Shaping communities and their role in water governance: a study of water policy and regulation professionals in Scotland

Kirsty Holstead[a,b], Shona Russell[a] and Kerry Waylen[b]

[a] School of Management, University of St Andrews, St Andrews KY16 9RJ, Scotland, United Kingdom
[b] The James Hutton Institute, Craigiebuckler, Aberdeen AB15 8QH, Scotland, United Kingdom

Work in progress. Please do not quote.

1. **Introduction and literature review**

Internationally there is a growing interest in holistic and integrative approaches to managing water (Holley, Gunningham and Shearing, 2013), particularly those that involve communities (Bakker, 2010). Many benefits have been associated with greater community participation, ranging from the substantive (i.e. use of lay knowledge), to instrumental (i.e. increased support for implementation) and/or normative (i.e. increased legitimacy and support for democracy) (Blackstock and Richards, 2007). These expectations have been reflected in policy in the UK, and Europe (e.g. The Water Framework Directive) and accompanied by a wealth of studies about the design (Fung, 2003), management and evaluation of these processes (Blackstock, Waylen, Dunglinson and Marshall, 2012).

There has been relatively little critical attention to the practices that shape ideas of what community engagement in water governance looks like, how decisions are made in these arrangements, and how and through which processes communities contribute to governance (Bakker, 2008; Cleaver, 2012). Past work shows that how organisations implement concepts is inevitably shaped by pre-existing interests, institutions and knowledge (Waylen, Blackstock and Holstead, 2015) which draws attention to the agency of those actors who are already involved in water governance. For example, it is well known that the narratives and discourses used to speak about water, and the actions of those who work in water and natural resource management (from engineers, to government officials and NGOs) can shape how water is viewed, and acted upon (e.g. Barnes, 2014; Anand, 2017).

Water managers and policy actors therefore play an important role in shaping community participation in water governance. Understanding more about how their practices shape the reality of community participation in water governance is valuable to understand how it is organised and plays out. In this paper, we address this challenge though empirical research carried out in Scotland with professionals who work in the area of water regulation and policy in 2017. We use a practice approach (Shove, Pantzar and Watson., 2012) to focus on community involvement in water governance in two water domains (mains water supply and flooding). We ask three main questions:

1. Who are the key actors who shape water governance in Scotland?
2. How do these actors conceptualise the role of community in water governance?
3. Which practices influence ideas of community engagement and what are their impacts?

Here, we mainly focus on the second question to examine the role that those charged with the implementation of water governance see for communities. By examining current practices of policy makers and regulators we explore the understandings of water and community that are produced as a result. We highlight how those charged with the implementation of water governance see communities and how this is influenced by their routines and daily efforts to carry out their work. In

doing so, this paper contributes understanding of how decisions about water governance are made, and how these practices of shape possibilities for community engagement in water in Scotland.

2. A practice approach

In this paper, we apply a practice approach, meaning that we focus on how community involvement in water governance unfolds through a focus on the everyday activities of policy and regulatory professionals and how they make sense of them. In recent years, there has been a 'practice turn' -- a shifting interest in the complex and mundane nature of everyday life, seen particularly in the area of consumption, science and technology (i.e. Browne, 2015).

There are different expressions of the main elements of practice. We use Shove, Panzar and Watson's (2012) conceptualisation of practices as collectives of a) *materials* - tools, infrastructure and other physical things b) c*ompetency* - forms of understanding, know-how, knowledge, and skills, and c) *meaning* – symbolic meaning, motivation, aspirations and emotion (Shove et al., 2012). Practice approaches therefore offer a collective and materially based ontology that views action as an assemblage of human and non-human elements. A practice approach views agency as distributed across a network, or assemblage of humans and objects. Agency is conceptualised as actions that are made up of a myriad of agencies, linked though networks or webs of practices, none of which have an overall coordinating or organising capacity (Schatzki, 1996). Practice approaches view the social world as knotted together so that the results of one performance become the resources for another, limiting the potential actions available to agents (Nicolini, 2012).

In the context of this study, a practice approach attends to the assemblage of social and material elements, which are enacted in routine activity, by knowledgeable actors that shape community engagement in water governance. Such an approach is useful as it highlights how routines can be normalised and taken for granted, hidden behind tacit knowledge and material objects, yet influence future understanding and actions. A practice approach gives insight into how organisations and actors' everyday routines (sayings and doings) shape ideas of community involvement in water governance.

3. Scotland as a case study

Water is a devolved issue in Scotland, and is various pieces of legislation map out a space for community engagement and participation in governance (i.e. see, Hendry, 2016a). Scotland is an interesting case study because a) the water industry in Scotland is under explored when compared to other areas of the UK (e.g. Bakker, 2003); and b) Scotland is considered to be at the forefront of water governance and an international leader and agenda setter in collaborative decision making and customer and community engagement in water services (Hendry, 2016b).

Using interview data from 12 interviewees, this paper explores the way that policy and regulator water professionals understand communities and their involvement in water governance across two water domains (flooding and mains water provision). Flooding and mains water provision were chosen as policy statements (such as The Flood Risk (Scotland) Management Act 2009) have commonly cited communities as being expected to play a role in governance.

4. Findings and discussion

We identified a number organisations in Scotland, all state agencies or departments of government (e.g. Scottish Water and Water Industry Commission Scotland), which are responsible for designing and implementing water governance, and hence impact understanding of, and involvement of community. We selected all our interviewees from these organisations.

We summarised their perceptions of how communities are, can, and should be involved in water governance in Scotland (see Appendix I). In particular, mains water users were seen as passive actors.

They were viewed in individual terms as water consumers and fee paying recipients of a service. Here, current engagement took the form of customer surveys (asking about the price and service preferences for example), information provision about infrastructure works and how to avoid drain blockages. In the domain of flooding, communities were also seen as largely passive, reactive to flooding events, often expecting local government to protect them from flood risk. Community engagement here involved policy consultation, public meetings in flooded areas, and phone calls with local authorities to discuss actions they had (or had not) taken to reduce certain community's flood risk.

Overall the interviewees in our study hoped to connect communities to water, to create active, and concerned citizens. In the domain of domestic water supply, it was hoped that customers would have greater understanding of necessary infrastructure work, unavoidable flow and quality variation, and accept that prices had to increase over time. In the domain of flooding, interviewees hoped that communities would take into consideration the wider catchment and be proactive to flood risk though taking personal protective measures. Water professionals speculated that ideal community engagement could be achieved though the practices of information and financial incentive provision, education and by making water more visible to consumers, so as to reinforce a link between communities, their actions and the water environment.

Through these engagements, interviewees aimed to improve water quality, reduce impacts of flooding and the costs associated with water provision. These aspirations were fitted into the wider government strategy to create a 'Hydro Nation', "where water resources are developed so as to bring the maximum benefit to the Scottish economy." (for more information see https://beta.gov.scot/policies/water/hydro-nation/).

We suggest that these different conceptions of communities may lie in tension with each other, which could in turn, hamper efforts by water professionals to engage communities in future water initiatives. For example, aims for a 'joined up catchment approach' in which communities are expected to think collectively of others downstream, sit awkwardly alongside other ideas of communities in mains water supply where customers are approached as fee paying service users with little commitment or responsibility for water use (beyond their own home). While we acknowledge that relationships with water may differ depending on context, we highlight the possible antagonism inherent in these aspirations.

When planning future initiatives, water professionals assumed that information and financial incentives would inspire agency in communities (e.g. to protect water supply). However, given the different communities envisioned by the interviewees and the roles mapped out for them across the two domains, we suggest that such practices are insufficient to connect these groups with water. We argue therefore for a consideration of the cumulative effect of water policy, and an understanding of the role of communities across water domains.

Understanding the professional community, the ideas that are circulated around community involvement in water governance and the things they value and are meaningful, gives a deeper insight into how governance is enacted. We show how future ambitions to connect people to water, and develop a deeper, more engaged relationship with water should be understood though an exploration across different 'waters', paying attention to how they are each socially and materially configured. This work provides an important base upon which to conduct the next state of field work, where we hope to carry out work shadowing to get a better understanding of materials and competencies involved in practices and everyday routines of water professionals.

Appendix I: Conceptualisations of communities according to interviewees

	Mains water supply		Flooding	
Categories of communities	'Customers'	'Local communities'	'Communities of risk'	'The general public'
Who are these communities?	Around 95% of the Scottish population who pay Scottish Water for mains water supply and waste services.	Geographic communities who are negatively affected because they live where water service infrastructure work takes place.	Geographically specific groups of people who are at risk from flooding.	Those geographic areas that are not categorised as being at risk of flooding, according to flood risk mapping exercises.
What are communities' concerns?	- Passive water users with little idea of water usage - Value for money, pricing, sewage flooding and a constant supply of water. - Less concerned about water quality or the wider water environment.	- Their neighbourhood, property and surrounding area, - How they will be personally impacted - How infrastructure work will affect daily activities.	- Their immediate surroundings (primarily their personal property) - How they may or may not be at risk of flooding. - What local authorities will do to protect them. - If the state will protect them.	- If they will benefit from flood investment - What local authorities will do to protect them. - As with communities of risk they are often not motivated to take responsibility for individual flood risk.
Interviewees' aims and aspirations for engagement with these groups	- Motivated by values of economic efficiency, public health, and political acceptability - Aim to create active users who understand and care of water and waste water infrastructure.	- Motivated by political pressure - Aspire to engage with this group to reduce the potentially negative experience as a result of infrastructure work.	- Motivated by public health, danger to life, and reducing flood risk impact on infrastructure and housing. - Aim: to create an active population who share flood risk responsibilities and take a joined-up approach.	- Same as communities of risk.

Bibliography

Anand, N. (2017). *Hydraulic city: Water and the infrastructures of citizenship in Mumbai*: New York: Duke University Press.

Bakker, K. (2003). *An uncooperative commodity: Privatizing water in England and Wales*. Oxford: Oxford Geographical and Environment.

Bakker, K. (2008). The ambiguity of community: Debating alternatives to private- sector provision of urban water supply. *Water Alternatives, 1*(2), 236--252.

Bakker, K. (2010). *Privatizing water: governance failure and the world's urban water crisis*. New York: Cornell University Press.

Browne, A. L. (2015). Insights from the everyday: implications of reframing the governance of water supply and demand from 'people' to 'practice'. *Wiley Interdisciplinary Reviews: Water, 2*(4),

Blackstock, K. L., & Richards, C. (2007). Evaluating stakeholder involvement in river basin planning: a Scottish case study. *Water Policy, 9*(5), 493-512.

Blackstock, K. L., Waylen, K. A., Dunglinson, J., & Marshall, K. M. (2012). Linking process to outcomes— internal and external criteria for a stakeholder involvement in river basin management planning. *Ecological Economics, 77*, 113-122.

Cleaver, F. (2012). *Development through bricolage: rethinking institutions for natural resource management*. London: Routledge.

Fung, A. (2003). Survey article: recipes for public spheres: eight institutional design choices and their consequences. *Journal of political philosophy, 11*(3), 338-367.

Hendry, S. (2016a). The customer forum–putting customers at the center of regulating water services. *Water Policy, 18*(4), 948-963.

Hendry, S. (2016b). Scottish Water: a public-sector success story. *Water International, 41*(6), 900-915.

Holley, C., Gunningham, N., & Shearing, C. (2013). *The new environmental governance*. London: Routledge.

Nicolini, D. (2012). *Practice theory, work, and organization: An introduction*: Oxford: Oxford University Press.

Schatzki, T. R. (1996). *Social practices: A Wittgensteinian approach to human activity and the social*: Cambridge: Cambridge University Press.

Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice: Everyday life and how it changes*. London: Sage.

Waylen, K. A., Blackstock, K. L., & Holstead, K. L. (2015). How does legacy create sticking points for environmental management? Insights from challenges to implementation of the ecosystem approach. *Ecology and Society, 20*(2), 21.