Landscape and Urban Planning 99 (2011) 83–92

Contents lists available at ScienceDirect

Landscape and Urban Planning

journal homepage: www.elsevier.com/locate/landurbplan

Understanding the nature of publics and local policy commitment to Water Sensitive Urban Design

Peter J. Morison*, Rebekah R. Brown

Centre for Water Sensitive Cities, School of Geography & Environmental Science, Building 11 Clayton Campus, Monash University, Victoria 3800, Australia

ARTICLE INFO

Article history:
Received 11 August 2009
Received in revised form 27 August 2010
Accepted 29 August 2010

Keywords:
Publics
Municipal context
Water Sensitive Urban Design
Commitment
Environmental policy
Intergovernmental programs

ABSTRACT

Water Sensitive Urban Design (WSUD) is a recent planning and design philosophy in Australia primarily used to minimise the hydrological impacts of urban development on the surrounding environment. As local governments plan and regulate the bulk of public and private infrastructure and development, they are key participants in the implementation of WSUD. However, according to research conducted involving 38 municipalities in Melbourne, Australia, the implementation of WSUD is inconsistent across the metropolitan area. The mixed methods research comprised a survey of municipal officers, interviews with the officers and mayors, and a review of municipal accountability documents. The results revealed a strong municipal commitment to WSUD in areas bounded by the coast or where the natural vegetation exceeds 50% of the municipal area. Furthermore, these committed municipalities tended to coincide with communities of higher wealth and population. Overall, the analysis revealed three types of municipalities – high, partial, and limited commitment – that are indicated by a variation in environmental values, demographic and socio-economic status, local organised environmentalism, municipal environmental messages, and intergovernmental disposition. This paper argues for policy reform for WSUD, as it is largely sympathetic to the highly committed municipalities, and highlights the need to enable the participation of publics in the municipalities of limited and partial commitment by linking WSUD to greater public concerns and building commitment through diverse policy interventions.

1. Introduction

Across the world, the growing trend of urbanisation (UNDESA, 2008) is associated with increasing deterioration in the health of urban waterways. A major factor of urbanisation that contributes to the decline of waterways is stormwater runoff, shed from impervious surfaces and engineered drainage systems. Its impact on the waterways is significant and diverse (see, e.g., Ellis, 1986; Shuster et al., 2005; Walsh et al., 2005b). Yet stormwater runoff is to be successfully addressed anywhere despite more than 20–30 years of dedicated policy rhetoric to "best management practices" in countries such as Australia, UK, and the USA (Marsalek and Chocat, 2002). Limited political will and implementation capacity by government agencies to address this issue have been exacerbated in Australia over the last decade by extreme drought conditions and urban population growth, shifting attention from aquatic ecosystem protection to securing long-term water supplies in the cities.

Faced with a narrow view of managing urban water systems, Australian commentators have promoted an alternative approach that attends to all aspects of the total water cycle, known as Water Sensitive Urban Design (WSUD) (Wong, 2006b). WSUD, serving the tenets of conservation, resilience, ecology, and equity, reflects the international scholarship on Integrated Urban Water Management (IUWM) (e.g. Maksimović and Tejada-Guibert, 2001), but also emphasises urban design principles that refine and extend the practical application of IUWM (Wong, 2006a).

However, to date, most government policy and guideline documents narrowly associate WSUD with addressing stormwater quality and quantity problems in order to improve the health of receiving waters in Australia (Mitchell, 2006; Wong, 2006a). The analysis of Brown and Clarke (2007) has largely attributed the reduction of this definition to the effective advocacy of a coalition of scientists, practitioners, and policymakers proposing alternative systems of stormwater drainage that were visually appealing to the market and more consistent with natural landscapes about the waterways. Their WSUD-based arguments resonated with constituents who had been lobbying for improvements to waterways since the 1970s in reaction to frequent occurrences of visible pollution (floating litter and oil slicks), algal blooms, and beach closures (Brown and Clarke, 2007).

The resulting applications of WSUD are analogous to stormwater Best Management Practices (BMPs) associated with Low Impact Development (LID) in the United States (Dietz, 2007), Low Impact

* Corresponding author. Tel.: +61 3 9905 4618; fax: +61 3 9905 2948.
E-mail addresses: peter.morison@gmail.com, peter.morison@monash.edu (P.J. Morison), rebekah.brown@monash.edu (R.R. Brown).

0169-2046/$ – see front matter © 2010 Elsevier B.V. All rights reserved.
doi:10.1016/j.landurbplan.2010.08.019

Urban Development and Design (LIUDD) in New Zealand (van Roon, 2005), and Sustainable Urban Drainage Systems (SUDS) in the United Kingdom (Charlesworth et al., 2003). Each treat stormwater ranging from the allotment to the catchment scale and consist of such devices as storage tanks, filtration and infiltration measures, constructed wetlands, and retention ponds (Marsalek and Chocat, 2002). Such technologies of WSUD are considered the state of the art for the improvement of catchment and waterway health (Roy et al., 2008; Walsh et al., 2005a).

However, the governments vested with the responsibilities to guide and regulate the implementation of WSUD remain inadequate. WSUD is not mainstream practice at the local level despite reports by state governments to the contrary (Brown and Farrelly, 2009; Rauch et al., 2005). Here we turn our attention to an organisation critical to the implementation of WSUD in Australia—the municipal council.

In the municipalities where stormwater management using WSUD in Australia has been successful, strong co-management proved necessary between the state and municipal governments (Rauch et al., 2005). This co-management may be considered as an array of vertical (state–local) and horizontal (local–local) partnerships between governments and their respective communities that encompass regional water catchments (Roy et al., 2008). According to the model, shared and individual responsibilities in the catchments are assigned to the intergovernmental agents. For example, while state governments set the policy direction, municipal councils are central to on-ground delivery. Councils are also largely responsible for environment-related activities, including planning, natural resource management, and environmental protection (Wild River, 2006), which overlap conventional stormwater management responsibilities for the improvement of catchment and waterway health.

While municipal councils are recognised as vital collaborators for the improvement of urban stormwater, the observed variability and often lack of municipal commitment to intergovernmental stormwater policy creates a distinct problem for achieving better ecological outcomes (Berke et al., 2006; Morison and Brown, 2010). Municipal policy commitment comprises a number of factors that affect what might be otherwise known as the "implementation behaviour" of the organisation (Winter, 1999). According to Winter, such factors include the disposition of the organisation in implementing a particular policy, the contextual factors and the role of professionals and policy protagonists in facilitating or constraining implementation performance.

In this paper, we consider the variables of *publics* and *context* (defined below) to potentially explain the observed variability of municipal commitment in relation to environmental policy implementation. According to the natural resource management literature (e.g. Conley and Moote, 2003; Koontz and Thomas, 2006), these variables can give insight into the degree of organisational commitment to environmental improvement, but are difficult to measure using conventional techniques. We therefore apply a mixed quantitative and qualitative approach to better understand the relationships between the variables.

1.1. Policies without publics

There are many overlapping and conflicting interpretations of the term "policy". Indeed, Hill (2009), in his comprehensive review of the various definitions of policy, uses that of the Oxford English Dictionary (2nd ed., 1989) as a base for discussion. We follow his lead in applying the same definition: "A course of action adopted and pursued by a government, party, ruler, statesman, etc." WSUD by this definition is considered a form of policy because it is a course of action that has been adopted and pursued by governments and professional institutions in Australia (e.g. Joint Steering Committee for Water Sensitive Cities, 2009; Wong, 2006b).

The term "publics" is defined as "the identifiable groupings who have more than a passing interest in a given issue debate or are actively involved in an issue debate", such as "professional associations, producer groups, consumer groups, trade groups, public interest groups, neighborhood groups, or other groups surrounding common issue interests" (May, 1991, p. 190). We distinguish this definition from that of the stakeholder, which traditionally relates to individuals or groups that have interest in the affairs of corporate organisations as distinct to governments (Carroll and Buchholtz, 2009). Thus, publics are groups interested in the matters of public policy in contrast to specific corporate or other sectoral policy. We have chosen to focus on publics rather than the general community because these interest groups have the potential to be highly influential in the decisions of local government (Byrnes and Dollery, 2002).

The phenomenon of "policies without publics" is often not associated with high profile or mainstream issues of contemporary governments such as crime, health care, and unemployment. It is observed when coalitions of interest groups often do not exist, leaving by default the technical and scientific communities to regulate the policy agenda. According to May (1991), when policies are without publics, it is because they do not create "private" risks among the populace relating to the immediacy, affectivity, and recurrence of the issue. Examples of these are issues which typically only become publicly salient when subjected to some type of catastrophe, crisis, or "focusing event" that motivates publics (albeit perhaps temporarily) to demand an immediate policy response (Birkland, 1998).

In Australia, many environmental issues can be considered lacking publics. Pakulski and Tranter (2004, p. 228) observed the recent emergence of "specialised 'urban' environmental issues, such as water pollution" that concern the national constituency. However, they noted that these issues are mixed with "rural" issues such as water supply shortages, "left" environmental issues such as logging, and moral issues such as genetically modified organisms, among others. As the diversity and the proliferation of these "niche issues" appear to be increasing, the authors contended that the boundaries of what may be deemed an environmental concern are challenged. Therefore, new and existing environmental issues compete for public attention depending on their relative, apparent urgency and risk. Many of these environmental issues have also gone through a process of "routinisation" since the early 1990s, where they have become normalised and governments are increasingly expected and assumed to take responsibility for them (Ivanova and Tranter, 2008; Pakulski et al., 1998).

Arguably, the narrow form of WSUD as a stormwater improvement measure is a policy without publics because it is a collective action problem with limited incentives for public action: the catchment and waterways health problem is considered remote; policy responses and actions are perceived to be relatively costly; and the benefits from responding are "sufficiently diffuse to preclude individualised action" (May, 1991, p. 194). There is no private, personal relationship between the policy issue and the common individual. Unless an episode of harm or potential harm emerges, such as a pollution event that endangers swimmers in the receiving waters, there is little incentive for publics to lobby for a policy response.

1.2. Publics, context and municipal commitment to environmental policy

Despite the lack of publics associated with many environmental policies, there is increasing recognition among scholars that sense of local context – the way in which an individual relates to and perceives the natural environment – is important to the level of