. Lefer, J. Stutz, **E. Couzo**, and W. Vizuete
Atmos. Environ. 112, pp. 356–368, 2015, DOI: 10.1016/j.atmosenv.2015.01.046

Relationship between boundary layer heights and growth rates with ground-level ozone in Houston, Texas
C.L. Haman, **E. Couzo**, J.H. Flynn, W. Vizuete, B. Heffron, and B.L. Lefer
J. Geophys. Res. Atmos. 119(10), pp. 6230–6245, 2014, DOI: 10.1002/2013JD020473

Houston's rapid ozone increases: Preconditions and geographic origins
E. Couzo, H.E. Jeffries, and W. Vizuete
Environ. Chem. 10(3), pp. 260–268, 2013, DOI: 10.1071/EN13040

presentations

edTPA Course Redesign: A collaborative, data-driven decision
N. Ruppert, K. Cole, and **E. Couzo**
American Educational Research Association Annual Meeting, San Francisco, Calif., conference canceled due to Covid-19, 2020 (oral presentation)

Using the World Climate Simulation with your students
E. Couzo
N.C. Science Teachers Association Annual Professional Development Institute, Winston-Salem, N.C., Nov. 2019 (oral presentation)

Climate change education in state science standards
E. Couzo, N. Butcher, M. Fuller, M. Hendley, and E. Radulovic
American Geophysical Union Fall Meeting, San Francisco, Calif., Dec. 2018 (poster presentation)

Sensitivity of the US climate penalty to local and global emissions
E. Couzo, E. Monier, F. Garcia-Menendez, N. Hoffman, M. Kim, R. Park, and N. Selin
Community Modeling and Analysis System Conference, Chapel Hill, N.C., Oct. 2015 (oral presentation)

A comparative air quality study of the U.S., Saudi Arabia, and China under future emissions policies
E. Couzo, S. Paltsev, and N.E. Selin
7th International GEOS-Chem Conference, Cambridge, Mass., May 2015 (poster presentation)

Atmospheric models: Why you should never ever ever trust them, why some people do, and why you will, too
E. Couzo
Physics Department Colloquium, Williams College, Williamstown, Mass., Apr. 2014 (invited presentation)

Our atmosphere: Air quality and climate change
E. Couzo
National Garden Clubs' Environmental Studies School, Wellesley, Mass., Nov. 2014 (invited presentation)

Global air quality predictions of $PM_{2.5}$ and O_3 in the Middle East and sensitivity to future emissions scenarios
E. Couzo, C. Holmes, S. Paltsev, A. Alawad, and N.E. Selin
American Geophysical Union Fall Meeting, San Francisco, Calif., Dec. 2014 (poster presentation)

Impacts of heterogeneous HONO formation on radical sources and ozone chemistry in Houston, Texas
E. Couzo, B. Lefer, J. Stutz, G. Yarwood, P. Karamchandani, B. Henderson, and W. Vizuete
Atmospheric Chemistry Seminar, Massachusetts Institute of Technology, Cambridge, Mass., Apr. 2014 (invited presentation)

Dynamically controlling daily power plant emissions to avoid ozone exceedances: Coordinating air quality forecasts with electricity dispatch models

E. Couzo, J. McCann, N. Johnson, C. Barrows, S. Blumsack, W. Vizuete, K. Baker, and J. West
Community Modeling and Analysis System Conference, Chapel Hill, N.C., Oct. 2014 (oral presentation)

Model processes and correlations between surface mixed layer height and growth rate with ground-level ozone in Houston, Texas
E. Couzo, C.L. Haman, H. Flynn, A. Valencia, H.E. Jeffries, B.L. Lefer, and W. Vizuete
Air & Waste Management Association Annual Conference and Exhibition, Chicago, Ill., June 2013 (poster presentation)

Houston's rapid ozone increases: Preconditions and geographic origins
E. Couzo, H.E. Jeffries, and W. Vizuete
Community Modeling and Analysis System Conference, Sao Paulo, Brazil, Feb. 2013 (oral presentation)

City of Asheville

BOARDS & COMMISSIONS

Application Form

Applicants are strongly urged to attend several meetings of a board prior to applying

Name of board or commission: Western North Carolina Regional Air Quality Agency

Your name: Drew Ball Home Phone #: 3369789699

Street address: 172 S French Broad Ave City: Asheville Zip Code: 28801

Mailing address (if different): _____

Employer: Environment North Carolina

Your position: Director Office Phone #: 336-978-9699

Resident of City Asheville County Buncombe Race White * Sex M ✔ F ___ * Age 37 *

Are you a Homeowner or a Renter? * Renter

Residence location (check one): Central ✔ North _____ South _____ East _____ West _____

Are you aware of any potential conflicts of interest that may arise during your service on this board (i.e., property interest, business interest, etc.)? If so, please explain: NO

_____. Potential conflicts of interest do not preclude appointments.

Please indicate the area(s) of expertise that you can bring to the above board(s), and then in detail list education, experience, reasons for your interest, and other factors that support your interest in serving **Applicants are encouraged to provide a cover letter and/or a brief resume. Please use additional sheets if necessary.**

Having worked within the conservation movement and on environmental advocacy for over a decade, I am very familiar with issues related to air quality and pollution. Having worked within the North Carolina General Assembly as a legislative assistant, as a policy advocate for multiple environmental organizations, and as a policy advisor to candidates at the city and state level, I have a deep background in the workings of government. I attended American University to obtain my M.P.A. with a focus in state and local management, providing me a deep understanding of how federal, state, city and county regulations have significant impacts on air quality.

Air quality effects every resident of our region and it would be an honor to serve within the Western North Carolina Regional Air Quality Agency to bolster our regions quality of life by helping protect public health and our environment.

More information about my education and work history can be found on my LinkedIn: https://www.linkedin.com/in/drewball/

eSigned via SeamlessDocs.com
Daryl Andrew Ball
Key: df76721a9f6e98fd42ea1f602f0fc5678

Signature: _____

Date: _____

E-Mail: daballnc@gmail.com

Fax #: _____

Return to:

Sarah Terwilliger, Deputy City Clerk
Post Office Box 7148
Asheville, N.C. 28802-7148

E-Mail: sterwilliger@ashevillenc.gov
Telephone: 259-5839
Fax #: 259-5499

* This information is requested for the sole purpose of assuring that a cross section of the community is appointed.