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Breakfast at the Cockpit Café and Other Innovations in Protected Area Outreach

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Introduction

Fundamental changes in protected area outreach and education strategies are dissolving old boundaries and fostering innovative approaches to civic engagement. The practice of community-based ecosystem management as presented by Meffe et al. (2002) provides an organizing framework blending ecological, institutional and sociocultural perspectives. This framework flows from a definition of ecosystem management that considers sustaining ecosystem structure and processes across spatial and temporal scales in tandem with societal priorities. The decision-making authority in this system, envisioned as collaborative and participatory, can present challenges for traditionally trained protected area managers. This definition views ecosystem management as:

> … an approach to maintaining or restoring the composition, structure, and function of natural and modified ecosystems for the goal of long-term sustainability. *It is based on a collaboratively developed vision* of desired future conditions that integrates ecological, socioeconomic and institutional perspectives, applied within a geographic framework defined primarily by natural ecological boundaries (Meffe et al. 2002:70, emphasis added).

Roles for natural resource professionals within this integrated system include participation as stakeholders and pioneers in collaborative processes that transcend traditional concepts of *boundaries* inherent in the core definition of protected areas.

Critical examination of beliefs concerning *where* ecosystem management happens, *who* is responsible for implementing management practices, and *what* constitutes effective processes for identifying and prioritizing action can fuel the development of innovative strategies for accomplishing the mission of protected areas (Feurt 2007; Lyman 2006).

Strategic community-based ecosystem management, as exemplified by the two case studies presented here, links the management objectives of protected areas with local and regional place-based initiatives. In this model, protected area outreach and education serves a catalytic function, fostering the creation of what Meffe et al. (2002) refer to as "win-win-win partnerships." These partnerships draw strength from shared goals and repeated opportunities for analysis and deliberation about progress toward those goals (NRC 1996). Pragmatic considerations relevant to the social, economic, and cultural dimensions of natural resource issues are deliberated within the context of collaborative knowledge networks that evolve through on-going relationships. The concept of collaborative knowledge networks captures the relationship among protected areas managers, local communities, and organizations with shared missions for sustaining natural systems in locally valued places (Feurt 2007). These networks provide what Kai Lee (1993) calls the *gyroscope* guiding the course of adaptive

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management. Science, in the form of biodiversity assessments and watershed surveys, is the *compass* used for charting the course for management actions in these case studies.

The Rachel Carson National Wildlife Refuge (NWR) and Wells National Estuarine Research Reserve (NERR) share a physical land base and philosophical commitment to achieving biological diversity and habitat conservation goals through partnerships. Located along the southern coast of Maine in the Gulf of Maine watershed, the region is the most rapidly developing in the state. The Rachel Carson Refuge encompasses 10 units with a combined size of 5,200 acres spread along 50 miles of Maine's coast between Kittery and Cape Elizabeth (U.S. Fish and Wildlife Service 2006). The refuge holds the honor and concomitant responsibility of having more neighbors than any refuge in the system. The 2,000-acre Wells National Estuarine Research Reserve overlays a portion of the refuge, located primarily in the coastal portions of the watersheds of the Webhannet and Little rivers (Dionne et al. 2006).

Case study #1: The Mount Agamenticus to the Sea Conservation Initiative

The title of this paper alludes to a frequently unappreciated aspect of community-based ecosystem management. The genesis of ideas and complex conversations where people sift through priorities, debate conflicts, and strategize over challenges frequently occur over coffee, in local restaurants and in homes. What was to become the Mount Agamenticus to the Sea (MtA2C) Conservation Initiative began with the work of the York Rivers Association and grew to include additional partners at an informal potluck supper in 1999. The nexus of what was to become a ten-organization coalition has evolved over the past eight years. National and regional conservation organizations, three local land trusts, and state and federal agencies comprise the coalition including: U.S. Fish and Wildlife Service (USFWS) Rachel Carson NWR, Wells NERR, The Nature Conservancy, Maine Coast Heritage Trust, Trust for Public Land, Maine Department of Inland Fisheries and Wildlife, York Land Trust, Kittery Land Trust, Great Works Regional Land Trust, and York Rivers Association (Lyman 2006). This dedicated group of stakeholders continues to punctuate and celebrate success with gatherings at community potlucks.

Causes for celebration during the past eight years have been significant and varied. Key accomplishments include:

- Delineate the 48,000-acre conservation area based upon a collaboratively developed vision to protect ecological systems and community values.
- Develop and apply diverse processes for managing the initiative, including leadership, financing, staffing, and balancing priorities of participating organizations.
- Develop and implement a science-based conservation plan (Ward 2000; MtA2C 2005) based upon The Nature Conservancy's 5-S Framework (TNC 2000).
- Identify and protect 1,495 acres of high-priority conservation sites.
- Engage six towns in regional land conservation based upon the goals of the conservation plan.
- Complete a $10 million capital campaign.

These accomplishments resulted from the dedicated work of both volunteers and mem-

bers of the coalition organizations, as well as technical support provided by professional staff, and outside consultants hired to bring specialized expertise to the group (Lyman 2006).

The managers of both the Rachel Carson NWR and Wells NERR participated as members of the MtA2C Conservation Initiative throughout this partnership. Wells NERR, as a state/federal entity, linked the project to Maine state government and National Oceanic and Atmospheric Association (NOAA) programs. Rachel Carson NWR provided science expertise, including wildlife habitat modeling results. Linking project objectives to the objectives of the Rachel Carson NWR comprehensive conservation plan and the mission of the Wells NERR elevated the work of the coalition to national significance. The project benefited from enhanced congressional awareness due to communication emanating from two trusted federal protected area managers.

Both NOAA and the USFWS provided links to funds, including Coastal and Estuaries Land Protection funds and North American Waterfowl Conservation Act grants. As experienced managers of established federally protected areas, the reserve and refuge managers regularly consider long-term consequences of acquisition and management decisions. This professional expertise and institutional capacity provided a stable foundation for the coalition's habitat prioritization and land conservation efforts.

The MtA2C Conservation Initiative influenced the focus of Rachel Carson NWR's habitat protection efforts. The coalition's land protection committees developed specific landowner contact information on parcels within the refuge acquisition boundary. The refuge benefited from this local knowledge and the community connections provided by local land trusts. The MtA2C's goals were not identical to the missions of the reserve or the refuge. Where goals overlapped the power of the coalition made collaboration mutually beneficial, financially attractive and efficient. What the coalition accomplished could not have been achieved by any single organization.

Case Study #2: Protecting Our Children's Water

> The whole system of science, society and nature is evolving in fundamental ways that cause us to rethink the way science is deployed to help people cope with a changing world. Scientists should be leading the dialogue on scientific priorities, new institutional arrangements, and improved methodologies to disseminate and utilize knowledge more quickly (Lubchenco 1998:496).

The Coastal Training Program (CTP) of the national estuarine research reserve system (NERRS) is a proving ground for new education and outreach methodologies with a fundamental goal of putting science to work. Each of the 27 research reserves choosing to implement this national program completes a market analysis and needs assessment to identify critical coastal management issues, science-based training needs, and gaps in the training and education provider network serving the region surrounding the reserve. Each regionally adapted CTP aims to enhance the capacity to use scientific information as a basis for decision-making and increase networking and collaboration among coastal decision-makers.

Municipal land use decision-making and the implications of those decisions for water quality and habitat are key focus areas for the Wells NERR CTR (Krum and Feurt 2002).

For the past six years, the Wells NERR CTP has experimented with an adaptation of community-based ecosystem management based upon an interdisciplinary blend of collaborative learning (Daniels and Walker 2001) and cultural models theory and methodology. The Protecting Our Children's Water project uses ethnographic knowledge of stakeholder and institutional barriers to science translation and progress on watershed management goals to create and maintain a collaborative knowledge network. A regional Watershed Council, formed experimentally in the summer of 2005, included planning, public works, and code enforcement staff from three municipalities, volunteers from community conservation groups, and staff of the local water district, Rachel Carson NWR, Maine Department of Environmental Protection, Maine Sea Grant, and Wells NERR.

Water quality monitoring and a non-point source watershed survey contributed to a watershed management plan, which the watershed council used as the basis for priority-setting and action during the experimental phase of the project. Like the MtA2C Coalition, the diverse members of the watershed council were united through shared goals: in this case, for clean water. Equally powerful were shared values about the importance of clean water and perceptions of the threats posed by development. These shared values provided some of the motivational force for participation on the watershed council, contributing to the overall collaborative potential of the project despite conflict associated with property rights and diverse professional orientations (Feurt 2007).

The collaborative learning approach developed by Daniels and Walker (2001) provided the procedural framework for collaborative development of priority actions and evaluation of progress or improvement in watershed conditions. Ethnographic knowledge of the complexity of municipal water management revealed a complex system where seven *ways of knowing* or types of knowledge interacted within a "kaleidoscope of expertise." Ways of knowing include: governance, educational practices, science, technological, land use, ecological, and local knowledge. The "kaleidoscope of expertise" includes eight distinct professional approaches to protecting water:

- Regulatory approaches, ordinance development, and enforcement;
- Land conservation;
- Planning and land use management;
- Engineering and public works;
- Drinking water provision and source water protection;
- Water research and monitoring;
- Education and community outreach; and
- Citizen and business watershed stewardship.

Practitioners draw from multiple knowledge domains in their work. Opportunities for addressing water management across disciplinary and institutional lines are rare. Indeed, a dominant barrier to collaboration and science translation has been the perception, on the part of protected area institutions such as the NERRS, that municipal officials are *receptacles*

awaiting the *delivery* of science-based information. The Protecting Our Children's Water project recognized and cultivated the problem-solving potential inherent in the municipal water management system as a rich *resource.* The collaborative learning approach, systematically applied within the Protecting Our Children's Water project provided a template for collaboration and action. Evaluation by participants and elected officials in the member towns acknowledged both successes and failures during the experimental phase. This evaluation resulted in the decision to continue to use the watershed council approach to address watershed-scale efforts to protect and enhance water quality (Feurt 2007).

The Cockpit Café at the Sanford Regional Airport became a gathering place for the watershed council. The airport was the site of a successful field trip to learn more about the challenges of managing airport stormwater in the headwaters of a five-town drinking-water source. The same airport faces homeland security constraints out of proportion to its size because the current president and former presidents use it as a landing area during visits to nearby Kennebunkport, Maine.

On the one-year anniversary of the first meeting of the watershed council, delegates met for breakfast at the Cockpit Café. Over breakfast, surrounded by World War II aviation memorabilia, fifteen people talked about the potential for the new Super Wal-Mart to adopt low-impact development practices, the construction of a new interstate highway access through the watershed, all-terrain vehicle impacts, transfer of development rights, and the fact that a field trip in pouring rain was a great way to learn about non-point source pollution. Breakfast was an informal prelude to a field session designed to allow the group to observe and discuss three projects relevant to ecosystem management: restoration of a severely eroded rural riparian site; a bio-engineered wetland mitigation site; and characterization and restoration of an urban watershed. The ability to observe watershed-scale land use effects makes these social–ecological interactions powerful opportunities for learning. Interpreting ecosystem management at this scale begins with dialogue over coffee and ends with step-by-step progress toward agreed-upon goals.

Conclusion

Both breakfast at the Cockpit Café and the community celebrations honoring accomplishments of the MtA2C Conservation Initiative are components of innovative outreach strategies characteristic of community-based ecosystem management. These experiences of civic engagement are part of the gyroscope guiding the adaptive management cycle of ecosystem management. They bring people to the table for conversation and careful consideration of the learning and stewardship associated with progress toward desired environmental outcomes. Dialogue contributes to the recognition of new problems, collection of local knowledge about cause-and-effect relationships, identification of values and motivations associated with stewardship, and pulse-taking for sources of conflict and collaboration. The collaborative knowledge networks described in these case studies are manifestations of what sociologist Robert Putnam (2000) calls "social capital."

The science embedded in the conservation plan and watershed management plan becomes real for people when they can link actions aimed at protecting ecosystem integrity with actions designed to "make the places we live, work and play noticeably better today and

in the future" (Meffe et al. 2002:67). Social capital played a critical role in both of these case studies. Social capital remains a largely untapped resource for facilitating science translation. Its value is difficult to imagine when protected areas are conceived of as pristine nature surrounded by boundaries excluding outside threats. *Seeing* ecosystem management in working landscapes, *recognizing* ecosystem management in stormwater treatment at the airport, and *hearing* ecosystem management when the developer talks about his vision for restoring a sediment-choked stream adjacent to his low-income housing project requires forays into the everyday world of people acting as stewards and managers of their local environments. The new outreach paradigm presented in these case studies bridges the institutional world of traditional protected area management to new constituencies in the communities that surround them as an antidote to *preaching to the choir*. The experience brings science out of the church altogether by recognizing the importance of linking the stories that science tells with places that people value to forge relationships invaluable for learning and stewardship.

References

Daniels, S., and G. Walker. 2001. *Working through Environmental Conflict: The Collaborative Learning Approach.* Westport, Conn.: Praeger.

Dionne, M., C. Dalton, and H. Wilheim, eds. 2006. *Site Profile of the Wells National Estuarine Research Reserve.* Wells, Maine: Wells National Estuarine Research Reserve.

Feurt, C. 2007. Protecting Our Children's Water—Using cultural models and collaborative learning to frame and implement ecosystem management. Doctoral dissertation, Antioch University–New England, Keene, New Hampshire.

Krum, C., and C. Feurt. 2002. *Wells National Estuarine Research Reserve, Coastal Training Program: Market Analysis and Needs Assessment*. Executive summary available on-line at www.wellsreserve.org/ctip/exec-mana.htm.

Lee, K. 1993. *Compass and Gyroscope: Integrating Science and Politics for the Environment.* Washington, D.C.: Island Press.

Lubchenco, J. 1998. Entering the century of the environment: A new social contract for science. *Science* 279, 491–497.

Lyman, M. 2006. *An Evaluation of the Mt. Agamenticus to the Sea Conservation Initiative: An Assessment of the Mt. Agamenticus to the Sea Conservation Initiative*, *October 2002–October 2006*. York, Maine: MtA2C Coalition.

Meffe, G., L. Nielsen, R. Knight, and D. Schenborn. 2002. *Ecosystem Management: Adaptive, Community-Based Conservation*. Washington, D.C.: Island Press.

MtA2C [Mt. Agamenticus to the Sea Conservation Initiative]. 2005. *A Conservation Plan for the Mt. Agamenticus to the Sea Conservation Initiative.* Available from www.mta2c.org/mta2c_ conservation_plan.pdf.

NRC [National Research Council]. 1996. *Understanding Risk: Informing Decisions in a Democratic Society.* Washington, D. C.: National Academy Press.

Putnam, R. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.

TNC [The Nature Conservancy]. 2000. *The Five-S Framework for Site Conservation*: *A Practitioner's Handbook for Site Conservation Planning and Measuring Conservation*

Success, Vol. 1. 2nd ed. Arlington, Va.: The Nature Conservancy.

U.S. Fish and Wildlife Service. 2006. *Draft Comprehensive Conservation Plan for Rachel Carson National Wildlife Refuge.* South Hadley, Mass.: USFWS, Region 5.

Ward, M. 2000. *Mt. Agamenticus to the Sea Conservation Plan*. York, Maine: MtA2C Oversight Committee.