CRC for
Water Sensitive Cities

4th water sensitive cities conference

Australian Government
Department of Industry and Science

Business
Cooperative Research
Centres Programme

Valuing the benefits of water sensitive projects: an application to Tarralla Creek Renaturalisation

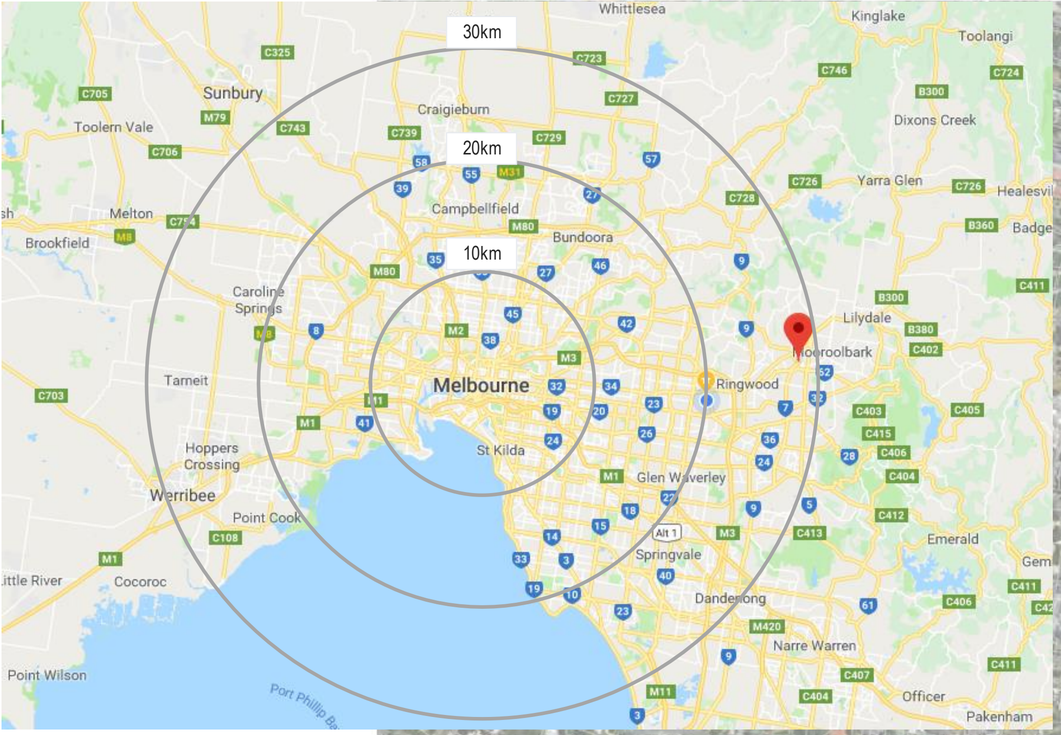
Rita Chandra
Yarra Valley Water

26-28 March 2019

Yarra Valley Water

Melbourne Water

Maroondah City Council


30km
20km
10km
Whittlesea
Kinglake
Toolangi
Sunbury
Craigieburn
Toolern Vale
Dixons Creek
Yarra Glen
Healesville
Melton
Campbellfield
Brookfield
Bundoora
Caroline Springs
Lilydale
Mooroolbark
Tarneit
Melbourne
Ringwood
Hoppers Crossing
St Kilda
Glen Waverley
Werribee
Point Cook
Springvale
Emerald
Cocoroc
Dandenong
Narre Warren
Point Wilson
Officer
Pakenham

Lusher Road
Croydon Leisure Centre
Fred Geale Reserve
Norton Road
Swinburne Universtiy
Electrical substation
Croydon Mens Shed
Dorset Gardens
Croydon Wetland
Victorian Chin Baptist Church
Mebourne Water Pipe Trail
Leigh Rd
Jesmond Rd
Vinter Ave
Taylors Road
Dorset Road
Tarralla Creek
Lusher Rd
Benson Oval
Croydon Gums Kindergarden
Croydon Gums Kindergarden
Dorset Primary School
Bayswater Road
Morris Reserve
Morris Rd
Cheong Park
Eastfield Park
Pinjarra Kindergarden
The Mall Shopping Strip
Dog Park
Playground
Eastfield Road
0
50
100
150
200
250 m

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Project Drivers:

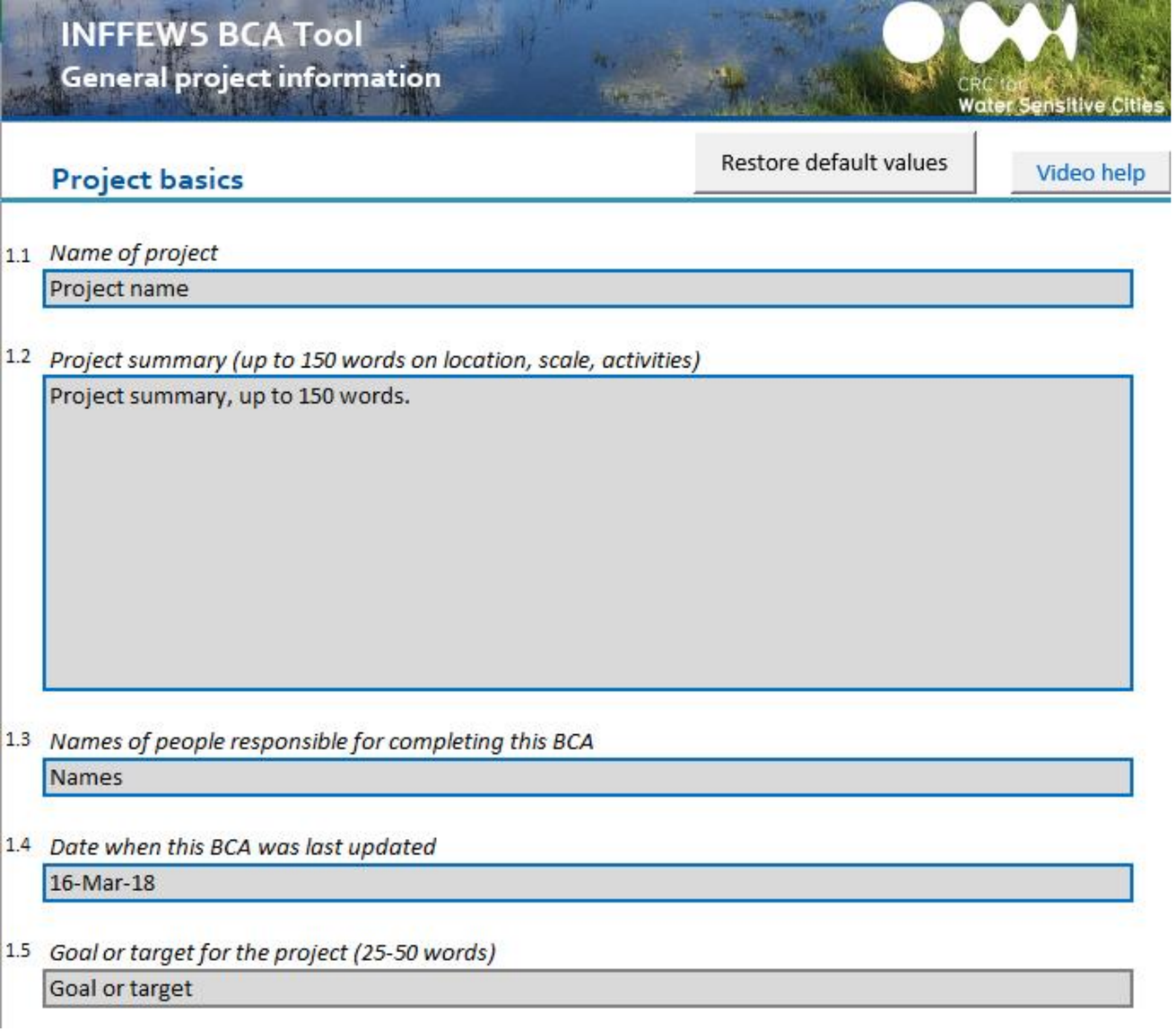
- Protect and enhance public green space
- Provide public health, environmental and economic benefits to the community

INFFEWS Value Tool

Industry Note
Project IPR2

INFFEWS Benefit: Cost Analysis Tool

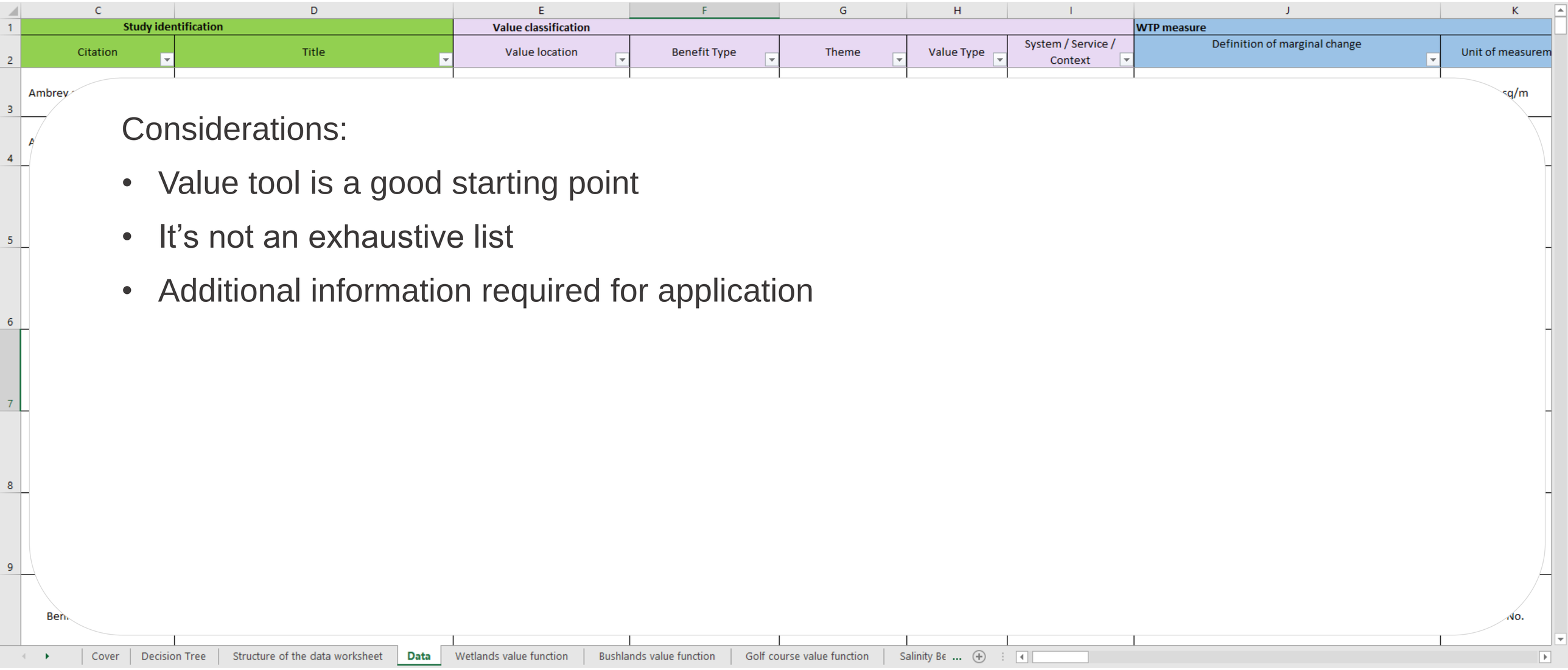
Industry Note
Project IPR2



Getting everyone on the same page

- Clear project objectives
- Project activities
- Understand impacts on the community with and without the project


Improved Amenity
Improved health from active recreation
Increase in biodiversity
Improved waterway health
Improved health from access to greenspace
Increased Community Activation & Participation
Reduced Nitrogen Discharge
Potable Water Savings
Improved access to Sustainable Transport options



Considerations:

- Value tool is a good starting point
- It’s not an exhaustive list
- Additional information required for application

Example

Benefit: Ecological Improvement – stream health

Measure	Value	Payment
Willingness-to-pay	$88 per household	Annual
32,000 = Croydon Population		
2.4 = Average Household Size		
$1.2M of benefit generated per year		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Overall BCA results

Benefits (present value)	$19.4M
Costs (present value)	$15.5M
Net Present Value (NPV)	$3.9M
Benefit: Cost Ratio (BCR)	1.25

What is the value to different stakeholders?

Benefit	Total PV	Melbourne Water	Maroondah City Council	Yarra Valley Water	Potential other partners
Improved stream health	$14.7M	?	?	?	?
Improved human health	$1.2M	?	?	?	?
Improved amenity	$1.6M	?	?	?	?
Reduced Nitrogen to Port Phillip Bay	$2.7M	?	?	?	?
Drinking Water Savings	$0.3M	?	?	?	?

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- Confirmed our project is positive for the community
- BCAs can help facilitate conversations about benefits and how to fund such projects
- CRCWSC tools are user-friendly and robust

Thank you

Melbourne Water

Maroondah City Council

Yarra Valley Water