



# MCLANE CREEK & BLACK LAKE BASINS

## WATER QUALITY WORKSHOP

Thurston County Long-Range Planning & TRPC  
April 9, 2014

# Tonight's Agenda

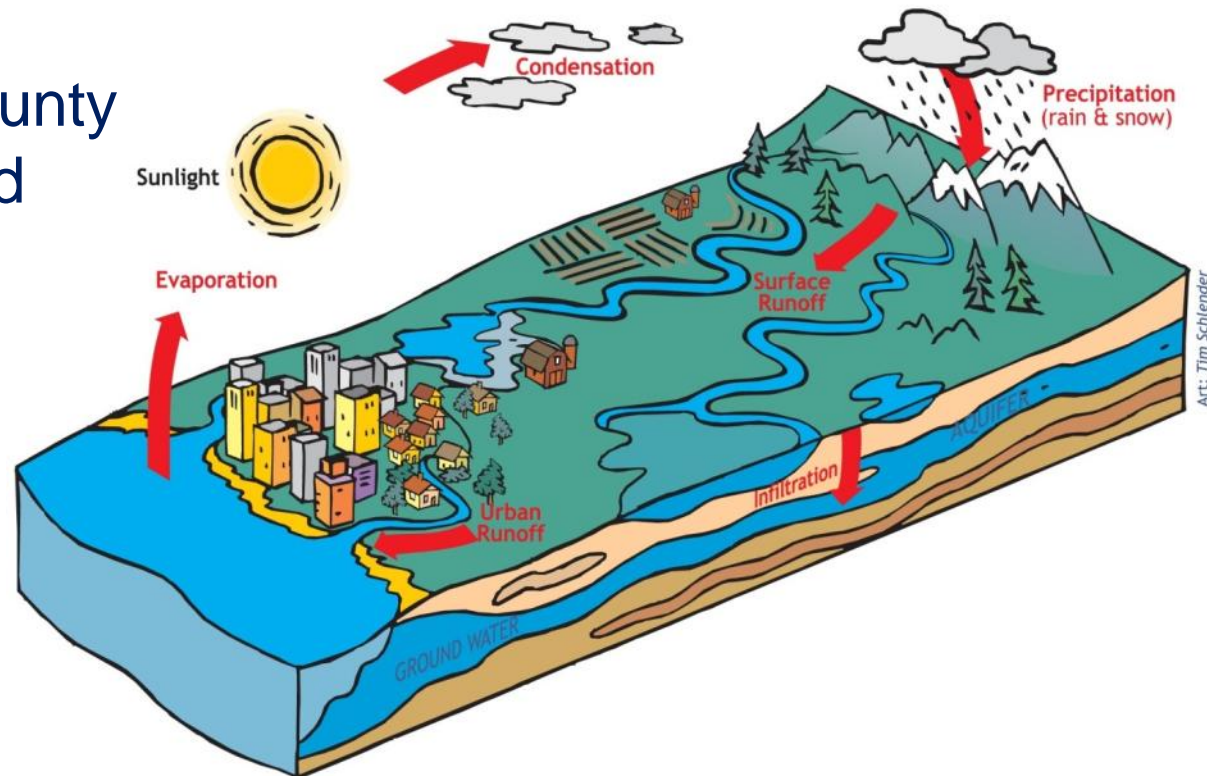
- Welcome
- *Presentation: Guiding Growth – Healthy Watersheds Project*
  - ▣ Allison Osterberg  
Thurston County Long-Range Planning
  - ▣ McLane Creek Basin
  - ▣ Black Lake Basin
- Table Displays



# Guiding Growth – Healthy Watersheds

## Project Background

- Thurston County is one of the fastest growing in Western Washington – How do we best protect water resources as our region grows?
- 2009: Thurston County and TRPC received a grant from EPA to conduct watershed-based planning



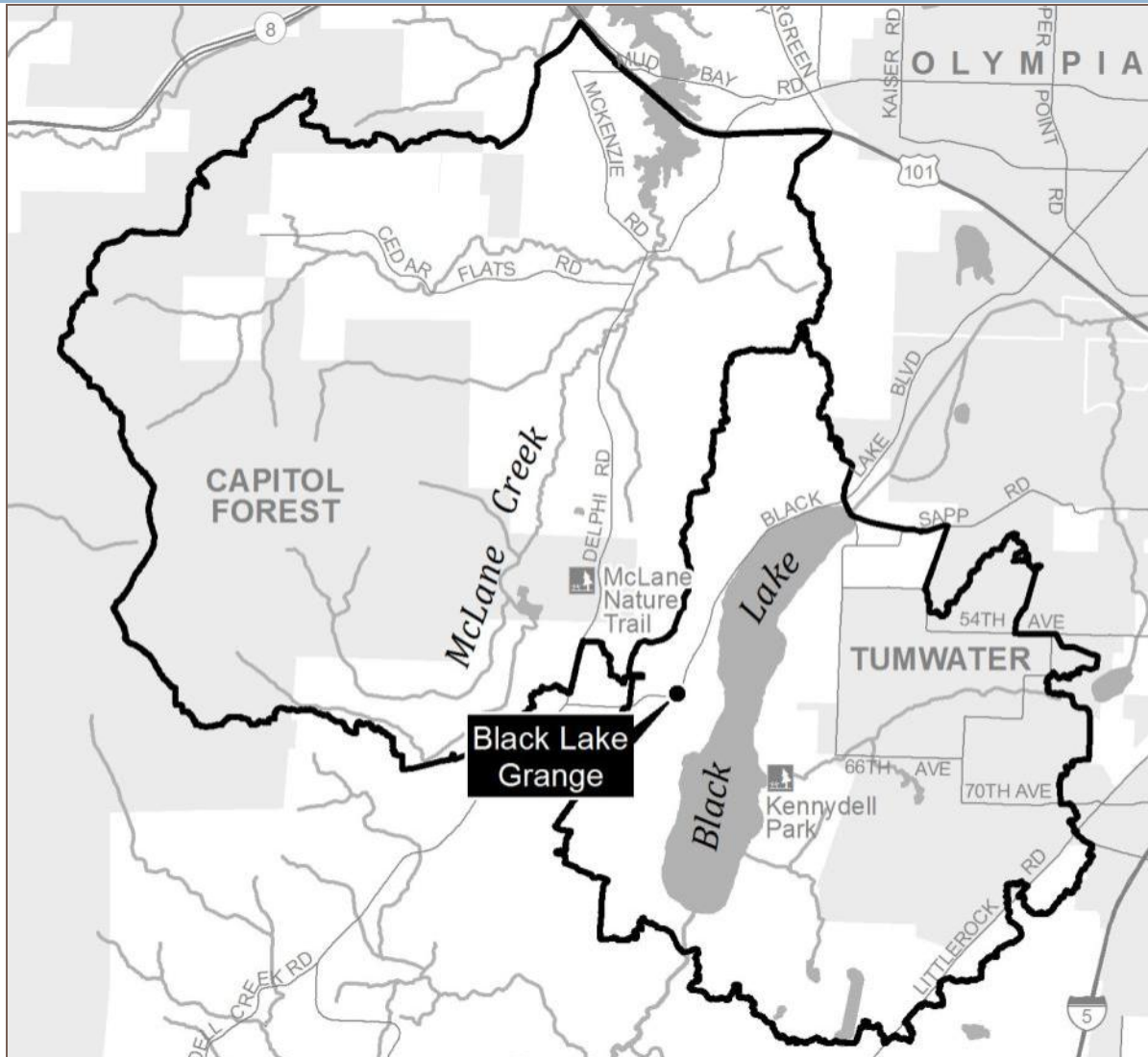
# Guiding Growth – Healthy Watersheds

## Project Background

- Assessed current conditions for 69 basins
- April 2013: Selected 3 basins for focus
  - ▣ **McLane Creek**
  - ▣ **Black Lake**
  - ▣ Woodward Creek (March 12 workshop)
- Currently gathering information and conducting analyses on each basin



# Where are the McLane Creek and Black Lake Basins?



# Where is the McLane Creek Basin?





# Where is the McLane Creek Basin?



Credit: DNR

# Where is the McLane Creek Basin?



Credit: DNR



# Where is the McLane Creek Basin?



# Where is the McLane Creek Basin?





# Where is the McLane Creek Basin?

- ~ 7,000 acres
- McLane, Swift, Cedar Flats, Beatty creeks discharge into Eld Inlet
- Jurisdiction
  - Rural Thurston County
  - Capitol Forest & McLane Creek Nature Trail
- Mix of forestry, agriculture, and residential land uses

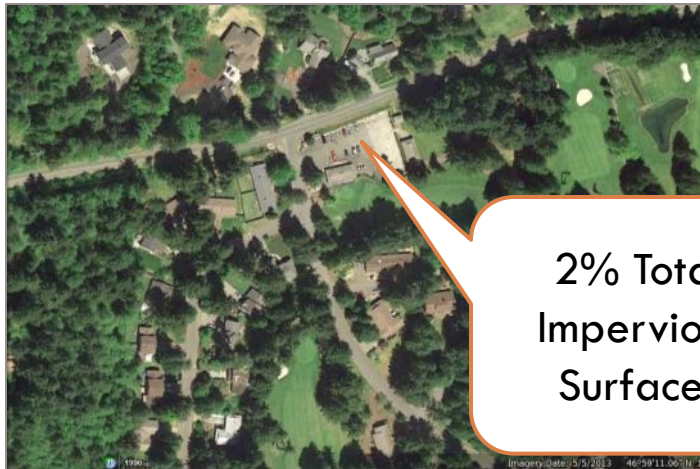




# What is the current condition of McLane Creek Basin?



73% Tree  
Canopy

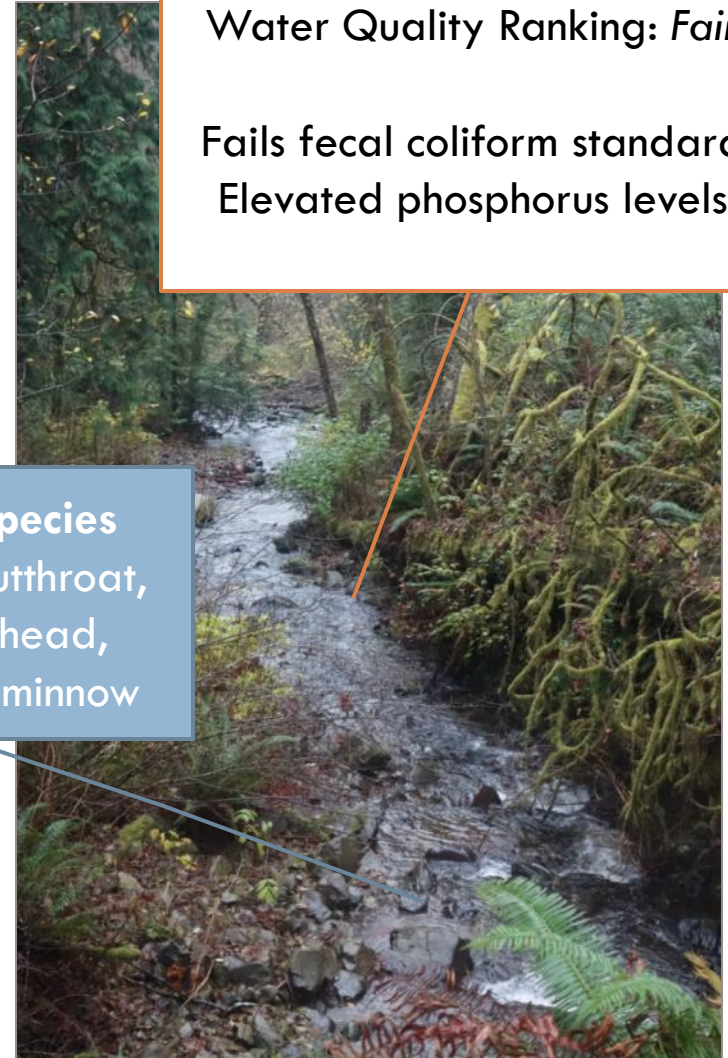


2% Total  
Impervious  
Surfaces

**Habitat & Species**  
chum, coho, cutthroat,  
winter steelhead,  
Olympic mudminnow

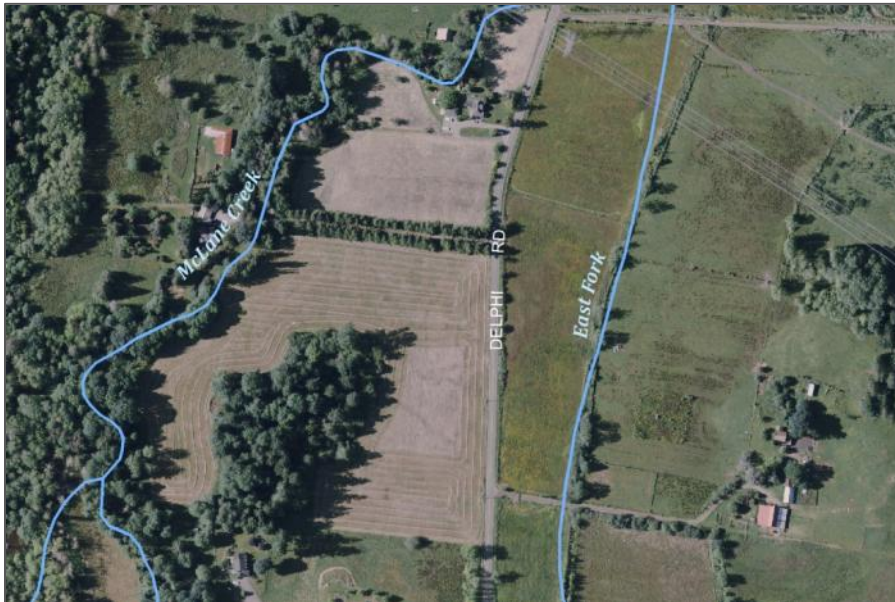
Water Quality Ranking: *Fair*

Fails fecal coliform standard  
Elevated phosphorus levels



# What are the water resource concerns in McLane Creek Basin?

- ❑ Loss of tree cover
- ❑ Water flow and quality
- ❑ Riparian corridors & tree cover
- ❑ Population growth & development



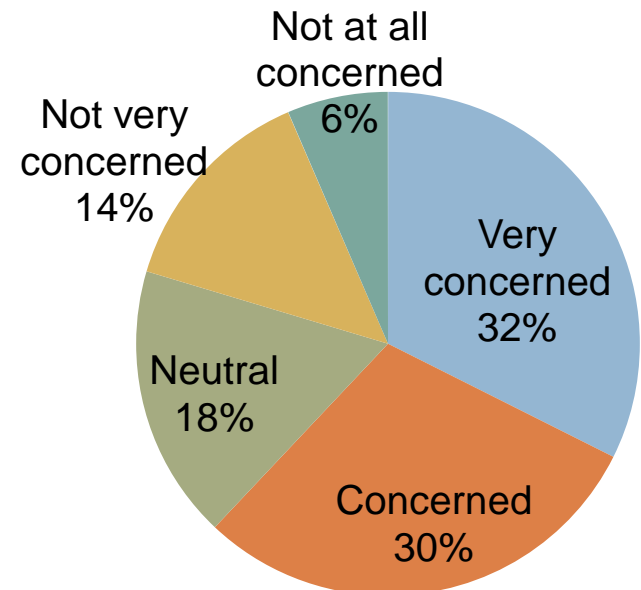
# Public Opinion Survey: McLane Results

- Summer 2013: Public survey sent by mail
- Received over 100 responses
- High level of concern about water quality

- **Important:**

- Clean drinking water
- Puget Sound WQ
- Healthy salmon runs
- Private property rights
- Preserving working forests and farms

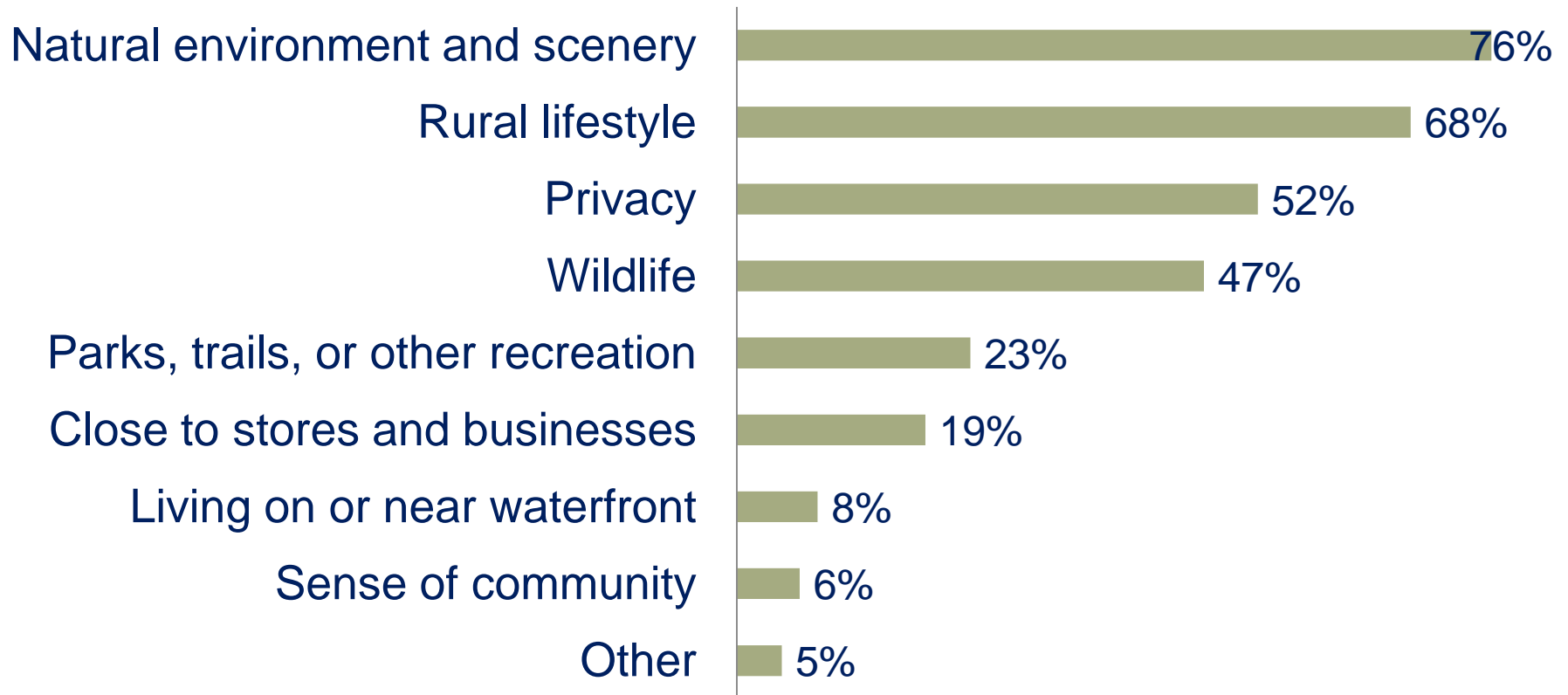
## How concerned are you about water quality in McLane Creek Basin?





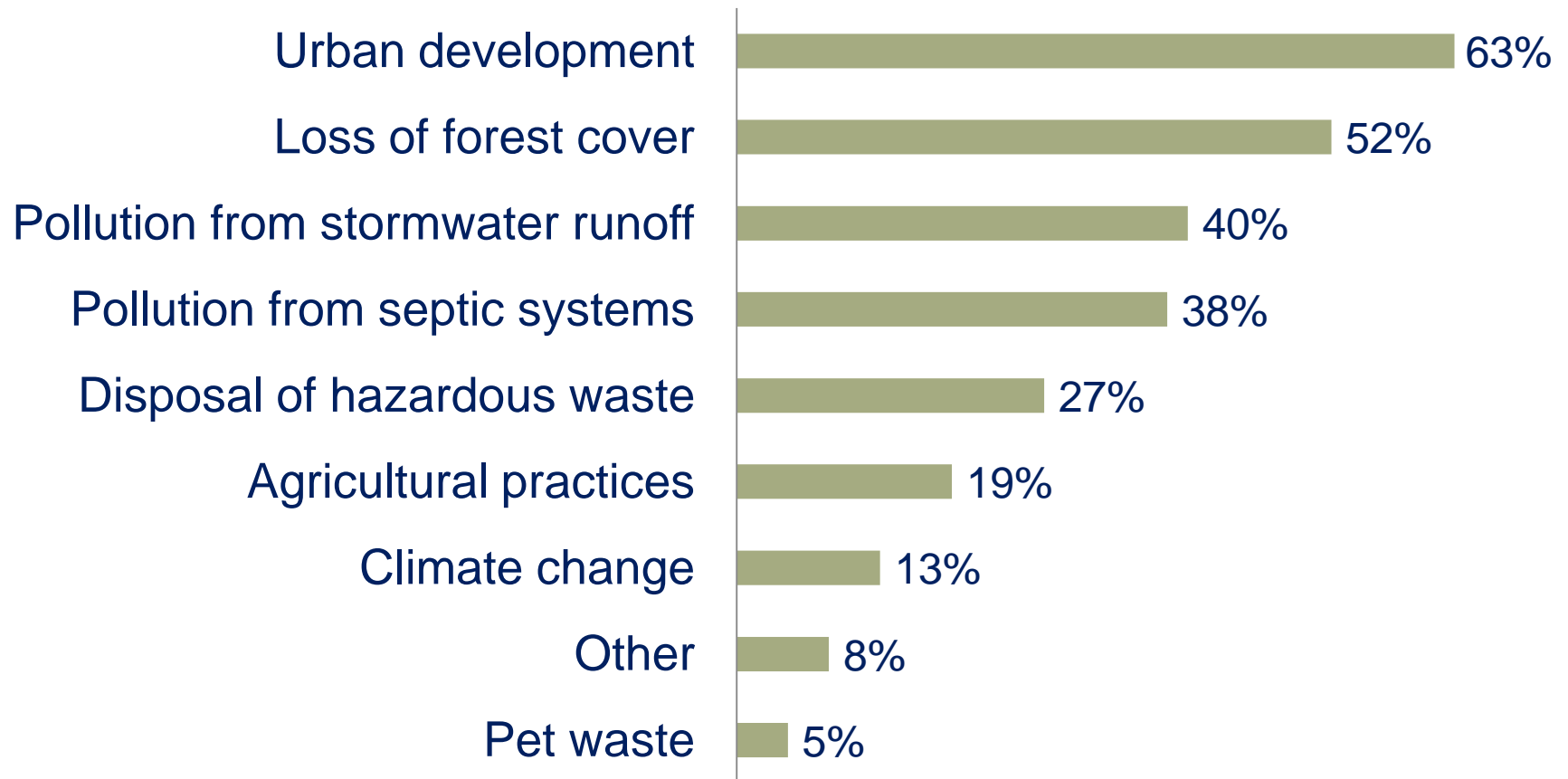
# Public Opinion Survey: McLane Results

## What do you value most about living in the McLane Creek Basin?



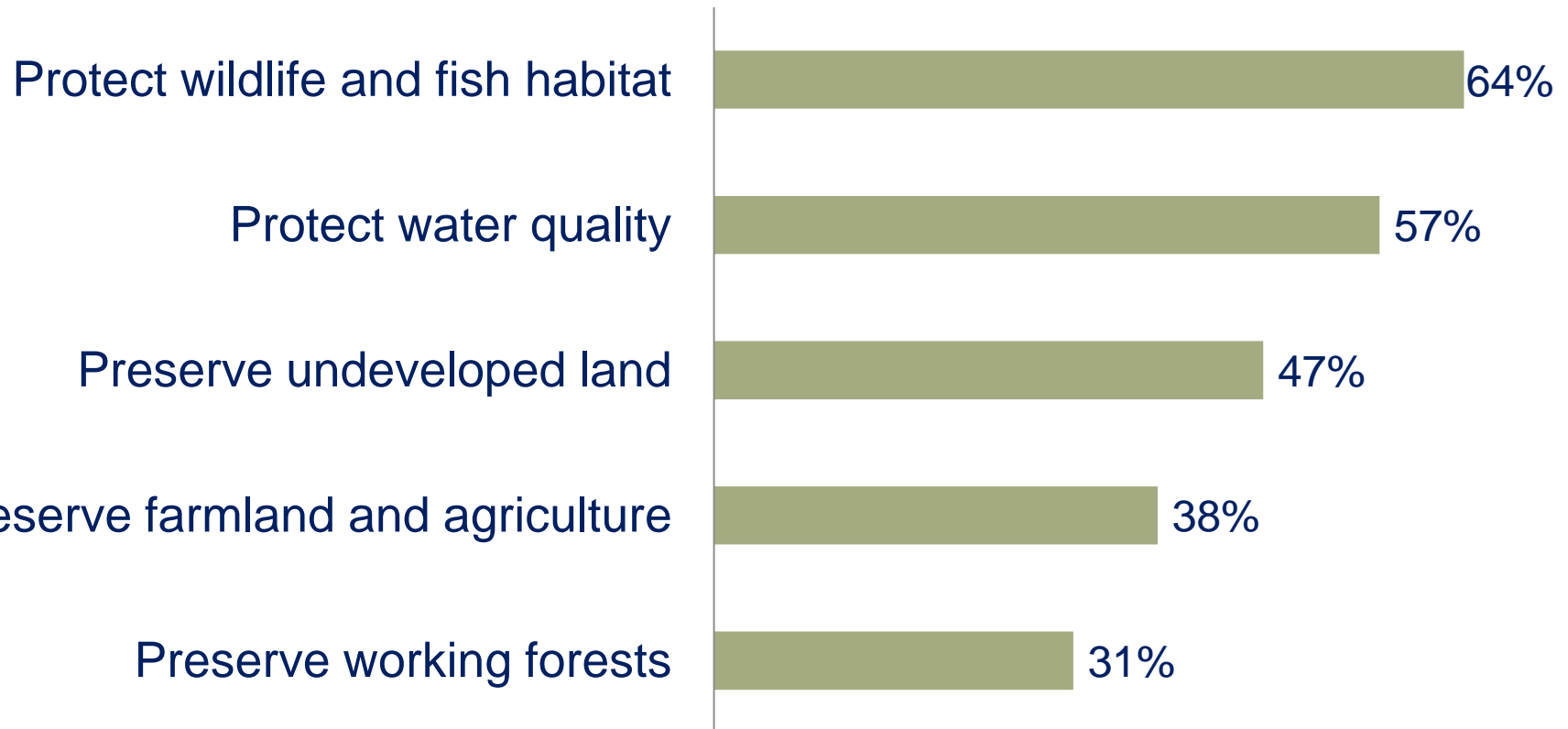
# Public Opinion Survey: McLane Results

## What are the greatest risks to water quality in McLane Creek Basin?



# Public Opinion Survey: McLane Results

## What should be addressed in a watershed plan for McLane Creek Basin? (Top 5)





# Where is the Black Lake Basin?



# Where is the Black Lake Basin?





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# Where is the Black Lake Basin?



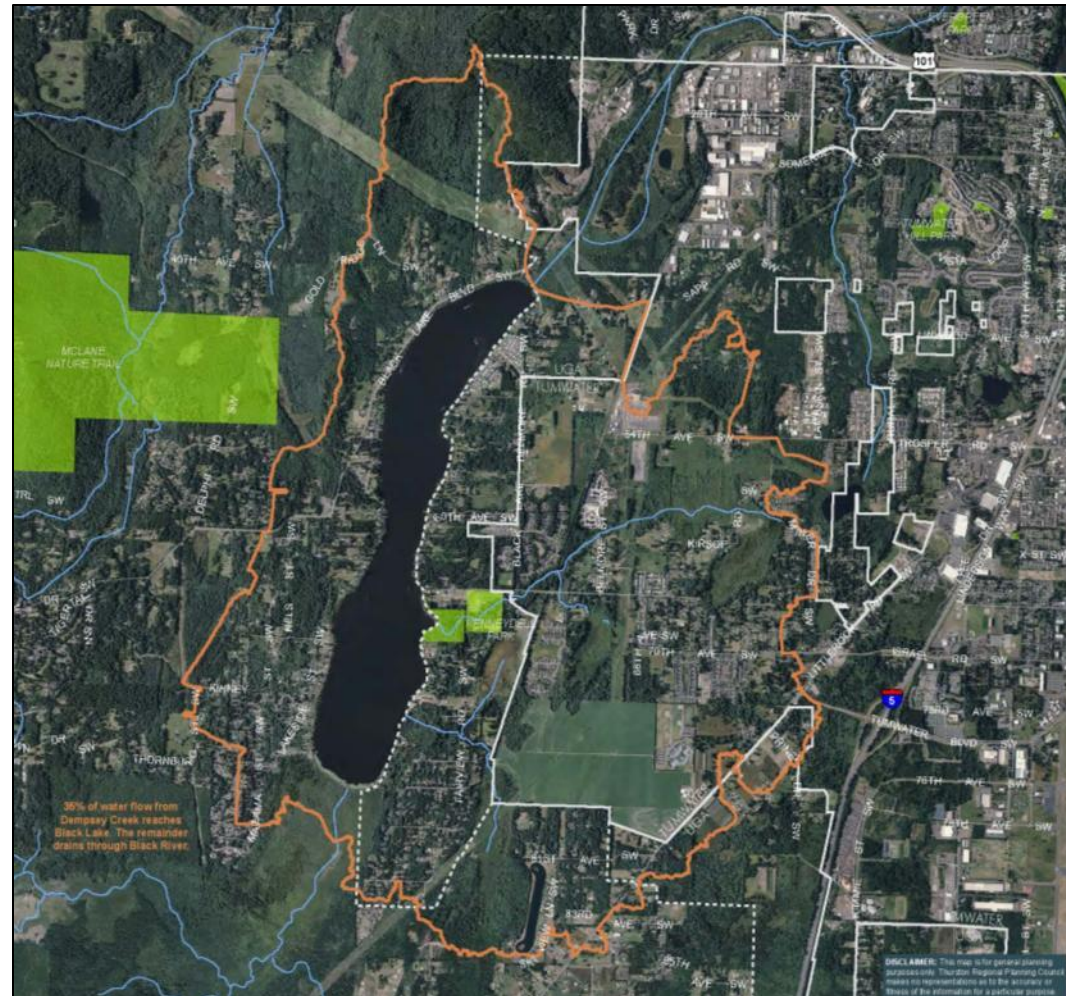
# Where is the Black Lake Basin?





# Where is the Black Lake Basin?

- ~ 5,000 acres  
(additional area occasionally drains to Black Lake)
- Jurisdiction
  - Rural Thurston County
  - Tumwater City and UGA
- Low density residential land use, open space and parks





# What is the current condition of Black Lake Basin?



44% Tree  
Canopy



8% Total  
Impervious  
Surfaces

Water Quality Ranking: *Fair*

Elevated nutrient levels;  
blue-green algae blooms  
in lake

Fish Pond Creek fails fecal  
coliform standard

Habitat & Species  
Oregon spotted frog



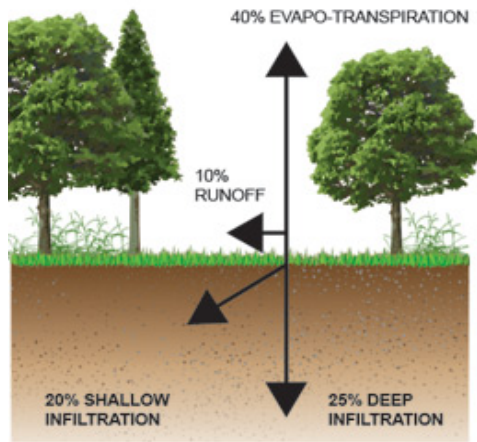
# What are the water resource concerns in Black Lake Basin?

- Population growth & development
- Water quality and algal blooms
- Nuisance aquatic species
- Shoreline vegetation & tree cover

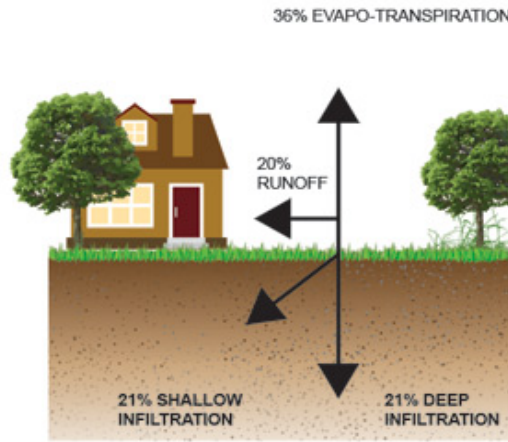




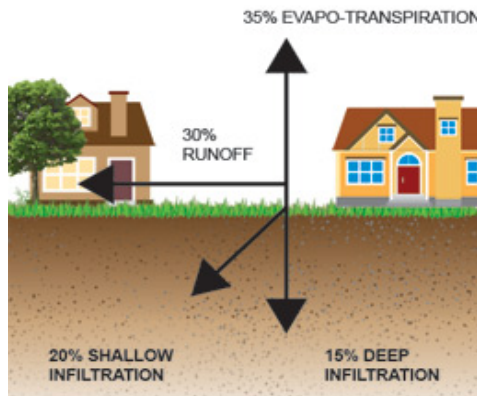
# How will future development affect Black Lake Basin?



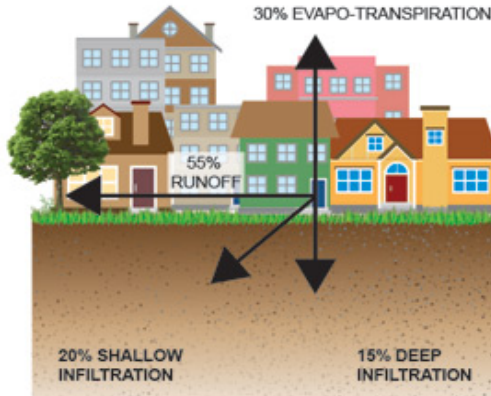
**NATURAL GROUND COVER**



**10-20% IMPERVIOUS SURFACE**



**35-50% IMPERVIOUS SURFACE**



**75-100% IMPERVIOUS SURFACE**

**SOURCE:** (GUIDANCE SPECIFYING MANAGEMENT MEASURES FOR SOURCES OF NONPOINT SOURCE POLLUTION IN COASTAL WATERS, 1993) AS SHOWN IN (ARNOLD, 1996).



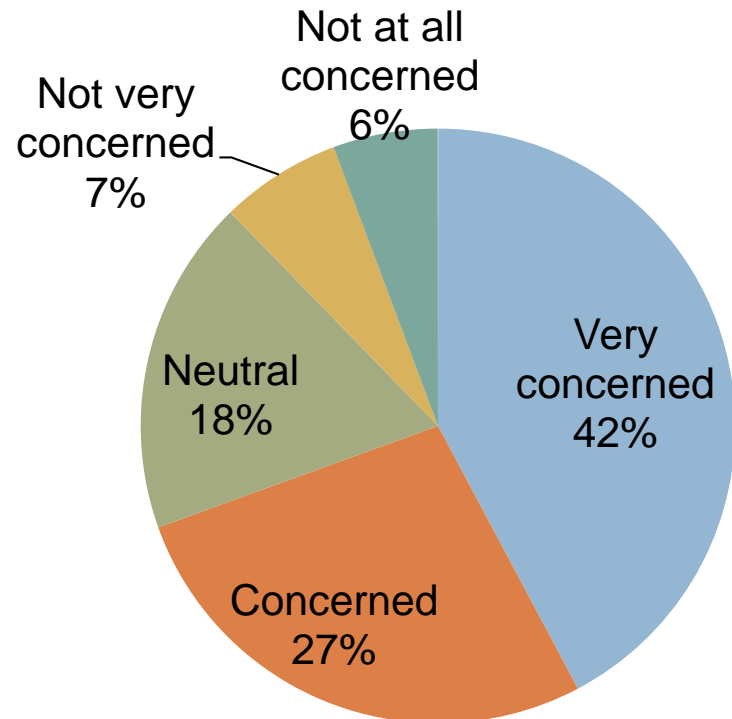
# Public Opinion Survey: Black Lake

- Summer 2013: Public survey sent by mail
- Received 340 responses
- High level of concern about water quality

- **Important:**

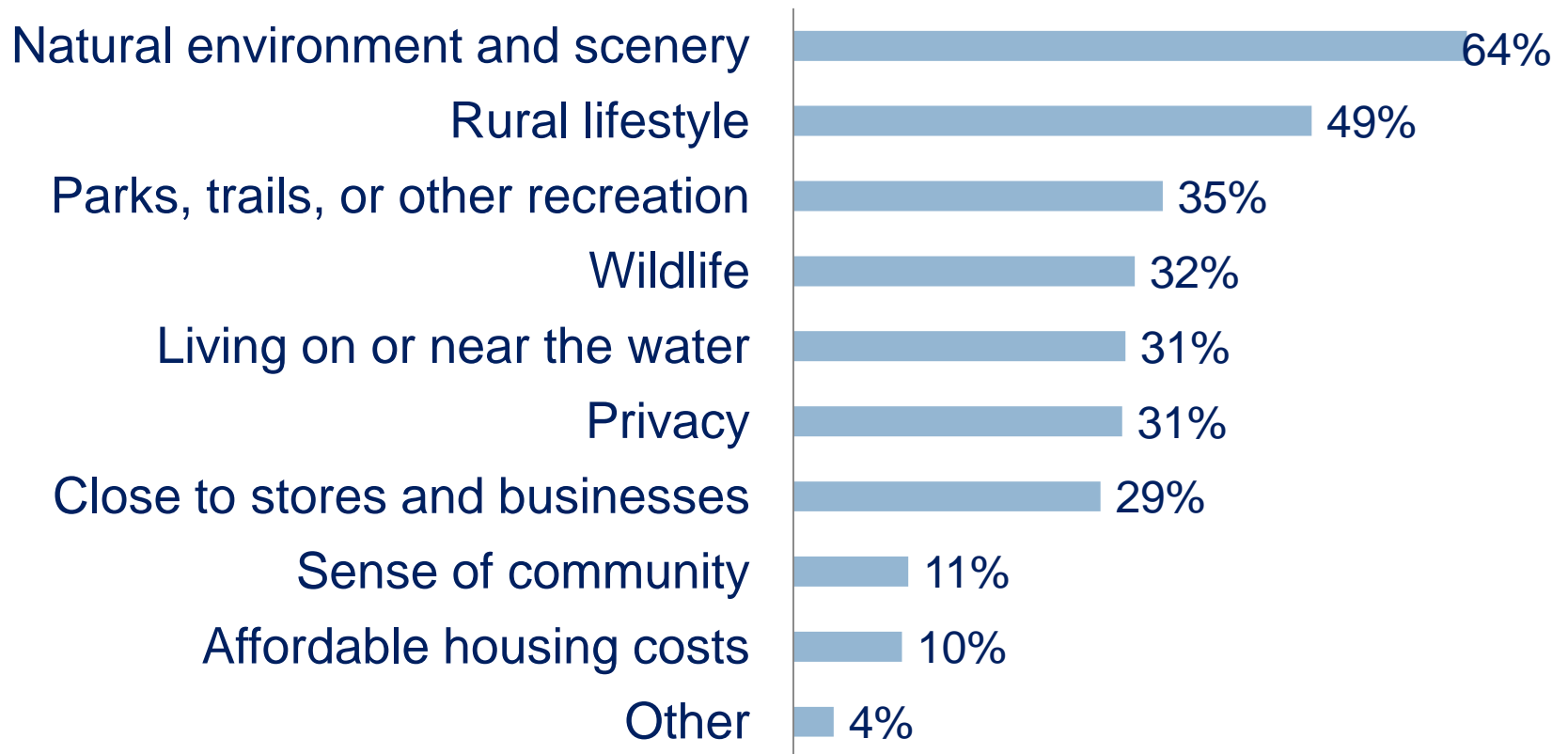
- Clean drinking water
- Puget Sound WQ
- Swimmable lakes and streams
- Private property rights
- Healthy salmon runs

## How concerned are you about water quality in Black Lake Basin?



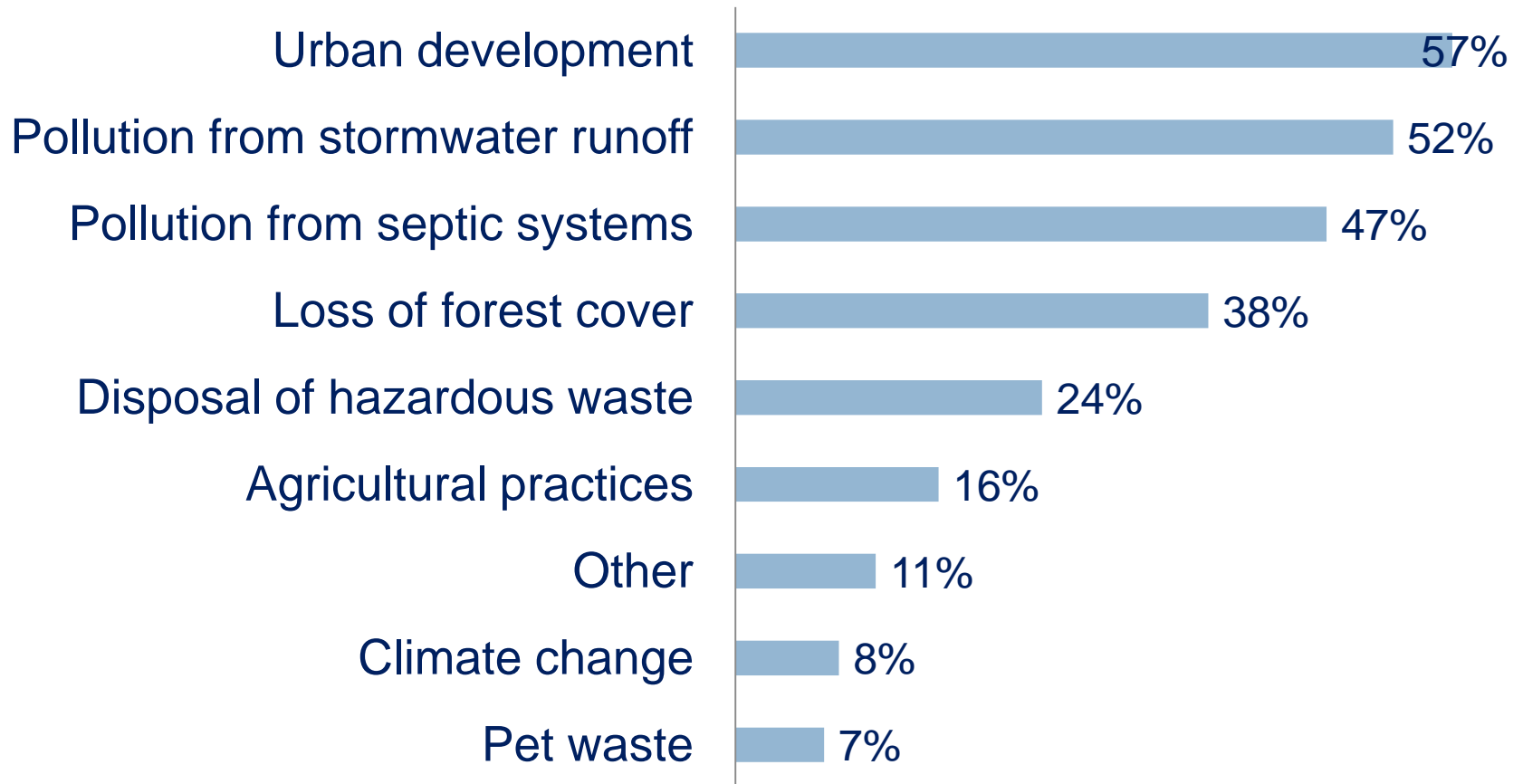
# Public Opinion Survey: Black Lake

## What do you value most about living in the Black Lake Basin?



# Public Opinion Survey: Black Lake

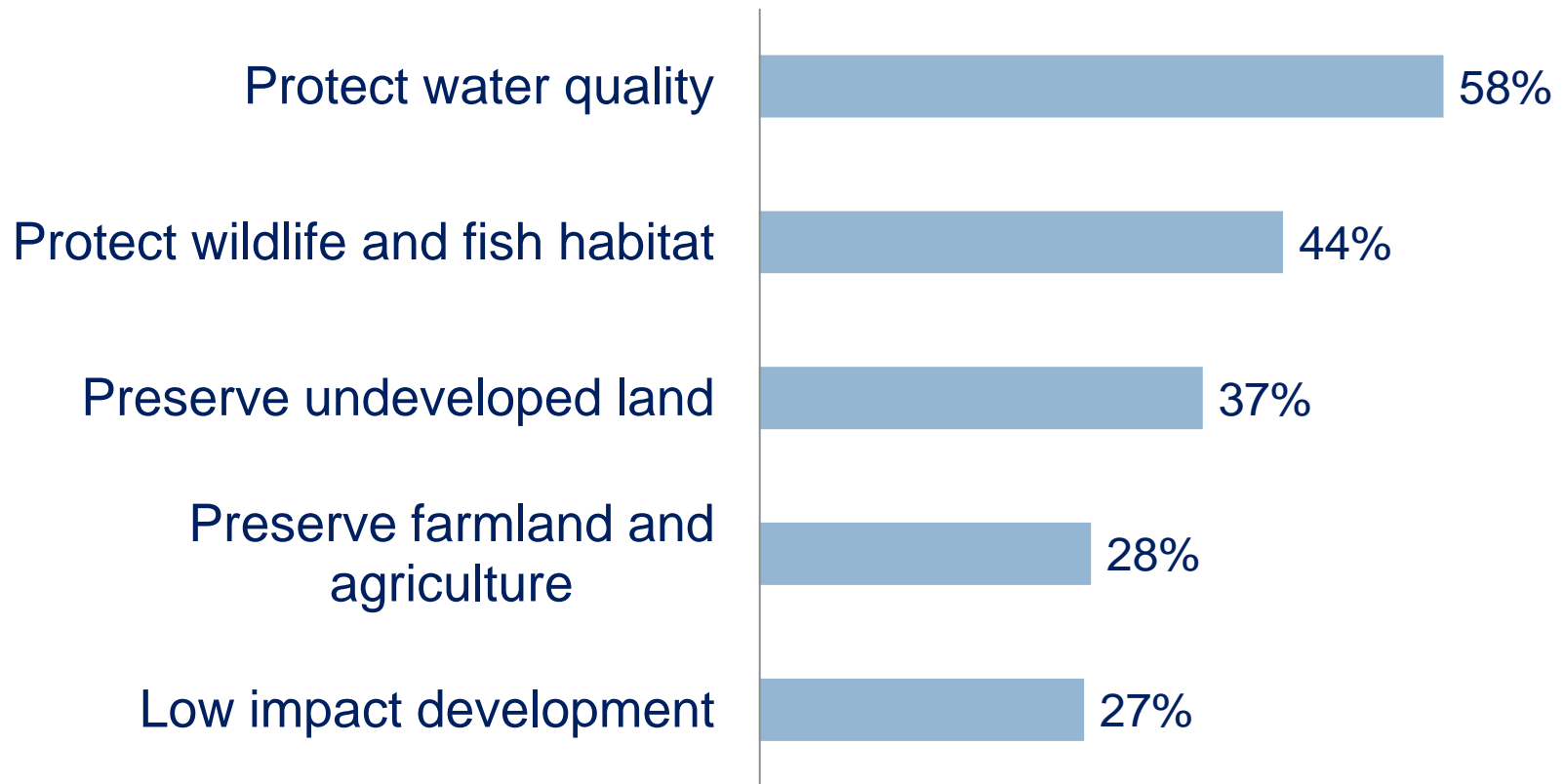
## What are the greatest risks to water quality in Black Lake Basin?





# Public Opinion Survey: Black Lake

## What should be addressed in a watershed plan for Black Lake Basin? (Top 5)



# Alternative Land Use Scenarios

## 1. **Historic Conditions**

- ▣ Forested, with some prairie and wetlands

## 2. **Current Conditions**

- ▣ Current development, impervious surfaces, and stormwater

## 3. **Planned Future Trend**

- ▣ Current regulations carried out into the future

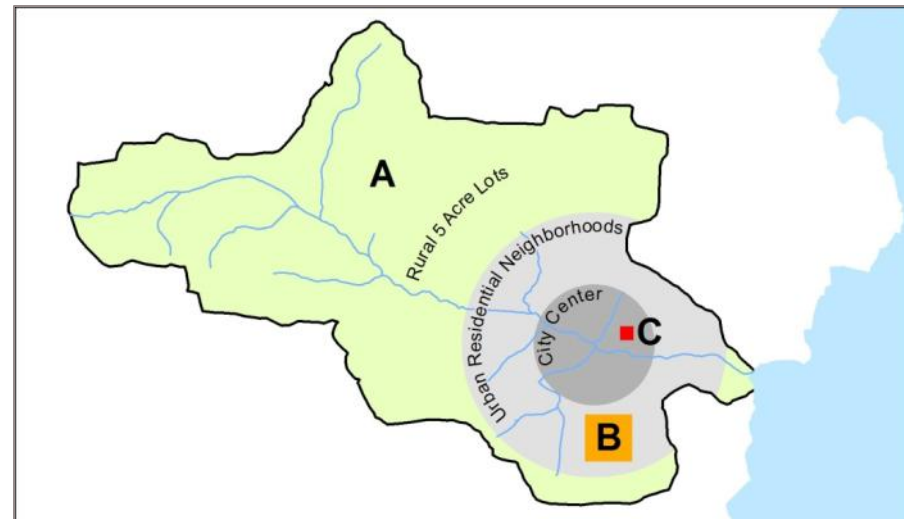
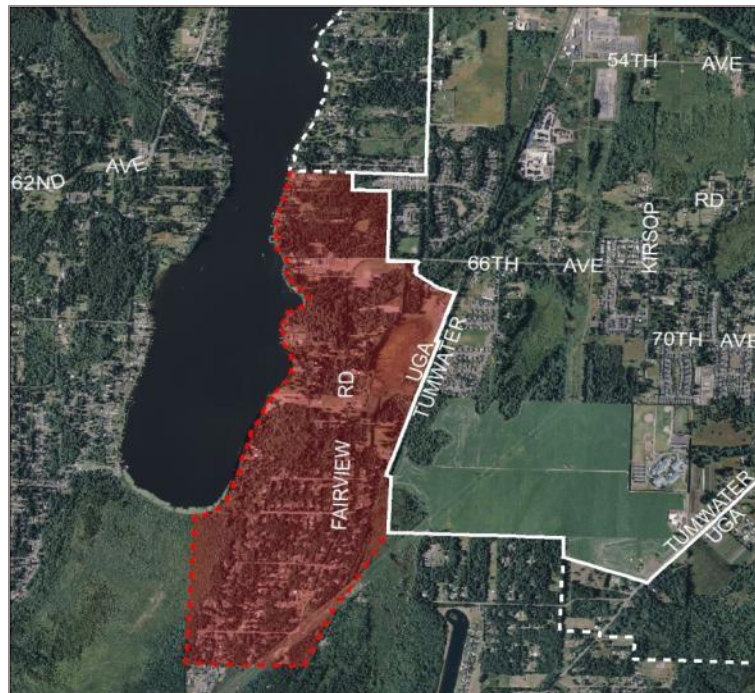
## 4. **Alternative Futures**

- ▣ Changes to land use and development regulations
- ▣ Restoration of riparian areas and wetlands
- ▣ Stormwater retrofits in older neighborhoods

# Guiding Growth – Healthy Watersheds

## Potential Management Options

- Changes to zoning and Urban Growth Area (UGA) boundary





# Guiding Growth – Healthy Watersheds Potential Management Options

- Changes to development regulations (including low impact design standards)



# Guiding Growth – Healthy Watersheds

## Potential Management Options

- ❑ Restoration of wetlands and vegetation along waterbodies
- ❑ Long-term preservation of sensitive lands
- ❑ Stormwater retrofits





# Guiding Growth – Healthy Watersheds

## Next Steps

- Tonight

*Gather feedback on water resource concerns and potential management options*

- Develop recommended policy changes  
*Spring/Summer 2014*





# Guiding Growth – Healthy Watersheds

## Contact

*Questions? Comments?*

### Contact:

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