

# IISC

## ANNUAL REPORT

2014 – 2015



**DECORAH &  
WINNESHIEK COUNTY**



**IOWA  
CITY**



**SIMPCO &  
SIOUX CITY**

# DIRECTOR'S LETTER

Dear Friends,

As I reflect on another successful year for the Iowa Initiative for Sustainable Communities (IISC), I am reminded of the importance of collaboration in community engagement and development. The very nature of the IISC requires successful partnerships between University of Iowa students, faculty, community partners and IISC staff, but this year more than ever, collaboration was at the heart of our work.

A great example of this collaboration occurred in Winneshiek County, where five different University of Iowa departments worked together to study the geologic, economic, legal and geographic impacts of the potential entry of the frac sand mining industry in the county. This collective effort resulted in a broader analysis of the issue, and generated both a valuable learning opportunity for students as well as enhanced project deliverables for community partners.

Over 275 students and faculty and more than 40 community partners completed 33 projects, making the 2014-15 academic year the most productive yet for the IISC. This report provides a glimpse into this year's past activities, but I encourage you to visit our website at [iisc.uiowa.edu](http://iisc.uiowa.edu) to read full reports on all completed projects. Our partner communities of Decorah and Winneshiek County, Iowa City, and the Siouxland Interstate Metropolitan Planning Council (SIMPCO) and Sioux City provided unmatched support and commitment to the IISC and our students and faculty. Their dedication to ensuring mutually beneficial partnerships with the University of Iowa resulted in an extension of the IISC's partnership with these communities through this 2015-16 academic year. As always, we are indebted to the students and faculty who committed literally thousands of hours of creative, intelligent work to the IISC projects.

We continue to enjoy tremendous support from our umbrella office, the Provost's Office of Outreach & Engagement, led by Associate Provost Linda Snetselaar, as well as the IISC's Advisory Board. As we look forward to next academic year, a Request for Proposals has been released for new community partner proposals, and is available on our website. I encourage you to follow our program updates on Facebook, Twitter or our website, or contact any of the IISC staff for more information. Thank you to all of you for your continued involvement and support.

Best Wishes,



Nicholas Benson, *IISC Program Director*

IISC COMMUNITIES  
2014 - 2015



Credit: Larry Reis

DECORAH & WINNESHIEK COUNTY

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IOWA CITY

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Credit: City of Sioux City

SIMPCO & SIOUX CITY

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# 2014 – 2015 HIGHLIGHTS

## NATIONAL RECOGNITION

“ The University of Iowa, home to 31,000 students, has a strong research profile. Through IISC, the university is harnessing that research prowess to meet the needs of Iowa communities.

—THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

*Iowa Initiative for Sustainable Communities: Making Use of a Research University's Greatest Strengths*



Students working on a stormwater management plan collect data in Decorah's Old Dry Run Creek

In June 2015, the U.S. Department of Housing and Urban Development (HUD) published an article about the Iowa Initiative for Sustainable Communities that commended the IISC on its ability to apply the strengths of the University of Iowa to building strong communities across the state. HUD highlighted the value of concentrating students and faculty in a few communities each year to enhance partnership impacts, as well as the importance of real world projects to students' educational and professional development.

## FACULTY AWARDS



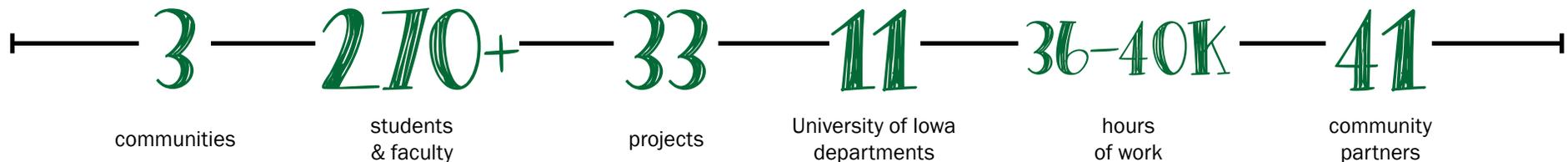
Rachel Young  
*Journalism and Mass Communication*



Paul Hanley  
*Engineering*

In 2014-15, the IISC awarded Rachel Young and Paul Hanley with the first annual Faculty Service Award. Through their commitment to community engagement, Rachel and Paul have significantly benefited the university and state over several years of working with the IISC.

## BY THE NUMBERS





“

The IISC is the idealization of an outreach organization realized at the University of Iowa”

—UNIVERSITY OF IOWA FACULTY

*Graduate students working on a stormwater management plan present their project at a public event at Luther College*

# DECORAH & WINNESHIEK COUNTY

Located in the scenic Driftless Region of northeastern Iowa, Winneshiek County draws visitors with its vibrant culture and extensive recreational opportunities. Through partnership with the IISC, the city of Decorah and Winneshiek County are working towards their future goals while preserving their unique cultural and environmental character. The projects completed for this partnership were focused on natural resource use and recreational opportunities.

Barbara Schroeder, Director of Winneshiek County Conservation, and Dean Thompson, Winneshiek County Supervisor, lead this partnership. The projects involved the leadership and collaboration of several local organizations and governments, including the City of Decorah, Luther College, Northeast Iowa Resource Conservation & Development, Inc., and the Trout Run Trail Public Art Committee.

# FRAC SAND PROJECT HIGHLIGHTS

In response to the potential entry of the frac sand mining industry into the area, Winneshiek County sought comprehensive knowledge on the potential impacts of frac sand mining on their county's future. Students and faculty from the School of Urban and Regional Planning, Department of Earth and Environmental Sciences, College of Engineering, the Citizen Lawyer Program, and the NSF-UI Geoinformatics for Environmental and Energy Modeling and Prediction program (GEEMaP) collaborated to complete five highly interdisciplinary projects concerning the potential impacts of the industry in the county. These projects included an economic impact study, a transportation impact study, an analysis of Winneshiek County's soils and their potential desirability for the frac sand mining market, and a study of legal precedents to guide the County's future interactions with the industry.

To allow this research to have the strongest impact on county decision-making, Winneshiek County passed a moratorium on the issuance of permits for frac sand mining and related operations while the studies were being completed. These five projects exemplify the high-quality, high-impact, and academically challenging work that the IISC seeks to facilitate for student, faculty, and community benefit.



Students learn about sand mines on-site in Winneshiek County



Students meet their project partners while touring Winneshiek County

## PROJECT LIST

- ▶ Analyzing the Suitability of St. Peter Sandstone for Frac Sand Mining in Winneshiek County  
*Department of Earth and Environmental Sciences*
- ▶ Economic Impact Study of Frac Sand Mining Industry  
*School of Urban and Regional Planning*
- ▶ Frac Sand Mining Industry Legal Analysis  
*College of Law*
- ▶ Future Frac Sand Mine Locations in Winneshiek County  
*Department of Geographical and Sustainability Sciences*
- ▶ Interactive Art on Trout Run Trail  
*School of Art and Art History and Arts Share*
- ▶ Marketing the Upper Iowa River for Sustainable Use  
*Tippie College of Business*
- ▶ Neste Park Recreational Facility and Nature Center  
*College of Engineering*
- ▶ Neste Park Recreational Trails  
*College of Engineering*
- ▶ Stormwater Management and Utility Planning  
*School of Urban and Regional Planning*
- ▶ Transportation Infrastructure Impacts of Frac Sand Mining Industry  
*College of Engineering*
- ▶ Wisconsin-based Prediction of Future Frac Sand Mine Locations in Winneshiek County  
*GEEMaP*

## BY THE NUMBERS





“My partnership with the IISC program has allowed my students to have much larger impacts and work with real budgets and accountability that raise the bar.”

—UNIVERSITY OF IOWA FACULTY

*City of Iowa City staff bring students on a tour of Iowa City's alleyways for the Green Alleyways project*

# IOWA CITY

The City of Iowa City has identified sustainability and inclusivity as overarching goals in the City Council's recent strategic plan. After devastating floods in 2008, the City reconstructed with a focus on sustainable practices, and completed a Sustainability Assessment in 2013. Partnering with IISC has allowed the City and local organizations to continue to grow the downtown into a dynamic cultural hub for the community, market their sustainability goals and achievements, and continue projects that enhance the community's livability. The projects completed for this partnership were focused on environmental conditions, sustainable development, and communications.

Brenda Nations, Sustainability Coordinator at the City of Iowa City, leads this partnership. Many City departments collaborated with University of Iowa students and faculty to achieve the projects completed for this partnership, including the Manager's Office, Parks and Recreation, and Communications. In addition, students partnered with Johnson County Public Health and the Iowa City Downtown District.

# PROJECT HIGHLIGHTS

During the 2014-15 partnership, students and faculty from the Departments of Geographical and Sustainability Sciences, Earth and Environmental Sciences, and Biology conducted several projects focused on urban ecology in Iowa City. To assess its suitability for community gardens, students enrolled in a Soil Genesis and Geomorphology class evaluated soils at the Chadek property, a vacant lot located in the Morningside neighborhood. The students used field and lab methods to test the soil's density, nutrient levels, acidity, and other features, and presented a report to the City of Iowa City that recommended the creation of a community garden on the most suitable portion of the lot. Students in an Urban Ecology class completed two projects; one that assessed urban bee diversity and another that examined emerald ash borer (EAB) risk in the city. These students delivered research and recommendations on supporting urban bee populations to the City, and used several survey methodologies to assess current ash tree condition and coverage in Iowa City and identify sites for the City to focus their EAB monitoring and management strategies. These projects highlight the technical skills that students develop and offer to their community partners through engaged learning.



Students analyze soil for the development of a community garden



Students promote radon testing at the Iowa City Farmers' Market

# BY THE NUMBERS



## PROJECT LIST

- ▶ Community Radon Campaign  
*College of Public Health*
- ▶ Emerald Ash Borer: Monitoring and Management  
*Department of Geographical & Sustainability Sciences*
- ▶ Enhancing Urban Pollinator and Beneficial Insect Habitat  
*Department of Geographical & Sustainability Sciences*
- ▶ Green Alleyways  
*School of Urban & Regional Planning*
- ▶ Internal and Local Marketing of Sustainable Behavior  
*Tippie College of Business*
- ▶ Soil Analysis of Potential Urban Agriculture Areas within City Limits  
*Department of Earth & Environmental Sciences*
- ▶ South Airport Site Development Improvements  
*College of Engineering*
- ▶ STAR Sustainability Assessment  
*Department of Geographical & Sustainability Sciences*
- ▶ Stormwater Management with Permeable Pavement and Bioretention Structures  
*College of Engineering*
- ▶ Strategic Communication Campaign for Marketing Sustainability  
*School of Journalism & Mass Communication*
- ▶ Water Reclamation for Terry Trueblood Recreation Area  
*College of Engineering*



“ I gained valuable real world experience working on this project that I draw from for interviews and other class projects. My academic career would not have been as nearly fulfilling without it.”

—UNIVERSITY OF IOWA STUDENT

*Engineering students discuss their project with the Sioux City Mayor at the IISC's year-end event in Sioux City*

# SIoux CITY

Located in northwestern Iowa near the scenic Loess Hills, Sioux City is part of the larger tri-state metropolitan area that encompasses Iowa, Nebraska, and South Dakota. With over 82,000 residents, Sioux City's focus is on creating a vibrant, sustainable downtown, a strong economy and a multifaceted transportation network. The projects completed for this partnership were focused on neighborhood development, land development, and engaging residents in community-wide initiatives like the Blue Zones Project™.

Michelle Bostinelos, Transportation Planning Director of the Siouxland Interstate Metropolitan Planning Organization, and Charlie Cowell, Planner at the City of Sioux City, lead this partnership. Several additional organizations also partnered with UI faculty and students on these projects, including the Sioux City Public Library and the Blue Zones Project™.

# PROJECT HIGHLIGHTS

In the School of Urban and Regional Planning, students focused on three projects that addressed community development in Sioux City. The first of these was an Active Transportation Plan that students completed as part of the City of Sioux City's effort to become a Blue Zones Project™ demonstration site. Students worked closely with several local organizations to engage residents in the planning process, seeking to advance a sense of community through sustainable transportation. The second project focused on the Leeds neighborhood, a community that serves as the northeast entryway into Sioux City and sits at the edge of new "big box" national franchise developments. For this project, students engaged neighborhood residents to complete a plan that will protect both the neighborhood's economic vitality and cultural character. The third project examined how historical housing development patterns and preferences resulted in Sioux City's present-day diverse housing stock, which is architecturally distinct but has become disproportionately aged in the downtown center. Students developed a housing plan to guide future investment in quality housing throughout the city. The plan recommends that city staff re-build neighborhoods by empowering and encouraging a sense of community among city residents. These projects are strong examples of the partnerships that are at the heart of the IISC and community engagement.



Students working on an active transportation plan learn about walkability



Students working on the Leeds Corridor project meet with their partners

# BY THE NUMBERS



## PROJECT LIST

- ▶ Active Transportation Plan— Blue Zones Project™  
*School of Urban & Regional Planning*
- ▶ Allying and Practicing Social Justice Locally  
*School of Social Work – Sioux City*
- ▶ Coordinating Early Literacy Resources in Support of Grade-level Reading Success  
*School of Library and Information Science*
- ▶ Country Club Boulevard Reconstruction and Traffic Calming Alternatives  
*College of Engineering*
- ▶ Floyd River Drainage Mitigation  
*College of Engineering*
- ▶ Floyd River Trail Improvements  
*College of Engineering*
- ▶ Leeds/Floyd Boulevard Corridor Study  
*School of Urban & Regional Planning*
- ▶ Neighborhood Housing Study  
*School of Urban & Regional Planning*
- ▶ Perry Creek Flood Control and Design Elements  
*College of Engineering*
- ▶ Southbridge Industrial Park Utility and Drainage Improvements  
*College of Engineering*
- ▶ Sustainability Marketing Plan  
*Tippie College of Business/Marketing Institute*

# COMMUNITY IMPACTS

## PAST PARTNERSHIPS: WASHINGTON

In 2013-14, the IISC worked with Washington, IA on seven projects to enhance the city's marketing and tourism efforts, create public art downtown, and assist with storm water control and the development of a new Wellness Park. One outcome of a branding initiative project was to recommend unified branding for Washington's marketing efforts, including the tagline "Discover a Classic" for the Chamber of Commerce. Today, a community group is seeking grants to implement this unified branding on new billboard signs for Washington. Additionally, the IISC partnered with Arts Share to create a community mural on the side of the Washington Public

Library. The mural, completed by MFA graduate student Erin Rappleye, reflects children's literature and contains recognizable literary references.

“ The Chamber of Commerce has been utilizing the new branding in our marketing materials. The IISC students brought a fresh, outside perspective, and the branding project is encouraging us to look across our community and provide consistent messaging and unity in our marketing materials.”  
—MICHELLE REDLINGER, *Executive Director of the Washington Chamber of Commerce*



# 2014-2015 IMPACTS

Projects completed during the 2014-15 academic year are already making an impact across Iowa. In Winneshiek County, County decision-makers will use the results of the IISC's frac sand projects to inform future policies and actions regarding the industry. In Iowa City, the City's communications staff have implemented promotional materials that were designed by students in the School of Journalism and Mass Communication. In Sioux City, the Active Transportation Plan developed by graduate students in the School of Urban & Regional Planning contributed to the City of Sioux City's successful Blue Zones designation. This plan was adopted by the City of Sioux City in September 2015 and will help shape the City's future transportation planning.

“We will use every single report and presentation from the IISC studies.”

—IISC COMMUNITY PARTNER



“Students’ abilities and energies were obvious from the outset. Students listened and asked penetrating questions.”

—IISC COMMUNITY PARTNER

“IISC delivered information that otherwise would not be within reach of our resources.”

—IISC COMMUNITY PARTNER



# CONNECT WITH US



The IISC partners with communities through a Request for Proposal process and partners with students and faculty through courses and independent studies. Find out how to get involved by visiting [iisc.uiowa.edu](http://iisc.uiowa.edu).

## ADVISORY BOARD

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## MISSION

Through developing projects that address community priorities while engaging students in impactful experiences throughout the state, the IISC pursues a dual mission of enhancing the quality of life in Iowa while transforming teaching and learning at the University of Iowa. The partnerships between students, faculty, and community members that are facilitated by the IISC draw stronger connections between the University of Iowa and the state, advancing the university's commitment to mutually beneficial engagement with Iowa communities. These partnerships enable the IISC to address Iowa's economic, environmental, and socio-cultural challenges in ways that build a more sustainable future for the state, and more successful, engaged futures for our students.

A PROGRAM OF



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