

ANGEL S. ARROYO-RODRÍGUEZ

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Curriculum Vitae

CAREER INTERESTS

Developing policies and plans for the sustainable management of waste and materials. Recent focus on sustainable management of food waste generated throughout all stages of the food system and integrating food system planning with solid waste planning approaches. Promoting sustained diversion of waste material through development of recycling markets.

EDUCATION

March 2012 – In Progress The Ohio State University Columbus, OH
• **Ph.D., City and Regional Planning**

September 2003 - December 2011 The Ohio State University Columbus, OH
• **Fifty-six credits hours of graduate level course work in city and regional planning, public health, environmental health and natural resources.**

June 1998 The Ohio State University Columbus, OH
• **M.C.R.P., Master of City and Regional Planning**

December 1997 The Ohio State University Columbus, OH
• **M.S., Master of Science in Molecular, Cellular and Developmental Biology**

June 1992 University of Puerto Rico Rio Piedras, PR
• **B.S., Bachelor of Science in Environmental Sciences, Honors**

PROFESSIONAL EXPERIENCE

OHIO ENVIRONMENTAL PROTECTION AGENCY. Columbus, OH June 2014 – Present
Office of Compliance Assistance and Pollution Prevention

Position as an environmental planner and sustainability coordinator in the newly formed Recycling and Litter Prevention Program. Responsible for identifying markets for recyclable materials, and developing state wide policy to promote and sustain such markets. Co-manage market development grants.

OHIO ENVIRONMENTAL PROTECTION AGENCY. Columbus, OH April 2011 – June 2014
Division of Materials and Waste Management

Position as an environmental planner and sustainability coordinator in the Materials Conservation and Reuse Unit. Responsible for developing state wide policy and regulatory programs for the management of materials and wastes. Represent the division at national and international conferences and national collaborations.

- Coordinate statewide initiatives for the management of food scraps and organic wastes.
- State representative for the USEPA Region 5 Green Venues Program.

- Responsible for guiding development, reviewing and recommending approval of solid waste management plans for five solid waste management districts.
- Co-developed citizen survey and research for the development of the curbside recycling program for the City of Columbus.
- Co-developer of zero waste event efforts for EcoSummit 2012, Columbus, Ohio.

OHIO ENVIRONMENTAL PROTECTION AGENCY. Columbus, OH

January 1999 – April 2011

Division of Solid and Infectious Waste Management

Position as an environmental specialist for the infectious waste, composting, beneficial reuse and energy recovery regulatory programs. Provided technical assistance and developed training for regulated community and regulatory partners for compliance with regulations pertaining to infectious wastes, composting, energy recovery and solid waste management. Coordinated administrative rule review and public participation. Coordinate inter-division and inter-agency projects.

- Co-developed the Ohio Food Scraps Diversion Initiative in collaboration with the Ohio EPA's Office of Compliance Assistance and Pollution Prevention and the Division of Litter Prevention and Recycling of ODNR. Promoted projects and market development grants that resulted in nine additional food scraps composting facilities, biogas facilities and residential food scraps curbside collection programs, and the establishment of organics diversion at over 60 Kroger grocery stores.
- Contributed to the development of the Ohio's Livestock and Poultry Composting Manual and adapted its principles to help the Ohio Department of Transportation establish roadkill composting facilities. Eight facilities have been established statewide. Published related article in international publication and presented topic at international conference.
- Coordinated two rounds of revisions for Ohio's composting regulations.
- Collaborated in the research and development of pilot projects for bioremediation of soils through composting, at the Ravenna Army Munition Plant, Ravenna, Ohio.
- Assisted the Organics Recycling Association of Ohio and GT Environmental in the preparation of grant proposal and implementation of awarded project for measuring and tracking materials at composting facilities.
- Served for seven years as the Ohio EPA coordinator for participation at the OSU Extension's Farm Science Review.
- Served for four years in the committee responsible for the management and continuous improvement Ohio EPA's Developing Excellent Agency Leaders (DEAL) Program, a thirteen month training program on leadership skills.

THE OHIO STATE UNIVERSITY. Columbus, OH

July 1998- September 1998

Laboratory Technician

Duties included preparation of research materials, maintenance of laboratory equipment, assisting and training graduate students and coordinating resources with other laboratories.

DEPARTMENT OF TRADE AND DEVELOPMENT. Columbus, OH

October 1996 - June 1998

Neighborhood Planning Intern

Intern position with the City of Columbus' Near East Area Commission. Responsible for developing surveys, monitoring the implementation and completion of projects and proposals, facilitating public meetings, reviewing grant proposals and preparing documents for the general public.

THE OHIO STATE UNIVERSITY. Columbus, OH

July 1993- September 1996

Graduate Research Assistant

Worked in graduate level research conducive to degree in the biological sciences. Responsible for designing and performing experiments, analyzing data and writing conclusive reports. Research published as part of two peer reviewed articles. Mentored and supervised student workers and junior graduate students.

CERTIFICATIONS

- *American Institute of Certified Planners*, Washington DC
- *Registered Sanitarian*, State Board of Registered Sanitarians, Ohio

PROFESSIONAL ACTIVITIES

- Member at Large, Mayor's Green Team, City of Columbus (2010 to present)
- Chair, Growth and Development Subcommittee, Mayor's Green Team, City of Columbus (2009 to present)
- Member and Past Chair, Materials Management Working Group, Center for Energy and Environment, Mid-Ohio Regional Planning Commission (2009 to present)
- Advisor, Environmental Task Force, Ohio Grocers Foundation (2007 to present)
- Community representative, The Ohio State University's Institutional Bio-safety Committee (2004 to present)
- Ohio EPA's representative as a Spanish language interpreter for the Ohio Commission on Hispanic-Latino Affairs
- Grant reviewer for mini-grants, Ohio EPA Office of Environmental Education.
- Presenter and moderator at BioCycle international conferences (2008, 2009, 2010, 2011, 2012)
- Co-organizer BioCycle international conference in Columbus, Ohio (2013)
- Coordinator and moderator of Regulator's Roundtable Session at US Composting Council Annual Conference (2008, 2009)
- Exam question writer for AICP Environmental Planner specialty certification (2009)
- Team Leader, Food Systems Planning Studio, City & Regional Planning Program at The Ohio State University (2011)
- Reviewer for content of organics collection course, Solid Waste Association of North America (2012)
- Contributor, Model Composting Regulations Development Project, US Composting Council (2012)
- Advisor, GreenTown-Toledo 2012 Conference, agenda development (2012)

PLAN DEVELOPMENT EXPERIENCE

- ***Plan for Opportunity: Regional Sustainability Plan for the Mississippi Gulf Coast.*** Presented to the Constituency for a Sustainable Coast. Gulfport, Mississippi, December 2013. CRP 824 Sustainable Development Studio. *Graduate Teaching Assistant.*
- ***Tides of Change: A New Wave of Sustainability.*** Presented to the Constituency for a Sustainable Coast. Gulfport, Mississippi, February 2012. CRP 824 Sustainable Development Studio. *Non-degree student.*

- ***Savor the Coast: A Recipe for a Sustainable Coast.*** Presented to the Constituency for a Sustainable Coast. Gulfport, Mississippi, September 2011. CRP 824 Sustainable Development Studio. *Team Leader.*
- ***State Solid Waste Management Plan 2009.*** Ohio Environmental Protection Agency, Division of Solid and Infectious Waste Management. Columbus, Ohio, March 2010.
- ***Clintonville Sustainability Plan.*** Presented to the Clintonville Area Commission and the City of Columbus. Ohio, March 2008. CRP 724 Sustainable Development Studio. *Non-degree student.*
- ***City of Pataskala Concept Plan.*** Presented to the Licking County Planning Commission and the City of Pataskala. Ohio, March 1998. CRP 853 Urban General Planning Studio. *Student.*
- ***Clear Creek Watershed Plan.*** Presented to the Fairfield County Regional Planning Commission. Ohio, June 1997. CRP 821 Regional Planning Studio. *Student.*

GUIDANCE DOCUMENTS

- Arroyo-Rodríguez, A., Germain, C., ***Urban Agriculture, Composting and Zoning: A Zoning Code Model for Promoting Composting and Organic Waste Diversion Through Sustainable Urban Agriculture.*** Ohio Environmental Protection Agency. June 2012.
- Arroyo-Rodríguez, A., Higginbotham, K., Whetstone, B., ***Sustainable Events: Ideas for Incorporating Environmentally Friendly Practices into Meetings and Events.*** Mio-Ohio Regional Planning Commission; Ohio Environmental Protection Agency; Solid Waste Authority of Central Ohio. March 2014.
- Arroyo-Rodríguez, A., Higginbotham, K., Whetstone, B., ***Green Ribbon Exhibits: A Manual for Implementing a Recognition Program at Conferences and Events.*** Mio-Ohio Regional Planning Commission; Ohio Environmental Protection Agency; Solid Waste Authority of Central Ohio. March 2014.

MAGAZINE ARTICLES

- R. Fernández, A. Arache, J. Alsina, J. Bonhotal, A. Arroyo-Rodríguez and C. Pacheco, ***Advancing Organic Materials Management In Puerto Rico.*** BioCycle. August 2013:40.
- Arroyo-Rodríguez, A., Germain, C., ***Zoning Model for Urban Agriculture and Composting.*** BioCycle. July 2012:24-25.
- Goicochea J., Arroyo-Rodríguez, A., ***Food Scraps Recovery in Ohio.*** BioCycle. February 2012:22-25.
- Arroyo-Rodríguez, A., ***Having all the Green We Want, Other Voices Column.*** Waste and Recycling News. Published Online February 21, 2012.
<http://www.wasterecyclingnews.com/opinion2.html?id=1329842377>
- Evans-Cowley J., Arroyo-Rodríguez, A., ***Mississippi Gulf Coast Advances Sustainability Plan.*** BioCycle. January 2012:52-55.

- Arroyo-Rodríguez A., 2009. **Composting Road-killed Deer**. BioCycle. May 2009:31-34.

JOURNAL PUBLICATIONS

- Evans-Cowley, Jennifer, and Angel Arroyo-Rodríguez. 2013. **"Integrating Food Waste Diversion into Food Systems Planning: A Case Study of the Mississippi Gulf Coast"**. *Journal of Agriculture, Food Systems, and Community Development*. 1-19.
- Ham, J. H., Majerczak, D. R., Arroyo-Rodríguez, A. S., Mackey, D. M., Coplin, D. L. 2006. **WtsE, an AvrE-family effector protein from *Pantoea stewartii* subsp. *stewartii*, causes disease-associated cell death in corn and requires a chaperone protein for stability**. *Mol. Plant-Microbe Interact.* **19**: 1092–1102.
- Frederick, R. D., Ahmad, M., Majerczak, D. R., Arroyo-Rodríguez, A. S., Manulis, S., Coplin, D. L. 2001. **Genetic organization of the *Pantoea stewartii* subsp. *stewartii* hrp gene cluster and sequence analysis of the hrpA, hrpC, hrpN, and wtsE operons**. *Mol. Plant-Microbe Interact.* **14**:1213-1222.
- Perez-Chiesa, Y., Arroyo, A., Rodríguez, D., Rodríguez, A., Cox, O., Retamozo, H.R., 1991. **Absence of mutagenicity of the antitumor drug 4-nitrobenzothiazolo[3,2-a]quinolinium chloride (NBQ) in the germ cells of *Drosophila melanogaster* males**. *Mutation Res.* **264**:179-182.

AWARDS

- 2012. Outstanding Studio Project Award, Knowlton School of Architecture. Tides of Change: A New Wave of Sustainability.
- 2011. Outstanding Student Project Award, APA Ohio. Savor the Coast: A Recipe for a Sustainable Coast.
- 2008. Outstanding Student Project Award, Knowlton School of Architecture and Central Ohio Chapter of Ohio Planning Conference. Clintonville Sustainability Plan.
- 1998. Passing Comprehensive Exams with Distinction. Master of City and Regional Planning.
- 1997. Outstanding Student Project Award, Knowlton School of Architecture. Clear Creek Watershed Plan.