



Determining the Environmental Values of Botany Bay and its Catchments

*“A Descriptive Analysis of the Botany Bay Catchment
Environmental Values Questionnaire”*

April 2008

With Support From:



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Introduction

About the Botany Bay Coastal Catchments Initiative

The Botany Bay Coastal Catchments Initiative (BCCCI) is seeking to achieve long-term protection of the surface waters of Botany Bay, its estuaries and its catchment. A key product of the initiative is a scientifically-derived ecological response model of Botany Bay and its estuaries that can be used to model the impacts that changes in the catchment will have on the Bay's ecological communities. The initiative will primarily be focused on the pollutants washing off the hard surfaces in the catchment (suspended solids, nitrogen, and phosphorus).

The initiative will engage with councils, key stakeholders and the community in the Botany Bay Catchment so they can participate in finding and implementing innovative solutions to improve water quality in the Bay and catchment. The environmental values workshops and this questionnaire are examples of this engagement process.

The BCCCI is majority-funded by the Australian Government and being project managed and part funded by the Sydney Metropolitan Catchment Management Authority.

Environmental Values Questionnaire

The interim environmental values previously set by the NSW Government based on community input were revisited by the BCCCI. These values collectively provide an ecological vision for the catchment and underpin the levels of protection required for estuaries and freshwater waterways of the Bay and its catchment.

A series of workshops were held throughout the Botany Bay Catchment from September 2007 to March 2008, which were designed to inform catchment residents and stakeholders and seek their opinions on the catchment environmental values via a survey questionnaire.

A background paper was also prepared prior to the workshops that outlines information on Environmental Values (EV) and Water Quality Objectives (WQOs) and provides a brief summary of previously determined environmental values and water quality objectives for Botany Bay and its catchments.

This report presents the results of the BCCCI environmental values survey questionnaire. The report is simply structured and identifies the distribution of survey responses according to sector and origin (indigenous or non-indigenous), and consecutively summarises the results for each question. The readership of the report is targeted toward the survey participants, local, state and federal governments and all other catchment stakeholders.

Survey Representation

The total number of questionnaire respondents was 99. Of these, 8 (8%) identified themselves as indigenous Australians. Table 1 outlines the distribution of the responses by sector, as defined in the questionnaire. The small majority (51%) of respondents represent local government, followed by 35% from the community, then state and federal governments (11% and 3%, respectively).

Further differentiation of each question according to sectoral distribution is tabulated in Appendix 1 (p.17). From the distributions shown in the appendix it can be seen that the two biggest sectors, community and local government, have often responded to questions in very similar ways.

Table 1: Sectoral distribution of survey responses

Group	Total	Proportion
Commonwealth government	3	3%
Community	35	35%
Local government	50	51%
State government	11	11%
Total	99	100%

Q1: What activities have you done in our waterways in the past 5 year period?

Survey respondents were given an opportunity to freely select as many of the twenty-six predefined activities and to volunteer any other activities they may have undertaken.

As shown in Table 2, the most commonly cited activity is walking (76% of responses), followed by parties or picnics, and bushwalking (both 67%). While a wide range of walking sites was selected, many respondents favoured the Cooks River and Botany Bay. A pattern of interest is shown for walking about waterways, including the rivers, coastline, and embayments.

Botany Bay factors highly as a nominated picnic or party facility, joined by Ewen Park, the Cooks and Georges Rivers, and Whitlam Park as preferred venues.

Bushwalking features commonly in the Botany Bay National Park, along Wollie Creek and the Cooks River, and at Kurnell.

As may be expected, and evidenced in Table 2, the most commonly cited activities relate to recreational uses of the catchment. Interestingly, however, respondents are also active in nature conservation with 57% committing to clean-up or bushcare activities at many locations throughout the catchment. Furthermore, 52% nominated educational activities as a part of their catchment activities, which range from the 'Riverlife' tours, bushfoods talks, to providing advice to family and friends.

Of the 59% of respondents who introduced visitors to the catchment, Botany Bay is the preferred choice for visitation. However, a wide range of venues across the catchment were cited for this activity.

Other activities volunteered by respondents include festivals and community events, environmental project management, defence training, Aboriginal cultural activities, research, jogging, golf, kids' activities, snorkelling, rowing, whale watching, and windsurfing.

Table 2: Catchment activities over the last 5 years

Activity	Total	% Response
Walking	75	76%
Party/Picnic	66	67%
Bushwalking	66	67%
Showing to visitors	58	59%
Bike riding	56	57%
Clean up/Bushcare	56	57%
Recreation	55	56%
Educational activities	51	52%
Boating	47	47%
Swimming	45	45%
Bird Watching	42	42%
Reflection	37	37%
Artistic (painting, photography, etc.)	32	32%
Canoeing	28	28%
Fishing	28	28%
Kayaking	18	18%
Sailing	18	18%
Diving	17	17%
Cruising	13	13%
Tourist	13	13%
Power boating	12	12%
Camping	8	8%
Jet skiing	4	4%
Aboriginal cultural activities	2	2%

Activity	Total	% Response
Snorkelling	2	2%
Water skiing	2	2%
Houseboating	2	2%
Festivals/Community events	2	2%
Windsurfing	1	1%
Cultural gathering	1	1%
Streamwatch	1	1%
Environmental Project Management	1	1%
Defence military training	1	1%
Research	1	1%
Jogging	1	1%
Rowing/sculling	1	1%
Kids Activities	1	1%
Golf	1	1%
Whale Watching	1	1%
Secondary Contact	1	1%
Total	867	

Q2: What aspect or activities are you concerned about losing from our waterways?

Water quality degradation is the greatest concern for the Bay, according to 87% of the respondents (see Table 3). This is followed by the loss of native vegetation (78%), the loss of local biodiversity (76%), the reduction of native wildlife (75%), and the impact on scenic beauty and amenity (71%). The frequencies of responses show that the ecological aspects of the Bay and its catchment are of greatest concern to the survey participants.

While the Cooks River and Botany Bay are places of concern for water quality, a wide range of catchment locations were nominated. For native vegetation and local biodiversity loss, a salient concern is the foreshore and riparian lands, some of which incorporate significant vegetation such as salt marsh and

seagrass beds. Although the majority of responses for loss of native fauna were general, the Penryn Estuary is a key site (identified in 3 responses) and the bandicoot in Wolli Creek.

The loss of recreational activities rank as a medium concern for the participants with the listing of quiet or peaceful public open space (60%), swimming (58%), and recreational fishing (35%). The loss of diving, however, was not of considerable concern with a response rate of 16%, which may also reflect the more specialised nature of this activity.

Predefined commercial activities, including tourism and professional fishing, were not a high priority for respondents (14% and 13%, respectively).

Table 3: Concerned loss of catchment aspects or activities

Aspect/Activity	Total	% Response
Water quality	86	87%
Loss of native vegetation	77	78%
Loss of local biodiversity	75	76%
Reduction of native wildlife	74	75%
Scenic beauty and amenity	70	71%
Natural balance of the environment	67	68%
Riparian vegetation	62	63%
Quiet/peaceful public open space	59	60%
Swimming	57	58%
Recreational fishing	35	35%
Diving	16	16%
Tourism industry	14	14%
Professional fishing – loss of supplies	13	13%
Natural Quality	5	5%
Aboriginal cultural regeneration sites	1	1%
Local Environment	1	1%
Walking/bushwalking	1	1%
Windsurfing	1	1%

Aspect/Activity	Total	% Response
Personal property security	1	1%
Boating	1	1%
Good behaviour	1	1%
Access	1	1%
House Boating	1	1%
Jetty	1	1%
Aboriginal cultural practices	1	1%
Amenity	1	1%
Total	722	

Q3: What do you appreciate most about the waterways?

Despite survey participants being most concerned about the ecological aspects of the catchment being compromised or lost, for this question they valued recreation the most (76% of responses). However, as outlined in Table 4, the value of the catchment’s ecology is highly valued with respondents appreciating the views (68%), peace and quiet (68%), access (65%), wildlife (63%), and its natural pristine state (53%). The high response rates for views and peace and quiet suggest respondents place a high value on the existence of the ecology. As for question 2, commercial activities are not highly valued, identified by only 7% of respondents.

Table 4: Catchment activities of value

Activity	Total	% Response
Recreational use	75	76%
Views	67	68%
Peace and quiet	67	68%
Access	64	65%
Wildlife	62	63%
Open Space	58	59%
Natural pristine state	52	53%

Activity	Total	% Response
Place to exercise	52	53%
Cleanliness	51	52%
Place for social interaction	49	49%
History	43	43%
Unique attributes	32	32%
Commercial uses	7	7%
All	1	1%
Sustaining what we have got	1	1%
Spiritual and Connectivity	1	1%
Variable environment within a waterway	1	1%
Aboriginal cultural	1	1%
Green corridors of native vegetation	1	1%
Green environment	1	1%
Improvements through rehabilitation	1	1%
Windsurfing and water sports	1	1%
Flora	1	1%
Biodiversity	1	1%
Total	690	

Q4: What do you see are the key threats to water quality in our waterways?

For this question, survey respondents could choose eighteen predefined threats and suggest others peculiar to location or the catchment as a whole. Table 5 identifies the key threats nominated according to response rate. The five most concerning threats in the catchment, according to the survey respondents, are inadequate sewerage systems or sewage overflows (75%), litter or rubbish dumping (73%), industry runoff and pollution (72%), general urban development runoff (71%), and chemical impacts (70%). Interestingly all these threats relate to urban development and related infrastructure.

While the Cooks River and the port of Botany received the greatest attention, a broad range of locations were suggested as problem sites for chemical impacts. A similar range of responses were given for the other highly-cited impacts.

Of interest are the responses relating to social and political issues. Lack of community awareness or ownership (59% of responses) is considered a greater threat than the lack of political attention (49%).

One respondent volunteered the desalination plant as a key threat. Also, flooding was nominated by one respondent. These responses are among those specified by respondents and may have received more attention if predefined in the survey.

Table 5: Key threats

Activity	Total	% Response
Inadequate sewerage systems or sewage overflow	74	75%
Litter/rubbish dumping	72	73%
Industry run-off and pollution	71	72%
Urban development runoff	70	71%
Chemical impacts	69	70%
Inappropriate foreshore development	59	60%
Lack of community awareness/ownership	58	59%
Erosion	53	54%
Industrial development	50	51%
Lack of political intervention	49	49%
Population pressures	47	47%
Over development	44	44%
Climate change (lack of rain)	39	39%
Climate change (sea level rise)	38	38%
Inappropriate boating activities	36	36%
Cycleways, walking paths next to waterways	13	13%
Impacts of Tourism	7	7%
Impacts of camping	5	5%

Feral Animals	2	2%
Weeds	2	2%
Aquatic Weeds	1	1%
Desalination Plant	1	1%
Flooding	1	1%
Inappropriate riverbank plantings	1	1%
Inappropriate use of bushland e.g. 4WDriving	1	1%
Increased anthropogenic sediment entering waterways	1	1%
Integrating water issues	1	1%
Invasion of Weeds	1	1%
Lack of biodiversity strategy	1	1%
Lack of Riparian Zone strategy	1	1%
Lack of WSUD strategy	1	1%
Link with air quality to water pollution	1	1%
Loss of natural land	1	1%
Motorbikes	1	1%
Natural land unprotected	1	1%
Pollution incidents from commercial activities	1	1%
Protection of large areas of natural lands	1	1%
Rural Activities	1	1%
Stormwater quality and quantity	1	1%
Vandals	1	1%
Weed management on private and public land	1	1%
Total	879	

Q5: How would you like to be able to use the waterways in the future?

Swimming is the most preferred future use in the catchment, rated by 77% of respondents (Table 6). When compared to the 45% of survey participants who swam in the catchment over the last 5 years (question 1), this is an important finding. Among a range of locations, the Cooks River is a place of choice for prospective swimming. However, some respondents commented that the chances of swimming recurring in this location are slim owing to water quality concerns.

Recreation is the preferred type of future activity in the catchment, as evidenced by the majority of respondents favouring recreation generally (76%), bushwalking (75%), and walking (73%), parties or picnics (67%), and cycling (62%). The respondents would like to continue to show visitors the catchment sites and vistas (69%) and participate in educational tours (59%). They would also like to pursue more bird watching (61%, compared to 42% from question 1 [Table 2]).

Table 6: Activities preferred for future use

Activity	Total	% Response
Swimming	76	77%
Recreation	75	76%
Bushwalking	74	75%
Walking	72	73%
Showing to visitors	68	69%
Party/Picnic	66	67%
Cycling	61	62%
Bird Watching	60	61%
Educational tours	58	59%
Boating	55	56%
Canoeing	49	49%
Reflection	48	48%
Eco tours	44	44%
Kayaking	43	43%
Fishing	41	41%
Sailing	34	34%
Camping	28	28%

Activity	Total	% Response
Tourist	26	26%
Diving	24	24%
Cruising	15	15%
Power boating	9	9%
Houseboating	7	7%
Commercial fishing	4	4%
Water skiing	3	3%
Education/Training	1	1%
Windsurfing	1	1%
Festivals / Art events	1	1%
Stormwater harvesting and re-use	1	1%
Water testing	1	1%
Kids Science	1	1%
Exercise	1	1%
Linking green corridors	1	1%
Secondary contact recreation	1	1%
Drink water from creeks	1	1%
Aboriginal cultural	1	1%
Fitness/Sports	1	1%
Total	1052	

Q6: What are your ideas to better manage our waterways?

Following logically from questions 2 and 5, 85% of respondents want to secure swimming and other forms of recreation as future uses in the catchment by incorporating water quality strategies and targets into local planning controls (Table 7). Furthermore, the enforcement of pollution controls (80%), the inclusion of state planning provisions for water quality strategies and targets (80%), and the imposition of stricter controls on effluent discharges (76%) are important matters for attention in order to meet the preferred future activities

in the catchment. Taken together, the survey participants recognise the importance of managing urban development in its various forms. In addition to these ideas, water sensitive urban design is considered (by 71% of respondents) an important approach to improving urban developments.

Educating the community is important (75% of respondents); given the lack of community awareness and ownership is a perceived problem (59% of respondents in Table 5). But the existing authorities need to better coordinate their activities to address the problems in the catchment, according to 74% of respondents.

Table 7: Ideas for better managing the catchment waterways

Activity	Total	% Response
Incorporate water quality strategies and targets into local planning controls	84	85%
Reasonable pollution limits enforced	79	80%
Incorporate water quality strategies and targets into state planning controls	79	80%
Stricter controls required on effluent	75	76%
Education of the general community	74	75%
Better Coordination in existing authorities	73	74%
Stricter controls required on industry	70	71%
Water Sensitive Urban Design	70	71%
Stricter controls required on development	69	70%
Increased monitoring and reporting	68	69%
Education of waterways users	67	68%
Stricter controls required on fertilisers	61	62%
Reduce acceptable nutrient load	60	61%
Better enforcement of existing controls	57	58%
Stricter controls required on clearing	55	56%
Realistic Incentives	49	49%
Indigenous involvement in waterways management	44	44%
Stricter controls required on ground water	43	43%
Single regional controlling authority	34	34%

Activity	Total	% Response
Stricter controls required on dogs	31	31%
Stricter controls required on boats	25	25%
Stricter controls required on professional fishing	23	23%
Stricter controls required on cattle	14	14%
Community involvement	2	2%
Bushcare	1	1%
Better promotion of waterways	1	1%
Modelling of scenarios for evidence of best solution	1	1%
Factoring in of flight paths	1	1%
National Clean up Campaign	1	1%
Sydney Water Corporation to better manage overflows etc	1	1%
Water quality	1	1%
More positive approach	1	1%
Joint political commitment	1	1%
Stricter controls on pollution and littering	1	1%
More action from Sydney Water	1	1%
More regular maintenance of Gross Pollutant Traps by Councils	1	1%
Riparian maintenance and management	1	1%
Management of feral species	1	1%
Rubbish dumping	1	1%
Weeds especially aquatic	1	1%
Protection of remaining natural lands from development	1	1%
Total	1323	

Appendix 1

Responses differentiated by sector and sorted in descending order of total responses

Question 1

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Walking	28	37%	38	51%	7	9%	2	3%	75
Bushwalking	27	41%	31	47%	6	9%	2	3%	66
Party/Picnic	26	39%	33	50%	7	11%		0%	66
Showing to visitors	24	41%	27	47%	5	9%	2	3%	58
Bike riding	23	41%	27	48%	4	7%	2	4%	56
Clean up/Bushcare	23	41%	28	50%	3	5%	2	4%	56
Recreation	21	38%	30	55%	4	7%		0%	55
Educational activities	15	29%	28	55%	5	10%	3	6%	51
Boating	18	38%	21	45%	6	13%	2	4%	47
Swimming	16	36%	19	42%	8	18%	2	4%	45
Bird Watching	15	36%	22	52%	5	12%		0%	42
Reflection	16	43%	17	46%	4	11%		0%	37
Artistic (painting, photography, etc.)	12	38%	17	53%	3	9%		0%	32
Canoeing	10	36%	15	54%	2	7%	1	4%	28
Fishing	13	46%	11	39%	4	14%		0%	28

BBCI Environmental Values Questionnaire Analysis

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Kayaking	5	28%	10	56%	3	17%		0%	18
Sailing	10	56%	4	22%	4	22%		0%	18
Diving	7	41%	8	47%	2	12%		0%	17
Cruising	2	15%	6	46%	3	23%	2	15%	13
Tourist	2	15%	8	62%	2	15%	1	8%	13
Power boating	4	33%	4	33%	2	17%	2	17%	12
Camping	2	25%	2	25%	2	25%	2	25%	8
Jet skiing		0%	2	50%	1	25%	1	25%	4
Golf	1	33%	1	33%	1	33%		0%	3
Aboriginal cultural activities	1	50%		0%	1	50%		0%	2
Festivals/Community events		0%	2	100%		0%		0%	2
Snorkelling	1	50%		0%	1	50%		0%	2
Water skiing		0%	1	50%	1	50%		0%	2
Cultural gathering	1	100%		0%		0%		0%	1
Defence military training		0%		0%		0%	1	100%	1
Environmental Project Management		0%	1	100%		0%		0%	1
Jogging	1	100%		0%		0%		0%	1

BBCI Environmental Values Questionnaire Analysis

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Kids Activities		0%	1	100%		0%		0%	1
Research		0%	1	100%		0%		0%	1
Rowing/sculling		0%	1	100%		0%		0%	1
Secondary Contact		0%	1	100%		0%		0%	1
Streamwatch	1	100%		0%		0%		0%	1
Whale Watching		0%	1	100%		0%		0%	1
Windsurfing		0%	1	100%		0%		0%	1
Total	325		419		96		27		867

Question 2

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Water quality	29	34%	43	50%	11	13%	3	3%	86
Loss of native vegetation	25	32%	43	56%	7	9%	2	3%	77
Loss of local biodiversity	23	31%	43	57%	7	9%	2	3%	75
Reduction of native wildlife	24	32%	38	51%	9	12%	3	4%	74
Scenic beauty and amenity	25	36%	33	47%	9	13%	3	4%	70
Natural balance of the environment	22	33%	33	49%	11	16%	1	1%	67

BBCI Environmental Values Questionnaire Analysis

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Riparian vegetation	19	31%	34	55%	7	11%	2	3%	62
Quiet/peaceful public open space	21	36%	30	51%	8	14%		0%	59
Swimming	21	37%	27	47%	9	16%		0%	57
Recreational fishing	18	51%	12	34%	4	11%	1	3%	35
Diving	8	50%	7	44%	1	6%		0%	16
Tourism industry	4	29%	7	50%	3	21%		0%	14
Professional fishing – loss of supplies	7	54%	4	31%	2	15%		0%	13
Natural Quality	2	40%	1	20%	1	20%	1	20%	5
Aboriginal cultural practices	1	100%		0%		0%		0%	1
Aboriginal cultural regeneration sites		0%		0%	1	100%		0%	1
Access		0%	1	100%		0%		0%	1
Amenity	1	100%		0%		0%		0%	1
Boating	1	100%		0%		0%		0%	1
Good behaviour	1	100%		0%		0%		0%	1
House Boating	1	100%		0%		0%		0%	1
Jetty	1	100%		0%		0%		0%	1
Local Environment	1	100%		0%		0%		0%	1
Personal property security	1	100%		0%		0%		0%	1

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Walking/bushwalking	1	100%		0%		0%		0%	1
Windsurfing		0%	1	100%		0%		0%	1
Total	257		357		90		18		722

Question 3

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Recreational use	30	40%	36	48%	6	8%	3	4%	75
Peace and quiet	24	36%	35	52%	7	10%	1	1%	67
Views	27	40%	35	52%	4	6%	1	1%	67
Access	22	34%	34	53%	6	9%	2	3%	64
Wildlife	25	40%	26	42%	9	15%	2	3%	62
Open Space	22	38%	31	53%	3	5%	2	3%	58
Natural pristine state	15	29%	29	56%	6	12%	2	4%	52
Place to exercise	22	42%	24	46%	4	8%	2	4%	52
Cleanliness	19	37%	26	51%	5	10%	1	2%	51
Place for social interaction	20	41%	24	49%	4	8%	1	2%	49
History	19	44%	20	47%	4	9%		0%	43

BBCI Environmental Values Questionnaire Analysis

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Unique attributes	12	38%	17	53%	3	9%		0%	32
Commercial uses	3	43%	4	57%		0%		0%	7
Aboriginal cultural	1	100%		0%		0%		0%	1
All	1	100%		0%		0%		0%	1
Biodiversity	1	100%		0%		0%		0%	1
Flora	1	100%		0%		0%		0%	1
Green corridors of native vegetation	1	100%		0%		0%		0%	1
Green environment	1	100%		0%		0%		0%	1
Improvements through rehabilitation	1	100%		0%		0%		0%	1
Spiritual and Connectivity	1	100%		0%		0%		0%	1
Sustaining what we have got	1	100%		0%		0%		0%	1
Variable environment within a waterway	1	100%		0%		0%		0%	1
Windsurfing and water sports	1	100%		0%		0%		0%	1
Total	271		341		61		17		690

Question 4

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Inadequate sewerage systems or sewage overflow	27	36%	38	51%	9	12%		0%	74
Litter/rubbish dumping	28	39%	39	54%	4	6%	1	1%	72
Industry run-off and pollution	26	37%	38	54%	7	10%		0%	71
Urban development runoff	24	34%	37	53%	8	11%	1	1%	70
Chemical impacts	29	42%	31	45%	7	10%	2	3%	69
Inappropriate foreshore development	24	41%	29	49%	5	8%	1	2%	59
Lack of community awareness/ownership	23	40%	28	48%	7	12%		0%	58
Erosion	16	30%	31	58%	4	8%	2	4%	53
Industrial development	20	40%	26	52%	3	6%	1	2%	50
Lack of political intervention	17	35%	26	53%	6	12%		0%	49
Population pressures	14	30%	25	53%	7	15%	1	2%	47
Over development	16	36%	21	48%	7	16%		0%	44
Climate change – (lack of rain)	13	33%	22	56%	2	5%	2	5%	39
Climate change (sea level rise)	13	34%	24	63%	1	3%		0%	38
Inappropriate boating activities	16	44%	14	39%	6	17%		0%	36
Cycleways, walking paths next to waterways	5	38%	6	46%	2	15%		0%	13

BBCI Environmental Values Questionnaire Analysis

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Impacts of Tourism	5	71%	2	29%		0%		0%	7
Impacts of camping	3	60%	2	40%		0%		0%	5
Feral Animals		0%	2	100%		0%		0%	2
Weeds		0%	1	50%	1	50%		0%	2
Aquatic Weeds		0%	1	100%		0%		0%	1
Desalination Plant	1	100%		0%		0%		0%	1
Flooding		0%	1	100%		0%		0%	1
Inappropriate riverbank plantings	1	100%		0%		0%		0%	1
Inappropriate use of bushland eg 4WDDriving	1	100%		0%		0%		0%	1
Increased anthropogenic sediment entering waterways		0%	1	100%		0%		0%	1
Integrating water issues	1	100%		0%		0%		0%	1
Invasion of Weeds	1	100%		0%		0%		0%	1
Lack of biodiversity strategy		0%	1	100%		0%		0%	1
Lack of Riparian Zone strategy		0%	1	100%		0%		0%	1
Lack of WSUD strategy		0%	1	100%		0%		0%	1
Link with air quality to water pollution		0%	1	100%		0%		0%	1
Loss of natural land		0%	1	100%		0%		0%	1
Motorbikes	1	100%		0%		0%		0%	1

BBCI Environmental Values Questionnaire Analysis

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Natural land unprotected		0%		0%	1	100%		0%	1
Pollution incidence from commercial activities		0%	1	100%		0%		0%	1
Protection of larges areas of natural lands	1	100%		0%		0%		0%	1
Rural Activities		0%	1	100%		0%		0%	1
Stormwater quality and quantity		0%	1	100%		0%		0%	1
Vandals	1	100%		0%		0%		0%	1
Weed Management on private and public land		0%	1	100%		0%		0%	1
Total	327		454		87		11		879

Question 5

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Swimming	28	37%	36	47%	10	13%	2	3%	76
Recreation	27	36%	37	49%	8	11%	3	4%	75
Bushwalking	25	34%	36	49%	10	14%	3	4%	74
Walking	27	38%	37	51%	6	8%	2	3%	72
Showing to visitors	25	37%	32	47%	8	12%	3	4%	68
Party/Picnic	23	35%	33	50%	9	14%	1	2%	66

BBCI Environmental Values Questionnaire Analysis

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Cycling	24	39%	33	54%	4	7%		0%	61
Bird Watching	21	35%	31	52%	7	12%	1	2%	60
Educational tours	19	33%	31	53%	6	10%	2	3%	58
Boating	20	36%	24	44%	8	15%	3	5%	55
Canoeing	15	31%	29	59%	4	8%	1	2%	49
Reflection	20	42%	20	42%	7	15%	1	2%	48
Eco tours	15	34%	25	57%	4	9%		0%	44
Kayaking	12	28%	23	53%	7	16%	1	2%	43
Fishing	18	44%	19	46%	3	7%	1	2%	41
Sailing	14	41%	12	35%	7	21%	1	3%	34
Camping	8	29%	10	36%	7	25%	3	11%	28
Tourist	6	23%	16	62%	3	12%	1	4%	26
Diving	10	42%	10	42%	3	13%	1	4%	24
Cruising	5	33%	6	40%	3	20%	1	7%	15
Power boating	3	33%	3	33%	1	11%	2	22%	9
Houseboating	2	29%	3	43%	2	29%		0%	7
Commercial fishing	3	75%		0%	1	25%		0%	4
Water skiing	1	33%	1	33%	1	33%		0%	3
Aboriginal cultural		0%		0%	1	100%		0%	1

BBCI Environmental Values Questionnaire Analysis

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Drink water from creeks		0%	1	100%		0%		0%	1
Education/Training		0%		0%		0%	1	100%	1
Exercise		0%	1	100%		0%		0%	1
Festivals / Art events		0%		0%	1	100%		0%	1
Fitness/Sports		0%	1	100%		0%		0%	1
Kids Science		0%	1	100%		0%		0%	1
Linking green corridors		0%	1	100%		0%		0%	1
Secondary contact recreation		0%	1	100%		0%		0%	1
Stormwater harvesting and re-use		0%	1	100%		0%		0%	1
Water testing	1	100%		0%		0%		0%	1
Windsurfing		0%	1	100%		0%		0%	1
Total	372	35%	515	49%	131	12%	34	3%	1052

Question 6

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Incorporate water quality strategies and targets into local planning controls	29	35%	43	51%	9	11%	3	4%	84
Incorporate water quality strategies and targets into state planning controls	27	34%	40	51%	9	11%	3	4%	79
Reasonable pollution limits enforced	30	38%	36	46%	10	13%	3	4%	79
Stricter controls required on effluent	28	37%	33	44%	11	15%	3	4%	75
Education of the general community	24	32%	40	54%	8	11%	2	3%	74
Better Coordination in existing authorities	29	40%	34	47%	7	10%	3	4%	73
Stricter controls required on industry	26	37%	34	49%	7	10%	3	4%	70
Water Sensitive Urban Design	22	31%	40	57%	6	9%	2	3%	70
Stricter controls required on development	26	38%	33	48%	7	10%	3	4%	69
Increased monitoring and reporting	27	40%	33	49%	7	10%	1	1%	68
Education of waterways users	26	39%	32	48%	7	10%	2	3%	67
Stricter controls required on fertilisers	23	38%	29	48%	7	11%	2	3%	61
Reduce acceptable nutrient load	22	37%	32	53%	5	8%	1	2%	60

BBCI Environmental Values Questionnaire Analysis

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Better enforcement of existing controls	22	39%	28	49%	6	11%	1	2%	57
Stricter controls required on clearing	23	42%	24	44%	7	13%	1	2%	55
Realistic Incentives	18	37%	25	51%	4	8%	2	4%	49
Indigenous involvement in waterways management	20	45%	18	41%	6	14%		0%	44
Stricter controls required on ground water	21	49%	17	40%	4	9%	1	2%	43
Single regional controlling authority	11	32%	18	53%	4	12%	1	3%	34
Stricter controls required on dogs	16	52%	13	42%	1	3%	1	3%	31
Stricter controls required on boats	10	38%	12	46%	3	12%	1	4%	26
Stricter controls required on professional fishing	11	48%	11	48%		0%	1	4%	23
Stricter controls required on cattle	7	54%	5	38%	1	8%		0%	13
Community involvement	1	50%	1	50%		0%		0%	2
Better promotion of waterways		0%		0%	1	100%		0%	1
Bushcare		0%		0%	1	100%		0%	1
Factoring in of flight paths	1	100%		0%		0%		0%	1
Joint political commitment		0%	1	100%		0%		0%	1
Management of feral species		0%	1	100%		0%		0%	1

BCCI Environmental Values Questionnaire Analysis

Activity	Community	% Community	Local Gov't	% Local Gov't	State Gov't	% State Gov't	Commonwealth Gov't	% Commonwealth Gov't	Total
Modelling of scenarios for evidence of best solution		0%	1	100%		0%		0%	1
More action from Sydney Water		0%	1	100%		0%		0%	1
More positive approach		0%	1	100%		0%		0%	1
More regular maintenance of GPTS by Council		0%	1	100%		0%		0%	1
National Clean up Campaign	1	100%		0%		0%		0%	1
Needs especially aquatic		0%	1	100%		0%		0%	1
Protection of remaining natural lands from development		0%	1	100%		0%		0%	1
Riparian maintenance and management		0%	1	100%		0%		0%	1
Rubbish dumping	1	100%		0%		0%		0%	1
Stricter controls on pollution and littering	1	100%		0%		0%		0%	1
Sydney Water Corporation to better manage overflows etc		0%	1	100%		0%		0%	1
Water Quality	1	100%		0%		0%		0%	1
Total	504	38%	641	48%	138	10%	40	3%	1323

