

# LAND USE & WATER QUALITY TEAM LOGIC MODEL

Goals are Written for a 2 Year Time Frame

Actions and Outcomes are Written for a One Year Time Frame (Oct 1- Sept. 30 annually)

**DRAFT - 2/24/05**

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## I. PROBLEMS/SITUATIONS

### A. Resource Statements

1. Rapid land use changes are causing environmental, economic and social impacts.
2. People have less connection with traditional uses of land.
3. Rural and pristine waters and habitats are at risk and urban water quality remains in need of improvement and/or protection.

### B. Audience Statements:

1. Youth want and need education on land & water conservation issues . (Wet, Wild, PLT) Project Home (Jason Project 4-H Goes to Sea)
2. People often respond most when the impacts are personal.
3. Community and conservation leaders are mainly volunteers without extensive backgrounds in natural resources and other disciplines related to land use and water quality issues. Tools are available for conserving natural resources and managing growth, but many community and conservation leaders have limited understanding of them.
4. Groups and individuals need long-term, sustained assistance as well as timely access to information and other resources for better natural resources stewardship.
5. There is currently broad public support for land and water conservation.
6. Commercial audiences are faced with increasing environmental, regulatory and economic pressures that strain the ability to maintain open space.
7. The general public does not fully understand the consequences of land and water protection and development impacts

### C. Program Statements:

1. There are many opportunities to work together, including cross-over (multi or interdisciplinary) programming opportunities, for example , farm, forest and

- wildlife habitat management on land and water with these resources.
2. Existing programs could be expanded to additional audiences.
  3. Outcomes need to be measured to gauge program effectiveness.
  4. Collaborate with other land grant programs in New England

## II. GOALS

### A. Behavior Change Goals - Communities and Citizens:

#### Short

1. Communities conduct additional fiscal impact studies of development versus land conservation.
2. Increase awareness of natural resource career opportunities.
3. Citizens become more aware of UNH research.

#### Medium

5. A better informed citizenry acts to conserve natural resources.
6. Communities increase their land conservation efforts (public and private).
7. Kids get the message to adults

#### Long

8. An increased level of land conservation that ensures working landscapes.

### B. Behavior Change Goals - Landowners and Managers

#### Short

1. Landowners become aware of research-based information to make sustainable management decisions.
2. Natural resource industries, landowners and managers will integrate information from UNHCE into the way they manage land and water resources.

#### Medium

3. Fertilizer and pesticide applications will be based on UNH CE recommendations and IPM techniques
4. Landscapers and landowners, especially those on lakes, will seek certification by UNHCE for “environmentally friendly” practices.

#### Long

5. Garden centers and nursery suppliers will stock & recommend appropriate fertilizers based on UNH soil testing *recommendations*.
6. Lands are managed in an environmentally sound way.
7. Natural resource industries, landowners and managers will promote sustainable practices among themselves and among similar groups.

### C. Ecological Goals:

#### Long

1. Biodiversity is maintained and protected over the long-term.

2. Water quality in lakes, streams and estuaries improves or is maintained at acceptable levels.
3. Forest health is improved or maintained
4. Rate of open space loss is reduced

**D. Economic Goals:**

**Short**

1. Farm and forest landowners and managers receive economic information to guide management decisions
2. Communities, Realtors and landowners understand the relationship between water quality and property values

**Medium**

3. Farm and forest landowners and managers use economic information to guide management decisions for improved sustainability
4. Enhanced value added aspect of all natural resource products

**Long**

5. Forest productivity is improved or maintained
6. Agriculture & forest industry remain economically viable in the state

**E. Staff Capacity Goals:**

**Short**

1. UNHCE staff increase their awareness about land use and water quality issues and use the information in programming.
2. Use the existing level of funding to support programming

**Medium**

3. Staff in different program areas are cross-trained and understand the interactions of ag/forestry/community development as it pertains to land use & water quality.
4. Staff will secure additional funding to achieve these goals and measure impacts.

**Long**

5. Staffing will be increased to meet the needs of successful programming.

**III. ANNUAL ACTION ITEMS & OBJECTIVES**

**A. COMMUNITY NATURAL RESOURCE STEWARDSHIP**

**1. Promote “Dollars and Sense of Saving Special Places”**

- Publication
- Presentation
- Inservice on November 16, 2004 & April 21, 2005

Staff: Amanda Stone, Phil Auger, Frank Mitchell, Nory Parr

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

a. 100 municipal officials and others from 30 communities will attend Dollars and Sense workshops to increase their knowledge about the economics of open space, and the financial alternatives available to conserve open space

b. 75 municipal officials and others from 20 communities will apply information presented in the Dollars and Sense program to local land use decision-making and public policy development, e.g. conducting COCS studies.

c. Workshop participants from 20 municipalities will take action towards raising funds for land conservation using information they received from The Dollars and Sense of Saving Special Places.

d. A trained group of 25 presenters will conduct at least 25 presentations of The Dollars and Sense of Saving Special Places around the state.

INPUTS: Staff time, volunteer presenters, development, production and distribution of materials, mailing, supplies

## **2. Provide focused training and long-term assistance to communities on natural resource planning and land conservation.**

Staff: Amanda Stone, Frank Mitchell, Julia Peterson, Phil Auger

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

a. 35 towns and conservation groups will receive direct assistance with and will conduct natural resource planning and land conservation.

b. 200 community leaders, volunteers and others will increase their knowledge about natural resource and land conservation topics by attending 10 workshops in different parts of the state.

c. At least 8 UNH Senior Project Course Teams will conduct natural resource conservation projects for at least 8 communities.

d. 250 community conservation leaders, volunteers and others will increase their knowledge and skills by attending the Saving Special Places Conference.

INPUTS: one-on one contacts, meetings, workshops, UNH Senior Projects Course, Saving Special Places Conference.

## **3. Enhance the Community Profile follow-up process**

Staff: Amanda Stone, Frank Mitchell, Phil Auger

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

a. Three recent Community Profile communities will request and receive follow up assistance with natural resource protection projects.

INPUTS: Staff time, travel costs

## **B. RESOURCE MANAGEMENT**

### **1. Encourage economically and environmentally appropriate use of pesticides and fertilizers by producers, fertilizer dealers, consultants and landscapers.**

Staff: Tom Buob, Cathy Neal, Stan Swier, Carl Majewski

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

- a. 30 new producers base fertilizer applications on soil test results
- b. 30 producers and landscapers will be trained in IPM principles and techniques

INPUTS:

- a. time, money, and computer support for transition of soil test handling and analysis from COLSA to UNHCE
- b. postage and copying

### **2. Encourage homeowners and landscapers to reduce phosphorus application to lawns and gardens.**

Staff: Tom Buob, Cathy Neal

Outcome: Goal B2, B5 addressed

Measurable outcomes over the next year (2005):

- a. 100 homeowners utilize new soil test service and receive revised recommendations
- b. 10 garden centers carry low-phosphorus fertilizers

INPUTS:

### **3. Train real estate agents about the economic value of better managed forest lands**

Staff: Marshall Patmos, Peter Pohl, Nory Parr, Charles Hersey

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

- a. 50 Realtors will learn about natural resource contributions to property values

INPUTS: workshops, one on one, printed materials

**4. Educate landowners about forest stewardship, land conservation and water quality protection.**

Staff: Marshall Patmos, Peter Pohl, Charles Hersey, Nory Parr

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

A. Licensed foresters will write 100 new comprehensive stewardship plans for landowners that will guide improved resource management and protection

B 200 landowners will increase knowledge about forest management, land conservation and water quality protection

INPUTS: one on one, workshops, printed materials

**5. Educate landowners, resource managers and community decision makers about forest and wetland BMPs, rules, regulations and permits**

Staff: Marshall Patmos, Peter Pohl, Nory, Charles Hersey, Jeff Schloss

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

a. 150 community leaders, resource managers and landowners will increase knowledge about forest and water resource rules and regulations

INPUTS: Workshops, one on one, publications, news releases

**6. Develop or promote use of tools (e.g., indexing soils, nutrient management, Following the Flow, etc.) for more sound environmental management**

Staff: Darrel Covell, Carl Majewski, Jeff Schloss, Frank Mitchell, Amanda Stone

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

- 100 landowners will become aware of new tools developed through the state's Comprehensive Wildlife Conservation Strategy (CWCS), and will begin identifying actions that they can take to conserve our state's biodiversity.

- 200 Coverts Cooperators will become aware of new tools developed through the CWCS, and will begin identifying actions that they can take to conserve our state's biodiversity.

- 50 community decision-makers (e.g., conservation commissions, planning board members, selectpersons) will become aware of new tools developed through the CWCS, and will begin identifying actions that they can take to conserve our state's biodiversity.

INPUTS:

- complete CWCS, which will include an education and outreach strategy for implementation.
- work with partners to develop a plan to implement the education and outreach strategy
- present information to landowners, Coverts Cooperators and community decision-makers

**7. Develop a curriculum for “Lake-friendly” landscaping for commercial landscapers and possibly homeowners.**

Staff: Stan Swier, Cathy Neal, Jeff Schloss

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

Curriculum and training materials are developed and a training plan in place.

INPUTS:

staff time, money for printing and producing materials

**8. Train homeowners about potential water pollution sources from homes and yards and train them to use and demand more environment-friendly home and yard care practices and products.**

Staff: Julia Peterson, Jeff Schloss

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

1. At least 90% of workshop participants will report learning something about water quality and impacts on WQ from home and yard care practices.
2. At least 90% of workshop participants will express a desire to reduce their contribution to pollution through better home and yard care practices.
3. At least 80% of participants will commit to adopting 2-3 “new” practices within 9 months of workshop.
4. At least 75% of participants will express willingness to consider "what's best for water quality" among the criteria they use when choosing home and yard care practices and products.
5. At least 70% of participants will be able to identify 6 potential sources of pollution from residences.
6. At least 60% of participants will report adopting at least 2-3 "new" practices within 9 mo of workshop.

## INPUTS:

Workshop location with suitable indoor and outdoor space.

Ppt. slide show, projection equipment, handouts, and props (e.g. fertilizer bag, pesticide container, etc.)

Appropriate partners to pull together participants i.e. garden clubs, river councils, etc.

\$\$ to produce ed materials

Time to research and conduct workshops.

University expertise to review ed materials for accuracy and relevance.

### **9. Encourage appropriate cropping practices based on soil characteristics to maintain efficient production minimizing degradation of soil and water resources**

Staff: Carl Majewski, Tom Buob

#### MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

a. 10 farms develop nutrient management plans

b. 50 producers will increase their knowledge about managing soils to minimize environmental impacts

INPUTS: staff time, funding for workshops, research, NRCS collaboration

### **10. Encourage fishing industry to use low impact mobile fishing gear to minimize benthic habitat disruption and maintain biological diversity.**

Staff: Ken LaValley

#### MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

a. To have at least 30 commercial fishermen increase knowledge of new conservation fishing gear that will reduce benthic habitat impact.

b. To have at least 10 commercial fishermen commit to adopting new conservation fishing gear that will reduce benthic habitat impact.

INPUTS: Staff time, educational material development and distribution, website, workshops, and on-board demonstrations

## **C. YOUTH EDUCATION**

### **1. UNHCE staff support youth programming in land/water conservation**

- 4-H camp

- community youth development
- traditional 4-H
- after school
- partner with existing content providers (Wet, Aquatic Wild,

Learning Tree, etc.)

Staff: Penny Turner

#### MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

- a. State 4-H camps will provide staff training and programming in land/water conservation to campers during the summer of 2005.
- b. 4-H staff will be trained in new 4-H CCS environmental education curricula: Forestry, Fishing, Outdoor Adventure.
- c. 4-H staff will train partners, i.e., after school staff, and volunteers in these curricula. Partners and volunteers will then provide programming pertinent to these curricula.
- d. 4-H staff will connect with UNH and UNHCE faculty and staff with expertise in land/water conservation to provide programming.
- e. During the following year (2006) 4-H Staff will partner with NH Fish & Game, NH Conservation Districts and/or other environmental agencies to provide kits and/or training pertinent to delivering land/water conservation related programs to youth. Environmental agency staff will provide the subject matter training and 4-H staff will provide the youth development component. Youth numbers will appear in reports at this point.

#### INPUTS:

- a. Staff time
- b. CCS materials (curricula)
- c. Supplies for doing experiential training

### D. DEVELOPING & DISSEMINATING INFORMATION

#### 1. Based on audiences, better distribution of existing and new natural resource publications and articles.

Staff: all

#### MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

- a. Clientele will obtain printed and other educational materials related to this team's program focus from our web site as well as through traditional paper means. 500 people will obtain materials from the web during the first year of availability.

INPUTS: Staff time, publications center staffing, mailing, more cross-linking on our web site and make sure that as many materials as possible are on the web site (not goal specific)

## **E. PARTNERSHIPS**

### **1. Work with partners (NRCS, FSA, USFS, NOAA, NMFS, NEC, State Ag, NH F&G, other New England Extension programs etc.) to achieve the outcomes of the plan**

Staff:all

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

- see outcomes above (Community Natural Resource Stewardship, Resource Management, Youth Education and Developing & Disseminating Information sections)

a. At least 6 partner groups will participate in programming.

INPUTS:

- Work with partners to ensure that cost-share funding is directed at sustainable practices

- Provide partners with research-based information that they use with landowners and producers.

## **F. STAFF AND VOLUNTEER DEVELOPMENT**

1. Offer UNHCE staff development and other cross training as needed

- 4-H staff about land/water

- Natural Resource staff about youth development, youth programming, program delivery

- Dollars and Sense of Saving Special Places

- Bring staff and other Extension audiences to demo sites, research, etc.

- Get forestry and ag involved with NROC and CCAP

- NH Comprehensive Wildlife Conservation Strategy

Staff:all

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

a. Train 30 UNHCE staff and others as presenters for The Dollars and Sense of Saving Special Places program.

b. Involve 4 UNHCE Forestry, Water Resources and Agriculture staff in CCAP, NROC and other related programs.

c. train 25 UNHCE on NH Comprehensive Wildlife Conservation Strategy

d. 25 Coverst trainees, 30 Community Tree Stewards, 20 Marin Docents, 50 Water Quality Monitoring volunteers, 10 4-H volunteers, 100 Master Gardeners will increase knowledge in topics related to this plan

INPUTS: Staff time, Program development, meeting facility costs, mailing,

volunteer training

## **G. EVALUATION**

### **1. Conduct short and long term evaluations on programs.**

Staff: All

MEASURABLE OUTCOMES OVER THE NEXT YEAR (2005):

a. All measurable outcomes will be evaluated annually. Selected outcomes will be evaluated over a longer time frame.

INPUTS: Staff time, instrument production, compiling & reporting results, mailing

**BARRIERS TO IMPLEMENTING THE PLAN** - limited money, time, staff, political constraints (e.g., LCHIP), high economic land values, the time needed to reach intended audiences, land ownership turnover the perception that it's more costly to preserve land, economic resistance and loss of income potential by landowners.

**ASSUMPTIONS INHERENT IN THE WORK PLAN** - Staff are committed to the work plan, the plan will receive UNHCE administrative support, we will continue working relationships with partner groups and NH citizens will recognize the expertise of UNH Cooperative Extension. Working across disciplines will improve our ability to achieve the desired outcomes - programmatic and institutional.

**EXTERNAL FACTORS THAT MAY AFFECT OUR PLAN** - Expected continuation of budget constraints, *federal budget constraints*, possible loss of staff, communities increasingly responding to conservation needs, a conservation ethic on the part of landowners, external political support, the rate of land conversion, high economic land values, and unforeseen extreme natural catastrophic events.

**AUDIENCES ("STAKEHOLDERS")** - resource managers or producers, new landowners, landscapers, middle men (consultants, fertilizer salespeople, Realtors), public officials or decision makers, communities, youth, partner agencies & organizations.