Chapter 5 - Tier 1 Survey of Community Environmental Concerns

We have examined CEM's structure, methodology and some of the information that will most likely be necessary to guide communities through a CEM initiative. This has been done to prepare for the "big leap" ahead. That leap is actually going out into the field with CEM.

You may still have many questions/concerns at this point about CEM and your own role, involvement, resources, expertise and experience with facilitating a CEM initiative. The information and ideas covered by CEM are diverse and may take you into areas that are totally new to yourself and/or your agency. You may not be familiar working with elected officials or their representatives. You might think that this should be someone else's responsibility. You could be thinking that these issues are already being addressed at the local level and any intervention would just be medalling in their affairs. You may see this as just another planning effort destined to grow dusty on the shelves. Having gone through several CEM initiatives, I know these concerns entered my mind.

To ease these concerns I asked myself the following question. Do I think that local decision-making is the most important factor impacting agriculture, natural resources and water quality in New York State? My answer was then and still is - yes. What am I really doing about it? I had trouble thinking about how I made a tangible difference to the local decision-making process. I view CEM as an opportunity to make a difference, to help with the really hard work of changing the way people feel about, think about and plan for the natural environment. I can help show them that there are many options and resources able to assist in these efforts, we can change and we can develop win-win relationships that will help bring about a more sustainable future for ourselves and the environment.

5.1 Connecting with Local Communities

The first part of Tier 1 is connecting with local communities and their representatives. Many individuals and organizations that would initiate a CEM initiative most likely have many existing contacts with local community members. They probably have working relationships, partnership agreements and environmental stewardship responsibilities with local communities. Most would be involved with some type of watershed planning activities already. Connecting should be a logical extension of you and/or your agencies regular roles and responsibilities.

Connecting may be in one of the following ways:

- E-mail or call to you or your organization with a specific issue or set of issues that need addressing.
- A discussion about an area that has been identified as having some type of impairment or is under some type of stress.
- Already identified issue(s) or option(s) in an existing plan.
- CEM used as part of a larger initiative or funded project.
- As part of an ongoing effort in areas with known concerns.
- You're already an active participant and/or local decision-maker for your community and you think CEM would be a good tool to use as part of your future efforts.
- Any number of additional ways where CEM seems like the right fit for the community.

5.1.1 Skipping Tier 1 – The Handling of Specific Requests

If you receive a specific request for assistance in one of the areas covered by CEM you can go directly to the section in Chapter 6 that addresses that request. If you have been contacted for this type of assistance it is probably not necessary to contact local officials or try to move immediately into a full-blown CEM initiative. You may not want or need to do Tier 1 at this point. CEM has the flexibility to be a complete watershed management planning tool or a set of tools that address very specific/limited issues. It provides these tools with a strong focus on education and implementation. They are here to be used to promote CEM's goal. That goal is to establish effective local programs for addressing specific community concerns.

However, even if you are addressing only specific issues it still may be beneficial to have someone complete a Tier 1 worksheet in the future. Many of the topics covered by CEM are inter-related. The issue that is thought to be causing the concern may or may not be really be the primary issue that needs to be addressed. For example, municipal land use decisions impact almost every topic covered under CEM. Treating the symptoms is a step in the right direction, but treating the disease is better. The information collected in Tier 1 will also give you an improved perspective of your area and the issues that are perceived to be of concern. If we could get all of the municipalities in New York to fill out just Tier 1, we would have an excellent idea of where to focus our overall efforts.

5.1.2 Contacting Local Officials

Before you begin working in a particular area you will want to notify the local official(s) about the CEM process and its goals. You can met with (or call) them and provide them with sample materials and brochures. It is important to

let them know what's going on in their municipality and watershed. The last thing they need is to be blind-sided by recommendations that were obtained through an "outside" process for good or bad. They need to briefly understand what CEM offers and have a quick explanation of how CEM works. They will need to know how you became interested working in their area, that you are here to help and that this is a voluntary/non-regulatory effort. Almost all local officials will be glad to have your assistance. Some officials may even want to enter into more formal agreement(s) with you and/or your agency.

Once contacted the local official(s) can guide you to individuals and/or groups that will assist you with your CEM initiative. It makes it a lot easier to contact and work with these individuals and groups when you have the support of local officials. Municipal department supervisors, consultants, planning boards, conservation advisory boards, watershed coordinators, water quality committees, concerned citizens and other related parties will often be recommended for inclusion.

5.1.3 Local Support Team

Whoever is recommended to be part of your local CEM team will need a similar introduction to CEM that the local official(s) received. This will give you a chance to discuss roles/responsibilities and give you an idea of their expertise and what resources may be available for use as part of your CEM initiative. It is usually these individuals that truly understand the inner workings of their communities and have years of local experience to draw from. If "better" environmental decisions are going to be made and put into practice, it is these individuals that will make it happen. An open and honest working relationship with these individuals will be critical to your success.

5.2 Conducting the Survey of Community Environmental Concerns

The Survey of Community Environmental Concerns should take about an hour to complete. It will often be completed with planning boards, conservation advisory boards, town supervisors, town department supervisors, watershed coordinators and concerned citizens as mentions in the previous section. The sections noted below with * indicates that you may want to do some background data collection and analysis before answering them. If you are unable to answer questions or are unsure of the stated answer, don't worry. Those questions can be answered at a later time. Don't get caught up into the details at this point, these questions are asked to determine the generalized concerns and important issues in your area, the specifics are covered in Tiers 2 and 3.

Here is a listing and description of the sections (most are self-explanatory):

Contact Information – Provides basic contact information and also identifies the type of area being assessed.

* Current Land Use Information – Identifies the breakdown of current percentages for different land uses in your study area. Using GIS data will most likely provide the most accurate percentages. If you don't have GIS data you can make estimates as a group. It may also be insightful to make estimates as a group, and then check to see how your numbers compare to the GIS derived percentages.

* Important Waterbodies – Identifies any critical waterbodies in your study and identifies their recreational use(s).

Drinking Water Supply – Identifies the breakdown of percentages for the sources of drinking water for study area and if any aquifers are present.

* NYSDEC Priority Waterbodies – Identifies any NYSDEC PWL listed waterbodies and their impairments for your study area.

* NYSDOH Source Water Assessment Report – Identifies NYSDOH Source Water Assessment information for your study area.

Begin Community Assessment – Identifies how many people participated in conducting the Survey of Community Environmental Concerns and what significant land use changes are anticipated over the next five years.

Specific Issues -

- Farmland Protection
- Onsite Wastewater Treatment System Management
- Stormwater Management
- Flooding
- Drinking Water Source Protection
- Highway and Right of Way (ROW) Maintenance
- Sustainable Development
- Terrestrial Fish and Wildlife Habitat Management
- Aquatic Fish and Wildlife Habitat Management
- Marinas and Recreational Boating

Other Related Issues – Related issues, information, assessment tools or programs that you may want explore or promote.

Tier 1 - Worksheet

COMMUNITY ENVIRONMENTAL MANAGEMENT

TIER 1
SURVEY of COMMUNITY ENVIRONMENTAL CONCERNS

INSERT MAP OF PROJECT AREA HERE

CONTACT INFORMATION

Last Name: _____ First Name: _____
Title: _____
Entity/Organization Name: _____
Name of Municipality(s) in assessment area: _____
Address: _____City: _____
State: _____ Zip Code: _____County: _____
Phone Number: _____Fax: _____Email: _____

Please describe the type of area being assessed:

- ☐ Community/Municipality, Name _____
- ☐ Wellhead Protection Area, Name_____
- ☐ Watershed, Name_____
- ☐ Other (Please Specify) _____

CURRENT LAND USE INFORMATION

High Density Residential	_____%	Forest	_____%
Low Density Residential	_____%	Open Water	_____%
Commercial/Industrial/Transportation	_____%	Wetlands	_____%
Agricultural-pasture/hay	_____%	Quarries/strip mines/gravel pits	_____%
Agricultural-row crops/orchards	_____%		
Urban/recreational grasses (e.g. golf courses)	_____%		

IMPORTANT WATERBODIES

Significant waterbodies within area to be assessed, please list:

_____

_____

Do these waterbodies also provide significant fisheries and/or recreational benefits to the community? ☐ yes ☐ no ☐ unknown

Explain:

_____

_____

NYSDEC Priority Waterbodies List Summary Information

The New York State Department of Environmental Conservation's Division of Water maintains a Priority Waterbodies List (PWL) of waterbodies that have water quality impairments due to nonpoint sources of pollution. These lists can be obtained from your Regional NYSDEC Office. Summarize information from the PWL for your assessment area.

Segment ID And Location	Water Use Classification	Primary Use Affected	Severity of Impairment	Pollutant(s) of Concern	Suspected Source(s)

DRINKING WATER SUPPLY

1. Source of assessment area's drinking water supply:

Drilled well _____% Reservoir _____% Lake _____% River _____%

Spring _____ % Other, specify ( )_____%

2. Is the assessment area (whole or in part) located over an aquifer? Primary _____% Principal _____% Other _____% none _____

NYSDOH Source Water Assessment Report

The New York State Department of Health has conducted a susceptibility analysis of each source of water that is used to supply drinking water to the public. The analysis involved evaluating the likelihood that a source of public drinking water could become contaminated. Use the table below to summarize the potential sources of contamination for those public water supplies that the NYSDOH has determined to be most at risk within your assessment area.

SOURCE WATER ASSESSMENT RESULTS **Name of public drinking water supply_____** **Source (e.g. well, stream, lake, reservoir)_____**			
Potential Sources of Contamination	**Contaminates of Concern**	**Description**	**Potential Impact to Source Water Quality**

BEGIN COMMUNITY ASSESSMENT:

1. How many people participated?_____

2. Do you anticipate significant land use changes within your assessment area in the next 5 years? □ yes □ no □ unknown

If yes, please describe the type of land use changes you anticipate:

INSERT ANY ADDITIONAL MAPS AND/OR RELATED MATERIAL HERE

SUSTAINABLE DEVEOPMENT

"How can we ensure that development in our communities is sustainable and based on sound ecological principles?" The simple answer is that the tools and techniques for encouraging and facilitating sustainable development habits are available. The more difficult issue to cope with is that sustainability requires that our emphasis shift from "managing resources" to managing *ourselves,* and that we learn to live as part of nature rather than apart from it, and that our economics become a component of human ecology and intimately intertwined with nature. This set of worksheets begins to lay out the vision and raise questions that need to be addressed in terms of planning for a more sustainable future.

Issue	Yes	No	?	Level of Concern			Location(s)	
				H	M	L		
Growth is occurring without planning for environmental sustainability.								
Village centers abandoned in favor of strip development.								
Subdivisions designed and built without consideration of natural resource of the site.								**Recommended CEM Assessment Worksheet(s)**
Rural countryside left vulnerable to future development which could threaten natural entities that are valued by the town.								**Sustainable Development**
Sprawl (unplanned growth) • Loss/encroachment on farmland • Loss of open space and scenic amenities								

Additional Comments related to Sustainable Development:

FLOODING

In the past century, we have seen a rise in the amount of damage to public and private property from flooding. While it may be linked to climatic fluctuations (e.g. El Nino), it is most permanently affected by land use changes that have occurred as a result of development. For the most part, lack of understanding of ecosystem function, poor planning, and general indifference have jeopardized our safety when it comes to flooding. These land use changes are limiting the area that is available to manage these excessive flows, and as a result, life and property are at risk.

Issue	Yes	No	?	Level of Concern			Location(s)	
				H	M	L		
Storm sewers backing up								
Culverts and Bridges overtopped and damaged during storm events								**Recommended CEM Assessment Worksheet(s)**
Streams overtopping more frequently								
Failure of existing flood control structures								
Flooding of homes, businesses, public buildings and highways								**Flooding**
Community lacks consensus on flood management issues and what can be done to address them								**Related Worksheets: Stormwater**
Increased operating and maintenance costs for the existing flood management infrastructure								

Additional Comments related to Flooding:

HIGHWAY AND RIGHT OF WAY (ROW) MAINTENANCE

Our economy relies on effective transportation of goods and people along safe and convenient roads. Unfortunately, roads are often significant contributors to poor water quality. Runoff from natural rain events and melting snow washes over the landscape and picks up material as it travels along. As runoff flows over roadways, road construction sites, highway maintenance garages and road maintenance operations, it picks up sediment, heavy metals, oils, pesticides, herbicides, fertilizer, road salt and debris. These contaminants are transported into our streams, lakes, wetlands and rivers, impairing their water quality and decreasing their aesthetic value. This in turn can lead to a negative effect on tourism and the economy.

Issue	Yes	No	?	Level of Concern			Location(s)	
				H	M	L		
Streams flood over the road and/or flooding has removed road								**Recommended CEM Assessment Worksheet(s)**
Water overflows road at culvert or catch basins are backing up								
Erosion is occurring around culverts, or there has been culvert blowouts								
The bottom and/or sides of ditches are eroding or slumping								**Highway & Right of Way Maintenance**
We have mud flows and/or chronic black ice on roadways								
Muddy water is running off highway construction and/or maintenance sites								**Related Worksheets: Stormwater Management & Flooding**
We are concerned about how best to manage winter weather operations								
We are concerned about how best to manage vegetation along roadways								

Additional Comments related to Highway & ROW Maintenance:

STORMWATER MANAGEMENT

Either through lack of information about of ecosystem functions, poor planning, or just plain indifference to natural stormwater runoff processes, humans, through construction and development activities, have created a number of problems for themselves and nature. The first and perhaps most obvious problem is development in floodplains, putting life and possessions in jeopardy. Second, the development and urbanization of uplands has increased erosion and accelerated the runoff process altering natural resource patterns and increasing the flood hazard. Finally, many of civilization's contaminants are transported in stormwater runoff, which ultimately can enter and degrade the quality of streams, rivers, lakes, wetlands and estuaries.

Issue	Yes	No	?	Level of Concern			Location(s)	
				H	M	L		
Frequent overtopping of stream banks or Increase in frequency and duration of overtopping of ditches, culverts, roads or bridges								**Recommended CEM Assessment Worksheet(s)**
Decreased groundwater recharge and decreased stream base flows								**Stormwater Management**
Increased stream temperatures								**Related Worksheets: Highway & ROW & Flooding**
Unstable stream channels								
Water quality impairments								

Additional Comments related to Stormwater Management:

AQUATIC FISH AND WILDLIFE HABITAT MANAGEMENT

Aquatic fish and wildlife habitat encompasses many different types of natural features, including stream and river corridors, wetlands, lakes, ponds and reservoirs. Aquatic habitat is not only important to the fish and wildlife that inhabit them, but also to the people around them. The health of this habitat has a real impact on the quality of life, recreational value, and economic benefits in your community. As a result, it is important to maintain necessary habitats in order to maintain individual species, ecosystems, and biodiversity.

Issue	Yes	No	?	Level of Concern			Location(s)	
				H	M	L		
Loss of aquatic habitat in streams, rivers, lakes, ponds and reservoirs ___Loss of spawning areas ___Loss of feeding & growth habitat ___Loss of resting &shelter area ___Loss of winter habitat								**Recommended CEM Assessment Worksheet(s)** **Aquatic Fish & Wildlife Habitat Management** **Related Worksheets: Stormwater Management & Flooding**
There are barriers to migration for fish & other organisms in streams and rivers								
Degraded health of streams, rivers, lakes, ponds & reservoirs diminishing capacity to sustain/support aquatic species)								
Algae blooms and excessive weed growth								
Degraded wetland/vernal pool health								
Invasive Species								

Additional Comments related to Aquatic Fish & Wildlife Habitat Management:

TERRESTRIAL FISH AND WILDLIFE HABITAT MANAGEMENT

Terrestrial fish and wildlife habitat encompasses many different types of natural features, including forests, shrublands, grasslands, vernal pools, wetlands, early successional areas, and unique natural areas. Terrestrial habitat is not only important to the fish and wildlife that inhabit them, but also to the people around them. The health of this habitat has a real impact on the quality of life, recreational value, and economic benefits in your community. As a result, it is important to maintain necessary habitats in order to maintain individual species, ecosystems, and biodiversity

Issue	Yes	No	?	Level of Concern			Location(s)	
				H	M	L		
We have problems with nuisance wildlife ___Deer ___Geese ___Beaver _____Other(s)								**Recommended CEM Assessment Worksheet(s)** **Terrestrial Fish & Wildlife Habitat Management** **Related Worksheets: Sustainable Development**
Do you have health concerns about: ___Lyme disease ___West Nile Virus ___Rabies ___Chronic Wasting Disease								
Loss of recreational land and/or access (e.g. hunting, fishing, trapping, hiking, viewsheds)								
Invasive species are crowding out native species (e.g. Asian Longhorn Beetle, Phragmites, Purple Loosetrife, Japanese Knotweed, Mute Swans)								
Loss of types and number of species due to habitat loss and degradation[1]								
Loss of travel corridors for wildlife								
Loss of ecosystem function								

Additional Comments related to Terrestrial Fish & Wildlife Habitat Management:

ONSITE WASTEWATER TREATMENT SYSTEM MANAGEMENT

In New York State, local governments have the principal responsibility for controlling development activities through their planning and regulatory functions. This role carries with it the responsibility for ensuring that development is undertaken with public health and safety in mind, and in a manner that is compatible with the protection and enhancement of natural resources, especially water. As community development continues to increase, the number of sites with suitable soils, slopes, and sufficient area for septic systems can be expected to decrease. If sewers are not affordable, there will be greater demand for replacement of failed systems and design review for new systems. Federal and State technical standards do not fully consider all the natural resource impacts from developments that rely on septic systems. It is up to communities to take the initiative to manage the wastewater from these developments to protect themselves from decreased property values, possible public health problems, and reduced water quality.

Issue	Yes	No	?	Level of Concern			Location(s)	
				H	M	L		
Septic effluent is surfacing in yards and roadside ditches, or backing up into homes.								**Recommended CEM Assessment Worksheet(s)**
Septage transporters have insufficient access to permitted/approved waste treatment and disposal facilities .								
Algae blooms or weed growth are a nuisance.								**Onsite Wastewater Treatment System Management**
Questions about soil suitability and site limitation for onsite wastewater treatment.								
Old, outdated and/or non-compliant systems								

Additional Comments related to Onsite Wastewater Treatment System Management:

FARMLAND PROTECTION

Fertile soils take thousands of years to develop. Creating them takes a combination of climate, geology, biology and good luck. So far, no one has found a way to manufacture them. Thus, productive agricultural land is a finite and irreplaceable natural resource. Agricultural land also supplies products with little market value, but enormous cultural and ecological importance. Some are more immediate, such as social heritage, scenic views, open space and community character. Long-range environmental benefits include wildlife habitat, clean air and water, flood control, groundwater recharge and carbon sequestration. Yet, despite its importance to individual communities, the nation and the world, our farmland is at risk. It is imperiled by poorly planned development, especially in urban influenced areas, and by the complex forces driving conversion.

Issue	Yes	No	?	Level of Concern			Location(s)	
				H	M	L		
Unplanned or poorly planned suburban Development (sprawl)								**Recommended CEM Assessment Worksheet(s)**
Erosion of the local agricultural economy								
Public works projects (ex: post offices, schools) built on prime agricultural land when other alternatives exist								**Farmland Protection**
Decline in agricultural support infrastructure								
Closing of long standing farm operations								**Related Worksheets: Sustainable Development**
Neighbor complaints and lawsuits regarding routine farm operations								

Additional Comments related to Farmland Protection:

DRINKING WATER SOURCE PROTECTION 2 pages

Source Water is the water from rivers, streams, lakes and ground water that is used to supply communities with drinking water. Source water protection involves taking positive steps to manage potential sources of contamination and to prevent pollutants from reaching or contaminating sources of drinking water. Wellhead protection, for example, seeks to prevent the contamination of ground water that supplies public and private drinking water wells. Protecting the water source from contamination is often more efficient and cost-effective than treating drinking water later to make it safe to drink. The types of protection measures that a community can implement include local land use controls such as land acquisition and ordinances and other management tools such as contingency plans and public education initiatives. The protection activities that a community pursues will depend on the how susceptible to different types of contamination the water source is, as well as the resources identified or available for use in protection as specified in the source water protection plan.

Issue	Yes	No	?	Level of Concern			Location(s)	
				H	M	L		
Committee for Source Water Protection, Involving Local, State, and Federal Agencies and other interested parties has not been organized, or Coordination of Programs Addressing Source Water Resources (aquifer protection, drinking water watershed protection) is lacking								**Recommended CEM Assessment Worksheet(s)**
Drinking Water Contamination or Contamination Threat Insufficiently Characterized								
Available Information about Drinking Water Sources Does not Provide Basis for Effective Protection								**Drinking Water Source Protection**
Inventory of Practices or Potential Sources of Contamination is not Complete, so Protection Needs have not Been Identified								**For Private Water Supplies use Home*A*Syst**
Proposed Land Use Changes (or specific proposed projects) may Increase Potential for Impact on Drinking Water Source								
CONTINUED NEXT PAGE								

Security or Emergency Response Plan for Source Area Protection is Missing, Incomplete, or Inadequate								
Regulations or Existing Management Plans not Sufficient to Manage Source Water area & the Ability to enforce existing regulations lacking or unclear								**Recommended CEM Assessment Worksheet(s)**
Water Quantity Insufficient								**Drinking Water Source Protection**
								For Private Water Supplies use Home*A*Syst
Additional Comments related to Drinking Water Source Protection:								

MARINAS AND RECREATIONAL BOATING

Many people enjoy being "on the water." Fishing, sailing, racing and cruising are an integral parts of our state's recreational activities and economy. Keeping our marinas and waterways free from the potential negative impacts of these activities will ensure future recreational opportunities in the years to come.

Issue	Yes	No	?	Level of Concern			Location(s)	
				H	M	L		
Insufficient information on how to design and construct marinas and ports for water quality and habitat protection.								**Recommended CEM Assessment Worksheet(s)**
Known maintenance activity problems								
Improper Hazardous Material Handling, Transport and Storage								**Marinas and Recreational Boating**
Improper Disposal of Solid Waste								
Marina Runoff polluting waterways								**Related Worksheets: Stormwater Management**

Additional Comments related to Marinas and Recreational Boating:

OTHER RELATED ISSUES

Issue	Yes	No	?	Level of Concern			Location(s)	Assessment and/or Tools
				H	M	L		
Agricultural Runoff								**AEM Tier II Worksheets**
Contaminated Private Water Supply(s)								**Home*A*Syst**
Timber Harvesting Activities								**AEM Tier II Worksheet Forest Management**

5.3 Survey of Community Environmental Concerns Summary Findings

After completing the survey you and your team should have a clearer idea of the issues and concerns that you would like to address. You have discussed and prioritized these concerns. Based on your prioritization, you know where to start and have a good idea of the information that you need to collect and analyze. You have also identified key decision-makers and additional sources of assistance.

You can now distribute the Tier 2 worksheets that you have identified as part of your next efforts. This will give everyone a chance to explore the background information and resources provided by CEM regarding these topics. You may want to introduce additional related materials. You may want to involve other individuals and agencies with more experience and/or expertise. The direction you take from here is entirely up to you.

5.4 Defining Expectations, Commitment and Levels of Effort

A large part of the direction that your future CEM efforts will take involves defining expectations, commitment and levels of effort at this time. It is unrealistic to think that every issue can be addressed. It is also unrealistic to think that this will be fast moving and produce immediate results. As you move into Tiers 2 and 3 and start to examine which strategies and management options might work best in your community keep these things in mind.

Your own involvement should be examined and discussed with your CEM team. There are some difficult questions to attempt answering:

- How much assistance can you and/or your agency realistically offer?
- How can I keep involved without being over-involved?
- When will the community truly be able to move forward with CEM without me and/or my agencies support?
- Is there someone in the community that can act as a “spark plug” to get and keep things rolling?
- Are there critical times that they will really need my support?
- Who can I recommend to replace me if necessary?

There are no “right” answers to these questions. Simply be as open and honest as possible about your own expectations, commitment and level of effort. I can pretty much guarantee that any support you offer will be gladly accepted and can make a difference.

You can now move to Tier 2.