



KING COUNTY
FLOOD CONTROL
D I S T R I C T

GREEN RIVER VALLEY FLOODING BUSINESS SURVEY

Prepared by Cocker Fennessy, Inc.
September, 2009



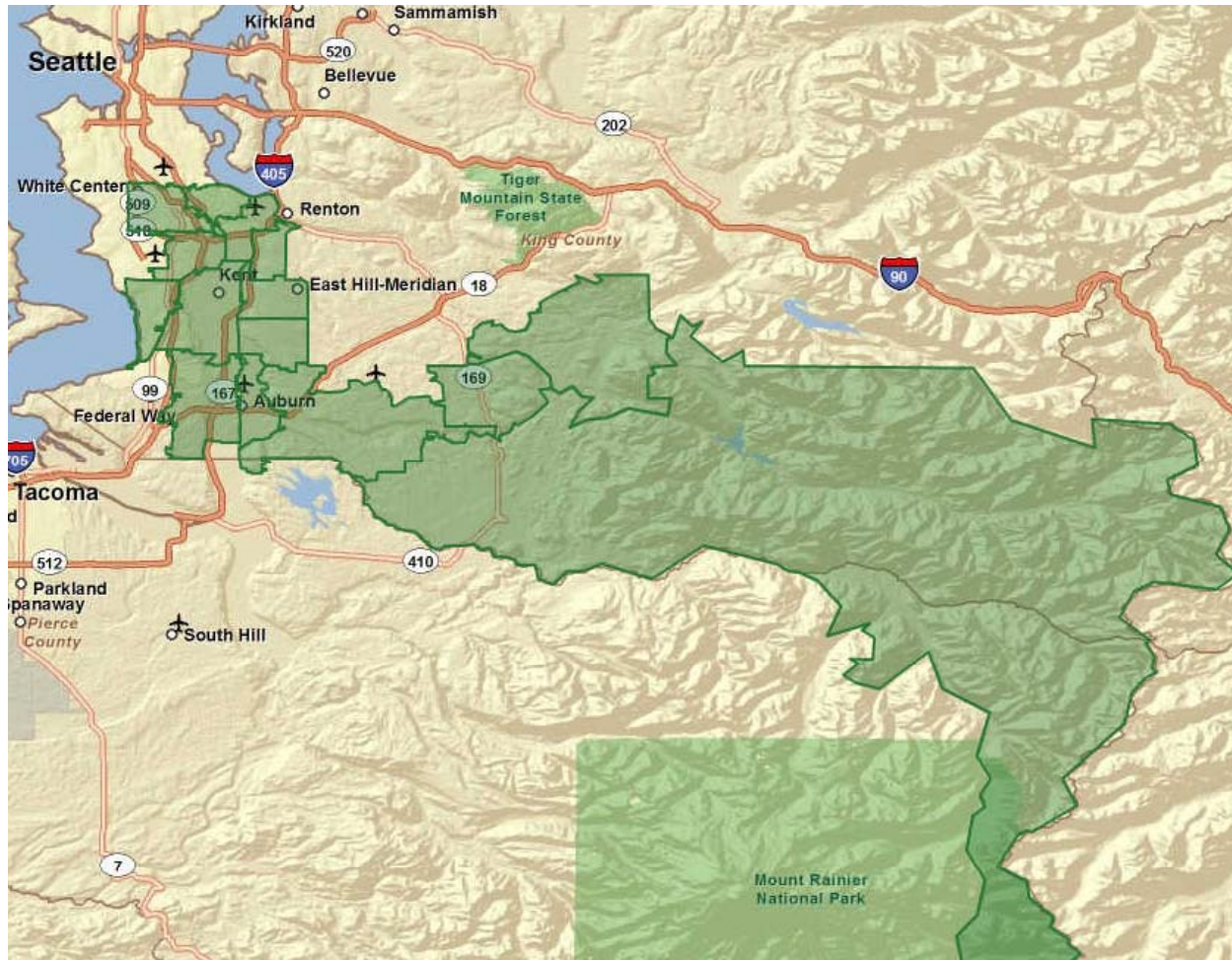
Objectives

- Reach out to area businesses
- Assess business awareness & concern of flood risk
- Identify actions being taken to prepare
- Determine communication practices and preferences
- Provide information about Howard Hanson Dam situation and flooding risk

Methodology

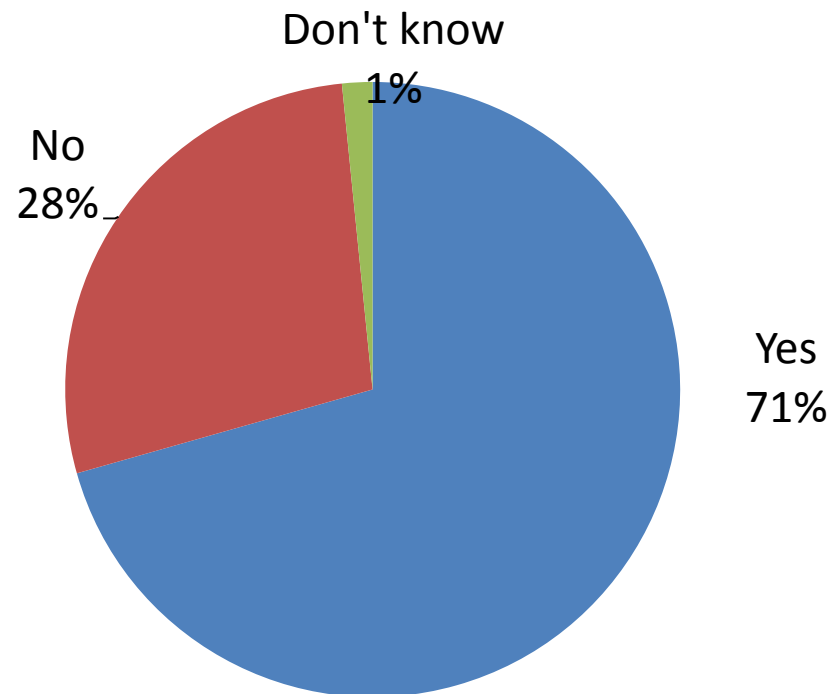
- Collaborated with local, state and federal agency partners to inform survey methodology and design.
- Online survey of businesses in the Green River Valley (including Auburn, Kent, Tukwila, Renton and unincorporated King County).
- 126 individuals responded to the survey. Screeners were used to ensure responses were from Green River Valley businesses – thus 89 completed the entire survey.
- Non-random sample - Local partners distributed survey link via email.
- Because of non-random nature of survey, findings cannot be generalized to all businesses in the area. Responses may disproportionately represent those concerned/interested in the topic.
- Results were collected from mid-August through September, 2009
- Survey link is still active: www.surveymonkey.com/greenrivervalley

Businesses in the Green River Valley were asked to complete the survey.



70% of those who attempted to complete the survey were qualified and allowed to answer all survey questions.

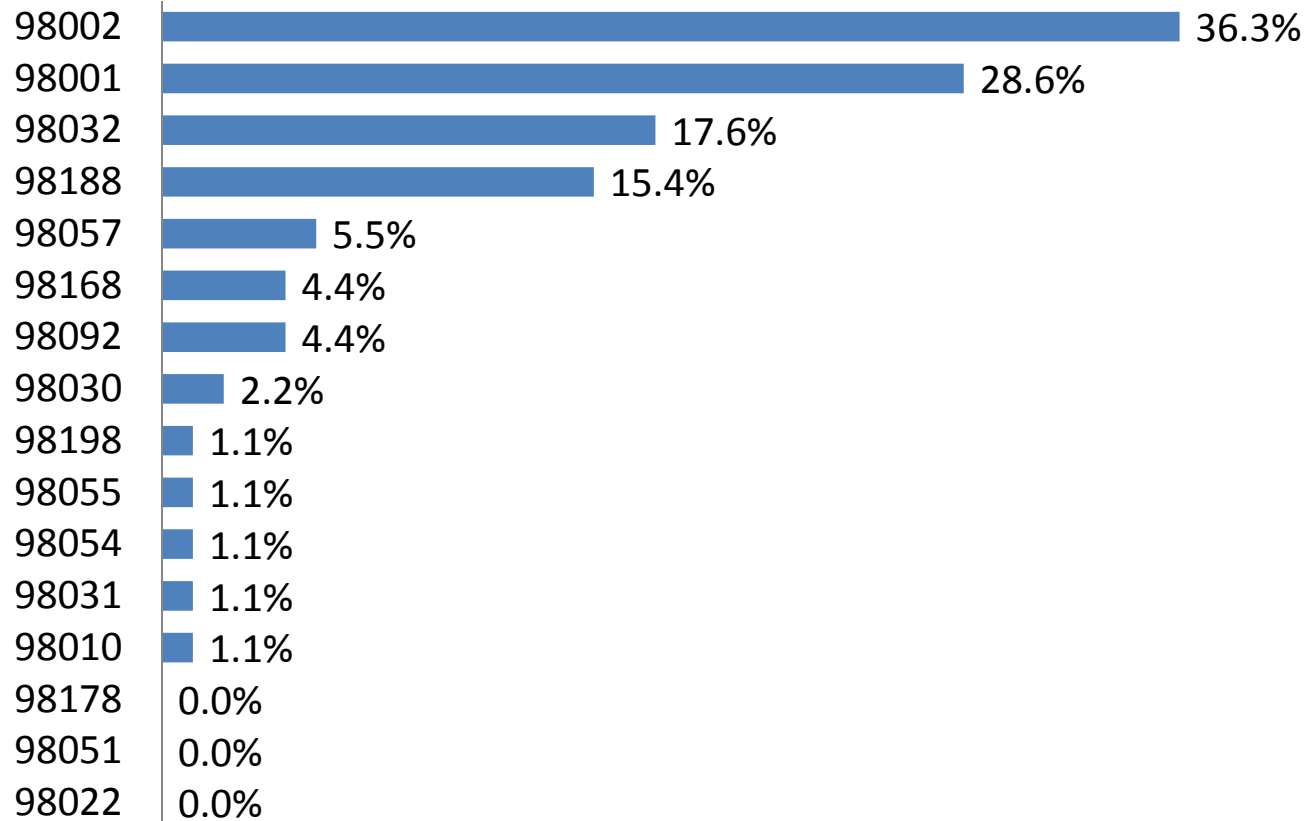
Do you own, operate or manage a business or organization in the Green River Valley?





A majority of responses were from Auburn zip codes (55%).

In which of the following zipcode(s) is your business located?



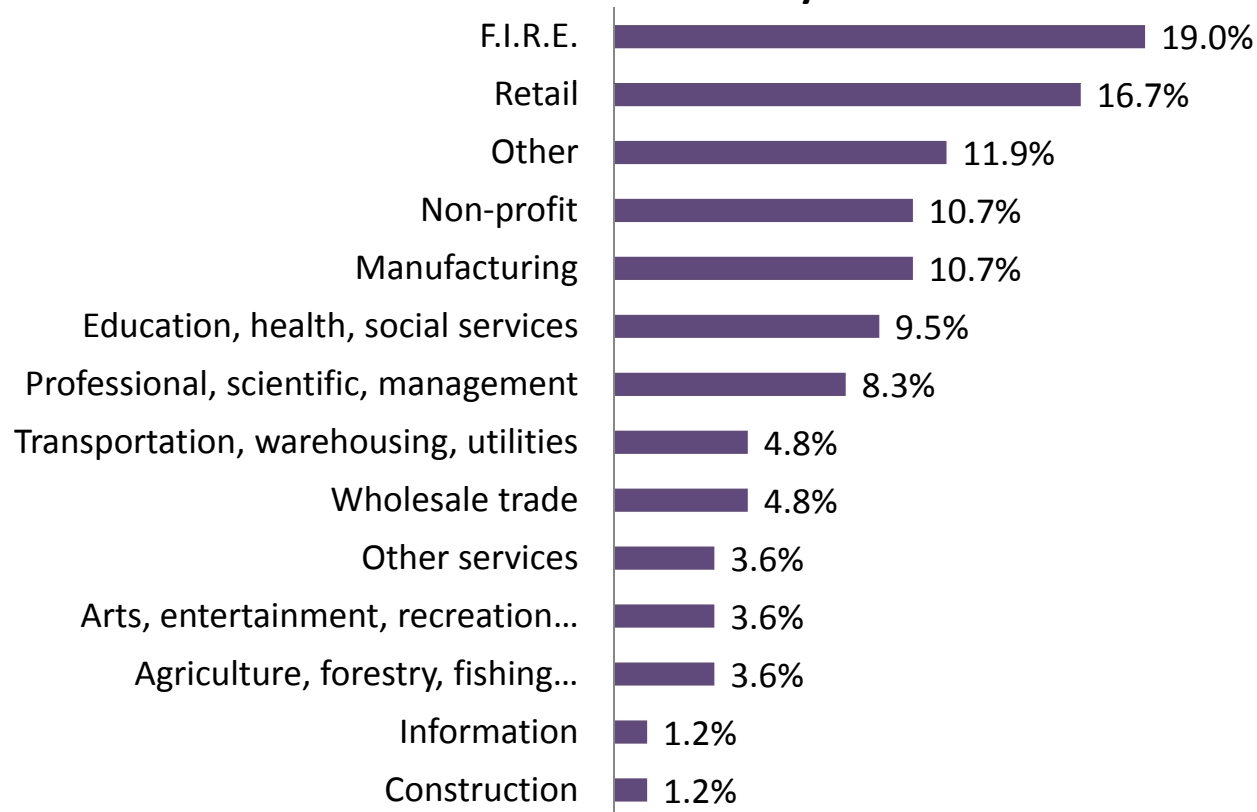
N=89

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Finance, insurance, and real estate (F.I.R.E.) businesses are the most prevalent (19%).

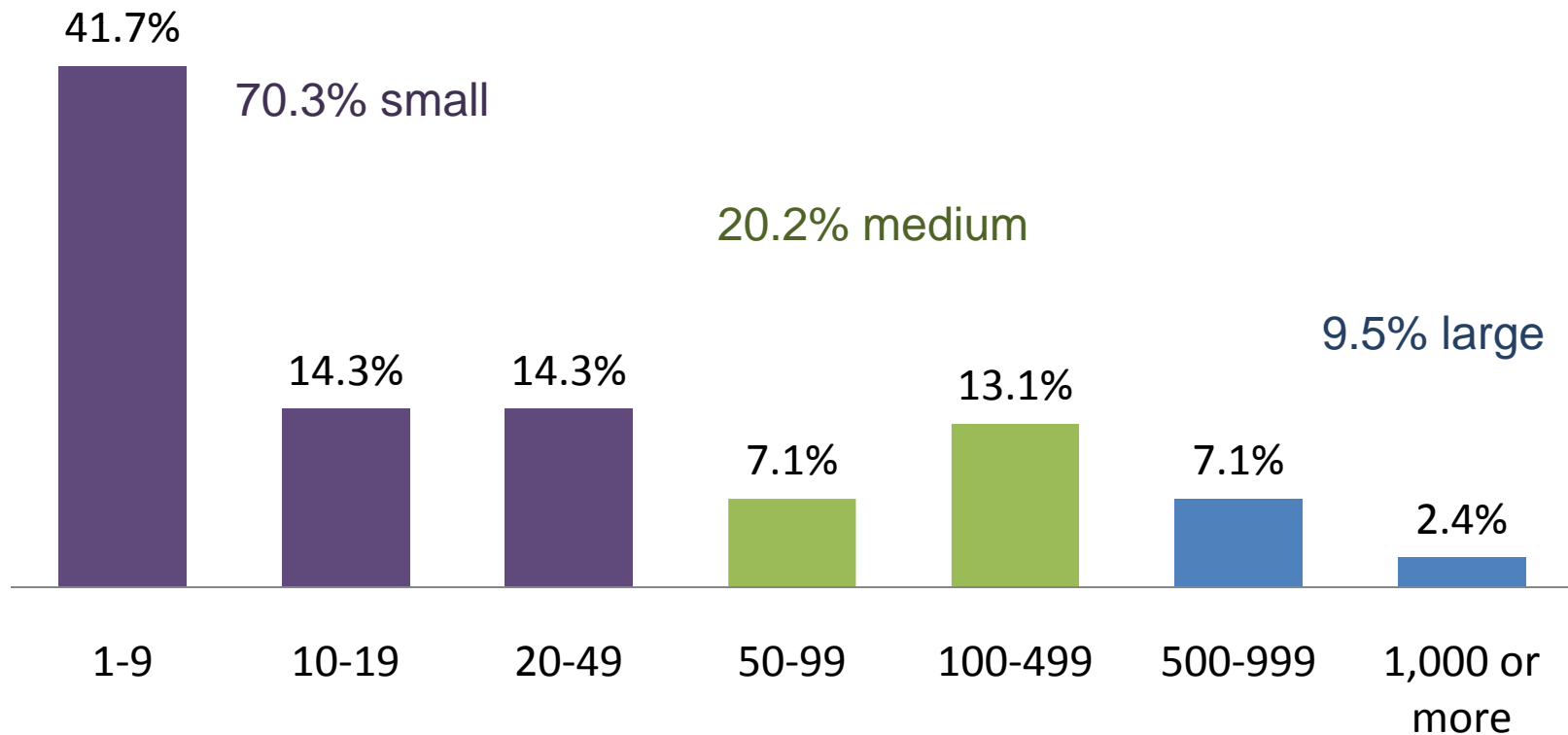
What type of business or organization do you operate in the Green River Valley?



N=84

Most (70%) work for businesses with fewer than 50 employees.

In addition to yourself, approximately how many employees work for your business or organization within the Green River Valley?

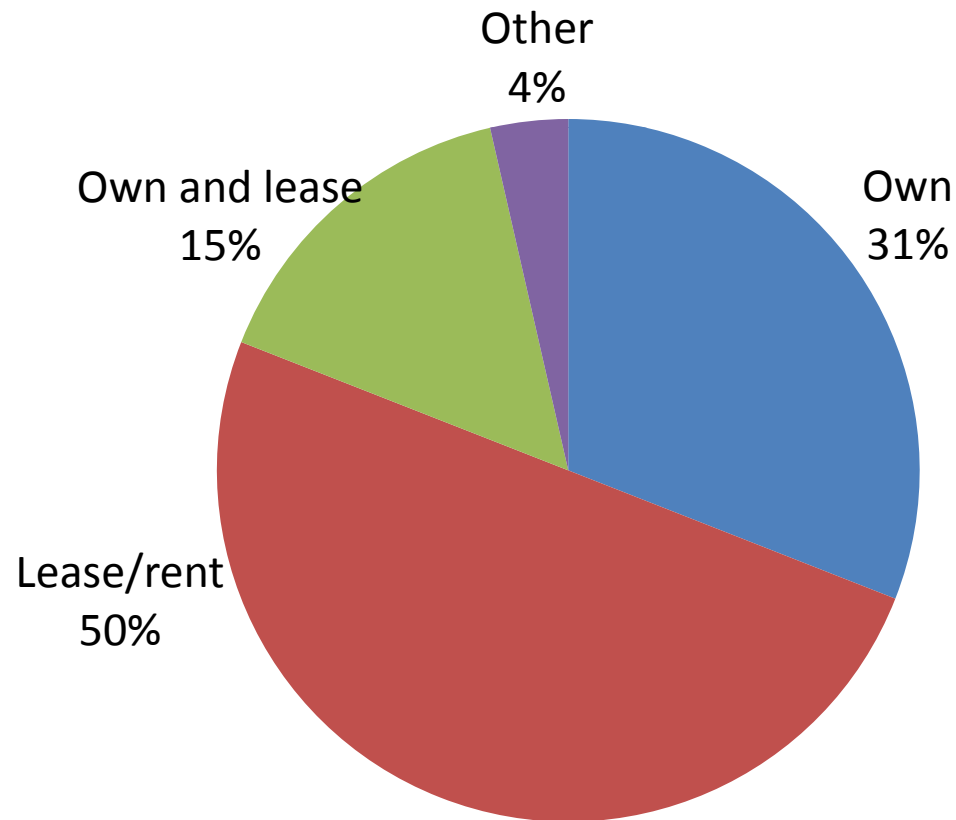


N=84

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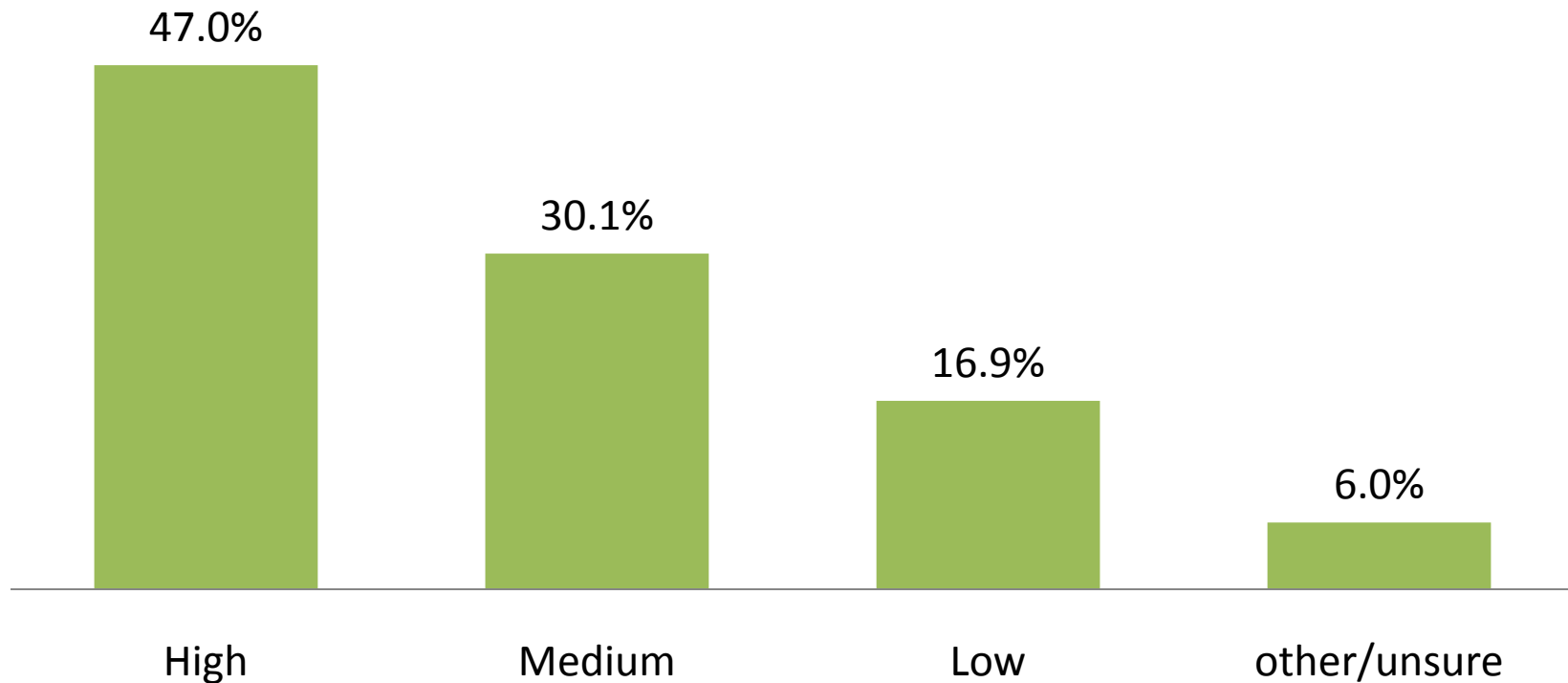
50% lease or rent property.

Does your company own or lease building(s) or property in the Green River Valley?



47% describe the risk of flooding as “high”.

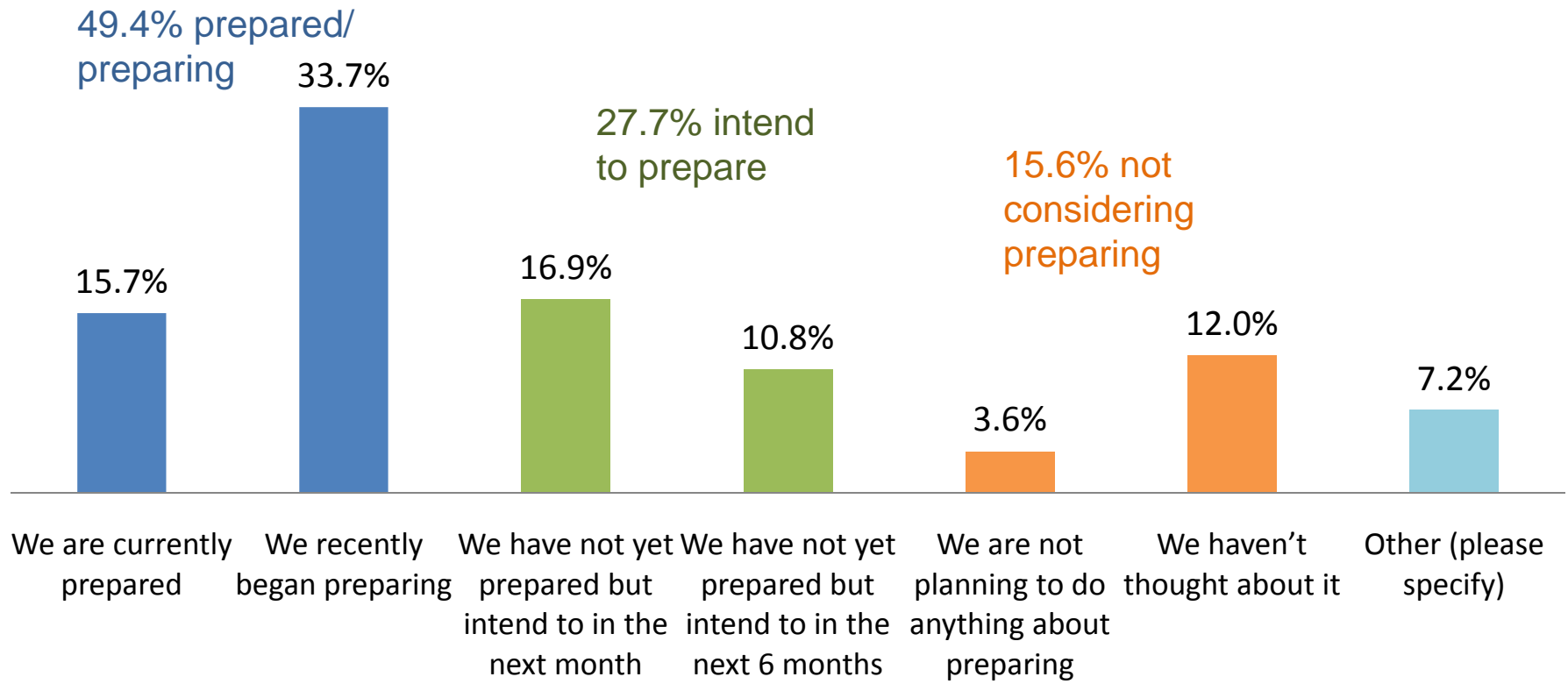
How would you describe the level of risk flooding presents to your business or organization?





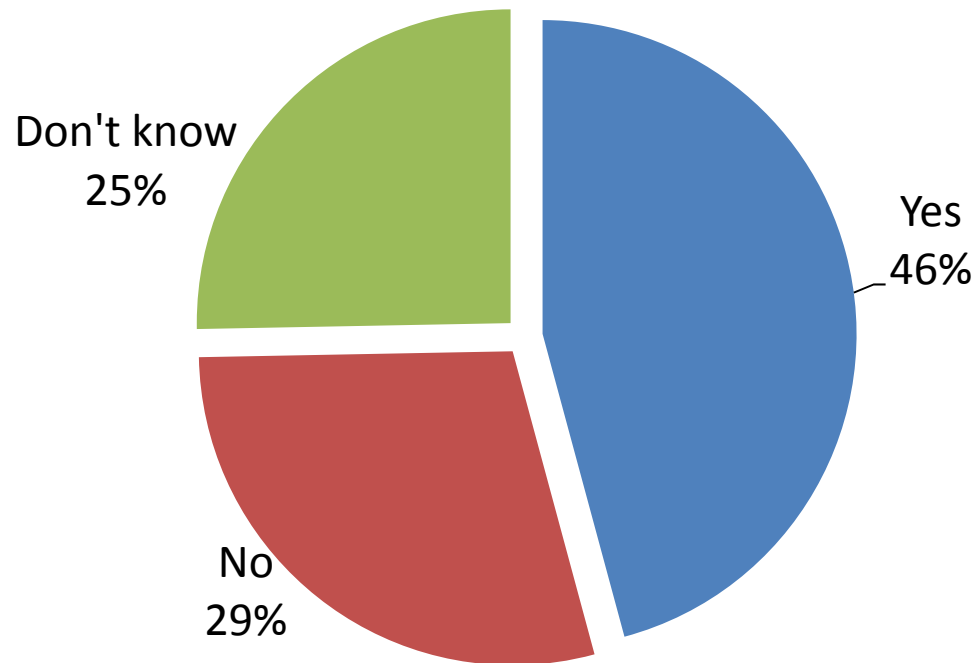
Nearly half are currently prepared or recently began preparing for flooding.

Which best represents your business or organization’s preparedness for a major flooding event?



46% have flood insurance.
Nearly ¼ didn't know if they had flood insurance.

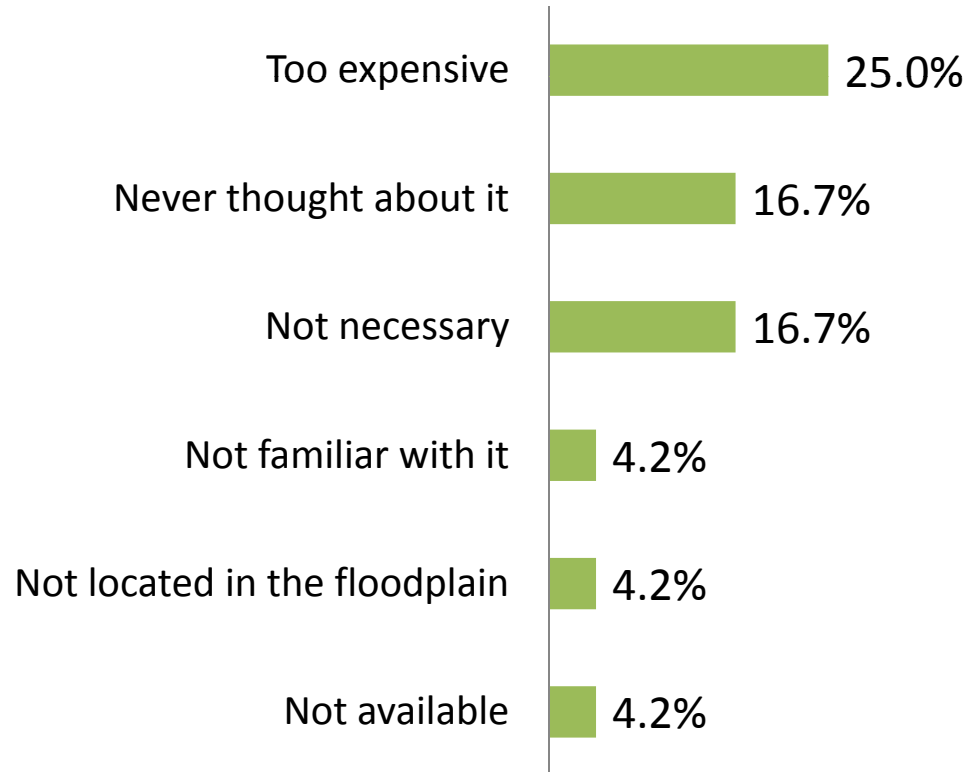
Does your business/organization have flood insurance?





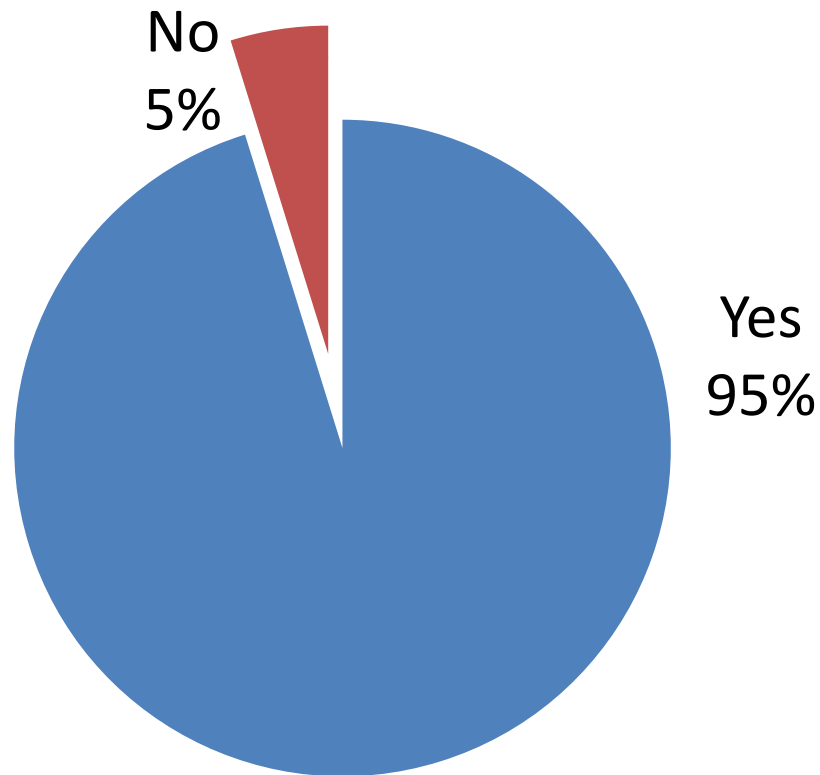
For those who do not have flood insurance, most (25%) believe the expense is too high.

What is the MAIN reason your business/organization does not have flood insurance?



95% heard about Howard Hanson Dam-related flood risks.

Have you heard anything about flood risks associated with the Howard Hanson Dam?





Most respondents were able to recall specific information about the increased risk of flooding associated with the Howard Hanson Dam.

**Selected verbatim responses to open-ended question,
“What have you heard?”**

“Corp will not be able to hold back as much water this fall winter. Repairs are underway but will not be completed/tested by the time the rainy season begins.”

“Heavy rainfall could result in the need to release waters held back by the dam.”

“Potential of 4 - 10' of water throughout Auburn.”

“Repairs are needed, temporary measures are under way and permanent repairs will be 4-5 years away and cost >\$100M”

“Sewage and plumbing would be drastically affected.”

“Substantial possibility of flooding this year.”



Several respondents recalled inaccurate information about the increased flooding risk.

Selected responses to open-ended question, “What have you heard?”

“The state and federal government won't pay for upgrades on the dam.”

“We don't have a working dam anymore.”

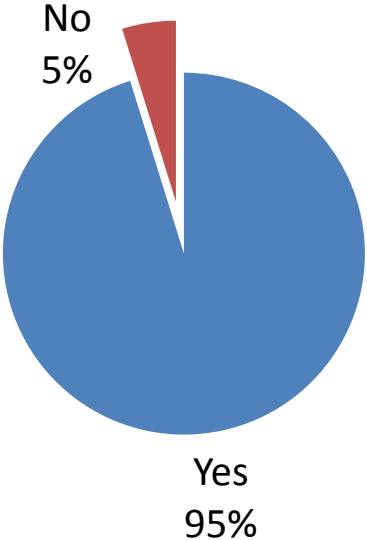
“It's not going to be able to hold any water if we have major rains therefore making the rivers flood and all of us flood.”

n=24

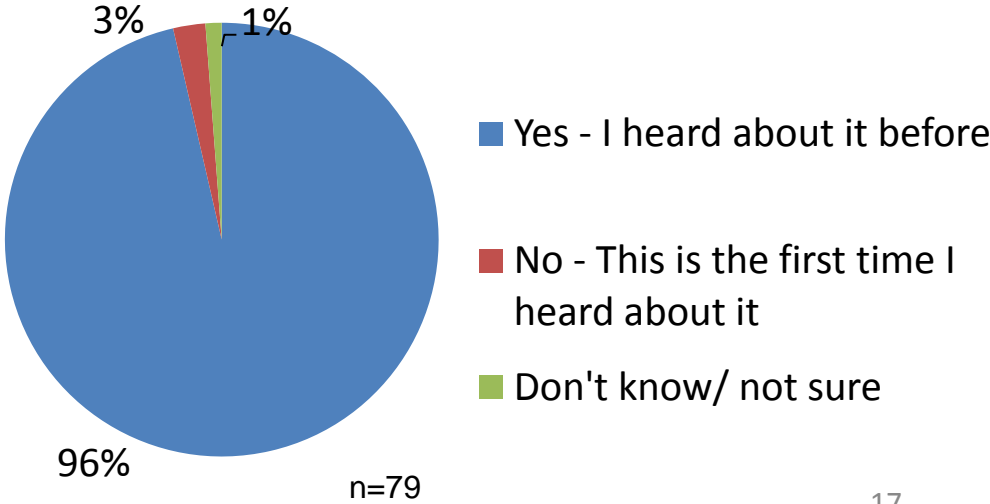
After reading a detailed statement about flood risks, recall increased very slightly (1%). Very few (3%) had no awareness of the flood risk.

“Residents and businesses below the Howard Hanson Dam in the Green River Valley are strongly encouraged to prepare now for a higher risk of flooding. The increased risk is due to seepage discovered at the dam after record flooding last winter. Until the problem can be fixed, the flood water storage capacity behind the dam is restricted. If King County receives heavy and prolonged rain this flood season (October through March), many homes, businesses and transportation corridors that don’t typically see flood water – including parts of Auburn, Kent, Renton, Seattle and Tukwila – could be inundated. Evacuations are possible. Transportation routes could be disrupted. And power outages and sewer back-ups are possible.”

Have you heard anything about flood risks associated with the Howard Hanson Dam? (Pre-Statement)



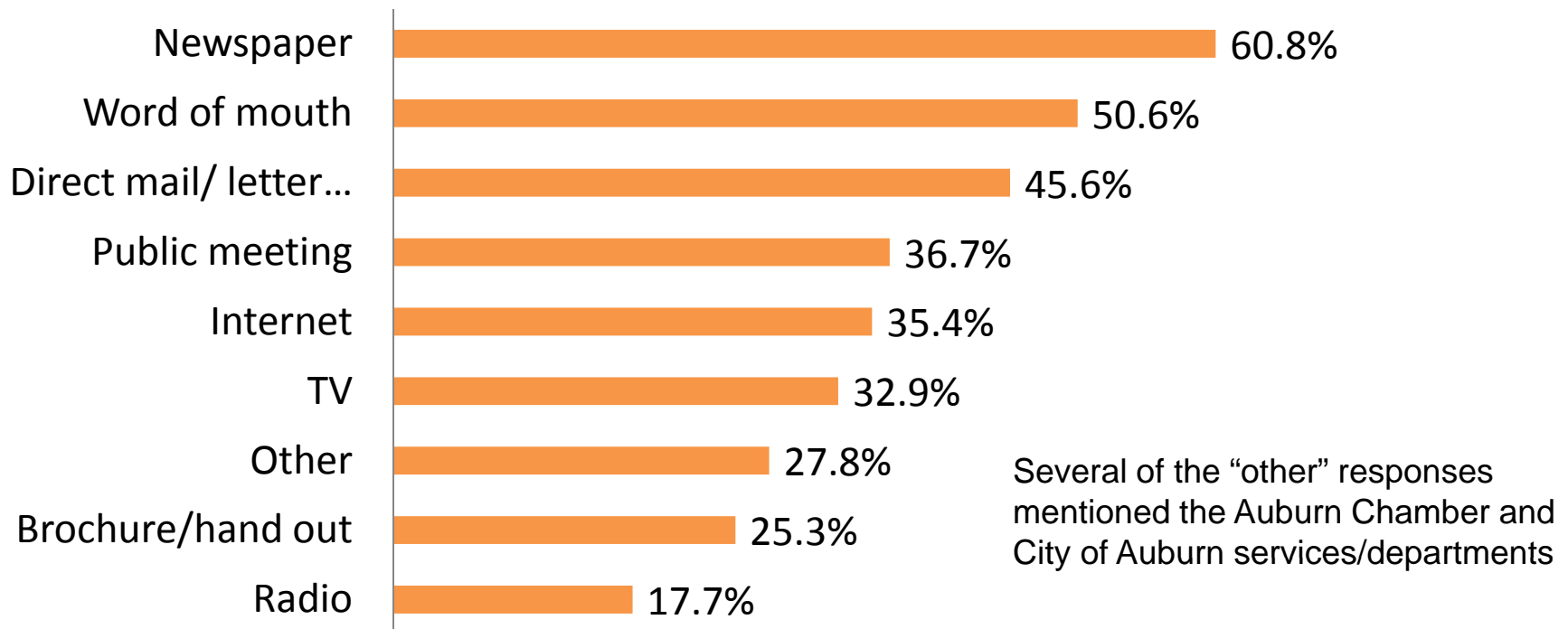
Had you heard anything about this flood risk prior to reading this statement?





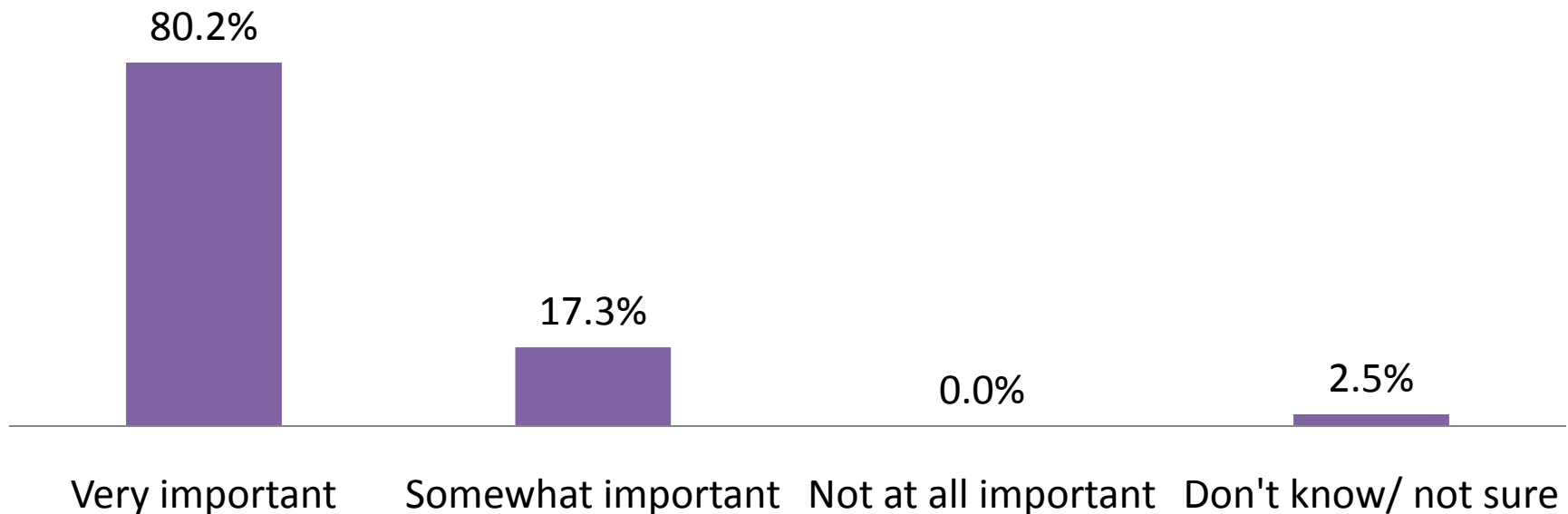
Newspaper articles and word of mouth are the main sources of information about flood risks associated with the Howard Hanson Dam.

**Where did you get this information?
(Select all that apply.)**



96% feel it is somewhat or very important to prepare for the coming flood season.

Based on what you now know about flooding risks in the Green River Valley, how important do you think it is to prepare in advance for the coming flood season?





For those who feel preparation is important, “business continuity” and “managing risk” are recurring themes.

**Selected verbatim responses to open-ended question,
“Why do you say that?”**

“The more prepared we are the less impact on business.”

“We will need to communicate concerns to employees, educate them on evacuation routes etc.”

“An ounce of prevention is worth a pound of cure.”

“My clients rely on me to be prepared.”

“The risk is great and the cost to loss ratio is small.”

“Flooded businesses will be down for approximately 30 days at least. Getting them back in business is critical to the value of the property.”

n=67

A few respondents question the need and efficacy of preparing for flooding.

Selected verbatim responses to open-ended question, “Why do you say that?”

“Nobody able to quantify the likelihood of flooding.”

“Not much I can do, heavy equipment just can't get moved or raised.”

“I don't think there is anything I can do about it.”

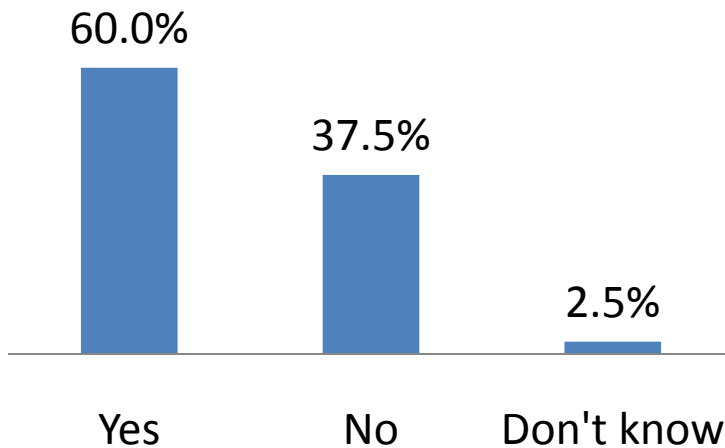
“Not sure the flooding will materialize...”

“Our business is in pretty far from the river.”

n=67

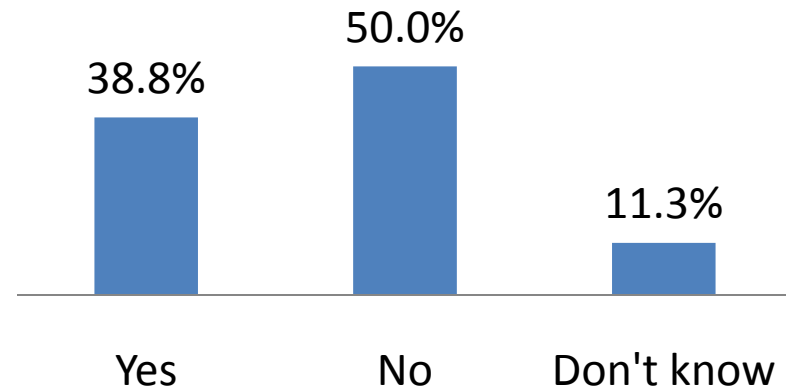
60% know what to do in the event of a flood emergency.
39% feel employees at their business know what to do.

**Do you feel you,
personally, know what to
do in the event of a flood
emergency?**



N=80

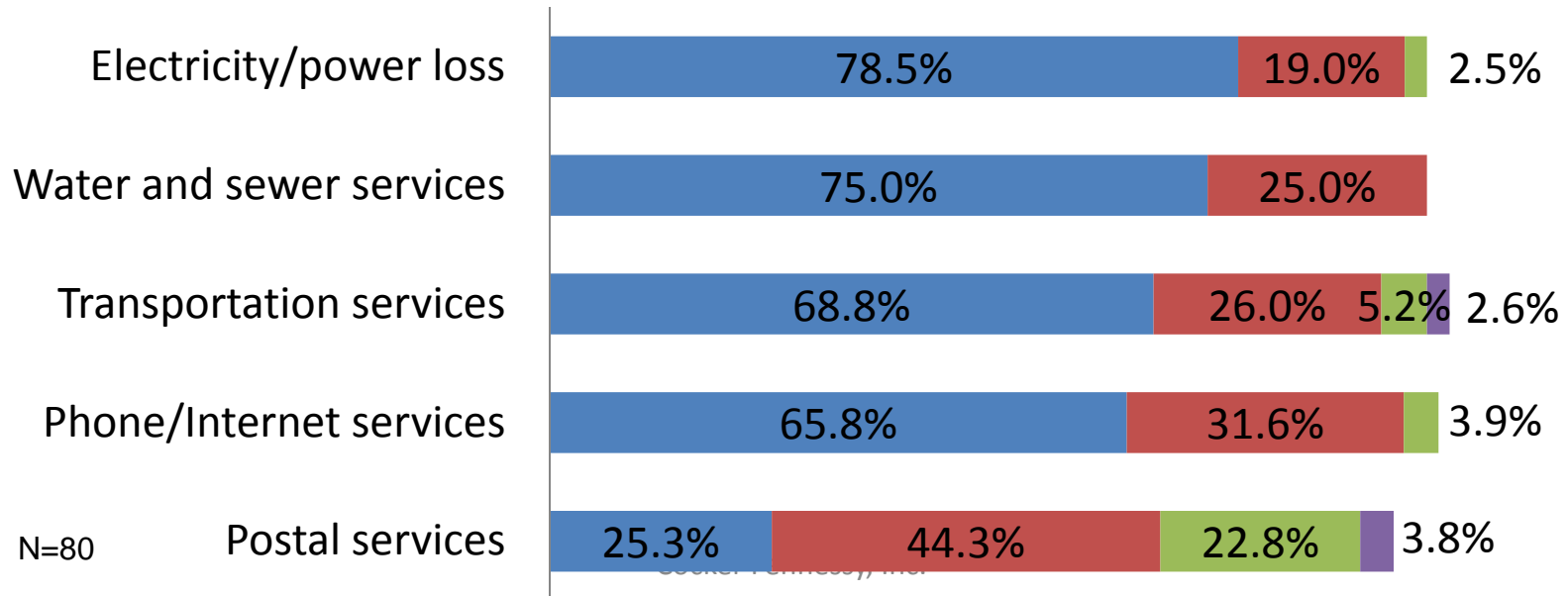
**Do you feel that
employees at your
business know what to do
in the event of a flood
emergency?**



There is a high level of concern about service disruptions – particularly electricity/power loss and water and sewer services.

In the event of flooding in the Green River Valley, what is your level of concern with the following potential service disruptions?

■ very concerned ■ somewhat concerned ■ not at all concerned ■ don't know/not sure



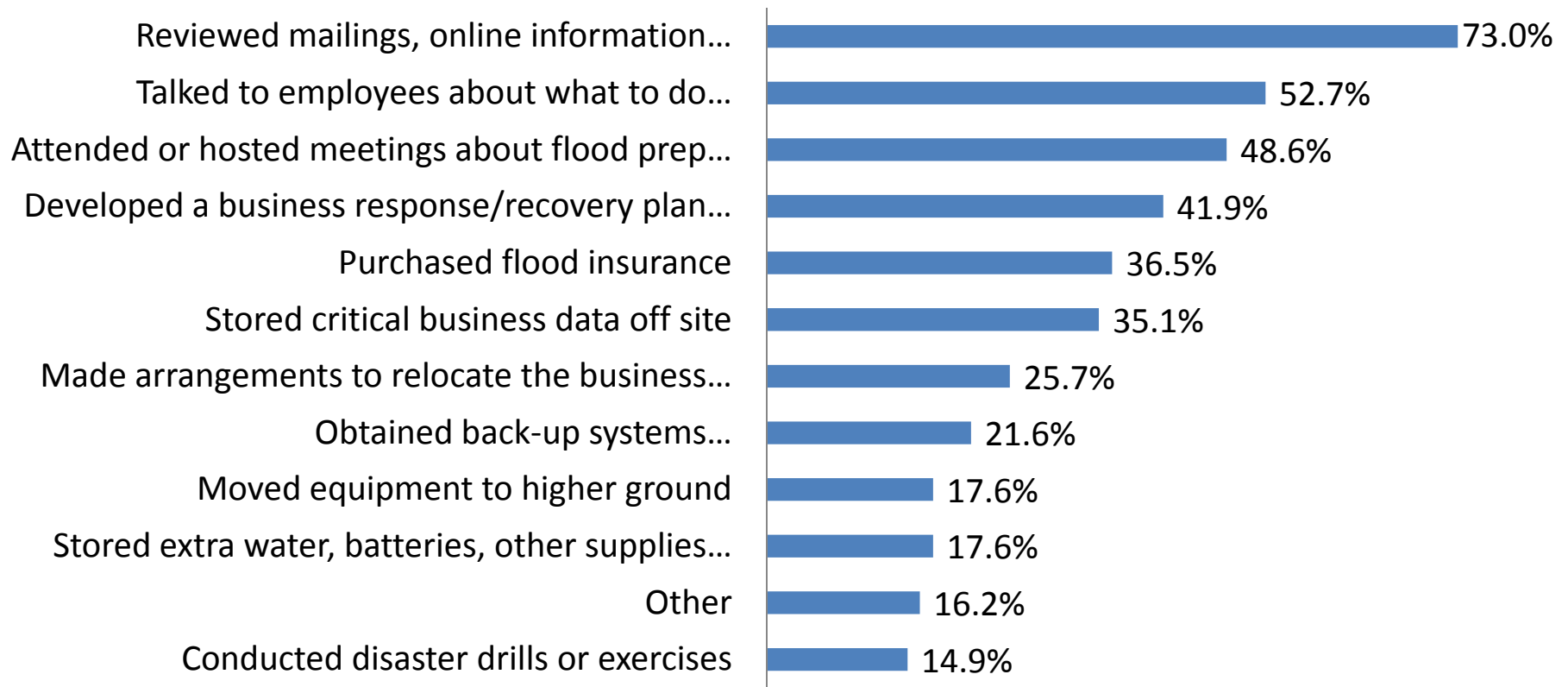
Other service disruption concerns mentioned by respondents, included:

- *Emergency response times / fire and police*
- *Public safety service disruption/overloading/ security*
- *Disease/ health issues*
- *Evacuation routes*
- *Clean-up/ time to clean-up*
- *Building access*
- *Garbage disposal and pollution*
- *Gas and food availability*
- *Cost of business interruption/ sales impacts*
- *Roads*
- *Schools*
- *Property damage*
- *Relocation of residents*
- *Older residents/ vulnerable populations*



“Reviewing mailings, online information or other materials” is the most common preparation activity (73%).

Has your business or organization completed any of the following activities to prepare for flooding emergencies?



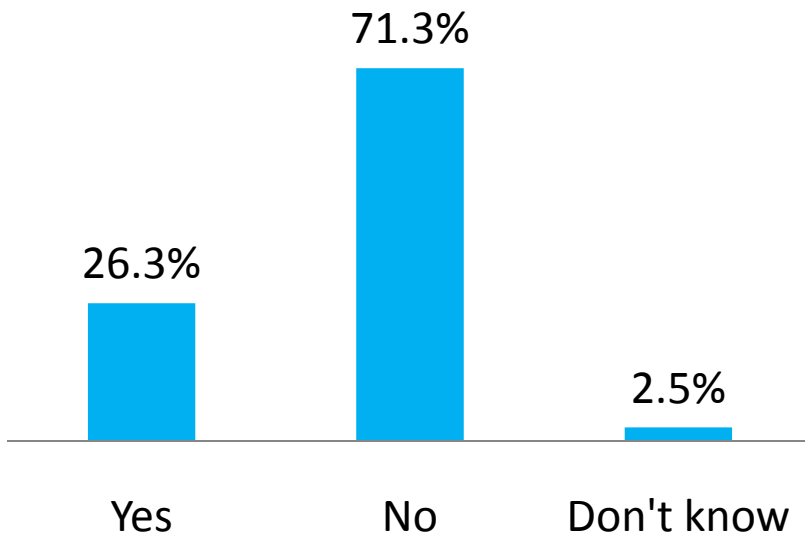
n=74

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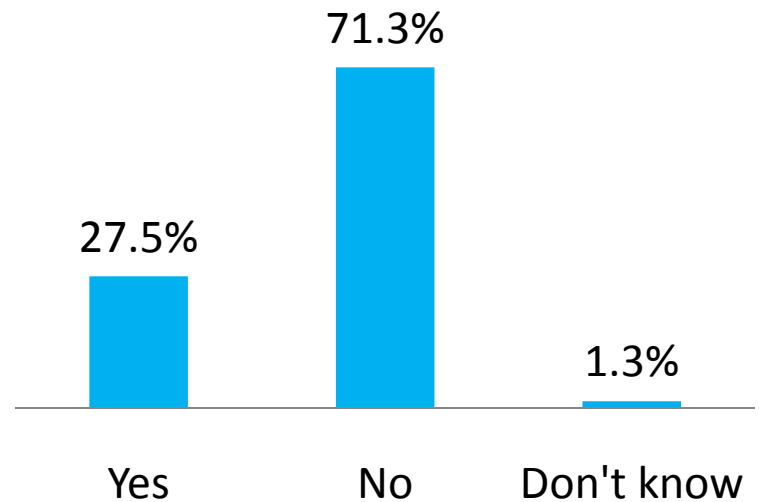


26% are aware of RPIN and 28% are aware of King County's flood warning information line and website.

During an emergency, updated flood information will be posted on RPIN, the area's regional emergency information website. Have you ever heard of or visited this site before?



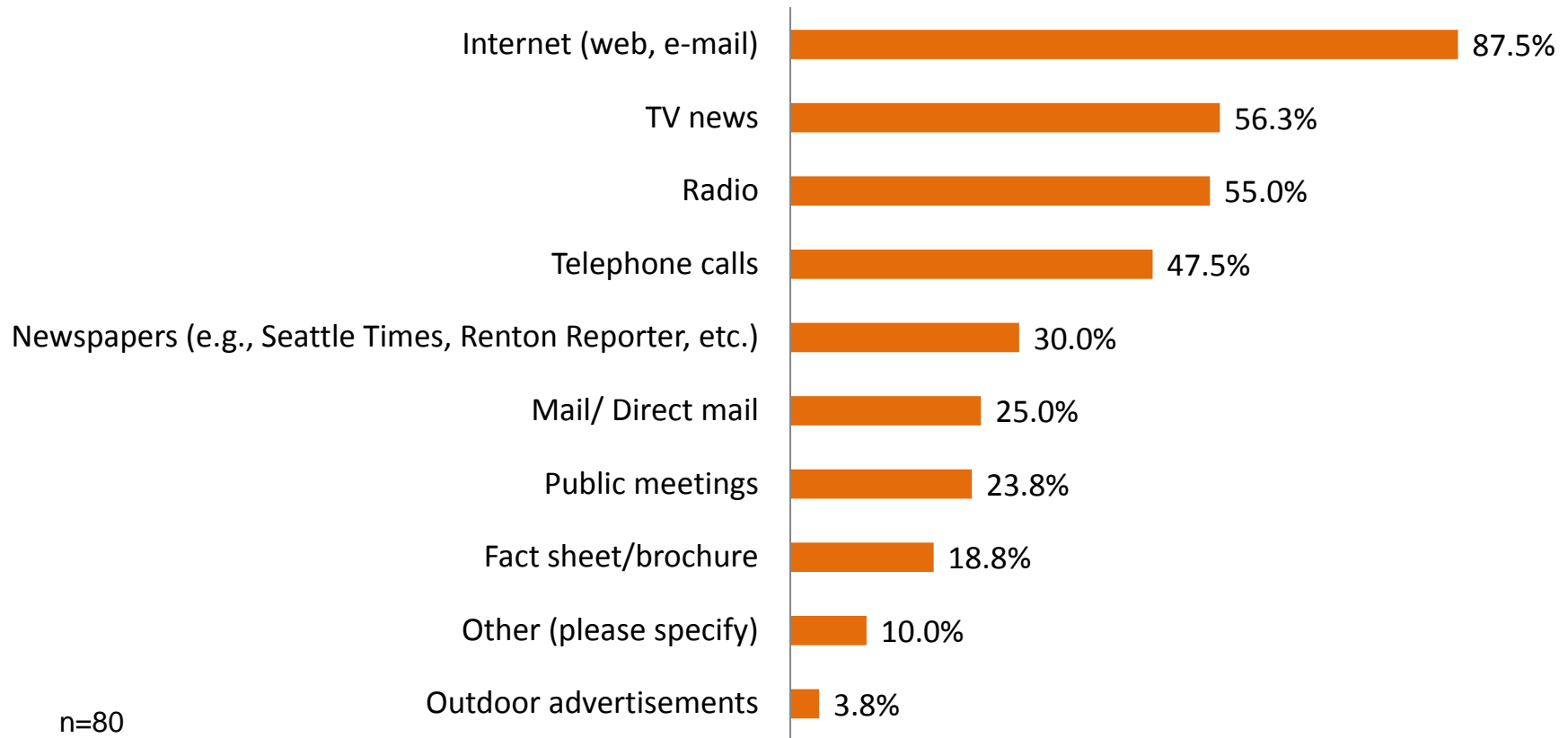
King County has a flood warning information line with year-round flood information and a website with flood information. Have you ever heard of or used either of these resources?



n=80

In the event of a flood emergency, 88% would prefer to receive information via the Internet (websites and email).

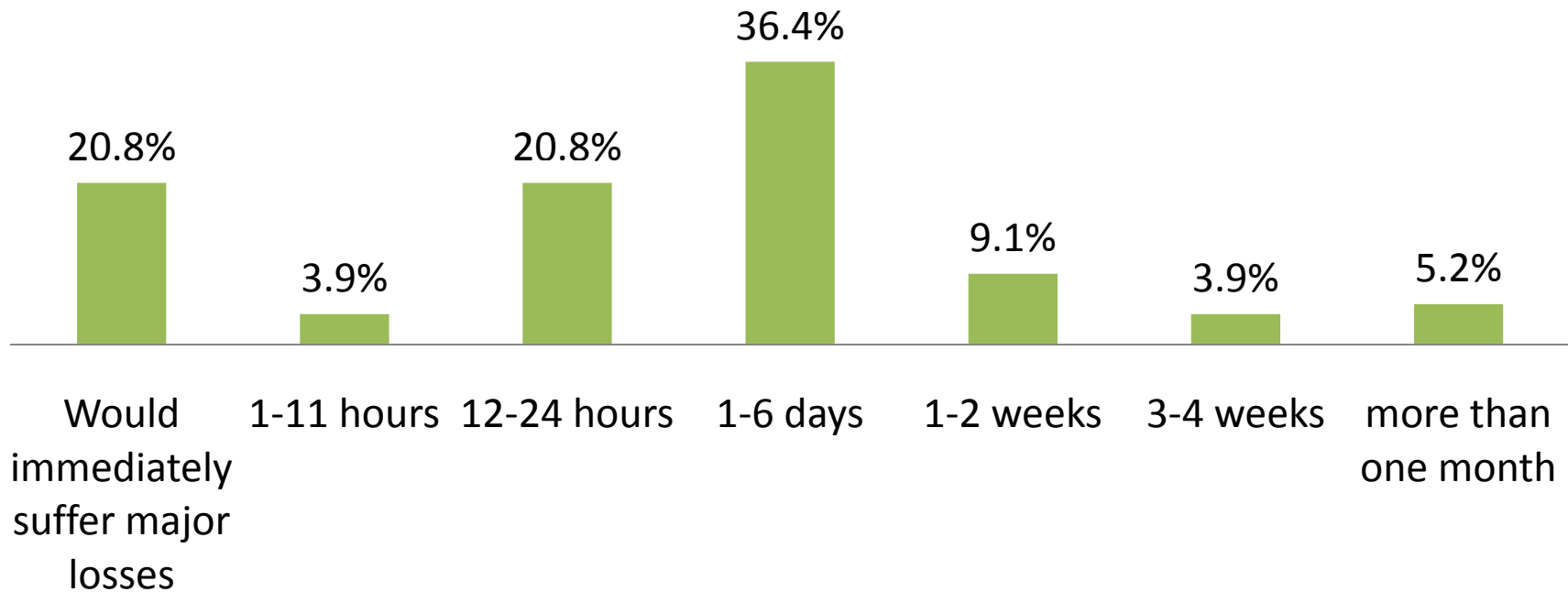
In the event of a flood emergency, which of the following would be the best ways to get information to your business/organization?



n=80

Most businesses (82%) cannot afford to be shut down for more than one week. A significant proportion 46% would only survive a closure of 24 hours or less.

How long can you afford for your business or organization to be shut down and still survive after a flood without suffering major financial losses?



n=77

Other comments/questions:



Selected verbatim responses:

“Would like businesses to get together...”

“Thank you for reaching out. While we are preparing, we are not prepared...”

“My computers and data are the biggest concern. How deep could the water get?”

“Get the damn dam fixed.”

“I would like to know why they are not building the sand bag wall...”

“How do I get specific information about the potential expected flood levels near by office?”

“The pace at which flood maps are being distributed to the public is unacceptably slow.”

“I don't think that the army corps of engineers and the federal government is doing everything that they can to fix this problem.”



For additional information, contact:

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