



Stormwater: A Research Review

PREPARED FOR
Oregon ACWA
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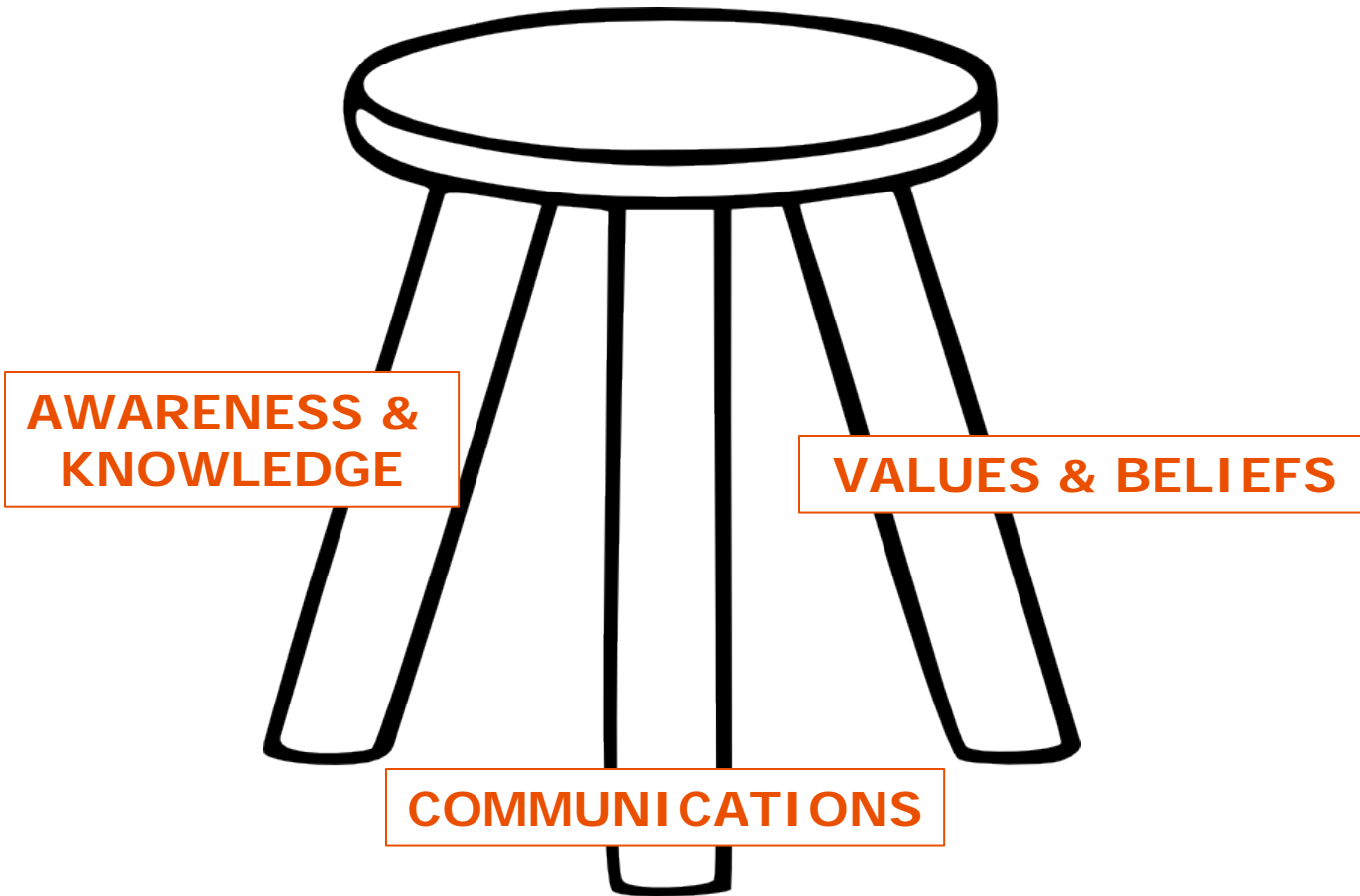
I'M NOT JOHN



IS HE CRAZY?



36 Pages, Over 9,000 Words



Presentation Topics

- General Opinion Climate
- Stormwater
 - Awareness and Knowledge Levels
 - Values & Beliefs
 - Communications
 - **Barriers**
 - **Motivators**

THANK YOU!

- **City of Bend**
- **City of Corvallis**
- **City of Eugene**
- **City of Fairview**
- **City of Gladstone**
- **City of Gresham**
- **City of Lake Oswego**
- **City of Medford**
- **City of Oregon City**
- **City of Portland**
- **City of Salem**
- **City of Springfield**
- **City of West Linn**
- **City of Wilsonville**
- **Clackamas County Service District #1**
- **Clean Water Services**
- **Multnomah County**
- **Oak Lodge Sanitary District**
- **Oregon Association of Clean Water Services**
- **Port of Portland**
- **Rouge Valley Sanitary Services**
- **Surface Water Management Agency of Clackamas County**



General Opinion Climate

- **Negativity towards large institutions, including government, big business, unions, media**
- **Ignorance of the ABC's of government and public finance**
- **Changing attitudes and behavior related to the media**
- **Changing demographics**



Knowledge of the ABC's

???% Oregonians don't know the number of US Senators who represent the state

???% Oregonians cannot name the three branches of government

???% of Oregonians cannot name any tax that pays for state government services



Knowledge of the ABC's

47% Oregonians don't know the number of US Senators who represent the state

50% Oregonians cannot name the three branches of government

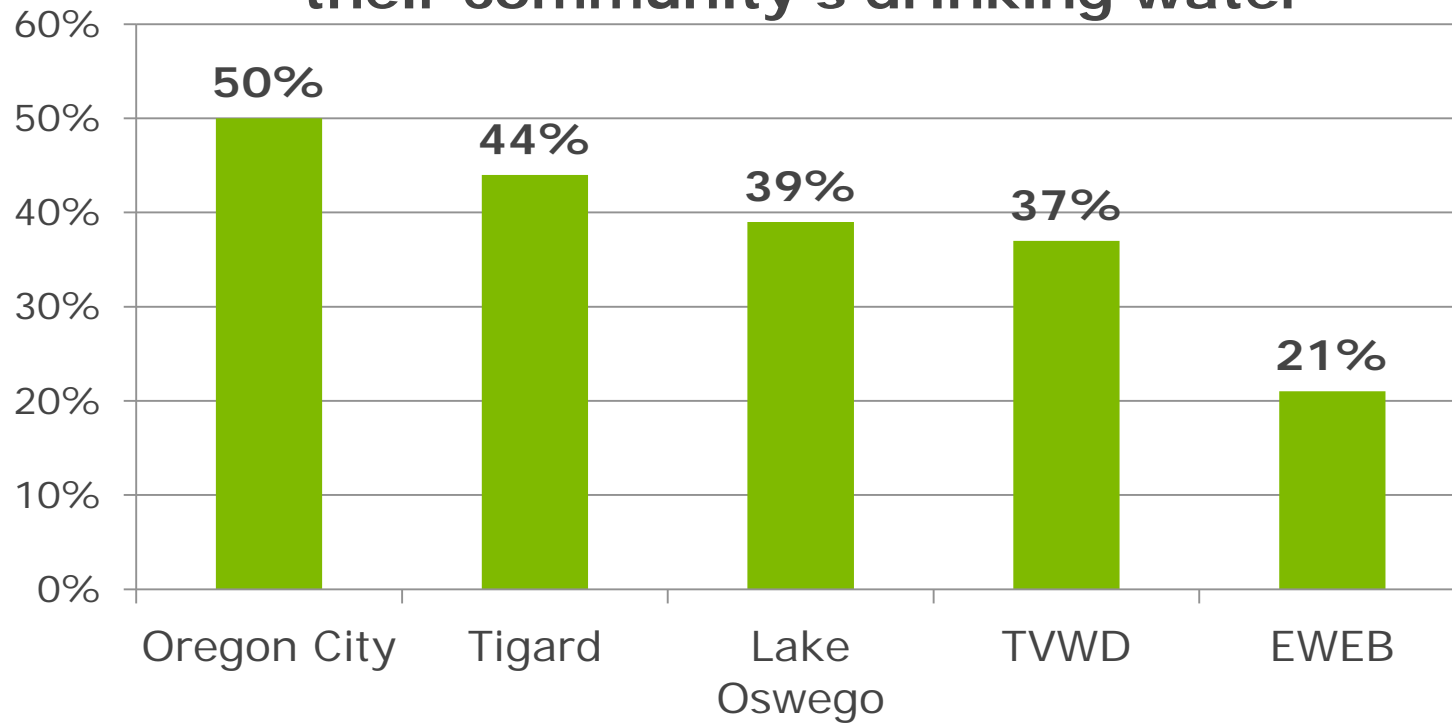
37% of Oregonians cannot name any tax that pays for state government services

STORMWATER: AWARENESS AND KNOWLEDGE LEVELS



Knowledge of the ABC's

Percent who don't know the source of their community's drinking water



Knowledge of the ABC's



"I am not aware of any information about the water source. I am a super-focused, single mother and business owner."



"It's one of those things that I don't think about. I mean, I go and turn the faucet on, it's there. I go to my refrigerator, get water out of it. I never really think about it. That makes me feel good."



Perceived Water Pollution Causes

What do you think is the greatest source of water pollution in Oregon? (EarthFix 2012)

1. Stormwater runoff from roads and hard surfaces (20%)
2. Factories and industry dumping waste (19%)
3. Untreated sewage dumped into waterways (17%)
4. Farmers and agricultural producers using chemicals and fertilizers on their fields (12%)
5. Chemicals used in common personal products, like prescription drugs, personal hygiene and beauty products, and laundry detergent (8%)
6. Elevated water temperatures (7%)
7. Runoff from large containment lots for cattle, pigs, and other animals
8. Homeowners using chemicals and fertilizers on their lawns (1%)

STORMWATER: VALUES AND BELIEFS

Oregon Values

What do you most value about living in Oregon? (OVB 2013)

Response Category	Statewide
Beauty/scenery	21%
Weather/climate	19%
Friendly residents/people	13%
Outdoors/outdoor activities	11%
Forest/trees	11%
Nature—general	10%
Proximity to coast/ocean	10%
Great place to live/ neighborliness/friendly town	10%
Proximity to mountains	9%
Environment—general	6%
Environmentally friendly/ promotes recycling	6%
All other responses	5% or less
None/Nothing	2%
Don't know	2%



Water Values: Drinking Water is Most Important

Which three benefits or values about our rivers and streams are most important to you? (CWS 2013)

Values about rivers and streams	Most important
Source for drinking water (current and future supply)	47%
Habitat for fish and wildlife	19%
Indicator of a healthy environment	14%
Natural beauty and open space	7%
Source of water for farming and agriculture	5%
Natural areas for recreation activities (fishing, hiking, swimming, paddling, bird watching, etc.)	5%
Drain away rain water	3%
Other	0%
Don't know	1%



Water Values: Motivators for Stormwater Behavior Change

- **Protection of drinking water and public health**
- **Fish and wildlife**
- **Natural areas and recreation**
- **Safety of children and pets**
- **Saving money or discounts**

STORMWATER: COMMUNICATIONS

**STORMWATER:
COMMUNICATIONS
BARRIERS**



Top Barriers for Stormwater Behavior Change

- **Inconvenience**
- **Lack of knowledge**
- **Higher cost**
- **Perceived lack of impact**
- **Perception that product is less effective**
- **Mixed messages**



Barrier: Inconvenience

Recommendations:

- Provide easy resources, such as information on websites and through retailers, instruction stickers on recycle bins, and clear and simple instructions on products.
- Inform residents about alternative products or services; make it available and easy to find.
- Message around how simple steps can make a difference.



Barrier: Lack of Knowledge

Recommendations:

- Connect common activities to their direct impact on local rivers and streams (and less on general waterways).
- Mention specific rivers and streams as much as possible
- Highlight rivers and streams as a source for drinking water.



Barrier: Higher Costs

Recommendations:

- Do not lead behavior change messages with mentions of cost or arguments that some alternatives cost less.
- Other benefits in tandem with saving money are more effective to change behaviors.



Barrier: Perceived Lack of Impact

Recommendations:

- Messaging should continue to connect how individual behaviors impact local rivers and streams (rather than general bodies of water).
- Be specific about the activity or preferred behavior, like picking up pet waste in the yard.



Barrier: Perceived Effectiveness

Recommendations:

- Do not lead behavior change messages by persuading residents of how alternative products and services are just as effective as products or services that use chemicals.
- Link to other benefits first, in particular ones that spark more emotion like the safety of children and pets.



Barrier: Mixed Messages

Recommendations:

- Give simple and easy suggestions around behavior change.
- Partner with local community organizations, small businesses, and university experts as messengers.
- Save government messengers to message around improving the health of the community, or public health.

**STORMWATER:
COMMUNICATIONS
MOTIVATORS**



Motivators for Stormwater Behavior Change

- **Protection of drinking water and public health**
- **Fish and wildlife**
- **Natural areas and recreation**
- **Safety of children and pets**
- **Saving money or discounts**



Motivator: Protecting Drinking Water & Public Health

Recommendations:

- Inform the public about how clean rivers and streams equate to clean drinking water.
- Messages that make explicit the connection to drinking water will be more effective motivators than ones about general water pollution.



Motivator: Fish & Wildlife

Recommendations:

- Messages about stormwater should connect more directly to fish and wildlife habitat – stronger habitat means healthier rivers and streams, which are better for all of us.



Motivator: Natural Areas & Recreation

Recommendations:

- Link stormwater projects to not only improving water quality but also creating natural areas and green spaces.
- As appropriate, make the connection to recreation and access to recreation, and how stormwater projects help to maintain a key value for Oregonians.



Motivator: Children & Pets

Recommendations:

- Link stormwater behaviors to the safety of children and pets, as appropriate.
- Consider mothers as messengers to target other females.
- Provide alternatives to chemical products in messaging – direct residents to safer and other effective alternatives.



Motivator: Saving Money or Discounts

Recommendations:

- Again, do not lead behavior change messages with mentions of cost savings or discounts.
- Other benefits in tandem with saving money are more effective to change behaviors.

KEY MESSAGING TAKEAWAYS



Key Messaging Takeaways

- **Connect to Oregon values**
- **Use a positive tone**
- **Focus on outcomes**
- **Link stormwater to drinking water**
- **Mention specific rivers and streams**



Key Messaging Takeaways

- **Connect to the safety of children and pets. Consider mothers as messengers**
- **Suggest simple steps**
- **Partner and communicate those partnerships**



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