



9th Annual North Santiam Basin Summit

Wednesday, May 15, 2019

9:00 am – 3:00 pm

Marion County Public Works



Welcome

Robert Chandler, City of Salem

Agenda

9:00 a.m.

- Welcome / Introductions
- Live Polling: Who's in the Room? / North Santiam Basin Quiz!
- North Santiam Corps of Engineers Project Updates

11:45 a.m. LUNCH

- Courtesy of City of Salem and Trexler Farm

12:20 p.m.

- Enhanced Water Quality Monitoring Project
- Prediction Lab
- Panel Discussion: Cyanobacteria Incidents – Lessons Learned, Future Plans
- New Rules and Emerging Contaminants
- How to Stay Engaged
- Live Polling / Next Steps / Closing

3:00 p.m.

- Adjourn

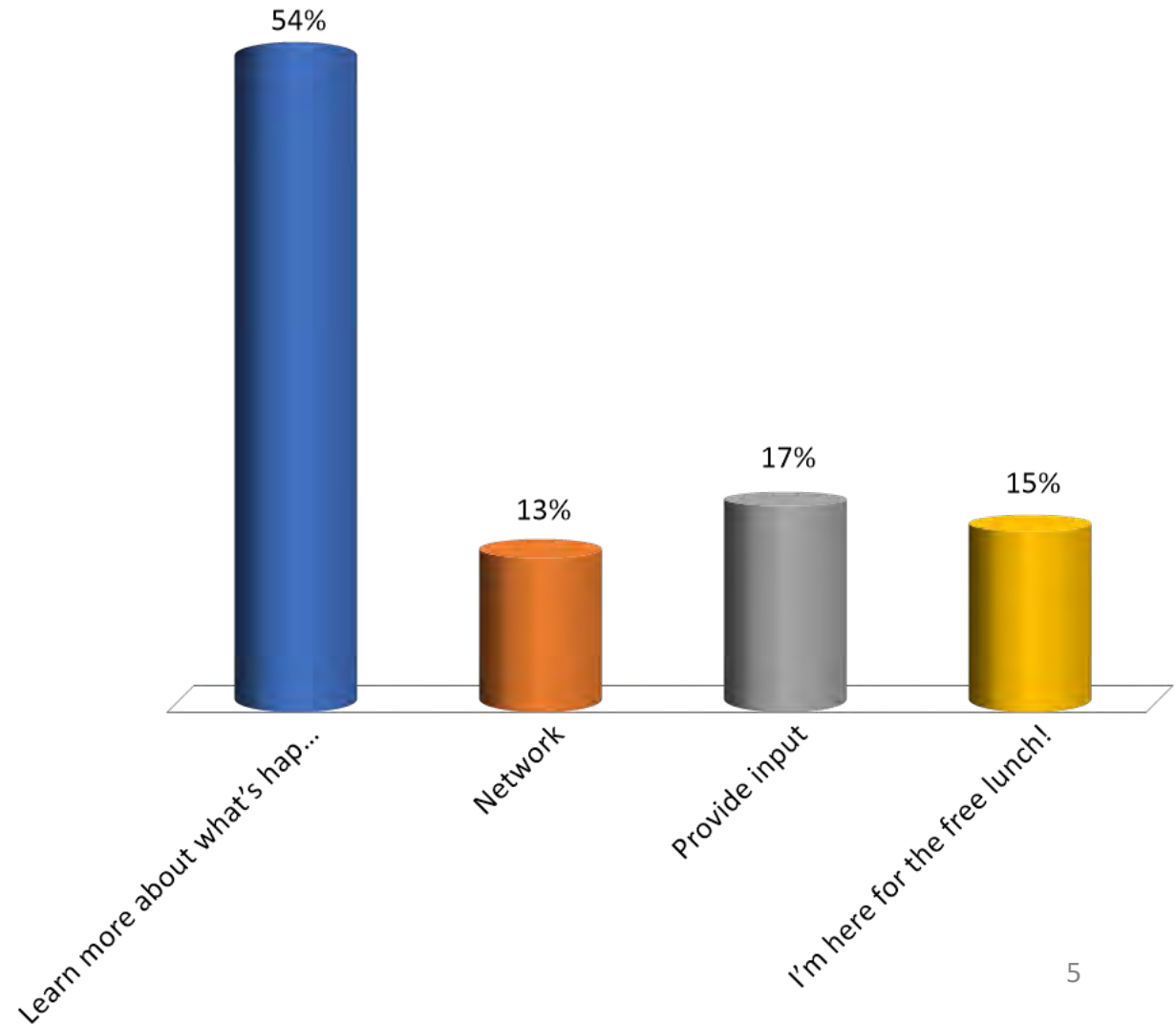
Live Polling—
Who is in the
room?



I am here today to...

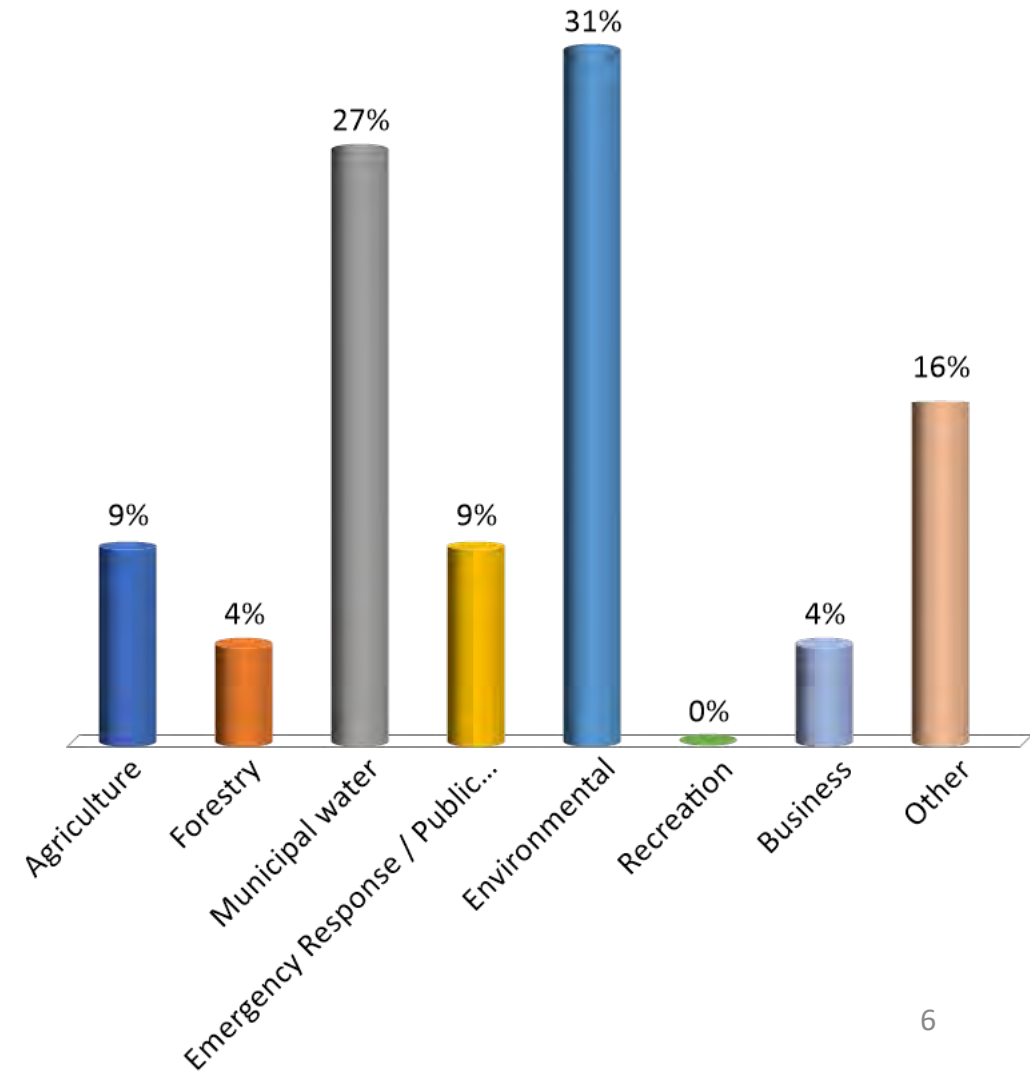
(multiple answers allowed)

1. Learn more about what's happening in the basin
2. Network
3. Provide input
4. I'm here for the free lunch!



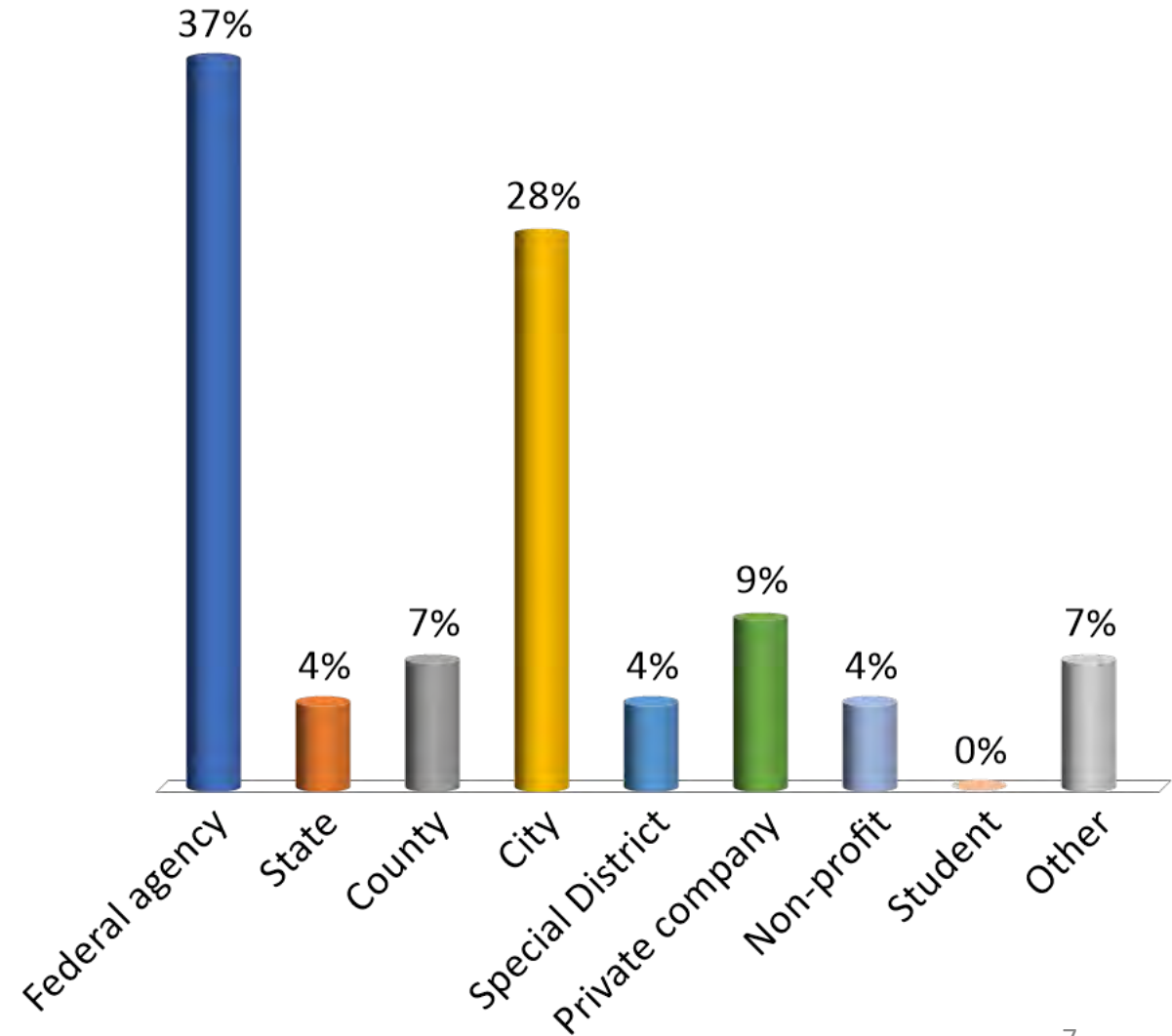
My work focuses on:

1. Agriculture
2. Forestry
3. Municipal water
4. Emergency Response / Public Health
5. Environmental
6. Recreation
7. Business
8. Other



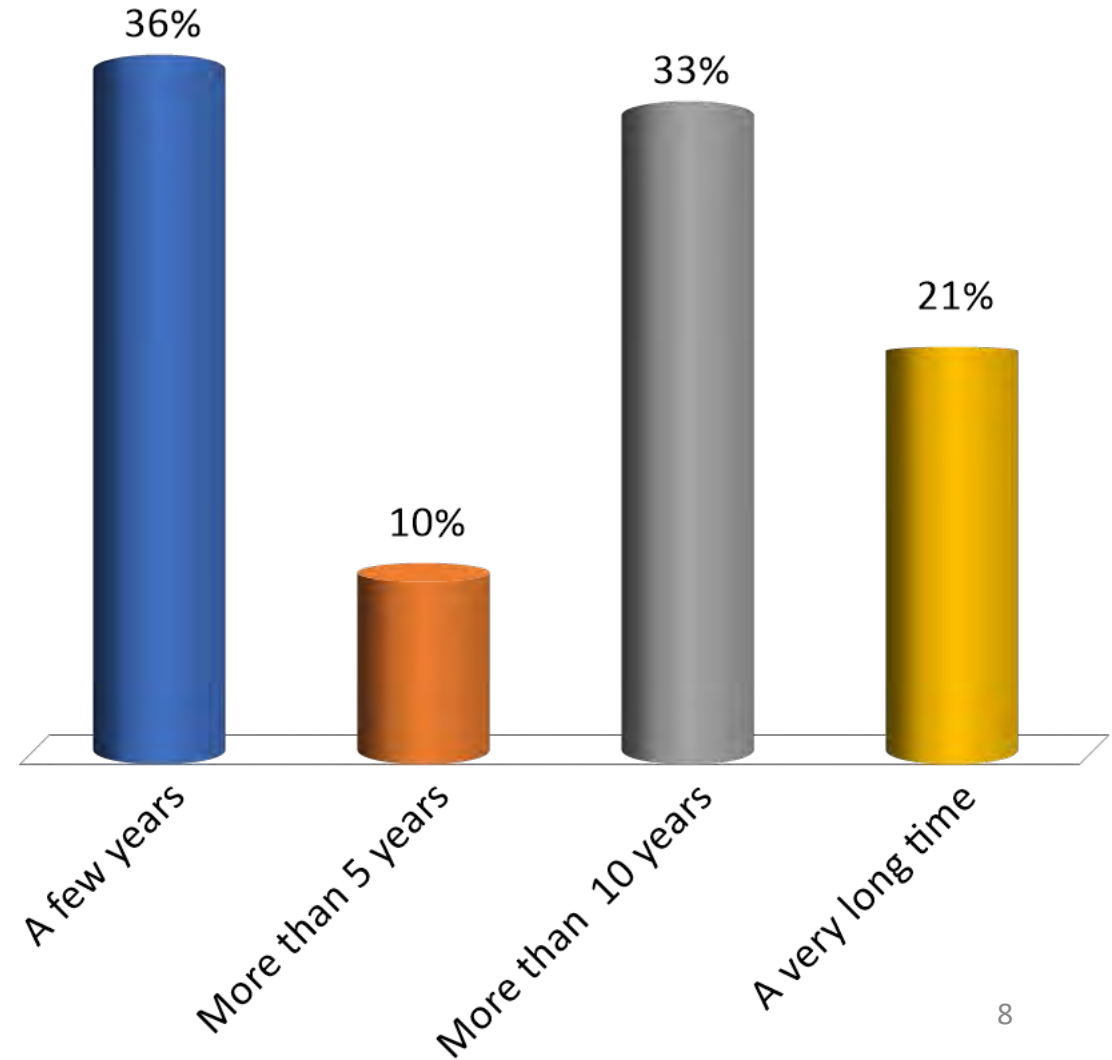
I work for a:

1. Federal agency
2. State
3. County
4. City
5. Special District
6. Private company
7. Non-profit
8. Student
9. Other



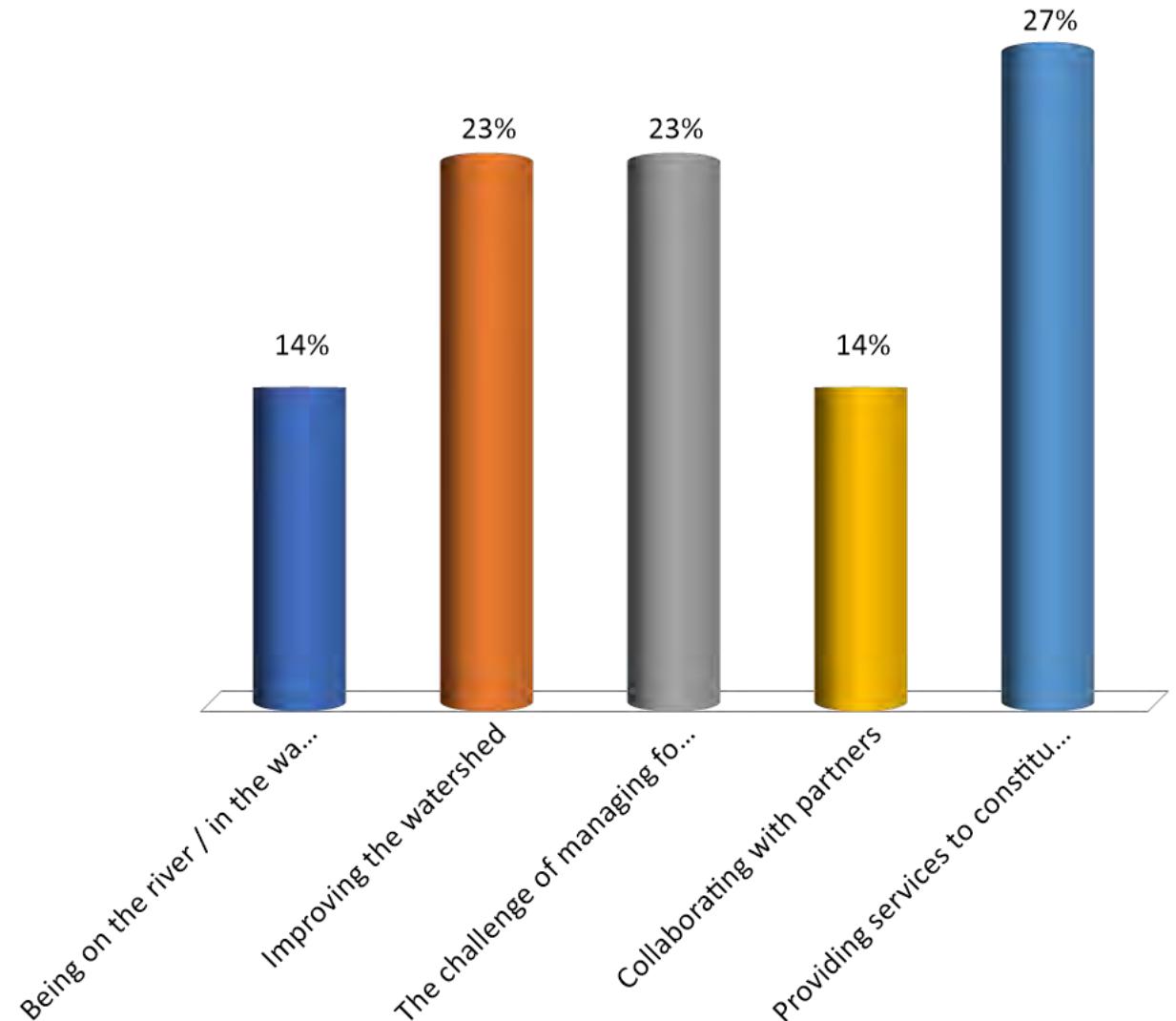
I have been working / living in the North Santiam watershed for:

1. A few years
2. More than 5 years
3. More than 10 years
4. A very long time



What I like most about my work in the watershed:

1. Being on the river / in the watershed
2. Improving the watershed
3. The challenge of managing for multiple uses
4. Collaborating with partners
5. Providing services to constituents

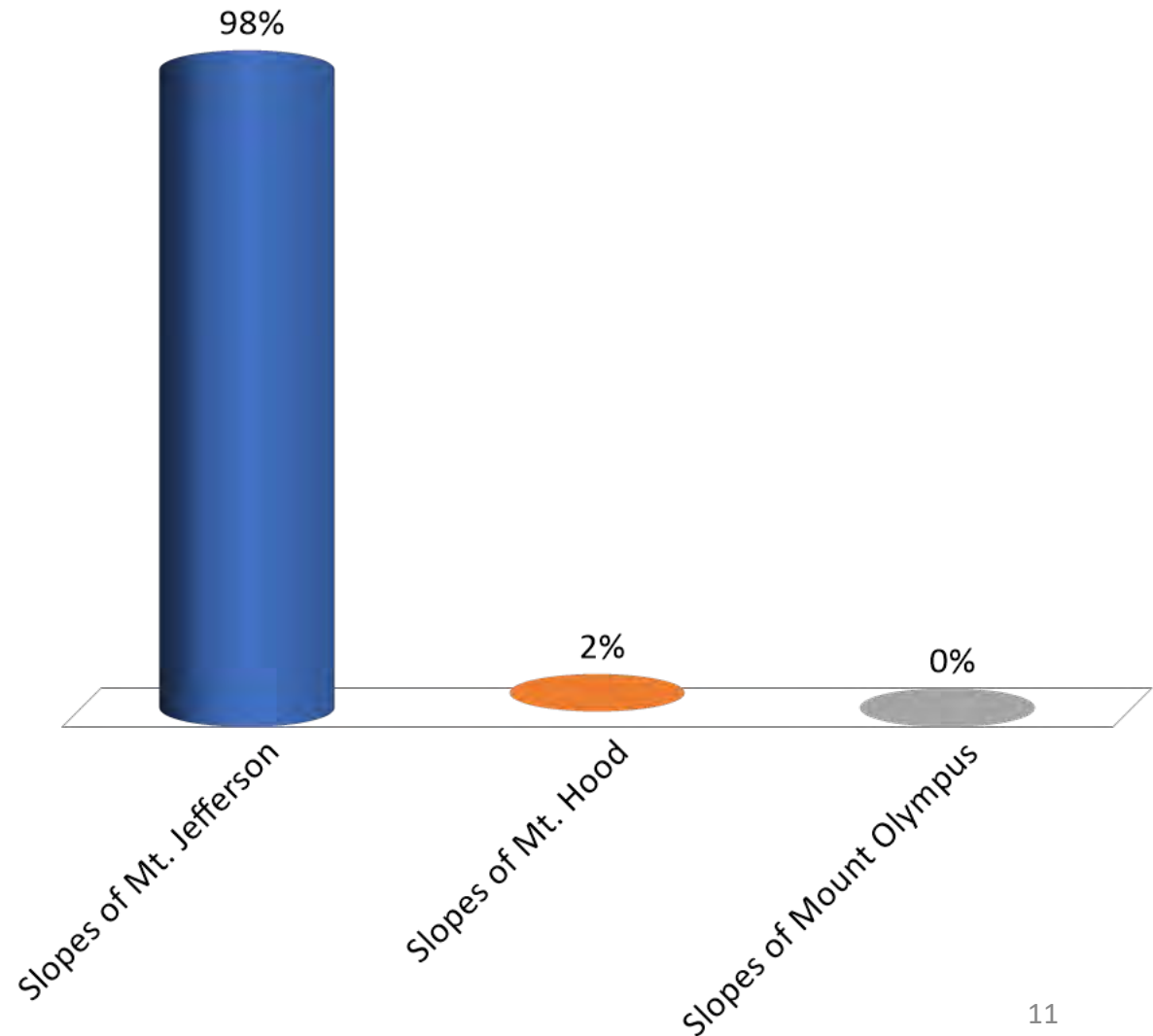


Live Polling— North Santiam Basin Quiz!



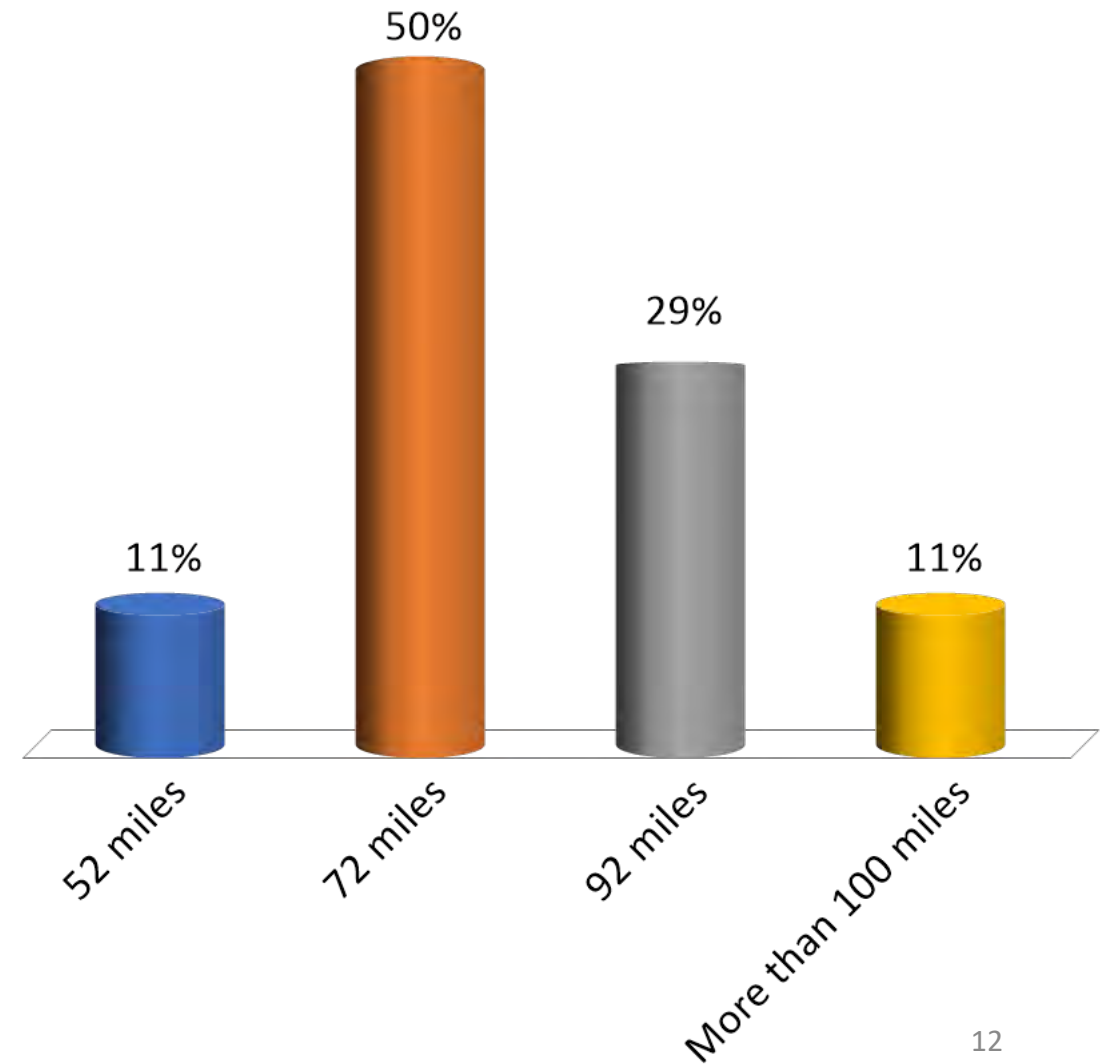
1. Where does the North Santiam River start?

- ✓ 1. Slopes of Mt. Jefferson
- 2. Slopes of Mt. Hood
- 3. Slopes of Mount Olympus



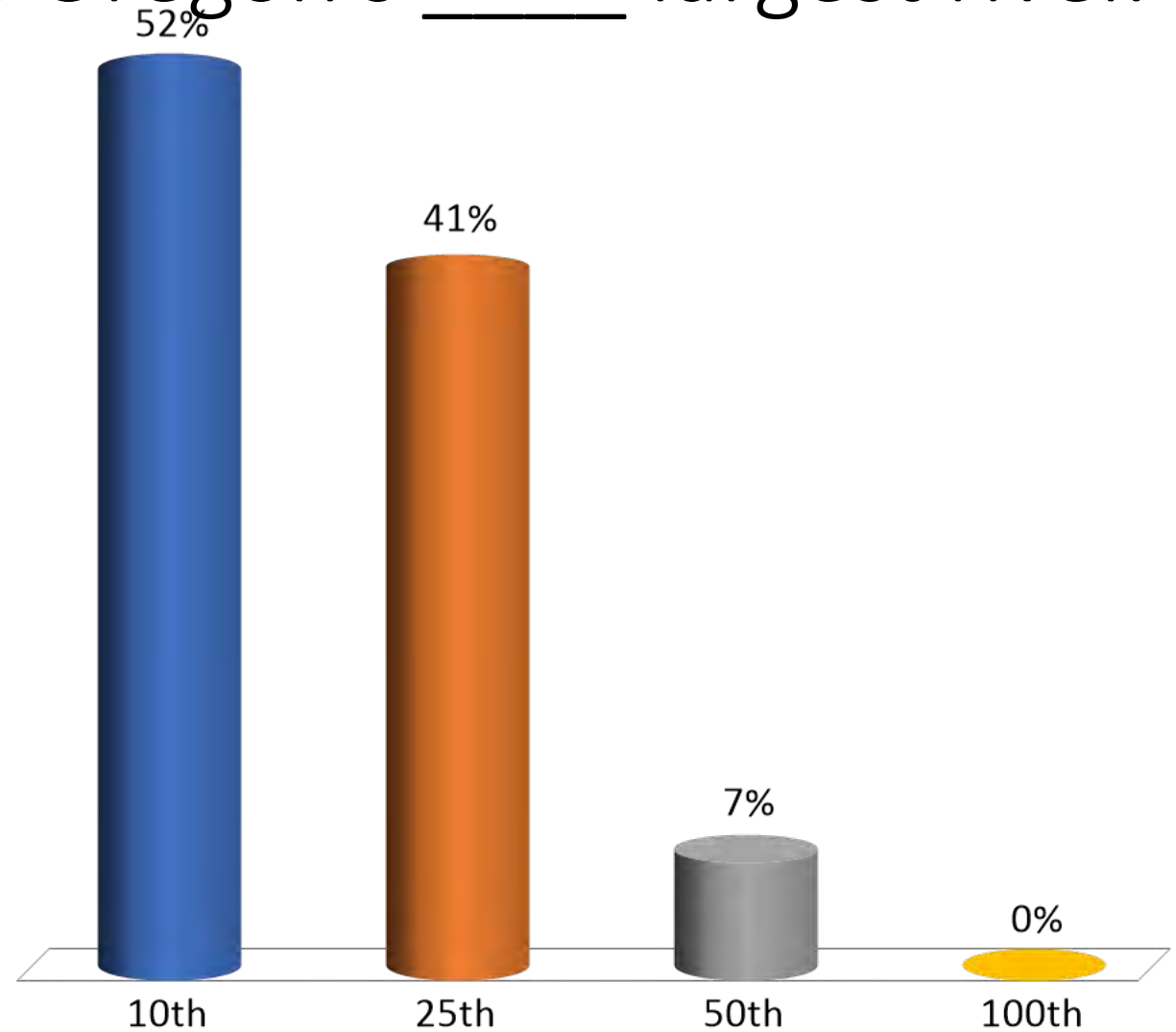
2. How long is the river?

1. 52 miles
2. 72 miles
- ✓ 3. 92 miles
4. More than 100 miles



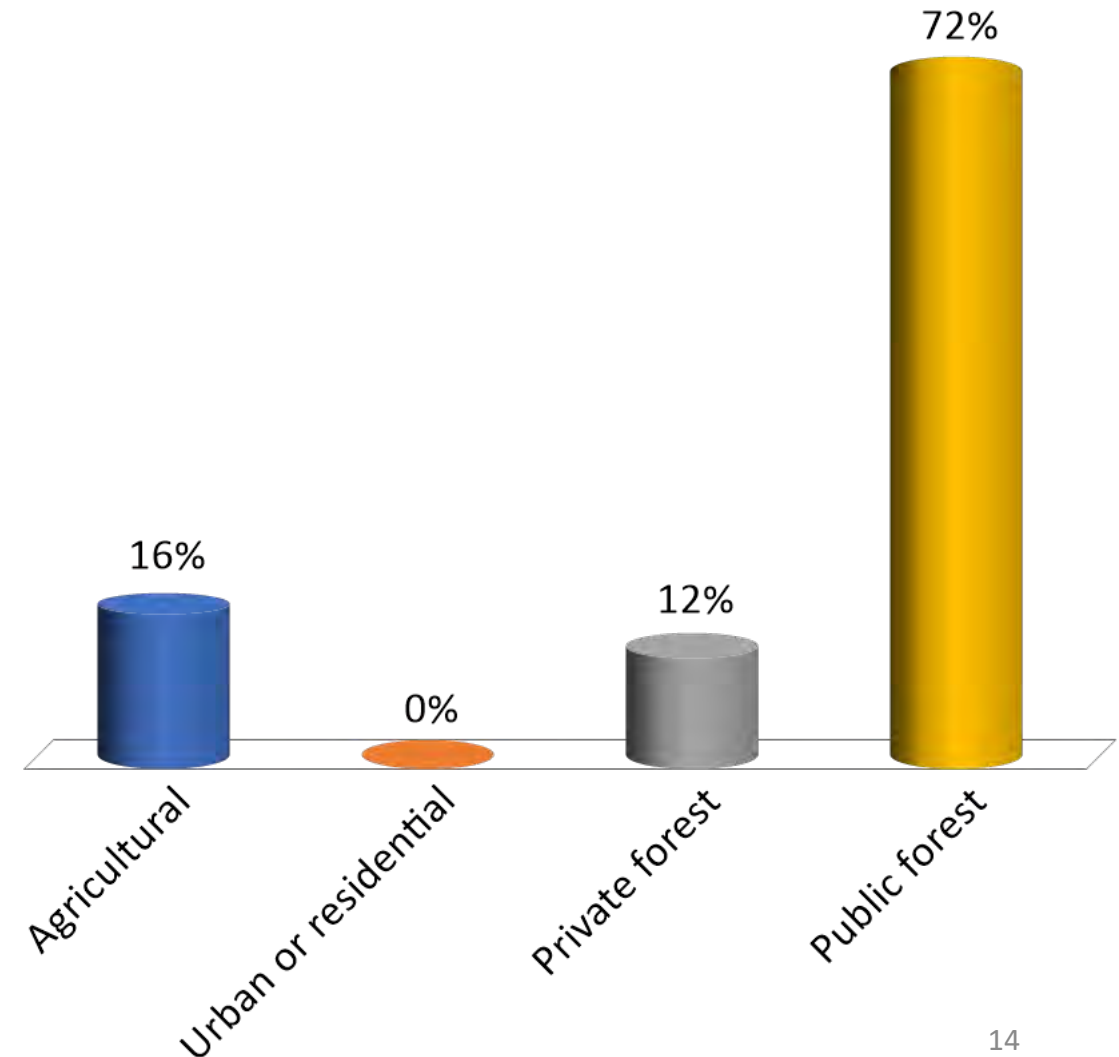
3. North Santiam River is Oregon's _____ largest river.

- 1. 10th
- ✓ 2. 25th
- 3. 50th
- 4. 100th



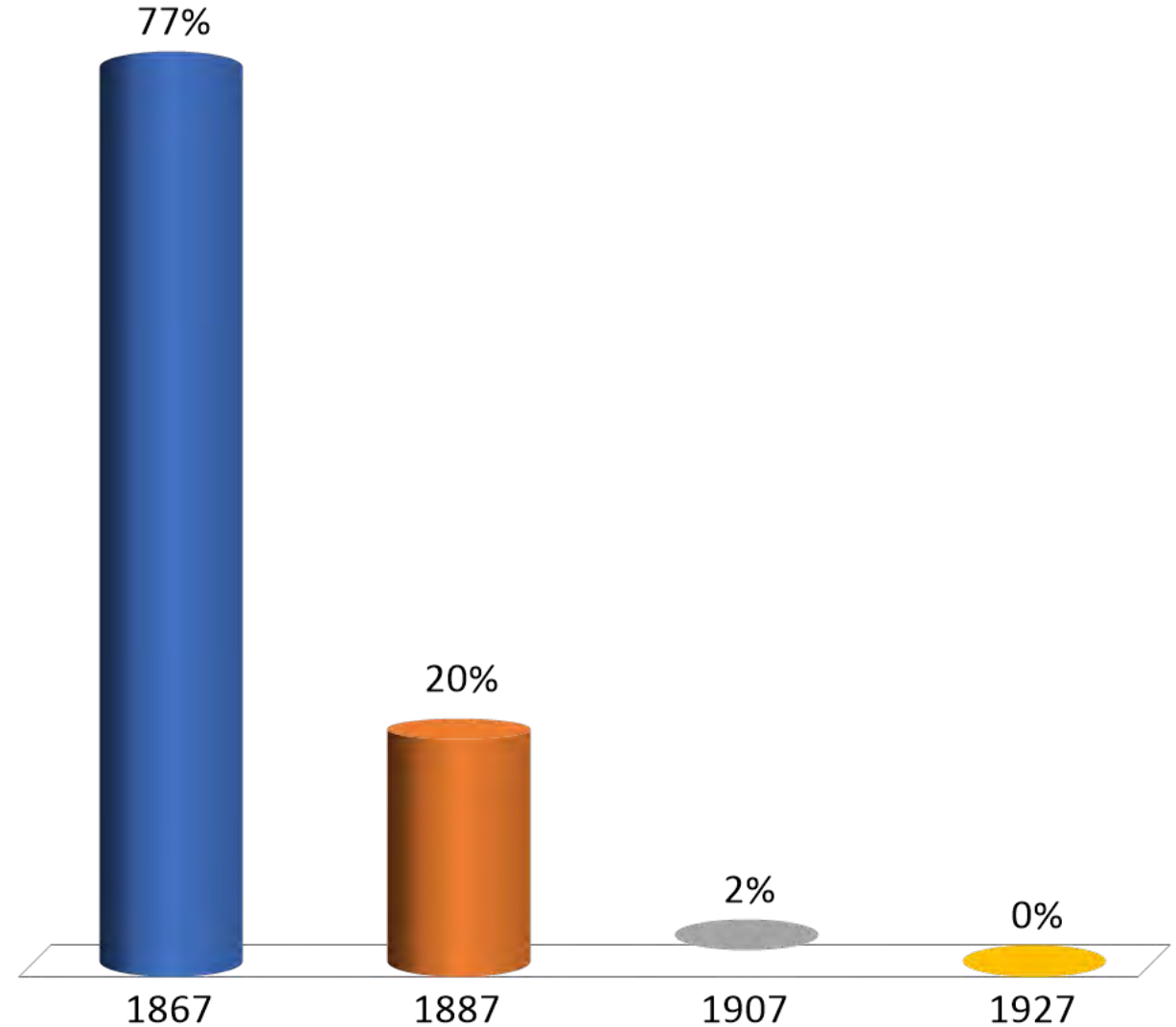
4. The majority of land in the watershed is:

1. Agricultural
2. Urban or residential
3. Private forest
- ✓ 4. Public forest



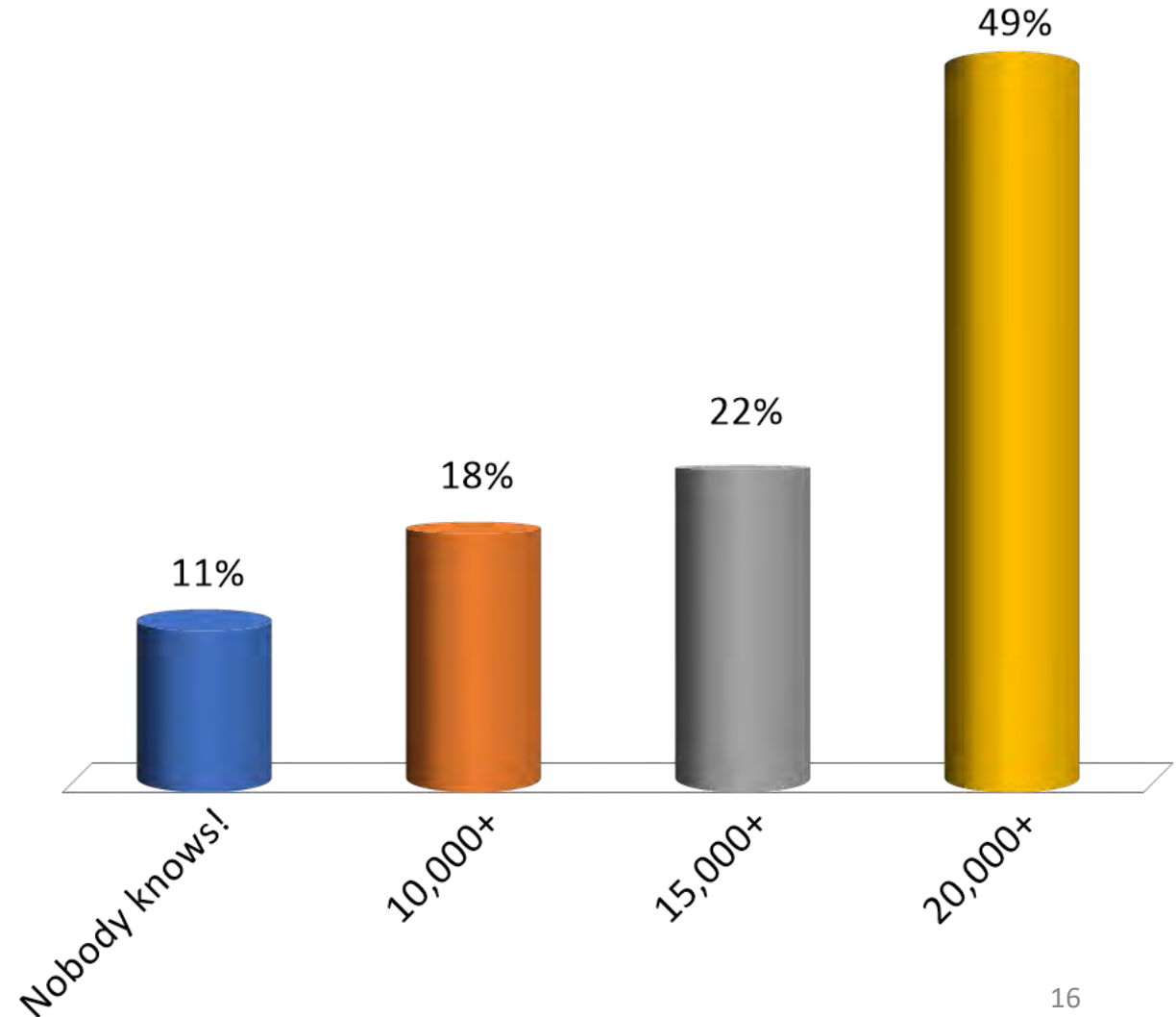
5. When did settlers arrive in the North Santiam River canyon?

- 1. 1867
- ✓ 2. 1887
- 3. 1907
- 4. 1927



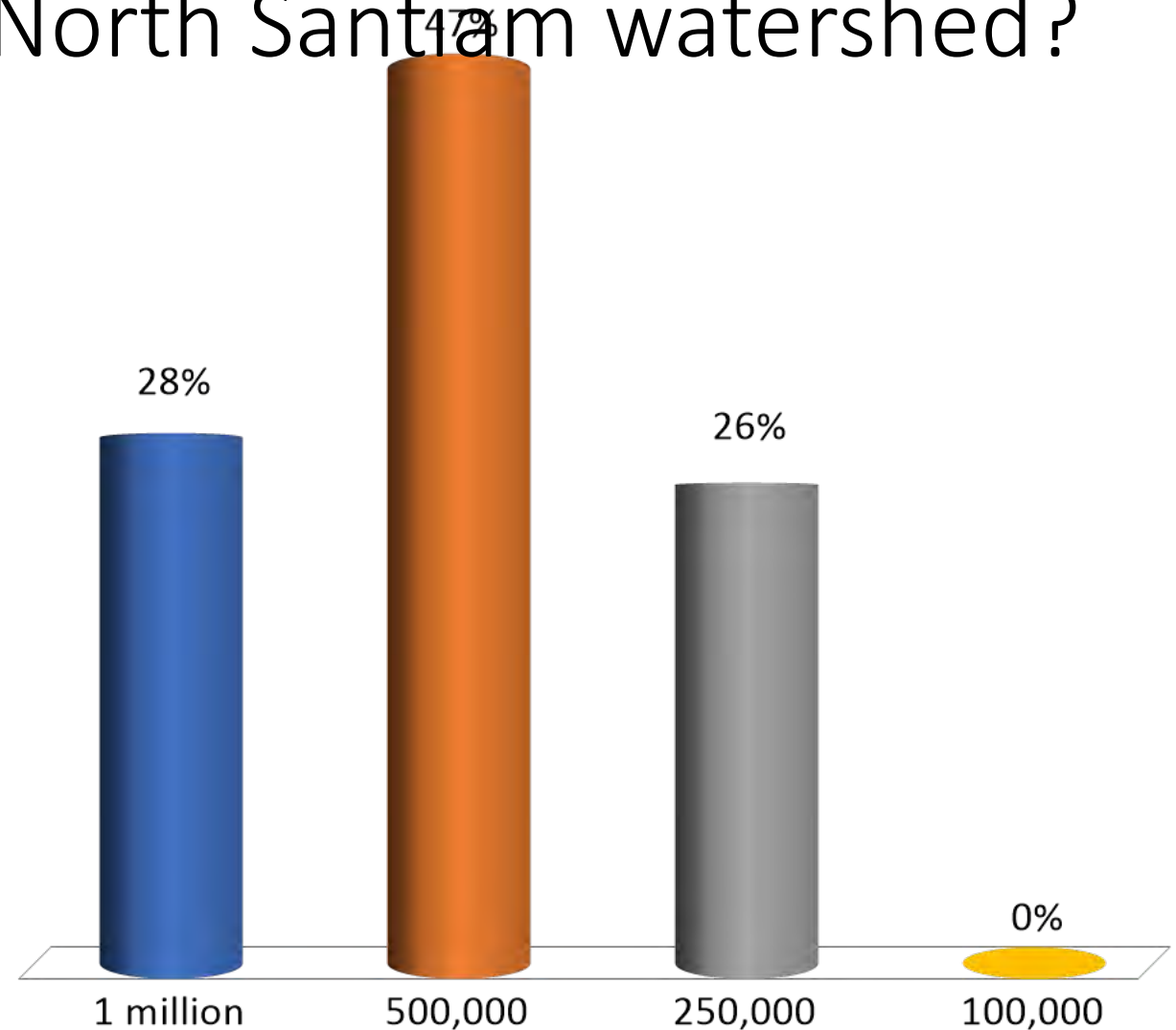
6. How many people live in the North Santiam Canyon?

- 1. Nobody knows!
- 2. 10,000+
- ✓ 3. 15,000+
- 4. 20,000+



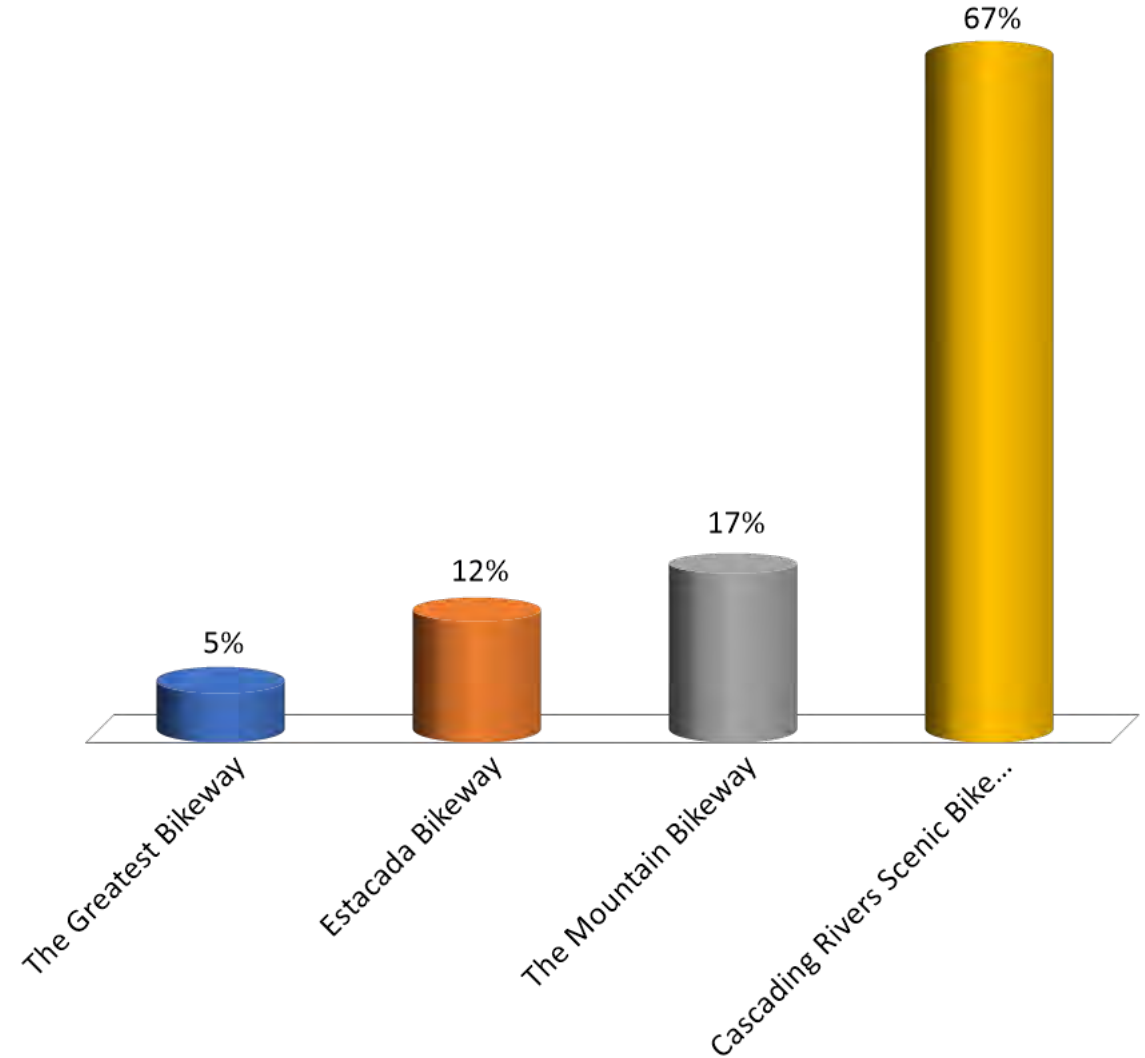
7. What is the estimated annual recreational visitation on Public Lands in the North Santiam watershed?

- 1. 1 million
- ✓ 2. 500,000
- 3. 250,000
- 4. 100,000



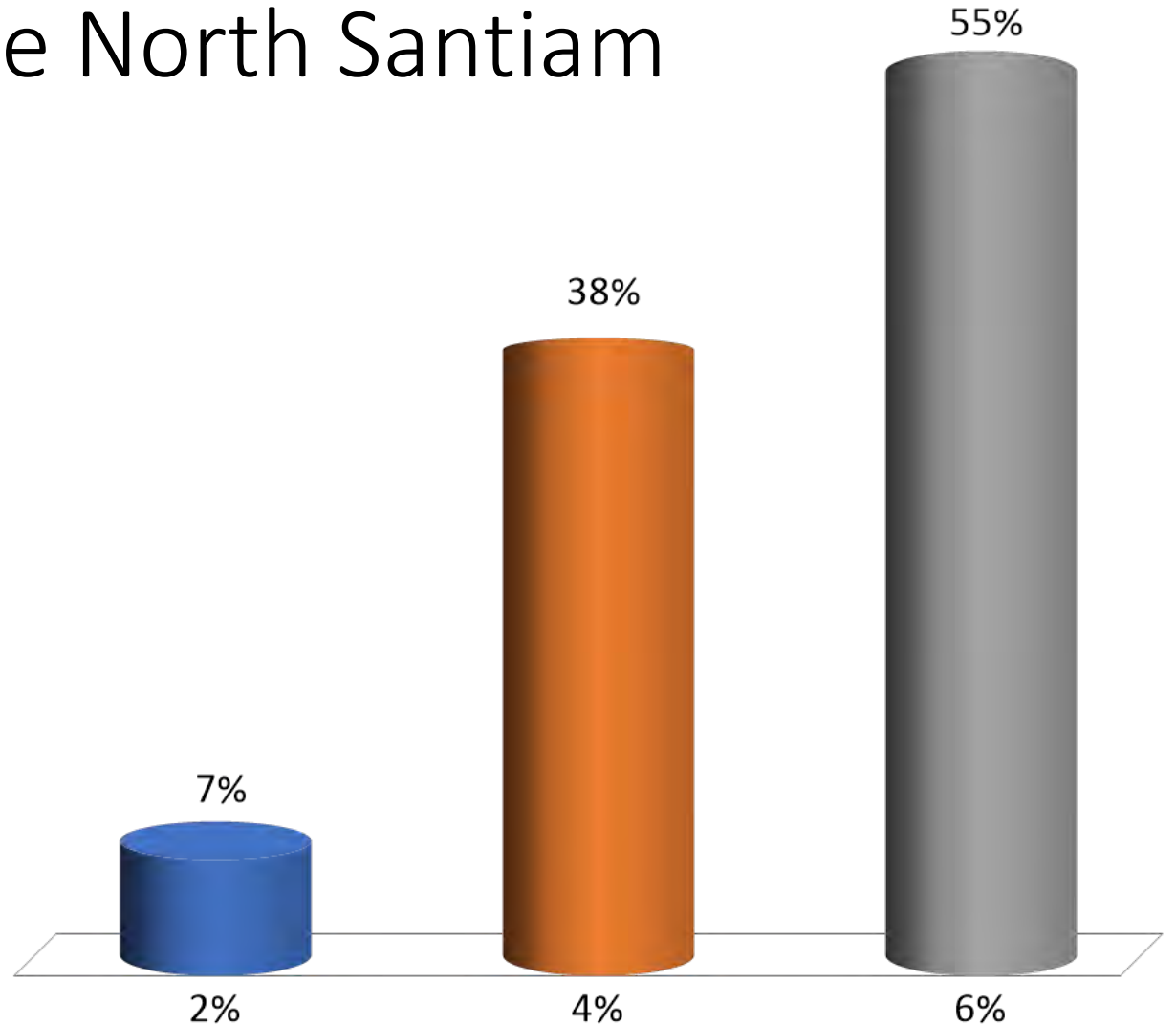
8. What's the name of the Detroit to Estacada bikeway?

1. The Greatest Bikeway
2. Estacada Bikeway
3. The Mountain Bikeway
- ✓ 4. Cascading Rivers Scenic Bikeway



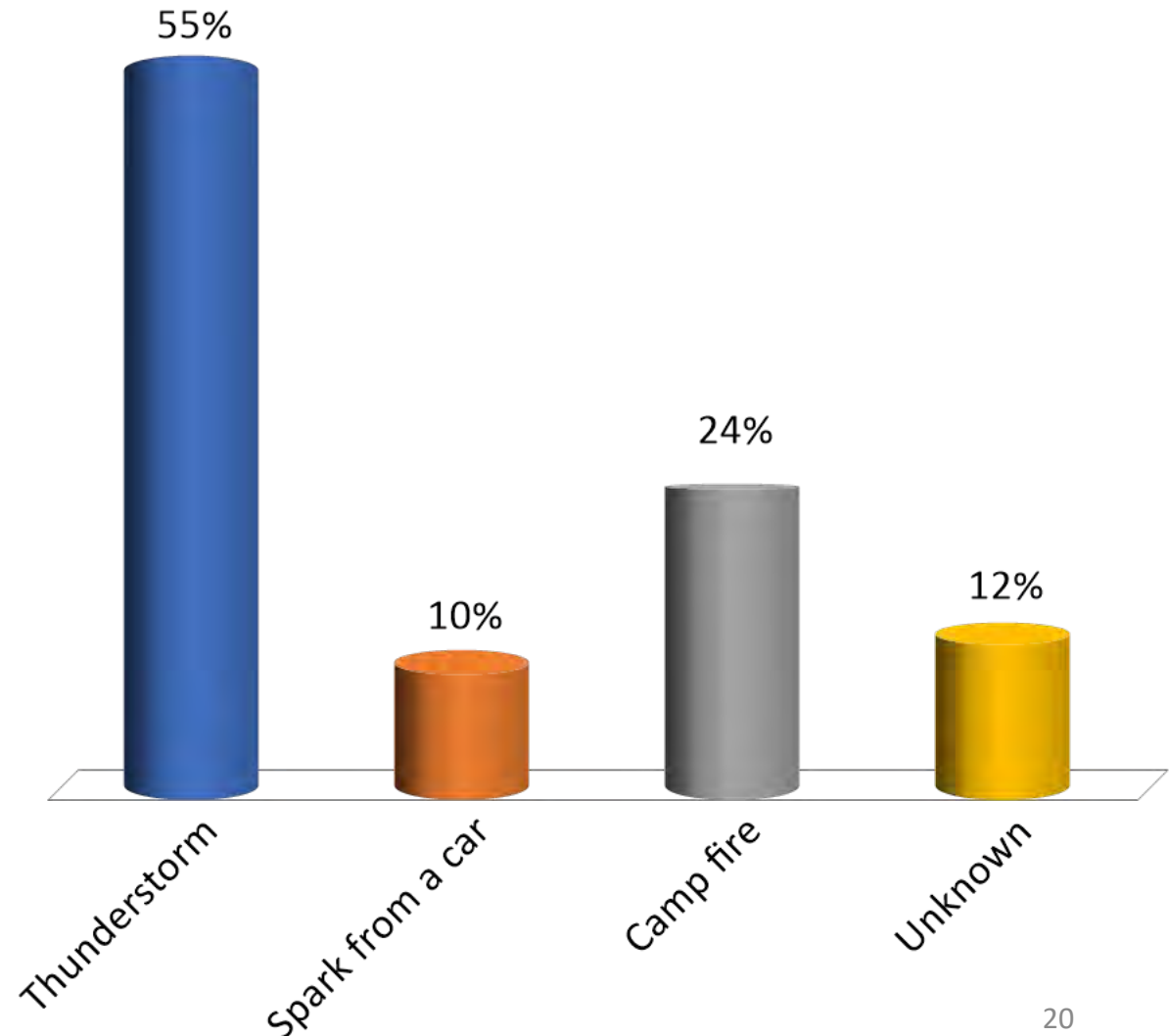
9. What percent of Oregon's population gets their drinking water from the North Santiam watershed?

- 1. 2%
- 2. 4%
- ✓ 3. 6%



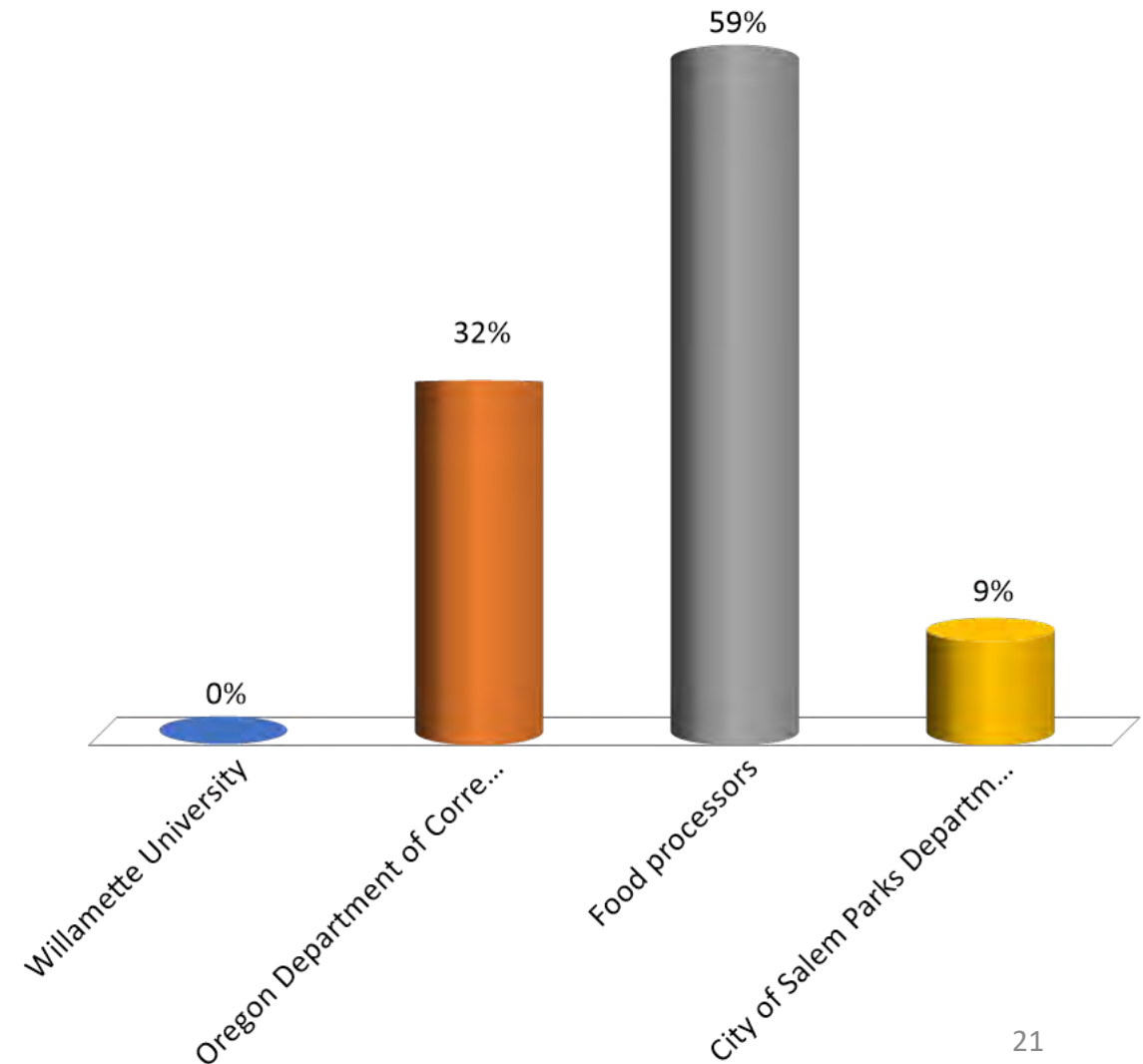
10. What caused the B&B Complex fires in 2003?

- ✓ 1. Thunderstorm
- 2. Spark from a car
- 3. Camp fire
- 4. Unknown



11. Who is the single largest user of treated North Santiam water?

1. Willamette University
- ✓ 2. Oregon Department of Corrections
3. Food processors
4. City of Salem Parks Department



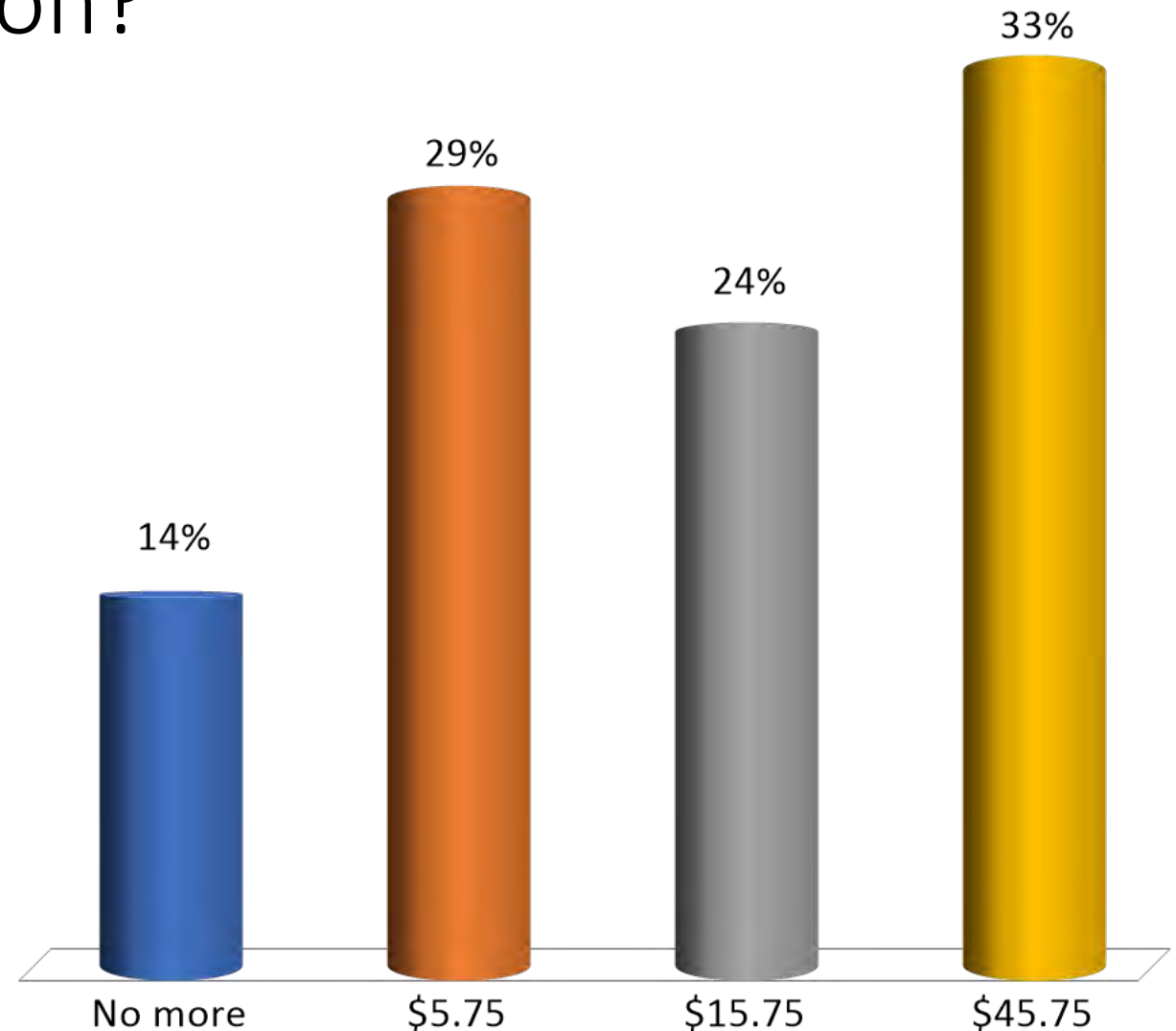
12. How much are consumers willing to pay more per year to save salmon?

1. No more

2. \$5.75

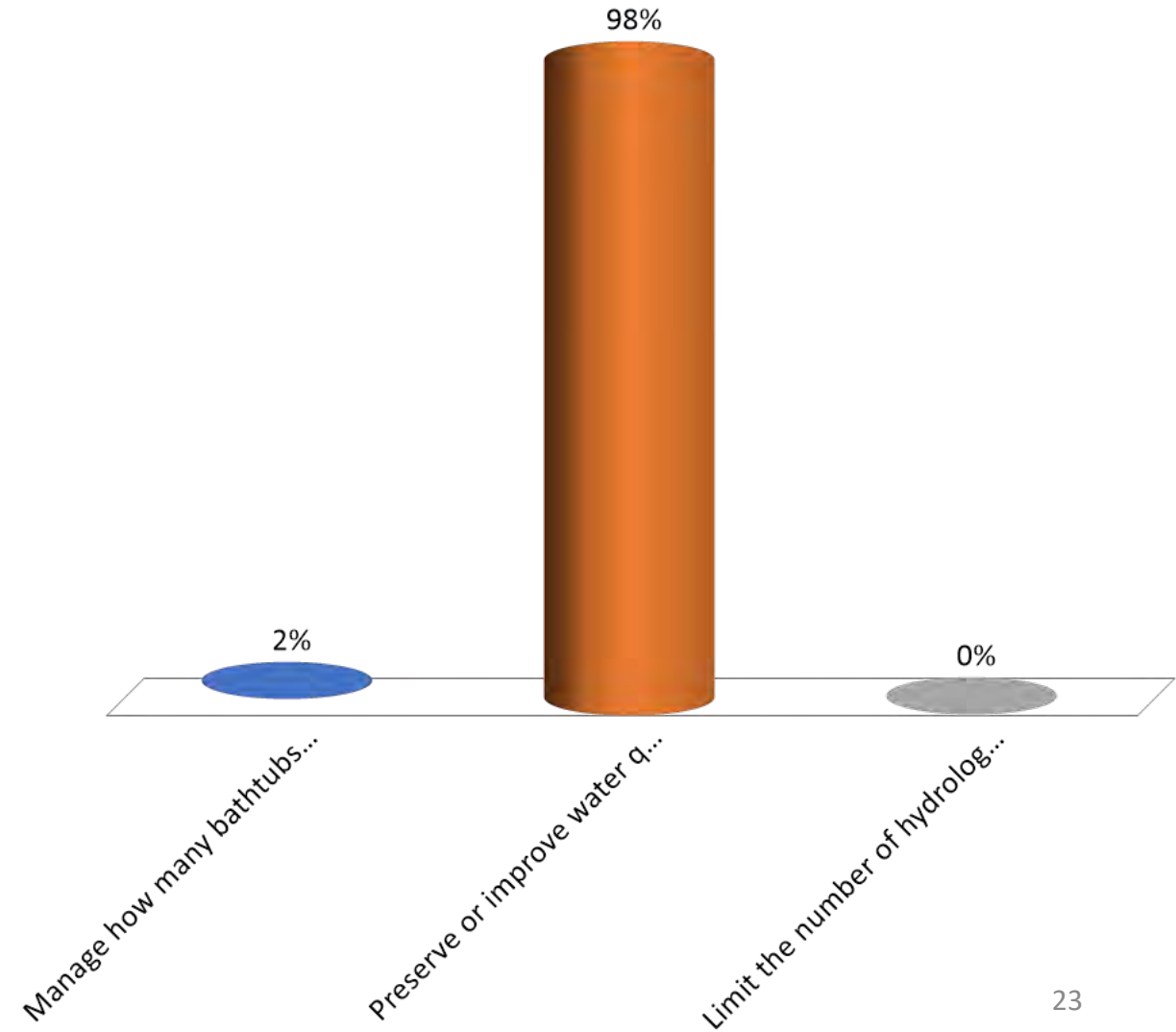
3. \$15.75

✓ 4. \$45.75



13. What's the purpose of the “3 Basin Rule”?

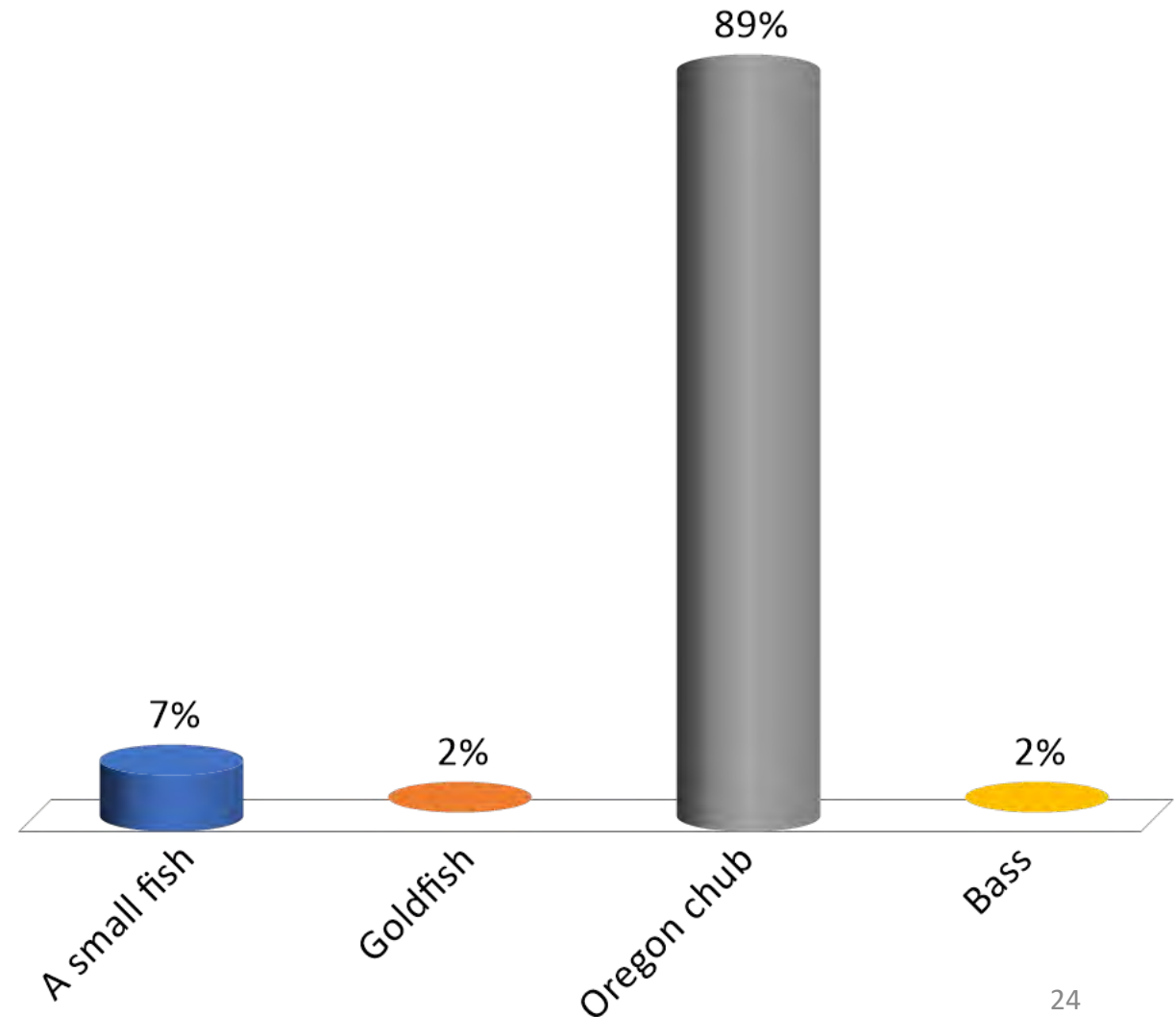
1. Manage how many bathtubs and sinks each house is allowed to have in the watershed.
- ✓ 2. Preserve or improve water quality for municipal water supplies, recreation and preservation of aquatic life.
3. Limit the number of hydrologic sub-basins.



14. What fish is this?



- 1. A small fish
- 2. Goldfish
- ✓ 3. Oregon chub
- 4. Bass



Anyone get 14 out of 14?



North Santiam Corps of Engineers Project Updates

Adam Sussman, GSI

Jeff Ament, USACE

Tim Ernster, USACE

Greg Taylor, USACE

Lunch!



Enhanced Water Quality Monitoring Project

Kurt Carpenter, USGS

Prediction Lab

James Watson, Prediction Lab

Panel Discussion: Cyanobacteria Incidents – Lessons Learned, Future Plans

Mark Becketl / Lacey Goeres-Priest, City of Salem City
Wendy Zieker / Jolene Kelley / Krista Carter, Marion County
Jamie Bash, Oregon Health Authority

How Can You Tell if Toxins are Present?



Which one of these contain 72 ug/L of Microcystin-LR?

Trends in the region – impact of climate change

- Increased surface water temperatures
- Increased diversity in algal species
- Increased algal counts
- Increased concentrations of associated algal toxins

“The rear-view mirror is no longer an indication
of what is to come.”



Public Notice Issued

- **DO NOT DRINK THE TAP WATER – MAY 29, 2018**
- Infants, Young Children, and other Vulnerable Individuals
- Applied to City Of Salem, City of Turner, Suburban East Salem Water District, and Orchard Heights Water Association

DO NOT DRINK THE TAP WATER – MAY 29, 2018

INFANTS, YOUNG CHILDREN, AND OTHER VULNERABLE INDIVIDUALS

**Applies to City of Salem, City of Turner,
Suburban East Salem Water District, and Orchard
Heights Water Association**

WHY IS THERE AN ADVISORY?

- Low levels of cylindrospermopsin and microcystin (cyanotoxins) have been found in treated drinking water. These toxins are created by algal blooms in the source of City of Salem drinking water, Detroit Reservoir.
- To ensure the greatest quality of drinking water, City of Salem voluntarily samples for such toxins during algal events. Samples were collected on May 23, 2018 and May 25, 2018. Results confirmed the presence of cyanotoxins in the drinking water at levels above the U.S. Environmental Protection Agency's Cyanotoxins National Drinking Water



Detroit Lake supplies Salem's drinking water. The latest test results for toxins in the water are expected Thursday.

U.S. ARMY CORPS OF ENGINEERS

Drinking water fouled

Children younger than 6 shouldn't drink from tap in Salem, other cities

Zach Urness, Natalie Pate and Bill Poehler

Salem Statesman Journal
USA TODAY NETWORK

Low levels of toxins caused by algae blooms in Detroit Lake have been discovered in Salem's drinking water, prompting officials to warn parents not to give tap water to children under 6 years old.

People with compromised health and immune systems also are being told not to drink tap water.

Other affected cities include Turner and Stayton.

Bottled water should be used for drinking, making infant formula, making ice and preparing food and beverages for the affected groups, officials said.

"Children under the age of six, people with compromised immune systems, people receiving dialysis treatment, people with pre-existing liver conditions, pets, pregnant women or nursing mothers, or other sensitive populations should follow this advisory," a news release states.

Salem-Keizer Public Schools will offer bottled water for students who are pre-K through first grade, district offi-



Water from Detroit Lake, where the algae was first detected last week, flows down the North Santiam River and becomes Salem's drinking water.

MOLLY J. SMITH/STATESMAN JOURNAL FILE

11 questions answered on Salem's water warning

Jonathan Bach and Bill Poehler

Salem Statesman Journal
USA TODAY NETWORK

Salem city officials issued a do-not-drink advisory Tuesday following the detection of low levels of toxins in city drinking water pulled from the North Santiam River.

The advisory affects children under 6 years old and vulnerable populations, such as nursing mothers and dialysis patients. Officials are urging them to drink bottled water.

Is there something that can be done to treat the water so it is safe to drink?

David Farrer, a public health toxicologist with the Oregon Health Authority, said there really isn't anything to be done to treat the water.

Boiling the water doesn't work; camping filters don't work; nor do the filters that attach to faucets. Farrer said it's best for children and others in vulnerable populations to not drink the water until the advisory is lifted.

What are cyanotoxins?

A common bacteria called cyanobac-

Affected communities

Detroit	
Gates	Mill City
Jefferson	Salem
Lyons	Stayton
Mehama	Turner

Some lessons learned

- Effects of a do not drink notice
- External communications
- Internal communications
- Communicating test results



Introductions

What is your agency's role in addressing cyanotoxins?

City of Salem

*What are you are doing now to
be prepared?*

*What treatment steps will be
added at the Geren Island Water
Treatment Facility?*

Marion County

If there is another event, what are your first responses?

How do you communicate with the public?

Oregon Health Authority

How well prepared are affected water utilities statewide?

What communications are in place to help share information with the public?

Questions
from the
audience



New Rules and Emerging Contaminants

Gregg Baird, Oregon Health Authority

How to Stay Engaged

Rebecca McCoun, North Santiam
Watershed Council



Adjourn—Thank You!