WATERSHED SPECIALIST TRAINING PROGRAM

UNIVERSITY OF MINNESOTA

Civic Engagement Module

Community Assessment

By
Mae Davenport, PhD
Associate Professor, Department of Forest Resources
Director, Center for Changing Landscapes
University of Minnesota Department of Forest Resources

Updated August 5, 2015

Why to Assess a Community

There are several reasons why water resource professionals would want to learn more about their community. Many managers are interested in targeting specific audiences for behavior change interventions. For example, in an urban watershed, a manager might want to find out what business owners know about stormwater management or why they are not participating in rain garden cost-share programs. Understanding and addressing the drivers and consequences of land and water use requires gathering biophysical and social data. While managers are likely very familiar with water quality monitoring techniques to assess the impacts of conservation practices, it is also important to evaluate the social impacts of projects and planning. How has a project increased awareness of local water resource problems? How has a project built long-term commitment to water resources? Monitoring community capacity trends over time or before and after projects enables resource professionals, community leaders and others to assess the social impacts of projects and planning. Learning about your community can help you build its readiness for planning and implementation. Knowing your community's capacities and constraints will enable you to build capacity for community engagement in projects and planning. High capacity communities are less vulnerable to stressors and problems. They are better able to plan, act and adapt under uncertainty.

**Why Is Knowing
Your Community Important?**

- Target specific audiences for behavior change interventions.
- Evaluate the social impacts of projects and planning.
- Build community readiness for planning and implementation.

The *Community Assessment Worksheet* (Table 1) identifies some of the questions you might have about your community and how to engage it in water resource protection and restoration. The primary questions listed in bold are some of the practical questions water resource professionals in Minnesota and throughout the Midwest have shared: How can I better engage community members? How can I tap existing social networks or encourage community members to work together? The secondary questions below each primary question are research questions that might guide a community assessment. Answering these research questions should provide clear insight and guidance to resource professionals in each of these areas. For example, to answer the practical question of how to better engage community members in water resource protection and restoration, the resource professional must first know who community members are, their level of awareness and concern about a water resource problem or threat, the likelihood of them taking action, and what drives and constrains their actions. As you review the worksheet, check off the boxes that relate to questions you have about your community.

Table 1. Community Assessment Worksheet

What questions do you have about your community's engagement in water projects? As you review this worksheet, check off the boxes that relate to questions you have about your community.

❑ **How can I better engage community members?**

  ❑ Who are community members?
  ❑ Are members aware and concerned about community or water resource issues?
  ❑ Are members motivated to take action to address community or water resource problems?
  ❑ Are members able to take action to address community or water resource problems?
  ❑ What drives actions? What constrains actions?

❑ **How can I tap existing social networks or encourage community members to work together?**

  ❑ How do community members interact? Are social interactions positive? Is there conflict?
  ❑ How are information and ideas exchanged in the community?
  ❑ How do members influence one another? (e.g., Who are leaders? Who do people trust?)
  ❑ Do strong social networks exist? Do they include diverse members?
  ❑ Do members cooperate to address community or water resource problems
  ❑ What drives cooperation? What constrains cooperation?

❑ **How can I develop or strengthen partnerships with community organizations?**

  ❑ What organizations exist to address community or water resource issues?
  ❑ Are they influential in the community?
  ❑ Do organizations engage and unite diverse community members?
  ❑ Do organizations effectively address community or water resource problems?
  ❑ What drives organizations influence? What constrains influence?

❑ **How can I create, strengthen or coordinate programs to address water resource issues?**

  ❑ What programs exist to address community or water resource issues?
  ❑ Do programs effectively engage diverse community members?
  ❑ Are programs coordinated across organizations? Is there conflict?
  ❑ Are programs successful in addressing community or water resource problems?
  ❑ What drives program success? What constrains program success?

❑ **How can I increase the likelihood that water resource planning and management is viewed as fair and legitimate in the community? How can I build trust?**

❑ **How do cultural differences shape community engagement in water resource planning and management?**

When to Assess a Community

Community assessments can be done at any point in a project or in a watershed planning cycle. They are effective pre-project for baseline understanding to inform design of civic engagement processes, outreach, education and other capacity-building activities and to identify target audiences/areas for action. During the project, community assessments that use participatory methods like interviews and focus groups can help managers engage diverse stakeholders, check-in with stakeholders on key issues, and share knowledge about important challenges or opportunities. Post-project assessments can inform project implementation and enable more effective monitoring and evaluation of projects and planning.

When Should an Assessment Be Done?

- ✓ Pre-project for baseline understanding to inform action.

- ✓ During project for engaging diverse stakeholders, checking in, and sharing knowledge.

- ✓ Post-project for more effective project implementation, monitoring and evaluation.

Defining Community Capacity

First, let's define exactly what a community is. Unfortunately, it is not an easy concept to define because a community is the intersection of people, places, interests, and social interactions. Kenneth Wilkinson (1991, p. 2), a renowned rural sociologist who studies human-environment interactions, describes a community as the combination of three elements (Figure 1): the "local society" (or the community of interest), the "locality" (or the community of place) and the "community field" (or the community of social interaction. Under this definition a community might be a municipality or township, but it can also be a grouping of lakeshore landowners or farmers within a watershed. You could even define your community of interest as formal decision-makers who have authority in land and water use decisions. It's important to think about community as being more than residents in an area defined by political boundaries or even watershed boundaries. Consider all three aspects of community when designing or convening a civic engagement process or when planning a community assessment.
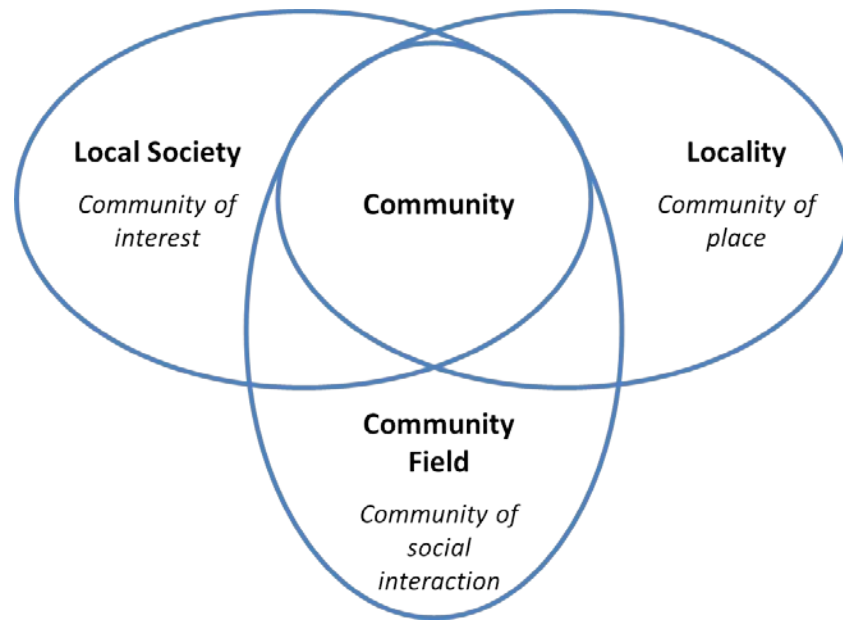
Figure 1. What is a community? (adapted from Wilkinson, 1991)

When you think of a community you work with and how you might engage that community in water resource management, you might first think about the basic resources or capitals (see Flora, 2004 for full explanation of community capitals) it has (or doesn't have) to address a specific water resource problem or opportunity. You might think about your community's financial resources or economic capital and to what extent a community could fund a capital improvement project or an information campaign. You might think of its built infrastructure like stormwater management system or, if you're interested in youth education, it's school systems. You might also think of the information and technology the community has that might contribute to your project's goals like GIS data or public comments from a town meeting. You might think of the human resources within your community or even existing levels of social capital that has been built though through various interactions between community members. These are all **foundational assets** that provide the basic resources from which you can draw as a water resource professional. When these foundational assets are leveraged in managing natural capital, in our case water resource projects and planning, they become mobilizing assets or capacities.

The Multilevel Community Capacity Model (Davenport & Seekamp, 2013, Figure 2 & 3) helps us understand these **mobilizing assets** or **community capacities** (and in some cases incapacities) that a community must have at some level to effectively engage in sustainable water resource management. The model highlights four main levels of community capacity (Foster-Fishman et al., 2001): (1) member decisions and actions (individual capacity); (2) relationships, networks and exchanges (relational capacity); (3) organizations, partnerships and influence (organizational capacity); and (4) programs, coordination and effectiveness (programmatic capacity). Recent research has underscored the importance of community perceptions of water resource management including interpersonal trust, fairness in decision making and the legitimacy of organizations and their programs. In addition, it is extremely important to understand how culture shapes the way people interact and engage in water resource management. Gender, age, race, ethnicity and other social characteristics influence how people value water and they engage in water resource projects and planning.
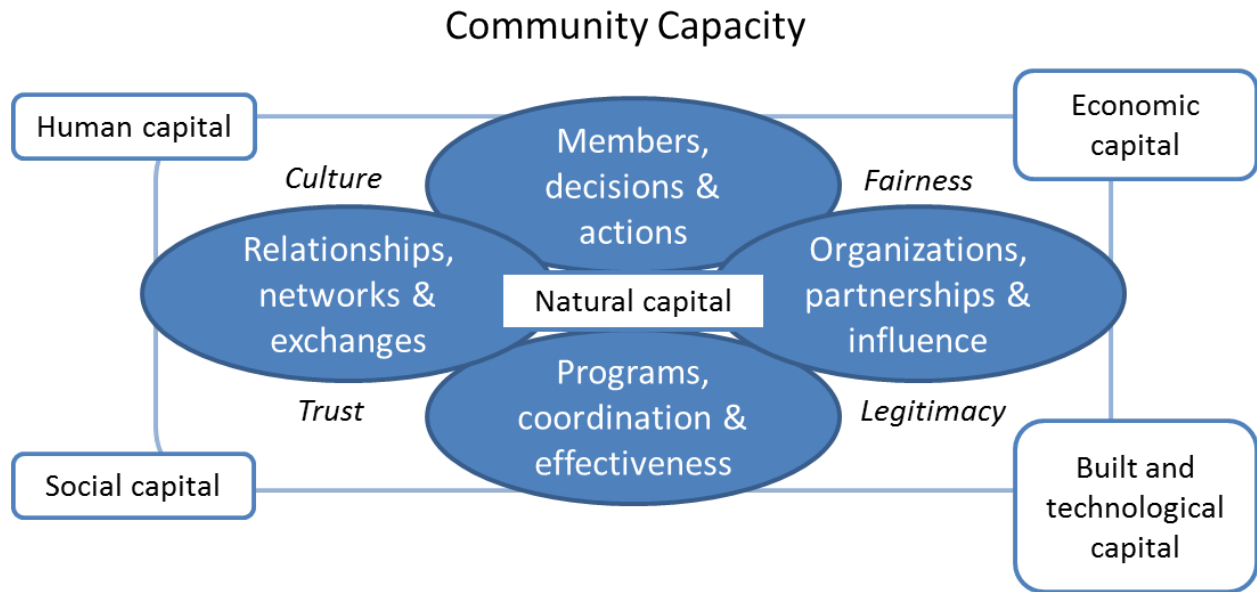
Community Capacity

Human capital	Members, decisions & actions	Economic capital
	Culture ... *Fairness*	
Relationships, networks & exchanges	Natural capital	Organizations, partnerships & influence
	Trust ... *Legitimacy*	
Social capital	Programs, coordination & effectiveness	Built and technological capital

Figure 2: Relationship between community capitals and community capacity (adapted from Davenport & Seekamp, 2013)

Community capacity has been defined as "The interaction of human capital, organizational resources, and social capital existing within a given community that can be leveraged to solve collective problems and improve or maintain the well-being of that community" (Chaskin et al., 2001, pg. 7). This definition of community capacity comes from researchers in community health who have long studied how communities respond to health epidemics and social problems. As this definition demonstrates, community capacity is more than individual member behavior, it includes relationships, organizations and problem-solving.

Community Capacity Defined

"The interaction of human capital, organizational resources, and social capital existing within a given community that can be leveraged to solve collective problems and improve or maintain the well-being of that community" (Chaskin et al., 2001, pg. 7)

It might be useful to think of community capacity in a hierarchy in which all levels of capacity are needed to build trust between members, to develop legitimate organizations, and to create programs that are fair and just (Figure 3). The basic building block of a community is its ***members*** and the decisions members make. Individuals bring skills, knowledge, and attitudes to bear on important community issues. Understanding how and why a community member makes certain decisions and takes action is critical to water resource management, especially because how individual landowners and resource users consume, alter and conserve natural resources has profound impacts on water resources. Most researchers agree that education programs targeting community members' knowledge are important but don't necessarily address what really "motivates" people to act. Behaviors themselves are driven by values, beliefs, social norms, a sense of moral obligation to do what is right, and of course, having access to the appropriate resources needed to act. While knowledge is important, people often do things based on their morals or a sense of obligation to take responsibility for the consequences of one's own actions. These are personal norms. They also might act on what they learn from others or see others do or what important people in their lives think is important. These are social norms. That leads us to the next level of community capacity: relational exchanges.

Relationships drive information flow, build trust, and power cooperation and collaboration. Informal relationships and social networks spur communication and information exchange. Some researchers refer to these types of relationships as "knowledge networks." As individuals develop relationships with one another through repeated positive interactions; they exchange information about important experiences, about problems they face, and maybe even about broader community issues. This exchange of values, beliefs, and attitudes leads to increased member awareness, access to community assets and can even serve to establish social norms by maintaining social pressures on member behavior. For example, one community member might tell her neighbor that she recently attended a workshop about the benefits of rain gardens and is planning to install one in her front yard. She may talk about how she feels responsible for keeping rainwater onsite and how she hopes to attract songbirds and butterflies. She may tell her neighbor about a local nursery that specializes in rain gardens or point her neighbor to a website on constructing a rain garden. Informal relationships like this are important to understand when planning civic engagement programs. In recent community assessments we have learned that many individuals are more likely to be influenced by family, neighbors and other people in their community than their local governments or environmental organizations. Informal relationships can also enhance a shared sense of identity within a community leading to mutual respect and social cohesion.

Organizations are critical to the long-term viability of a community and survival of community initiatives. Organizations bring community members together by formalizing relationships. Organizations enhance leadership development, maintain a community's collective memory, and facilitate social learning. A community has many organizations from very structured, long-term organizations like municipal governance to very unstructured, short-term organizations like a citizen's advisory committee. Organizations come in many shapes and sizes. They might be public institutions like government agencies, schools, hospitals, fire departments or libraries. They might be clubs or associations such as service clubs (e.g., Lions, Elks, Rotary), parent-teacher associations, and youth groups (Boys and Girls Club, soccer leagues, 4-H). They might be community supported centers like senior centers or environmental learning centers. They might be religious or faith-based organizations, arts councils, and cultural organizations. They might be volunteer or charitable organizations such as Red Cross or "Friends of" groups. They might be business entities like chambers of commerce or tourism bureaus. They might be events related committees or groups like county fair committees. Of course, you probably are already working with natural resource or environmental related groups like hiking or snowmobiling clubs, environmental activist groups, and watershed councils or partnerships. Often times organizations

have representatives like board members or staff who are trusted by community members or certain types of community members. Thus organizations can serve as important liaisons between the work you do and the broader community. Organization leaders may be "gatekeepers" into community groups who are disadvantaged or traditionally not represented in community decision-making like ethnic and racial minority groups. When organizations partner together they can pool resources and cooperate in ways that individual organizations cannot do on their own.

Community and water resource ***programs*** are where individuals, relationships, and organizations come together to take action aimed at improving community and water resource conditions. Programs might include policies, information campaigns, outreach and support, and research and monitoring. In some cases a program is sponsored and administered by one organization, more commonly however, programs involve partnerships between organizations and require collaboration and coordination to be effective. When you consider how to coordinate programs for water resource restoration and protection think about how water resources might be tied to existing community assets or needs like parks and recreation, health and well-being, tourism, and community pride. Can water resources be an important resource to these other aspects of quality of life?
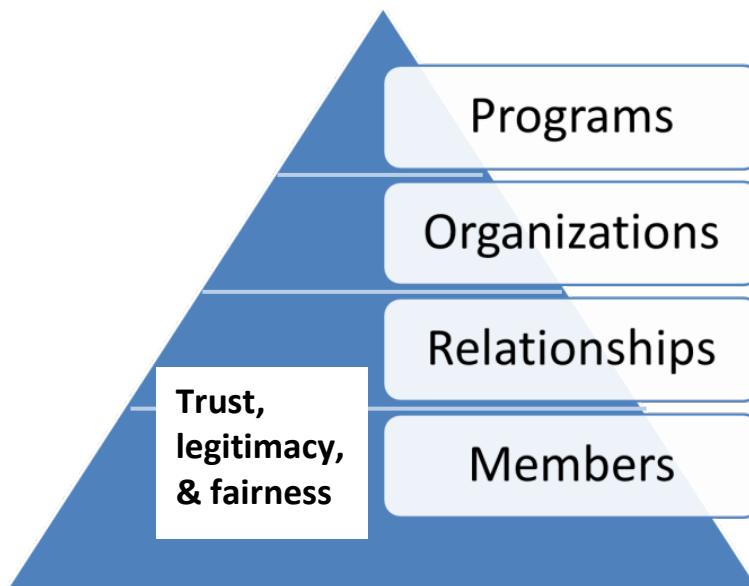

Figure 3. Four Levels of Community Capacity

Assessment Tools: How to Learn About a Community

Social scientists and analysts use a variety of tools to better understand how communities and their members function. Here are some important tools:

- <u>Secondary data analysis</u> is gathering and synthesizing existing data, like census data, in a new way to enhance understanding of a community or a particular audience.
- <u>Key informant interviews</u> involve talking one-on-one with community members about their experiences, beliefs, and behaviors. Interviewing can answer why people engage in certain behaviors or how they make their decisions to act.
- <u>Focus groups</u> are popular in marketing research, but focus groups can also be used to bring together a group of like-minded community members to discuss a particular water resource problem, opportunity or program in depth.
- <u>Surveys</u> are used to gather broad information from a lot of community members. Like popular opinion polls, surveys can tell you how many people or to what extent people within a population hold a belief or are likely to adopt a certain behavior.
- <u>Program evaluation</u> can use any of the tools already described to investigate what program participants (and even non-participants) think of a water resource program and how the program might be improved.

How to Use Community Assessment in Water Resource Work

A community assessment can help to measure, monitor, and build community capacity for sustainable watershed management. The Multilevel Community Capacity Model (see Figures 4 & 5) shows how member, relational, organizational and programmatic capacity are mutually supporting and altogether contribute to sustainable watershed management. This model and findings from a community assessment are being used multiple watersheds across Minnesota to enhance and redesign communication, education and outreach programs. The two examples listed below include a rural and urban community assessment.

<u>A landowner study in the Sand Creek watershed</u>

- Uses the survey method to gather information.
- Read "Increasing voluntary conservation practice adoption through research and relationship-building" by Davenport et al. (2013) for a full description
- A deeper look is in: <u>Perspectives on Minnesota water resources: A survey of Sand Creek and Vermillion River watershed landowners</u>

<u>Community capacity assessment study in the Minnehaha Creek watershed</u>

- Uses the interview method
- Watch video interview with Leslie Yetka, Minnehaha Creek Watershed District
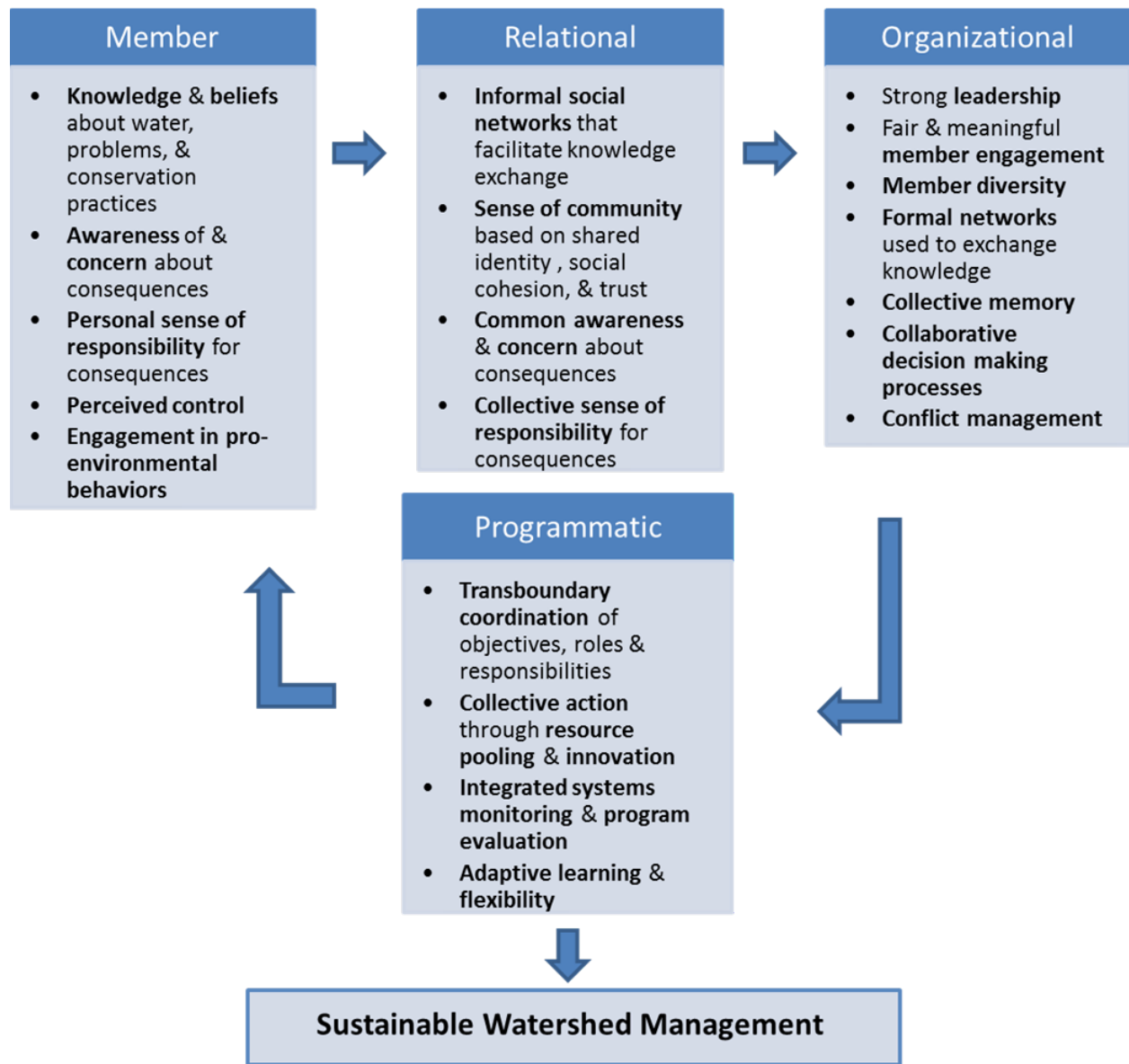- A deeper look is in: <u>A community capacity assessment study in the Minnehaha Creek watershed, Minnesota</u>

Member
- **Knowledge & beliefs** about water, problems, & conservation practices
- **Awareness** of & **concern** about consequences
- **Personal sense of responsibility** for consequences
- **Perceived control**
- **Engagement in pro-environmental behaviors**

Relational
- **Informal social networks** that facilitate knowledge exchange
- **Sense of community** based on shared identity , social cohesion, & trust
- **Common awareness & concern** about consequences
- **Collective sense of responsibility** for consequences

Organizational
- Strong **leadership**
- Fair & meaningful **member engagement**
- **Member diversity**
- **Formal networks** used to exchange knowledge
- **Collective memory**
- **Collaborative decision making processes**
- **Conflict management**

Programmatic
- **Transboundary coordination** of objectives, roles & responsibilities
- **Collective action** through **resource pooling & innovation**
- **Integrated systems monitoring & program evaluation**
- **Adaptive learning & flexibility**

Sustainable Watershed Management

Figure 4. Multilevel Communicty Capacity Model (Davenport & Seekamp, 2013)
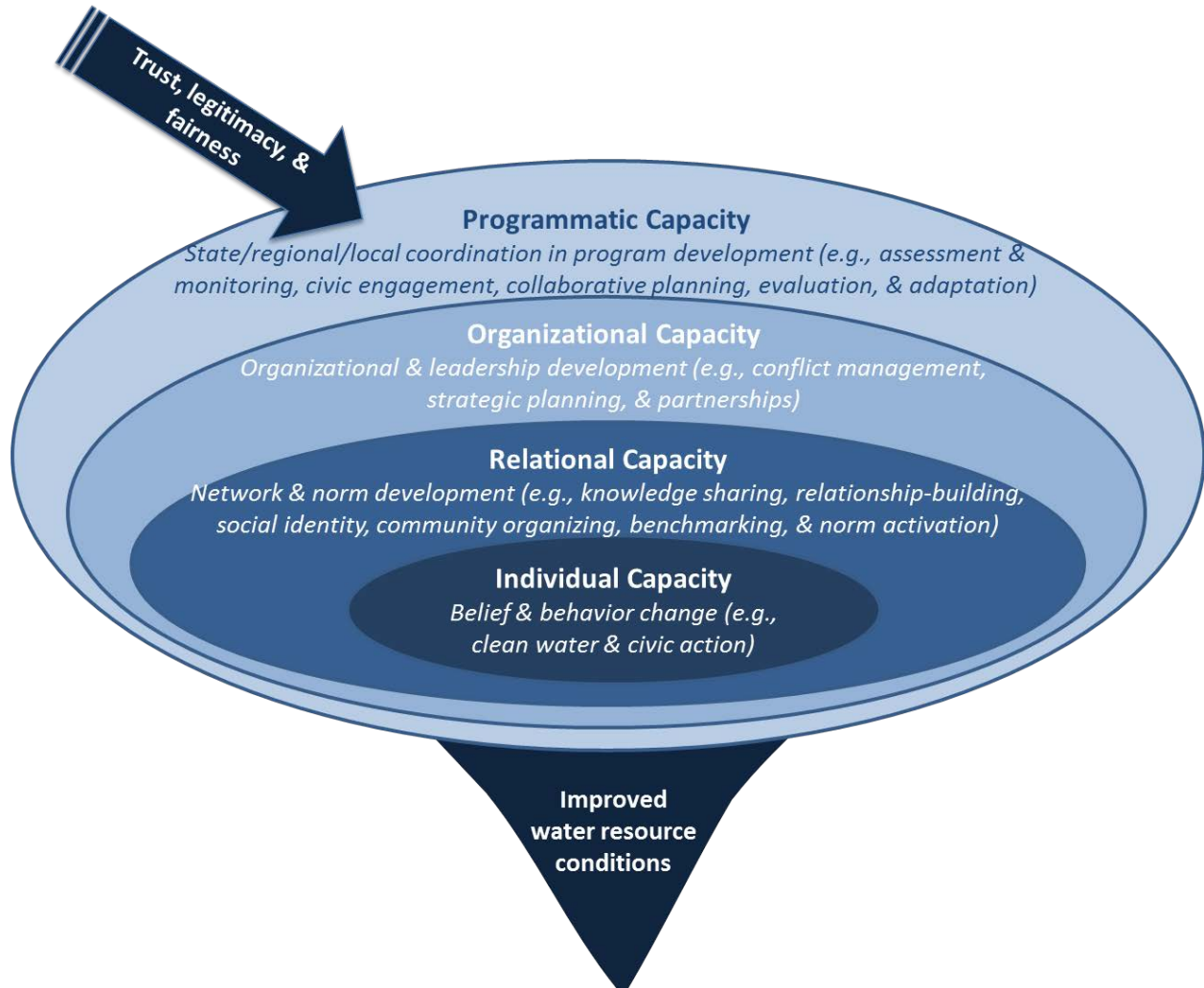
Figure 5. Creating conservation momentum for water resource protection (adapted from Davenport & Seekamp, 2013)

References and Further Resources

Literature Cited

Chaskin, R., P. Brown, S. Venkatesh, and A. Vidal. 2001. *Building community capacity*. New York, NY: Walter de Gruyter.

Davenport, M.A., & Seekamp, E. (2013). A multilevel model of community capacity for sustainable watershed management. *Society and Natural Resources: An International Journal*. 26(9), 1101-1111.

Flora, C.B. (2004). Social aspects of small water systems. Journal of Contemporary Water Resource Education, 128(1), 6-12.

Foster-Fishman, P., Berkowitz, S., Lounsbury, D., Jacobson, S. & Allen, N. 2001. Building collaborative capacity in community coalitions: a review and integrative framework. *American Journal of Community Psychology*, 29 (2):241-261.

Wilkinson, K. P. (1999). *The community in rural America*. Middleton, WI: Social Ecology Press.

Example community assessment technical reports

These examples show how community assessments are conducted and how the resulting information is integrated with physical information about a watershed.

Davenport, M.A and B. Olson. 2012. *Nitrogen use and determinants of BMPs among farmers in Elm Creek and Rush River watersheds.* A final technical report prepared for theMinnesota Pollution Control Agency.
http://www.forestry.umn.edu/sites/forestry.umn.edu/files/FR_NitrogenUseFinalReport.pdf

Davenport, M.A and C.A. Bridges. 2008. *Community-based conservation and restoration: A community partnership assessment and partnership-building handbook.* Final report prepared for Cypress Creek National Wildlife Refuge, The Cache River Joint Venture Partnership, and The Nature Conservancy.

Davenport, M.A., J. Trushenski, and G. Whitledge. 2010. *Illinois boaters' and practices associated with fish diseases and aquatic invasive species.* A Final Report submitted to theU.S. Department of Agriculture Animal and Plant Health Inspection Service.
http://www.forestry.umn.edu/sites/forestry.umn.edu/files/FR_IllinoisBoatersFinalReport.pdf

Davenport, M.A. and A. Pradhananga. 2012. *Perspectives on Minnesota water resources: A survey of Sand Creek and Vermillion River watershed landowners*.
http://www.forestry.umn.edu/sites/forestry.umn.edu/files/FR_PerspectivesMNWaterResourcesFinalReport.pdf

Pradhananga, A. & Davenport, M.A. (2013). *A community capacity assessment study in the Minnehaha Creek Watershed, Minnesota*. St. Paul, MN: Department of Forest Resources, University of Minnesota. 64 pp.
http://www.forestry.umn.edu/sites/forestry.umn.edu/files/FR_MinnehahaCreekFinalReport.pdf

Sample of related research articles

<u>Community capacity</u>

Davenport, M.A., & Seekamp, E. (2013). A multilevel model of community capacity for sustainable watershed management. *Society and Natural Resources: An International Journal.* DOI:10.1080/08941920.2012.729650.

Brinkman, E., Seekamp, E., Davenport, M.A., & Brehm, J.M. (2012). Community capacity for watershed conservation: A quantitative assessment of indicators and core dimensions. *Environmental Management*, *50*(4), 736-749.

<u>Water resource management and communities</u>

Pradhananga, A. & Davenport, M.A. (In press). Landowner motivations for civic engagement in water resource protection. *Journal of the American Water Resources Association*.

Floress, K., Akamani, K., Halvorsen, K.E., Kozich, A., & Davenport, M.A. (2015). The roles of social sciences in successfully implementing watershed management strategies. *Journal of Contemporary Water Research and Education, 154*, 85-105.

Pradhananga, A., Davenport, M.A., & Bundy, D. (2015). Boater concerns and habits: Drivers of behaviors to prevent the spread of aquatic invasive species. *Human Dimensions of Wildlif*e.

Davenport, M.A., Bridges, C.A., Mangun, J.C., Carver, A.D., Williard, K.W.J., & Jones, E.O. (2010). Building local community commitment to wetlands restoration: A case study of the Cache River Wetlands in southern Illinois, U.S.A. *Environmental Management*, 45(4), 711-723.

Floress, K., Mangun, J.C., Davenport, M.A., & Williard, K.W.J. (2009). Constraints to collaborative watershed planning: A case study of a citizen-based watershed planning process. *Journal of the American Water Resources Association, 45*(6), 1352-1360.

Davenport, M.A. & Anderson, D.H. (2005). Getting from sense of place to place-based management: An interpretive investigation of place meanings and perceptions of landscape change. *Society and Natural Resources*, 18(7), 625-641.

<u>Trust and natural resource management</u>

Smith, J.W., Leahy, J.E., Anderson, D.H., & Davenport, M.A. (2013). Community/agency trust: A measurement instrument. *Society and Natural Resources: An International Journal,* DOI:10.1080/08941920.2012.742606

Smith, J.W., Leahy, J.E., Anderson, D.H., & Davenport, M.A. (2012). Community/agency trust and public involvement in resource planning. *Society and Natural Resources: An International Journal,* DOI:10.1080/08941920.2012.678465.

Davenport, M.A., Leahy, J.E., Anderson, D.H., & Jakes, P.J. (2007). Building trust in natural resource management within local communities: A case study of the Midewin National Tallgrass Prairie. *Environmental Management, 39*, 353-368.

Davenport, M.A., Anderson, D.H., Leahy, J.E., & Jakes, P.J. (2007). Reflections from USDA Forest Service employees on institutional constraints to engaging and serving their local communities. *Journal of Forestry, 105*(1), 43-48.