



Photo by E.C. Stanley

## Section 6: Sustaining local interest

“Information must actively be sought from everywhere, from places and sources people never thought to look before. And then it must circulate freely so that many people can interpret it” (Wheatley 1999:83).

The community meeting and initial watershed group discussions provide stimulating forums for idea and opinion exchanges. This start-up phase is a high point that is difficult to sustain over time. As a community watershed group begins to meet regularly and sort through local water issues, their challenge will be to harness the initial passion and excitement into sustained actions that make a difference. Sustaining a group’s interest requires considerable attention to group development and group processes (including the tasks and maintenance functions and the skills group members use in interacting with one another).

Research suggests that groups go through a number of developmental stages. The process by which groups move through these stages may determine the level of productivity and hence the degree of interest sustained by the group.

This section provides the basics in understanding group developmental stages and how to select appropriate group building strategies for sustaining members’ interests.

### Stages of group development

Social science research identifies various patterns of how groups form and function. The most commonly used model is Tuckman’s (1977) “Stages of Group Development.” He suggests that groups progress through the following stages: Forming, Storming, Norming, Performing, and Dissolution. Transforming is often used to replace “Dissolution” to account for the various ways groups spin off into subgroups or otherwise assume new roles and/or challenges (Figure 6.1).

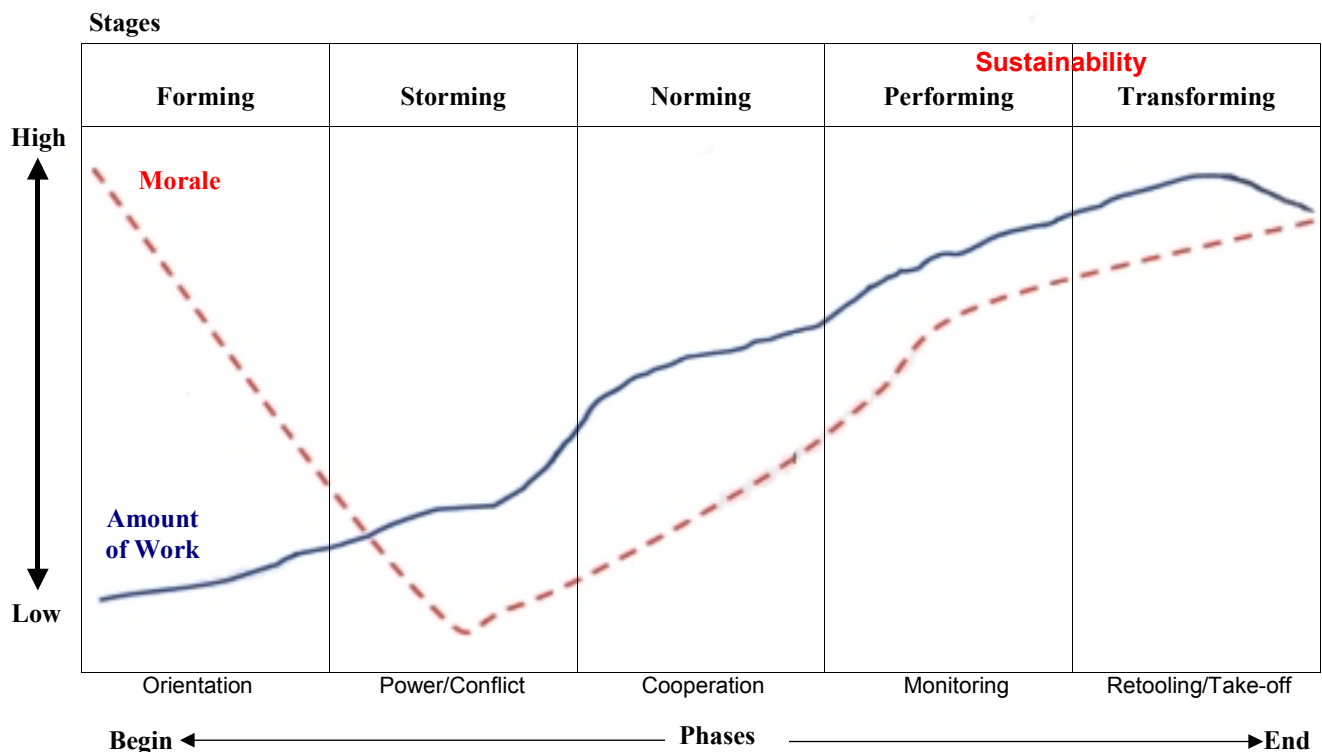
It is important to note the five stages are continuous, blending into one another. All groups do not necessarily go through the stages in sequence. For example, a group that has just moved into “Norming” may suddenly find itself back in stage two, “Storming” rather than progressing to “Performing.” Some groups come together with a history of working together or may have a well defined task and structure. This will help them move through the initial stages more quickly.

Overall, as groups progress through the stages, these are the types of questions members can ask themselves:

- What stage is our group currently in?
- Which tasks and processes can we focus on to progress to the next stage?
- What tasks do we need to complete in order to achieve our goals?
- What tasks are we not focusing on that we need to?
- What group processes are occurring that are blocking us?

- What group processes can we engage in to become more effective?

The visual below (Figure 6.1) depicts a typology of the group cycle and illustrates the shifting morale and work output that occurs across the five stages. The key element for each stage is highlighted at the bottom of the graph. The time line indicates progression from beginning to end of the group developmental cycle. Each stage is defined in more detail following the graph. A one-page summary table of Stages of Team Development can be found at the end of this section.



*Adapted from Tuckman's Model of Group Development Stages, 1972, by Beverly Lundy Allen, Iowa State University Extension to Communities, June 14, 2001*

**Figure 6.1. Coalition climate monitor: Group stages and phases**

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## Characteristics of the five stages

### *Forming*

This first stage involves a simple yet highly critical aspect of the group's actual formation. The first major task is to form a group identity. To achieve this first developmental task, groups must clarify their goals and expectations and also establish some rules for group membership.

The expected outcome of stage 1, "Forming," is commitment to the group. Trust and communication among members and agreement to basic rules of group participation are essential for commitment to occur.

### *Storming*

Elements of conflict, competition, and transition characterize the "Storming" stage. As individuals get more comfortable in their group, the politeness exhibited earlier tends to fade away and members reveal more of their personalities. Members may also challenge one another in power struggles vying for informal leadership. Also, because the first set of rules were agreed on out of politeness, they may now be challenged. Members may also begin to rethink objectives and activities for achieving the goals they previously agreed upon.

The expected outcome of stage 2, "Storming," is clarification. Conflict and power issues must be resolved for the group to move forward.

While the group may become tense, it is important that the conflict be recognized and worked through. This is partly because ignoring the conflict takes away precious energy from the group. The process of working through this conflict is an important step in continuing to build on the trust started in the first phase. Successful conflict resolution at this stage can lead to better goals and increased performance.

One thing is for sure: how this stage is resolved will determine if the group continues to progress or remains deadlocked in conflict.

### *Norming*

As a group successfully firms up its rules and decides how it will function, cohesion and action are expected in the "Norming" stage of development. While some testing and conflict will be evident, and in fact is beneficial, the group develops a solid structure and sense of community in this stage. Group identity is based upon the positive interpersonal relationships between members. Members are able to share their ideas and feelings, recognize each other's strengths, and give and receive feedback in a positive and productive manner.

The important outcome of stage 3, "Norming," is increased commitment and cooperation. Members identify the responsibilities and roles of the group and establish agreement on its purpose as well as how it will function.

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## ***Performing***

At the “Performing” stage, the group is now at an optimal performance level. There is alignment towards achieving goals and producing results. The structure and processes of the group are well known and followed as a matter of habit. Strong trust relationships among members have developed, enabling shared decision making and more interdependence with less anxiety.

The expected outcome for stage 4, “Performing,” is high productivity: collective decision making and problem solving for achieving stated goals.

Members effectively listen to each other, engage in dialogue, challenge their own assumptions, and change their opinions in this stage. While “performing” is seen as the highest stage of development, it is important to recognize that not all groups attain peak performance. Strong leadership and attention to tasks and behaviors in the previous stages will help guide the group through the “Performing” stage. Also, the group may have set out goals that were not achievable in the short to midterm. A reassessment of goals or of means of achieving the existing goals may now be in order.

## ***Transforming***

When high performing teams wind down after a period of accomplishments, the transformation period sets in. This stage of

group development is referred to as “transforming” because all groups do not dissolve or disband. For most groups, it is a time for celebrating group achievements and considering next steps. Some groups may change members or renew the team to take on new challenges. The group may develop new relationships with other groups and transform into a network, coalition, or collaborative in order to accomplish other goals. When a group goes through the process of renewal, it is a good idea to redefine group goals and roles.

The expected outcome for stage 5, “Transforming,” is sustained interest for renewal and/or redirection.

## **Watershed groups and stages of development**

These five group stages can usefully be applied to the development of citizen-led watershed groups.

*The basic foundation for sustaining local interest in a watershed group is a clearly defined vision, mission, and objectives.*

For a new group to successfully form, members must view the group as doing meaningful work and want to be a part of that effort. Once the intent and objectives of the group are evident, then other organizational practices can be applied to support development and sustainability:

? *Mutual respect.* Watershed organizations will include individuals

who have contrasting views. Rules of interaction in meetings that foster mutual respect must be put in place (*forming stage*).

- ? *Team building.* Team building can be accomplished in at least two ways: a) by members getting to know each other as whole persons (rather than as “that crazy environmentalist” or “that chemical polluting farmer”), and b) by working together on common activities or projects and accomplishing them. Groups in their early stages of development need a quick victory with broad participation to strengthen bonds among members of the group (*initiated in the forming stage, but is an ongoing process*).
- ? *Broad participation.* Collaboration and trust within the organization should be encouraged. Participatory approaches in gathering information, in analyzing situations, and in pursuing objectives strengthen the group. Even when not all suggestions are acted on, members need to feel their comments were given a fair hearing. Then they are more willing to accept the chosen approach and support it wholeheartedly. This is a critical point in the storming stage. Broad participation should be a principle established in the forming stage, and should be validated and institutionalized in the norming stage.
- ? *Building alliances.* External groups can be allies on particular issues. Members should learn about the missions and

activities of other local and regional groups, organizations, and agencies. In addition, they should seek other groups that have goals that intersect with the watershed group’s mission and build collaborative arrangements. Bridging common interests occurs in the performing and transforming stages.

These points are treated in greater detail below.

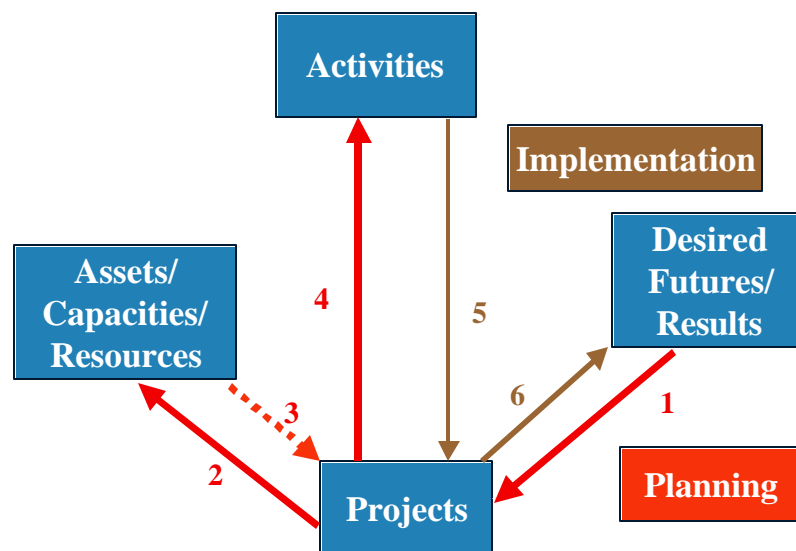
**Defined vision, mission, and objectives.**

Groups and organizations are sustained because they accomplish what they set out to do (see Figure 6.2, The visioning process). The group should be clear about its mission and objectives. The activities in which it engages must support those objectives. Many groups focus on activities without ever asking themselves whether those activities lead toward or away from the group’s objectives and mission. It is equally important for the watershed group to evaluate where their group mission fits into the overall community vision for their watershed.

Many communities have already undertaken planning or visioning processes. Conservation districts may have developed plans for watersheds within their district. Municipal water agencies, city and county planning agencies, farm organizations, environmental groups and other organizations may have also engaged in a visioning process and developed a priority list of what needs to be done. In some communities a watershed study group may have already worked with others in a

## The Visioning Process

A number of community leaders and development specialists\* have training in community visioning. You will want to seek one out to help in this process. The graphic below shows how the planning and implementation process might occur. Planning should begin with establishing desired results for your watershed. Members of the community should be asked, **“What characteristics of this watershed would you like your children and future generations to enjoy?”** or **“How would you like this watershed to be like in 5 (10, 20) years?”** Starting with desired results builds a logical planning process and allows community members who may believe they have very different views about the watershed to discover that in fact they agree on some things.



Once consensus is reached on desired results, then people should ask themselves, “What intermediate projects would lead to change?” Once possible projects are defined, it is useful to do a reality check: “What assets and human capabilities are necessary to carry out these projects?” If the needed assets or resources are not available, projects might then have to be adjusted. Or such knowledge may aid in prioritizing projects—not in terms of importance, but the availability of resources may help in establishing timing of projects: “We should do the projects for which we have resources first.” Once it is clear to the group what projects are both feasible and will aid in bringing out the desired change, then the group is ready to plan the precise activities that need to occur to accomplish a particular project, who will carry out which activities, and how coordination and supervision will occur. This is the essence of a planning process. Once a group’s activities, projects, and results are documented, then arrows can be drawn from activities, to projects, to results. One rule of thumb is to prioritize those projects that contribute to multiple outcomes and activities that support several projects.

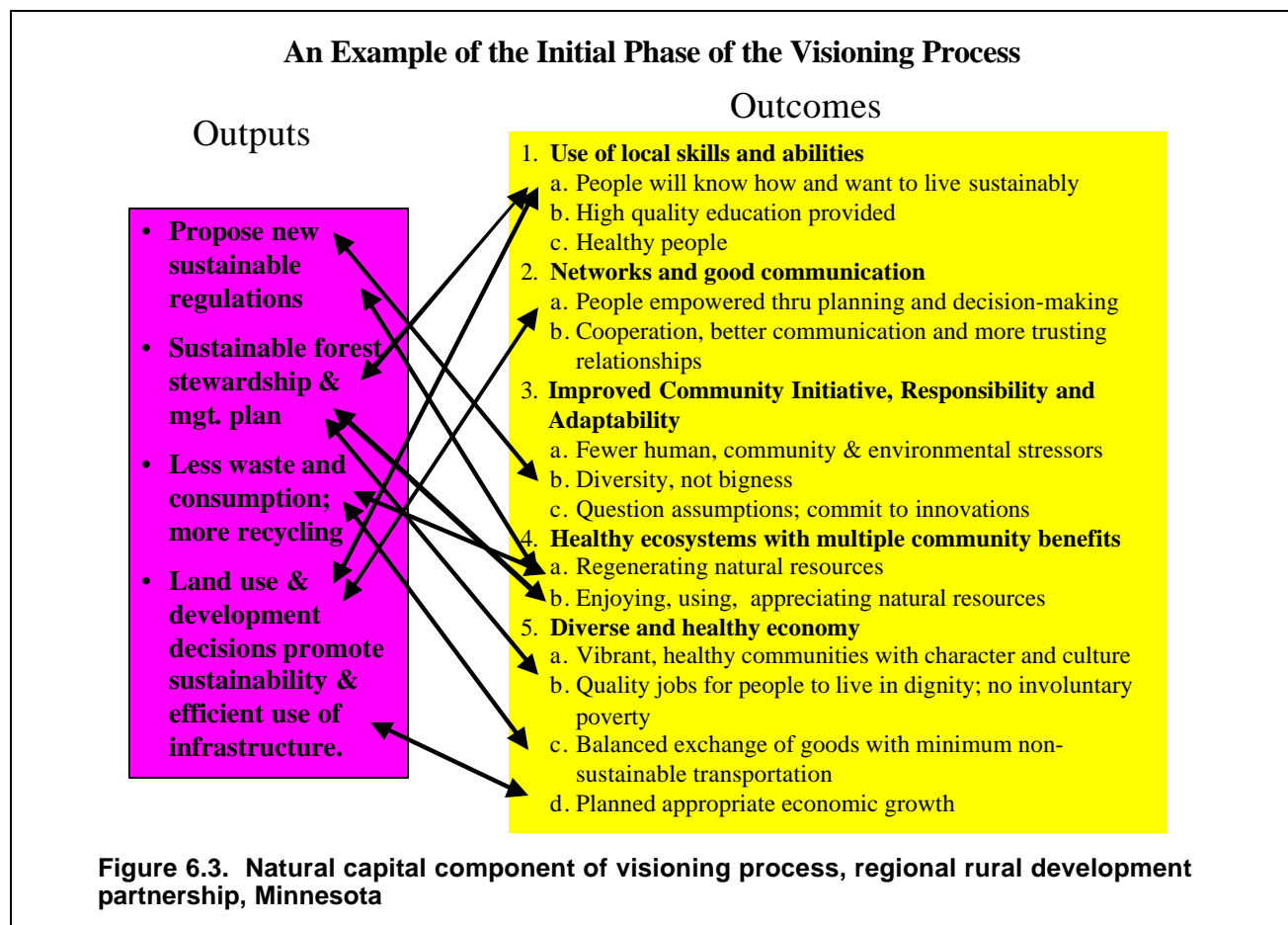
**Figure 6.2. The visioning process**

\*Your local ISU Cooperative Extension Director can help you find someone skilled in community visioning.

visioning process. The watershed group needs to assemble prior visioning and planning documents and work with other groups in the community to make known the vision and update it as necessary.

There are different techniques for developing a vision and defining results that will lead the community toward that vision. Understanding the vision will help the watershed group refine its mission and develop projects and activities that contribute to the desired future results. It will also help the group build partnerships

with other organizations and agencies. SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis is a commonly used strategy, but unless conducted by a very skilled facilitator, can result in much time spent on weaknesses and threats which is useful only if used to prioritize the opportunities. A different approach which alleviates “visioning fatigue” and results in a plan of work where activities contribute to outputs that lead to desired change is based on community assets. This process is summarized in the inset, Figure 6.2. The visioning process.



<sup>1</sup>Cornelia Butler Flora, Michael Kinsley, Vicki Luther, Milan Wall, Susan Odell, Shanna Ratner, and Janet Topolsky. Measuring Community Success and Sustainability: An Interactive Workbook, RRD 180, August 1999. Available at: [http://www.ncrcrd.iastate.edu/Community\\_Success/about.html](http://www.ncrcrd.iastate.edu/Community_Success/about.html)

Figure 6.3 provides an example of a visioning process conducted by a study group that was looking into establishing a Regional Sustainable Development Partnership in a region of Minnesota. In this case, the generalized categories of community outcomes developed by an Aspen Institute task force as part of the **Measuring Community Success and Sustainability**<sup>1</sup> book (Flora et al. 1999) was used to organize the outcomes expressed in the initial visioning effort. The same was done with projects and activities. (The initial visioning document that was used in the new planning effort had not separated activities from products from results.) This new set of objectives organized as results and products was presented to the board of the Partnership by the facilitators for them to modify, expand, or strike. Thus, they saved considerable time in conducting the visioning process, were able to take into consideration past visions, see their strengths and shortcomings, and make appropriate modifications. Additional visioning resources can be found at <http://www.mindtools.com>.

**Foster Mutual Respect.** The interests and opinions of those who live in a watershed may be quite diverse. Controversy is likely to be normal, and indeed, healthy. Overt conflicts may break out from time to time. If the watershed organization is to be effective, it must embrace the diverse local interests, and may need to partner with certain non-local actors. Absence of controversy within the watershed organization may be an indicator that the

group has not reached out to include the different interests. On the other hand, conflict within the group, particularly if it involves lack of respect and personal attacks, will quickly reduce the organization's effectiveness. If the conflict is prolonged, it may threaten the continued existence of the group.

An outside facilitator, if carefully chosen to have conflict management skills, can be critical in ensuring that the organization is not engulfed in conflict. However, if the facilitator bears the burden of conflict amelioration alone, the organization will likely fail. The building of trust is central to the effective functioning of any organization. Civility allows for trust to be built. Generally, a watershed organization should not be characterized by too much formality, but it may be useful to have a few simple rules of behavior in meetings: show respect to others although you may disagree with the ideas they are presenting; dispute another's ideas, but do not attack the person;

#### Rules of Mutual Respect

- Everyone participates.
- No one person dominates.
- Be open to new ideas.
- Listen actively and carefully.
- Be constructive.
- No sidebar conversations.
- It's okay to disagree . . . respectfully.
- Focus on ideas, not personalities.

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allow others to speak without interruption. If someone attempts to dominate the floor, the facilitator or moderator has the obligation to courteously limit that person's discussion so that others may speak. Each group should discuss and make its own rules of civility or mutual respect (see box on previous page as an example).

**Team building and quick victories.** It is important for team building that a newly formed group have one or more quick successes. The first project must be chosen very carefully. It must be doable in a short amount of time, but still contribute to one or more objectives for which there is a clear consensus. Ideally it should involve a lot of participation. People like a successful project, but they are even happier if they participated in making it a success.



*Photo by Jim Colbert*  
Community volunteers head downstream to pick up trash.

Other ways to build trust include having meals together (potlucks are good) and working together (cleanup days, planting trees, prairie seedings and harvest). Temporary committees or work clusters around specific issues offer another way for

people to get to know each other. Be sure everyone has a chance to be on a work cluster and contribute. If the members of the watershed have been on opposite sides of the fence on certain issues, team building is even more important. Activities should be planned at every meeting that allow each to see the humanity in the other. Each person needs to view the other as a whole person—not just “that environmentalist” or “that chemical farmer.”

**A quick icebreaker.** A 5 minute icebreaker at the beginning of a meeting can help people get to know each other better and build trust. This can also make new people feel welcome. Pair people up. Have them interview each other and then introduce the other person to the entire group. They can be given a set of three or four questions to ask or simply be instructed to “find out the most interesting things” about the other person.

**Broad participation.** Watershed groups that encourage broad participation are more likely to sustain themselves than those that are not participatory. The watershed group needs to communicate a continuing invitation for community members to participate. Newspaper articles and posters remind the community about the work of the group and should include opportunities for others in the community to join in. Watershed group activities can be planned that involve school children, elderly persons, business people, farmers, local industries, homeowners and renters,

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employers and employees. New people that show up at regular meetings should be acknowledged and welcomed.

Local people are able to discover and assess information about the watershed because they know local conditions and interrelationships through experiences. When they partner with technical water resource experts, the political leadership, and other citizens, science and local knowledge can be integrated to create solutions in the community interest. *Watershed management should be seen as a process of negotiation among local and outside interests regarding objectives, activities, and measures of success, rather than an agenda set by outsiders or one special interest group.*

*Too often the community is consulted about the project after researchers or project managers have established the goals and objectives of the initiative—often based on criteria other than local advice.*

Gasteyer et al. 2001

**Building strategic alliances.** After the watershed group has a clear identity, has built trust among its diverse members, and some successes (and perhaps some disappointments too) it is ready to build strategic alliances. Watershed concerns are big issues that no one group alone can solve. As the group learns about and understands their watershed, they will begin to identify public policies and private practices that are a threat to the community vision for the

watershed. Now they need to find partners who have similar concerns and build connections among groups with shared desired futures. Partners can be private sector firms, government agencies, and/or civic, professional, and trade/commodity organizations. Public agencies have specific mandates; voluntary not-for-profit organizations have missions that direct the kinds of activities they undertake. Once one or more groups have agreed they have a common goal (even though their missions and other goals are different) they are ready to form a coalition that identifies specific issues. This coalition may be temporary (e.g. focusing on getting the vote out for a local bond vote) or ongoing (e.g. developing and implementing an educational program in the school).

Alliances, coalitions, and collaborations that bridge interests consist of groups of organizations that come together because of commonly held values to achieve a commonly desired change. They may however, disagree on how to get there. The intent of the alliance is to find supportive ways to accomplish their common goal. Each organization brings a particular predisposition to accept information that is supportive of its particular interests or perspectives. Different organizational actors are likely to be persuaded by different types of information. Hence, for a coalition to be built, the watershed group needs to examine how each potential member of the coalition is thinking about the issue. For example, two groups may want to preserve an endangered wetland. One group believes that the best way is to

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have stronger laws and enforcement measures in place, while the other believes that voluntary participation is the only way to truly preserve the area. The challenge is to find areas where the two groups can agree, even if they have different ways of thinking about the problem. For example, they may agree that the boundaries of the wetland were set very arbitrarily and need to be revised. This is something they can work on together to change. The mutual trust and confidence that results from such a joint effort can be used in a renewed effort by alliance members to reach agreement on an appropriate balance between regulation and incentives.

Watershed groups that attempt to build such bridges will need to analyze documents produced by potential partners related to the issue in order to understand the other's perspective. Information from key organizational leaders can be obtained through personal interviews that seek the history of the issue, the role of their organizations and others in that process, and other people and groups that are involved. From these data, watershed groups can determine if they have a common vision with the potential partner but are just thinking about how to do it differently—or to confirm that indeed they really don't have a common vision. This exchange increases understanding among groups and helps them to find partners that share common vision for the watershed. Involving watershed group members in these interviews may also help them see the issue through the eyes of organizations with a different approach to the issue. Also, when group members, rather

than professionals, report back to the watershed group on what they learned from the interviews, other group members are more likely to take the information to heart. See the box on the next page (Figure 6.4) that shows how alliances can be visually represented. Section 9 offers a variety of data collection methods and instruments for assessing beliefs, values, and attitudes about the watershed.

## Conclusion

Ups and downs in organizations are inevitable. There will be times when it seems like the group can't possibly hold together. Unresolved dissension and apathy are two threats to maintaining the group. These are morale issues that can undermine the group's effectiveness. Group members must build a level of trust among themselves and create some normative expectations about how members will interact and treat each other. Members must feel they can voice their differences and yet be considered valuable contributors to group discussions and actions. Activities that members can do together, such as river bed clean up, water monitoring, nature mapping and tree and prairie plantings offer opportunities for people to work side-by-side and get to know each other. These activities can accomplish the watershed group mission while building trust among members and community residents. The handout, *Ways for Residents to Get Involved in Local Watershed Projects*, at the end of this section provides a list of some of the activities and partnerships watershed groups can engage in.

## Displaying Alliances Using a Bubble Chart

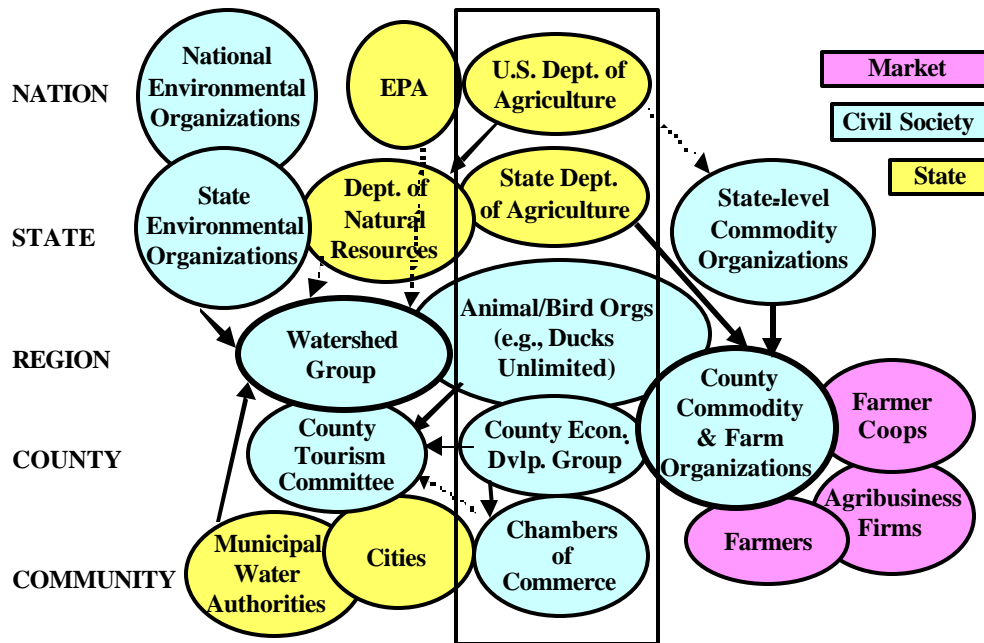


Figure 6.4. Advocacy coalitions around nitrate runoff and water quality

A visual way of seeing how alliances might be constructed around a particular issue is by making a “bubble” chart from information gathered by interviewing government, market-oriented, and civil-society stakeholders on that particular issue. The bubble chart above shows the coming together of various organized groups around two core entities—one a voluntary watershed group and the other a county-level commodity organization, over a hypothetical issue of water quality and nitrate runoff into local streams and then into a recreational lake.<sup>1</sup> The diagram is organized to reflect existing ties among state, market, and civil society entities as well as potential ties based on similar desired futures.<sup>2</sup> The diagram shows that the various organizations can be part of an actual alliance or an alliance in process of formation (based on common desired futures). Besides defining two coalitions in the making, the diagram also highlights the entities that have ties to both sides or are presently neutral (those that are inside the rectangle in the center of the diagram). That there are several entities in that rectangle is a hopeful sign because these organizations, agencies, and firms have the potential to form a bridge for eventual compromise between those with environmental concerns and the agricultural interests. They might serve as honest brokers or mediators in bringing opposing groups together. By constructing such diagrams, community groups and other stakeholders can better define strategies for either strengthening the alliance of which they are a part, assessing what entity(ies) might best bring about a compromise, or both. Compromise can be more readily brought about if a common desired future can be identified that allows the groups to put away some of their differences in favor of the greater good for the community.

<sup>1</sup> The general structure of the diagram is taken from a research project involving a real locally based natural resource issue in Ecuador, but the issue and organizational names are changed to fit a U.S. Midwestern situation.

<sup>2</sup> The information for constructing it would come from the key informant interviews of stakeholder organizations, agencies, and firms carried out by local residents and collaborating professionals.

## Stages of Team Development

	1. Forming	2. Storming	3. Norming	4. Performing	5. Transforming
Characteristics	Politeness Tentative joining Membership may be unstable Orienting personally and professionally Gathering impressions Avoiding controversy Hidden agendas Cliques may form Need for safety and approval	Struggles over purpose and goals Vying for leadership Differences in points of view and personal style become evident Lack of role clarity Reliance on voting, arbitration, leader-made decisions Team organizing itself and its work	Cohesion, harmony Balanced influence Open-minded Trust builds Comfortable with relationships Cliques dissolved Focus and energy on tasks Planning <i>how</i> to work as a team Confidence and creativity high	Team fully functional Roles clear Interdependent Team able to organize itself Flexible Members function well individually, in subgroups, or as a team Empathy for one another	Internal or external forces bring about <i>renewal, change, or dissolution</i> . Momentum slows down Activities mark the ending or renewal of team efforts
Team Identity	Individual identity prevails	Individual identity still strong; team identity begins to build	Team identity emerges	Team identity strong	Team identity dissolves or renews, transforms
Leader's Role	<i>Visionary/Director</i> Provide structure and clear task direction Allow get-acquainted time Create atmosphere of confidence, optimism Active involvement	<i>Facilitator/Teacher</i> Acknowledge conflict Guide toward consensus Get members to assume more task responsibility Teach conflict resolution methods Offer support and praise Active involvement	<i>Coach/Sponsor</i> Give feedback and support Plan celebrations Allow for less structure Continue to focus on building strong relationships Less involvement	<i>Consultant/Sponsor</i> Give positive reinforcement and support Offer consultation Keep channels of communication open Share new information Allow team to organize itself and to test new procedures	<i>Facilitator/Visionary</i> Help team develop options for renewing or disbanding Guide the process Help team design its "rituals" for renewal or ending Offer sincere appreciation for team's accomplishments
Team Members' Role	Ask questions to get clear about team's initial tasks Avoid cliques Get to know each member Have patience with the process Listen Suspend judgment	Consider all views Initiate ideas Aim for synergy Help team reach consensus on goals, purpose, roles Build solutions from everyone's needs Accept conflict as natural Respect diversity of team members	Take responsibility to influence <i>how</i> team works Keep a realistic outlook Avoid harmony for sake of harmony Be flexible Support efforts to build "team spirit" Initiate and consider new ideas	Keep goals in mind Maintain flexibility Continue consensus process Complete action items Provide information to team Support and verify team norms Keep momentum going	Accept need for team to "move on" Participate fully in efforts to <i>end or renew</i> team Help evaluate team's success Carry forth learning to next team effort
Pitfalls (ways to get stuck in this stage)	Staying too polite Lack of clear direction	Lack of conflict resolution skills No one to facilitate conflict resolution Individuals stuck on own agendas "Turf wars" and "tree hugging"	"Groupthink" Comfort Focus too much on relationships, ignore tasks Unwilling to take risk External change which may alter team's purpose	"Burnout" Team not evaluating and/or correcting itself Lack of training OK to stay here if productive	Failing to renew when it's time Renewing too soon Unwilling to disband team when its work is done Not honoring the <i>process</i> of transforming
Bridge to Next Stage	Adequate comfort level	Collective "win"	Confidence, risk-taking	Reflection, evaluation	A definite ending, change or renewal
Conflict	Low	High	Low	Healthy conflict (team has learned ways to resolve differences)	Low
Output	Low	Low	Low—Medium	High	Temporarily tapers off or ends



Photo by E.C. Stanley

## WAYS FOR RESIDENTS TO GET INVOLVED IN LOCAL WATERSHED PROJECTS

There are many opportunities for watershed residents to partner with public and private organizations and agencies on watershed projects. Below is a sample list with some potential partners identified.

### WATER MONITORING

**Private wells** (county sanitarian)

**Volunteer water quality monitoring** (IOWATER;

Izaak Walton League, Stream Doctor)

- creeks, main stem, mouth
- above and below – landfill, towns
- tile lines, buffer strip farm, pasture
- high flow vs. low flow

<http://www.iowater.net>

<http://www.iwla.org/sos/monitoring.html>

### STUDENT PROJECTS

(school and community  
service projects)

**Stream ecology** – macroinvertebrates, etc.

(Izaak Walton League "Save Our Streams Program")

**Photographs** – historical vs. current (journalism  
teacher or photo club)

**Interview residents** – fish, wildlife, habitats (4-H,  
Boy Scouts, FFA project)

**Fish Iowa**

**Stream flow, concentrations, load** (math teacher)

**Data management, GIS** (computer teacher)

**Report writing** (English teacher)

**Soil testing and stalk NO<sub>3</sub> testing** (FFA, science  
teacher)

**Development of its area and its people** (history  
teacher)

**Nature mapping program**

(ISU Dept. of Animal Ecology, Ames, IA 50011)

**Iowa Envirothon** (Conservation Districts of Iowa)

<http://www.iwla.org/sos/>

<http://www.keepersoftheland.org>

<http://www.ag.iastate.edu/departments/aec/>

<http://www.ia.nrcs.usda.gov/Programs/envirothon.htm>

**CONSERVATION  
PLANNING AND  
PRACTICES**

Iowa Dept. of Agriculture & Land Stewardship,  
Soil Conservation Division (IDALS-SCD)  
Soil and Water Conservation Districts (SWCD)  
USDA Natural Resources Conservation Services  
(NRCS)

- **Programs and services to protect natural resources in Iowa** (NRCS)
- **Citizen action to encourage municipal conservation planning** (NRCS, SWCD)
- **Streambank stabilization demonstrations** (NRCS, SWCD)
- **Terraces** (NRCS, SWCD)
- **Contour buffers** (NRCS, SWCD, ISU Forestry, IDALS-SCD)
- **Riparian buffers** (NRCS, SWCD, ISU Forestry)
  
- **Filter strips** (NRCS, SWCD)
- **Waterways** (NRCS, SWCD)
- **Wetlands** (NRCS, SWCD, Ducks Unlimited, Better Wetlands)
  
- **Prairie plantings** (Pheasants Forever, Iowa Department of Natural Resources, Iowa Prairie Network)
- **Landforms and geology** (IDNR Geological Survey Bureau)
- **Backyard Conservation**

<http://www.agriculture.state.ia.us/soilconservation.html>  
<http://www.agriculture.state.ia.us/soilwatercons.htm>

<http://www.ia.nrcs.usda.gov/>  
<http://www.ia.nrcs.usda.gov/programs.htm>

<http://www.buffer.forestry.iastate.edu/>  
<http://www.agriculture.state.ia.us/bufferinitiative.htm>  
<http://www.buffer.forestry.iastate.edu/>

<http://www.ducksunlimited.org>  
<http://www.ia.nrcs.usda.gov/Programs/wetlandsreserveprogram.htm>  
<http://www.pheasantsforever.org>  
<http://www.state.ia.us/dnr/organiza/forest/prairies.htm>;  
<http://www.iowaprairienetwork.org/>

<http://www.igsb.uiowa.edu>  
<http://www.nhq.nrcs.usda.gov/CCS/Backyard.html>

**FORESTRY PRACTICES**

Iowa Department of Natural Resource (IDNR)

- **Timber stand improvement & marketing timber** (ISU Master Woodland Program)
  
- **Tree planting** – seedlings and direct seeding
- **Urban trees**  
Trees Forever  
Iowa Community Tree Steward Program
  
- **National Arbor Day**
- **Agroforestry** (National Agroforestry Center)

<http://www.state.ia.us/dnr/>  
<http://www.state.ia.us/dnr/organiza/forest/index.htm>  
<http://www.ag.iastate.edu/departments/forestry/ext/mwm.html>  
<http://www.state.ia.us/dnr/organiza/forest/index.htm>

<http://www.treesforever.org/>  
<http://www.ag.iastate.edu/departments/forestry/ext/icts.html>

<http://www.arborday.org/>  
<http://www.unl.edu/nac/>

## PASTURE MANAGEMENT

SWCD; local farmers; ISU Extension

- **Intensive grazing management demonstration**
- **Stream corridor fencing and off-site watering demonstration**
- **Pasture forages renovation** demo (seed company)
- **Grazing for profit** (Practical Farmers of Iowa; NRCS)
- **Cattle vs. sheep stream use** (field trials)

[http://offices.usda.gov/scripts/ndISAPI.dll/oip\\_public/USA\\_map](http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map)  
<http://www.extension.iastate.edu/Counties/state.html>

<http://www.pfi.iastate.edu/PFIhomenew.htm>  
<http://www.ia.nrcs.usda.gov/Programs/grazeland.htm>

## FISH & WILDLIFE HABITAT

- **Bird populations** (Audubon Society)
- **Backyard habitat** (county naturalist)
- **Game birds** (Pheasants Forever)
- **Hunting** (archery club)
- **Trapping**
- **Wildlife habitats** (IDNR; ISU Extension; U.S. Fish and Wildlife Service)
- **Fish populations** – Fishing Day (IDNR Fisheries)
- **Conservation easements** (Iowa Natural Heritage Foundation)
- **Master Conservation**
- **Help-a-Habitat in Iowa**
- **Backyard Conservation**
- **Backyard Wildlife Habitat Program**
- **Wildlife Habitat Council**
- **Bat Conservation International**

<http://www.audubon.org>; <http://birdsource.cornell.edu>

<http://www.pheasantsforever.org>

<http://www.fws.gov/r3pao/maps/iowa.htm>

<http://www.state.ia.us/dnr/organiza/fwb/fish/fish.htm>  
<http://www.inhf.org>; email: [info@inhf.org](mailto:info@inhf.org)

<http://www.extension.iastate.edu/wildlife>  
<http://www.helpahabitat.org>  
<http://www.nhq.nrcs.usda.gov/CCS/Backyard.html>  
<http://www.nwf.org/backyardwildlifehabitat/>  
<http://www.wildlifehc.org>  
<http://www.batcon.org>

## SURVEYS

NRCS, ISU Extension; DNR

- **GIS -- land cover** (Geological Survey Bureau)  
land use, land capability, landscape position, soil slope range
- **Survey of livestock numbers and production practices**
- **Survey of producer attitudes**
- **Home\*A\*Syst** (Iowa Farm Bureau EPA 319 Project)
- **Farm\*A\*Syst** (Iowa Farm Bureau EPA 319 Project)
- **Asset Mapping** (ISU Extension to Community Field Specialists)
- **Data for Decision Makers**

<http://www.igsb.uiowa.edu>  
<http://extension.agron.iastate.edu/soils/>

<http://ia.profiles.iastate.edu/agcensus/>

<http://www.ifbf.org>  
<http://www.ifbf.org>  
<http://www.extension.iastate.edu/communities>) – *click on "Faculty and Staff" to find specialist in your area*  
<http://www.extension.iastate.edu/communities/communitydata.html>

## NUTRIENT & MANURE MANAGEMENT

- **Nutrient management and correspondence course**  
(ISU Extension)
- **Manure management and nutrient calibrations**  
(ISU Extension, IMMAG)
- **Manure, N, P on-farm field demonstrations**  
(ISU Extension)

<http://extension.agron.iastate.edu/NPKnowledge/>

<http://extension.agron.iastate.edu/immag>

## INFORMATION & EDUCATION

ISU Extension, IDNR, SWCD, NRCS, IDALS-DCS

- **Newsletters, posters, education campaign development** (NRCS, RC&D)
- **Integrated Pest Management**
- **Water Quality Projects** (ISU Extension)
- **Soil** (Iowa Cooperative Soil Survey)
- **Center for Energy & Environmental Education**  
(University of Northern Iowa)

<http://www.ipm.iastate.edu/ipm>

<http://extension.agron.iastate.edu/waterquality>

<http://icss.agron.iastate.edu/>

<http://www.uni.edu/ceee/>

## OTHER

- **Adopt-A-Stream** (4-H, Boy Scouts, church youth, school class, environmental club, DNR)
- **Well closing demonstration** (county sanitarian)
- **Toxic Clean-up Day** and household hazardous materials (IDNR Waste Management; University of Northern Iowa)
- **Help senior citizens and disabled deliver recyclables**
- **Recycle** – newspapers, cans, plastic, eyeglasses, glass, phonebooks (IDNR)
- **Tires** – turn in – may be used for playground equipment (IDNR)
- **Tour of watershed**
- **Tour of landfill**
- **Lawn and garden nutrient and pest management**  
(Master Gardener Program, ISU Extension)
- **Iowa Master Conservationist Program**  
(ISU Extension)
- **Environmental Quality Incentive Program (EQIP)**  
Priority Watershed (NRCS);  
Farm Service Agency (FSA)
- **Grants and programs for local groups** (Farm Bureau, IDALS-DCS – water protection funds)
- **Urban problems** (Center for Watershed Protection)

<http://www.state.ia.us/parks/adopt.htm>

<http://www.state.ia.us/dnr/organiza/wmad/index.html>

<http://www.iwrc.org/>

<http://www.state.ia.us/dnr/organiza/wmad/wmabureau/recycling/index.htm>

<http://www.state.ia.us/dnr/organiza/wmad/wmabureau/Tires/index.htm>

[http://www.hort.iastate.edu/pages/conshort/c\\_frame.html](http://www.hort.iastate.edu/pages/conshort/c_frame.html)

<http://www.extension.iastate.edu/wildlife>

[http://www.ia.nrcs.usda.gov/eqip/97\\_eqip.html](http://www.ia.nrcs.usda.gov/eqip/97_eqip.html)

<http://www.fsa.usda.gov/dafp/cepd/crpinfo.htm>

[http://www.ifbf.org/govt\\_action/enviro.asp](http://www.ifbf.org/govt_action/enviro.asp)

<http://www2.state.ia.us/agriculture/waterprojdev.htm>

<http://www.cwp.org>

Compiled by John Rodecap, Iowa State University, Maquoketa Watershed Project, Fayette, Iowa, and Lois Wright Morton, Department of Sociology, Iowa State University, Ames, Iowa, March 2001.



... and justice for all

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