

Rethinking Our Infrastructure Investment Strategies

Washington State Transportation Commission

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Olympia, WA**

**Rhys Roth
Director, Center for
Sustainable Infrastructure**



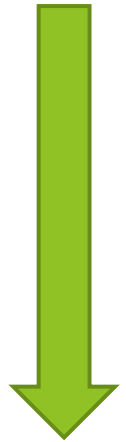
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Infrastructure = Boring!?

...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



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Center for Sustainable
Infrastructure

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.



Infrastructure Crisis,
Sustainable Solutions:

Rethinking Our Infrastructure Investment Strategies →

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:

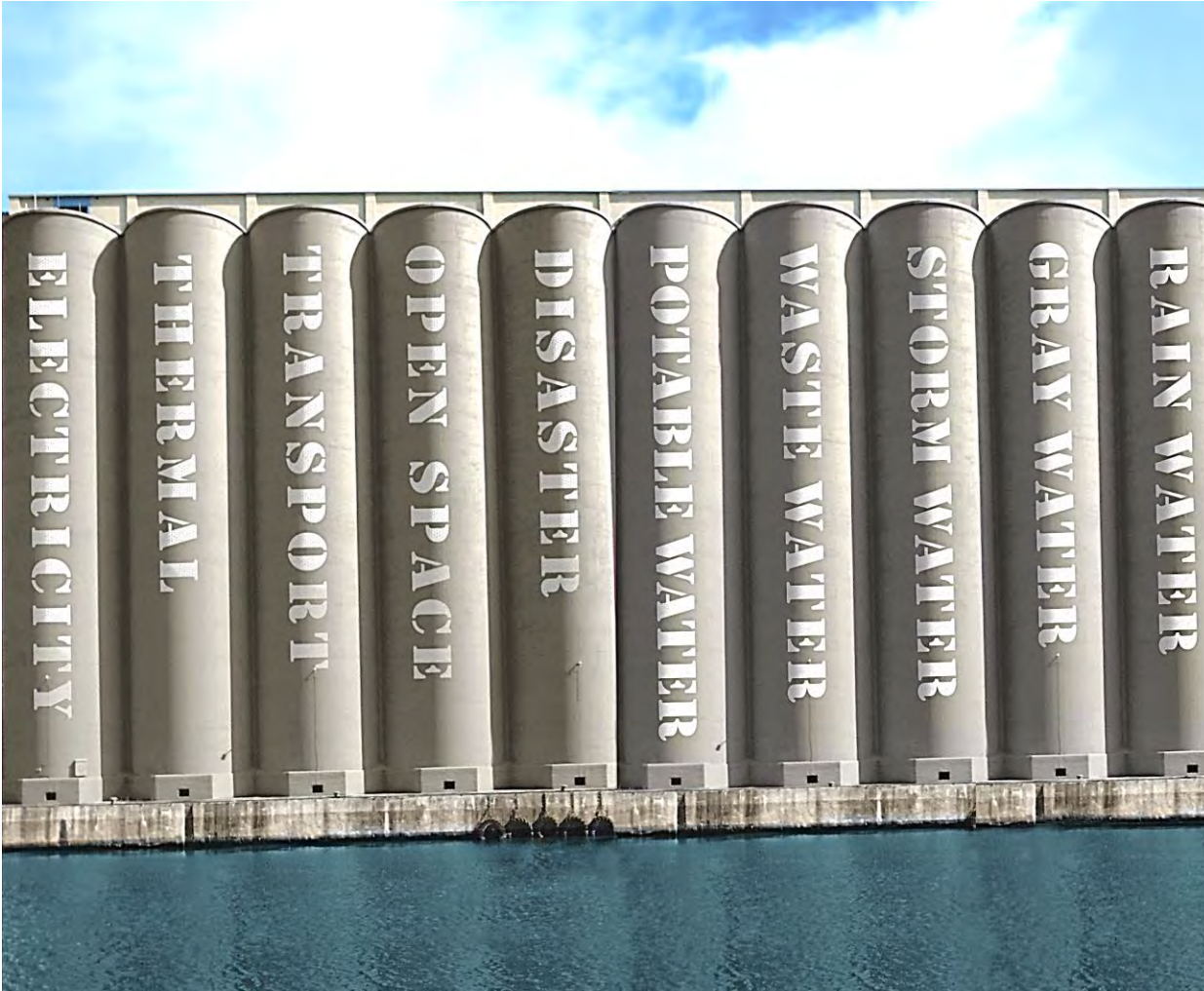
- ▶ **affordability** for residents and businesses, for the long-term
- ▶ **superior environmental performance**
- ▶ **resilience** in the face of major disruptive events

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:

Seattle
Public
Utilities



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!



The Sustainable Infrastructure Path for Transportation

Two distinct tracks for new Transpo Infrastructure investment:

- 1) **Rethink for new vehicle technologies and ownership patterns**
 - ▶ EVs dominant in 2040?
 - ▶ Ownership shrinks as car share/on-demand services rise
- 2) **Support accessibility and convenience of car-free options**
 - ▶ New investment discipline is truly multi-modal
 - ▶ Smart apps make car-free options hyper-convenient



Tech and markets will drive change, but public decisions will continue to be pivotal

Public decisions for sustainable transpo infrastructure will:

- ▶ Redirect new transportation spending to support clean vehicles, smart tech, and ‘complete streets’.
- ▶ Channel growth into underutilized urban land to build mixed-use, mixed-income, walkable and transit-oriented neighborhoods.
 - ▶ Underutilized = Failing malls, parking lots, brownfields, suburban arterials



Transportation Sidebars

- ▶ MOSAIC: Adapting LCP from electricity to the transpo sector
- ▶ Public Health: Multi-modal transpo helps fight the Obesity Epidemic
- ▶ Spokane and Portland: Bridging the Water and Transportation Silos
- ▶ Grow Smart to Control the Cost of Infrastructure



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!**



Growing Appetite for a New Strategy

“We 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

“Our investments will **deliver more value, multiple benefits, better asset and risk management, and improved cost-effectiveness**. At the same time, smarter infrastructure investment will help address our most pressing environmental challenges and foster healthy, prosperous, resilient, and equitable communities.”

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

Future of Washington Infrastructure - Participants

Staff from:

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

For more information, contact...

Rhys Roth, Director

Center for Sustainable Infrastructure

Email: rothr@evergreen.edu;

Phone: 360.867.6906;

www.evergreen.edu/csi



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