



Water Systems Teacher Fellows Program

Update for Bellevue City Council
October 24, 2016

Water Systems Teacher Fellows Program

Key Takeaways

- 1. Curriculum adopted by Bellevue School District**
- 2. All 7th grade students (1,300) meet education goals**
- 3. Students apply learning to help meet city goals**
- 4. Program spawned the Water Systems Symposium**

Program Structure

Pilot Year 2016-17

- 1. Select two Teacher Fellows for Bellevue**
- 2. Support deep dive on water resource challenges**
- 3. Align challenges with education standards**
- 4. Focus learning on actual community impact**
- 5. Advocate for district-wide adoption**

Bellevue Outcomes

Year One 2016-2017

1. All seven middle schools involved
2. 22 teachers engage 1,300 students
3. Education standards aligned
4. Water resource management goals aligned
5. Water systems thinking embedded in the curriculum
6. Success transfers to other districts

Bellevue Teacher Fellows

Maile Morgan

Chinook Middle School, Social Studies

Tamara Truax

International School, Social Studies

Bellevue District Leadership

Patty Shelton

Social Studies Curriculum Developer

Facilitation

Peter Donaldson

Sustainability Ambassadors



This new 7th grade Water Systems Curriculum
supports the District Initiative

“Commitment to the Community”

Local | Regional | Global



7th Grade Curriculum World Water Challenge

Year-long thematic weave of 3 water systems

- **water supply**
- **wastewater treatment**
- **stormwater management**



Pre-Test

24 Online Questions (True/False)

Class data is aggregated

Students analysis data

Engage in inquiry

Research “correct” answer

Build class wiki

Apply wiki to solve problems

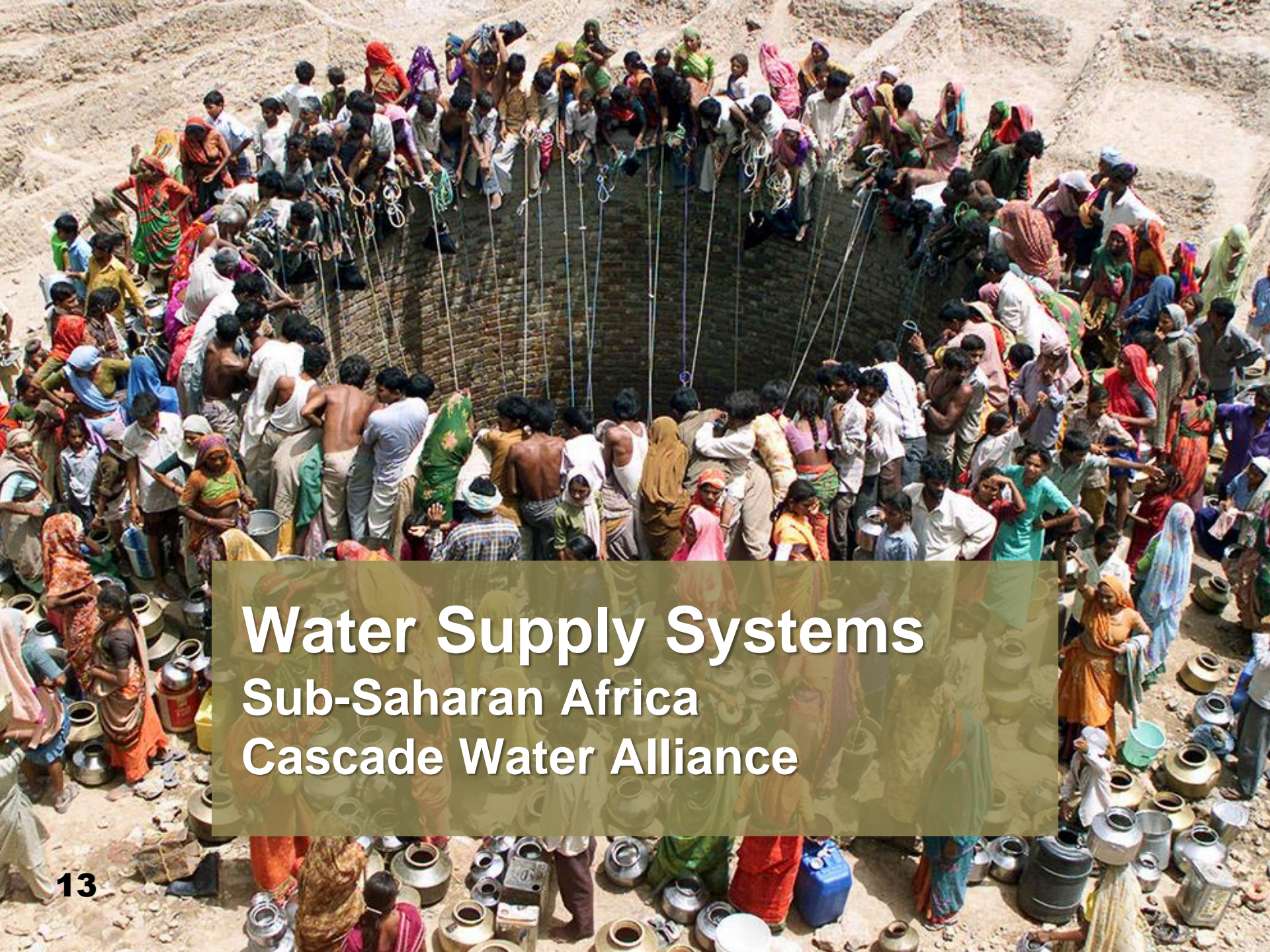
SAMPLE RESPONSES - Water Systems Pre-Test	TRUE	FALSE
1. Water scarcity affects about 4 percent of the world's people.	33%	67%
7. As the human population in our region has dramatically increased over the last 20 years, the total amount of water consumed has also increased.	87%	13%
8. The typical American uses about 100 gallons of water each day.	58%	42%
9. The water footprint of a typical American is about 2,000 gallons a day.	37%	63%
10. The cheapest way to meet our local water needs over the next several decades is to build more dams, reservoirs and pipes.	51%	49%
18. Factories that use hazardous chemicals are the biggest source of pollution damaging Puget Sound.	81%	19%
20. Rain gardens can successfully clean pollutants like car oil, antifreeze, grease, and lawn chemicals from getting into our streams.	49%	51%
24. It's best to wash a car near the gutter so that the soapy water can go down the storm drain and not damage the environment.	47%	53%

Prehistoric River Civilizations

Analyze water management
strategies

Modern Consumption

Analyze personal Water Footprint



Water Supply Systems

Sub-Saharan Africa

Cascade Water Alliance



Wastewater Systems

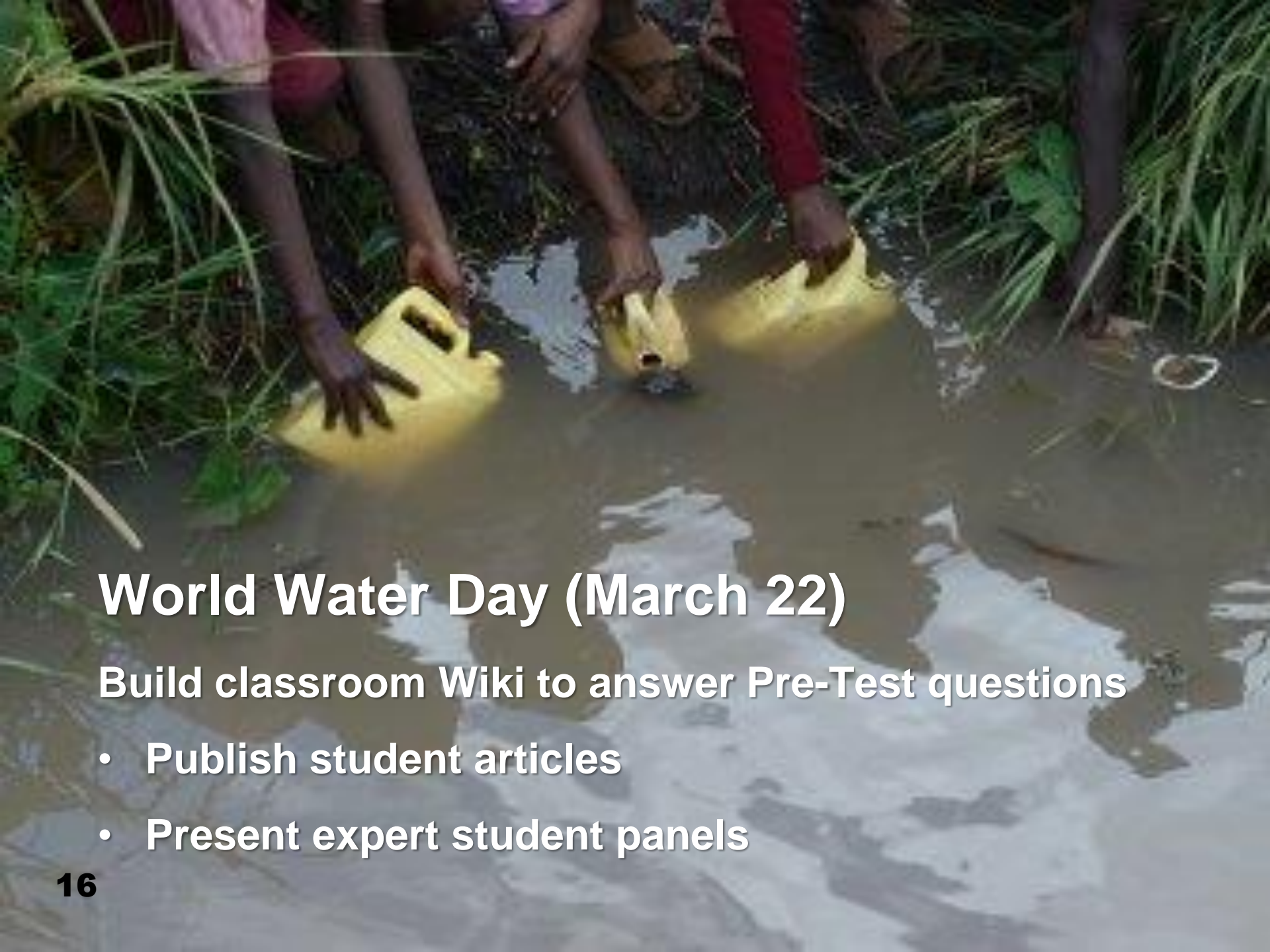
India | King County

An aerial photograph showing a lush green urban landscape in the foreground, with a dense forest of trees and shrubs. In the background, a city skyline is visible, featuring several tall, modern buildings under construction, with cranes visible on the construction sites. To the right, there are completed high-rise apartment buildings. A modern, elevated walkway or bridge structure is visible on the right side of the green area.

Stormwater Management

China's Sponge Cities

City of Bellevue



World Water Day (March 22)

Build classroom Wiki to answer Pre-Test questions

- **Publish student articles**
- **Present expert student panels**

An aerial photograph of a city skyline, likely Seattle, featuring numerous high-rise buildings and a mix of urban development. A semi-transparent blue rectangular box is overlaid on the lower half of the image, containing white text. The text includes a title and a bulleted list of three points. In the bottom left corner, outside the blue box, is the number '17'.

Personal & Family Pledge

- Students take pledge and analyze data
- Students choose actions and inform parents
- Students report results to stakeholders

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