



CRC for
Water Sensitive Cities



Australian Government
Department of Industry and Science

Business

Cooperative Research
Centres Programme



Community knowledge about water

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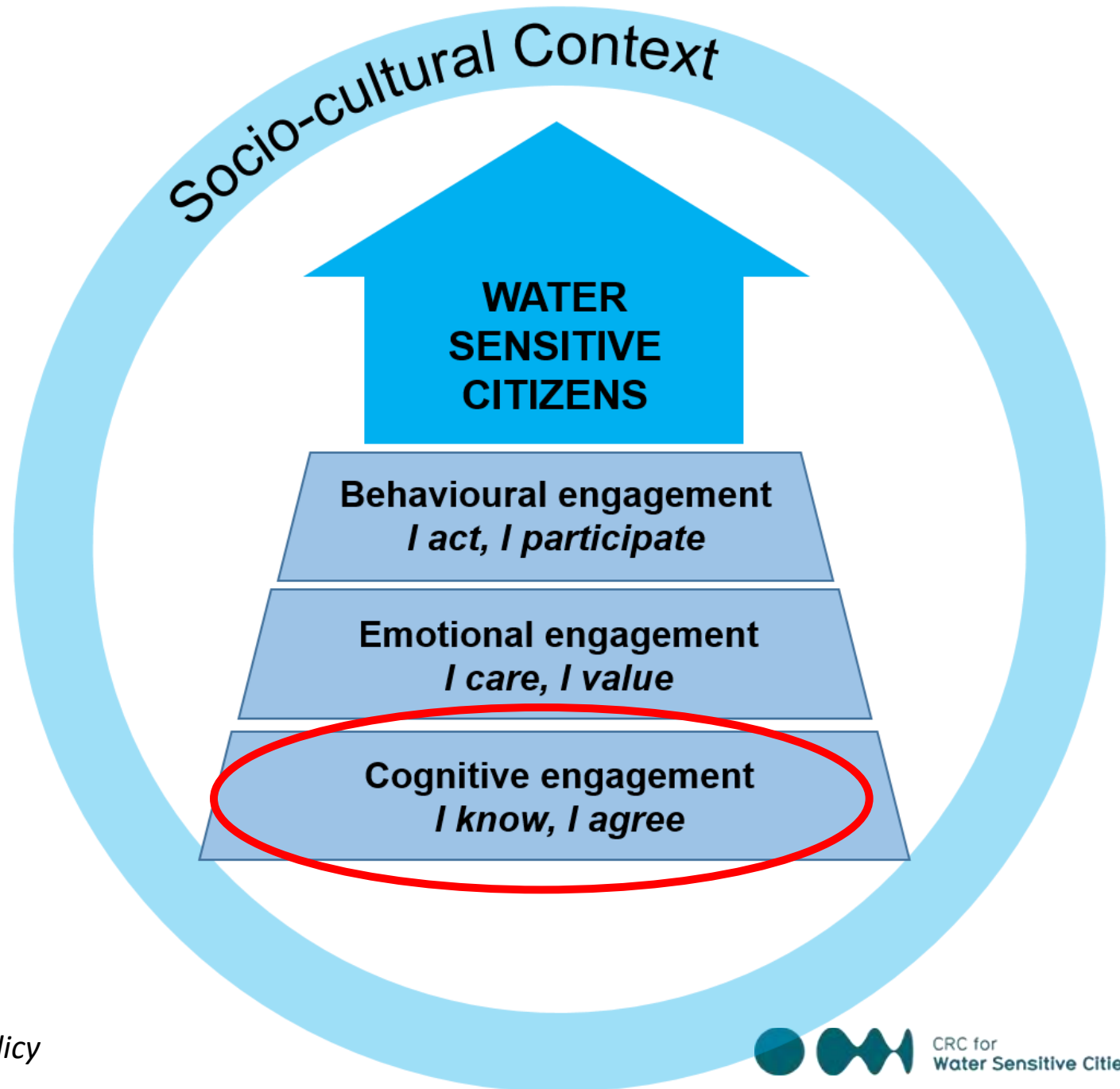
THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA



MONASH University

What is engagement?

Engagement is 'a personal state of connection with an issue'



How good is Australians' knowledge about water

National survey
of Australian
adults (n=5193)

Questions



- ☐ How good is community knowledge about water?
- ☐ What influences knowledge? Who has better knowledge?
- ☐ Does knowledge matter? Is it linked to behaviours & policy support?

Measuring water knowledge – 15 questions

The fertilizers that individual householders use in their garden can have a negative impact on the health of waterways

Planting native plants along a waterway's bank improves health of waterway

Storm water from roofs and roads is treated to remove pollutants before entering the waterways

1
Strongly
disagree

2
Disagree

3
Neither

4
Agree

5
Strongly
agree

6
Don't
know



What else did we assess?



Water knowledge score: the number of correct responses to 15 questions about water management



Participant characteristics:

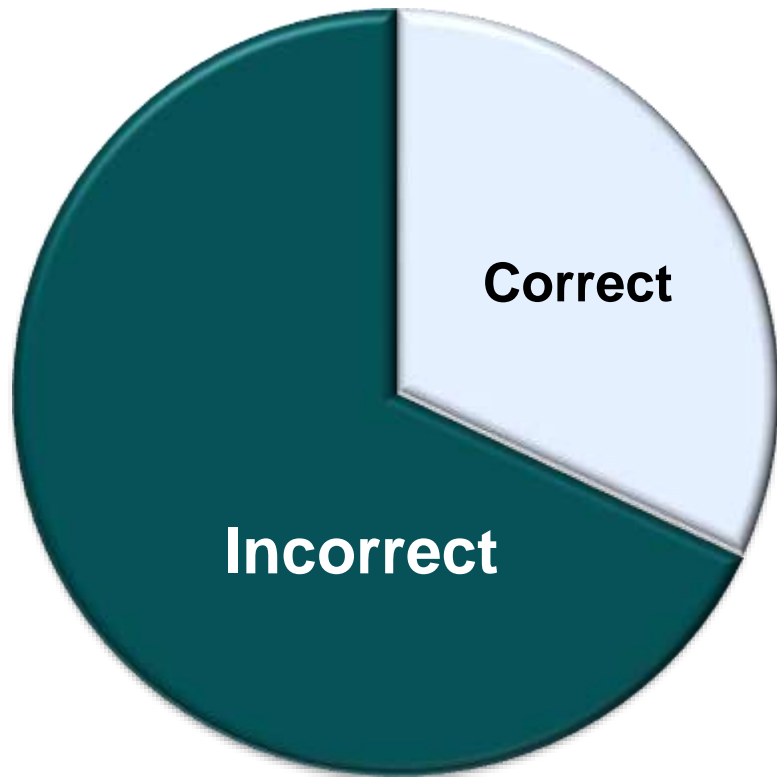
- Demographics & cultural background
- Household characteristics
- Information sources
- Life experience, satisfaction and participation
- Waterway use
- Environmental identity



Water-related attitudes and behaviours:

- Support for alternative water sources
- Support for raingardens
- Uptake of water-saving devices
- Use of everyday water-saving behaviours
- Use of pollution-reduction behaviours

Knowledge about some issues is poor

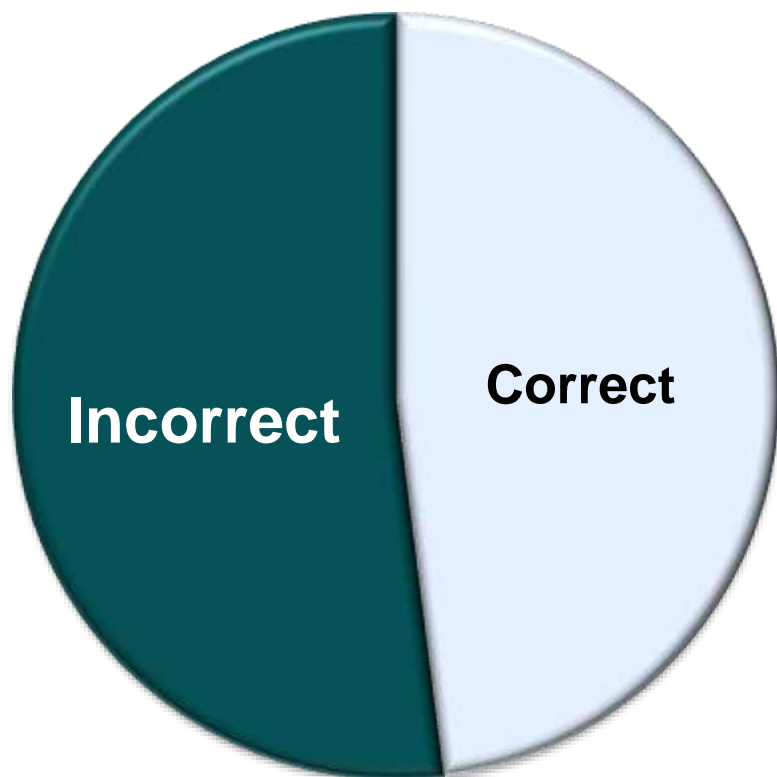


< 33% knew:

- Urban stormwater **is not treated** before entering waterways
- Domestic wastewater **is treated** before entering waterways
- Separate pipes carry domestic wastewater & stormwater



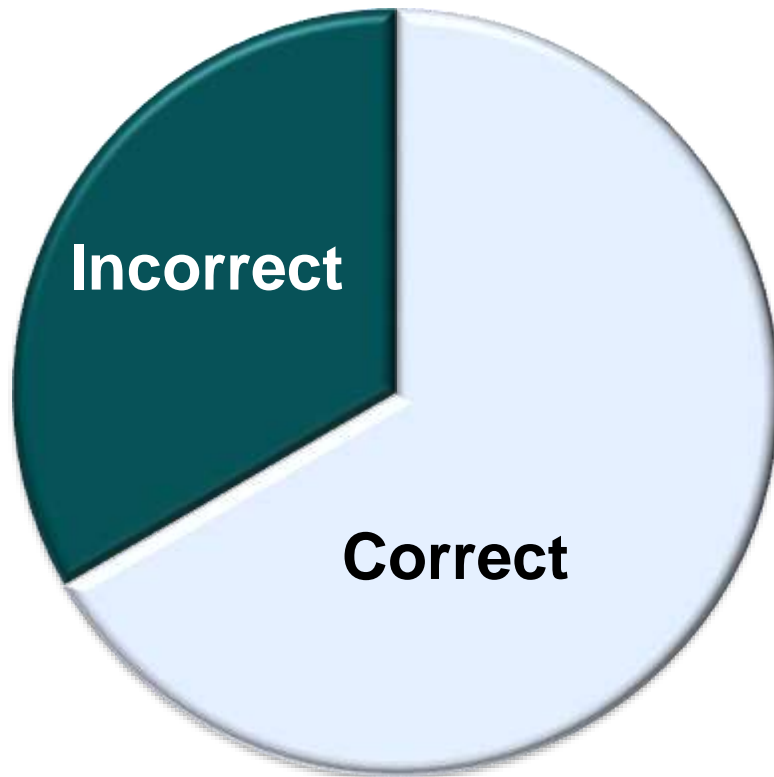
Intermediate knowledge



About half of people knew:

- **Urban soil erosion can impair waterway health**
- Large amounts of sediment can damage waterways
- Household pesticides can impair waterway health

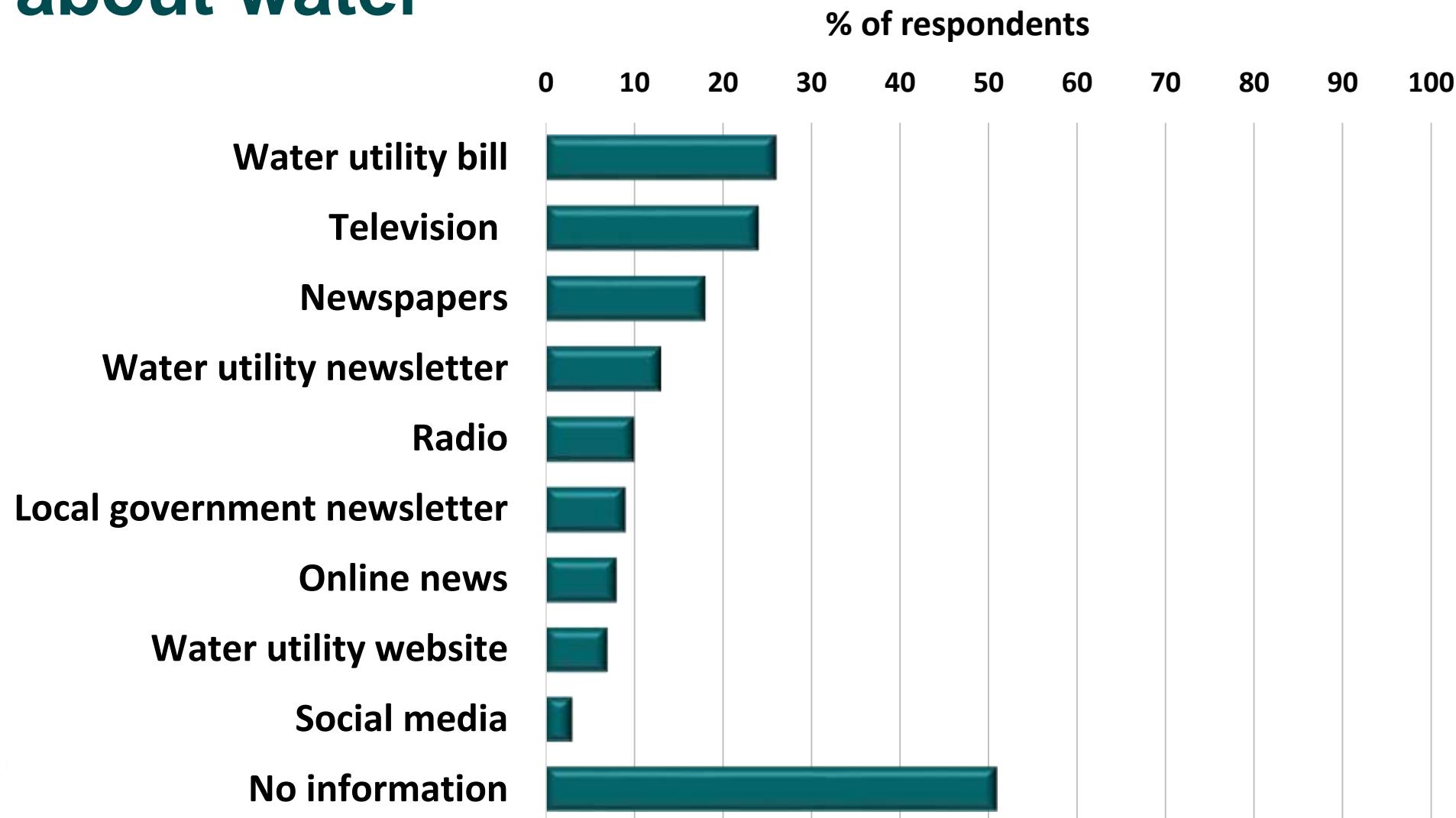
Areas of high knowledge



Over two thirds knew that

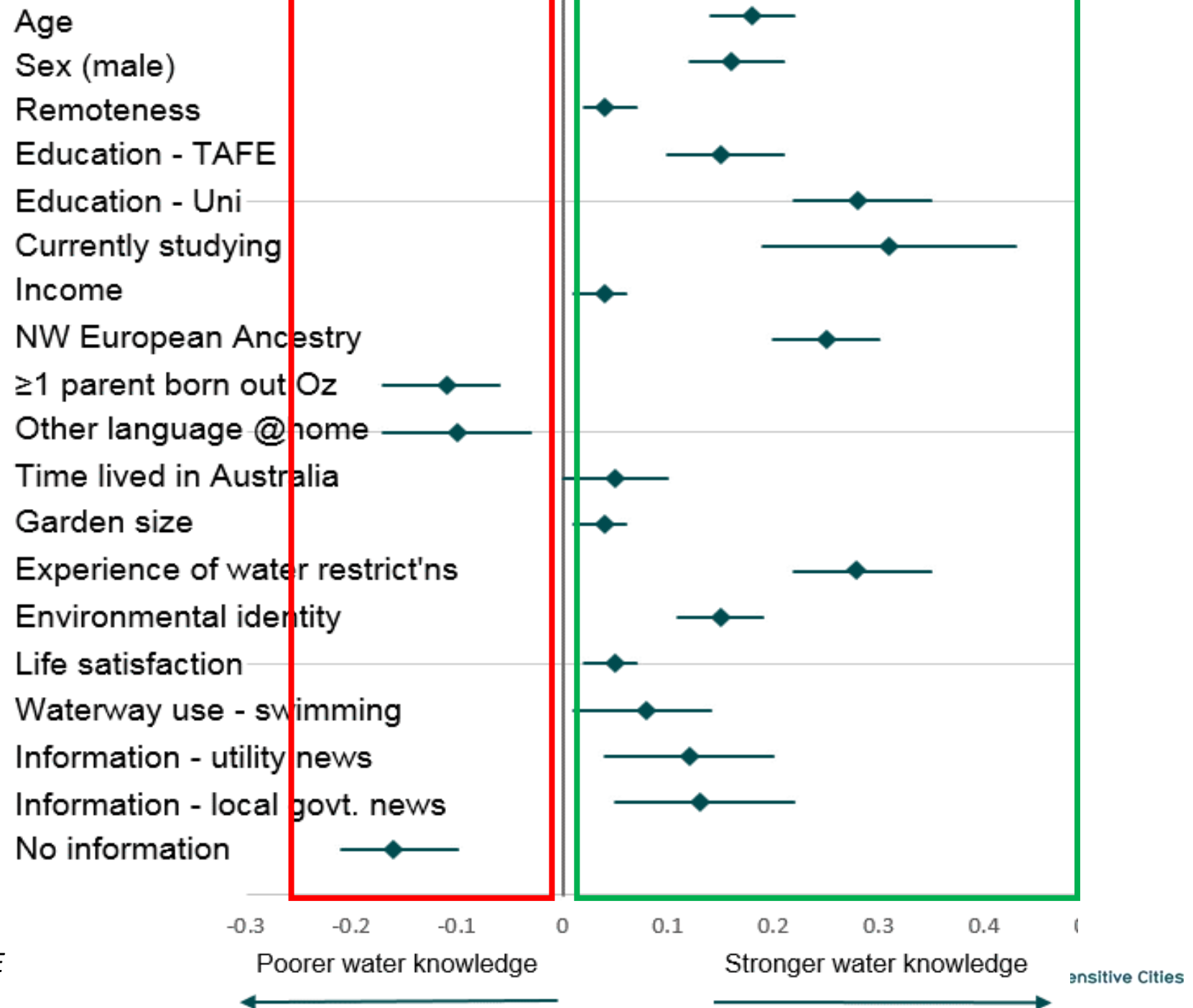
- Actions in the home can affect waterway health
- Household fertilizers can impair waterway health
- Planting trees near waterways improves waterway health
- Stormwater flows can damage waterway health

50% reporting not seeing any information about water



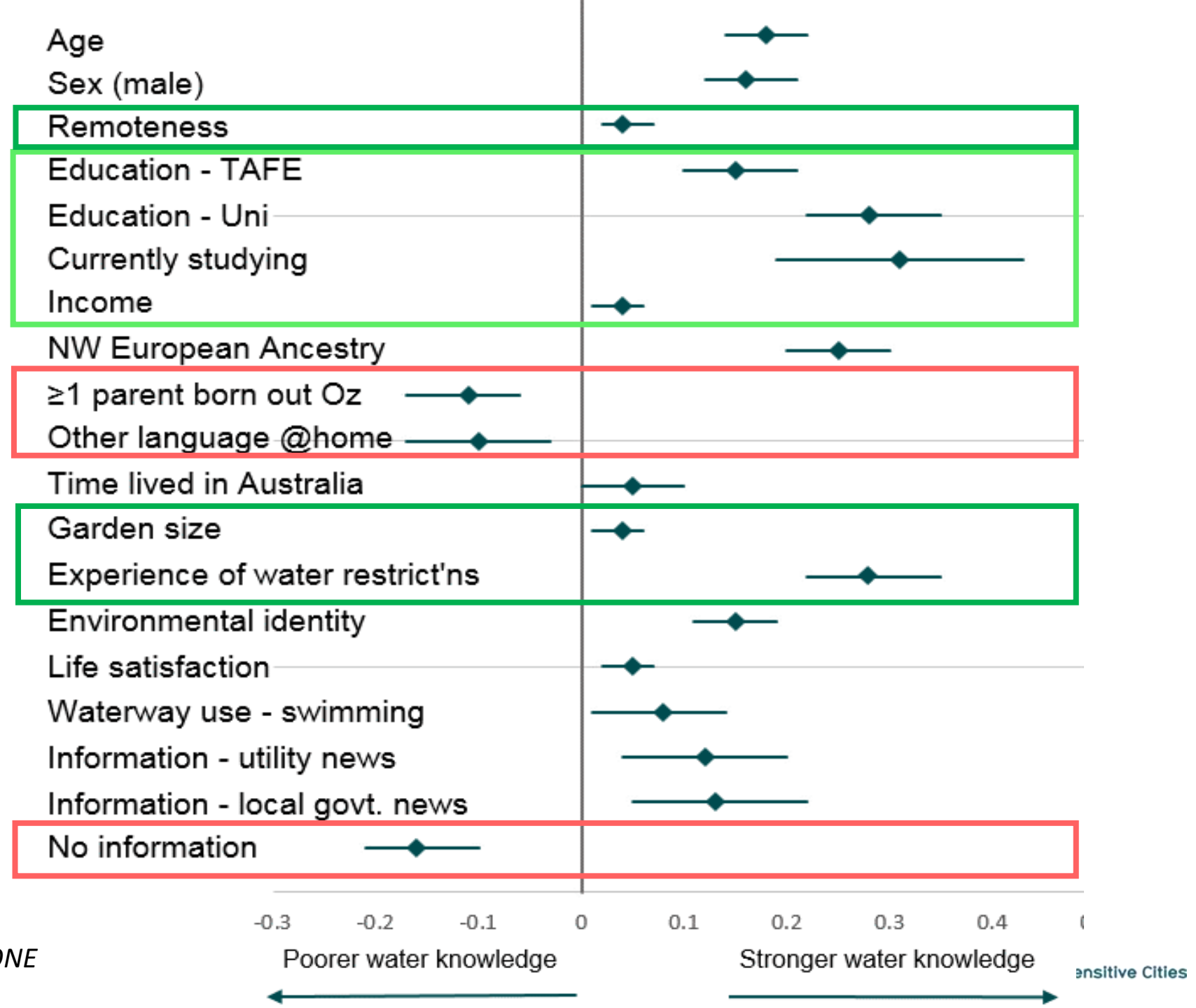
Factors influencing knowledge

All factors significant
 $p < 0.05$



Factors influencing knowledge

All factors significant
 $p < 0.05$



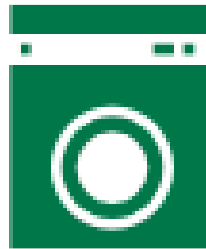
Does knowledge about water matter?

Yes!



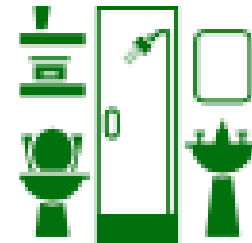
Greater support for
alternative water
sources

Greater support for
raingardens



Higher uptake of
water-saving devices

Greater use of
everyday water-saving
strategies



Greater engagement
in pollution reduction
behaviours



Water-related terminology?

Do people
understand water-
related terms?

Survey – water-related terminology



415 residents of Sydney, Melbourne, Brisbane & Perth

We presented a series of water-related terms

How well do you understand this term?

1

Not at all

2

A little

3

Moderately

4

Well

5

Very well

Not at all

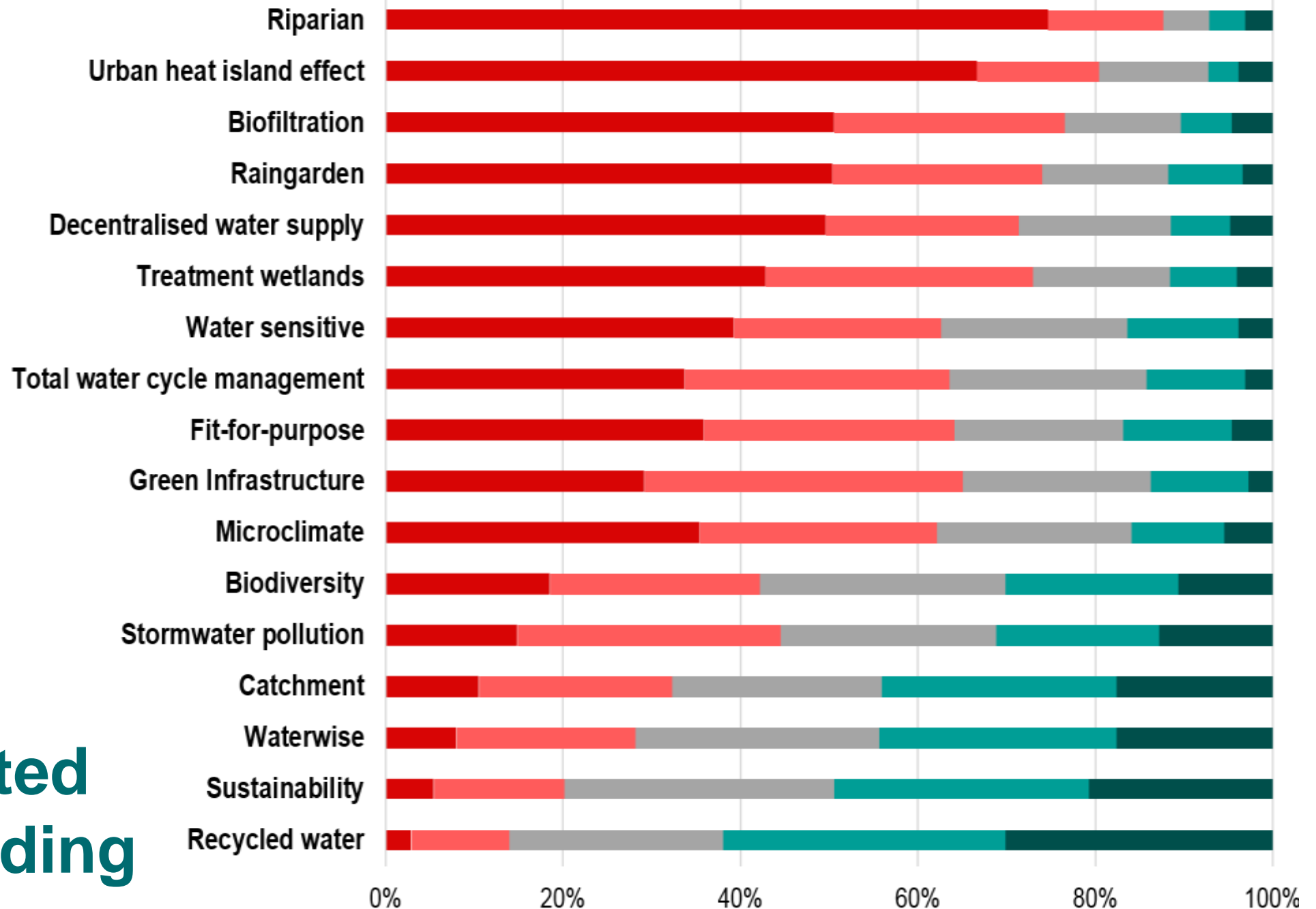
A little

Moderately

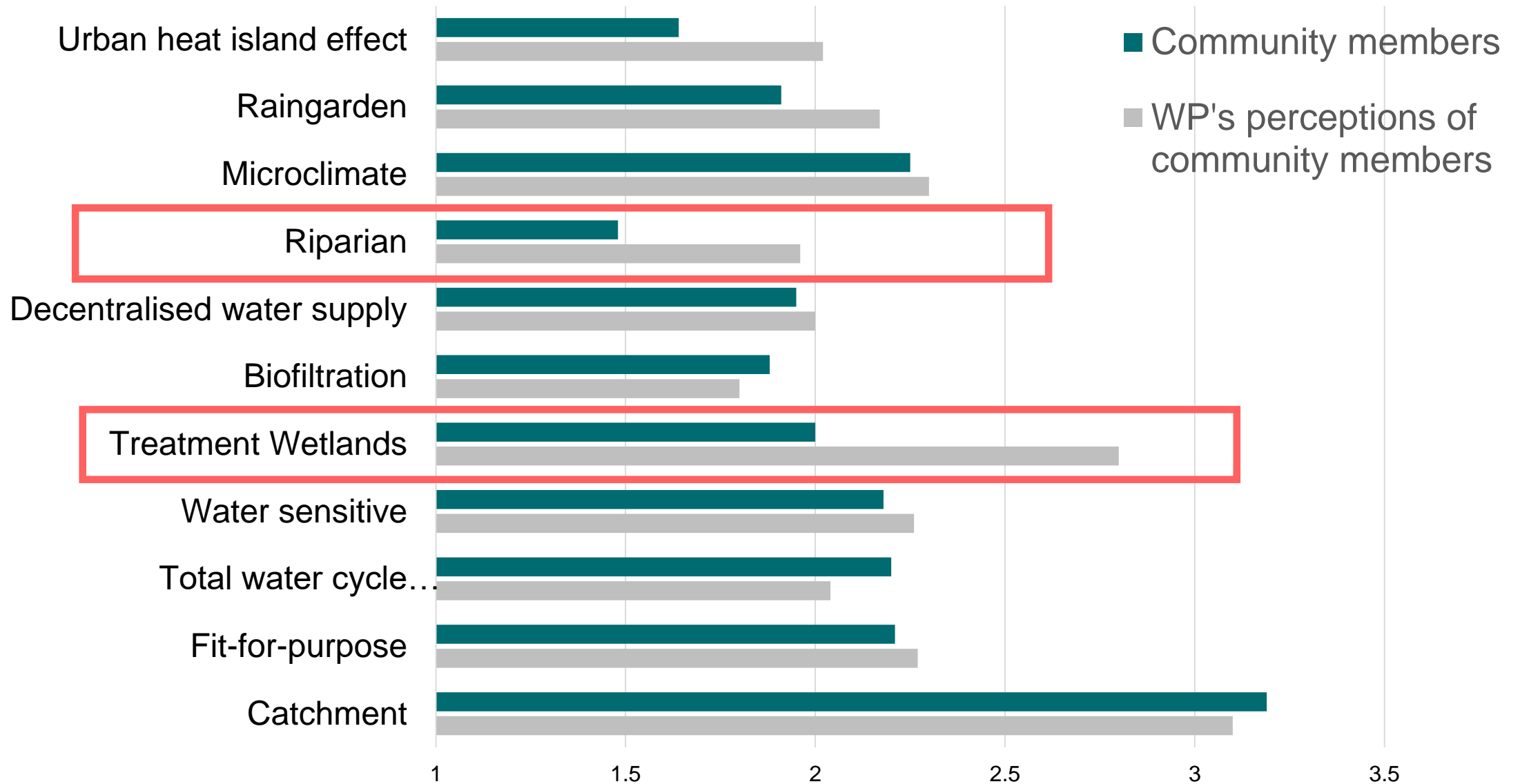
Well

Very well

Self-reported understanding



Differences between industry & community

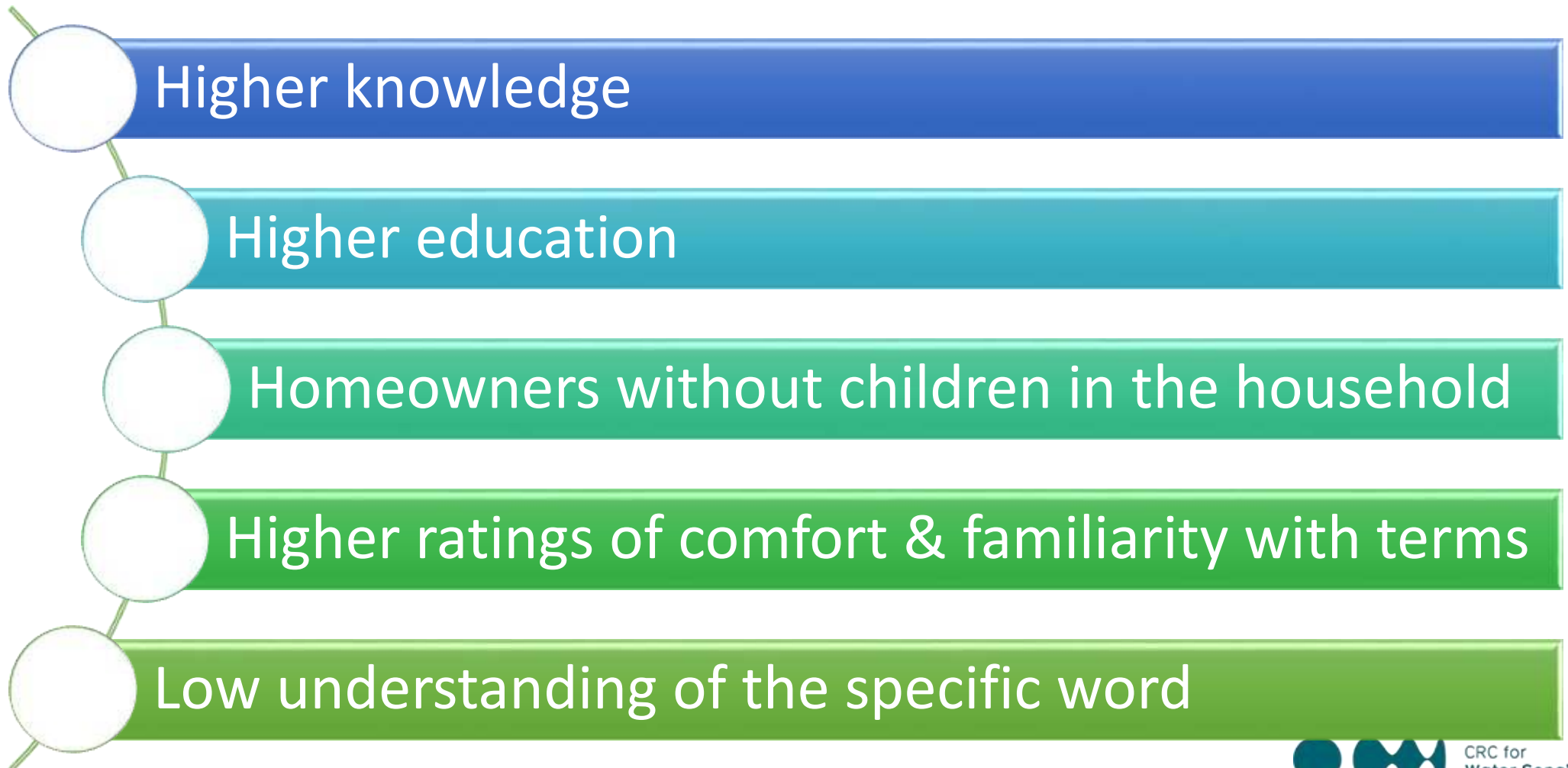




How does jargon influence information seeking?

In this survey – we gave people the opportunity to click on links, providing information about the terms

Those more likely to click were already 'more engaged'



Conclusion

Jargon may
exclude those
most difficult to
reach



Building engagement

Build
knowledge

Cultivate
attitudes

Change
behaviour

Diverse
techniques

Media campaigns

Education events

Mail-outs

Persuasive communication

Stewardship programs

Participation programs





Can we improve knowledge?

Traditional approach – information & education campaigns

- But – knowledge not just a product of information exposure
- Information may only be noticed by those with an interest in the issue

Improving effectiveness of information

- Make it relevant – align with audience values
- Consider the social context
- Language
- Use diverse approaches
- Create experiences

Is knowledge enough?

Knowledge is a “necessary but not sufficient” ingredient for change

We need to target other drivers of behaviour & policy support

