

### ***A History of Stewardship***

The people of Tillamook County have a tradition of rising to meet challenges and working together to achieve common goals. In her 1992 nomination letter, Governor Barbara Roberts recognized the area's

“long history of individuals, groups, affected industries and government working together to identify problems, develop plans, and implement solutions. Repeatedly, the Tillamook community has responded effectively to long-range resource management needs, including such efforts as the reforestation of the Tillamook Burn after a series of devastating forest fires, completion of the Rural Clean Water Program to address dairy waste management, and implementation of the Methane Energy and Agricultural Development (MEAD) project to further control bacterial contamination and allow for economic development.”

Later, in the 1997 TBNEP Video, *Citizen Stewardship*, Governor John Kitzhaber described Tillamook citizenship as a “success story of citizen stewards taking control over their environmental destiny.”

To meet the targets and goals of the CCMP, the Tillamook County Performance Partnership (TCPP) will continue to foster citizen stewardship through public outreach and education. TCPP will develop stronger links among existing programs and develop new institutions to serve the evolving needs of watershed councils and community-based decision making. The program will continue to provide staff, expertise and resources to the Tillamook Coastal Watershed Resource Center (TCWRC) and the local watershed councils. It will produce an annual State of the Bay report and continue to publish maps, brochures, signs, educational programs and other material to involve the public in project goals and objectives.

Moreover, TCPP will cooperate with local educators to focus public awareness on resource management issues and choices and build citizen stewardship by developing better understanding of watershed processes. The program will coordinate related programs in agriculture, forestry, and shellfish industries. TCPP also will work to strengthen K-12 school programs and improve opportunities for adult education. This chapter outlines the Performance Partnership vision for citizen involvement,

describes past programs and citizen input, and presents an action plan to catalyze education and community development projects.

## ***Citizens in Implementation***

Citizens will be involved in implementation of the CCMP through several programs and institutions:

- watershed councils,
- Tillamook Coastal Watershed Resource Center,
- volunteer organizations, and
- education programs

## **Watershed Councils**

Four watershed councils serve Tillamook County: Tillamook Bay, Netarts Bay, Nestucca-Neskowin, and Lower Nehalem. Each of these councils provides informational programs on watershed issues and coordinates enhancement activities such as riparian fencing and planting with local industry, state agencies, and private landowners that have a stake in the Watershed. The councils also will involve private landowners in supporting bond measures for stormwater or sewer system improvements. Watershed council members represent industry, business, the County, state agencies, and the general public. Moreover, watershed councils will have representatives on the Performance Partnership Stewardship Council. TCPP will provide cash match for the watershed council coordinator, employed through the Tillamook County Soil and Water Conservation District, to work with each of these councils and performs many public outreach functions.

## **Tillamook Coastal Watershed Resource Center**

Tillamook Bay Community College (TBCC), the TBNEP, Tillamook County Soil and Water Conservation District (SWCD), and the Economic Development Council (EDC) of Tillamook County pooled resources to create the center, which is housed at the TBCC Bay City Campus. The Center provides GIS services, products and training; watershed assessment training through TBCC; and technical assistance for watershed councils. It provides a public access facility for GIS, computers, databases, maps, Internet, and information about watershed health, processes and restoration. The TCWRC houses the Tillamook County Watershed Council Coordinator and conducts watershed assessments. It is currently making the transition from the TBNEP-supported pilot phase to independent, self-supporting public institution.

## Volunteer Organizations

Volunteer organizations have played a critical role in helping TBNEP gather data about Tillamook Bay and the Watershed. The following programs have been the most active over the last four years:

***Citizens water quality monitoring.*** Over the last four years TBNEP, other non-profits, and state agencies have trained numerous volunteers in water quality monitoring. Under state GWEB grants, TBNEP supported a part-time volunteer coordinator and worked with local schools, conservation groups, the local correctional facility, and individual citizens. In addition to water quality monitoring, local citizens have also been active in other monitoring activities such as fish counts, surveys of benthic macro-invertebrates, and primary productivity in the Bay. TBNEP supported various citizen monitoring and demonstration projects under APDP funds. See Appendix J. The Performance Partnership will continue citizen monitoring efforts with state funding related to salmon restoration.

***Stream stewardship groups.*** TBNEP grants supported local stewardship groups, including Pals of Patterson Creek, South Prairie School Creek Committee, and the Doughty Creek Group. These groups write and receive grants, conduct citizen training and education, monitor insect populations and salmon migration, implement enhancement projects such as clearing non-native species and planting trees, and work closely with local agency personnel, neighbors, service groups, and families. Much of the TBNEP's success in reaching the public results from coordination with these groups, tapping citizens' desire to implement projects.

***Three Graces Intertidal Program.*** TBNEP partnered with Camp Magruder and other educational organizations in a volunteer monitoring program known as the Three Graces Intertidal Program. This program focused on the extent and impacts of human uses of the Three Graces intertidal area of Tillamook Bay. The program integrated Portland State University field studies and identification guides with local volunteers.

***Tillamook County Creamery Association (TCCA).*** The Tillamook County Creamery Association is informing and helping its member farmers with stream fencing, riparian plantings, and culvert and tide gate improvements. TCCA participated with TBNEP in water quality monitoring of the Wilson River. Many individual farmers participate in projects to enhance habitat, reduce sedimentation and improve water quality through SWCD and NRCS programs.

***Community groups.*** Other groups such as the Tillamook County Anglers, Tillamook County Flood Control Group, and Project Impact share similar goals and objectives with the CCMP and will provide public outreach, willing workers and cooperation.

## ***Accomplishments in Public Outreach***

During the first four years, TBNEP devoted much public outreach toward community education about environmental resource, science, and management issues. The first step was the development of the Citizen Action Committee (CAC) and a strategy for public involvement. Led by concerned citizens and TBNEP, CAC designed and managed an extensive outreach and education program. With speakers programs, public events and forums, signs, videos, and printed material, TBNEP used diverse media to educate the citizens about the issues and involve them in the solutions.

***Speaker's series.*** The TBNEP speaker's series provided educational public science lectures targeted to the local community. Lectures included such diverse topics as:

- high school students explaining how to use macroinvertebrates in restoration assessment and
- local biologist leading a discussion about the role of hatcheries in salmon restoration.

***Public presentations.*** Public outreach included hundreds of presentations by TBNEP staff and management conference members to local service clubs and organizations. TBNEP representatives also spoke often at local, regional, and national science, management, and education conferences.

***Tillamook Bay Paddle.*** In 1995 and 1996, TBNEP sponsored the Tillamook Bay Paddle to increase awareness and understanding of the Tillamook Bay environment. Roughly 80 people participated in the events. Paddlers took photographs of human uses of Tillamook Bay and the surrounding landscape as well as the effects of the 1996 flood. Displays were created with these photographs.

***Fairs and exhibits.*** The TBNEP maintained booths at the Tillamook County Fair and Portland Sportsmen's and Boater's Show, which each receive more than 50,000 visitors annually. Displays at these events focused on watershed and resource education and increasing participation in the TBNEP process. The TBNEP also maintains an exhibit at the TCCA Cheese Factory (about 900,000 visitors annually), outlining TBNEP's mission, priority problems, and management.

***Issue forums.*** Between 1994 and 1995, TBNEP conducted four Issue Forums on Biochemical and Water Quality, Sedimentation and Erosion, Fish and Wildlife, and Human Resource Use. Scientists, local resource specialists, and local citizens made presentations and answered questions at the forums, which drew 60-100 participants each. These forums provided public discussion and input on TBNEP priority problems.

**State of the Bay.** In 1997, the TBNEP State of the Bay Conference presented 24 speakers who highlighted the ongoing science and policy work occurring in the watershed and region. Held in conjunction with the annual meeting of the Pacific Estuarine Research Society (PERS), the State of the Bay Conference attracted well over 100 people.

**Signs and displays.** The TBNEP used many portable and fixed displays for a variety of venues throughout the local community and region. For example, TBNEP created an exhibit titled "Habitat Lost" that displayed for six months at the County Pioneer Museum in Tillamook. Displays have also been put up in all of the branches of the county library, bank lobbies, schools, athletic and public service events (*e.g.*, Multiple Sclerosis walk), Earth Day celebrations, art shows, dairy parades, and so on.

Five different designs of interpretive signs can be found throughout the region identifying TBNEP and the priority problems. The five designs include:

- Estuary: Where the River Meets the Sea,
- Watershed: A Place to Call Home,
- The Anadromous Five (the five native salmonids),
- Fish Bearing Stream and Fish Habitat; and
- Habitat in Estuaries

**TBNEP web site.** <http://osu.orst.edu/dept/tbaynep/nephome.html> provides a constant profile of the project. It contains demonstration project summaries, Request for Proposal (RFPs), publications, meeting updates, and other elements of the project.

**Video: Citizen Stewardship in Tillamook County.** In 1997, TBNEP produced Citizen Stewardship in Tillamook County. Distributed regionally, the 30-minute video highlights the stewardship efforts of Tillamook County's citizens. Introduced by Governor Kitzhaber, the video reached tens of thousands of people through cable stations in Tillamook, Salem, Eugene and Portland Metro area.

**Video: Estuaries of Oregon.** The TBNEP partnered with ODFW to produce "The Estuaries of Oregon" video. The 25-minute video discusses the importance of Oregon's 22 major and 17 minor estuaries.

**Newsletters.** TBNEP produced a quarterly newsletter describing its latest program developments, scientific findings, and upcoming events.

## **Public Participation in the CCMP**

In addition to constant educational outreach activities, the TBNEP has always encouraged public participation in the planning process. During several periods TBNEP actively solicited public participation. During late 1995 and early 1996, prior to the publication of the Preliminary Comprehensive Conservation and Management Plan (PCCMP), a 10-member Lowland Committee met to discuss management of lowland agricultural areas. During the first half of 1997, a more ambitious public outreach process solicited input on all three of TBNEP's original priority problems. Later the TBNEP Management Committee adopted flooding as a fourth priority problem.

### ***The Lowland Committee and the PCCMP***

A group of ten individuals met on several occasions during late 1995 and early 1996 to work out policies and actions for the PCCMP. Dale Buck, present chairman of the Management Committee, invited the committee members to participate. The committee members included one landowner and one dairy operator from each of Tillamook Bay's five major tributary rivers. These meetings resulted in the set of actions designated Land Use Actions (LUA) in the PCCMP. In all, the PCCMP contained 162 actions.

TBNEP published the PCCMP in July 1996, summarizing the early efforts of the TBNEP Management Conference to address the three priority problems of the TBNEP. The document served as a basis for discussion during 1996 and 1997, and many ideas and actions found in the PCCMP are found in the Final CCMP.

### ***Public Outreach in 1997 and the Draft CCMP***

The TBNEP held a series of 14 public meetings between January and July, 1997, to solicit public input and involvement in the planning process leading to the Draft CCMP, which was published in September 1998. From a list of more than 300 proposed actions, the public input process yielded a list of 24 broadly supported high priority actions for the Management Committee to consider for inclusion in the CCMP. These priority actions are listed on Page 1-14.

## Sector Meetings

The public meetings took place in three phases. The first phase, termed “sector meetings,” brought together individuals from similar backgrounds or interests to recommend ideas to represent their interests. Eight sector meetings gathered representatives from forestry, the estuary, sport fishing, local government, environmental advocacy, education, local businesses, and riparian landowners. Participants suggested actions for the CCMP, which would address one or more of TBNEP’s priority problems. These meetings produced a list of 147 possible actions, which were listed fully in the September 1998 Draft CCMP.

### Summary of Sector Meeting Dates

Title	Date	Attendees	Actions Suggested
Commerce/Business	Feb. 6, 1997	7	11
Education	March 18, 1997	19	22
Environmental	Feb. 11, 1997	20	37
Estuary	Jan. 16, 1997	11	12
Forestry	Jan. 9, 1997	8	15
Government	Feb. 15, 1997	19	21
Rec. Fishing	Feb. 15, 1997	15	17
Riparian Owners	May 21, 1997	10	12

## Geographic Meetings

Following the sector meetings, five “geographic meetings” brought different points of view and sectors together to discuss specific geographic areas. The geographic meetings focused on: Lowlands (April 29, 1997); Education (June 4, 1997); Uplands (June 5, 1997); Estuary (June 10, 1997); and Urban (June 24, 1997). The best-attended meeting was the Lowlands, with 35 participants.

Staff combined the 147 actions from the sector meetings with the 162 actions of the PCCMP to create a list of 309 possible actions. Participants in the geographic meetings were asked to prioritize all actions into their top recommendations. Through consensus building dialogues and discussions, each small group chose a list of roughly 10 actions it could support, and five actions it would oppose. Often, the same action would be endorsed by one group and rejected by another at the same meeting. The geographic meetings culminated with 89 actions receiving consensus support (also listed in the September 1998 Draft CCMP) and approximately 40 receiving opposition.

### **A Final Roundup**

A final roundup meeting took place July 12, 1997, following the geographic and sector meetings. More than 30 people attended this meeting.

Like the earlier geographic meetings, the final round-up meeting asked groups of participants to endorse or reject specific actions. The initial list of actions to be discussed was taken from the actions supported during the geographic meetings. Participants were asked to rate actions based upon what they would like to see done during the first year of TBNEP's implementation phase. In this way, the final roundup meeting yielded a short list of 24 Citizens' High Priority Actions (see Page 1-14).

### **Management Committee Response to Citizen Recommendations**

Members of the management committee met in the fall of 1997 to address citizen recommendations. The committee compared citizen input with current programs to identify gaps and/or recommend solutions. TBNEP staff provided scientific summaries and the best available technical information to support management decisions. The September 1998 draft CCMP presented the management committee's initial recommended actions after nearly a year of discussion and deliberation.

In October, 1998, a "listening post" meeting was held to generate public comment on the draft CCMP. The TBNEP sent a mailing to its entire mailing list of 1,000 interested persons and placed large advertisements in the local newspaper for two consecutive weeks. While attendance was lower than expected, the listening post still generated further public input into the CCMP development process.

The CCMP changed significantly as staff, agency representatives, management committee, and subcommittees hammered out specifics over the next few months. Moreover, a list of High Priority Goals and Actions (see Page 1-16) was developed, incorporating the Citizens' High Priority Actions, the results of a Management Committee Prioritization Exercise (see Page 1-15 and Appendices B and C), and visioning, questionnaire, and survey data. The TBNEP, which was by that time transitioning into the Tillamook County Performance Partnership, made another broad push for public comment, with a 1,000-card mailing, posting of the latest draft on the Internet, a prominently-placed newspaper article, and a radio news item and public service announcement. Additional citizen and agency comments are accounted for in Appendix P.



## **Education Fosters Citizen Involvement**

Education is key to helping citizens become an informed, effective force in solving the Watershed's problems. The TBNEP worked closely with Tillamook County's many educational institutions and groups. They will become more involved through the programs described below and the Action Plan listed at the end of this chapter.

The organizational structure of education in Tillamook County is a loose affiliation of several entities, including:

- three school districts (Nestucca Valley, Tillamook, and Neah-Kah-Nie);
- Tillamook County Education Consortium;
- Tillamook Bay Community College;
- Tillamook Bay National Estuary Project;
- private schools;
- Oregon State University Extension Service;
- four watershed councils;
- Tillamook County Performance Partnership; and
- other local, state, and federal entities.

The educational community is making an effort to expand natural resource education curricula. These efforts will provide students with a greater connection to their surroundings as well as an alternative educational structure for students who respond better to hands-on, outdoor experiences than to the traditional classroom setting.

### **K-12 Education**

Passed in 1991, the Oregon Education Act for the 21st Century requires schools to overhaul their curricula and requires students to demonstrate knowledge, skills, and problem solving abilities. The act encourages individual school districts to adopt two indicators of academic ability: the Certificate of Initial Mastery (CIM), and the Certificate of Advanced Mastery (CAM) for specific areas. The CIM is a broad examination of a student's ability in areas such as English, math, and writing. To achieve a CIM, a student must score at or above state benchmarks. The test is intended to be an indicator of whether students have acquired the knowledge and skills necessary to succeed in the real world. As of yet, very few school districts require CIM for graduation. The CAM is a more specific test of advanced knowledge in a given subject area. Tillamook County Schools have chosen local specialty CAMs in natural resources, health, and business and management.

In pursuit of both academic and real world achievement, Tillamook County schools encourage the use of outdoor classrooms. Some schools developed outdoor laboratories along wetlands and creeks and use these places to teach natural sciences and serve as inspiration for other classwork. In addition, schools encourage internships, community service, and school-to-work programs for better links with government and industry.

To meet educational goals, schools will need planning assistance, agency knowledge, and increased local capacity to supervise their projects. The CCMP also calls on public schools to expand their outdoor learning programs and to upgrade professional development for teachers. As a result, students will better integrate their entire educational experience with the rich natural setting available in Tillamook County.

### ***Educating the Educators***

The National Faculty recently provided grant money to train local teachers in watershed issues and natural sciences. The grant allows university-level scholars to hold workshops and classes for an integrated teacher audience. The idea is to establish a pool of teachers who are well-versed in the field of natural science and are, therefore, able to better connect students to the environment in which they live. The TBNEP participated in the National Faculty Workshops Series, which trained ten local educators in natural resource education.

The TBNEP also conducted a Teacher's Institute, a weeklong lecture and discussion series for 30 local and regional educators. The Institute emphasized team teaching in "place based" experiential science education.

### ***Tillamook County School Districts***

The three school districts of Tillamook County have made an effort to increase alternative, outdoor, and community education. The districts have developed links to local businesses, colleges, and universities; incorporated the Oregon Educational Act for the 21st Century; and even established a natural resource school in Tillamook Junior High. Following are examples of programs and partnerships initiated by the school districts to expand and improve education.

***Rural Education Corps/Oregon Youth Conservation Corps.*** In addition to changing traditional education methods to include more out-of-class activities and links to outside entities, the districts offer educational alternatives such as the Oregon Youth Conservation Corps (OYCC). The OYCC targets students who benefit more from non-traditional education. The curriculum focuses on community service and outdoor experience, but includes classroom subjects such as mathematics, history, reading, and writing. The districts invite students who feel that they would learn more from such a program to apply for a semester at a time. Although relatively

new, the program has met with great success and expanded in the 1998-99 school year.

***Outdoor School.*** Nearly all sixth grade students in Tillamook County participate in Outdoor School, where they learn environmental science and are exposed to the area's natural resources. High school students volunteer as counselors, providing the grade school children with guidance, and the high school students with the opportunity to develop responsibility and leadership skills.

***Portland State University (PSU).*** The PSU Center for Science Education provides training for schoolteachers to better assess students with regard to CIM/CAM as well as to provide quality natural resource education. Local teachers are encouraged to earn advanced degrees through PSU.

***Natural resource school.*** The Tillamook School District recently designated Tillamook Junior High School as a natural resource school. The junior high schools curriculum will emphasize natural resource education.

### ***Private Schools***

To varying degrees, Tillamook County's private schools provide natural resource education. Most sixth graders participate in outdoor schools, and a general trend indicates increased use of creeks, forests, and other natural

## **Tillamook County Education Consortium**

The three Tillamook County school districts and Tillamook Bay Community College (TBCC) comprise the Tillamook County Education Consortium, a cooperative effort to coordinate education, resources, and programs in the county. The Consortium was recently awarded an Annenberg Grant, with the goal of connecting K-12 education with the community. This follows a concerted effort by each member of the consortium to increase awareness and education with regard to the natural environment in Tillamook County. Members of the consortium recognized that the rich and varied natural environment of this area provides an exceptional opportunity to learn experientially about our natural resources, the way humans interact with our environment, and basic science such as chemistry and biology.

## **Adult and Community Education**

The CCMP includes Tillamook Bay Community College's new Oregon Transfer Degree in Environmental Studies (CIT-02). recommends an Oregon State University (OSU) Extension Service Watershed Master series (CIT-01), watershed council seminars (part of CIT-07), and improved institutional links to increase agency and citizens' knowledge of natural resources. In addition, new resources such as the TCWRC, a land trust organization, and watershed councils are available to community members who wish to increase their knowledge base and pursue a more active role in resource stewardship.

### ***Tillamook Bay Community College***

Accredited through Portland Community College (PCC), TBCC offers a variety of technical and social science courses. TBCC now offers an Environmental Studies Program in response to industry and government's need for more environmentally aware employees. The college recently hosted a watershed assessment course as a cooperative effort with the Tillamook Bay National Estuary Project (TBNEP), and plans to offer the course again.

### ***Oregon State University (OSU) Extension Service***

The OSU Extension Service conducts educational programs that help Oregonians solve problems and develop skills related to youth, family, farm, community, forest, energy, and marine resources. County-based Extension faculty and staff are supported by OSU campus-based teaching, research, and Extension faculty.

Goals of the CCMP currently are supported by local Extension activities pertaining to forest management, youth development, general agriculture, family living, dairy farm management, and marine resource use. Many of the actions contained in the CCMP could be the focus of new Extension activities locally.

### ***Tillamook Coastal Watershed Resource Center***

The center, which is housed at the TBCC Bay City Campus (see Page 9-2) provides GIS services, products and training; watershed assessment training through TBCC; and technical assistance for watershed councils. It provides public access to GIS, computers, databases, maps, Internet, and information about watershed health, processes and restoration.

## **Citizen Involvement Action Plan**

**Problem** *Environmental awareness within the community and sound environmental decision-making by stakeholders depend on focused education programs and progressive community development. Currently, too few educational resources regarding the Tillamook Bay Estuary exist for citizens, watershed council members, resource users, and others involved in or affected by community decisions. Adult education must be strengthened to meet the needs of diverse stakeholder groups. In addition, K–12 programs must connect learning experiences to the environment and the community.*

**Goal** **Improve Community Education**

Few educational and training resources exist to serve the diverse stakeholder groups involved in community decision-making. Improving adult education regarding Tillamook Bay and Watershed will strengthen citizen stewardship and ensure community support for implementing the Comprehensive Conservation Management Plan (CCMP).

**Goal** **Strengthen K–12 Science and Outdoor Programs**

Oregon’s Educational Act for the 21<sup>st</sup> Century calls on students, parents, educators, and business people to promote higher academic standards in the schools and to hold schools and students accountable for better results. To meet these standards in Tillamook County, K–12 programs will strengthen natural science and outdoor education.

**Goal** **Promote Community Development**

To build local capacity, foster citizen leadership, and improve community decision-making, Tillamook County requires new and renewed institutions. These institutions must provide better training, greater expertise, and stronger enforcement of local ordinances. State-of-the-art information technologies will support local infrastructure and nourish community development. By strengthening organizational linkages and regional partnerships, the community will leverage additional resources and streamline project implementation.

## ***Citizen Involvement Action Plan***

- CIT - 01 Implement an Oregon State University Extension Watershed Masters Series
- CIT - 02 Implement an Associate of Arts Oregon Transfer Degree in Environmental Studies
- CIT - 03 Improve Professional Development for K–12 Teachers
- CIT - 04 Strengthen Organizational and Institutional Linkages
- CIT - 05 Expand Authentic Learning Experience Opportunities
- CIT - 06 Establish a Land Trust or Conservation Organization
- CIT - 07 Sustain the Tillamook Bay Watershed Council
- CIT - 08 Sustain the Tillamook Coastal Watershed Resource Center

## CIT - 01      **Implement an Oregon State University Extension Watershed Masters Series**

**What**      The OSU Extension Service has developed a watershed stewardship education program that could be used for a Watershed Masters series for community stakeholders and watershed council members. The series is divided into several modules, each focusing on a specific area of watershed science such as riparian areas, fish habitat, and water quality. After completing the required number of modules, participants would then be required to complete a volunteer “stewardship action” and report on the action to the coordinating entity. Support this program through OSU Extension, TBCC, and TCWRC. Invite OSU Extension educators or other experts to present the series in cooperation with local institutions.

**Why**      The success of the Governor's Oregon Plan and the TBNEP CCMP relies on volunteer stewardship efforts of an educated populace. Throughout Oregon, few educational programs are available for watershed council members involved in watershed assessments and environmental restoration. Historically, OSU Extension has taken the lead in developing and implementing adult science and technical education programs to fill community educational needs, and a Watershed Masters series would provide the opportunity for community members to gain knowledge and experience in the field of watershed stewardship. There is an immediate and future need for a Watershed Masters program.

**How  
(Who.\*When.\*\*)**

*Step 1*      Tillamook Bay Watershed Council Coordinator and TBCC determine interest and curriculum. (TBWC & TBCC. 1999.)

*Step 2*      Develop cooperative arrangement between OSU Extension Service and local coordinating entities. (TBCC, TBWC, & OSU Extension Service. 1999.)

*Step 3*      Advertise Masters Series to members of the community, watershed council members, local service organizations, students, and teachers. (TBCC, TBWC, & OSU Extension Service. 2000.).

*Step 4*      Schedule classroom and field days, and invite experts to teach modules. (TBWC. 2000.)

*Step 5*      Present classes. (TBCC, TBWC, & OSU Extension Service. Three modules by 2001.)

*Step 6*      Follow up with course evaluations. Ascertain that all participants complete volunteer stewardship action within one year of course completion. (TBWC. Ongoing.)

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\* Coordinating entity.

\*\* By end of named year.

<b>Lead Agencies</b>	OSU Extension Service, TBCC, TCWRC.
<b>Other Partners</b>	Soil and Water Conservation District, watershed councils, TBNEP, PSU Center for Science Education, TCPP.
<b>Anticipated Costs</b>	In-kind contributions of staff time for instructors; \$250 per series for materials; 0.25FTE TCPP staff for one year = \$12,500.
<b>Regulatory Issues</b>	None.
<b>Related Actions</b>	CIT-02 Implement an Associate of Arts Oregon Transfer Degree in Environmental Studies CIT-03 Improve Professional Development for K–12 Teachers CIT-04 Strengthen Organizational and Institutional Linkages CIT-05 Expand Authentic Learning Experience Opportunities CIT-07 Support a Tillamook Bay Watershed Council CIT-08 Sustain the Tillamook Coastal Watershed Resource Center OPSW DSL-23 ODA-3 ODFW-VA1 ODOT-12 OPRD-3



<b>CIT - 02</b>	<b>Implement an Associate of Arts Oregon Transfer Degree in Environmental Studies</b>	
<b>What</b>	Tillamook Bay Community College is developing an Associate of Arts Oregon Transfer Degree in Environmental Studies. This program will provide students with core courses and an associate degree, which is transferable to environmental science or environmental policy bachelor's degree programs at Portland State University and Oregon Institute of Technology. Each student will complete work in core environmental studies courses and in a series of foundation courses in mathematics and the natural and social sciences.	
<b>Why</b>	There is now no local higher education program in environmental studies in Tillamook County. This program will provide opportunities for high school and college students to pursue this field.	
<b>How (Who.When)</b>	<i>Step 1</i>	Include first year level Environmental Studies courses in the Pathways Program (concurrent high school/college enrollment) classes (TBCC. 1999.)
	<i>Step 2</i>	Implement second year level classes in conjunction with Performance Partnership staff (TBCC. 1999.)
<b>Lead Agency</b>	Tillamook Bay Community College.	
<b>Other Partners</b>	Natural resource agencies and entities, TCWRC, TCPP.	
<b>Anticipated Costs</b>	\$5,712 over two years for instructor costs.	
<b>Monitoring</b>	Students completing associate degrees by spring 2001.	
<b>Regulatory Issues</b>	None.	
<b>Related Actions</b>	CIT-03	Improve Professional Development for K–12 Teachers
	CIT-04	Strengthen Organizational and Institutional Linkages
	CIT-05	Expand Authentic Learning Experience Opportunities
	CIT-08	Sustain the Tillamook Coastal Watershed Resource Center
	OPSW	ODOT-12 OPRD-3



## CIT - 03      **Improve Professional Development for K–12 Teachers**

<b>What</b>	Provide greater professional development opportunities to public and private school educators in science, natural history, and resource management. Cultivate a team of educators to provide county leadership in science education. This team would serve as mentors and resource providers for other county educators.
<b>Why</b>	Natural sciences and environmental studies need additional attention and further development in county schools. Certificate of Initial Mastery/ Certificate of Advanced Mastery will be implemented in the County by 2005, requiring increased teacher training for implementation.
<b>How (Who.When.)</b>	<p><i>Step 1</i> Fund natural resource curriculum development and summer science institutes for at least five years. (TCEC. 2001.)</p> <p><i>Step 2</i> Encourage educators to complete their Master of Science in Education Degree (MSEd), Master of Science in Teaching (MAT), or Master of Science in Teaching Science (MSTS). (TCEC. Ongoing.)</p> <p><i>Step 3</i> Design, develop, promote, and implement teacher-to-teacher mentoring program in Tillamook County. (TCEC. 2001.)</p> <p><i>Step 4</i> Fund incentive pay for teacher mentors. (TCEC. 2001.)</p>
<b>Lead Agency</b>	Tillamook County Education Consortium.
<b>Other Partners</b>	PSU, GWEB, natural resource agencies (state and federal), OSU Extension Service, TBCC/TCWRC, watershed councils, public and private educators, TCPP.
<b>Anticipated Costs</b>	\$50,000 for one FTE educator, incentive pay for mentors (\$1200/mentor/year).
<b>Monitoring</b>	Increasing trend in the number of educators completing advanced degrees, and/or training in CIM/CAM certification by 2001.
<b>Regulatory Issues</b>	None.
<b>Related Actions</b>	<p>CIT-01 Implement an Oregon State University Extension Watershed Masters Series</p> <p>CIT-02 Implement an Associate of Arts Oregon Transfer Degree in Environmental Studies</p> <p>CIT-05 Expand Authentic Learning Experience Opportunities</p>



## **CIT - 04                      Strengthen Organizational and Institutional Linkages**

<b>What</b>	Develop and sustain better organizational links between local schools, TBCC, state universities, government agencies, and other entities.
<b>Why</b>	No single district or consortium of districts has the resources to develop the very best in natural resource education. Rural educators can access more resources by building partnerships with larger universities, stakeholder industries, and private educational groups such as the Oregon Museum of Science and Industry (OMSI).
<b>How (Who.When.)</b>	<p><i>Step 1</i>    Write a mission statement to clarify goals and objectives. Promote concept throughout school system and community. (TCEC. 2001.)</p> <p><i>Step 2</i>    Identify partners, resources, and benefits. (TCPP. 2001.)</p> <p><i>Step 3</i>    Identify staff lead and funds needed for program. (TCPP. 2001.)</p> <p><i>Step 4</i>    Establish, develop and sustain organizational links between partners. Promote partnership at community level (through school boards, Parent Teacher Associations, educational boards, etc.). (TCEC and TCPP. Ongoing.)</p> <p><i>Step 5</i>    Determine administrative costs, funding sources, yearly benchmarks. (TCEC. 2001.)</p>
<b>Lead Agency</b>	Tillamook County Education Consortium.
<b>Other Partners</b>	GWEB, PSU, OSU, public and private educators, timber landowners and industries, GIS high tech firms, and resource agencies, TBCC/TCWRC, TCPP.
<b>Anticipated Costs</b>	No significant new costs.
<b>Monitoring</b>	All county schools should have a natural resource partner such as ODF, TCCA, BLM, etc. by 2000.
<b>Regulatory Issues</b>	None.
<b>Related Actions</b>	<p>CIT-03    Improve Professional Development for K–12 Teachers</p> <p>CIT-07    Support a Tillamook Bay Watershed Council</p>



## CIT - 05      **Expand Authentic Learning Experience Opportunities**

**What**                      Integrate coursework with authentic learning experiences, which include outdoor and community-linked educational experiences. Develop community learning labs in areas such as health care, agriculture, and the environment. Enhance community education programs for K-12 students. Review mission of Certificate of Initial Mastery/Certificate of Advanced Mastery (CIM/CAM) goals.

**Why**                      Tillamook County offers tremendous resources for community-linked education, and local schools are beginning to incorporate authentic learning experiences into their curriculum. Experiential learning enriches the classroom experience and strengthens the lessons learned.

**How (Who.When.)**      *Step 1*    Articulate goals and mission. Promote concept throughout school system, community and private business. (TCEC. 2000.)  
*Step 2*    Identify partners, resources and benefits. (TCEC. 2000.)  
*Step 3*    Identify staff lead and funds needed for program. (TCEC. 2000.)  
*Step 4*    Establish, develop, and sustain a model program. (TCEC. 2001.)  
*Step 5*    Develop outreach and education to other schools regarding local model. Develop buy-in from administrators and educators. (TCEC. 2000.)  
*Step 6*    Support existing and developing programs through technical and administrative support. (TCEC. Ongoing.)

**Lead Agency**            Tillamook County Education Consortium.

**Other Partners**        GWEB, resource agencies, public and private educators, administrators, TBCC/TCWRC, watershed councils of Tillamook County, TCPP, BLM, ODF, USFS.

**Anticipated Costs**      \$50,000 for 1.0 FTE education specialist or community education liaison.

**Monitoring**            All county students have community-linked educational experiences by 2002.

**Regulatory Issues**    None.

**Related Actions**      CIT-03    Improve Professional Development for K–12 Teachers  
                                  CIT-04    Strengthen Organizational and Institutional Linkages  
                                  OPSW     ODOT-12





## CIT - 06      **Establish a Land Trust or Conservation Organization**

<b>What</b>	Establish an organization or process to purchase or accept donations of private land or easements in areas of high quality habitat. Obtain donated or purchased lands or easements to meet habitat restoration targets and manage lands to benefit habitat. Work with the Central Coast Land Conservancy, The Nature Conservancy, Oregon Natural Heritage Program, or other habitat conservation organizations to manage these lands.
<b>Why</b>	Land trusts and conservation organizations have been used successfully in many areas to provide alternative mechanisms to acquire and conserve lands or rights. In the case of the Tillamook Bay Watershed, these organizations might acquire, conserve, and manage lands that have high values for fish and wildlife habitat and/or flood hazard mitigation, or conserve lands where traditional production practices contributed excessively to sedimentation or water quality problems. Land trusts and other conservation organizations also allow landowners to donate lands or easements to a tax-exempt non-profit organization. Donations can be structured in a variety of ways to maximize tax benefits for the landowner.
<b>How (Who.When.)</b>	<p><i>Step 1</i>    Establish a process for accepting donated land or easements and for purchasing either easements or title to habitat lands. Consider current organizations and/or the feasibility of establishing a new organization for Tillamook Bay. (TCPP. 2001.)</p> <p><i>Step 2</i>    Develop guidelines for different types of land acquisitions and specify which organizations are best suited for each type of conservation project, easement, and/or purchase. (TCPP. 2001.)</p> <p><i>Step 3</i>    Enter into a management contract with the conservation organization for the land involved in that project. (TCPP. 2001.)</p> <p><i>Step 4</i>    Acquire easements or ownership through purchase or donation. (TCPP. Ongoing.)</p> <p><i>Step 5</i>    Secure funds for management of the lands. (TCPP. 2001.)</p> <p><i>Step 6</i>    Turn over lands and management funds to the conservation organization for management. (TCPP. 2005.)</p> <p><i>Step 7</i>    Periodically review the performance of the conservation organization in carrying out its management duties. (TCPP. Ongoing.)</p>
<b>Lead Agency</b>	Tillamook Bay Performance Partnership.

<b>Other Partners</b>	Central Coast Land Trust, North Coast Land Conservancy (Clatsop County), The Wetlands Conservancy, The Nature Conservancy, The Trust for Public Land, Oregon Natural Heritage Program, Oregon Water Trust, USFWS, watershed councils, ODFW.
<b>Anticipated Costs</b>	0.25FTE TCPP staff time for facilitating the process. Cost of land purchases and real estate transfers: site-specific.
<b>Monitoring</b>	Increase in donated or purchased land in land trust by 2005.
<b>Related Actions</b>	HAB-19 Protect and Enhance Tidal Marsh OPSW ODFW-IVA6

<b>CIT-07</b>	<b>Sustain the Tillamook Bay Watershed Council</b>
<b>What</b>	Sustain a Tillamook Bay Watershed Council, and other Tillamook County watershed councils. Obtain ongoing funding for a Tillamook Bay Watershed Council Coordinator. Obtain funds for restoration and enhancement activities County-wide. Encourage brief seminars on relevant topics at each watershed council meeting.
<b>Why</b>	Watershed councils coordinate restoration and enhancement projects and are able to engage in a wide range of activities to promote watershed health and community education. Implementation of the CCMP to address priority problems will require a strong and focused organization to support continued coordination and cooperation among the various entities involved and to advocate those measures which must be accomplished by other agencies or groups. Brief seminars at each watershed council meeting will increase understanding of important topics.
<b>How (Who.When.)</b>	<p><i>Step 1</i> Watershed council coordinator takes the lead in facilitating council activities. Use the SWCD and TCWRC as the base for the coordinator/educator position. (SWCD. 2000.)</p> <p><i>Step 2</i> Secure long-term funding for the council coordinator position. (SWCD. 2000.)</p> <p><i>Step3</i> Prepare council for the Performance Partnership and the responsibilities in the process. (SWCD. 2000.)</p>
<b>Lead Agency</b>	SWCD.
<b>Other Partners</b>	TBCC, TCWRC, OSU Extension Service, natural resource agencies, TBNEP, GWEB, TCPP.
<b>Anticipated Costs</b>	\$50,000 1 FTE (Council Coordinator position).
<b>Monitoring</b>	<p>Watershed councils involved in at least five restoration/enhancement projects per year.</p> <p>Regular topical seminars presented at watershed council meetings.</p>
<b>Related Actions</b>	<p>OPSW    DEQ-3S</p> <p>          DOGAMI-2</p> <p>          DSL-23, 24</p> <p>          ODA-3</p> <p>          ODFW-VA1</p> <p>          ODOT-4, 12</p> <p>          OPRD-1</p>



<b>CIT - 08</b>	<b>Sustain the Tillamook Coastal Watershed Resource Center</b>
<b>What</b>	Establish the TCWRC as an independent non-profit organization under Section 501(c)3. Build a local library of geographic information available to the public and update GIS layers and databases housed in TCWRC. Provide public education and training in GIS technologies. Secure ongoing funding for TCWRC management and technical staff.
<b>Why</b>	The TCWRC provides GIS technology and databases for citizens, agencies and others involved in natural resource decision making. It provides a shared meeting space for Tillamook County watershed councils and facilitates public access to all relevant geographic data. A sustainable TCWRC will require good management, technical staff, and adequate resources for computer technology and maps. Funding will be provided through a combination of contract work and grant funds.
<b>How (Who.When.)</b>	<p><i>Step 1</i> Establish a non-profit foundation and board of directors. Develop mission and visioning statement. Identify and secure long-term funding sources for the Center, including significant income from contract work. (TCPP. 2000.)</p> <p><i>Step 2</i> Create partnerships with resource agencies, private businesses, colleges, and schools. (TCWRC. 2001.)</p> <p><i>Step 3</i> Define staff job descriptions, hire full TCWRC staff. (TCPP. 2000.)</p> <p><i>Step 4</i> Establish formal training programs for watershed assessment, resource education, and GIS. (TCWRC. 2001.)</p> <p><i>Step 5</i> Update marketing strategy periodically to respond to new opportunities. (EDC. Ongoing.)</p> <p><i>Step 6</i> Become a self-sustaining institution that serves local and regional needs. (TCWRC. Ongoing.)</p>
<b>Lead Agency</b>	TCPP.
<b>Other Partners</b>	TBCC, Economic Development Council of Tillamook County (EDC), SWCD, Tillamook County watershed councils, TBNEP, OWEB, SWCD, Tillamook County, federal, state and local agency and utility partners.

<b>Anticipated Costs</b>	Yearly costs: \$207,000 Salaries, computer upgrades, utilities, office supplies, etc. 3 FTE: \$150,000 (administrative coordinator/educator, council coordinator/educator, GIS coordinator/educator). 2+ FTE interns: \$31,000. Resource Assistance for Rural Environments [RARE] or other student. Office and miscellaneous costs: \$26,000 (includes rent, supplies, utilities, computer upgrades).
<b>Monitoring</b>	Increase in citizen use of the TCWRC by 2000.
<b>Regulatory Issues</b>	None.
<b>Related Actions</b>	CIT-01 Implement an Oregon State University Extension Watershed Masters Series CIT-03 Improve Professional Development for K-12 Teachers CIT-04 Strengthen Organizational and Institutional Linkages OPSW ODF-59S ODFW-IB1S