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at The Evergreen State College



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Water Resources Infrastructure:
Emerging Frameworks to Meet Multiple Objectives

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Infrastructure = Boring!?

...but it's SO Important!

▶ Economic Development



▶ Environment

▶ Quality of Life

- Vital services for local economy
- Affordability for residents and business
- Job creator
- Attract real estate/business investment



We're going to spend staggering sums

...in the coming decades to keep our transportation, energy, water, and waste systems in working order.

- ▶ *Globally, \$57 trillion* will be required for infrastructure by 2030 just to keep up with GDP growth -- McKinsey and Company
- ▶ *Along the Pacific Coast, \$1 trillion* needed in the next 30 years -- CH2M Hill



These are the vital circulatory systems of our society!

Our Infrastructure Deficit

1. Capital funding is lagging to restore aging facilities, and to accommodate growth.
 - ▶ Traditional state and federal funding sources have shrunk.
1. Budgets for O&M are under serious strain as systems age and costs escalate.
 - ▶ Maintenance deferred is 2-4x more expensive



Innovation Required!

"We're making decisions today that we'll live with for 50 years. We can't keep doing things the way we always have."

-- Peter Binney, 2011 winner of the ASCE President's Medal.



The purpose of the **Center for Sustainable Infrastructure:**

Advance a new sustainable infrastructure paradigm and practice in the Pacific Northwest, and help Washington and Oregon become nationally-recognized innovators in sustainable infrastructure solutions.



Interview 70 Thought Leaders and Innovators

- ▶ From Washington, Oregon and British Columbia
- ▶ Span the water-related, energy, transportation and waste sectors, plus cross-cutting experts.



Special report coming by mid-November: Inspiration and guidance for current and future infrastructure leaders, policymakers, and change agents.



Go for the Triple Crown: Fiscally Sound, Resilient, and Sustainable

The best infrastructure solutions optimize simultaneously for:

- ▶ **affordability** for residents and businesses, for the long-term
- ▶ **superior environmental performance**
- ▶ **resilience** in the face of major disruptive events

And the Fourth Crown:

- ▶ **multiple community-wide benefits** - economic, public health, social, environmental



Encourage Silo-Busting



- ▶ *Consider these systems as parts of a larger whole to find valuable synergies*

Build a Better Business Case

- ▶ *Before committing real money to business-as-usual infrastructure projects and programs:*
 - ▶ *Invite innovative ideas*
 - ▶ *Thoroughly compare options to find ones with the most community-wide benefits*
- ▶ *Measure full benefits and costs, and to do it on a life-cycle basis.*
 - ▶ *Within the department silo, to government more broadly, and to the community.*



Get Smart

- ▶ *Today people carry devices packing information, communications, and monitoring capabilities unimaginable a generation ago.*
- ▶ *Advanced technologies are transforming many industries.*
- ▶ *Infrastructure managers, tapping private sector expertise, could achieve radical cost efficiencies and service gains.*



Build Community Prosperity

- ▶ *Infrastructure is a job generator and vital to local business and economic vitality.*
- ▶ *Integrate the community's strategies for infrastructure and economic development*
 - *Opportunity to in-source infrastructure jobs and lift up segments of the community too often left out.*
- ▶ *Higher education can build the critical pipeline of local talent*
 - *The infrastructure workforce is graying!*



Bottom Line: We've Gotta Make Infrastructure Sexy!

- ▶ Traditional funding sources are drying up
- ▶ The public is largely oblivious
- ▶ The workforce is aging
- ▶ Climate change is on us

We need to:

- ▶ Galvanize the public
- ▶ Make this a winning issue for elected officials
- ▶ Inspire a new generation to get into the field



Stay Tuned!

For more information, contact...

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