

Future of Washington Infrastructure

2015 Infrastructure Assistance Coordinating Council Annual Conference

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Infrastructure = Boring!? ...but it's SO Important!




- ▶ Economic Development
 - ▶ Environment
 - ▶ Quality of Life

- Vital services
- Affordability for residents and business
- Job creator & sustainer
- 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 the next 30 years -- CH2M Hill

How do we get *smarter* about how we'll invest this money?

Our Infrastructure Deficit



1. Capital funding is lagging to restore aging facilities, and to accommodate growth.
 - ▶ Traditional state and federal funding sources have shrunk (*or are being 'swept'!*)
 - ▶ Revenues may decline as people get more efficient
2. 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
- 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 energy, transportation, water and waste sectors, plus cross-cutting experts.



Special report:

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:

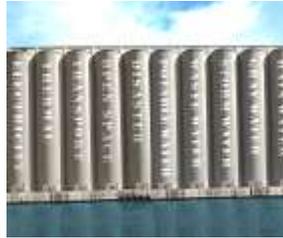
- ▶ affordability for residents and businesses, for the long-term
- ▶ superior environmental performance
- ▶ resilience in the face of major disruptive events



And the Fourth Crown:

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

Encourage Silo-Busting



Build collaboration to:

- ▶ manage these as parts of a larger whole
- ▶ find valuable synergies

Build a Better Business Case

▶ Before committing real money to business-as-usual 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.



Shining Example:

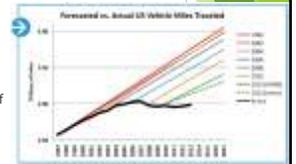


Choose for a Changing World

▶ Infrastructure decision-makers must increasingly be future-casters.

▶ It's vital to build infrastructure systems well-adapted to our changing world

- technology revolutions and breakthroughs
- environmental stresses
- changing living patterns and lifestyles of the next generation



Get Smart

▶ Today people carry devices packing information, communications, and monitoring capabilities unimaginable a generation ago.

▶ Advanced technologies are transforming many industries.

▶ Infrastructure managers 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 segments of community too often left out.

▶ Higher education can build the critical pipeline of local talent

- The infrastructure workforce is graying!



**Bottom Line:
We Need Infrastructure Innovators**

We're running a serious infrastructure deficit
The workforce is aging (*10% of national employment!*)

We need to:
Reimagine our Infrastructure Systems - Innovate!
Rethink Infrastructure Investment!
Inspire and Mentor a New Generation of Planners and Managers!



Two 'Asks' for You:

1. Feedback on the 'Future of Washington Infrastructure' group's draft vision and goals
2. Take the AWC infrastructure survey

Growing Appetite for a New Strategy

"...(W)e need a far-sighted **Statewide Infrastructure Strategy** that starts with meeting the needs of Washington communities and builds the capacity of our people, our economy, and our government to thrive throughout the 21st century... A key question is: How can the state get smarter about how it invests infrastructure dollars to deliver more long-term value in Washington communities?"

-- From the vision statement of the *Future of Washington Infrastructure* group

Future of Washington Infrastructure - Participants

Staff from:

- ▶ Association of Washington Cities
- ▶ Washington State Association of County
- ▶ Washington Association of Sewer and Water Districts
- ▶ Washington PUD Association
- ▶ Washington Department of Commerce/Public Works Board
- ▶ Building Industry Association of Washington
- ▶ Washington Department of Ecology
- ▶ Washington Department of Health
- ▶ ...and several others

AWC - Future of Washington Infrastructure Survey



- ▶ Challenges and impediments to delivering infrastructure projects
- ▶ Policies and strategies to address those challenges

Wiki-Survey

From 'All Our Ideas' - a research project based at Princeton University

- Support from Google and the National Science Foundation



- ▶ "...a new form of social data collection combining the best features of quantitative and qualitative methods
- ▶ ...that has the scale, speed, and quantification of a survey
- ▶ ...while still allowing for new information to 'bubble up' from respondents as happens in interviews, participant observation, and focus groups."



For more information, contact...

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The image is a contact information slide. It features a white background with a green geometric pattern on the right side. The text is centered and includes the title "For more information, contact...", the name "Rhys Roth, Director", the organization "Center for Sustainable Infrastructure", and contact details: "Email: rothr@evergreen.edu;", "Phone: 360.867.6906;", and "www.evergreen.edu/csi". At the bottom left, there is a logo for "the evergreen state college" with a stylized tree icon, and below it, the text "Center for Sustainable Infrastructure" in a blue box.