

Community perceptions of ephemeral waterways in Melbourne's north-west

Project Note

A summary of findings from the collaborative research project:

Project 5.4

Community participation in waterway protection and restoration (sub-project 1)

Understanding community perceptions of waterways is an important consideration in management decisions, as a means of engaging the community, minimising conflict between stakeholders, incorporating social values into planning, and promoting social acceptance of management actions.

The Sunbury area is of particular interest in understanding community perceptions of local waterways, as it is currently experiencing significant growth in terms of urban development, infrastructure development, and population growth (VPA, 2011). Urban expansion may have numerous impacts on waterways, including: the piping of waterways in urban developments; increased stormwater flows that damage river health and disturb ephemerality of flow; and, changing community priorities for public spaces and assets. Urban development also brings opportunities for neighbourhood and domestic infrastructure for integrated urban water management and improving the health of local waterways.

Research aim

Melbourne Water and other agencies are currently reviewing options for infrastructure investment in the Sunbury area that will meet the demands of the changing landscape and growing population. This aim of this research was to support Melbourne Water in understanding the ways in which the local community interact with and perceive local waterways in their present and potential forms.

The research objectives for this Masters student project included:

- Investigating the range of community values for local waterways; and
- Investigating the range of community perceptions of the health of local waterways

Methods

The sampling strategy was designed to include a diversity of experiences and perspectives on local waterways, rather than being a representative sample of the population of Sunbury. Five focus groups (31 participants) were conducted with:

- A waterways volunteer group
- A residents association
- An environmental activist group
- An anglers group
- A sports association.

Participants ranged across type and level of engagement with local waterways, and length of time residing in the Sunbury area. Discussion was generated through questions and photo elicitation exercises. Transcripts of the focus group discussions were analysed to identify themes and patterns.

Key findings and implications

The analysis of community values for local waterways operated with the definition of 'valued attributes' developed by Rawluk *et al* (2016), as *qualities* of the environment that are important to the community (rather than valued entities or abstract principles).

Participants identified a wide range of valued attributes for local waterways,

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which were arranged into five overarching categories: amenity; recreation; community significance; natural ecosystems; personal significance. A draft 'valued attributes network' was developed to represent the range of interconnections between these values.

While in many respects the elements of the valued attributes network correspond with Melbourne Water's social values model, some additional elements to consider include:

- The personal significance derived from family history, including memories of childhood and family events
- A sense of ownership associated with long-term involvement in the rehabilitation of local waterways
- Varying definitions of a 'natural' ecosystem (for example, in relation to vegetation being indigenous or not)
- The sensory experience of waterways as an element of amenity.

In discussing indicators of the ecological health of local waterways, participants predominantly focussed on vegetation, whether its extent, maturity, or type. Too little and too much vegetation was remarked as unhealthy. For some it was important that vegetation was indigenous to the local area, whereas for others any non-weedy plant species was a sign of a healthy waterway.

Stagnant water and intermittent flows were more frequently understood as signs of an unhealthy waterway. Flow was frequently linked to the flushing away of visible signs of pollution.

Erosion was generally seen as an indicator of poor river health, being associated with the loss of vegetation and habitat from the banks, and the 'muddying' of the water.

These findings suggest that there are some areas of significant discrepancy between the community

perceptions of the health of waterways in the Sunbury area, and that of Melbourne Water and other management agencies.

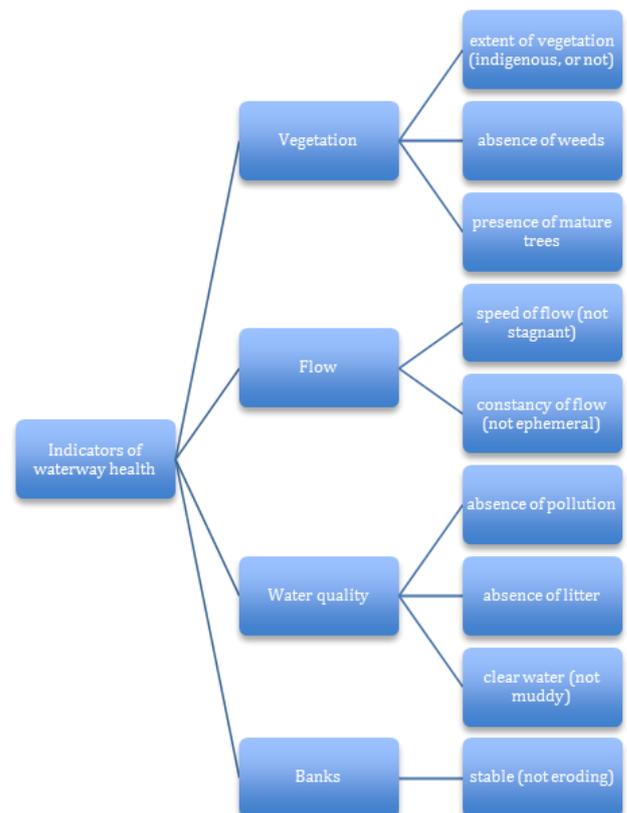


Figure 1. Indicators of waterway health identified by participants