

MAINSTREAMING INTEGRATED WATER CYCLE MANAGEMENT

(The “HCCREMS Urban Water Program”)

2006 – 2008

FINAL BENCHMARK SURVEY REPORT



HCCREMS

June 2008

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Survey Design & Distribution

To conclude the Integrated Water Cycle Management Program (the “HCCREMS Urban Water Program”), a Final Benchmark Survey was conducted in May to evaluate the implementation of WSUD/IWCM over the two year period of the program. Questions were included to evaluate the causal factors underlying that progress, and the perceived issues and barriers for future implementation. The survey was conducted using the free on-line survey tool, “Survey Monkey” (www.surveymonkey.com), however paid membership was taken out for the month of May (\$20/mth) to enable the survey’s findings to be downloaded in full.

An undertaking was made to participants that individual results would remain confidential and reported only at an aggregated level by council, or functional area across all councils in the HCCREMS Region, and that the *Final Benchmark Survey Report* (this report) would be a public report made available to them. In fact, given the relatively low numbers of (invitees and) respondents per organisation, no council level analysis was attempted.

The survey was emailed to 134 people in the 14 councils, water authorities and local water utilities, being those staff who were involved in the initial series of consultation discussions in mid 2006 and/or have been core contacts in liaising with their respective councils or organisations since then. Of the 86 staff initially surveyed, 11 (13%) have since left those organisations. And of the 56 responses, 35 people (26% of the 134 invited to participate) provided answers to more than just the first two questions which simply identified their organisation and functional work area. Such “effective” responses were received from staff in all three water authorities¹, and all but two of the 14 councils.

To maximise the likelihood of respondents completing the entire survey, questions were kept to a minimum. Multiple choice questions were used for five questions to allow quantitative analysis of the results, whilst open questions were used for those questions where the respondent’s answers were unlikely to be captured by a rigid set of options. The following 10 questions were asked:

1. Please nominate your organisation (results will only be analysed at council level, or by functional area across ALL councils)
2. Please indicate which best describes your role: Planning / strategy; Development Assessment /subdivision control; Design and engineering; Environment / NRM; Water supply and sewerage; Other
3. Over the past 2 years, what ADVANCES has your organisation made to help deliver WSUD/IWCM? (please tick one on each row):
 - Organisational commitment
 - Policies and mission statements
 - Technical skills
 - Supporting technical resources
 - Internal liaison & support
 - External liaison & cooperation
 - Awareness of drivers (e.g. environmental condition, costs)
4. What FACTORS were instrumental in achieving the above changes? (tick one or more on each row):
 - Organisational commitment
 - Policies and mission statements
 - Staff technical skills
 - Supporting technical resources / tools
 - Internal liaison & support
 - External liaison & cooperation
 - Awareness of drivers (e.g. environmental condition, costs)
5. Over the past 2 years, how much has your organisation improved DELIVERY of WSUD/IWCM in the following areas? (please tick one on each row)
 - Strategic planning
 - Sub-division assessment
 - DA assessment & certification
 - Stormwater management
 - Water supply & sewerage
 - Environmental protection

¹ Including the Gosford-Wyong Councils’ Water Authority, although it is not technically an authority



- Urban amenity & biodiversity
6. Please suggest 1 to 3 priority ACTIONS / FOCUS AREAS that would improve the adoption of WSUD/IWCM in your organisation.
 7. Has the HCCREMS Urban Water Program been useful to your organisation? Please provide details for any of the following:
 - Awareness building
 - Urgency/commitment
 - Planning provisions
 - Technical information
 - Technical information
 - Other?
 8. What was the best thing about the HCCREMS Urban Water Program?
 9. How could we improve?
 10. Would you be prepared to participate in a 10 minute phone survey to help us plan a major upgrade to the www.urbanwater.info website?

Question 10 was “piggy backed” into the survey opportunistically, as specific feedback on the website upgrade was required at the same time. Consequently, the results of that question do not contribute to the final benchmark report.

Results & Discussion

As indicated above, whilst Question 1 sought the respondent’s organisation, the survey sample size makes it inappropriate to attempt any detailed analysis of the results by organisation. “Effective response” is defined as those who answered more than the first two questions.

Question 1:						Questions 1 to 9								
Please nominate your organisation (results will only be analysed at council level, or by functional area across ALL councils)						Nil response to question								
Answer Options	Response Percent	Response Count	Effective Response	Invited	Response (%)	1	2	3	4	5	6	7	8	9
Cessnock	3.6%	2	0	8	0			2	2	2	2	2	2	2
Dungog	7.1%	4	2	3	67			2	2	2	2	4	3	4
Gosford	5.4%	3	2	7	29			1	1	1	2	2	2	2
Gosford-Wyong Water Authority	1.8%	1	1	3	33						1			1
Gloucester	1.8%	1	1	3	33							1	1	1
Greater Taree	5.4%	3	2	5	40			1	1	1	2	2	2	2
Great Lakes	10.7%	6	4	10	40			2	2	2	2	2	2	4
Hunter Water	1.8%	1	1	4	25									
Lake Macquarie (includes Office of LMCC)	7.1%	4	2	14	14			2	2	2	2	2	2	3
Maitland	5.4%	3	1	12	8			2	2	2	3	2	2	3
MidCoast Water	3.6%	2	1	3	33			1	1	1	1	1	1	1
Muswellbrook	1.8%	1	1	10	10			1	1	1		1	1	1
Newcastle	10.7%	6	6	9	67				1			1	2	4
Port Stephens	8.9%	5	2	10	20			3	3	3	5	4	4	4
Singleton	7.1%	4	3	8	38			1	1	1	3	3	3	3
Upper Hunter	3.6%	2	0	6	0			2	2	2	2	2	2	2
Wyong	10.7%	6	5	14	36			1	1	1	1	1	2	2
Other / Prefer not to say (includes HCR-CMA)	3.6%	2	1	5	20				1	1	1	1	1	1
Total:			35	134										
Response (%):			26		28	average								

Respondents indicated their functional work area against Question 2 (see table below). Similar numbers of respondents were located in “planning/strategy” (29%) and “Environment/NRM” (27%), with fewer from the other three areas nominated. The “other” category is comprised council staff in the areas of education, assets, works, development engineering, and of non-council staff, i.e. Hunter Central Rivers Catchment Management Authority (HCR-CMA).



2. Please indicate which best describes your role:		
Answer Options	Response Percent	Response Count
Planning / strategy	28.6%	16
Development Assessment /subdivision control	10.7%	6
Design and engineering	16.1%	9
Environment / NRM	26.8%	15
Water supply and sewerage	7.1%	4
Other	10.7%	6
	Other (please specify)	8
answered question		56

In relation to advances in IWCM over the past two years, about half the respondents considered that “substantial” progress had been made in implementing IWCM, both with respect to the seven organisational factors listed in Question 3, and in terms of outcomes in each of the seven major functional areas listed in Question 5.

Responding to question 3, just over half the respondents considered that not a lot of progress had been made by their organisations, however, the other half felt that substantial progress had been made in theirs. For five of the seven factors at least one person reported a sea change in attitudes.

3. Over the past 2 years, what ADVANCES has your organisation made to help deliver WSUD/IWCM? (please tick one on each row)					
Answer Options	None	Minimal	Substantial	Sea change!	Response Count
Organisational commitment	2	13	19	1	35
%	6	37	54	3	
Policies and mission statements	5	15	15	1	35
%	14	43	43	3	
Technical skills	0	19	16	0	35
%	0	54	46	0	
Supporting technical resources	2	16	17	0	35
%	6	46	49	0	
Internal liaison & support	2	16	16	1	35
%	6	46	46	3	
External liaison & cooperation	0	18	16	1	35
%	0	51	46	3	
Awareness of drivers (e.g environmental condition,	0	12	22	1	35
%	0	34	63	3	
Care to elaborate on any of the above?					12

The organisational factors considered to have advanced the most, were “organisation commitment”, “policies and mission statements”, “supporting technical resources” and “awareness of drivers”. The most commonly cited factors in achieving these changes (Question 4) was “own champions”, followed by the “HCCREMS Urban Water Program”. Those elaborating on the standard answers indicated that in some cases, funding, such as the Great Lakes Coastal Catchments Initiative, was a significant factor. Other councils cited the development of council strategic plans with a high level of community engagement provided the impetus to their sustainable water management initiatives.

4. What FACTORS were instrumental in achieving the above changes? (tick one or more on each row)								
Answer Options	Own champion(s)	Mandatory State/Federal provisions	Model planning provisions/guidelines	New technical guidelines/resources	HCCREMS Urban Water Program	Awareness of drivers	Inexplicable revolution!	Response Count
Organisational commitment	13	8	8	6	11	11	0	32
%	41	25	25	19	34	34	0	
Policies and mission statements	15	8	8	9	5	7	1	30
%	50	27	27	30	17	23	3	
Staff technical skills	13	3	4	12	15	10	0	32
%	41	9	13	38	47	31	0	
Supporting technical resources / tools	10	3	5	13	14	5	0	31
%	32	10	16	42	45	16	0	
Internal liaison & support	16	3	4	7	8	7	0	31
%	52	10	13	23	26	23	0	
External liaison & cooperation	9	3	5	9	18	6	0	31
%	29	10	16	29	58	19	0	
Awareness of drivers (e.g environmental condition, costs)	15	5	4	10	10	10	0	31
%	48	16	13	32	32	32	0	
Care to elaborate on any of the above?								10



The results from Question 5 (see table below) indicate a disparate level of implementation across the main functional areas of councils. About half reported substantial changes for four of the seven factors, with the other half indicating “none” or “minimal” change. Most considered that “substantial” progress had been made in “strategic planning”, “sub-division assessment”, “stormwater management” and “environmental protection”. Indeed, two people considered that a sea change had occurred (i.e. revolutionary positive change) in the approach to “strategic planning”, and one respondent gave the same score for “environmental protection”.

5. Over the past 2 years, how much has your organisation improved DELIVERY of WSUD/IWCM in the following areas? (please tick one on each row)					
Answer Options	None	Minimal	Substantial	Sea change!	Response Count
Strategic planning	4	8	20	2	34
%	12	24	59	6	
Sub-division assessment	2	15	16	0	33
%	6	45	48	0	
DA assessment & certification	2	21	10	0	33
%	6	64	30	0	
Stormwater management	1	15	17	0	33
%	3	45	52	0	
Water supply & sewerage	11	10	8	0	29
%	38	34	28	0	
Environmental protection	1	14	18	1	34
%	3	41	53	3	
Urban amenity & biodiversity	1	18	14	0	33
%	3	55	42	0	
Care to elaborate on any of the above?					6

Least change was reported in the area of “water supply and sewerage”, where 38% of respondents felt that there had been no change, and 73% reported either “none” or “minimal” change. No other area was nearly so poorly rated, with “strategic planning”, the next worse, only reporting 12% no change. However, the majority of respondents recorded only a marginally better rating of “minimal” change in the delivery of both “DA assessment and certification” and “urban amenity and biodiversity”. Clearly there is considerable inertia in this area, most probably due to a complex combination of factors including compatibility with existing infrastructure, financial resources, staff awareness and technical capacity, established industry best practice and standards, organisation commitment to major change, and insufficient planning or regulatory support from State government.

In nominating focus areas and actions to act on in future (Question 6), respondents were able to provide open answers. The most frequent suggestions included:

- awareness building programs for councillor and senior management, to raise organisational commitment
- training to increase awareness and understanding of WSUD provisions by council development assessors and private certifiers
- implementation of a existing local government WSUD policies
- development of common WSUD planning standards across HCCREMS member councils, including deemed to comply provisions
- mandatory WSUD provisions for all developments involving additional impervious surfaces, such as via a new SEPP, and better integration of WSUD requirements into statutory planning provisions
- documentation of key WSUD demonstration sites
- improved knowledge of (design, construction and operation) issues relating to life-cycle-costs and maintenance
- greater levels of local government financial and staff resources

Question 7 asked respondents to briefly state how the HCCREMS Urban Water Program has been useful to their organisations in terms of the five areas listed (see p3 above). Under “Awareness building”, responses ranged from “somewhat” to “sensational”, with some suggesting that the higher levels of management in their organisations need more focus. Responses against “Urgency/commitment” indicated a relatively low level of impact for many respondents, with some leaving this section blank or indicating “not really”. The program’s support in relation to “Planning provisions” was specifically cited as assisting the development of council WSUD provisions by a number of respondents. Responses to the “technical information” area varied, with some

indicating “not much”, whereas others indicated that both the program workshops and HCCREMS’s website(s) (www.hccrems.com.au/water and www.urbanwater.info) had kept them up to date. “*Inter-agency liaison*” responses included, “Very helpful and motivating”, “Great opportunities to meet, build relationships, and assist each other”, as well as “limited impact”. Overall however, the responses to this area were very positive, indicating that this was an area that was a critical aspect of the program, perhaps with few alternative mechanisms. “*Other*” suggestions include the development of a consistent stormwater management code for the lower Hunter and the need to gain their organisations’ commitment to staff attendance at the program’s events.

Responses to Question 8, regarding what the single best thing was about the program, can be summarised as:

- a reliable information on contemporary best practice water management
- regional networking; inter-council and inter-agency communication and sharing of ideas
- becoming motivated and learning from others through positive practical examples
- a forum for coordinated consideration of planning provisions at a regional or sub-regional level
- active research and regional interpretation of technical and planning issues
- comprehensive workshop program using excellent presenters respected in their fields
- meeting champions in the field, and having these champions share their knowledge
- development of a common understanding across professional disciplines and organisation functional areas, through attendance at the capacity building events
- awareness of current WSUD projects and developments

Suggested ways in which the program could be improved (Question 9) elicited the following responses:

- reach out to senior management and councillors to improve the level of organisational commitment
- continue frequent low-cost workshops
- secure higher levels of funding through regional partnerships, including with regional councils
- develop regional technical guidelines, specifications, maintenance plans, strategies and staff training resources
- develop a higher profile and level of strategic and technical support, and increase collaboration with councils to develop regional resources and regionally consistent provisions
- develop a uniform regional approach to WSUD/IWCM, supported by each council’s senior management and by inter-council MOUs
- re-run the inter-council IWCM project challenge
- develop a framework to prioritise catchments for IWCM implementation
- recruit engineering staff with IWCM expertise and a commitment to its implementation
- develop specific tools to assist council staff implement planning, development assessment or technical design
- develop an online resource list, hyperlinked to key technical, planning and organisation change resources
- develop pre-packaged capacity building material for council staff to use in delivering WSUD education and capacity building programs to council staff
- develop WSUD “myth buster” information to counter entrenched views by council staff or the community
- promote mandatory “licensing” of WSUD devices on private land to ensure that a minimum level of maintenance compliance is achieved and introduce penalties for removing or interfering with them

- develop training programs for sediment and erosion control, and associated council compliance measures and State government regulatory provisions – implement and/or provide training packages to councils for internally delivered training

Conclusions & Recommendations

In terms of the direction and focus of future IWCM/ WSUD capacity building programs, a number of major themes emerged. There was strong support for similar activities to those conducted over the past two years under the *Mainstreaming Integrated Water Management Program*, but with particular attention to supporting higher levels of executive buy-in and leadership, intra-regional experience sharing and collaboration, and the development of regionally standardised technical guidelines/specifications and planning provisions.

A recurring theme was that awareness programs need to be focused more towards senior management and councillors, to engender a greater level of organisational commitment to IWCM and their staff's related activities. With greater high level awareness and commitment would come more appropriate allocations of staff and financial resources.

However, as councils would always be hamstrung by limited staff and financial resources, some respondents requested that HCCREMS provide greater support in sourcing external funds. And to gain more from existing resources, they would appreciate a higher level of strategic support and utilisation of regional collaboration with councils, to develop regionally consistent products and outcomes, with examples cited in the areas of planning, technical design and assessment, and training /awareness building. This would save "reinventing the wheel", providing practical "how to" guidance for other councils to follow best practice examples implemented in the region, thereby improving the dissemination of good products and approaches between councils.

Although the HCCREMS Urban Water Program has concluded, ongoing support for IWCM will, in part, be provided via the "water sustainability theme" of the recently commenced three year *Sustainability Education and Compliance Program*. This does not preclude the submission of funding applications for ancillary or complementary activities that may not be a priority under the above program. Accordingly, it is recommended that:

1. As much of the above indicated needs be addressed via the support that can be provided under the *Sustainability Education and Compliance Program*. Priority focus areas identified from this Final Benchmark Survey include:
 - a. Awareness building programs for councillor and senior management, to raise organisational commitment
 - b. Training to increase awareness and understanding of WSUD provisions by council development assessors and private certifiers to improve the implementation of existing and new local government WSUD policies
 - c. Development of common WSUD planning standards across HCCREMS member councils, including WSUD deemed to comply provisions and complying development code – supported by each council's formal commitment and inter-council MOUs
 - d. Lobbying of State government to introduced mandatory WSUD provisions for all developments involving additional impervious surfaces, such as via a new SEPP, and better integration of WSUD requirements into statutory planning provisions
 - e. Support for the continued documentation of key WSUD demonstration sites (via the www.urbanwatersites.info website)
 - f. Improved knowledge of (design, construction and operation) issues relating to life-cycle-costs and maintenance
 - g. Lobbying and funding submissions to acquire greater levels of local government financial and staff resources to implement IWCM
 - h. Development of regional tools to assist council staff conduct strategic planning, catchment prioritisation, development assessment, technical design and/or operations and maintenance



- i. Revision of the www.urbanwater.info website to include a regionally relevant online resource list, hyperlinked to key technical, planning and organisation change resources
 - j. Development of pre-packaged capacity building material for council staff to use in delivering WSUD education and capacity building programs to council staff, including WSUD “myth buster” information to counter entrenched views by council staff or the community
2. Additional funding submissions be considered for any areas identified by the survey respondents not addressed in the *Sustainability Education and Compliance Program*, or as may be identified by councils from time to time as being of strategic regional or sub-regional benefit.
3. Councils be advised of the IWCM related activities proposed to be under the *Sustainability Education and Compliance Program*, highlighting the proposed working groups to be set up to help identify priorities and focus areas for each sustainability theme, including water, as well as the anticipated high-level direction provided by the HCCREMS (Environmental) Directors Forum (established in March 2008).