

3. Watershed Education

Agricultural Practices (A)	Development (D)	On-site Wastewater Systems (O)	Stormwater Runoff (SR)	Wastewater Treatment (WW)			
Drinking Water (DW)	Tourism and Other Economic Development (T)	Water Quality Standards (WQS)					
Water Quality (WQ)	Exotic species (ES)	Fertilizers and Pesticides (F)	Heavy metals (H)	Phosphorus and Nutrient Loading (N)	Organic compounds (OC)	Pathogens (P)	Sediment (S)
Comprehensive Planning (C)	Education (E)	Economic Revitalization & Sustainability (ER)	Infrastructure (I)				

Introduction

The watershed education recommendations have been prioritized given the priorities outlined in the RPP, as well as the input from coordinating groups, individuals and organizations.

Public education and involvement efforts are required for implementation of the RPP. Each individual watershed resident should be considered a watershed manager. Thus, a public that understands the watershed's water quality and resource management issues will make informed choices about the long-term protection and restoration of the Lake. An informed and actively involved watershed population will provide the support necessary for the elected leaders to continue this program.

Goal

Coordination, collaboration and partnerships are key to successful watershed education. This includes working with all associated organizations, municipalities, and groups and the Cayuga Lake Watershed Steward (see Appendix J) in implementing comprehensive watershed education that results in a more informed watershed community.

Existing Measures

Public Forums (see Appendix B - Public Participation Process)

Cayuga Lake Intermunicipal Organization web site <<http://www.cayugawatershed.org>>

Genesee/Finger Lakes Region Local Government Workshop <<http://www.gflrpc.org>>

Cayuga Lake Watershed Network newsletter, listserv, and web site
<<http://www.cayugalake.org>>

No. 3	Watershed Education Recommendations	Related Issue(s)	Potential Responsible Org(s)	Measures/ Targets	Approx Cost
A	Agriculture - Develop educational materials for agricultural producers and the community at large.				
A1	Identify or develop and distribute public information materials that discuss agricultural issues of concern to the entire watershed community such as the factors affecting farm size, regulatory and voluntary measures to control agricultural pollution, and the relationships between agriculture and other amenities such as open space.	A, T, C, E, ER	IOAC	3 articles submitted to various media per year	\$5,000
A2	Document and disseminate successful strategies for nutrient management, manure handling, and erosion control. Consider publishing reports in trade journals for the dairy industry.	A, SR, DW, WQ, N, P, S, E, ER	USDA, NRCS, SWCD, AI, CCE, LO	Distribute information to farms participating in AEM type programs within 2 years.	\$1,000
A3	Provide software and training for producers throughout the watershed to help manage the record keeping associated with recommendations related to management of nutrients, agricultural wastes (including manure), and pesticides.	A, DW, WQ, F, N, OC, P, E	USDA, NRCS, SWCD, AI, LO	Research existing software within 1 year. Offer 3 training's within 3 years	\$10,000
A4	Provide training and materials for producers throughout the watershed to develop Emergency Action Plans.	A, DW, WQ, F, N, OC, P, E	USDA, NRCS, SWCD, LO	Publicize availability of materials and support - 18 months.	\$5,000
B	Stormwater Management & Erosion Control				
B1	Provide education and training of local officials on erosion controls and stormwater management and the benefits and process of adopting and/or updating local stormwater and erosion control ordinances.	A, D, SR, DW, WQ, C, E	RPB, C, M, SWCD, NYSDEC, NYSDOS	4 education programs within 4 years.	\$10,000
B2	Increase training for highway officials in erosion control and road deicing	E	RPB, C, M	Assess current	\$5,000

				level of education - 18 months. Increase by 10% within 30 months.	
B3	Coordinate training for all municipal elected officials, enforcement officers, highway superintendents, boards, and related professional staff on existing (Stormwater Phase I) and new (Stormwater Phase II) state and federal regulations.	A, D, SR, DW, WQ, S, E	C, M	Serve as clearinghouse for training announcements and assist with promotion - current to year 4.	\$5,000
B4	Municipalities covered under the new Stormwater Phase II regulations (see Appendix I - Stormwater Management Regulations) for stormwater control (Cayuga Heights (V), Dryden (T), Ithaca (C), Ithaca (T), Lansing (T), and Lansing (V)) should undergo training toward implementation.	D, SR, DW, WQ, E	C, M	3 trainings offered within the next 2 years.	\$5,000
B5	Increase public awareness of the need to control litter and pet waste in urban and developing areas.	A, D, SR, DW, WQ, N, P, S, E	IO, C, M	2 articles in local media and newsletters within 18 months.	\$2,000
C	On-Site Wastewater Systems				
C1	Host technology transfer workshops for local code enforcement officers, design professionals, and representatives of State and County Health Departments responsible for evaluating alternative and innovative technologies.	O, DW, WQ, E	NYSDOH, C, M	Workshop offered watershed-wide - 3 years.	\$2,500
C2	Hold regular educational/training forums for the following: contractors and others associated with septic system design and construction, municipal boards (e.g. elected, zoning, and planning), enforcement officers and home owners, using the Home*A*Syst Program (<i>see</i> http://www.uwex.edu/homeasyst/) as a model for self-assessment (see Appendix N) and education.	O, DW, WQ, N, P, E	RPB, C, CCE, M	50 homeowners and 30 professionals trained within 4 years.	\$5,000
D	Hazardous Waste				

D1	Identify or develop public educational materials to describe landfill issues, such as the difference between old and new types of landfills, threats to public health and water quality, and the need to ensure that sites are closed properly.	DW, WQ, F, OC, E	USEPA, NYSDEC, IO, CLWN	Identify resources and share locations on web site and with collaborating agencies - 6 months.	\$2,500
D2	Use existing public educational materials to describe hazardous material storage issues, threats to public health and water quality, and the need to ensure that materials are stored or cleaned up properly.	DW, WQ, F, OC, E	USEPA, NYSDEC, IO, CLWN	Articles in local media, assist with promotion of hazardous waste clean up dates in Seneca, Cayuga and Tompkins - 1 year.	\$2,500
D3	Identify or develop educational materials to describe abandoned agricultural properties issues, threats to public health and water quality, and the need to ensure that these properties are inactivated properly. Educational materials or portions of workshops should target the agricultural community and municipal officials.	A, DW, WQ, F, OC, E	USEPA, USDA, NYSDEC, IO, CLWN, CCE	Materials available within 5 years.	\$2,500
D4	Education program focusing on abandoned wells and the need for proper capping	A, DW, WQ, E	USEPA, USGS, NYSDEC, IO, CLWN, CCE	Integrate into existing well education programs - ongoing.	\$2,500
D5	Integrate household hazardous waste educational material (see Appendix O) into existing and other watershed education programs in the Cayuga Lake Watershed	DW, WQ, OC, E	NYSDEC, C, IO, CLWN, CCE	Integrate into existing programs - ongoing.	\$2,500
D6	Distribute hazardous spills information throughout the watershed to various community groups, fire departments, chamber of commerce, citizens, municipalities with names and numbers of the agencies and staff in charge and who has appropriate jurisdiction in emergency situations.	DW, WQ, OC, E	NYSDEC, C, IO, CLWN	Ongoing beginning Fall 2002.	\$2,500
D7	Inform local governments of their right to regulate mines. This can be made part of existing local	SR, DW,	NYSDOS, RPB,	Integrate into 2	\$1,000

	government training opportunities.	WQ, S, E	C, NYPF	existing trainings within next 2 years.	
E	Wastewater and Wastewater Treatment				
E1	Educate the general public on the role, process, accomplishments, needs, and future strategy of sewer districts and wastewater treatment facilities.	D, O, WW, D, T, WQ, H, N, OC, P, E, ER, I	NYSDEC, WWTF, IO, C, M	Target high priority communities beginning in year 1. Offer assistance and materials as appropriate.	\$1,000
F	Monitoring & Assessment				
F1	Meet with public to discuss findings and progress of monitoring and assessment programs in the Cayuga Lake Watershed.	A, D, O, SR, WW, DW, WQ, E	AI, NYSDEC, IO, CLWN, WQCCS,	Periodically beginning Spring 2002. Web site interpretation of RUSS data beginning Fall 2001.	\$250
F2	Participate in a volunteer monitoring program through the Citizens Statewide Lake Assessment Program (CSLAP). This program gathers trophic state data and a few related parameters in the lake. Four stations should be established on Cayuga Lake: southern and northern segments and two mid-lake stations reflecting the regulatory segmentation of the lake.	A, D, O, SR, WW, DW, WQ, ES, F, H, N, OC, P, S, E,	CLWN, WSS CWQCCs, CCE	4 volunteers per sampling site trained and active by Summer 2002.	\$2,500
G	Wetlands & Riparian Corridor Management				
G1	Limit encroachment of the riparian buffer zone through education (<10% of the riparian corridor should be allowed to have a buffer width <10 m).	A, D, SR, DW, WQ, ES, OC, N, S, E	C, M, LO, SWCD, NRCS	Distribution of 300 additional erosion control brochures within 8 months. Creation of	\$5,000/yr

				educational display within 1 year.	
H	Forestry & Silviculture Management				
H1	Coordinate with the New York State Cooperative Forest Management Program (see http://www.dec.state.ny.us/website/dlf/privland/privassist/help.html), which is a forest program administered by the NYSDEC to encourage the private forest landowners in New York to apply sound forest management practices to their woodlands.	SR, DW, WQ, S, E	NYSDEC, IO, LO	Ongoing as appropriate for the program.	\$2,500
I	Regulatory Management				
I1	The IO along with each municipality and county agency should be well versed in federal (see Appendix R) and state (see Appendix Q) regulation, programs, and funding as they relate to nonpoint source pollution and water quality.	A, D, O, SR, WW, DW, WQS, WQ, E	IO, C	Ongoing	-
I2	Educate and train municipal decision-makers on land use regulations and controls with particular attention to stormwater management and erosion control (see Section 5), on-site wastewater systems (see Section 6), and preservation tools such as purchase of development rights, transfer of development rights, cluster development and open space preservation (see Section 11).	A, D, O, SR, DW, WQ, E	RPB, C, IO	4 lectures or guest speakers in next 2 years.	\$5,000
I3	Municipalities, counties or a watershed-wide approach should consider open space protection. The first step of this process is education.	D, T, WQ, E	NYSDOS, RPB, C, LT	Become aware of existing efforts such as Tompkins County Vital Communities within 6 months. Promote existing efforts - ongoing. Identify gaps within 1 year.	\$1,000
J	General Watershed Education				

J1	Coordinate education of teachers and students through schools and other programs such as 4H - work with school districts and supply materials to teachers	WQ, E	IO, CLWN, CWQCC, CCE	Ongoing, including providing support for teaching kits and training of volunteer educators	\$2,500
J2	Coordinate programs in churches and malls	WQ, E	IO, CLWN, CCE	Develop list of annual public events by year 1. Maintenance ongoing.	\$2,500
J3	Drinking Water Well Management. Use Home*A*Syst Program (for more information see http://www.uwex.edu/homeasyst/) as a model.	DW, WQ, E	IO, CLWN, CCE	Periodic beginning Spring 2002	\$10,000
K	Develop, Publish and Distribute Materials				
K1	Internet web site - use of IO Internet web site < http://www.cayugawatershed.org >	WQ, E	IO, CLWN	Ongoing	\$2,000/year
K2	Interactive CD-ROM (see Appendix K)	WQ, E	IAWWTF, IO, CLWN	Within 18 months	\$20,000
K3	Newsletters including use of agency, organization, municipal, and school publications	WQ, E	IO, CLWN	Ongoing	\$5,000
K4	Cayuga Lake Book - a guide for residents in protecting the life of the lake	WQ, E	IO, CLWN	Review similar books year 2, seek funding year 3, complete book year 4	\$20,000
K5	Video Development - Develop a video on the Cayuga Lake Watershed including history, water quality, issues, uses, and recommendations	WQ, E	IO	Review similar videos from other watershed within 18 months, seek	\$25,000

				funding 3 years, complete video or alternative media year 5.	
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