

David McCarthy

11th July 1981

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Qualifications

Doctor of Philosophy – 2009 – “Modelling microorganisms in Urban Stormwater”

Monash University

Bachelor of Engineering (hons) – 2005 – major in Civil Engineering (water)

Monash University

Bachelor of Science – 2004 – major in mathematics and physics

Monash University

Academic Career

Senior Lecturer – 2013 - present.

Civil Engineering Department, Monash University

Lecturer – 2010 - 2012.

Civil Engineering Department, Monash University

Research fellow – 2008 - 2009.

Civil Engineering Department, Monash University.

Postgraduate student – 2005 - 2008.

Civil Engineering Department, Monash University.

Summary of research income and output

Graduating from his PhD in just **2009**, David now has:

Research Output Highlights	22 peer-reviewed journal papers (more accepted and in-press)
	Over 76 citations
	h-index of 8 (Scopus – 10/05/2013)
	35 <i>peer-reviewed</i> conference papers
	1 Book (+ 1 in press)
	11 HDR Students currently (3 completing this year)
	2 HDR students completed in 2012-2013
2 Patents Pending	
Research Income Highlights	CI in over \$7million of successful research projects
	‘\$ per Investigator’ average of \$580k/yr for 2011-2012
	Lead CI in ARC Linage Grant (\$881k, 2012-2015)
	Lead CI in Smart Water Fund Grant (\$250k, 2008-2012)
	Lead CI in CRC for Water Sensitive Cities Project C1 (\$616k, 2014-2016)
	Lead CI in over \$700k from various industry partners (2007-2012)
Already Secured funding for the future (\$/investigator of \$270/yr for 2013-2016)	

Research output

Books

1. Wong, T.H.F. & **McCarthy, D.T.** (editors) Proceedings of the 7th International Conference on Water Sensitive Urban Design, Monash University and Engineers Australia, Melbourne, Australia. Conference held in Melbourne on February 21-23, 2012. ISBN 9780858258952

Refereed Journal Papers (accepted, pressed or in press)

2. Dotto, C.B.S., Deletic, A., **McCarthy, D.T.** (accepted), Urban drainage uncertainty analysis: should we break our back for normally distributed residuals? *Water Science and Technology*, accepted with minor revisions 28th February 2013.
3. *Chandrasena, G.I., Deletic, A., **McCarthy, D.T.** (in press), Evaluating *Escherichia coli* removal performance in stormwater biofilters: A preliminary modelling approach. *Water Science and Technology*, accepted 20th February 2013.
4. ***McCarthy D.T.**, A. Deletic, V.G. Mitchell and C. Diaper (2013), Predicting Between-Event Variability of *Escherichia coli* in Urban Storm Water. *Journal of Environmental Engineering - ASCE*, 139 (5). Accepted 27th October, 2012.
[Impact Factor = 1.312, Rank 24/118 in Civil Engineering, Not Cited]
5. *Yong F, **McCarthy, D.T.**, Deletic, A. (2013) Predicting physical clogging of porous and permeable pavements. *Journal of Hydrology*, 481, 48-55.
[Impact Factor = 2.656, Rank 4/78 in Water Resources, Not Cited]
6. ***McCarthy, D.T.**, Hathaway, J.M., Hunt, W.F. & Deletic, A. (2012) Intra-event variability of *E. coli* and total suspended solids in urban stormwater runoff. *Water Research*, 46 (20), 6661-6670.
[Impact Factor = 4.865, Rank 1/78 in Water Resources, Not Cited]
7. *Li, Y.L., Deletic, A., Alcazar, L., Bratieres, K., Fletcher, T.D., **McCarthy, D.T.** (2012) Removal of *Clostridium perfringens*, *Escherichia coli* and F-RNA coliphages by stormwater biofilters. *Ecological Engineering*, 69, 137-145.
[Impact Factor = 3.016, Rank 9/45 in Environmental Engineering, Not Cited]
8. *Guest, R.M., Schang, C., Deletic, A. & **McCarthy, D.T.** (2012) Zinc-sulphate-heptahydrate coated activated carbon for microbe removal from stormwater. *Water Science and Technology*, 66 (7), 1582-1589.
[Impact Factor 1.122, Rank 38/78 in Water Resources, Not Cited]
9. *Chandrasena, K.K.G.I., Deletic, A., Ellerton, J. & **McCarthy, D.T.** (2012) Evaluating *Escherichia coli* removal performance in stormwater biofilters: A laboratory-scale study. *Water Science and Technology*, 66 (5), 1132-1138.
[Impact Factor 1.122, Rank 38/78 in Water Resources, Not Cited]
10. *Bratieres, K., Schang, C., Deletic, A. & **McCarthy, D.T.** (2012) Performance of enviss™ stormwater filters: results of a laboratory trial. *Water Science and Technology*, 66 (4), 719-727.
[Impact Factor 1.122, Rank 38/78 in Water Resources, Not Cited]
11. Dotto CBS, Mannina G, Kleidorfer M, Vezaro L, Henrichs M, **McCarthy, D.T.**, Freni G, Rauch W, Deletic A (2012) Comparison of different uncertainty techniques in urban stormwater quantity and quality modelling. *Water Research*, 46 (8) 2545-2548.
[Impact Factor = 4.865, Rank 1/78 in Water Resources, Cited 1 time]

12. *Feng, W., Hatt, B.E., **McCarthy, D.T.**, Fletcher, T.D. and Deletic, A. (2012) Biofilters for stormwater harvesting: understanding the treatment performance of key metals that pose a risk for water use. *Environmental Science & Technology*, 46 (9) 5100-5108.
[Impact Factor = 5.228, Rank 3/45 Environmental Engineering, Not Cited]
13. Deletic A., Dotto, C.B.S., **McCarthy, D.T.**, Kleidorfer, M., Freni, G., Mannina, G., Uhl, M., Henrichs, M., Fletcher, T.D., Rauch, W., Bertrand-Krajewski, J.L., Tait, S. (2012) Assessing Uncertainties in Urban Drainage Models. *Physics and Chemistry of the Earth*, 42-44, 3-10.
[Impact Factor = 1.110, Rank 39/78 in Water Resources, Cited 1 time]
14. ***McCarthy, D.T.**, Deletic, A., Mitchel, V.G., Diaper, C. (2011) Development and testing of a model for Micro-Organism Prediction in Urban Stormwater (MOPUS), *Journal of Hydrology*, 409 (1-2), 236-247.
[Impact Factor = 2.656, Rank 4/78 in Water Resources, Not Cited]
15. Dotto C.B.S., Kleidorfer, M., Deletic, A., Rauch, W., **McCarthy, D.T.** and Fletcher, T.D. (2011) A Bayesian approach for performance evaluation of stormwater models based on long-term high-resolution measurement data, *Environmental Modelling and Software*, 26 (10), 1225-1239.
[Impact Factor = 3.114, Rank 8/45 Environmental Engineering, Cited 11 times]
16. Dotto C.B.S., Deletic, A., Fletcher, T.D., **McCarthy, D.T.** (2011) Calibration and sensitivity analysis of urban drainage models: MUSIC rainfall/runoff module and a simple stormwater quality model, *Australian Journal of Water Resources*, 15 (1), 85-93.
17. **McCarthy, D.T.**, Deletic, A., Mitchell, V.G. & Diaper, C. (2010) Sensitivity analysis of an urban stormwater microorganism model. *Water Science and Technology*, 62 (6), 1393-1400.
[Impact Factor 1.122, Rank 38/78 in Water Resources, Cited 2 times]
18. Dotto, C.B.S., Kleidorfer, M., Deletic, A., Fletcher, T. D., **McCarthy, D.T.**, & Rauch, W. (2010). Stormwater quality models: performance and sensitivity analysis. *Water Science and Technology*, 62(4), 837-843.
[Impact Factor 1.122, Rank 38/78 in Water Resources, Cited 13 times]
19. *Bach, P.M., **McCarthy, D.T.** & Deletic, A. (2010). Redefining the Stormwater First Flush Phenomenon. *Water Research*, 44, 2487-2498.
[Impact Factor = 4.865, Rank 1/78 in Water Resources, Cited 8 times]
20. *Bach, P.M., **McCarthy, D.T.** & Deletic, A. (2010). The development of a novel approach for assessment of the first flush in urban stormwater discharges. *Water Science and Technology Journal*, 61 (1), 2681-2688.
[Impact Factor 1.122, Rank 38/78 in Water Resources, Cited 2 times]
21. ***McCarthy, D.T.** (2009) The first flush of E. coli in urban stormwater runoff. *Water Science and Technology*, 60 (11), 2749-2757.
[Impact Factor 1.122, Rank 38/78 in Water Resources, Cited 11 times]
22. Mitchell, V.G., **McCarthy, D.T.**, Deletic, A. & Fletcher, T.D. (2008) Urban stormwater harvesting – sensitivity of a storage behaviour model. *Environmental Modelling and Software*, 23 (6), 782-793.
[Impact Factor = 3.114, Rank 8/45 Environmental Engineering, Cited 16 times]

23. ***McCarthy, D.T.**, Deletic, A., Mitchell, V.G., Fletcher, T.D. & Diaper, C. (2008) Uncertainties in stormwater E. coli levels. *Water Research*, 42 (6-7), 1812-1824.
[Impact Factor = 4.865, Rank 1/78 in Water Resources, Cited 29 times]
24. ***McCarthy, D.T.**, Mitchell, V.G., Deletic, A. & Diaper, C. (2007) Escherichia coli in urban stormwater: explaining their variability. *Water Science and Technology*, 56 (11), 27-34.
[Impact Factor 1.122, Rank 38/78 in Water Resources, Cited 18 times]
25. *Mitchell, V.G., Deletic, A., Fletcher, T.D., Hatt, B.E. & **McCarthy, D.T.** (2007) Achieving multiple benefits from stormwater harvesting. *Water Science and Technology*, 55 (4), 135-144.
[Impact Factor 1.122, Rank 38/78 in Water Resources, Cited 13 times]

Refereed Conference Papers

26. Mitchell, V.G., **McCarthy, D.T.**, Fletcher, T.D. & Deletic, A. (2005) Optimising storage capacity for stormwater utilisation. In Proceedings of the 10th International Conference on Urban Drainage, August, 2005, Copenhagen, Denmark.
27. ***McCarthy, D.T.**, Mitchell, V.G., Deletic, A. & Diaper, C. (2006) Escherichia coli Levels in Urban Stormwater. In Proceedings of the 7th International Conference on Urban Drainage Modelling and the 4th Water Sensitive Urban Design Conference, April 2006, Melbourne, Australia.
28. *Mitchell, V.G., Deletic, A., Fletcher, T.D., Hatt, B.E., **McCarthy, D.T.** (2006). Achieving Multiple Benefits from Stormwater Harvesting. In Proceedings of the 7th International Conference on Urban Drainage Modelling and the 4th Water Sensitive Urban Design Conference, April 2006, Melbourne, Australia.
29. ***McCarthy, D.T.**, Mitchell, V.G., Deletic, A. & Diaper, C. (2007) Urban stormwater Escherichia coli levels: factors that influence them. In Novatech Conference Proceedings, June 2007, Lyon, France.
30. ***McCarthy, D.T.**, Mitchell, V. G., Deletic, A., Diaper, C. (2007) Microbial source tracking in urban stormwater. In 14th International Symposium on Health-Related Water Microbiology Conference Proceedings, September 2007, Tokyo, Japan.
31. **McCarthy, D.T.**, Mitchell, V. G., Deletic, A., Diaper, C. (2008) Development and testing of an urban stormwater microorganism indicator model. In Proceedings of the 11th International Conference on Urban Drainage, September, 2008, Edinburgh, UK.
32. ***McCarthy, D.T.** (2008) A traditional first flush assessment of E. coli in urban stormwater runoff. In Proceedings of the 11th International Conference on Urban Drainage, September, 2008, Edinburgh, UK.
33. *Bratieres, K., Fletcher, T.D., Alcazar, L., Le Coustumer, S.M., **McCarthy, D.T.** (2008) Removal of nutrients, heavy metals and pathogens by stormwater biofilters. In Proceedings of the 11th International Conference on Urban Drainage, September, 2008, Edinburgh, UK.
34. **McCarthy, D.T.**, Deletic, A., Mitchell, V.G. & Diaper, C. (2009) Sensitivity analysis of an urban stormwater microorganism model. In Proceedings of the 8th International Conference on Urban Drainage Modelling (UDM), September, 2009, Tokyo, Japan.

35. *Bach, P.M., **McCarthy, D.T.** & Deletic, A. (2009) Debugging the myth behind the first flush phenomenon. In Proceedings of the 8th International Conference on Urban Drainage Modelling (UDM), September, 2009, Tokyo, Japan.
36. Deletic, A., Dotto, C.B.S., **McCarthy, D.T.**, Kleidorfer, M., Freni, G., Mannina, G., Uhl, M., Fletcher, T.D., Rauch, W., Bertrand-Krajewski, J.L. & Tait, S. (2009) Defining uncertainties in modelling of urban drainage systems. In Proceedings of the 8th International Conference on Urban Drainage Modelling (UDM), September, 2009, Tokyo, Japan.
37. Kleidorfer, M., Leonhardt, G., **McCarthy, D.T.**, Kinzel, H. & Rauch, W. (2009) CALIMERO – a model independent and generalised tool for autocalibration. In Proceedings of the 8th International Conference on Urban Drainage Modelling (UDM), September, 2009, Tokyo, Japan.
38. Dotto, C.B.S., Deletic, A., Fletcher, T.D. & **McCarthy, D.T.** (2009) Stormwater quality models: do they work? In Proceedings of the 8th International Conference on Urban Drainage Modelling (UDM), September, 2009, Tokyo, Japan.
39. *Kandra, H., **McCarthy, D.T.**, Deletic, A., & Fletcher, T. D. (2010). Assessment of clogging phenomena in granular filter media used for stormwater treatment (Analyse du phénomène de colmatage des filtres granulaires utilisés pour le traitement des eaux pluviales). Paper presented at Novatech. Lyon, France, 27th June - 1st July 2010.
40. *Schang, C., **McCarthy, D.T.**, Deletic, A., & Fletcher, T. D. (2010). Development of the enviss filtration system: preliminary results (Développement du système de filtration enviss™: résultats préliminaires). Paper presented at Novatech. Lyon, France, 27th June - 1st July 2010.
41. *Poelsma, P., **McCarthy, D.T.**, & Deletic, A. (2010). Changes in the filtration rate of a novel stormwater harvesting system: impacts of clogging and moisture content. IN Proceedings of NOVATECH 2010. Lyon, France, 27th June - 1st July 2010.
42. Bach, P., Daly, E., **McCarthy, D.T.** & Deletic, A. (2010) Investigating pollutant variability for the development of a semi-stochastic water quality model of urban stormwater runoff. Paper presented at SPN 2010. Gold Coast, Australia, 2010.
43. Dotto, C.B.S., Kleidorfer, M., **McCarthy, D.T.**, Deletic, A., Rauch, W. & Fletcher, T.D. (2010) Towards Global Assessment of Modelling Errors. Paper presented at SPN 2010. Gold Coast, Australia, 2010.
44. Urich C., Bach P.M., Hellbach C., Sitzenfrie R., Kleidorfer M.K., **McCarthy, D.T.**, Deletic A, Rauch W, (2011) Dynamics of cities and water infrastructure in the DAnCE4Water model, 12th International Conference on Urban Drainage, Proceedings, Porto Alegre, Brazil, 11-16 Sept 2011.
45. Bach P.M., Urich C., **McCarthy, D.T.**, Sitzenfrie R., Kleidorfer M., Rauch W., Deletic A., (2011) Characterising a city for integrated performance assessment of water infrastructure in the DAnCE4Water model, 12th International Conference on Urban Drainage, Proceedings, Porto Alegre, Brazil, 11-16 Sept 2011.
46. *Schang C., **McCarthy, D.T.**, Bratières K., Deletic A. (2011) Expected performances and lifespan of the enviss™ stormwater treatment technologies: results of a breakthrough analysis, 12th International Conference on Urban Drainage, Proceedings, Porto Alegre, Brazil, 11-16 Sept 2011.

47. *Li Y.L., **McCarthy, D.T.**, Deletic A. (2011) Treatment of pathogens in stormwater by antimicrobial-modified filter media, 12th International Conference on Urban Drainage, Proceedings, Porto Alegre, Brazil, 11-16 Sept 2011.
48. *Guest R.M., Schang C., Deletic A., **McCarthy, D.T.**, (2011) Development of Novel Activated Carbon Filter Media for Pathogen Removal from Stormwater, 12th International Conference on Urban Drainage, Proceedings, Porto Alegre, Brazil, 11-16 Sept 2011.
49. *Kandra H.S., **McCarthy, D.T.**, Deletic A. (2011) Investigation of biological clogging in stormwater filters, 12th International Conference on Urban Drainage, Proceedings, Porto Alegre, Brazil, 11-16 Sept 2011.
50. *Bratières K., **McCarthy, D.T.**, Schang C., Deletic A. (2011) Performance of the enviss™ filtration media: Laboratory trial, 12th International Conference on Urban Drainage, Proceedings, Porto Alegre, Brazil, 11-16 Sept 2011.
51. *Chandrasena K.K.G.I., Deletic A., Ellerton J., **McCarthy, D.T.**, (2011) Removal of Escherichia coli in Stormwater Biofilters, 12th International Conference on Urban Drainage, Proceedings, Porto Alegre, Brazil, 11-16 Sept 2011.
52. *Chandrasena G. I., Filip S., Zhang K., Osborne C.A., Deletic A., **McCarthy, D.T.** (2012) Pathogen and indicator microorganism removal in field scale stormwater biofilters. 7th International Conference on Water Sensitive Urban Design. Melbourne, Australia.
53. *Schang C., Osborne C.A., Deletic A., Cook P., **McCarthy, D.T.** (2012) Survival of pathogenic and faecal indicator bacteria in the bed and bank of sediments of the Yarra River estuary, Australia. 7th International Conference on Water Sensitive Urban Design. Melbourne, Australia.
54. *Li Y., Deletic A., **McCarthy, D.T.** (2012) Copper coated media for pathogen removal in natural stormwater (2012). 7th International Conference on Water Sensitive Urban Design. Melbourne, Australia.
55. *Zhang K.F., Filip S., Chandrasena G.I., **McCarthy, D.T.**, Daly E., Pham T., Kolotelo P., Deletic A. (2012) Micro-pollutant removal in stormwater biofilters: a preliminary understanding from 3 challenge tests. 7th International Conference on Water Sensitive Urban Design. Melbourne, Australia.
56. *Kandra H.S., Deletic A., **McCarthy, D.T.** (2012) Impact of filter bed design parameters on clogging in stormwater filters. 7th International Conference on Water Sensitive Urban Design. Melbourne, Australia.
57. Vezzaro L., Mikkelsen P., Deletic A., **McCarthy, D.T.** (2012) Urban drainage models – making uncertainty analysis simple. 9th International Conference on Urban Drainage Modelling, Belgrade, Serbia.
58. Urich C., Sitzenfrei R., Kleidorfer M., Bach P., **McCarthy, D.T.**, Deletic A., Rauch Wolfgang (2012) Evolution of Urban Drainage Networks in DANCE4Water. 9th International Conference on Urban Drainage Modelling, Belgrade, Serbia.
59. Rauch W., Bach P., Brown R.R., Deletic A., Ferguson B., de Haan F.J., **McCarthy, D.T.**, Kleidorfer M., Tapper N., Sitzenfrei R., Urich C. (2012) Modelling transitions in urban drainage management. 9th International Conference on Urban Drainage Modelling, Belgrade, Serbia.

60. Dotto C.B.S., Deletic A., **McCarthy, D.T.** (2012) Urban drainage uncertainty analysis: should we break our back for normally distributed residuals? 9th International Conference on Urban Drainage Modelling, Belgrade, Serbia.
61. Bach P., **McCarthy, D.T.**, Urich C., Sitzenfrei R., Rauch W., Deletic A. (2012) DAnCE4Water's BPM: A planning algorithm for decentralised water management options. 9th International Conference on Urban Drainage Modelling, Belgrade, Serbia.
62. *Chandrasena G.I., Deletic A., **McCarthy, D.T.** (2012) A Preliminary Model on E.coli Removal in Stormwater Biofilters. 9th International Conference on Urban Drainage Modelling, Belgrade, Serbia.
63. Kleidorfer, M., Chen, S., Dotto, C., **McCarthy, D.T.** (2012) Impact of objective function choice on model parameter sensitivity. 9th International Conference on Urban Drainage Modelling, Belgrade, Serbia.

Other – Patent Applications

64. *Australian Provisional Patent Application No. 2008903208 Method and system for modelling water treatment and harvesting lodged by Water Harvesting Technologies on June 24, 2008. International Patent Application for PCT No. TBA filed on 24th June 2009, claiming priority from Australian Provisional Patent Application No. 2008093208. The inventors included **McCarthy, D.T.**
65. *Australian provisional Patent Application No. TBA Treatment was lodged on August 12, 2009 by Water Harvesting Technologies. The inventors included **McCarthy, D.T.**

Brief overview of industry engagement activities

1. **Cities as Water Supply Catchment Program: Three-Day Industry Workshops** (presented at three in total between 2009-2012). These workshops include a wide range of funding partners and key stakeholders – I usually present my research and ask for feedback on the direction and the applicability of my work. This helps inform future research for the project.
2. **Water Sensitive Cities Winter School: educational seminar week** (presented in July 2011). Here we invited key water professionals to partake in a week long course to disseminate our research on Water Sensitive Cities and provide education on general Integrated Urban Water Management.
3. **Urban stormwater harvesting using sustainable technologies: full day training seminar** (presented twice in 2011). This event is run by ClearWater and I am a paid presenter for this session. We invite key water professionals to these sessions and provide training on how to design, maintain and install urban stormwater harvesting systems in Australia.
4. **Urban food production: using stormwater for food produce** (Industry focused seminar held at CERES Environmental Park, August 2011). This event was again organised by ClearWater and I was the key invited speaker to this event. I spoke of

my research conducted on urban food production and the associated risks when using stormwater for irrigation.

5. **University of Sunshine Coast's Stormwater Seminar** (Industry focussed seminar held at USC in October 2011). This event showcased a number of new technologies for stormwater treatment, and I was one of four invited speakers to present.

Research Income

External income

1. "Sources, sinks and processes of faecal contamination in urban estuaries; a case study of the lower Yarra River" [2012-2014]
ARC Linage Grant - \$881k (\$441k from Melbourne Water, \$440k from ARC)
McCarthy, D.T., Deletic, A., Osborne, C., Grant, S.
2. "Monitoring of an industrial watershed and treatment system" [2012-2014]
Industry Partner (by contract, their name must remain confidential) - \$60.1k (not on ROPES yet as contract signing is occurring)
McCarthy, D.T., Deletic, A., & Kolotelo, P.
3. "Demonstrating Capability for Stormwater Harvesting in Israeli Cities" [2012-2014]
Jewish National Fund of Australia – Industry Grant - \$725k
Deletic, A., Zinger, Y. & **McCarthy, D.T.**
4. "CRC for Water Sensitive Cities Program: Fit for purpose water supplies (C1)" [2014-2016]
Local, state and federal government and industry funding - \$616k (not on ROPES yet as contract signing is occurring)
McCarthy, D.T., Gernjak, W., Deletic, A., Escher, B., Keller, J., Yuan, Z.
5. "CRC for Water Sensitive Cities Program: Sustainable Technologies (C1a)" [2012-2014]
Local, state and federal government and industry funding - \$485k (not on ROPES yet as contract signing is occurring)
Deletic, A., **McCarthy, D.T.**, Hatt, B.
6. "CRC for Water Sensitive Cities Program: Integrated multi-functional urban water systems (C4)" [2012-2016]
Local, state and federal government and industry funding - \$908k (not on ROPES yet as contract signing is occurring)
Deletic, A., **McCarthy, D.T.**, Hatt, B., Cook, P., Hipsey, M.
7. "CRC for Water Sensitive Cities Program: Socio-technical modelling tools to examine urban water management scenarios (A4.2)" [2012-2016]
Local, state and federal government and industry funding - \$935k (not on ROPES yet as contract signing is occurring)
Deletic, A., Brown, R., **McCarthy, D.T.**, Angus, S., Rauch, W.
8. "Vegetable raingardens – the benefits and performance" [2011-2013]
Melbourne Water - \$126k
Fletcher, T.D. & **McCarthy, D.T.**

9. "Sinks and Sources of Faecal Microorganisms in the Yarra River Estuary" [2011]
Melbourne Water - \$450k
McCarthy, D.T., Deletic, A.
10. "Producing sustainable technologies for urban water treatment" [2011]
Cussons Australia - \$50k (not currently on ROPES – in the process of fixing this)
Deletic, A., **McCarthy, D.T.**
11. "Effective monitoring of Pollution Types and Loads entering the Drainage System" [2010]
Victoria EPA and Melbourne Water - \$96k
McCarthy, D.T.
12. "Cities As Water Supply Catchments Program: Sustainable Technologies (Project 1)" [2010-2012]
Local, state and federal government and industry funding - \$1 Mill
Deletic, A., **McCarthy, D.T.**, Wong, T., Brown, R.
13. "Cities As Water Supply Catchments Program: Demonstration and Integration through Urban design (Project 8)" [2010-2012]
Local, state and federal government and industry funding - \$420k
Deletic, A., **McCarthy, D.T.**, Wong, T., Brown, R.
14. "PREPARED: Enabling Change (Preparing Australian urban water systems for the impact of climate change)" [2010-2012]
Department of Innovation Industry, Science and Research - \$260k
Deletic, A., Brown, R., **McCarthy, D.T.**, Tapper, N.,
15. "Effective monitoring and assessment of contaminants impacting the mid to lower Yarra catchments - Temporal Scale Assessment" [2008-2009]
Victoria EPA - \$90k
McCarthy, D.T., Poelsma, P., Lewis, J.
16. "New technologies for mitigating risks of stormwater reuse" [2008-2012]
Smart Water Fund (Victorian Competitive Grant) - \$249k
McCarthy, D.T., Deletic, A., Fletcher, T.D., O'toole, J., Poelsma, P.
17. "Pathogen removal by biofiltration" [2007]
Melbourne Water - \$30k (not registered on ROPES - prior to PhD submission)
Fletcher, T.D., **McCarthy, D.T.**, Deletic, A.
18. "Bacterial source tracking of urban stormwater microorganisms" [2006-2007]
Melbourne Water - \$46k (not registered on ROPES - prior to PhD submission)
Mitchell, V.G., **McCarthy, D.T.**, Deletic, A., Fletcher, T.D.
19. "Identifying the levels of microorganisms in urban stormwater" [2005-2007]
Melbourne Water - \$48k (not registered on ROPES - prior to PhD submission)
Mitchell, V.G., **McCarthy, D.T.**, Deletic, A., Fletcher, T.D.
20. "CSIRO Scholarship Agreement for Externally Funded Awards - Student: Mr David McCarthy - Project: Improving WSUD Technologies to Optimise Treatment Performance and Facilitate the Reuse of Stormwater" [2005-2008]
CSIRO - \$33k

Mitchell, V.G. & **McCarthy D.T**

Internal/Monash income

1. “Monash Research Accelerator Fellowship” [2011-2012]
Monash University - \$70k
McCarthy, D.T.

Other related achievements

I have recently been awarded a **2009 Winston Churchill Fellowship**. This fellowship is a national competitive grant for overseas research which cannot be undertaken within Australia and can benefit Australia. I was one of just 21 people awarded this fellowship in Victoria, out of over 340 Victorian applicants. In total, I was awarded \$24k for travel to the USA, Canada and Japan to investigate new technologies for stormwater treatment for reuse purposes.

Recently, I have also been awarded the **Monash Research Accelerator Program Scholarship (2011-2012)**, which was a Monash-based competitive granting scheme for high achieving early career researchers. I was also awarded a FASIC Fellowship from the Australian Academy of Science for travel to France to investigate the micropollutant fate and transport in urban water systems.