

# 2016 Clackamas County Upper Sandy River Flood Risk Survey Results

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# PROJECT BACKGROUND

The collage consists of several overlapping images:

- A photograph of a forest stream with mossy rocks.
- A map showing a river valley with various colored zones (red, blue, green) and labels like 'RM 39 Z', 'RM 39', and 'RM 39'. A purple dashed line follows the river.
- A document cover with the text 'PHASE I HAZARD UPPE DECEMBER'.
- A photograph of a person sitting at a desk in a meeting room.
- A circular diagram titled 'Risk MAP Reduce Loss of Life and Property' with four steps: 1 Identify Risk, 2 Assess Risk, 3 Communicate Risk, and 4 Mitigate Risk. The diagram is flanked by the FEMA and University of Oregon logos.

**FEMA** **UNIVERSITY OF OREGON**

**1 Identify Risk**  
Transfer Risk  
Reduce Risk

**2 Assess Risk**  
Map Risk Data  
Assess Present and Future Risks  
Goal—Measure Quantifiable Risk Reduction

**3 Communicate Risk**  
Plan for Risk

**4 Mitigate Risk**

**Risk MAP**  
Reduce Loss of Life and Property

# PURPOSE

Risk tolerance



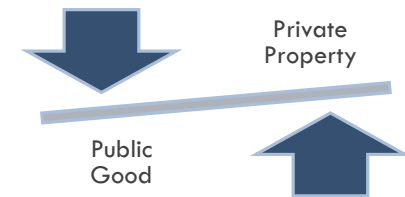
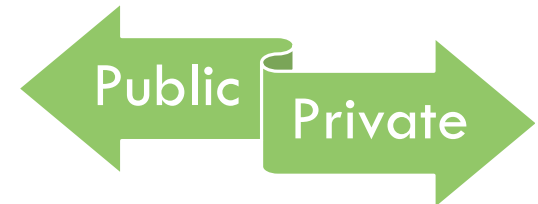
Responsibility



Policy choices

Property rights

Individual choices




# METHOD

- Survey development team
- County Website “Landing Page”
- Interactive Map
- 3,951 addresses in the Upper Sandy River Basin
  - Postcard
- Additional outreach
  - Website
  - Email lists
  - Newspaper
  - Hard copies

# WHO RESPONDED?

**320** Responses

56%  |  44%

  
47% 20-50

  
53% over 70

**Educated**   
69% Bachelors degree or above

*Figures extrapolated Upper Sandy River Basin  
2016 Flood Survey Results*

## HOUSEHOLD INFORMATION

**11%**

Of respondents own more than one property in the Upper Sandy River Basin.

**49%**

Of respondents have owned/occupied property in the Upper Sandy River Basin for more than 15 years.

**54%**

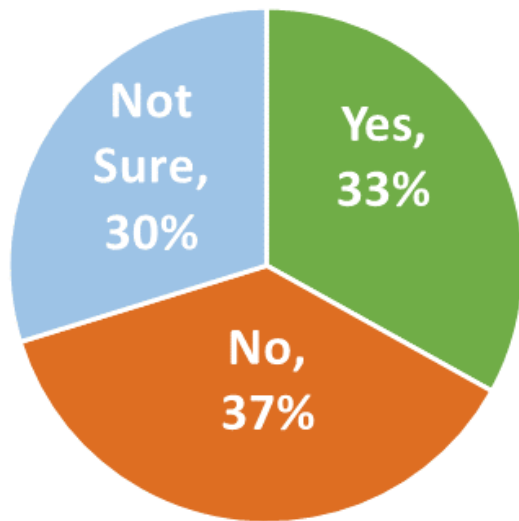
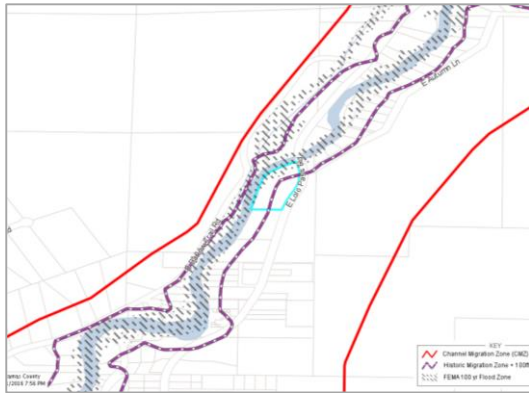
Of respondents approximated the value of their property to be between \$200,000 and \$399,999.

**10%**

Of respondents are planning to sell their property along the Upper Sandy River in the next 5 years.

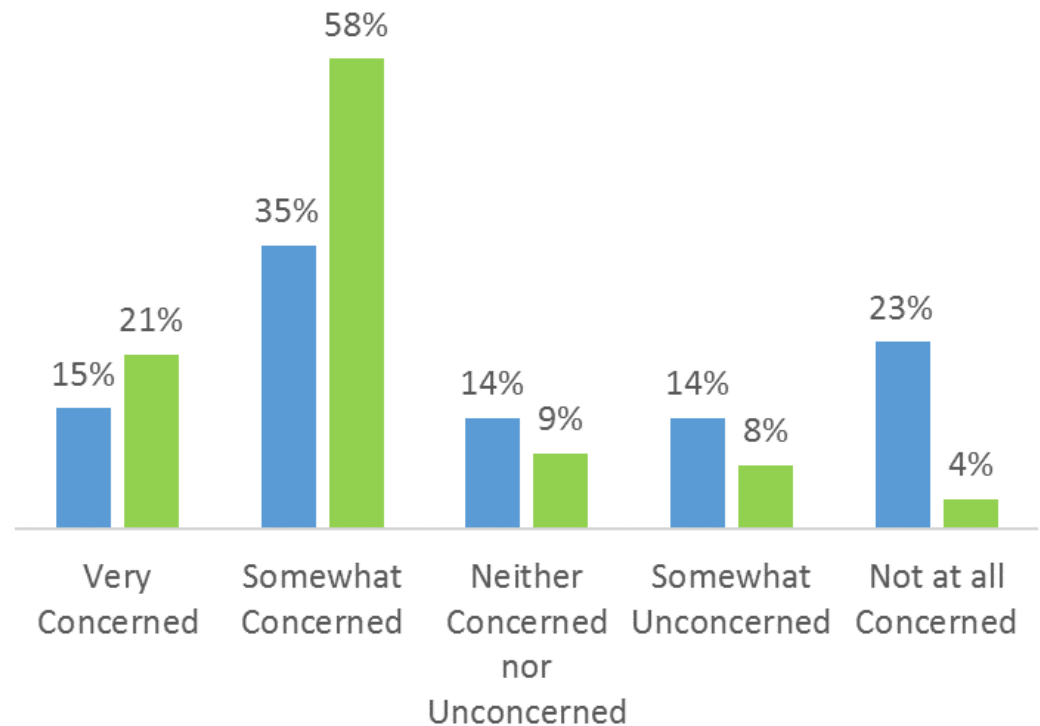
# RISK AWARENESS

## In or Out?



## How concerned?

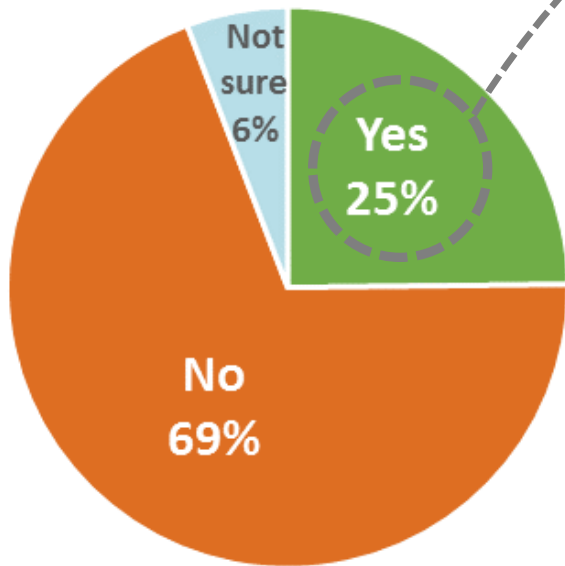
■ Flood and Erosion ■ Other Hazards



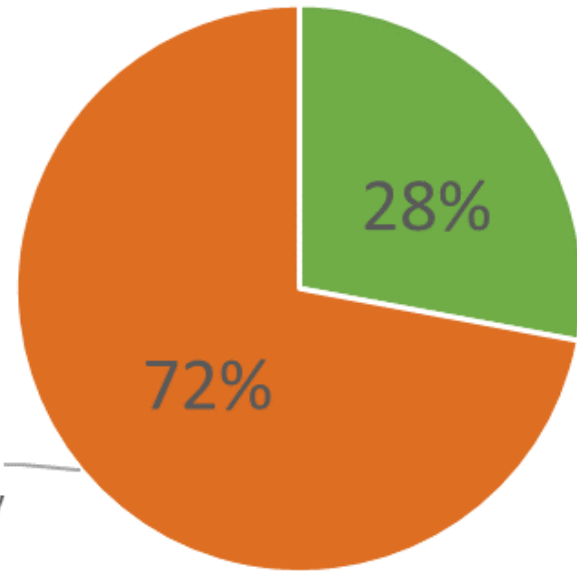
*“People should know the risks when buying / building in flood zones. Tax payers should not be burdened with buying at risk properties. Limiting permits to build on risky properties would be one way to avoid the problem, but Mother Nature always wins and it is natural that rivers change courses. No amount of expensive preparation will change that fact.”*    *~~2016 Survey Respondent*

# RISK TOLERANCE

## Flood Insurance?



No, I purchase flood insurance voluntarily



Yes, it's required by mortgage lender or other entity



“We looked into flood insurance for our property and even though we are located on a creek and not within a special flood hazard area, the cost prevented us from being able to purchase insurance. The premium was more than the current cost of our homeowners policy, which I thought was out of line with our potential risk. Earthquake insurance is far more affordable.” *~~2016 Survey Respondent*

# RISK TOLERANCE

Have **YOU** been impacted?



No Impact 80%

Impact to buildings 3%

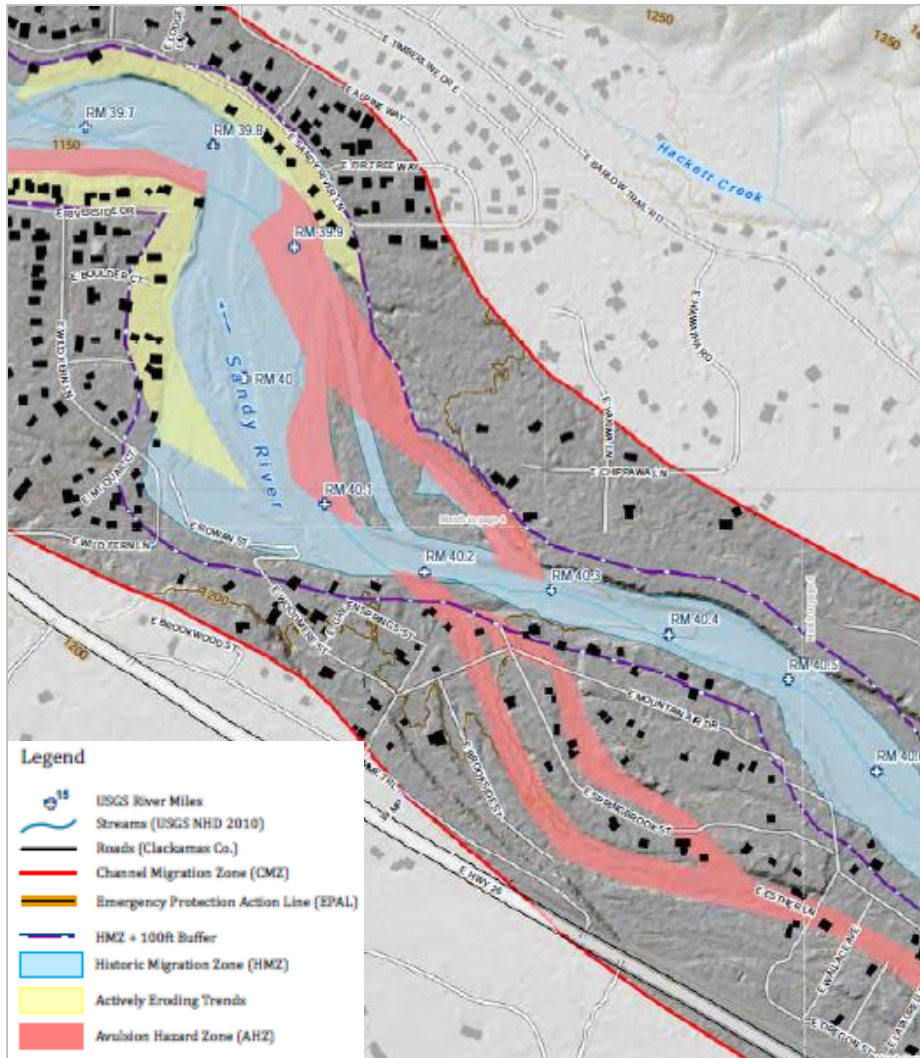
Do you **KNOW** someone?



Yes 51%

No 49%

# RISK TOLERANCE



How much should *channels* of the Sandy River be allowed to *migrate*?

A very restricted amount

7%

A moderately restricted amount

49%

As much as it naturally would

44%

*“I totally agree that the river should be allowed to find it's own course, and that it should be 'natural' so that the fish can return and the river can be healthy . . . For the people that have already established homes along the river, I think that there should be certain special allowances by way of rip-rap protection if the river erodes their banks enough to threaten their homes.”* ~2016 Survey Respondent

*“Nature happens, risk is inevitable.”* ~2016 Survey Respondent

# PROPERTY RIGHTS



Continue to live, own, and/or operate a business in the flood risk zone.

Yes	No	No Opinion
<b>86%</b>	5%	9%



Renovate or repair existing structures in the flood risk zone that have suffered flood damage in the past.

<b>71%</b>	17%	11%
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Expand existing structures in the flood risk zone.

30%	<b>54%</b>	16%
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Build new structures in the flood risk zone.

21%	<b>68%</b>	11%
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# SPEND \$100



## Mitigation Activities

Reduce or eliminate the likelihood of a flood causing damage and loss of property/life. For example, property buy-outs and relocation outside of the flood risk zone.

\$30.34

## Recovery Activities

Help a community bounce back after a flood event. For example, repairing or relocating damaged roads and bridges.

\$29.07

## Response Actions

Occur in direct response to a flood. For example, rescue efforts or providing temporary housing for flood victims.

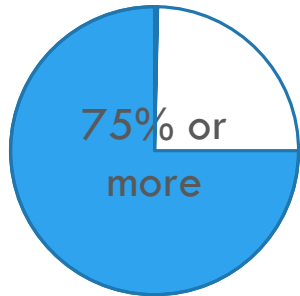
\$21.84

## Preparation Activities

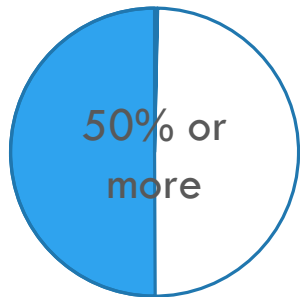
Increase a community's ability to respond when floods strike. For example, developing an evacuation plan.

\$19.28

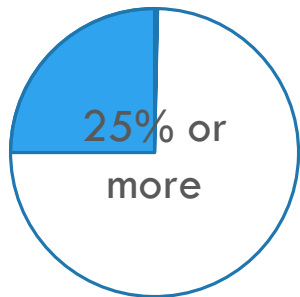
# VERY OR SOMEWHAT SUPPORTIVE OF GOVERNMENT . . .



- Requiring the disclosure of flood risks during real estate transactions
- Hosting events to educate and raise awareness
- Adopting zoning, building or other development regulations that LIMIT new development

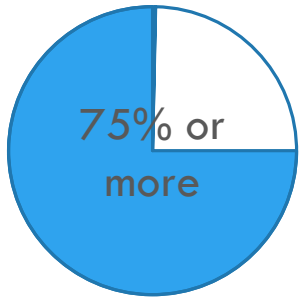


- Compensating property owners who use approved flood control methods
- Facilitating land swaps
- Adopting zoning, building or other development regulations that PROHIBIT new development

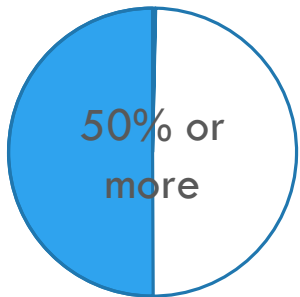


- Restoring riverbanks on public lands to their natural state
- Compensating property owners for not developing
- Buying out private properties that are within the flood risk zone.
- Creating a special district that collects taxes or fees to fund local risk reduction activities

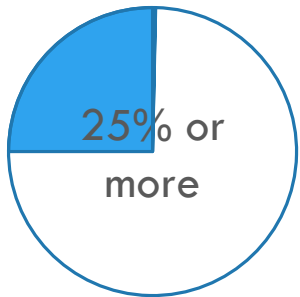
# VERY OR SOMEWHAT LIKELY TO VOLUNTARILY . . .



- Disclose flood and other hazard risks during real estate transactions.



- Use approved methods of riverbank restoration to reduce erosion.
- Choose not to build in the flood risk zone.
- Using low impact development practices (ex. reducing impervious surfaces) to reduce the likelihood of flooding.
- Signing up for federal flood insurance.
- Renovating structures to be more flood resistant (ex. elevating home).
- Participating in a government property buy-out program.
- Voluntarily selling property through the private real estate market and moving to a lower-risk location.



# WHAT DID WE LEARN?

- RESIDENTS ARE FAIRLY RISK TOLERANT
- TO HELP THE COMMUNITY BECOME MORE RISK AVERSE, THE COMMUNITY NEEDS TO BE FAMILIARIZED WITH THE RISK OF FLOOD AND EROSION.
- RESPONDENTS WERE SLIGHTLY DIVIDED WHEN IT CAME TO ASSIGNING RESPONSIBILITY.
- RESPONDENTS DEMONSTRATED FAR MORE SUPPORT FOR GOVERNMENT-DRIVEN STRATEGIES THAN WILLINGNESS TO VOLUNTARILY ENGAGE IN PERSONAL ACTIONS
- SURVEY RESPONDENTS WERE GENERALLY RECEPTIVE OF THE COUNTY'S FLOOD RISK MANAGEMENT IDEAS
- SURVEY RESPONDENTS SHARED MIXED VIEWS ABOUT PROPERTY RIGHTS
- WITHOUT INTERVENTION, THERE WAS NO CLEAR INDICATION THAT SURVEY RESPONDENTS WOULD LEAVE ON THEIR OWN ACCORD