The State of Citizen Participation in America

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CITIZEN ENGAGEMENT IN LOCAL ENVIRONMENTAL POLICY

Information, Mobilization, and Media

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INTRODUCTION

The goal of creating more democratic policy processes that inform citizens and are informed by them is at the heart of much policy scholarship (see e.g., A. L. Schneider & Ingram, 1997), and is "the normative core of democracy" (Fischer, 2005, p. 1). While this lofty democratic ambition is vital to understanding and creating better public policies, a number of factors stand in the way of meaningful participation when it comes to local environmental policy processes in particular. Citizens often are not involved in policy discussions when it comes to environmental policies unless mobilized to do so. Those who most often participate are experts who act as influential political elites in the policy process. Research indicates that a

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lack of policy information may contribute to this dearth of citizen involvement, and media reportage patterns may prevent citizens from easily accessing the information necessary for participation. This chapter posits that the technical aspect of environmental policies, along with patterns of mass-media coverage of these policies, can help explain why citizens are not involved in their local government policy processes to the degree that scholars may desire.

Environmental and Science-Based Policymaking

While participation will vary with social and political institutions, some trends are endemic to environmental policymaking. Indeed, environmental policy is the definitive example of technocratic policymaking (Fischer, 2005). Around the globe, environmental policies are debated and enacted to tackle the increasing number of problems associated with human activity and the corollary effects on Earth's ecosystems. Environmental policy debates often focus on scientific research, questions of scientific consensus, and the risks associated with human activity. As with some other areas of public policy, such as health policy or transportation policy, the technical nature of environmental policy makes it difficult for many citizens to understand. This reliance on science and technical information puts environmental policy in a distinct category with some other policy issues that are becoming increasingly reliant on technical data to define policy problems, create policy alternatives, and analyze policy implementation. In fact, public policy analysis itself has taken on many of the characteristics of science through its careful analytical approach, cost benefit calculations, specific criteria used to achieve better policy recommendations, and the tendency to defer to policy experts (A. L. Schneider & Ingram, 1997; Weimer & Vining, 1999). These characteristics make environmental policy an important venue for analysis in any compilation of citizen participation scholarship, an area that has potential relevance to other technical areas of public policy.

Americans generally do not possess abundant information related to political processes and issues (Delli Carpini & Keeter, 1996). This is, of course, simplistic, because American knowledge is not a monolithic concept, in fact, some segments of the population are highly informed while others lack even basic information about political and policy processes (Zaller, 1992). In technical policy venues in which there often is not citizen enthusiasm or outrage, and which are highly complex, this lack of knowledge may be especially acute. Citizens simply cannot compete with professionals when it comes to policy or scientific knowledge and expertise (Dryzek & Torgerson, 1993). In these instances, media play a crucial role in raising interest among citizens, informing them of policy issues, and potentially

mobilizing them to participate. Downs (1957) stated that citizens "acquire political information for two main reasons 1) to help them decide how to vote, and 2) to form opinions with which they can influence government policy" (p. 238). Most citizens do not have the time, resources, education, or skills to access information and synthesize it accurately. The media must do this for them. While it is true that in the Internet age, citizens have abundant access to information through multiple channels, due to the costs associated with obtaining, filtering, and assessing this information, it is most likely that activists will seek out information through direct government channels, opinion sources, or other nonmainstream media. For the average citizen, traditional media are likely their primary source of information related to local government policy discussions.

While citizens defer their information collection duties to the media, elected officials also defer their responsibilities. When policy discussions are dominated by science and technical data, elected officials "are inclined to leave the arena to the expertise of scientific and professional networks and align themselves with whatever the experts suggest" (A. L. Schneider & Ingram, 1997, pp. 6–7). Fischhoff (1985) argues that people tend to simplify complex issues and ignore evidence that contradicts their previously held beliefs. The average citizen does not have the capacity to sift through technical information to determine their personal political positions. Citizens are, however, interested in science and complex topics (National Science Board, 2010; Pew Center for the People and the Press, 2009). It may simply require effective technical communication to help citizens synthesize the information necessary to meaningfully engage in environmental policy. While much policy literature focuses on the role that scientific data play in policy decisions, technical data of other types are also important to consider, such as law and economics. Rather than hiding behind science and technical jargon as a means to block citizen input, policymakers must communicate these concepts clearly enough for citizens to understand.

In addition to the importance of providing citizens with access to understandable technical information, it is also important to consider that citizens themselves may possess valuable information. It is increasingly common for policymakers and scholars to appreciate the "local knowledge" that citizens bring to bear on policy conversations (Fischer, 2005). With a deep knowledge of local culture and natural resource use, citizens can provide a depth of knowledge that may be as important as expert technocratic knowledge. Rather than a one-way flow of information, it is important to also encourage citizens to provide input into the policy process in order to enlist their knowledge to increase the legitimacy and responsiveness of policies.

Citizen Participation in Policymaking

Citizen participation is a vital component of democracy. "The more participation there is in decisions, the more democracy there is" (Verba & Nie, 1972, p. 1). While it can easily be argued that many citizens are ignorant of complex environmental issues (Fischhoff, 1985), this is not a reason to exclude them from the process. Many environmental decisions are made *for* communities, but much literature points to the importance of making decisions *with* communities. By involving citizens in policymaking, policy outcomes can be superior because they are informed by values, experiences, and priorities of the citizens who will be affected by policy implementation (Fischer, 2005; Roberts, 2008). Despite our belief that democracy is a superior form of government, citizens no longer believe that their elected officials are responsive, or that they can meaningfully participate in the political process (A. L. Schneider & Ingram, 1997). To design more effective and democratic policies, scholars and practitioners must understand how and when citizens participate and how to encourage appropriate participation. The trouble with understanding citizen participation revolves around two issues: who participates, and what facilitates their involvement.

Participation by individuals generally correlates with higher levels of wealth, education, and other socioeconomic status (SES) indicators. This happens due to the fact that higher SES individuals also tend to have the resources available to engage in participatory activities, such as knowledge, money, and group membership (Brady, Verba, & Schlozman, 1995; Verba, Schlozman, & Brady, 1995). Rosenstone and Hansen (1993) found that "the more involved people are in social life, the more likely they are to be mobilized, the more likely they are to be offered the social incentives toward activism, and the more prone they are to take part in politics" (p. 83). This is supported by findings related to individual organizational and religious membership in communities (Verba et al., 1995). If citizen participation is desirable in policymaking, citizens across the SES spectrum should be encouraged to voice their opinions, not only those in higher SES categories.

This also highlights the second issue related to citizen participation: much participation occurs due to mobilization by organizations, not the self-directed behavior that Verba and Nie (1972) first studied. The mobilization model states that "participation is a response to contextual cues and political opportunities structured by the individual's environment" (Leighley, 1995, p. 188). Participation, "results when groups, political parties, and activists persuade citizens to take part" (Jordan & Maloney, 1997, p. 119). Groups that act as mobilization forces include social, religious, political, and professional organizations. Rosenstone and Hansen (1993) argue that "few people spontaneously take an active part in public affairs. Rather, they participate when politicians, political parties, interest groups, and activists persuade them to get involved" (p. 228). The role of government agencies and other deliberative bodies in soliciting citizen input and encouraging participation, then, is vital in understanding the resulting levels of involvement.

Because most policymakers and managers now understand that citizen involvement is desirable, or at least is a necessary evil, processes have begun to reflect the importance of this notion. Environmental management has entered a new era of collaborative planning instead of top-down implementation, which leads to an increased need for "support by policymakers, the public, and industry" (Mazmanian & Kraft, 2001, p. 145). Environmental managers have begun to understand the importance of avoiding conflict in environmental policy. Tools such as alternative dispute resolution, consensus building, and negotiation have become increasingly important (O'Leary, Durant, Fiorino, & Weiland, 1999). Instead of traditional command and control structures, systems such as co-management, adaptive management, and voluntary programs are on the rise and require citizen input as a part of their structures (see e.g., Lee, 1993; O'Leary et al., 1999). Because policymaking is not accepted as solely a government enterprise, citizens demand a transparent process to ensure appropriate measures are taken to protect public health and environmental welfare.

The range of participatory processes that can be implemented to solicit citizen participation vary along a continuum of high to low participation, high to low citizen decision making power, and along a deliberative to nondeliberative spectrum (Beierle, 1998; Steelman & Ascher, 1997). The most common alternative is to hold public hearings. This can be an effective means by which policymakers can elicit opinions and statements from the public and is the most common form of public participation. Hearings provide a forum for citizens to meet face-to-face with government representatives and voice their concerns or grievances. Hearings, however, are criticized for their limitations in providing meaningful participation for citizens. Beyond public hearings, tools such as the Citizen Advisory Committee and the Citizen Jury provide more opportunity for true deliberation, stakeholder involvement, and consensus building (Allen, 1998; Beierle, 1998, 2000). While these forms of in-depth citizen involvement are not always appropriate or desired, it is important for decision makers to consider the varying levels of possible citizen and stakeholder involvement within the structure of policy processes and decisions. The various forms of citizen participatory mechanisms can also, to varying degrees, invoke the local knowledge that citizens possess and that can help construct effective, responsive, and legitimate policies (Fischer, 2005).

The literature above stresses the importance of citizen participation and the significance of mobilization to encouraging participation, and begs the question of whether citizens actually do participate when given the oppor-

tunity, resources, and encouragement. A number of studies analyzing the role of citizens in various environmental policy settings demonstrate that citizens are willing to actively participate, even in the most time-consuming citizen advisory roles, in some instances (Busenberg, 2000; Koontz & Johnson, 2004). Other scholars point out the disparity that citizens face with regard to resources and political capital when competing with industry or experts for attention from policymakers (Layzer, 2002a). The dichotomy between citizen participation and elite decision making has been referred to by some as a false construct (Steelman, 2001). It is not uncommon to have both citizen input as well as elite influence in a single policy deliberation. With regard to citizen participation, it seems fair to summarize the literature by emphasizing the potential for citizen participation and deliberative input, but also the barriers to entry and influence with which citizens are faced when they do decide to become involved in the policy process.

Regardless of the tools or processes used, environmental policy literature points to the importance of public involvement to ensure stakeholder support, policy effectiveness, and equal distribution of burdens. Allowing individuals the opportunity to express themselves and present evidence in support of their argument results in a collective view that the process is fair and an increased sense of commitment to the rulemaking authority (Lind & Early, 1992). This satisfies the goal of public support for the policy solution and achieving justice for all groups. Policy effectiveness can be greatly diminished when policies are not considered legitimate by segments of the stakeholder population (Roberts, 2008). Free-riders and defectors from policy regimes are much less likely when parties involved in the process are satisfied with the mechanisms in place (procedural as well as regulatory) (Lind & Early, 1992; Tyler, 1994). A publicly supported policy solution is generally regarded as a higher quality solution.

Participation in environmental policymaking allows for incorporation of the varying interests and stakeholder groups, which may lead to a better end-solution or recommendation (Koontz & Johnson, 2004). This will not only help citizens become better informed, it will help managers become informed about citizen preferences and concerns (Irvin & Stansbury, 2004; Steelman, 2001). Otherwise, the program is reduced to an "inconsequential democratic drama" (Hampton, 1999, p. 173). Finding the balance between citizen input and expert advice is a dilemma, but each is required to make appropriate decisions for environmental quality and public health (Korfmacher & Koontz, 2003; Steelman, 2001). Unfortunately, despite the importance of citizen participation, it is often elites who choose to participate in policymaking. These experts, who are awarded a trusted and respected role in policy decisions and who possess the technocratic knowledge to influence policy outcomes, can exert the most influence over policies when citizens are not involved.

The Role of Entrepreneurs in the Policy Process

While participatory processes are on the rise in environmental polic making, the literature above suggests citizen participation is unlikely unle active mobilization takes place to encourage participation. Political elite then, are in a position to dominate the policy process. These elites can a sume many roles, one of which is the policy entrepreneur. Experts becom political elites because of the tendency for elected officials to disengag when policy issues involve complex technical information (A. L. Schneide & Ingram, 1997). These technical experts are therefore able to exert signif cant policy influence. Policy entrepreneurs are advocates for policy propo als who may be inside or outside of government, groups, or individuals, b who share the defining characteristic of

> a willingness to invest their resources—time, energy, reputation, and sometimes money—in the hope of future return. That return might come to them in the form of policies of which they approve, satisfaction from participation, or even personal aggrandizement in the form of job security or career promotion. (Kingdon, 1995, pp. 122–123)

These actors can help "change the direction and flow of politics" (M Schneider & Teske, 1992, p. 737).

Policy entrepreneurs can include actors within and outside of traditiona government sources of influence and power. They can include experts, o policy elites, as mentioned above, but they can also include citizens. Citizens as in the Love Canal, New York, case and many others, have been instrumen tal in promoting and demanding change throughout U.S. environmenta policy history (Fischer, 2005; Layzer, 2002b). As Layzer (2002b) illustrates this citizen entrepreneurship is frequently seen in cases of NIMBY-ism (no in my backyard) or cases in which communities face hazardous exposur or other health risks associated with environmental contamination. Loca bureaucrats, with their leadership and technical knowledge, also act as en trepreneurs when citizens demand or require change and elected official do not provide that change (Teske & Schneider, 1994). Similarly, scientific elites can act as policy entrepreneurs based on their expertise in a particu lar field or scientific policy issue (Hart & Victor, 1993). Elites and expert may be particularly influential in policy decisions and innovation to a great er degree than regular citizens. Their expertise may prove to be one way in which entrepreneurs can overcome barriers to entry in local politics tha prevent citizens from participating (Teske & Schneider, 1994).

While policy entrepreneurs can promote policy innovation through "the generation, translation, and implementation of new ideas," they cannot do so alone (Roberts & King, 1991, p. 147). While they can help change the flow of policies, they do not control this flow, according to Roberts and

King (1991). The presence of policy entrepreneurs in policy venues does increase the likelihood of political consideration of policy choices (Mintrom, 1997). Mintrom argues that policy innovation, or the spread of new policy ideas, is related directly to policy entrepreneurship. Indeed, these political innovators "generate creative policy solutions, redesign governmental programs, and implement new management approaches" (King & Roberts, 1992, p. 173).

Beyond acting as entrepreneurs directly, citizens can be important tools for entrepreneurs to achieve their policy goals. Baumgartner and Jones (1993) argue that by reframing issues and opening policy subsystems to a greater number of participants, policy change can rapidly take place. They also describe a dual mobilization process through which those who are critical of policies can make change by opening policy venues to more actors. The focus in political mobilization literature on the role that external groups play in motivating participation among mass groups (Jordan & Maloney, 1997; Rosenstone & Hansen, 1993) also alludes to the role that these masses may play as tools for groups or individuals with policy agenda goals. Since citizen participation is unlikely without mobilization, yet desirable in environmental policy deliberation, and experts can dominate technical policy debates when the public is not involved, it is important to understand why and what processes serve as barriers to citizens.

The Role of Media and Information

As with almost every policy issue, environmental policymaking relies on mass media for the communication of complex policy problems, alternatives, and solutions. It is through media framing and simplification that citizens come to understand the complexities of government debates and decisions. Downs (1972) argued that media help to determine the level of societal knowledge about environmental issues and the corollary importance of those issues in the public and policy discourse through an issue-attention cycle. Through reporting on environmental issues, media help not only to raise awareness about issues, but also to define the problems and associated costs of solving those problems (Baumgartner & Jones, 1993). Unfortunately, because media often pay attention to these important issues for only short periods of time (Kingdon, 1995) and cover complex stories in ways that oversimplify, dramatize, or inaccurately portray science and opposing political views (see Boykoff & Boykoff, 2004, 2007), media also prevent lasting concern, accurate understanding, or policy solutions to these same problems. Media coverage patterns are therefore crucial to understanding the level of involvement that citizens have in environmental policymaking.

Mass Media Influence in Policy Decisions and Public Perceptions

Undoubtedly, one of the most important dimensions of media inf ence over policy issues is the process through which media influence sue salience. Beyond the role that media can play in influencing pub opinion and policy agendas, the broader political agenda and climate a also shaped through a process by which "social problems [that] origin on the media agenda . . . are subsequently transformed into political issu (Anderson, 1993, p. 25). By directing public attention to certain aspects the policy process through the transmission of salience, media wield inf ence over the political process (Kennamer, 1992). Influence over the pu lic issue agenda is vital to understanding which issues are placed at the t of the governmental agenda (McCombs, 2005; McCombs & Shaw, 197 Media coverage of issues, particularly the quantity, prominence, and f quency of coverage, translates to corollary placement of those issues governmental and public issue agendas. It is not only the information media messages that matters in determining the salience of public issu but the amount and placement of those issues are of utmost importan (Scheufele & Tewksbury, 2007).

Salience as it relates to policy agendas has been summarized into thr points: (a) mass media influence the public agenda; (b) the public agen influences the policy agenda of decision makers; and (c) the policy agen can have a direct influence on the media agenda (Rogers & Dearing, 200 Kingdon's (1995) theory of policy change would indicate that by highligh ing certain issues and ignoring others, media are more likely to raise awa ness about policy problems rather than promote policy alternatives. Th cyclical and limited agenda process is important to consider when seeki an understanding of citizen access to policy information and the potent for citizen influence over policy outcomes.

Beyond simple placement on policy agendas, the salience of issues in th public discourse can influence policy outcomes by helping shape publ opinion as it relates to particular topics. "The public are recipients, wi ing or unwilling, passive or active, of this media content, over whose ma ing they have little direct influence" (Paletz, 1999, p. 330). Entman (198 states that public opinion among citizens is influenced when media "co trol what they think about" (p. 77). Miller and Krosnick (2000) argue th journalists select stories based on their view of what is important in socie By inference, then, individuals assume that the issues covered by the m dia are the most important issues facing their communities. "Journalis selecting and highlighting a few stories each day, determine which issu are treated as important in the news" (Paletz, 1999, p. 141). Through th inference, journalists determine the salience of certain policy issues ov

others. "Media content is pervasive and rife with explicit and implicit political meaning" (Paletz, 1999, p. 330), and the salience that media create on a given issue can influence public opinion related to policy issues.

Beyond issue salience, media can influence issue agendas by portraying an issue, or framing it, as positive or negative; citizens may then be influenced by media to hold similar opinions (Iyengar, 1990; Iyengar & Kinder, 1987). By discussing local issues in a positive manner, local media can garner support for issues and encourage citizen involvement, while the opposite can also be true. Nicodemus (2004) found that of two newspapers in a single community, one framed a local environmental issue in a positive, communitarian light, while the other emphasized the difficulties of making a difference in the political process and of challenging the environmental wrong-doer. Nicodemus argues that this framing influenced the community's likelihood of collective action toward policy change.

While scholars generally agree with the premise that media coverage of issues determines the importance that citizens and policymakers place on those issues, scholars are far less certain as to the behavioral consequences of such media attention. Iyengar and Kinder (1987) and others argue that media coverage clearly influences opinions that individuals hold, but there is still far less consensus as to whether an influence over opinions changes individual or collective behavior or whether any changes that might take place will prove to be lasting changes (McQuail, 2007). Scholars point to the impossibility with which we can point to one social institution and separate its influence from other societal influences over opinions and behavior. Weber, in his Ideational Model (summarized well by Neuzil & Kovarik, 1996), argued that ideas are effective in creating social change only when also held within other social forces, specifically the power structure and the mass media.

It is therefore most important to consider media influence in the context of its most important role: the establishment of knowledge, which helps to maintain or change social structures and institutions (Donohue, Tichenor, & Olien, 1973). The idea that communication and knowledge are bases of social control has long been argued (e.g., Galbraith, 1978). That media help to create this knowledge and maintain social order through reinforcement of dominant value systems (Gans, 1979) calls into question whether media coverage often brings about significant social change. Media do serve an important role in creating "publics" along the lines of what Dewey (1927) conceived—those that emerged due to a perceived threat to the community through increased knowledge about such threats.

Case studies point to many instances in which media coverage of environmental issues led to social and political change (Layzer, 2002b; Neuzil & Kovarik, 1996; Nicodemus, 2004), but these same scholars also highlight the complexities of the cases and are often reluctant to state with certainty

that mass media coverage can directly influence social and political ch
While behavior change cannot explicitly be attributed to media co
in most instances, the role of knowledge formation is undoubtedly
enced by media, which can potentially lead to a more informed and
involved public—" the power of the press is the influence that news-p
exercise in the formation of public opinion and in mobilizing the co
nity for political action" (Park, 1941, p. 1). It is therefore a fair asses
of media influence to state that media help to determine knowledge
current issues, the salience of those issues on the public and policy ag
and may at times help to influence political mobilization toward cr
social change.

Based on this literature, media coverage of policy issues is expec
serve an important role to inform citizens and highlight the imp
issues of the day. In today's media landscape, there are overwhe
amounts of media messages in local newspapers, on television, and in
ingly on the Internet and blogosphere. In the context of local enviro
tal policy, local news sources will likely be the only source of inform
for citizens. In many cases, this will involve traditional media as the pr
news sources since it is generally in larger cities, states, and nationa
texts in which there is active Internet and blog activity related to
information. While the media landscape in local communities may n
volve new media platforms to the extent that state, regional, or na
media analyses would, the changing nature of the news business affe
types of media, in all markets.

Reporting on Science and Environment

Despite the high levels of interest in science (National Science B
2010; Nunn, 1979; Pew, 2009), American news organizations tend to
the reportage of science as a niche or beat subject, leading to uneven
age by beat reporters, general assignment reporters, and wire stories (
man, 1986). Scientists are disappointed at public knowledge of scienc
blame the media for inadequately covering the issues and reporting
curate and distorted versions of technical issues (Dunwoody & Scott,
Pew, 2009; Tankard & Ryan, 1974; Tichenor, Olien, Harrison, & Don
1970). Few journalists covering science topics have scientific backgr
(Palen, 1994): only 3% of journalists with college degrees major in t
eas of mathematics or science, while most major in communication
(Weaver & Wilhoit, 1996).

Winsten (1985) found that competition among journalists led
"strong motivation to distort their coverage" (p. 8). "The result has b
spiraling competition, sometimes characterized by exaggerated clain

which 'science by press conference' has begun to replace the traditional mode of scientific discourse" (pp. 14–15). Dunwoody (1979) found that reporters with multiple story assignments and tight deadlines relied more heavily on press conferences and fewer sources in their reporting than reporters with fewer schedule restraints. These schedule constraints are only growing as newsrooms downsize, and most reporters are now also expected to blog in addition to their daily reporting routines. Reliance on traditional journalistic norms such as personalization, novelty, and balance can at times lead to inaccuracies in reporting because journalists do not know enough about content areas to screen out erroneous statements or misleading claims about science or policy (Boykoff & Boykoff, 2007).

Editors favor conflict frames and sensational story elements more than science writers (Johnson, 1963), a difference Dennis and McCartney (1979) found key to the dissatisfaction science writers have with the priorities of their editors. Editors are driven by the competitive demands of their market, forces that push them to pursue the attention of readers and audiences. The drawbacks of competitive corporate culture to science and environmental coverage have recently become more apparent. As media organizations reduce staff and resources, specialty reporting appears to be one of the first cuts made. Perhaps no greater example of this trend was the decision in December 2008 by CNN to dissolve its entire science, technology, and environment news staff. CNN stated that it wanted to integrate special-topic coverage into the regular editorial divisions of the organization, but the decision drew widespread industry criticism (Brainard, 2008). This trend may continue or escalate as a result of diminishing newsroom profits in the years to come. It highlights the importance of accurate and reliable information about environmental topics, but also points to a growing likelihood that audiences may not receive this type and quality of environmental news.

As environmental problems grow increasingly difficult to solve (Vig & Kraft, 2003), and technical data produce comprehension barriers for the average citizen, the role of environmental reporting becomes more important. When experts dominate the policy process, and media coverage of these policy decisions is minimal, the public will not contribute in meaningful ways to policy decisions (Crow, 2010a, 2010b). Environmental policy literature indicates that, in technical policy venues, experts can dominate discourse and influence policy outcomes if citizens are uninvolved (Baumgartner & Jones, 1993; Hart & Victor, 1993). One hurdle to overcoming this trend is the difficulty journalists face to effectively communicate complex ideas to the public in a manner that promotes understanding and active participation in democratic debate. It is, however, increasingly important to do so because "the public may be highly susceptible to influence by changes in media attention and media characterization" of scientific issues (Nisbet, 2004, p. 139). As scholars and practitioners seek to understand how, when, and why citizens

choose to participate in policymaking, analyses of media coverage and provision of adequate policy information are vital to understanding the complete menu of information and choices with which citizens are faced.

RESEARCH METHODS

As previous studies show, while citizen participation might be desirable in a democracy, it is not common in technical policy venues unless extrinsic factors encourage them to do so. There is also considerable evidence to suggest that mass media communication of complex policy issues does not reduce the barriers for citizens to meaningfully understand and participate in their local policy processes. This chapter draws from two separate research studies to form conclusions about citizen participation in local environmental policymaking.

Comparative Case Study Method: Recreational Water Rights in Colorado

The first study was a comparative case study of Colorado communities wherein the communities sought recreational water rights for kayaking and whitewater rafting. This local policy example provides an appropriate case for analysis of the concepts presented in the literature above. This comparative case study involved in-depth analysis of the policy process in all 12 adopter communities as well as 6 non–adopter communities. The data from interviews, legal and legislative document analysis, and media coverage of the policy debates were coded and analyzed to provide a rigorous analysis of policy influences within local communities. Interviews were conducted with policy participants in all communities included in the study,[1] legal documentation was collected in each of the communities, and all local media coverage of the policy issue was coded and analyzed. These cases were then analyzed in a cross-case method to determine common patterns, influences, and processes. This case provides an example of a highly technical policy venue focused on water law and hydrology, and is an appropriate case for exploring the concepts of citizen participation, technical policy debates, and media coverage of such subjects.

Survey Research Methods: A Study of Colorado Journalists

The second study used an online survey of Colorado journalists. Reporters, editors, anchors, producers, and news managers were included in the sample. The survey sample included newspapers and television news me-

dia across Colorado, based upon listings provided by the Colorado Press Association (for newspapers) and by individual television stations. A total of 431 potential respondents were contacted, with a response rate of 21.8% (N = 94). The average online survey response rate falls between 32.52% and 41.21%, according to one study (Hamilton, 2003). Daily deadlines, multiple story workload pressures in today's newsrooms, and personnel turnover could easily have pushed the response rate for this online survey lower than desired.

The online survey included questions related to (a) length of employment experience and journalistic training both in formal education settings and postcollege training opportunities, (b) daily journalistic routines with regard to science and environmental coverage of individual journalists, (c) budget cuts and personnel downsizing generally and specifically related to environmental coverage within the newsroom, (d) use of various sources in science and environment reporting, and (e) journalist demographics. These responses were analyzed to understand the nature of science and environmental reporting in Colorado daily news, as indicated by the journalists who cover these topics, the experience and training they have, and the frequency with which they cover these technical topics. This is an important topic for consideration when exploring the factors promoting and preventing citizen participation.

Research Findings: Recreational Water Rights in Colorado

In all American states, a system of granting use rights to water resources has been established. In the western United States, where water resources are variable and less plentiful, these systems are controlled primarily under the system of prior appropriation (Getches, 1997). Under prior appropriation, holders of junior water rights, as determined by the date of appropriation of the resource, are not allowed to take any of their water until the senior water rights holders on the river have fully satisfied their rights. This system has come to be known as "first in time, first in right" due to the priority of water rights based on longevity of use.

All water rights holders must additionally put their water to a beneficial use, as designated by a Colorado water court. Colorado's prior appropriation system first only allowed for irrigation water rights (Hobbs, 1997), but over time has evolved to include many other uses of water including domestic, industrial, mining, snowmaking for ski resorts, environmental protection, and other uses (Colorado Foundation for Water Education, 2004). This evolution of uses has most recently included the development of in-channel recreational use of water for maintaining river flows for kayaking and whitewater boating. This new water right—the recreational in-channel diversion, or RICD—is the focus of the case study presented here.

In 1998, Golden, Colorado, applied for the first such water right in water court. As recreation and tourism have become more important economic drivers in Colorado and in many communities, local governments sought innovative solutions that would help to establish or protect their recreational resources, such as whitewater boating. Golden was followed by Vail, Breckenridge, and nine other communities between 1998 and 2006. Due to intense political opposition to these water rights, the state legislature debated legislation on three separate occasions to codify and restrict the water right, passing two pieces of legislation and defeating a third (Senate Bills 216 [2001]; 62 [2005]; 37 [2006]). The Colorado Supreme Court also heard the cases involving four of these communities before the water rights were granted. Under state statute, only subdivisions of state government (municipalities, counties, water districts, etc.) can own a RICD water right.

Over a decade, this issue rose in importance throughout communities in Colorado. Similar policy debates were held in local communities regarding whether or not to pursue a water right and build the required boating course structures to qualify for such a water right. This not only was a politically controversial issue, but it was also an expensive undertaking for the communities that chose to pursue an RICD. Communities spent hundreds of thousands of dollars in legal fees associated with the water right (mean cost = $276, 714), and many also spent hundreds of thousands of dollars building the boating course structures (mean cost = $378,200). Considering that many of these communities have small tax bases (mean population = 21,385), this is a significant investment and an appropriate case for analysis of local environmental policy decisions and political involvement.

Citizen Involvement in Local Environmental Policy

When asked about the level of involvement by various stakeholders in the case study communities, interview subjects stated that water law and policy is a complex and mundane process for the average citizen and that they rarely see or expect citizen participation.

> Water rights for people that even deal with them are pretty obscure. [LG-09]

> It's sort of one of those water rights things which seems to be abstract and boring. [LR-05]

Because of the technical nature of water rights, individuals may be unlikely to participate without efforts to encourage them to do so. This section will

analyze whether citizens have been involved in the process of policy change in Colorado communities and if so, what the nature of that participation was.

The first question to analyze is whether communities made efforts to encourage citizen input and provide information about policy decisions, or the deliberations that preceded them. Without this effort, based upon political mobilization literature, it can be assumed that levels of citizen involvement would be quite low, especially given the technical nature of water rights mentioned above. Table 6.1 shows that four communities did not attempt to make citizens aware of the issue of RICD water rights. Four other communities did so, but only through the minimal process of city council meetings and public notice thereof. Finally, four communities actively attempted to involve citizens in the policy process.

The next important consideration is whether these limited attempts to solicit citizen participation in some RICD communities resulted in the desired citizen participation and input. Interview subjects reported some citizen involvement, but the focus of these individuals was primarily limited to the process of policy change with regard to decisions to build the recreational amenities upon which RICD water rights are based, not the water rights themselves.

> We had a local paddler club in town that were advocating boating and doing some sort of a boating course. [LG-12]

TABLE 6.1 Effort to Make Citizens Aware or Involved in RICD Decision

Community	Public Notice[a]	Policy Initiator (Crow, 2010a)
Golden	None	Expert (S)[b]
Vail	None	Expert (A)
Breckenridge	None	Expert (A)
Longmont	None	Expert (A)
Pueblo	Minimal	Expert (A)
Gunnison	Active	Expert (S)
Steamboat Springs	Active	City Council and Citizens
Chaffee County	Active	Citizens
Silverthorne	Minimal	Expert (A/S)
Durango	Active	Citizens
Avon	Minimal	City Council
Carbondale	Minimal	Expert (A/S)

[a] Minimal notice involved simply listing the RICD issue as an agenda item in city council notices. Active notice involved city officials holding open meetings, discussing the issue with local journalists, and additional methods of attempting to solicit citizen input into the policy decision.

[b] Expert (S) = Expert government staff such as water managers. Expert (A) = Water attorney.

> We were approached by a group of boaters. [LG-01]
>
> The recreational community was very supportive of the whitewater park and were frustrated about the length of time that it took us to come together to actually do it. [LG-05]
>
> The boating community has been talking about it. [EL-06]

There were three exceptions to this rule. In Durango, Chaffee County, and Steamboat Springs, community members and local groups were actively involved in local government hearings and public discussions. However, the groups that were actively involved were limited to a few community members.

> They had expressed an interest in... protecting flows in the river for recreation and so we began to explore and talk about it. [LG-19]
>
> The initial proponents of it were the Arkansas River Trust. [LR-01]
>
> The recreation and environmental community and the city was largely supportive of it. [CW-01]
>
> Sort of an activist group of people that were interested in it and I think the rest of the people were probably ambivalent. [LW-09]

In the majority of communities where citizens were involved in the process of policy change, these people were important to the decisions to build the recreational infrastructure upon which the water right was based. The case studies demonstrate citizen group involvement in 10 RICD communities. In seven of these communities, citizens were primarily or only involved in promoting the construction of whitewater parks. These citizens advocated directly for the community to provide an amenity that would benefit their personal recreational interests, but did not continue to do so for the more nebulous benefit of the water right.

In this era of open governance and sunshine laws, there is some degree of expectation that government decision makers see the value in soliciting citizen input, or at least do so in order to be seen as valuing transparency. It may therefore appear incongruous that two thirds of RICD communities either did not attempt to inform citizens or did so only at the statutorily required minimal levels (i.e., providing public notice in city council agendas), as outlined above. This finding may be closely related to the field of water rights and the technical nature of this policy area. Since water rights based on prior appropriation place value on the timing of a water right claim, some argued that public involvement was not desirable.

> You typically don't have a public discussion about a water right filing because if you tell everybody we're going to file,... there would have been a just a rush to the courthouse [to file first or oppose the water right application]. [LG-13]

> The specific question of the RICD was considered more of a technical detail. [EL-04]

Water rights may be similar in this respect to many other technical environmental policy decisions made within local governments. These findings support the literature presented above and indicate that a lack of citizen input may be pervasive across environmental policy issues beyond RICD water rights, in which technical or complicated information is seen as beyond the scope of individual knowledge or interest and where these policies are seen as details in which citizen input is not required.

Next, based on the public notice that was provided, it does not appear that citizens chose to participate in policy discussions related to the water right issue.

> They wanted the course, they wanted to go boating. They had the course, they were boating. Securing the future of the water, that's something that isn't really real to them. [LG-09]

> There were remarkably few kayakers... who showed up at these meetings. [LW-04]

> There wasn't a lot of discussion about the RICD filing. [LG-13]

While levels of citizen participation differ between RICD communities, overall levels of citizen participation appear to be quite low in recreational water rights policy processes. This suggests that either citizens simply chose not to participate, or there were specific barriers to entry into the political process in these cases. The rest of this chapter analyzes some of the possible reasons for this lack of citizen involvement in RICD local policy decisions. If citizens are not influential actors in local policy processes, as in the cases presented here, seeking opportunities for involvement and input, then it is also vital to understand which actors are influential in these local decisions.

Citizens, Entrepreneurship, and Local Environmental Policy

Within each community, interviews were conducted to understand the process through which the idea of applying for RICD water rights arose and the initiators of the idea. The concept of a policy entrepreneur was not described to interview subjects so as not to bias their responses. Instead, policy entrepreneurs were defined based upon previous policy studies, as outlined in the literature review and were identified during data analysis by referencing these definitions. Policy entrepreneurs were defined in this study as actors who initiated RICD policy ideas and who subsequently fought for the policy within local communities. Interview subjects' responses indicated that entrepreneurship was evident across adopter communities.

> The lead proponent of that was a council member. [LW-05]

> The idea actually came from one of the council members. [LG-22]

> I think the fact that it came from a citizen and not from the government directly says something. [LR-02]

The individuals identified in the case study communities who promoted the idea of applying for recreational water rights fall into three categories, as outlined in the Table 6.1.

These policy entrepreneurs come from within and outside of government and include experts in the field of water rights, as well as citizens. In Colorado, water rights matters are almost always handled by water attorneys who have expertise in the legal and statutory requirements related to water. There are also water managers within communities who are charged with supervising water infrastructure, development, supply, and the community's water portfolio. In six RICD communities, the water rights attorney acted as a policy entrepreneur. These individuals not only gave legal advice to their client communities, but they also advocated for the water right. While professional advice is based on the best interests of the client, there were many interviews that pointed to the overlap in personal and professional support for RICD water rights in client communities. Second, in four communities, technical government staff for the local community acted as policy entrepreneurs. Municipal water managers acted in a similar manner as water attorneys. Only those managers who also personally believed in the RICD promoted it within their communities. In two additional communities, elected officials served as policy entrepreneurs. Elected officials often promoted RICDs based on their personal values as well as their hopes for promoting local economic development through recreational tourism. Finally, in three communities, citizens promoted the idea of filing for RICD water rights. It was only in communities where local governments actively solicited citizen input in which citizens were policy entrepreneurs. Keep in mind, however, that entrepreneurship would generally precede public notice, so there is no causal mechanism at work here. Entrepreneurship is the process through which the idea surfaces and is successful within policy circles, so at the point in which city council officials are discussing the idea openly, it has already made it onto the public issue agenda.

In cases in which experts acted as entrepreneurs, these individuals were hired to provide advice based on their subject expertise. This advisory role of experts is where they were able to influence policy change to the greatest degree. Their skills and knowledge allowed them access to information that

is not widely available or understood. Expertise also allowed these actors to capture the trust of elected officials within the communities to promote policy change in favor of RICD water rights to a greater degree than nonexperts.

> [Our attorney] is a tremendous visionary and... he's been given a tremendous amount of free reign and he's got a Midas touch. [LW-06]

It is important to note that while city government managers and staff are experts within city government, the water attorneys presented in this section are all private attorneys. In Colorado, municipal and county governments generally retain a private water attorney to handle water matters exclusively. These attorneys provide counsel and handle water litigation and negotiations, but are not government staff, which is why they are categorized separately.

Based upon the data presented here, Table 6.2 outlines the types of entrepreneurs found in RICD policy in Colorado, the roles that they play, and the corollary literature that speaks to the importance of these actors in the policy process. As indicated in this study, while experts were the most influential to this case, citizens and elected officials can be important sources of innovation in some communities. While many Colorado communities could have benefitted from an RICD water right to protect their investments in whitewater recreation, it was only those communities with active policy entrepreneurs that chose to pursue an RICD water right. The importance of entrepreneurship in these case study communities indicates an important role for individuals in the policy process.

TABLE 6.2 Policy Entrepreneurs by Category (Crow, 2010b)

Policy Entrepreneur Category	Characteristics and Reasons for Entrepreneurship	Related RICD Cases	Supporting Policy Literature
Citizen Entrepreneur	• Personally interested • Possible economic interest • Ideological interests • Effective through group membership	Steamboat Springs Chaffee County Durango	Layzer (2002b) Kingdon (1995) Baumgartner & Jones (1993)
Expert Entrepreneur	• Professionally interested • Personally interested • Access to decision makers • Expertise in relevant policy area • Trusted by decision makers • Access to policy information • Disseminator of policy information	Golden Vail Breckenridge Longmont Pueblo Gunnison Silverthorne Carbondale	Teske & Schneider (1994) Hart & Victor (1993) Kingdon (1995) Baumgartner & Jones (1993)
Elected Entrepreneur	• Ideologically interested • Personally interested • Politically knowledgeable • Policy expertise • Possible subject expertise	Steamboat Springs Avon	Kingdon (1995) Baumgartner & Jones (1993)

The experts discussed in this section influenced policy debates and outcomes to a much greater extent than citizens, given the data presented on both categories of actors. The expertise and technical skills that these individuals possessed allowed them to build trust and negotiate the policy process in ways that citizens did not. This access allowed them influence that other actors did not enjoy. Experts, and not citizens, were the most involved and influential actors in the local environmental policy case presented here. Next, this chapter will consider the reasons why this may be the case.

Local Media Influence

As the literature and everyday experiences suggest, media coverage of policy issues, or lack of coverage, may be an important factor in understanding citizen involvement in local environmental policy decisions. It is with this understanding that media coverage frequency, timing, and content were analyzed in the case study communities. The content analysis of media coverage from all case study communities indicates that media coverage across communities was skewed toward positive coverage of RICD policy issues and discussions. This means that when analyzing the content of local media, those who supported the water right saw their "side" of the debate framed in a more positive light. Table 6.3 is based upon a content analysis for all media coverage in local newspapers (there were no local television media sources except in the Pueblo/Colorado Springs market) during the period from 1998 through 2006.

Based on this content analysis, media coverage in 10 of the 12 RICD communities was supportive of RICD water rights and the legal cases related to obtaining those water rights. This table is limited to those articles related to local RICD cases (38.8% of total articles) and local editorials (4.6%); the additional articles that were published in local newspapers addressed local kayak courses (13.5%), other communities' legal cases (13.2%), other kayak courses (2.9%), legislation related to RICDs (18.5%), and general RICD issues (7.3%).

For mass-media coverage to help mobilize citizen participation in order to influence policy change within local communities, this media coverage would have had to begin prior to policy decisions being made. This, however, was not the case in RICD communities in Colorado. Table 6.3 depicts the timing of the start of media coverage in each RICD community, and shows that in the 12 RICD communities, media coverage began after the

TABLE 6.3 Local Media Coverage of RICD Water Rights (Crow, 2010a)

Community	# Local RICD Articles	% Positive RICD Paragraphs	% Positive Quotations in RICD Articles	% Positive RICD Editorials	Date of First Local Article	Date of RICD Application
Aggregate Media Data	*168*	*67.7*	*72.3*	*80.1*	03/01/01[a]	12/30/98[a]
Golden	10	53.5	65.4	85.7	03/01/01	12/30/98
Vail	5	72.0	83.7	—	06/25/02	12/26/01
Breckenridge	6	74.6	92.0	100.0	05/27/01	12/28/00
Longmont	2	80.0	57.1	—	04/13/04	12/27/01
Pueblo	36	68.7	70.8	60.0	11/05/01[b]	12/31/01
Gunnison	9	87.1	85.7	100.0	Fall 2001[b]	03/29/02
Steamboat Springs	23	56.4	61.6	—	09/27/03[b]	12/22/03
Silverthorne	7	66.6	76.9	—	03/09/05	12/27/04
Chaffee County	30	58.4	57.3	40.0	10/25/04[c]	12/30/04
Avon	—	—	—	—	N/A	12/27/05
Durango	31	39.7	50.0	100.0	06/08/04[c]	02/28/06
Carbondale	2	87.9	94.7	—	04/06/06[b]	05/02/06

[a] Earliest media coverage and earliest RICD application are listed here to indicate the starting point for these policy debates across Colorado.
[b] Communities in which local media coverage began before the paperwork had been filed to apply for the RICD water right, but after the policy decision had been made.
[c] Communities in which local media coverage began before the policy decision had been made.

date of RICD application filing in half of the cases. In the six communities where media coverage began prior to RICD application filing, the coverage nonetheless started after the decision to seek an RICD water right in four of the communities (Pueblo, Gunnison, Steamboat Springs, and Carbondale). In fact, the first article in each of these communities focused on the news that decision makers had already decided to apply for the RICD. In both Chaffee County and Durango, there was local coverage related to the issue prior to the decision to file in both communities, perhaps due to the very public nature of the debate over these water rights.

Therefore, based on the data presented here, citizens did not have access through media sources to information related to government deliberations prior to the decisions being made. Across case study communities, media coverage was limited in most communities, skewed positive in relation to RICD water rights coverage, and it began after policy decisions had already been made. The media coverage in these cases was such that critical assessment and analysis of the RICD policy proposals prior to decision making was limited. Only in a handful of communities was there balanced media coverage or coverage prior to final policy decisions. This lack of media coverage, combined with the technical nature of these policy issues, may have limited access to information that would be necessary for citizens to become involved in policy decisions. This also could increase the influence that experts have over an insular policy process.

It is important to note that in three RICD communities (Steamboat Springs, Durango, and Chaffee County), the data show that citizens were actively involved and that local government officials actively solicited input from the public. Two of these three cases are also among the small number of cases in which media coverage began prior to policy decision making. Because of the small N case study method used here, no causal mechanism is argued. However, the narrative formed to explain these cases includes city officials who value or at least actively solicit input, local media that more adequately cover policy issues prior to government decisions (in comparison to their Colorado media counterparts), and citizens who decide to engage in the local policy process. These elements seem to be important to the process of engaging citizens—local government openness and local media coverage of policy processes.

Research Findings: Environmental Reporting in Colorado

While it is clear from the case analysis above that local media coverage plays an important role in providing public access to policy information and influencing corollary participation levels, it is also true that media are

experiencing changes that may dramatically alter the nature of their reportage. Mainstream media and academic press coverage is rife with stories of crisis within media industries (see Morton, 2008; Smolkin, 2006; Starr, 2009). It is through this lens of declining newspaper coverage, shuttered newsrooms, and reporter layoffs that this survey sought to understand the current landscape of local environmental media coverage. The survey of Colorado journalists informs the following data analysis related to the current trends in environmental reporting.

The first important area of analysis concerns whether newsroom budget cuts lead to reductions in environmental reporting. Because most news personnel may not be aware of specific budget cuts, respondents were asked if there had been layoffs in their newsroom as a proxy measure for budget cuts. Researchers expected that newsrooms where budgets had been cut and news staff reduced would be the same newsrooms in which coverage of specialized topics such as environment and science would decrease in frequency. The researchers also hypothesized that budget cuts would result in less experienced reporters covering environmental stories as more expensive senior reporters are laid off. As a point of reference, this survey was sent only to Colorado journalists and within months after the *Rocky Mountain News*, Denver's oldest newspaper and one of its two statewide dailies, closed. The presence of real and feared budget cuts was on the minds of Colorado journalists during this time period. As expected, layoffs correlated with specialists being laid off. Additionally, the layoffs of specialists significantly correlated with a reduction in special-section coverage in these Colorado newsrooms, as indicated in Table 6.4.

Beyond simply whether specialists and special-section coverage were reduced in these newsrooms, it is also important to understand whether generalists instead of specialists are now covering these complex environmental topics. Due to the complex nature of these stories, the frequency with which journalists cover science and environmental stories matters, as does the background and specialty training of journalists. When journalists are asked to report as a generalist and therefore only occasionally are asked to cover technical science or environmental stories, it is less likely that they are

TABLE 6.4 Budget Cuts (Layoffs) and Levels of Environmental Coverage

	Special Section Reduction	Environmental Stories No Longer Covered
Layoffs	.17	−.19
Specialist Layoffs	.38**	.08

**$p < .01$

TABLE 6.5 Correlations: Layoffs and Trend to Become More of a Generalist

	More of a generalist
Layoffs	−.016
Specialist layoffs	.179

abreast of the appropriate sources, the context of the story, or how to accurately communicate the technical concepts. It was expected that in newsrooms that were forced to cut personnel, a reporter would experience pressures to become more of a generalist since special-topics coverage would be the responsibility of all personnel, not just specialists.

Surprisingly, according to the data in Table 6.5, there is no significant relationship between layoffs or specialist layoffs and pressure to become more of a generalist. While layoffs did not correlate with a trend toward Colorado reporters becoming generalists, layoffs of specialists correlate with reductions in special-topics section coverage. This likely means that when environmental and science stories are covered, they are no longer assigned to specialist reporters or special sections, and general assignment reporters are increasingly asked to report on these topics.

If general-assignment reporters instead of specialist reporters are covering environmental stories, it is important to determine if these people are less experienced, educated, or trained than their colleagues. Table 6.6 indicates that science and environmental journalists do not look different from their newsroom colleagues in terms of training, education, or experience. This may be good news since journalists covering environmental stories are not less experienced than their colleagues. Keep in mind, however, the fact that these topics require more skills and background to cover well. Therefore, environmental journalists who have the same education, training, and experience as their other newsroom colleagues may actually be

TABLE 6.6 Experience and Training of Environmental Journalists

	Journalism BA/BS/MA	Length of Employment	Total Workshops Attended	Annual Salary
Environmental Reporting	−.19	−.09	.06	.08
Frequent Environmental Reporting	−.13	.13	.10	.06
Journalism BA/BS/MA			.20*	

*$p < .05$

less equipped to cover environmental stories due to the complex nature, science-heavy subjects, and technical content of the stories. These "average" journalists may, therefore, be underprepared to cover stories that require above-average preparation. These trends toward general-assignment reporter coverage of environmental stories, along with the reductions in specialists in Colorado newsrooms, may lead to less accurate, frequent, or informative news coverage of important environmental topics. Without media coverage of such topics that provides necessary information in a comprehensible format, citizens may be limited in their abilities to access the information necessary to participate effectively in technical environmental policy discussions in their local communities.

Citizen Participation in Local Environmental Policy

As the literature indicates and this research supports, citizens are unlikely to participate in their local environmental policy processes unless mobilized to do so and provided the information upon which to act. Despite the significant effect that these local policy debates may have on tax revenue, property values, tourism and recreation, quality of life, and human and environmental health, citizens remain uninvolved when not given the information or motivation to do so. This research concludes that much of the blame rests with the very nature of environmental policy—that these policy issues are highly complex and the average citizen does not have the scientific knowledge or background to understand the complexities involved. Exceptions to this finding, however, are important to note. Case studies demonstrating the powerful NIMBY phenomenon with regard to policy outcomes are common (Layzer, 2002b). These cases also present examples of the powerful knowledge that citizens can possess, even if it is not the same technocratic knowledge with which policymakers have become enamored (Fischer, 2005). The difference presented in this case study research is that there are no overtly hazardous policy outcomes to many environmental decisions. While it can be expected that in cases in which environmental toxins and other hazards are present, citizens will be motivated by NIMBY-ism or outrage; in many other cases, citizens are not as engaged. This disconnect may be a result of the technical dimensions of environmental policies, the nebulous benefits or harms associated with many policies, or the lack of active mobilization of citizens.

It is due to a lack of citizen involvement, according to the case study research presented here, that experts are able to exert such a high degree of influence over local environmental policy decisions. The responsibility for the dearth of participation and lack of environmental knowledge among citizens may also rest with the media coverage of these complex policy topics.

Local media in the case presented here did not critically cover local environmental policy discussions and did not cover the topic prior to policy decision making. Citizens, therefore, did not have the opportunity or information necessary to participate in discussions related to the topic of recreational water rights in their communities. Additionally, while newsroom budgets are being cut, the demands on journalists to communicate important and complex policy issues continue to increase. These processes are taking place and influencing the trend we see in the data presented above, in which the background and experience of journalists covering environmental stories is inadequate for the technical nature of the topics in question.

In a confusing world of conflicting messages, blogs, and social media overload, it is important for citizens to have access to clear, accurate, and understandable information about policy debates. It is likely that the trends presented in this chapter are evident across communities, policy venues, and media platforms. Local media do not appear prepared or fully resourced to fairly and accurately cover environmental policy decisions or provide clear information to their readers and viewers. This lack of information in local communities, in which citizens have limited means for finding information without the assistance of their local media, can and does hamper citizen participation, interest, and knowledge with regard to policy decisions made on their behalf.

Important roles exist both for journalists and for policymakers with regard to engaging citizens to a greater extent. While local media are increasingly faced with limited resources, it may still be necessary for "point people" to be designated as issue experts when it comes to areas that are more technical in nature (akin to designated "beats" but perhaps without the rigidity that restricted coverage of these topics *only* to beat reporters). With familiarity comes a greater degree of expertise and effectiveness in reporting. Through this familiarity, a formerly inexperienced journalist can gain some degree of comfort and efficacy with regard to reporting on science and environmental topics. Additionally, many nongovernmental organizations and government agencies are now providing topical primers for students, journalists, and citizens on a variety of technical topics. A catalog of these easily accessible sources in local newsrooms would help to provide journalists who are on tight deadlines with simple ways in which they can check the accuracy of statements, understand technical nuances, and gain a greater degree of understanding about local environmental issues. While it is not realistic to assume mastery of these topics by general-assignment reporters, easy access to information for journalists may help to improve accuracy, confidence, and reduce "he said, she said" reporting.

Second, local policymakers might consider the importance of actively soliciting citizen input into policy decisions. While it may satisfy sunshine law requirements to simply print a notice in city council agendas, this does

not accomplish the goal of providing the public with easily accessible information related to ongoing government policy discussions. The information may technically be available through minimal public notice mechanisms, but it is likely that only community activists will take the time to seek out information, and then only with regard to topics with which they are already concerned. To get beyond this small circle of activists, community leaders need to engage the public through multiple mechanisms, including news media outreach, columns in local media, e-mail newsletters, and perhaps even social media tools. This information provided to the public should include traditional public notices, but also active education campaigns and mass-media outreach (Beierle, 1998). Public managers and elected officials must begin to view local media as partners in their mission to inform the local citizens of government business.

NOTE

1. Each time an interview quotation is used in this chapter, the following coding scheme is used to reference interview subject data: EL = Local elected official; ES = State elected official; CW = Colorado Water Conservation Board employee; CO = Other state agency employee; LR = Local recreation interest; WA = Water attorney; LG = Local government employee; LW = Local water provider; WP = Other water provider; ER = Environmental or recreation interest; RE = Recreation engineer; AD = Water Rights Advocacy Groups. These codes, along with a numerical designation, help identify the subjects used in this research.

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CHAPTER 7

APPLYING TECHNOLOGY TO ENHANCE CITIZEN ENGAGEMENT WITH CITY AND COUNTY GOVERNMENT

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INTRODUCTION

What does an engaged citizen look like in the 21st century? Going to a political meeting at the local public library? Or is it something more like "liking" the mayor on Facebook and getting headlines sent to an iPhone? Considering the high tech reality of present-day society, local governments need to embrace technology if they want to ensure their "high touch" ability to engage their residents. Robert Putnam, in his "Bowling Alone" essay stated,

> Recently, American social scientists of a neo-Tocquevillean bent have unearthed a wide range of empirical evidence that the quality of public life and the performance of social institutions (and not only in America) are indeed

The State of Citizen Participation in America, pages 163–194
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