

Session Overview

PNCWA Summit Series 4

Session 1: “Green Infrastructure Promotes Social Justice”

Wednesday, December 9th, 2020

9:00am – 9:30am

Moderator: Dustin Atkins

Presenting Author: Kari Nichols, Annette Griffy

Topics: Stormwater

Keywords: Social equity, green infrastructure, community benefits, stormwater retrofits

Abstract

Communities benefit when social equity is a factor while prioritizing stormwater retrofits. Disadvantaged communities within large municipalities often have denser populations and less open spaces. Due to aging infrastructure, these areas can also be prone to flooding and sewer overflows. Stormwater retrofits that replicate natural systems to create open, green spaces revitalize and promote health within these disadvantaged communities.

We will look at a couple of case studies of areas where this has occurred within the City of Vancouver, Washington. These areas are generally lacking runoff treatment with poor drainage infrastructure and are prone to flooding. In addition to the environmental benefits of stormwater retrofits, residents also receive several sociocultural benefits as well. Green infrastructure not only improves community aesthetics and connectivity to area waterways; increased green space leads to improved air quality, increased physical activity and reduced stress. These spaces provide areas where people can come together as a community. With less stress and increased community cohesion comes the added benefit of lowered crime rates.

The areas that often suffer from environmental degradation and lack of green space tend to be areas with lower income and minority populations. Mapping these demographics within a community when evaluating green infrastructure retrofits can aid in project identification and prioritization, helping us mitigate this inequality. Disadvantaged communities often have greater need for green infrastructure—a disadvantaged community will benefit more from increased green space than a community that is already thriving.

It is important to actively engage community members in the process of planning and developing green infrastructure projects. This will help create long-term success for the projects. In disadvantaged neighborhoods, this can require a modified approach to standard community outreach efforts. Yet it is worth the effort. Green infrastructure is an important tool in creating more equitable and environmentally enhanced cities.

Brief Biography and/or Qualifications

Kari Nichols

Mead & Hunt

9600 NE Cascades Parkway, Suite 100

Portland, OR 97220

United States of America
Phone: 5035481496
E-Mail: kari.nichols@meadhunt.com

Annette Griffy
City of Vancouver
Washington

Kari Nichols, PE, Mead & Hunt. Kari is a water resources engineer with Mead & Hunt. Her background is in stormwater, water and wastewater design and construction management. Kari's experience spans hydrology and hydraulics; stormwater management; low impact development and sustainable stormwater design; flood risk reduction; natural channel design; and sanitary sewerage and water distribution systems. She is familiar with state and federal codes and regulations pertaining to water resources protection.

Annette Griffy, PE, City of Vancouver. Annette is the engineering program manager for the City of Vancouver, managing the city's stormwater utility and programs. She is responsible for the city's stormwater regulatory compliance, the stormwater capital improvement program, and all stormwater developments. Prior to that, Annette's experience included sanitary sewer collection system planning, modeling, and project design, which included project management and public improvement inspection.

Session 2: “Opportunities at the Intersection of Green Stormwater Infrastructure and Workforce Development”

Wednesday, December 9th, 2020

9:30am – 10:00am

Moderator: Dustin Atkins

Presenting Author: Cari Simson / Jesse Williams

Topics: Leadership, Social Equity, Workforce Development

Keywords: workforce, green infrastructure, young professionals, operations and maintenance, asset management, equity, green jobs, O&M, generational hand-off, succession planning

Abstract

As the workforce ages, we need to recruit new staff, and must engage a broader population of recruits. Implementing a stormwater infrastructure capital program also requires a significant increase in workforce to deliver the necessary infrastructure assets and maintain them in perpetuity. A challenge facing program development is finding and training the workforce to deliver cost-effective, quality work. This, however, also presents an opportunity for workforce program development to drive economic growth, generate green jobs, address equity, and employ the communities where infrastructure investments are located. Green infrastructure operations and maintenance positions may also serve as a stepping stone to recruit for more traditional operations careers.

The panel presentation provides engaging, diverse perspectives on how to develop curriculum to meet workforce needs, recruit training program participants, and provide mentorship pathways for graduates. Examples from Seattle, King County and Los Angeles will be presented as case studies that can be implemented by municipalities, organizations or other entities across the Pacific NW. Panelists will provide sample lesson plans, program budgets and demonstrate workforce training pathways to viable careers.

Brief Biography and/or Qualifications

Cari Simson

Urban Systems Design

8001 14th Ave NE

Suite A

SEATTLE, WA 98115

United States of America

Phone: 2062345102

E-Mail: cari@urbansystemsdesign.com

Jesse Williams

Jacobs Engineering

Cari Simson founded her award-winning consulting firm Urban Systems Design LLC (USD) in 2009, to provide expert leadership to municipal clients seeking effective public-private partnerships, inter-agency coordination, and community engagement to transform the built environment. She co-founded the DIRT Corps green infrastructure job training program in 2015, and the co-founders formed their own company in 2019 to provide GSI construction skill-building and mentoring in the Seattle area. Since mid-2019, Cari has been directing the ECOSS organization's water quality programs, specifically the RainWise program and the Equinox "industrial strength" green infrastructure project, which each provide resilient solutions to urban green infrastructure challenges.

Jesse Williams is a water resources engineer with Jacobs Engineering. He has more than 16 years of civil engineering experience that includes leading design teams for GSI, CSO retrofits, stormwater conveyance, stormwater flow control, treatment, infiltration facilities, underground utilities, roads, parks, and urban building sites. Jesse is also an experienced trainer and facilitator who has created educational content for green infrastructure design, construction, and operations and maintenance trainings for municipal agency staff, potential recruits to the green workforce, and private property owners.

Session 3: Whispering Firs

Wednesday, December 9th, 2020

10:00am – 10:15am

Presenters:

Tim Beachy, Capital Improvements Project Manager, Kitsap County Public Works

Norm Olson, Civil Engineer, N.L. Olson & Associates

Jens Swenson, Landscape Architect, Parametrix

Abstract

Kitsap County transformed a vacant trailer park into Whispering Firs Stormwater Park, a multi-functional and beautiful space designed to filter and clean pollutants from stormwater. The presentation will discuss the planning, design and construction of this stormwater park and its part in Kitsap County's broader program to improve water quality and to increase public awareness. The park uses green treatment techniques in a functional and innovative way that also provides a recreational space with walking paths and picnic areas. The \$4 million project treats total suspended solids, total petroleum hydrocarbons, metals and nutrients and controls storm peak flows to Clear Creek.

Session 4: O & M Presentation + Panel Discussion

Wednesday, December 9th, 2020

10:30am – 11:55am

Moderator: Aimee Navickis-Brasch

Presenting Author: Marcia Davis, Tyler Palmer, Tony Gilbertson (Jeanne Justice – Pending)

Topics: Stormwater, Utility Management, Other (not listed)

Keywords: Operations and Maintenance, Green Stormwater Infrastructure

Abstract

Attendees will be able to bring up O&M topics or questions to a panel of professionals, and learn from several short presentations. Panelist will include a range of City and County Stormwater and O&M Managers responsible for NPDES permit compliance and asset management. Topics covered at the workshop will include:

- NPDES permit requirements related to O&M
- Maintenance scheduling and tracking programs
- Examples of successful GSI O&M programs
- Asset management challenges and lessons learned
- Lifecycle costs - how maintenance costs are estimated,
- How municipalities prefer to estimate O&M costs when planning and designing GSI facilities
- Estimating FTEs required for O&M
- Implementing a stormwater utility for a municipality under a new MS4 permit
- Approaches used for training workforce

Learning Objectives:

Attendees will have the opportunity to interact with other stormwater and O&M professionals and learn new strategies and techniques for efficient and successful management of GSI facilities. This interactive workshop will equip participants with resources for designing efficient GSI facilities and accurately estimating their future O&M needs.

Agenda:

Learning objectives:

- Overview of permit requirements related to O&M
- Discussion of maintenance schedule and tracking program
- Specific examples of successful GSI O&M programs
- Asset management challenges, lessons learned and examples of solutions (example: using a forebay to capture initial sediment and pollutants)
- Lifecycle costs - how maintenance costs are estimated, how municipalities prefer to estimate O&M costs when planning and designing GSI facilities, estimating FTEs required for O&M
- Implementing a stormwater utility for a municipality under a new MS4 permit
- Approaches used for training workforce

Panelists:

- Moderator: Aimee Navickis-Brasch, P.E., PhD in applied stormwater research, Osborn Consulting, Spokane, WA
- Marcia Davis, P.E., Principal Engineer, City of Spokane, WA Capital Programs
- Raylene Gennet, Wastewater Superintendent, City of Spokane, WA
- Tyler Palmer, Deputy City Supervisor, City of Moscow, ID Public Works & Services
- Drena Denofrio, P.E., GSI O&M Manager, Seattle Public Utilities, Seattle, WA
- Kitsap County, WA (Specific speaker not yet identified but community is interested in participating with a panel speaker)
- City of Eugene, OR (Specific speaker not yet identified but community is interested in participating with a panel speaker)

Brief Biography and/or Qualifications

Aimee Navickis-Brasch, P.E., PhD in applied stormwater research, Osborn Consulting, Spokane, WA:

Aimee has 27 years of experience in stormwater including research, planning studies, and design for urban drainage systems, stormwater retrofits, low impact development practices, and BMPs. Aimee has also designed, conducted, and served as the principal investigator on Stormwater Effectiveness Studies for structural, operational, and educational BMPs, which included the

development of Washington State Quality Assurance Project Plans (QAPPs) and following TAPE Protocol.

Marcia Davis, P.E., Principal Engineer, City of Spokane, WA Capital Programs:

Marcia Davis is a Principal Engineer with City of Spokane Capital Programs. She is responsible for the City's six-year water, wastewater, and street capital programs. Her responsibilities also include applying for loan and grant funding and overseeing projects such as Broadway and Lincoln Spokane Urban Runoff Greenways Ecosystem (SURGE) projects.

Tyler Palmer, Deputy City Supervisor, City of Moscow, ID Public Works & Services:

Tyler Palmer is the Deputy City Supervisor overseeing Public Works and Services for the City of Moscow. He received a Bachelor's degree from Weber State University, and a Master's Degree in Public Administration from the University of Idaho. Tyler has worked in various positions in his 17 years in public works. He is a Jennings Randolph International Fellow, and a member of the Government Affairs Committee of the American Public Works Association.

Tony Gilbertson, Development Services Program Manager, Clean Water Services, Hillsboro, OR:

Tony Gilbertson is a Development Services Program Manager for Clean Water Services. He manages an oversight program to ensure Clean Water Services and the 7 large Cities in Washington County are in compliance with performance standards for operation and maintenance of sanitary and stormwater infrastructure. He and his team are also responsible for managing the District's inspection program of privately-owned Water Quality Facilities and providing oversight and training opportunities to ensure compliance with state and local erosion control regulations. Tony has worked at Clean Water Services for 25 years.