

Caring or control: Managing waterways and a marine park through values and uses

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HEALTHY WATERWAYS



Issue

- We know little about how people value waterways, what they mean in their lives, or how they use them
- This information is important for management
 - Voter support for protection of marine areas, investment in catchment management
 - Extent of and potential for stewardship
 - Public engagement
 - Communications
 - Relationship with advocacy
 - Managing threats, achieving compliance
 - Facilitation of access



Our context – Moreton Bay and its catchments

Moreton Bay

- High ecological values
- Marine Park
- Unique sand islands
- Aboriginal attachment and heritage
- Recreational and commercial roles
- Complex and changing social values
- Water quality threats
- Proximity of Brisbane

Catchments

- Brisbane and region – rapid growth, complex land uses and social mixes
- Rural and urban land uses contribute sediment, pollutants



Map: SEQ Catchments

Green areas are national park



Viewing SEQ waterways as a social-ecological system

- Linked ecosystems – land to sea
 - Land uses, river flows, water quality issues threatening Bay
 - Relation of city to Bay
 - Effects of floods and droughts
- Values, emotional attachments, relating to mental models about use and management
 - Historical changes in values
 - Competition between utilitarian, aesthetic, moralistic values (after Kellert 1996)
- Uses of and behaviour patterns on the water space
 - Fishing, shipping etc.
 - Recreation, wedding photos

Treat people as part of the system, not external to it.

Methodology

- Study of people's values using Kellert (1996, 2012) framework of environmental values
- Historical – media analysis
- Purposively sampled, semi-structured interviews (58 analysed so far)
- Indigenous component – with Traditional Owners
- Supplemented with observation – how people use spaces
- Consideration of implications for management

Kellert values framework

Aesthetic

- Physical appeal and beauty of nature

Dominionistic

- Mastery, physical control, dominance of nature
- Strong emotional attachment and 'love' for aspects of nature

Humanistic

- Ethical concern for nature

Moralistic

Naturalistic

- Direct experience of nature

Negativistic

- Fear, aversion, alienation from nature
- Systematic study of structure, function, and relationships in nature

Ecologistic-scientific

Spiritual

- Feelings of transcendence; reverence for nature

Symbolic

- Use of nature for language and thought

Utilitarian

- Practical use and material exploitation of nature

Historical analysis



Photo: Queensland archives

- Sets of values towards Moreton Bay (and rivers) have become more complex over the decades
 - Utilitarian, dominionistic (since 1940s)
 - Scientific added 1980s
 - Recognition as threatened and fragile ecosystem, fisheries decline
 - 1990s - Scientific, moralistic, utilitarian and humanistic
 - 2000s to now:
 - Natural and aesthetic (e.g. 'amazing wildlife', spiritual place, source of physical and mental wellbeing)
 - Humanistic, moralistic
 - Utilitarian (marine playground, tourism)
 - Scientific (need for healthy ecosystem)

Values - Humanistic:

physical appeal and beauty of nature



Moreton Island 2010

Emotional attachment:

- People feel a deep emotional attachment – a *love, bond* or an *affinity* - to the waterways, especially those with which they have had meaningful interactions.

Associations:

- These relationships are developed through family heritage; living, working or socialising along a given waterway; or associating it with a significant or memorable life experience.

Naturalistic:

Direct experience of nature

Waterways are places for people to connect with and explore the natural world.

People are moved seeing wildlife in their natural habitats, such as dugongs, turtles, brahminy kites and koalas.

Many feel *grateful*, *lucky* and *privileged* for these experiences.

They value the physical and mental benefits derived from interacting with the waterways.

They feel calm, relaxed and peaceful.



Nudgee beach, 2012



Feeding dolphins, Moreton Island

Moralistic: Ethical concern for nature

- People express a need to protect habitats and species – especially those described as *fragile* and *delicate* ecosystems - under threat from population growth and development.
- In the upper catchments, moralistic values are aligned with utilitarian values and the need to look after the waterways to maintain a sustainable resource.



Ecologistic-scientific: Systematic study of nature

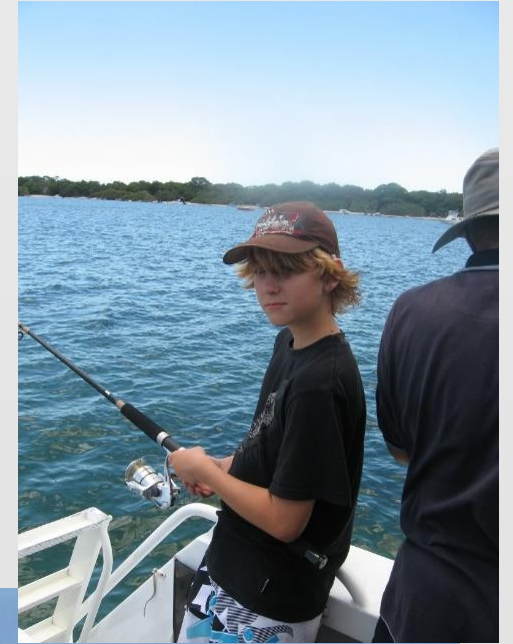
- People recognise waterways play important ecological functions so need to be managed effectively.
- The rich biodiversity and unique species, particularly in Moreton Bay, are valued for research and educational opportunities.
- In the upper catchments people have a desire to understand the biophysical aspects of waterways to achieve resource management goals and mitigate flood impacts.



Utilitarian:

Practical use and material exploitation

- In the upper catchments, water from creeks, rivers and dams is used to sustain people's lifestyle and livelihood, particularly cattle and crop farming.
 - Dams located in the area provide household water
- Deep channels in the lower reaches of the Brisbane River and Moreton Bay are used for boat building, shipping, and as transport routes and leisure activities for the general public.
- Certain species of marine life within the Bay provide resources for those involved in the seafood and aquaculture industries.



Aesthetic:

Physical appeal and beauty of nature



- An appreciation of the beauty of the waterways is widely shared.
- Many different aesthetic qualities are valued
 - the colours of waterway environments - *the blues and beiges of the Bay*;
 - the flora and fauna;
 - the clarity of the water;
 - the unique perspective when looking back at land
- In the upper catchments the waterways are an important feature of the overall aesthetic quality of the regional landscape.

Dominionistic:

Mastery, physical control,
dominance over nature

- Little mention
- People value the physical and mental challenges experienced when interacting with the waterways.
 - E.g. acquiring and practising the skills needed to sea kayak or sail on Moreton Bay, race a powerboat on Somerset Dam or hike across a flooded creek.
- People also spoke of the need to control and manage water flows to mitigate the impacts of flooding.



Wind surfing – Scarborough beach December 2012



Brisbane floods, Toowong reach, 13 January 2011

Spiritual:

Feelings of transcendence; reverence for nature

- Waterways can invoke a sense of belonging whereby people feel connected to life and the world around them.
- These feelings are aroused when immersed in nature or interacting closely with wildlife.
- The waterways Bay and islands are described as spiritually *healing*, *enriching* and *nurturing*. They are places where people feel a deep sense of respect and moral value.



Birds at Toorbul Dec 2012

Symbolic:

Use of nature for language and thought

- Waterways symbolise important and meaningful aspects of life, individually and for the community.
 - People scatter the ashes of loved ones who had a connection to a special place.
 - A pier provides a focal-point for a community whose identity is tied to the Bay.
 - An arts community on a Bay island draws inspiration from the waterways in their artwork, which in turn is used to heighten others' appreciation and love for the Bay.



Photo by Leonard John Matthews (Shorncliffe Pier 22/06/2008): [//flic.kr/p/6YH2Mi](https://flic.kr/p/6YH2Mi)

Negativistic:

Fear, aversion, alienation from nature

- Certain aspects of the waterways are avoided or may be feared.
- Some people avoid interacting with water of poor quality.
- Treacherous conditions can prevail when boating on the Bay.
- The power and strength of the waterways in times of flood are similarly met with fear and awe.



Brisbane River in flood 13 January 2011

Existing management

Overt and official

Government (sectoral):

Moreton Bay Marine Park

Fishing

Shipping, navigation, marine safety

Water quality objectives

Local governments

Collaborations:

Healthy Waterways (water quality)

SEQ Catchments (regional body for NRM)

Science:

Formal knowledge base, monitoring

In collaborations

Overlooked, unofficial

Traditional Owners:

Holistic, social-ecological

Traditional ecological knowledge and moral base

Activism organisations/peak bodies:

Political and social influence

Educational roles

Stewardship groups:

Restoration activity

Monitoring

Social influence, educational roles

Recreational groups:

Stewardship

Monitoring (especially birds)

Different influence pathways. Uneven voices and political influence!

Management implications

- Opportunities to move from 'control of threats' to incorporate positive dimensions of caring, stewardship (reframe purposes of management)
- Inclusive perspective recognising the contributions of Traditional Owners, public.
 - All voices, more than lobby groups
 - Roles, recognition and capacity building for the practical activity. Recognise, increase roles for TOs, stewardship groups
 - Extend collaborations (e.g. over Moreton Bay)
- Communications implications, extending from what people care about
- Monitoring and evaluation can extend from biophysical threats and damage, to social benefits and contributions



Healthy Waterways Report Card launch 2012

References

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