

Insights from long-term collaborative research in waterway management

Rhys A. Coleman^{1,2}, Jérémie Bonneau³, Darren G. Bos², Matthew J. Burns², Frédéric Cherqui^{2,3}, Tim D. Fletcher², Sarah Garvey⁴, Kimberly Horndeski⁵, Raphael Mazon⁶, Brian Murphy⁷, Charles Purma III⁸, Kathryn L. Russell², Slobodanka Stojkovic¹, and Mateo Scoggins⁷

¹Research and Modelling, Melbourne Water, Docklands, Victoria, Australia

²School of Agriculture, Food and Ecosystem Sciences, The University of Melbourne, Burnley, Victoria, Australia

³Institut National des Sciences Appliquées Lyon, Déchets, Eaux, Environnement Pollutions, Villeurbanne, France

⁴Office of Performance Management, City of Austin Watershed Protection Department, Austin, TX

⁵Community Consulting LLC, Fairfax, VA

⁶Southern California Coastal Water Research Project, Costa Mesa, CA

⁷River Network, Denver, Colorado, USA ⁸Budget and Organizational Excellence, City of Austin, Austin, TX

ABSTRACT

Collaborative research partnerships between waterway managers and research institutions are an essential way to fill knowledge gaps that support continuous improvement in waterway management. Knowledge gaps include building system understanding, prioritizing works, increasing the efficiency and effectiveness of restoration efforts, and assessing restoration success. Through case studies from Australia, the United States, and France, this paper highlights insights from successful, long-term waterway management collaborations among research institutions and waterway managers. Successful collaborations were characterized by research investment being directed toward the priorities of waterway managers, outcomes (e.g., decision support tools, management guidelines) being timely and relevant to increase opportunities for research adoption, academic outputs (e.g., research papers, conference presentations) and academic freedom being encouraged, and research agendas being flexible to changing issues. In short, the case studies we reviewed demonstrated how collaborations between research institutions and waterway managers deliver long-term value to both researchers and managers. We provide recommendations for waterway managers who are looking to establish collaborative research partnerships or strengthen existing ones, centered around the following emergent themes: 1) relationships built on trust and respect, 2) common purpose for collaborative research, 3) specific roles for establishing collaborations and facilitating research adoption, 4) balanced needs and expectations of multiple partners, 5) shared decision-making about research priorities, 6) co-design and co-delivery of research, and 7) collaboration resilience (e.g., to fluctuating budgets, changes in key personnel).

Due to distribution restrictions, the full-text version of this article is available by request only.

Please contact pubrequest@sccwrp.org to request a copy