

### 2017 Annual Meeting

### June 7 – 9, 2017

The Coeur d'Alene Inn 506 West Appleway Avenue Coeur d'Alene, ID 83814

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#### **ISPE 2017 Annual Meeting**

Wednesday, June	e 7
10:30 – 11:30 PM Idaho South Room	ISPE State Board Meeting
12:00 – 5:00 PM	ISPE Northern Chapter 2017 MATHCOUNTS Scramble Golf Tournament Prairie Falls Golf Course
5:00 PM	Evening Social/Networking Prairie Falls Golf Course
Thursday, June 8	
7:30 – 8:50 AM Sherman Room	Breakfast/ISPE Membership Meeting
9:00 – 9:50 AM	University of Idaho (1 PDH)
Cataldo Room	Dr. Joseph D. Law, Ph.D., P.E. University of Idaho College of Engineering
Associate Dean for Unde	ergraduates in the College of Engineering. Dr. Law will present to the group

Associate Dean for Undergraduates in the College of Engineering, Dr. Law will present to the group regarding the College's ongoing projects, programs and plans for the future in engineering education.

10:00 – 11:50 AM	STEM Panel (2 PDH)
Cataldo Room	Bill Rutherford - Fernan STEM Academy
	Scott Thompson - N. Idaho STEM Academy
	Rhonda Young, P.E Gonzaga
	Dr. Joseph Law, Ph.D., P.E. – University of Idaho
	Barbara Pleason Mueller - Gizmo

A discussion with area STEM educators about engaging youth in engineering and other STEM careers: the challenges and opportunities and how we can help.

12:00 – 1:50 PM	Lunch
Sherman Room	Gonzaga Autonomous Vehicles (1.5 PDH) Rhonda Young, P.E.
	Professor - Department of Civil Engineering Gonzaga

Our transportation system has constantly evolved to meet the needs of society from early footpaths to the first engineered roadways, and from steam trains to modern high speed rail systems. Over time, the system has adapted to handle new transportation modes and changing travel patterns. We are currently in a period of rapid acceleration of new technology and this change is particularly dramatic in the transportation field. Autonomous and connected cars are already on our roadways and many predict that the adoption rate for new vehicle technology will be rapid. Will this be another period of incremental change or does the new technology call for a dramatic re-thinking of our transportation system?

### 2:00 – 2:50 PMCDA Tribe St. Maries Creosote Cleanup (1 PDH)Cataldo RoomSandra Raskell, P.E.Draiget EngineerCoour d'Alana Triba Eigheriae and

Project Engineer – Coeur d'Alene Tribe Fisheries and Lake Management Department

St. Maries Creosote clean-up actions detailing stormwater relocation, In-Situ stabilization, in-river dredging and ex-situ thermal treatment. Creosote contamination from pole treatment facilities ~1930-1960.

# 3:00 - 3:50 PMEngineering Ethics (1 PDH)Cataldo RoomEric Olson, P.E.Olson Engineering

Have you ever wondered whether something that you were about to do was ethical or appropriate? As a member of the National Society of Professional Engineers, you have a resource many engineers do not have, and wish they did. In this hard-hitting seminar, the attendees will review a series of actual ethics cases that land very close to home for most practicing professional engineers. These are cases that were brought before the NSPE Board of Ethical Review, with the names and details changed to protect privacy. The audience is invited to participate by discussing the issues, and then asked to propose hypothetical recommendations to the Board of Ethical Review. After this, the actual ruling of the Board is disclosed, and discussed. This has frequently been both a lively, as well as enlightening seminar, and is always intensely thought-provoking. Many attendees have come away with a much greater appreciation for the value benefit that the Board of Ethical Review represents to members, and a heightened awareness for how easy it can be to make poor choices in this arena, if a person lacks access to resources that could help.

### 4:00 - 4:50 PMSolar Roads (1 PDH)Cataldo RoomScott BrusawSolar Roadways

Back by popular demand! Since their 2010 ISPE presentation, Solar Roadways ® (SR) has been hard at work. The first public installation is now up and running in Sandpoint, Idaho at Jeff Jones Square. SR is a modular system of specially engineered solar panels that can be walked and driven upon. The panels contain LED lights to create lines and signage without paint. They contain heating elements to prevent snow and ice accumulation. The panels have microprocessors, which makes them intelligent. This allows the panels to communicate with each other, a central control station, and vehicles. Many people are surprised to learn that the panels are made of glass... but not ordinary glass. SR panels are made of low-iron tempered glass which can support the weight of semi-trucks. The glass has a tractioned surface which is equivalent to asphalt.

5:00 – 6:00 PM Sherman Room Social

6:00 – 7:30 PM Dinner Sherman room -U of I Senior Project Presentations Matt Hodgson

Matt will be presenting a PowerPoint that describes the activities he participated in for his senior project. Specifically, he will describe the restorative work that he did with the Coeur d' Alene Tribe Fisheries Department on Benewah Creek. He will describe how they built/restored various stream structures.

-Induction of Officers, Awards

#### Friday, June 9

7:30 – 8:00 AM Cataldo Room	Breakfast
8:00 – 8:50 AM Cataldo Room	IBPEPLS Board Presentation (1 PDH) Keith Simila, P.E Executive Director -

Idaho Board of Professional Engineers & Professional Land Surveyors

Keith will provide current information involving licensure as it relates to PE's such as new laws and rules issued and contemplated, ethics cases, new web site features and new examination and other information from the National Council of Examiners for Engineering and Surveying.

#### 9:00 – 9:50 AM Cataldo Room Restoration Partnership and Future Restoration Efforts in the Cd'A Basin; In-Stream Restoration Strategies for a Highly Impacted Watershed (1 PDH) Rebecca Stevens Program Manager – Coeur d'Alene Tribe's Lake Management Department-Hazardous Waste Management Program Thomas Biladeau Habitat Restoration Biologist – Coeur d'Alene Tribe

A two-part presentation including an overview of natural resource injuries in the Coeur d'Alene Basin as a result from upstream mining activities and heavy metal contamination on those resources. The brief history will include the Tribe's involvement in filing a lawsuit against the mining companies over 25 years ago and the eventual settlement with those mining companies and fellow natural resource Trustees. The Trustees have been developing a Programmatic Environmental Impact Statement and Restoration Plan for over the last 5 years wherein the overall approach to restoration is habitat focused. Rebecca will go over restoration strategies and techniques (otherwise known as the 'tool box') that the Trustees envision employing during active stream, wetland, and lake restoration project implementation.

In the second half we will hear about how the Coeur d'Alene Tribe Fisheries Program has engaged collaboratively with multiple agencies to restore large areas in the Hangman Creek watershed with the intention of improving environmental health and restoring culturally important resources. Historically, Hangman Creek provided a diverse plant and animal community which played an integral role in the Coeur d'Alene Tribe's persistence. Decades of land use practices however have resulted in high rates of erosion, a flashy hydrograph and extreme variations in stream flow. This in turn has led to fragmented and isolated pockets of native flora and fauna. Specific strategies have been implemented by the Tribe in order to restore ecosystem function and improve conditions for the natural and human environment. Tom will highlight these strategies currently being implemented in the Hangman watershed which include: installation of engineered log-jams, native plant revegetation, beaver proliferation, and historic stream channel reactivation.

10:00 – 10:50 AM	Powering our Future (1 PDH)
Cataldo Room	Patty Shea
	North Idaho Regional Business Manager – Avista Corporation
	James Gall
	Senior Power Supply Analyst - Avista Utilities
	Todd Kiesbuy
	Spokane Valley & West Plains Regional Business Manager - Avista Utilities

You be the power planner! How do we meet your energy needs reliably and responsibly, while integrating renewable power?

Imagine you're a utility company planning how you will meet the energy needs of your customers over the next 20 years. Your utility is located in the Pacific Northwest, where there is plenty of hydroelectric power, growing wind development and access to abundant natural gas sources to power generation plants. You also serve customers in the state of Washington, which has renewable portfolio standards requiring utilities to meet part of customer demand with qualifying renewable energy.

Besides meeting these renewable portfolio standards, you must also develop resources that are reliable, environmentally responsible, and cost-effective. As the power planner, this exercise will challenge you to consider how your choices affects customers' bills, carbon emissions, and your ability to generate enough power to serve all your customers even during the coldest January night or the hottest July afternoon.

**Powering Our Future** is a fun, fast-paced and interactive game that is bound to generate some conversation and electricity around the table!

### 11:00 - 11:50 PMLegal Liability, Part 2 (1 PDH)Cataldo RoomChristine DrageCataldo RoomConstant partner

Founding partner - Weil & Drage

Another return-presenter, Ms. Drage will bring real life examples of how courts treat design professionals and the contracts they sign, and what you can do to minimize your exposure to liability and lawsuits on your projects. Are your engineering and construction contracts ready for the court system of 2015 and beyond? The courts have been all over the place in decisions lately, and so it is essential every design professional know about the good, the bad and the ugly contract clauses that didn't used to, but now impact every construction project and every design professional business. Ms. Drage has been representing design professionals for over 21 years in contract formation, project disputes and litigation.

12:00 – 1:50 PMLunch and NSPE Speaker (1.5 PDH)Sherman RoomTim Austin, P.E., F.NSPENSPE Immediate Past President<br/>Kaw Valley Engineering, Inc.

NSPE started the Race for Relevance in 2012. Five years later, what did it mean then? What does it mean today to the licensed professional engineer? Immediate past president, Tim Austin, PE, F.NSPE, will give an overview of NSPE's efforts to be relevant in a rapidly changing world and what those efforts mean to you as a practicing professional.

# 2:00 – 2:50 PMEmergency Declarations and Contracting DuringCataldo RoomEmergencies (1PDH)Idaho Office of Emergency Management

#### 3:00 – 5:00 PM Oldcastle Precast Tour (2 PDH)

Oldcastle, North America's largest manufacturer of building products, is a leading manufacturer of precast concrete in the U.S. Oldcastle Precast's Spokane location is a leader in manufacturing structural precast products in the Pacific Northwest including Idaho and Montana. From this facility, they support a wide range of clientele's projects ranging from utility vaults, agricultural storage buildings and regional bridge work to state of the art data centers and multi-story hotels.

#### **2017 ISPE Annual Meeting Committee**

Angela Comstock, ISPE State President Ryan Smith, Northern Chapter President Heather Carroll, Northern Chapter President-Elect Doug Hansen, Northern Chapter Secretary/Treasurer Greg Brands, Immediate Past Director of WPR

#### **Biographical Sketches**

#### Dr. Joseph Law, Ph.D., P.E.

In 2013, Dr. Law, an alumnus and longtime faculty member became the associate dean for undergraduates. Law, an associate professor of electrical and computer engineering, demonstrates a passion for and long-term commitment to the education of undergraduate engineering students as a UI faculty member over the past 28 years. He earned his bachelor's degree in electrical engineering from UI in 1981 and his master's and doctorate in electrical engineering from the University of Wisconsin-Madison. Law brings a wealth of experience with the college's academic and research programs to his new position. He led the college's Advanced Transportation Group from 1993 to 1997 and helped establish the college's National Institute for Advanced Transportation Studies. In 2012, he became the director of the Idaho Space Grant Consortium and Idaho's NASA Experimental Program to Stimulate Competitive Research, known as NASA EPSCoR. Law also has collaborated with other faculty to create the college's capstone design course. The National Academy of Engineering recognized the capstone program as one of the seven best in the nation in its 2012 report, "Infusing Real-World Experiences into Engineering Education." In addition to teaching and mentoring students, Law leads a research team that focuses on energy conversion, transmission and storage. He is developing flywheel energy storage systems for potential use in colonization of extraterrestrial bodies, such as the moon.

#### William Rutherford, M.Ed., LPC

William has been the Principal at Fernan STEM Academy School in Coeur d'Alene since 2012. Previous professional experience includes authoring of the weekly column, "Food for Thought" in The Coeur d'Alene Press, a position as an Adjunct Psychology Professor at North Idaho College, and serving as a counselor at Fernan STEM Academy School as well as numerous other teaching and He has a Master of Education, Educational Leadership and Master of counseling positions. Education, Counseling and Human Services from the University of Idaho, received his Executive Chef Certification from the Culinary Institute of America and has a Bachelor of Science; Major-Psychology, Minor-Sociology from Black Hills State University. William served for 11 years as an Electronic Technician in the United States Air Force. He has served on numerous boards including the North Idaho College Alumni Association Board and the North Idaho College Culinary Arts Advisory Board and has volunteered for many programs such as the Coeur d'Alene School District Anti-bully-Stand Up Speak Up, Western Autism Society, and Relay for Life. William is a member of several professional organizations including the Idaho Elementary School Principal Association and the National Elementary School Principal Association. He is a National Licensed Professional Counselor, Idaho Licensed Professional Counselor, and Idaho Certified School Counselor, K-12.

#### Scott Thompson

Scott Thomson uses his background in business management and education in his job as the Executive Director of North Idaho STEM Charter Academy in Rathdrum, Idaho. He was Vice-President of Operations for MGB Enterprises from 1985 to 1995 where he used his expertise in finance and economics. He holds a Master's Degree in Educational Leadership and a Bachelor's Degree from the University of Idaho in Elementary Education. He has been in education since 1999 spending 13 of those years in the classroom. He has experience with coaching, curriculum adoptions, long-term strategic planning, committee work, working with parents and community members and budgeting. Scott has 15 years of experience with project-based learning. Scott has successfully developed and implemented budgets for over \$ 1.5 million in competitive grants to be used for curriculum, technology, and equipment. He develops, implements, and oversees multi-

million dollar budgets and construction projects for the school. Scott was selected to be the North Idaho Ambassador for the Idaho Charter School Network and is active in furthering better educational opportunities for students statewide. He is a strong advocate of school choice, high standards and individual accountability. Scott was an original founder and is overseeing the growth of both the program and ever expanding facilities at North Idaho STEM Charter Academy.

#### Rhonda Young, P.E., Ph.D.

Rhonda Young is a professor in the Department Civil Engineering at Gonzaga University. She has been in academics since 2002 with a previous position at the University of Wyoming. Throughout her career she has taught various graduate and undergraduate classes in Traffic Operations, Transportation Planning, Transportation Design and Traffic Safety. She completed her master and PhD degrees in Civil Engineering at the University of Washington and undergraduate degree from Oregon State University. Her research has a rural focus and includes projects in the planning, safety, and intelligent transportation areas. She is a registered professional engineer in the states of Washington and Wyoming.

#### Sandra Raskell, P.E.

Sandra Raskell is the project engineer for the Coeur d'Alene Tribe Fisheries and Lake Management Departments. She started with the Tribe in 2009. Since joining the Tribe in 2009, Sandra became the Tribe's project manager for the St. Maries Creosote Site in St. Maries, ID. As a licensed professional engineer her other job duties include surveying, designing, and construction for Fisheries restoration projects. For Lake Management, she conducts monthly Trail of the Coeur d'Alene inspections, works with EPA and other agencies in the Silver Valley Superfund clean-up, assists in Lake Management Plan activities such as engineering the University of Idaho outdoor classroom, participating in SEEP (Stormwater Erosion and Education Program), and other duties as needed. Prior to 2009, Sandra spent 10 years working as an engineer for WSDOT, City of Spokane Valley, a private engineering firm, and ITD. Sandra graduated with a B.S. in Civil Engineering (Bio-Resources) from Montana State University. Sandra lives in Spokane Valley with her husband, 7 children and 2 grandchildren.

#### Eric Olson, P.E.

Eric is the Owner of Olson Engineering. He graduated from the University of Texas at Austin in 2001. Eric has 16 years of diverse civil engineering experience with an emphasis in land development, transportation, and drainage design. He has been active in ISPE since 2009 and is a former Northern Chapter Director. He lives in Post Falls with his wife and three children and dreams of someday becoming a Disney Princess.

#### Scott and Julie Brusaw

Scott and Julie Brusaw met growing up in California when they were preschoolers. They founded Solar Roadways in 2006, and are now headquartered in Sandpoint, Idaho. The idea came to Julie out of concern for the environment, and Scott used his engineering skills to turn her vision into reality. Scott is a veteran Marine Corps Ammunition Technician who later earned his M.S. in Electrical Engineering and Julie has an M.A in Counseling Psychology. Scott has worked on engineering projects in various U.S. states, Canada, and Italy. Julie was a counselor in private practice for many years. She juggled both counseling and Solar Roadways until the demands of Solar Roadways became such that her full time attention was required. She enjoys all "people" aspects of Solar Roadways: meetings, social media, email, working with employees and talking to people at events. Scott loves the technology and working with his team to make it all happen. He

also enjoys speaking to audiences about Solar Roadways. Scott and Julie have grown children and a young granddaughter. They want more than anything to leave the world a better place for all of our children.

#### Matt Hodgson

My name is Matt Hodgson. I was born and raised in St. Maries, ID, specifically in the Benewah Valley. I'm a 4th generation Benewah-ite. I played varsity soccer and golf. I've also participated (and still do) in Key Club, Drama, Idaho Drug Free Youth, National Honor Society, and Choir. I also participated in several 4-H groups for 5 years. I enjoy cooking, hunting, fishing, working on cars,... and basically anything outdoors.

#### Keith Simila, P.E.

Keith Simila is the Executive Director to the Idaho Board of Professional Engineers and Professional Land Surveyors. He began in this position in 2013. As a licensed professional engineer his current job is to assist the board in licensing new engineers and land surveyors, work with the legislature and other stakeholders to update the laws and rules of the board, to engage in disciplinary actions that enforce the laws and rules of the board and to educate licensees, certificate holders and others in regard to licensure and professional practice issues.

Prior to 2013, Keith spent 33 years as an engineer with the US Forest Service. He retired as the Director of Engineering for a 4 state region (located in Ogden, Utah) which included Southern Idaho. Keith also worked as a practicing engineer in Boise, Salmon, and Priest River, Idaho, Missoula, Montana, Juneau, Alaska and Washington, DC.

Originally from Portland, Oregon, Keith graduated with a B.S. in Civil Engineering and Forest Engineering from Oregon State University. He has a Masters of Administrative Management from Regent University School of Business in Virginia Beach, Virginia.

Keith is now a Boise resident with his wife of 34 years, Anne. He has 2 children and 3 grandchildren.

#### **Rebecca Stevens**

Rebecca, working with the Tribe since 2005, is the Program Manager for the Tribe's Lake Mgt. Department-Hazardous Waste Management Program. She also serves the role as the Restoration Coordinator with the Restoration Partnership. Rebecca has been working on water quality related issues for over 14 years and in 2009, she was co-author of the Coeur d'Alene Lake Management. Rebecca represents the Tribe in the Bunker Hill Mining and Metallurgical Superfund Site remedial work and she participates in a variety of public outreach efforts throughout the Basin. She enjoys snowboarding, kayaking, frisbee golf, and spending time with her friends, family, and blue heeler. Rebecca is very honored to work for the Coeur d'Alene Tribe and is proud to be a part of restoring natural resources in the Coeur d'Alene Basin.

#### Thomas Biladeau

Thomas Biladeau is a Habitat Restoration Biologist for the Coeur d'Alene Tribe, specializing in stream restoration planning and implementation, as well as monitoring the responses of restoration by resident trout. The majority of his work is conducted in the Hangman Creek watershed where he focuses on restoring environmental health as well as culturally significant resources. Tom has worked in Idaho fisheries programs for over 15 years with State, Federal, and Tribal agencies.

#### Patty Shea

Ms. Shea is the North Idaho Regional Business Manager for Avista Corporation. She has worked for the utility for 38 years with 20 years in management positions. She currently serves as the Chair of CdA EDC (Jobs Plus), and the CdA Chamber Public Policy Committee. She holds an MBA from Eastern Washington University and was recognized as an EWU Distinguished Alumni in 1997. Ms. Shea also serves as an adjunct faculty member at Whitworth University.

#### **James Gall**

Gall is a Senior Power Supply Analyst at Avista Utilities and currently serves as the Integrated Resource Planning Manager. He holds a BS in Business Administration from Western Washington University and an MBA from Gonzaga University. Gall has also held posts at PacifiCorp as a Planning and Financial Analyst.

#### **Todd Kiesbuy**

Todd is the Spokane Valley and West Plains Regional Business Manager for Avista Utilities. He has worked in multiple departments within Avista for 12 years. He serves on numerous boards in both Eastern Washington and North Idaho. Todd holds and BS in Psychology and Masters in Counseling and Human Services from the University of Idaho.

#### Christine E. Drage

Christine Drage is one of the founding partners of Weil & Drage\* and has been a construction lawyer for over 23 years. She has represented some of the most well-known design professionals in the global A/E community, many of whom consistently rank among Engineering News Record's Top 500 design firms. She has additionally represented construction and program managers, contractors, manufacturers, and owners, both public and private, on projects involving every type of delivery method. Christine's experience includes trials at the State and Federal Court levels, tribal courts, mediations, arbitrations, extensive complex litigation, and project claims assistance for multi-million and multi-billion dollar private and public works projects. Those project types include hotels, casinos, highways, freeways, airports, justice and detention center projects, wastewater treatment facilities, convention and performing arts centers, hospitals and health care facilities, fuel cells, power plants, schools, high rise and single-family residential and commercial projects. Christine has handled virtually every type of design and construction case in her career, including catastrophic personal injury and death cases on all project types, and has worked closely with clients and insurance carriers around the globe. Christine is licensed to practice in California and Nevada State and Federal Courts, and before the United States Supreme Court.

\*Weil & Drage is a Women's Business Enterprise (WBE) and a Woman Owned Small Business (WOSB), certified by the Women's Business Enterprise National Council, and is also certified by the Supplier Clearinghouse for the Utility Supplier Diversity Program of the California Public Utilities Commission

#### Tim Austin, P.E., F. NSPE

Tim Austin, P.E., F.NSPE is NSPE Immediate Past President (2015-2016). He is a Professional Engineer with the firm of Kaw Valley Engineering, Inc. His diverse work experience has provided him with a unique perspective of the engineering and construction industries and has been an experienced and accomplished manager in both the public and private sectors. At Kaw Valley, he serves numerous public and private clients.

Mr. Austin brings exceptional interpersonal skills to the engineering profession. He is skilled in team management and works to bring value to the process. He is skilled in public relations, interacting with the media, the public, elected officials, and other public or quasi-public boards/bodies on a variety of topics.

Mr. Austin has been and continues to be active in a number of professional and community organizations. He served as the 2015–16 President of the National Society of Professional Engineers and the Secretary for the Engineer's Foundation of Kansas. He is a past president of the Kansas Society of Professional Engineers and a past board member of the NSPE. He is a past board member of the Wichita Area Builders Association and currently serves on both the legislative and developers committees. He is immediate past chairman of the Wichita Art and Design Council which he chaired for 4 years. Mr. Austin has previously served as a past chairman of the Wichita Airport Advisory Board where he served 8 years, on the advisory board to the Real Estate Department at Wichita State University, on the governmental affairs committee for the Wichita Area Association of Realtors, past member of the Board of Trustees for Aldersgate United Methodist Church, and served on the founding committee of the Greater Wichita Area Economic Development Coalition.





For more information about the Idaho Society of Professional Engineers, or to become a member, please contact us

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