



CRC for  
Water Sensitive Cities



Australian Government  
Department of Industry and Science

**Business**

Cooperative Research  
Centres Programme



# Community perceptions about WSUD & stormwater management

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THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA



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# What do people think about stormwater management and how can we build support?

Focus groups

National  
survey

Experimental  
studies

# Focus groups

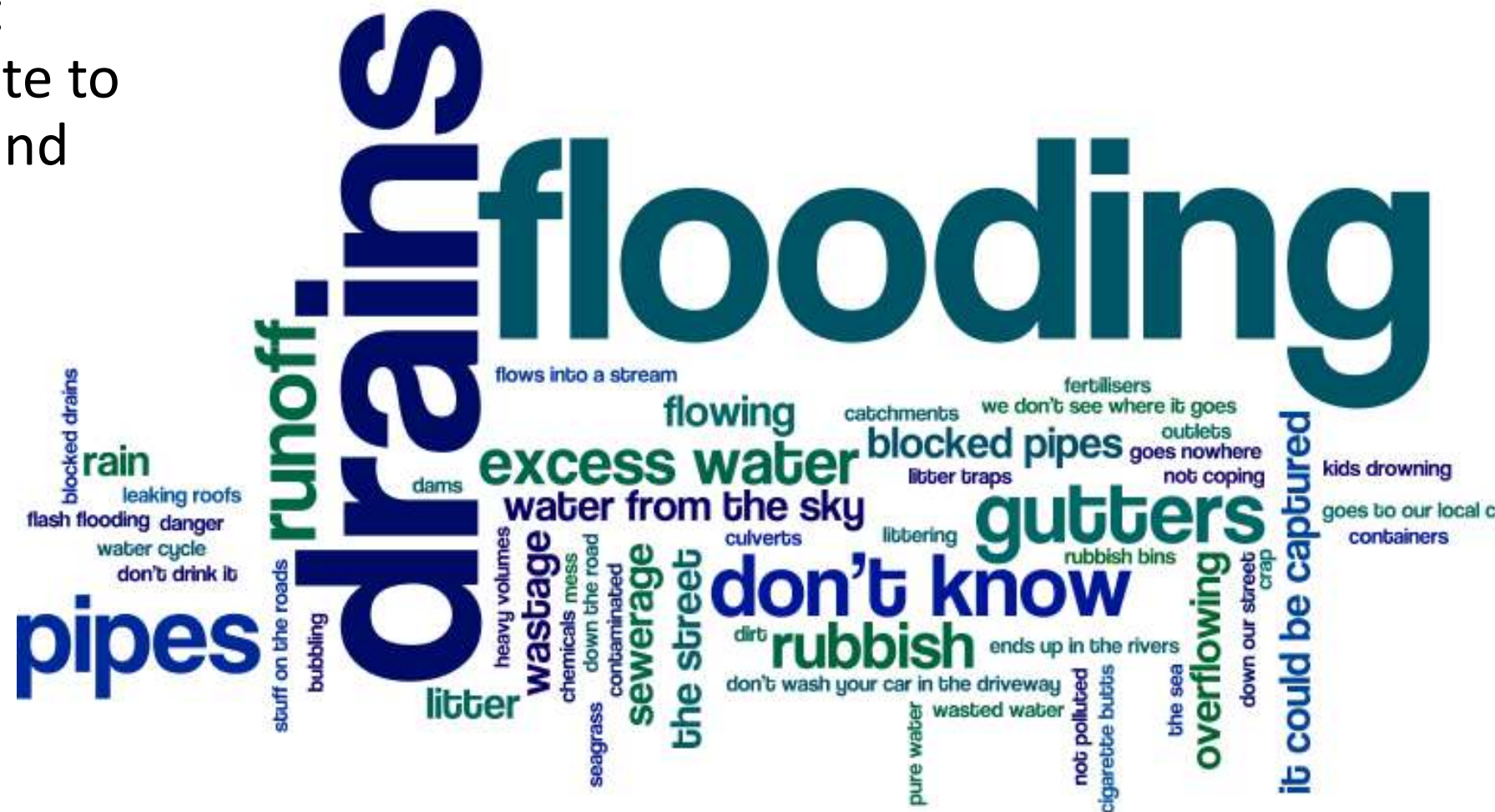
Aimed to explore perceptions about stormwater & management

- Representative mix of ages, gender & incomes
- 6 locations
- 40 participants in total



## A decorative graphic on the right side of the page. It features a vertical column of numerous water droplets of various sizes, rendered in shades of blue and teal. To the right of the droplets, a thick, bright pink arc curves from the bottom towards the middle of the page.

**Only 15%  
made some  
reference to  
pollution**





# Responding to information

We then  
provided  
information  
about  
stormwater

Discussion about  
definition and  
management  
options

Despite prompting,  
the conversation kept  
returning to 'visible'  
issues like litter

Concepts not difficult – people  
response well to information

## Poor community understanding

*"I didn't realise that stormwater  
washed all the rubbish out to  
sea, I thought it just cleaned  
everything up... not that it did  
any harm"*

## Poor issue visibility

*"We don't see, to a large extent,  
where our stormwater goes"*



# Discussing personal actions

## Unprompted

Limited capacity to  
identify  
management  
options

Most responses ~  
**physical litter** or  
**water saving**

## Prompted

*“Oh, that’s common sense”*  
*“good advice”*

## Barriers?

### Not thinking soil is a pollutant

*“I wouldn’t think of planting trees... that  
wouldn’t spring to mind”*

### Personal relevance

*“For me, that’s a bit tricky to relate to  
because I live in a small apartment”*

# Discussing water sensitive urban design

## Unprompted

**Very limited** capacity to identify any management practices

Assumed local govts would be investing in expensive filtration technology

## Prompted

*Curiosity: effectiveness*

*Relevance: will it affect my property or rates?*

*Positive: aesthetics*



Raingardens in parks absorb water and filter out pollutants

## Barriers?

### Poor Awareness

*"It sounds great, but we don't know what it is"*

*"Does it really have a benefit? **It seems too simple**"*

### Poor Visibility

*"you can see the things we want councils to do, ... **this has got nothing, no function you can see**"*



# Need to *show* impact

## Nature of the problem

*“show people how much rubbish builds up...”*

*“I would be interested to see the stats, what chemicals are going into the environment... to explain what’s happening...”*

## Individual action

*“Show us the difference we can make”*

*“explain why you’re asking me to do this... we want to know the impact”*

## Impact of WSUD

*“I don’t think it would hurt to have some signage, saying this is what we’re doing and this is what it does”*





**Are some people more likely to  
support WSUD than others?**

# Study 1 – National Survey

What characteristics  
are linked to greater  
**support for  
raingardens?**



**Online survey - representative sample of 5194 Australian adults**



***Support for Raingarden in yard:***

- How willing would you be to install a raingarden on your property?



***Support for Raingarden in street:***

- How willing would you be to have a raingarden installed in your street?



**Participant characteristics:**

- Demographics
- Household & psychosocial characteristics
- Life experience
- Water-related knowledge, information

# Support for raingardens on your property

37% willing to  
install raingarden  
on their property



# Support for raingardens on your property

greater opportunity &  
interest

Social capital ~ greater  
policy support

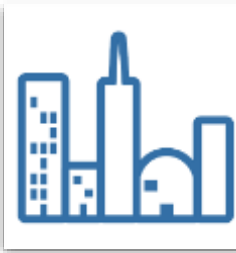
Relevance





# Greater support for raingardens in your street

56% willing to  
install raingarden  
on their street



Urban  
residents

Renters



Smaller  
gardens

Not boaters



Greater knowledge  
and information  
about water

# Greater support for raingardens in your street

Those with limited  
access to private  
greenspace

- parking?



Urban  
residents

Renters



Smaller  
gardens

Not boaters



Greater knowledge  
and information  
about water

# Does information build support for stormwater management?

**Are we preaching to the converted?**



**How to target a broader range of the community?**





# Message framing

*How we frame a message influences its effectiveness*

## NEWater – Singapore

- Framed as a positive issue of national security and independence
- Compare Toowoomba – framed as health risk and ‘drinking sewage’

## Climate deniers

- Value economic and technological innovation
- Framing climate messages in these terms increased support for climate action
- (*Bain et al* )



# Message framing

Focus groups

What motivates people to reduce waterway pollution?

- Recreational spaces
- Megafauna



**Information  
about stormwater  
pollution & impacts  
on Moreton Bay**

**Environmental  
benefits**

**Social benefits**

**Control**

**Motivation  
to change  
behaviours**

**Pilot  
study  
(n=125)**



# WSUD and other terms

**Raingarden**

**Biofiltration**

**Swales**

**Water  
Sensitive**

**Non-  
point  
source  
pollution**

**Bioretention**

**Best  
management  
practices**

# Does using technical language influence effectiveness of information?

Adults living in  
Sydney, Melbourne  
Perth & Brisbane  
(n=410)



Information about  
Water Sensitive Urban  
Design

Technical language

Consumer-friendly

Consumer-friendly +  
images

Control

Effect on  
policy  
support

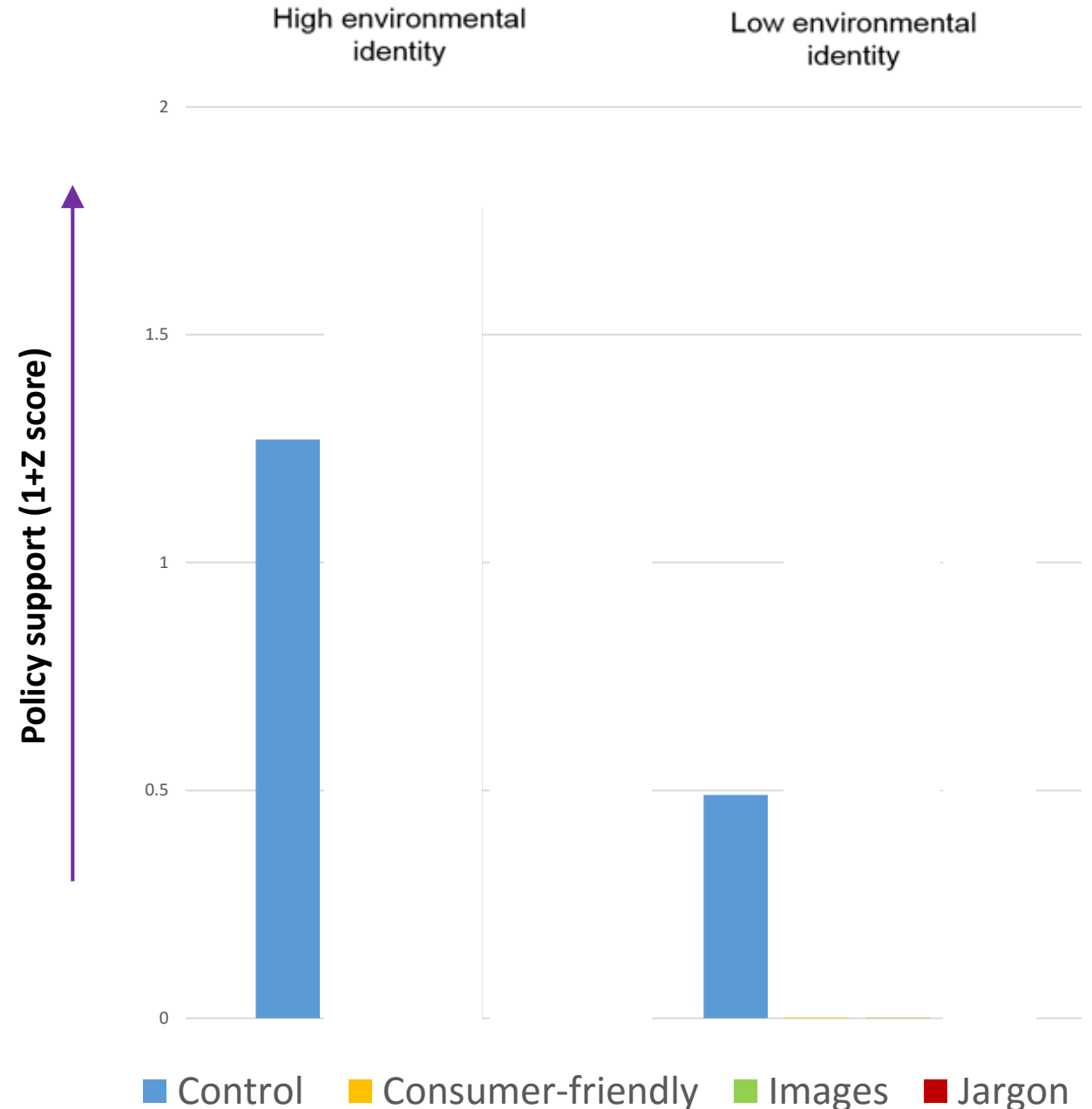


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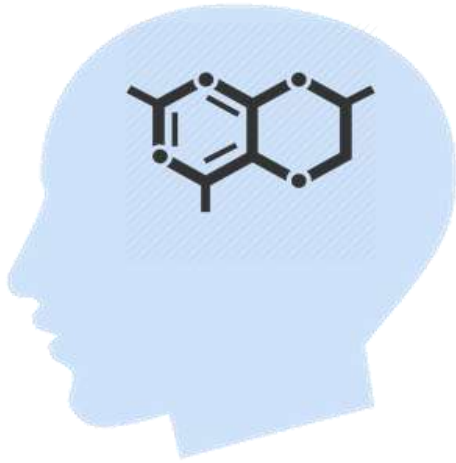


# Language influences support for water sensitive urban design

- Why?
- Use clear language
- Easy to read info:
  - More persuasive
  - Better recall



# Tips for engaging communities



When people think about stormwater, pollution is not top of mind.

We need to be explicit about discussing pollution



People focus on pollution they can see.

We need to build visibility of the issue *and* effective responses



Stormwater perceived as not relevant.

Motivating factors:

- Safety*
- Recreation*
- *Pleasant local spaces*
- *Iconic megafauna*



# Effective communication can build support for water sensitive policies

Effective communication is important  
The type of information matters!



“The single biggest problem in communication is the illusion that it has taken place”

*George Bernard Shaw*



Consider target group  
Emphasise audience values  
Use clear concepts, words & images



# *Thankyou!*

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## Acknowledgements

Funding

- Cooperative Research Centre for Water Sensitive Cities

Knowledge, jargon  
and focus groups

- Project leader: Kelly Fielding
- Fiona Newton
- Jo Lindsay
- Helen Ross

PhD Student

- Tracy Schultz

Moreton Bay values

- Elizabeth-Rose Ahearn
- Elinore Pryor
- Kelly Garner
- Kelly Fielding