

education / coastal training



"People who live, work, and play along Maine's southern coast value the sandy beaches, rocky tide pools, and salt marsh lined estuaries for the profound effect these have on our quality of life. The desire to protect these places is motivated by deeply held values about the importance of clean water, the need to protect habitat for wildlife, and a commitment to saving special places."

Christine Baumann Feurt, Ph.D.

Collaborative Learning Guide for Ecosystem Management, 2008

To learn more about collaborative learning, or to request a copy of the Guide, contact Chris Feurt at

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Saco River estuary inspires application of collaborative learning

Dr. Christine Feurt, affable coordinator of the Wells Reserve's Coastal Training Program, loves bringing people together to work on behalf of improved ecosystem health. Hers is not an ivory-tower approach; Chris begins by soliciting the opinions held by members of a project's community.

To get that conversation going, the Coastal Training Program team (CTP) conducts interviews with key officials and hosts public workshops involving the people most committed to a river: Those who use it.

"If you get people talking about what makes the river running through their community important to them," Chris explains, "they discover shared values." Once group members recognize they have common concerns, they are more prepared to collaborate on keeping what they value intact.

That's why, when assembling a group at the start of each new project, Chris says she always gets "right to the values." She has come to recognize such frequent themes as a river's beauty when tides ebb and flow or seasons change; its importance for fishing, canoeing, and swimming; and its role in supporting a vibrant local economy.

From Caring to Protecting

With the foundation of shared values in place, Chris poses two key questions: "What threatens the things that you value and how can we work together to protect what's important to you?" This is where the real work of community-based ecosystem management starts to happen.

Participants must first acknowledge the perceived threats, then challenge themselves to identify strategies they can pursue together to protect what they value. With steady support from CTP, they find new ways to work across municipal, organizational, and

disciplinary boundaries to form a plan of action for protecting precious natural resources along with a community's quality of life. By preparing the plan collaboratively, the group has a collective stake in seeing the identified actions through to completion.

Chris has described community-based ecosystem management as "an approach to getting things done." It connects the collective wisdom of people with a stake in a sustainable future (social capital) with nature's ability to provide clean water, clean air, and support for living systems (natural capital).

"This approach to ecosystem management has been applied in a number of communities around southern Maine," Chris points out. It started in 2005 when Protecting Our Children's Water focused on the Merriland River, Branch Brook, and Little River watershed. A successful pilot and important proof of concept, Protecting Our Children's Water unified a group of planners, managers, community leaders, and scientists from three towns around a shared vision and set of actions for their watershed.

After similar work in the Kennebunk, Spruce Creek, and York river watersheds refined and reinforced the collaborative learning method, CTP embarked on a major project with the Town of Sanford. Once again, the integration of social and natural sciences revealed common ground for constituents, who not only created a conservation plan but then incorporated it into the town's comprehensive plan.

Today, the Coastal Training Program has community-based ecosystem management efforts under way along several rivers. One case in point: In partnership with the University of New England (UNE), the Wells Reserve is involved in a 5-year project to investigate the effects of increasing coastal

development on the health of the Saco River estuary, and to identify ways to mitigate those effects.

Sustaining the Saco

The Saco River basin is the largest watershed in southern Maine, draining about 1,700 square miles and encompassing all or part of 20 cities and towns in the state. From its headwaters in the White Mountains of New Hampshire, Maine's fourth-largest river flows roughly 120 miles before emptying into the Gulf of Maine between the cities of Biddeford and Saco.

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The estuarine portion of the Saco River extends about 4 miles, from near Cataract Dam at Factory Island, Biddeford (the most seaward of the river's 40-plus dams), to Camp Ellis and Hills Beach. At the river mouth lies the UNE campus.

A team of UNE and Wells Reserve scientists, along with a number of undergraduate students from the university, is now studying the ecology of the Saco River estuary, as well as the policy, regulation, and economic influences upon it.

UNE students and their professors are approaching the project from myriad natural-science angles — surveying fish in the river channel, monitoring birds using the estuary and edge habitats, assessing bacterial counts in the water, using GIS models to see how the river's shoreline could change with sea-level rise, researching the livelihoods supported by the estuary, and learning about salt marsh plant communities.

As a project collaborator, Wells Reserve research director Dr. Michele Dionne is

bolstering those efforts by collecting and analyzing data on the fish that use salt marshes along the tidal portion of the Saco River. Last summer, research associates Jacob Aman and Jeremy Miller led a team that repeatedly sampled coastal fish using the marsh surface, with special interest in migratory species such as river herring, eel, and tomcod. Their work continues in 2011.

Meanwhile Chris, the social scientist, focuses on the people of the area and the places where they live, work, and play. She is also studying the gaps in scientific knowledge that prevent certain management

and policy questions from being answered during stakeholder workshops.

Over the course of the 5-year project, stakeholders will agree upon a way to regularly monitor and summarize the health of the Saco River estuary. During the next several months, the team will be considering potential tools that might serve as a sort of "report card" for measuring progress toward future goals. Already, the Biddeford Open Space Committee has committed to using information from the project in the city's open space plan.

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Saco River Estuary Project

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Local Residents

City of Biddeford

City of Saco

Saco River Corridor Commission

Saco River Salmon Club

Saco Valley Land Trust

Southern Maine Regional

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