

Members and Friends of the Indiana Water Resources Association,

The Indiana Water Resources Association (IWRA) is pleased to announce the following 2016 award winners that were recognized during the 37th Annual Water Resources Symposium held at the Potawatomi Inn at Pokagon State Park on June 8 - 10, 2016:

Charles H. Bechert Award

Manuela Johnson; SDRF Program Manager, Indiana Dept. of Homeland Security – For her lifelong work at the IDHS and her leadership of the Indiana Silver Jackets since 2006.

Outstanding Achievement Awards

Academic Sector – Karissa Bash, Kenyari Keith, Allyse Turner, Paige Williams; IUPUI Dept. of Journalism and Public Relations – For their development of a communication and outreach plan to educate the public regarding low head dam safety.

Private Sector – Todd Feenstra; President, Tritium, Inc. – For his establishment of the LENK ground water monitoring network to evaluate agricultural irrigation impacts in northern Indiana.

Public Sector – James Sullivan; IDEM, Office of Water Quality – for his motivation and leadership to establish Indiana's statewide ground water monitoring network.

The IWRA congratulates these deserving award winners and is proud to honor their achievements. The following are nominations submitted for the award winners and past recipients of each award:

Charles H. Bechert Award

Manuela Johnson: Manuela has chaired and led one of the most successful multiple agency groups in the country, the Indiana Silver Jackets. The Indiana Silver Jackets bring together government (federal, state, and local), university, and private groups together to address water related hazards, such as flooding drought, and dam safety. This group has been able to identify key needs for managers and researchers, and then secure the funding to ensure that the appropriate work is done. Specifically, this has led Indiana to: (a) develop 37 Flood Inundation Maps (FIM) for key river and stream reaches—which leads the Nation by more than 3 times any other state; (b) several Fluvial Erosion Hazards (FEH) studies which have identified where the most mobile streams are that could impact property and infrastructure and led to the only StreamStats program in the country to incorporate bankfull-channel dimensions for unmonitored streams in Indiana; (c) have the entire state flown for LiDAR—again which puts Indiana in the top tier of all States; and (d) develop one of the more active low head dam removal and stream restoration groups in the country. While Manuela is not responsible directly for all the individual research, her leadership and people skills has allowed this group to not only succeed but to flourish. Many Silver Jacket groups in the country are not nearly as effective in providing the end results like Indiana has achieved. This has been achieved in no small part because Manuela not only follows a stated goal of the Silver Jackets, “each agency/group must leave their agency hat at the door and think about what is needed for Indiana.” Her leadership and personality has led the group to become advocates for each to ensure that the needed information is provided to managers to save lives and property in Indiana.

Manuela grew up in Franklin, Indiana and graduated from Franklin Central H.S....yes the Flashes. Later, she graduated from IUPUI in 1985 with a BS in Chemistry and Biology. Public safety was her passion though. Even before her degree she was a volunteer firefighter and EMT in Bunker Hill Fire Department (Franklin Township) from 1978 to 1987 and after that with the Brooklyn Fire Department from 1987 to 2000. After graduation from IUPUI in 1985 she began working with the Indiana Department of Homeland Security in the State Emergency Management Agency as a Section Chief until 2011. Other jobs she held included Hazard Mitigation Program Director, Special Projects Program Director, Anti-terrorism Division Director. “In taking each position I was able to learn what the program was about and then help build and strengthen the program by streamlining processes, incorporating the assistance of others who also have an interest in the success of the program.” (From her LinkedIn page)

In 2006 she began her work, which continues today, as the State Lead with the Indiana Silver Jackets—an interagency collaboration team made up of state, federal, regional, and higher education partners. The Silver Jackets try to maximize grant funds for disaster recovery and mitigation activities. Many of the

accomplishments listed above come from this important collaboration. In fact, some of the newer collaborative groups—Indiana Water Monitoring Council—have used the Silver Jackets as well as IWRA as their role models. Since 2011 she has led the State Disaster Recovery Program responsible for providing grants to communities and individuals after significant disasters that are not eligible for Federal funds. To show how pervasive safety is in Manuela's life even her hobbies are filled with this work. Since 1980 she has served as a Safety Team Member for the National Hot Rod Association which includes providing initial medical care to the injured people, removing drivers from damaged cars, and extinguishing fires. Another boring day at the office!

Outstanding Achievement Awards

Karissa Bash, Kenyari Keith, Allyse Turner, Paige Williams (*Academic Sector*): Low head dams have killed hundreds of people throughout the United States including multiple people in Indiana. Even more people have had to be saved from the turbulence created at low head dams. Despite the inherent danger, people love to fish in the turbulent waters below the dam and kayakers love to float these areas, especially during high flows—when it is most dangerous. An obvious solution to these unsafe conditions is to come up with a communication and outreach plan to educate the public. The Indiana Silver Jackets—a multiagency group that works to improve hazardous conditions related to water resources in Indiana—under the guidance of Ken Smith of Indiana Department of Natural Resources and Manuela Johnson of Indiana Homeland Security, asked the Journalism Department at IUPUI to come up with a communication and outreach plan to educate the public. Kenyari, Karissa, Allyse, and Paige put together a hash tag for the campaign and preparing sample outreach materials. The students developed a passion for the topic and had already started educating their friends family and peers about low head dam safety and the importance of safe water recreation. While this Communication Plan has not been fully implemented yet, the thoroughness and thoughtfulness shown in the document is worthy of this award. The work these ladies have presented is being used as a springboard for a multi-agency and multi-media outreach campaign. Their hash tag recommendation has not only been adopted by the Indiana Silver Jackets, but will also be used nationally for the Association of State Dam officials. Please consider their work meritorious of a IWRA award. The ladies have moved from ordinary citizens, to active educators and will carry this experience into their future careers.

Todd Feenstra (*Private Sector*): Todd Feenstra has achieved a remarkable feat in the annals of Indiana water resources. Through his company, Tritium, Inc., Todd has recruited over forty growers throughout LaGrange, Elkhart, Noble, and Kosciusko counties (LENK Group) for monitoring of groundwater levels associated with irrigation. It is extremely rare in Indiana to have both water withdrawal data and the associated groundwater level information in tandem. Mr. Feenstra, through his education, experience, and expertise as a professional hydrogeologist, has worked to ensure the effects of high-capacity irrigation pumping on groundwater levels can be readily understood. Todd has incorporated a proficient design system that includes adjacent monitoring wells equipped with continuous water level recorders (pressure transducers). Mr. Feenstra also serves amiably as a water resource ambassador. Todd has graciously consented to showcase a system for the 2016 IWRA Symposium field trip, with real-time simultaneous pumping and monitoring of groundwater levels. He is well respected and trusted by his clients. In fact, the Indiana Department of Natural Resources (IDNR) and the U.S. Geological Survey asked Mr. Feenstra if five of his clientele might consent to having their wells depicted and associated data displayed on the new IDNR Voluntary Groundwater Network. The growers subsequently consented and the IWRA field trip will visit one of the participating volunteers. Todd's work has had a significant impact on Indiana's water resources in that it had a great influence on the advancement of the legislatively-mandated Voluntary Monitoring Program (see (see IC 14-25-7-12.5 of Water Resource Management IC 14-25-7 at <http://iga.in.gov/legislative/laws/2015/ic/titles/014/articles/025/chapters/007/>). During the 2015 Indiana legislative session, there was much talk about a group of growers in northern Indiana who were doing their own groundwater monitoring. Todd Feenstra and his company Tritium, Inc. organized the LENK Group to scientifically document high-capacity groundwater pumping and associated effects on groundwater levels. Indeed, Todd's work is uniquely significant in that groundwater pumping and associated groundwater levels are paired in a scientifically defensible and practical manner. Mr. Feenstra utilizes professional aquifer performance testing methods to authenticate his work and supports this in a detailed report for each site. Verifiable aquifer properties can only be substantiated with this type of technical diligence. This is precisely the type of data needed to enhance understanding of Indiana's

water resources. Mr. Feenstra's work serves as a model to show how water use and effects can be substantiated with qualified monitoring and skilled documentation. Todd's initiative, expertise, outreach, and advancement of water resource information make him an exceptional candidate for the IWRA Private Sector Outstanding Achievement Award.

Jim Sullivan (Public Sector): James (Jim) Sullivan, through his motivation and leadership, established the IDEM Statewide Groundwater Monitoring Network in 2008. This program is critically important in that it has provided water quality testing for about 700 private residential wells since inception (as well as about 250 public water supply wells). Jim's staff presented preliminary results at the 2015 IWRA Symposium and has since prepared reports and information sheets as the program attained statistical significance. In brief, the work has shown that arsenic in Indiana groundwater is a major concern as twelve percent of the 298 water samples for the 6th and 7th sampling rounds exceeded the arsenic USEPA maximum contaminant level. The historic work expands in 2016 as a method will be deployed to determine the arsenic species in order to select an appropriate treatment method. Jim has also been instrumental in masterfully achieving other informational gaps in Indiana water resources through administration of research directives. The monumental Map of Indiana showing near-surface aquifer sensitivity and Map of Indiana showing near-surface aquifer recharge works were completed in 2015 by the Indiana Geological Survey (IGS) with IDEM funding support under Jim's leadership, and are freely available on Indiana Map. Jim has since instituted another tremendous undertaking through IGS to evaluate an amalgamation of the naturally occurring arsenic in Indiana groundwater data collected by federal, state, and local entities. The most significant impact of Jim's work on Indiana's water resources is that harmful health effects can be avoided. With nearly one thousand water wells tested in the Statewide Groundwater Monitoring Network, many people now know if toxic concentrations of constituents have been detected in their well water. It must be emphasized that domestic water wells are not regulated through IDEM or the USEPA to recognize the outstanding achievement of this program. With sampling statistical significance achieved, the dissemination of information to all water well users can now be made available for possible water quality issues. Jim is currently seeking approval from IDEM management to post a report and fact sheets on the Statewide Groundwater Monitoring Network web page. In addition, Jim is also seeking approval to cite the information on the biennial Indiana Integrated Water Monitoring and Assessment Report required under Section 305(b) of the Clean Water Act. Jim's leadership and guidance on the above mentioned works will have a lasting impact on people's lives and Indiana's water resources. For these accomplishments and his forward thinking, Jim Sullivan is an ideal candidate for the IWRA Public Sector Outstanding Achievement Award.

Past Award Recipients:

Charles H. Bechert Award:

1981 Oral Hert
1982 Dan Weirsma
1984 Bill Andrews
1986 Bill Steen
1990 Dennis Stewart
1992 Jacque Delleur
1996 Jim Barnett
1998 John Simpson
2002 Tom Bruns
2004 Mark Reshkin
2006 Charlie Crawford
2007 Judith Beaty
2008 Jim Stewart
2009 Dennis Clark
2010 Jim Gammon
2011 John Craddock
2012 Dick Powell, Noel Krothe
2013 Henk Haitjema
2014 Les Arihood
2015 Greg Olyphant

Outstanding Achievement Awards:

Academic Sector:

2009 Lenore Tedesco
2010 Bill Jones
2011 Ron Turco
2012 Alan Johnson
2013 Sara Pryor
2014 Jane Frankenberger
2015 Manchester University Environmental Studies

Private Sector:

2009 Siavash Beik
2010 The Nature Conservancy
2011 Jill Hoffmann & Lyn Crighton
2012 Robert Armstrong
2013 Jack Wittman
2014 Sara Peel
2015 Acres Land Trust

Public Sector:

2009 Dave Knipe
2010 Rod Renkenberger
2011 IDNR, Division of Water
2012 Johnson Co. WHP/LPT
2013 Sally Letsinger
2014 Bill Guertal
2015 Jane Hardisty

Thanks to all who submitted nominations and congratulations to the 2016 recipients.

Sincerely,

Mark Basch
IWRA Awards Committee