Manure Irrigation Crosses Multiple Planning Issues

By Ken Genskow

Connections readers may wonder why, over the past 18 months, a planning faculty member has been leading a statewide workgroup exploring manure irrigation. Manure irrigation? Indeed. But perhaps surprisingly, the topic cuts across an array of issues important to planners. Curious? Read on.

Wisconsin has long taken pride in its rich heritage and continuing claim of being America’s Dairyland. Dairy producers, cheese makers, and related organizations continue to thrive in Wisconsin as they seek to create new craft products, new and expanded markets, and greater efficiencies. Dairy, and agriculture in general, has a sizable economic impact in the state. Through the years the dairy production model has been changing, and many operations are expanding to add more cows, produce more milk, and produce more (and more) manure.

Multiple issues arise for neighbors and communities as livestock operations consolidate and expand the numbers of animals at individual sites. The list of concerns is familiar—negative effects on air quality, water quality, water use, traffic, noise, odor, public health, and overall quality of life—and has been covered extensively through Wisconsin media outlets as well as rural and community development circles. Questions about manure are always central to the discussion. Recent concerns have emphasized public health risks and the potential for harm from airborne pathogens and other contaminants, especially in areas with high livestock densities.

Although highly variable in its actual content, livestock manure can be a great source of nutrients and organic matter to grow the crops needed for dairy feed. However, when applied in excess, in areas subject to stream and lake contamination, or in areas where the underlying geology provides direct conduits to drinking water sources, manure can create real problems for the environment and for public health. Also, because of practical limitations of putting manure onto fields in the winter months or while crops are growing in the summer, much of Wisconsin’s livestock manure is applied during relatively short time periods in the spring before planting, which can be complicated by late thaws or extended rains, and in the fall, after harvest and before the ground freezes. These narrow time periods of intensive action lead to rural road safety problems such as congestion, accidents involving farm vehicles, and odor issues, as well as potential application mistakes and spills.

Manure irrigation refers to the practice of applying livestock manure or processed wastewater through irrigation equipment. It generally involves pumping the liquid from a...
Scholarships

The department used its UW Foundation accounts to award 13 current planning students with scholarships for the 2014–15 academic year. Listed below are the recipients for each of the awards:

The **Jerome Kaufman Scholarship** is used to assist graduate planning students who are interested in older American cities, food systems, and social justice and equity. During November, the following students were awarded Kaufman Scholarships:

![Natalie Cotter](image1)  ![Abigail Jackson](image2)  ![Youn Hee Jeong](image3)  ![Chris Spahr](image4)  ![Xiaojing Xing](image5)

![Charles Androsky](image6)  ![Anna Brown](image7)  ![Todd Flournoy](image8)  ![Phillip Rynish](image9)

The **Stephen Born Environmental Stewardship** fund is being used to assist graduate planning students who are interested in water and environmental planning in their pursuit of scholarly activities and civic engagement. During November, the following students were awarded Born Environmental Stewardship Scholarships:

![Natalie Cotter](image1)  ![Abigail Jackson](image2)  ![Youn Hee Jeong](image3)  ![Chris Spahr](image4)  ![Xiaojing Xing](image5)

![Charles Androsky](image6)  ![Anna Brown](image7)  ![Todd Flournoy](image8)  ![Phillip Rynish](image9)

The **Roger and Rose Mary Rupnow Fund** is being used to provide a scholarship to graduate planning students who are academically worthy and have significant financial needs. During November, the following students were awarded Rupnow Scholarships:

![Natalie Cotter](image1)  ![Abigail Jackson](image2)  ![Youn Hee Jeong](image3)  ![Chris Spahr](image4)  ![Xiaojing Xing](image5)

![Charles Androsky](image6)  ![Anna Brown](image7)  ![Todd Flournoy](image8)  ![Phillip Rynish](image9)

The **Richard Andrews Scholarship** is being used to aid the department in its graduate planning education role by providing scholarships to outstanding students in need of financial support. During November, the following students were awarded Andrews Scholarships:

![Natalie Cotter](image1)  ![Abigail Jackson](image2)  ![Youn Hee Jeong](image3)  ![Chris Spahr](image4)  ![Xiaojing Xing](image5)

![Charles Androsky](image6)  ![Anna Brown](image7)  ![Todd Flournoy](image8)  ![Phillip Rynish](image9)

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![Charles Androsky](image6)  ![Anna Brown](image7)  ![Todd Flournoy](image8)  ![Phillip Rynish](image9)

**Congratulations to these fine graduate students!**
Continued from page 1

storage area, such as a manure pit, through pipes or hoses to equipment conventionally used for irrigation—center pivots or travelling guns—that are used to apply the liquid material to fields.

Although commonplace in the southeastern U.S. and Great Plains states, the practice has been less widespread in Wisconsin. Among Wisconsin’s largest livestock operations, the Confined Animal Feeding Operations (CAFOs), fewer than 20 use the practice, and there is no accurate count of the smaller non-CAFO users. Yet, a host of factors are nudging more farmers to consider manure irrigation as part of their overall manure management system. Among these are increasing interest in (1) installing irrigation systems as protection against drought and capturing manure management benefits as part of that investment, (2) shifting manure distribution away from tankers/trailers on roads and toward piped distribution systems, (3) better control over the timing to allow for manure application during the summer growing season, and (4) potential nutrient efficiency and crop benefits (along with potential decreases in leaching to groundwater) by delivering nutrients when plants are growing. Currently in Wisconsin, any CAFO using manure irrigation must specify details within their required nutrient management plan and follow special restrictions outlined in state codes NR 243 and NR 214. These include requirements for setbacks from homes, waterways, and wellheads, as well as application rates and soil testing. Smaller, non-CAFO users have relatively few limits on their use of the practice.

All of the concerns about large dairies come to the front in discussions of manure irrigation, especially those related to potential public health threats from airborne manure contaminants. Public hearings over new or revised livestock CAFO permits that include manure irrigation are contentious, and some local governments in Wisconsin have either banned or considered banning the practice. When the Wisconsin DNR attempted to form a technical workgroup on the issue, numerous individuals and organizations objected that the process was unfair and ignoring their concerns. As a response, Professor Genskow, as part of UW Extension and CALS, was asked to convene an inclusive process to examine a broader scope of issues and to produce recommendations for state agencies, local governments, and citizens seeking to understand this expanding technology and its implications.

The Manure Irrigation Workgroup—comprised of researchers, state and local public health agencies, agricultural and environmental agencies, farmers, conservation interests, and concerned citizens—began in summer 2013 following two public forums intended to share research, solicit input, and set the workgroup agenda. Presentations from the May 17, 2013, forum are posted at the workgroup website (fyi.uwex.edu/manureirrigation) along with workgroup information and additional resources. Concurrently, and independently, a state-of-the-art study assessing public health risks associated with manure irrigation has been conducted by some of the workgroup members. The combination of workgroup deliberations over technology, risk and uncertainty, agricultural operations, and regulatory and policy issues, while also working with public health researchers has allowed for unique insights into the issue. The workgroup expects to produce its recommendations early in 2015.

Beyond the specific environmental, public health, rural land use, economic development, and general quality of life concerns around this issue, the Manure Irrigation Workgroup process raises several larger questions important to planners. How do we accommodate new technologies and practices that reduce some risks (pollutant runoff, traffic safety, nutrient leaching) while leaving uncertainties around others? How can we as planners communicate effectively about perceived but possibly unproven benefits and risks associated with new practices? How do we engage in science-based decision making that also considers real quality of life and personal stress and anxiety issues related to changing landscapes? If you would like to weigh in on these issues, send your thoughts to the department, or better yet, make a visit to campus or to an Alumni Relations Council event and strike up a conversation with other URPLites.

Ken Genskow earned his PhD at URPL in 2001 and joined the faculty in 2005. Ken is an associate professor and extension specialist for environmental planning and policy. His research, teaching, and extension work explores issues related to governance, integration, adaptation and roles of outreach, incentives, and technical assistance in natural resources and environmental management.
Greetings to all of you! The fall semester is off to a great start with four ARC events, including the first annual Welcome Back Mixer on the Pyle Center rooftop on September 18, the Twin Cities URPL Alumni Gathering in Saint Paul on October 10, a professional roundtable with Roger Rupnow on October 17, and a nonprofit panel presentation for student/alumni networking on November 14.

Each event was designed to further the Alumni Relations Council’s goal of being a conduit for networking that better connects planning alumni to (1) the department, (2) other UW–Madison Planning alums, and (3) current URPL students.

In addition to these networking events and panel presentations, we have also initiated a new program that we are calling RAIN to connect graduating planning students with our alumni to help them in their job searches. RAIN is an acronym for Resume’s, Applications, Interviews, and Networking. Our students plant the seeds of career interests and opportunities through their coursework, travels, relationships with other students, and the projects they complete in their studies.

This year’s graduates are getting closer to the point of exploring and considering specific areas of opportunity where they can apply their talents, knowledge, and passion. But in between the coursework and the professional environment, we believe that RAIN can help the seeds grow into exciting new careers.

We are asking each of you as alums to consider volunteering to be part of a pool of URPL mentors who would be willing to work with two to three other alums as a mentoring team for graduating URPL students. We would request your help assisting students in writing resumes, brainstorming on profession fields to consider, performing mock interviews (by Skype if needed), and by introducing them to professional networks that could be valuable to them as they pursue career opportunities.

If you have questions or if you are interested in becoming a RAIN mentor, please contact Emily Reynolds, via email at emreynolds2@wisc.edu to see how you can become part of this important team effort to help future planners.

In the spirit of networking, a group of Twin Cities planning alumni got together at the Public Kitchen and Bar in Lowertown Saint Paul in October. From left to right: Liz Heyman (MS ’12), Mark VanderSchaaf (MS ’85), Erik Carlson (MS ’04), Jamie Radel (MS ’05), Meg McMonigal (MS ’85), Pat Trudgeon (MS ’96), Lucy Thompson (MS ’81), David Carlson (MS ’87), Scott Janowiak (MS ’12), and Lisa Clemens (MS ’80).

Alumni numbers pass the 1,200 mark!

We have four current students who plan to graduate with a master of science degree in urban and regional planning this fall semester. In addition, we have one student who will finish his PhD degree. These new graduates will bring our total alumni pool to 1,202 since the department’s inception in 1962. Congratulations to the following students who will graduate in December with a degree from the department. And, of course, best wishes with your professional careers!

**Master of Science (MS):**
- Geoffrey Tyler Hartnell
- Xiaoting Yang
- Sijia Zhang
- Wei Zhou

**Doctor of Philosophy (Ph.D.):**
- Adam Mednick
**WSPA News**

**Jimmy Camacho, President**

This year, the Wisconsin Student Planning Association (WSPA), a student organization funded by the Wisconsin American Planning Association chapter, is actively engaged in developing professional development and community engagement opportunities. For example, on October 17, alumni Roger Rupnow met with students to share his experiences in academia and the public sector. We hope to organize similar events in collaboration with the URPL Alumni Relations Committee, other UW Madison student organizations, and professional planners in the region.

We are also working toward providing URPL apparel and merchandise later this year to represent the pride we all share in the department. Announcements regarding opportunities to order items will be forthcoming. Also note that we will be presenting our professional projects in a public forum open to professionals and alumni. If you are in Madison on Friday, May 15, we invite you to attend this event.

There are of course other opportunities that exist which may contribute to the goals of WSPA, and we certainly welcome recommendations. Please contact WSPA to discuss other events or to schedule a visit with current students by contacting Alumni Relations Council representative Anna Brown by email at annarosebrown@gmail.com.

**New Affiliated Faculty**

The Department of Urban and Regional Planning is proud to welcome two new affiliated faculty this year, Dr. Revel Sims and Dr. Carolina Sarmiento. Both recently finished their doctorates in urban planning at the University of California, Los Angeles and Irvine. In different ways, both Revel and Carolina deal with important questions about urban and neighborhood change. Revel’s work focuses on the problem of gentrification and displacement. His dissertation, “It Was Like Dancing on a Grave: Eviction and Displacement in Los Angeles 1994–1999,” uses spatial analysis and archival methods to uncover the four major geographies of eviction in the city. These geographical patterns of displacement are subsequently shown to connect to the changing role and scale of property ownership, the restructuring of the financial industry, and the relationship between state and local actors in the struggle over accumulation during the time period. Carolina’s dissertation, “Spaces of Possibility: Cultural Planning, Race and Resistance,” investigates the social impacts of culture-led development in low income communities of color. Through ethnographic research including numerous interviews with workers, planners, property and business owners in Santa Ana and Oakland, California, her dissertation shows that urban planners need to broaden their perspective of public participation and expand the notion of who is and who is not considered an artist within economically polarized and racialized environments that often exclude those who are the center of the cultural-political economy.

Both Revel and Carolina are excited about their move to Madison, and are looking forward to extending their research here in the Midwest and working to bridge the connections between the university and the community. They are both teaching courses this upcoming spring—Revel, a class on gentrification, and Carolina, one on community sustainability and another on community-based research.

**Wenxiong (William) Wang Visiting Scholar**

Dr. Wenxiong Wang is currently visiting our department as a 2014–15 visiting scholar. William was accompanied by his wife Yu Lihong, who has taught at UW–Platteville, and his active 10 year-old daughter Xiya. William’s research focuses on rural land use and management. He is both a leader of several active projects through the National Science Foundation of China and an associate professor in the College of Land Management at Huazhong Agricultural University. He holds both a master’s and PhD in engineering management, and currently has an article pending, “The Efficiency Influencing Mechanism in the Early Stage of Rural Land Consolidation: Projects under the PPP Model,” in *China Population, Resources and Environment*.
Faculty and PhD Student News

Professor Harvey M. Jacobs has been certified as a Fulbright Specialist for the 2014–19 period. The Specialist Program, administered as part of the Fulbright Program, allows for visits ranging from two to six weeks at academic institutions in over 140 countries. Harvey was involved in the program’s early years when he was on the roster from 2002 to 2009. During that time he undertook visits to Norway and Spain and served as a reviewer for applicants to the program.

While in China, May–June 2014, Harvey was invited to speak at Peking University, under the auspices of the Lincoln Institute Distinguished Scholar Lectures series, and at the Chinese Society for Urban Studies. At both venues he presented “U.S. Planning Education: A 50 year Perspective on the Past and a View Towards the Future.”

In July Harvey participated in the annual meeting of the Association of European Schools of Planning in Utrecht, Netherlands, delivering a paper jointly authored with Dutch colleague Erwin van der Krabben titled “Is Regulatory Takings Coming to the Netherlands?”

In October Harvey continued his (and URPL’s and UW’s) long-term relationship with the International Center for Land Policy Studies and Training in Taiwan, lecturing during the opening week of the training program on land policy for sustainable rural development. While in Taiwan he was also invited to lecture at the Department of Land Economics of National Chengchi University. Also in October he participated in the annual meeting of the Association of Collegiate Schools of Planning in Philadelphia, where he delivered a jointly authored paper with his Dutch colleague Erwin van der Krabben, “Regulatory Takings and the Contested Future for Dutch Planning.”

In November Harvey delivered the opening lectures to a Chinese delegation from the Ministry of Land Resources visiting the Lincoln Institute of Land Policy in Cambridge, Massachusetts, to study aspects of U.S. land and urban development approaches. In addition, he was invited to lecture at Radboud University Nijmegen, Netherlands, as part of the 2014–15 Alexander von Humboldt Lecture series. The series theme was “Spatial Justice.” His lecture was titled “Informal Settlement Upgrading in Global Mega-cities: What Does Spatial Justice Even Mean? (The Property Rights–Human Rights Dilemma).”

José María Tubio Sánchez, a PhD student at the University of Santiago de Compostela, Spain, spent most of the summer at the department. José María has visited several times, and used this visit to complete his doctoral dissertation.

Juriën Poulussen, a master’s student at Radboud University Nijmegen, Netherlands, spent the fall semester at URPL undertaking research for his master’s thesis. He investigated the use of business improvement districts (BIDs) in the U.S. and their potential as a policy approach in the Netherlands.

Professor Dave Marcouiller has finalized a book chapter titled “North American Tourism” that will appear in Blending Perspectives on Tourism and Recreation, an edited volume by his former student Dr. Jean Christophe (JC) Dissart (PhD ’02), scheduled to be published by Ashgate early in 2015.

Professor Marcouiller has also been working with doctoral student Hyun Kim on several manuscripts. The two recently completed the book chapter “Urban Vulnerability and Resiliency to Natural Disasters: An Integrative Tourism Planning Perspective” for inclusion in Mark Skidmore, Gary Sands, and Pierre Fillion’s edited volume Planning for and Recovering from Urban Disasters (to be published by Ashgate). With the addition of Kyle Woosnam, they published the article “Spatial and Temporal Contours in Economic Losses from Natural Disasters: A Case Study of Florida” in the KSCE Journal of Civil Engineering. Several additional manuscripts on similar topics are in review. Hyun Kim is on track to graduate with a PhD in spring 2015.

Professor Alfonso Morales fostered the creation of the Kaufman Lab for the Study and Design of Community Food Systems and Marketplaces. The lab includes faculty from other disciplines, including Julie Dawson (horticulture), Lydia Zepeda (consumer science), and Monica White (community and environmental sociology, the Nelson Institute). A recent event featured Anne Roubal, PhD student in public health with a URPL minor, who presented on farmers markets in Wisconsin. The lab meets three times each semester.

Morales has new contracts with the Oneida Nation of northern Wisconsin for a food-systems plan and for a community kitchen. URPL graduate students Riley Balikian and Jessica Buechler are the PAs on the projects. He also is supporting the UW Odyssey Program (with Ariel Kaufman), through grants from the Morgridge Center and the City of Madison. These grants help provide educational and socioeconomic opportunities for adults returning to college. With the assistance of PhD student Lani Skipper, he published two articles on farm-to-school programs in the USDA’s Rural Cooperatives magazine. He and PhD student Lauren Suerth have published “Composting” in the APA publication Zoning Practice. He has a new book contract with the University of Iowa Press for an edited volume titled Cities of Farmers: Problems, Possibilities and Processes of Producing Food in Cities. As co-author with Alvaro Huerta, now of California State University, Pomona, their article “Formation of a Latino Grassroots Movement: The Association of Latin American Gardeners of Los Angeles Challenge City Hall” has been published in Aztlan, making this the sixth leading journal of a scholarly association in which he has published.

In October Morales’ Central City Planning (URPL 761) students toured Milwaukee and Chicago. His Food Systems and Marketplaces (URPL 711) students are working on a number of local and national food systems projects. In May he was honored as part of a team with the Chancellor’s Community–University Partnership Award.

Adam C. Mednick, PhD (who by the way just graduated from the department) has begun a postdoctoral position with the UW Sea Grant Institute. Congratulations, Adam!
Alumni News

Peter G. Conrad, AICP (MS ’87) has continued his role as director, Local Planning Assistance, Maryland Department of Planning. This past year has been busy at the Maryland Department of Planning, and Peter is involved in two important projects. One is the National Collaborative of State Planners that has been formed to create a network within the American Planning Association for state planners in all 50 states. The collaborative creates a place to advance effective state-level planning, mainly through sharing success stories and ideas. In addition to launching the website, the collaborative produced a webinar on state-level climate change and sea-level rise planning. Finally, their work on addressing the challenges of urban revitalization resulted in a report titled “Reinvest Maryland,” presented to the governor through the Maryland Sustainable Growth Commission. This work focused on targeting and streamlining the development process for infill locations around the state for revitalization and redevelopment.

The American Institute of Certified Planners (AICP) named Stephen B. Friedman, FAICP, CRE (MS ’71) to the prestigious AICP College of Fellows for his outstanding achievements in urban planning professional practice. Friedman, who is president of SB Friedman Development Advisors, lives in Chicago. The 40 honorees were inducted into the AICP College of Fellows this past April at the American Planning Association’s 2014 National Planning Conference in Atlanta, Georgia. The College of Fellows recognizes the achievements of the planner as an individual, elevating the fellow before the public and the profession as a model planner who has made significant contributions to planning and society. Fellowship is granted to planners who have been members of AICP and have achieved excellence in professional practice, teaching and mentoring, research, public and community service, and leadership.

Maria Holl (MS ’12), has completed her first year as director of the Pepin County Office of Land Management/ Emergency Government. She is putting all her URPL skills to use, as the department includes zoning, planning, land records (GIS), environmental health, emergency management, economic development, tourism, recycling and solid waste, while having only two staff members. For Maria, one of the most challenging parts of this job is developing a forward thinking approach to planning for future regional needs.

Matius Larson Krisetya (MS ’96) is currently working in the Philippines as country director for a German NGO. The company’s teams are constructing rural housing for Typhoon Yolanda victims, while at the same time exploring inclusive-design in rural housing development. The idea comes from their professional roots as planners with a concern for health and well-being in the built environment whether urban or rural.

Lucie Vogel (MS ’71) is the Principal Planner at HHS Indian Health Service. She will have an article featured in the October issue of Planning.

Recent Donors

We’d like to extend a special thanks to donors who were missed in the 2014 Summer Issue of Connections. Your contributions, as well as those who have continued to support our department, make a significant difference in the academic, professional, and outreach efforts of our students and faculty.

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