



The Municipal Primer

Your Guide to
Creating a
"Green and Growing"
Community



Gina McCarthy
Commissioner



The Municipal Primer Your Guide to Creating a “Green and Growing” Community

Contents

Connecticut Department of Environmental Protection’s Mission

The Municipal Primer Your Guide to Creating a “Green and Growing” Community

Introduction to *The Municipal Primer Your Guide to Creating a “Green and Growing” Community*
Content and Organization of *The Municipal Primer*

Land Use Boards, Commissions, Agencies and Committees

Introduction to Land Use Boards, Commissions, Agencies and Committees
Avoiding Jurisdictional Conflicts

Planning Considerations

Environmental and Landscape Stewardship
Watershed Management
Floodplain Management
Aquifer Protection Area Program
Nonpoint Source Pollution Management
Coastal Management
Streets and Roads Planning
Brownfields Remediation

Development Standards Considerations

Environmentally Sensitive Land Use Practices
Low Impact Development

Resource Considerations

Water as a Natural Resource
Endangered Species

Public Works

Introduction to Public Works
CT DEP Permitting Overview for Public Works Officials

Waste Materials Planning and Management

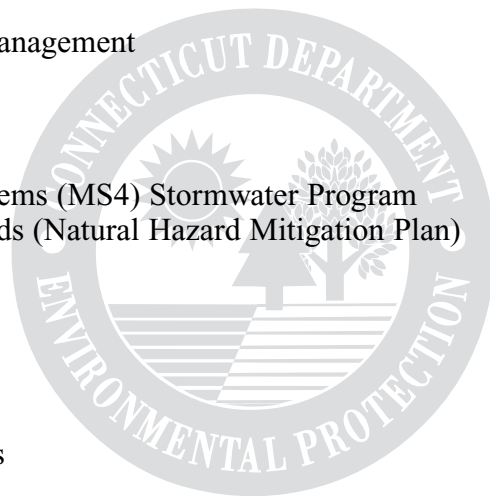
Municipal Solid Waste Management
Disaster Debris Management Planning
Recycling
Composting and Organics Recycling
Brush, Stump and Untreated Wood Waste Management
Hazardous and Universal Wastes

Stormwater Planning and Management

Stormwater Management
Small Municipal Separate Storm Sewer Systems (MS4) Stormwater Program
Planning for a Flood & Other Natural Hazards (Natural Hazard Mitigation Plan)

Municipal Facilities

Dams
Dredging
Fleet Selection and Operation
Mobile Air Emission Sources
Indoor and Outdoor Lighting and Appliances
Landscape and Lawn Care
Renovation, Demolition and Construction
Street and Road Management
Underground Storage Tank Systems (Tanks and Piping)



The Municipal Primer Your Guide to Creating a “Green and Growing” Community

Wastewater Planning and Management

- Introduction to Wastewater Management
- Municipal Wastewater Management Planning
- Wastewater Management Approaches
- Regulating Wastewater at the State Level

Public Health

- Introduction to Public Health
- Mosquito Management and Control
- Potable Water Program

Parks and Recreation

- Introduction to Parks and Recreation
- Greenways
- Outdoor Recreation
- Protected Open Space
- State Parks and Forests

Public Safety and Building Official

- Introduction to Public Safety and Building Official (Includes Open Burning Official)
- Environmental Conservation Police
- Environmental Justice
- Open (Outdoor) Burning
- Outdoor Wood-Burning Furnaces and Wood Stoves
- Wildlife Issues: Animal Possession, Nuisance Animals & Wildlife Rehabilitators

Schools and Education

- Introduction to Schools and Education
- Environmental Education and Outreach
- Green Building Requirements for Schools
- Operations and Maintenance for Schools

Financial Assistance

- Introduction to Financial Assistance
- Grants and Financial Assistance
- Reducing Costs Through Source Reduction and Materials Reuse
- Purchasing Practices (Recycled Products and Environmentally Preferred Purchasing)

Guide to CT DEP Permits, Licenses and Other Authorizations

- Introduction to the Guide to CT DEP Permits, Licenses and Other Authorizations
- Air, Waste, Water and Land Use: Short Permit Processes
- Air, Waste, Water and Land Use: Individual Permit Process
- Air, Waste, Water and Land Use: Typical Individual Permit Process Flow Chart
- Air, Waste, Water and Land Use: Individual Permits List
- Matrix of CT DEP Authorizations Typically Required by Municipal Function / Operation
- Professional and Occupational Licensing
- Recreational and Natural Resources Authorizations

Appendices

- Appendix I - Topical Index
- Appendix II - CT DEP Website Shortcuts
- Appendix III - Key Contacts Brochure

Connecticut Department of Environmental Protection

Mission

Founded in 1971, the mission of the Department of Environmental Protection (CT DEP) is to conserve, improve and protect the natural resources and environment of the State of Connecticut and to protect the public health and welfare in such a manner as to encourage the social and economic development of Connecticut while preserving the natural environment and the life forms it supports in a delicate, interrelated and complex balance, to the end that the state may fulfill its responsibility as trustee of the environment for present and future generations.

Brief Description of Agency

The CT DEP achieves its mission through regulation, monitoring, inspection and enforcement, and licensing procedures that help control air, land and water pollution in order to protect health, safety, welfare and natural resources. CT DEP also develops and coordinates the state's environmental plans, functions and educational programs in cooperation with federal, regional and local governments, other public and private organizations and concerned individuals, while managing and protecting the flora and fauna for compatible uses by the citizens.

Fundamental to fair administration of its programs and services is the Department's effort to embrace environmental justice and reach all segments of the population. The CT DEP has adopted the U.S. Environmental Protection Agency's definition of environmental justice:

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

CT DEP Web Home Page

www.ct.gov/dep

Main Address:

Unless otherwise noted, surface mail should be addressed to the relevant unit at:

Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Main Phone Number:

860-424-3001





The Municipal Primer

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Pictured —
West Hartford, Connecticut

The Municipal Primer Your Guide to Creating a “Green and Growing” Community

Introduction

The Municipal Primer Your Guide to Creating a “Green and Growing” Community is part of the municipal outreach effort of Connecticut’s Department of Environmental Protection (hereinafter, the Department or CT DEP). *The Municipal Primer* provides basic information and guidance on a wide variety of topics related to environmental protection. Its purpose is to inform municipal decision-makers about environmental issues, the potential impacts of their decisions, environmentally preferred alternatives, and potential permit or license requirements. The intent is to give municipal officials a tool that allows them to quickly determine which CT DEP programs relate to any given situation, and provide additional information sources including Web page links and staff contacts

There are two main themes in *The Municipal Primer*: 1) landscape stewardship, or how we cooperatively manage and regulate land and its uses in an environmentally responsible way; and 2) environmental permitting and compliance requirements.

Landscape Stewardship

The Department’s Landscape Stewardship Initiative coordinates CT DEP programs that affect land use to ensure they support responsible growth. Taking action to encourage, support and promote informed land use, development, and conservation decisions is one of our most important environmental challenges. Poorly planned, high impact development in Connecticut fragments the landscape, consumes our precious natural resources, wastes energy, pollutes air and water, overwhelms our limited capacity to provide for local and state infrastructure, and changes forever the character of our communities and the state. Land use decision-makers must be conscious of and take into consideration our rich natural and cultural heritage while recognizing the human need for quality housing and a strong economy. Through the Landscape Stewardship Initiative, the CT DEP is enhancing its ability to assist municipalities, land trusts, landowners and others in making better-informed decisions about land use, which in turn will result in better stewardship of our shared landscape.

Permitting and Compliance

The CT DEP regulates numerous activities to protect our air, water and land resources. When municipalities are undertaking a regulated activity, they must follow the standards and criteria set forth through these regulatory programs. The municipal CEO is responsible for regulated activities undertaken by the municipality and typically signs applications submitted by a municipality for a CT DEP permit. Each municipality is expected to maintain compliance with all environmental laws and the conditions of any issued permit. Also, in the event of any violation, the municipality is responsible for returning to compliance and may be subject to penalties as prescribed by law. Detailed information on the permitting process is provided in *The Municipal Primer*, in the section titled: Guide to CT DEP Permits, Licenses and Other Authorizations.

The array of permitting programs administered by the CT DEP can be complex and confusing to the infrequent applicant. To assist permit applicants, including municipalities, the CT DEP has a permit assistance office ready to provide help in understanding the process, identifying specific permits required for a given project, and coordinating “multi-media” projects (where multiple permits are needed). The permit assistance office can be reached at: 860-424-3003.

The Municipal Primer Your Guide to Creating a “Green and Growing” Community

Grants and Financial Assistance

The CT DEP offers grants, loans and other financial assistance to municipalities for projects that meet the criteria for specific funding opportunities. The availability of funding varies depending upon the program, with some programs funded on an annual basis and others only as funds are available.

Additional information on grants and financial assistance is provided in the fact sheet on *Grants and Financial Assistance* under the Financial Assistance section of *The Municipal Primer*.

Technical Assistance

The CT DEP offers technical assistance to municipalities on a wide variety of disparate topics, such as: how to deal with nuisance wildlife; the proper placement and use of outdoor wood-burning furnaces; how to purchase environmentally preferred and recycled products; and where rare and endangered species can be found. This assistance is most commonly provided through direct communication with staff, meetings, or correspondence on specific topics. For more information, please visit www.ct.gov/dep, or contact the individual program representative as identified in the relevant fact sheet.

Training

The CT DEP also offers training on specific departmental programs and responsibilities. Workshops and presentations are provided on such varied topics as: municipal inland wetlands regulation, the state’s aquifer protection area program, coastal management and coastal site plan review, decentralized sewage treatment, and climate change. These are just a handful of examples and do not represent an exhaustive list of outreach topics. For training assistance on other topics, please contact the appropriate program as identified on the related fact sheet in *The Municipal Primer*, or use contact information in Appendix III of *The Municipal Primer* or from the CT DEP website: www.ct.gov/dep.



Content and Organization of The Municipal Primer

The Municipal Primer is organized based largely on municipal functional areas. The CT DEP recognizes that each municipality in Connecticut is organized in its own fashion, based on its own needs. We have done our best to structure the municipal functions based on how a “typical” municipality is organized. Each section contains an introduction, followed by a series of fact sheets on related CT DEP programs and/or issues.

The Municipal Primer provides basic information on both Landscape Stewardship and CT DEP’s regulatory programs. The information related to boards and commissions, land use regulation and planning has a primary focus on Landscape Stewardship while the infrastructure, public works and facilities information provides a greater focus on permitting and regulatory matters, however, each section and factsheet often contain a little of both.

The Municipal Primer also contains a *Guide to CT DEP Permits, Licenses and Other Authorizations* where more specific information related to air, water, waste and land use permitting; the professional and occupational licensing programs; and recreational and natural resources permits and licenses can be found. A flow chart of the typical process for an individual air, water, waste or land use permit and a matrix of permits and/or licenses that might be required for listed municipal activities and functions are also included. This matrix and the individual fact sheets are not intended to be exhaustive lists of any and all CT DEP permits, licenses, certifications or other authorizations that may apply to a specific municipal circumstance. If in doubt about whether CT DEP authorization is required, please contact the Department. Finally, additional supplemental information is included in the appendices, including: 1) a topical index linking key environmental issues and words to the appropriate fact sheet(s) and identifying where they are located; 2) shortcuts to information on the CT DEP Web site; and 3) key contact information for CT DEP programs in the form of a removable brochure for easy reference.

***The Municipal Primer* is current as of the date of printing. However, please be advised that much of this information is dynamic and may have changed since publication of this document. Readers are encouraged to check for up-to-date information by either visiting *The Municipal Primer* online at www.ct.gov/dep/municipalprimer, or requesting updated information from the individual program contacts.**





Photo: University of Connecticut

Land Use Boards, Commissions, Agencies and Committees



Pictured — Jordan Cove
Urban Watershed National
Stormwater Monitoring Project,
Waterford, Connecticut

Land Use Boards, Commissions, Agencies and Committees

Includes: Planning, Zoning, Combined Planning and Zoning, Inland Wetlands and Watercourses, Conservation, Economic Development, Historic Districts, Aquifer Protection and all others that control or have an interest in the use of land.

A variety of municipal boards, commissions, agencies and committees have responsibilities associated with land use that may coincide with CT DEP programs and authorities, such as stormwater management, sediment and erosion control, wetlands and watercourses protection, surface water quality, aquifer protection, public water supply, site remediation, and open space preservation. Some of these connections are obvious, such as with inland wetlands commissions; others are less so, such as with economic development agencies, cemetery commissions, boards of education, or building committees.

Most of the information in this section is intended for use by land use boards and commissions (planning, zoning, combined planning and zoning, zoning appeals, and inland wetlands); however, other boards, commissions and committees will find it helpful in understanding some CT DEP recommendations and requirements.

To aid in coordination between municipal boards, commissions, agencies and committees and the CT DEP, this section of *The Municipal Primer* provides fact sheets on the following topics:

- *Avoiding Jurisdictional Conflicts*

Planning Considerations

- *Environmental and Landscape Stewardship*
- *Watershed Management*
- *Floodplain Management*
- *Aquifer Protection Area Program*
- *Nonpoint Source Pollution Management*
- *Coastal Management*
- *Streets and Roads Planning*
- *Brownfields Remediation*

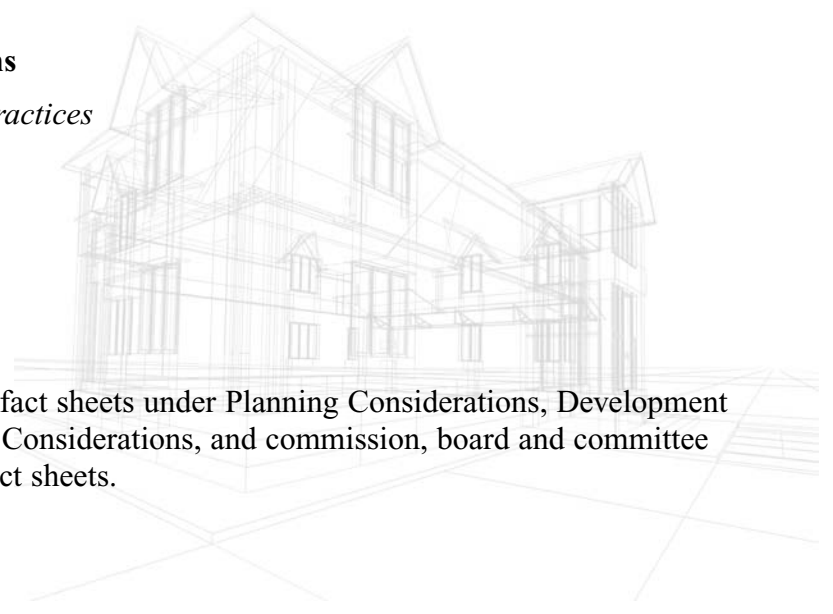
Development Standards Considerations

- *Environmentally Sensitive Land Use Practices*
- *Low Impact Development*

Resource Considerations

- *Water as a Natural Resource*
- *Endangered Species*

There is substantial overlap between the fact sheets under Planning Considerations, Development Standards Considerations, and Resource Considerations, and commission, board and committee members are encouraged to review all fact sheets.



Land Use Boards, Commissions, Agencies and Committees

Other related fact sheets in *The Municipal Primer* are:

Stormwater Management (Public Works)

Indoor and Outdoor Lighting and Appliances (Public Works)

Landscape and Lawn Care (Public Works)

Municipal Wastewater Management Planning (Wastewater Planning and Management)

Protected Open Space (Parks and Recreation)

Greenways (Parks and Recreation)

Outdoor Recreation (Parks and Recreation)

Outdoor Wood-burning Furnaces and Woodstoves (Public Safety and Building Official)

Wildlife Issues: Animal Possession, Nuisance Animals & Wildlife Rehabilitators (Public Safety and Building Official)



Description

The Connecticut General Statutes and associated regulations grant direct regulatory authority and responsibility to both municipalities and the CT DEP. Some of these authorities and responsibilities are exclusive and others overlap. Several of these areas have routinely been sources of confusion.

Municipal Responsibility

Municipal officials need to consider where they have exclusive regulatory authority and responsibilities, where municipal and CT DEP authorities and responsibilities coincide, and where municipal jurisdiction is excluded.

Statutory Citations

Inland Wetlands: CGS Sections 22a-36 through 22a-45a

Dams: CGS Sections 22a-401 through 22a-411

Stream Channel Encroachment Lines: CGS Sections 22a-342 through 22a-349a

Tidal Wetlands: CGS Sections 28 through 35a

High Tide Line: CGS Section 22a-359(c)

Coastal Management Act: CGS Sections 22a-90 through 22a-112

Harbor Management: CGS Sections 22a-113k through 22a-113t

Discussion

Jurisdictional questions frequently arise regarding the regulation and management of inland wetlands, dams, tidal wetlands, coastal waterfront, coastal development and harbors. Each of these is discussed below.

Inland Wetlands

In general, except for activities conducted by state or federal agencies, the responsibility and authority for regulating activities in and adjacent to inland wetlands and watercourses lies with the municipal inland wetlands commission. An appeal of a local decision

must be taken to Superior Court. As discussed below, some activities in inland wetlands will also require CT DEP issuance of a Section 401 Water Quality Certification.

Dams

Dams can be characterized based on their hazard classification as either: 1) those dams whose failure might endanger life or property downstream; and 2) all other dams. The CT DEP generally regulates the construction and major repair of dams that fall under the first category. Other dams are typically regulated by local inland wetlands agencies and, in some instances, other municipal authorities. Still other dams, typically those used for hydroelectric power generation and those on federal property, are managed by the federal government and are not subject to state or local permitting authorities; however, in some instances federal agencies will voluntarily coordinate with state and local authorities when planning dam construction or maintenance.

Routine dam maintenance activities (cutting and removal of brush and trees, mowing of dam embankments, removal of debris, restoration of minor erosion, etc.) on all non-federally controlled dams, are also regulated locally, by the inland wetlands agency and, in some instances, other municipal authorities. However, this local authority is overridden when the CT DEP issues either an order or a permit for dam repairs or construction. In these instances, the wetlands impacts associated with these activities are regulated by the CT DEP to the exclusion of the local inland wetlands agency. Notices of the Department's intention to issue a permit for dam repair or construction and the issuance of a dam repair order are provided to both the local inland wetlands agency and the chief executive official of the municipality where the dam is located.

Stream Channel Encroachment Lines

Stream Channel Encroachment Lines (SCEL) are limits beyond which the placement of encroachments or obstructions is regulated by the CT DEP to reduce hazards to life and

Avoiding Jurisdictional Conflicts

property due to flooding. SCEL have been established for about 270 linear miles of riverine floodplain throughout the state. The presence of designated SCEL does not prevent a municipality from regulating the activity pursuant to the inland wetlands and watercourses statutes.

Tidal Wetlands

All activities proposed within tidal wetlands are subject to CT DEP permitting to the exclusion of municipal inland wetlands commissions. However, the CT DEP does not regulate activities occurring on uplands adjacent to tidal wetlands. Regulation of upland activities is done through the coastal site plan review process (see Coastal Development, below).

High Tide Line vs. Mean High Water

Under its coastal permitting authority, the CT DEP has direct regulatory jurisdiction over activities occurring from the high tide line towards the water (waterward) in tidal, coastal and navigable waters in the State of Connecticut. Municipalities regulate activities on the upland down to mean high water under their local planning and/or zoning authorities. The high tide line is not the same as mean high water. Except for portions of shoreline that have a vertical face (e.g., along bulkheads or seawalls), the high tide line generally falls higher (landward) than mean high water resulting in an area that lies between mean high water and the high tide line where both the CT DEP and municipal planning and/or zoning authorities have jurisdiction. In areas between the high tide line and mean high water, proposed activities must meet the standards and criteria of both regulating entities.

Coastal Development

Standards for coastal development in Connecticut are contained in the goals and policies of the Connecticut Coastal Management Act (CCMA). The CT DEP has responsibility for ensuring that state and federal activities and permitting are consistent

with these goals and standards. Coastal municipalities are responsible for implementing the CCMA goals and policies for all other activities within their respective coastal boundaries. This is accomplished through the Coastal Site Plan Review (CSPR) process. CSPRs are conducted on a case-by-case basis as part of the local land use approval process. The Commissioner of CT DEP is party to all CSPRs; however, an appeal of a local CSPR decision must be taken directly to Superior Court.

The CT DEP Office of Long Island Sound Programs provides technical assistance to the planning commission, zoning commission (or combined planning and zoning commission) and the zoning board of appeals of the coastal municipalities to help them understand the proper application of the CCMA goals and policies. This assistance is provided through comments on individual projects and through training that can generally be provided upon request.

Harbor Management vs. Coastal Permitting

Any municipality that has navigable water within its borders may establish one or more Harbor Management Commissions (HMC). Inter-municipal HMCs can also be established where navigable waters straddle municipal boundaries. Each municipal ordinance establishing an HMC must specify the areal limits of its jurisdiction (the harbor). Such planning must be done in conjunction with the CT DEP and the CT Department of Transportation, and the final plan must be approved by the CT DEP before it is adopted locally.

Once a harbor management plan has been approved and adopted, the HMC has the authority to review land use proposals on abutting upland, and activities regulated by others on or in the water, for consistency with the adopted plan. Permit decisions made by the CT DEP and Army Corps of Engineers within the harbor must almost always be consistent with an approved and adopted plan.

An HMC does not have independent permitting authority but provides guidance to state and local permitting authorities that are making regulatory decisions affecting the HMC's defined harbor. The purpose of an HMC is to plan for the most desirable use of their harbor. Establishing an HMC does not negate the CT DEP's authority to regulate activities in tidal wetlands, or in tidal, coastal or navigable waters.

Section 401 Water Quality Certification

The Federal Clean Water Act Section 401 Water Quality Certification Program is administered by the Bureau of Water Protection and Land Reuse's Inland Water Resources Division and Office of Long Island Sound Programs. The Program applies to activities requiring federal licenses or permits when the activity may result in a discharge into navigable waters, which include wetlands, watercourses, natural and man-made ponds, and other surface waters. Certification that the discharge is consistent with the Federal Clean Water Act and the Connecticut Water Quality Standards must be obtained from CT DEP prior to the start of the activity. In making a decision on a request for 401 Water Quality Certification, the CT DEP must consider the effects of a proposed discharge on ground and surface water quality, as well as existing and designated uses of receiving waters. Any conditions contained in a water quality certification become conditions of the federal permit or license.

An applicant for a federal license or permit, including a dredge and fill permit from the U.S. Army Corps of Engineers, a bridge construction permit from the U.S. Coast Guard, or a permit from the Federal Energy Regulatory Commission (FERC), must obtain a 401 Water Quality Certificate from CT DEP if the proposed activity may result in a

discharge into the state's navigable waters. Such discharges include the discharge of dredged and fill material; incidental discharge of sediments from dredging or excavating; the discharge of stormwater both during construction and from a constructed facility; and any excavation, flooding, draining, clearing or grading in or affecting navigable waters, including wetlands, watercourses, natural and man-made ponds, and other surface waters.

Potential CT DEP Permits, Registrations and/or Certifications

CT DEP:

Inland Wetland Permits for state projects

Construction and major repair of dams whose failure might endanger life or property downstream

Encroachments or fill waterward of stream channel encroachment lines

Coastal permits for activities waterward of the high tide line in tidal, coastal or navigable waters or in tidal wetlands.

Section 401 Water Quality Certification for discharges to inland or coastal waters

Municipal:

Inland Wetlands Permits for non-state and non-federal Projects

Also, municipalities have responsibility for coastal site plan approvals and harbor management consistency reviews, where applicable.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Avoiding Jurisdictional Conflicts

Model Regulations For Municipal Consideration

See www.ct.gov/dep/landscapestewardship and select “Tools for Towns and Cities” from the left navigation bar to find links to model regulations for:

Aquifer Protection

Inland Wetlands

Tidal Wetlands Buffers

Coastal Site Plan Review Exemptions

Web Pages

Inland Wetlands

www.ct.gov/dep/wetlands

Dam Construction

www.ct.gov/dep/permits&licenses Select “Air, Waste, Water and Land Use” then select “Land Use Permits.”

High Tide Line vs. Mean High Water

www.ct.gov/dep/coastalmanagement Select “Coastal Planning” on the left navigation bar, then select “Coastal Management Manual,” open Section I of the Manual and select the “State and Municipal Regulatory Jurisdictions Fact Sheet.”

Tidal Wetlands

www.ct.gov/dep/wetlands

Coastal Site Plan Review / Coastal Management Manual

www.ct.gov/dep/coastalmanagement Select “Coastal Planning” on the left navigation bar then select “Coastal Management Manual” and open Section I.

Model Regulations

www.ct.gov/dep/landscapestewardship Select “Tools for Towns and Cities” on the left navigation bar.

Contacts

Inland Wetlands

Inland 401 Water Quality Certification

Dams

Stream Channel Encroachment Lines

Bureau of Water Protection and Land Reuse

Inland Water Resources Division

Phone: 860-424-3706

Coastal 401 Water Quality Certification

Tidal Wetlands

High Tide Line vs. Mean High Water

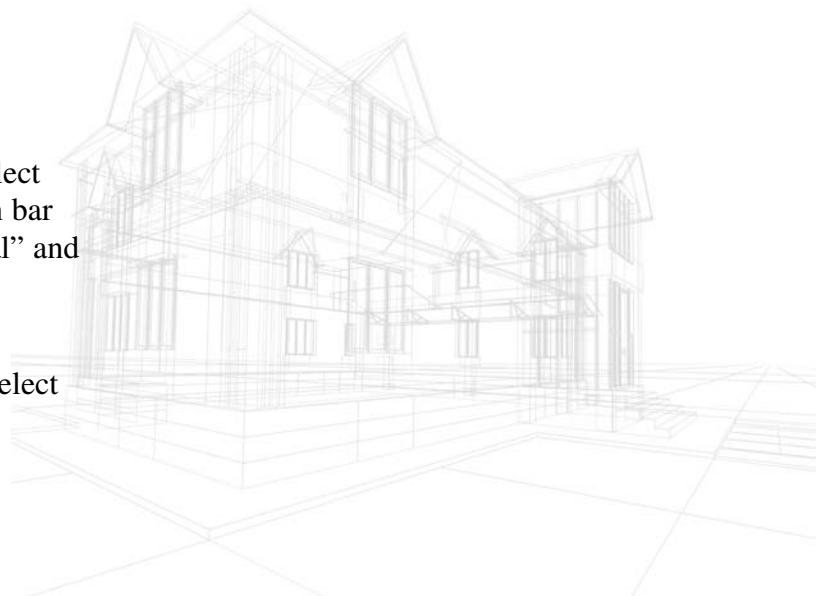
Coastal Site Plan Review Responsibilities

Harbor Management vs. Coastal Permitting

Bureau of Water Protection and Land Reuse

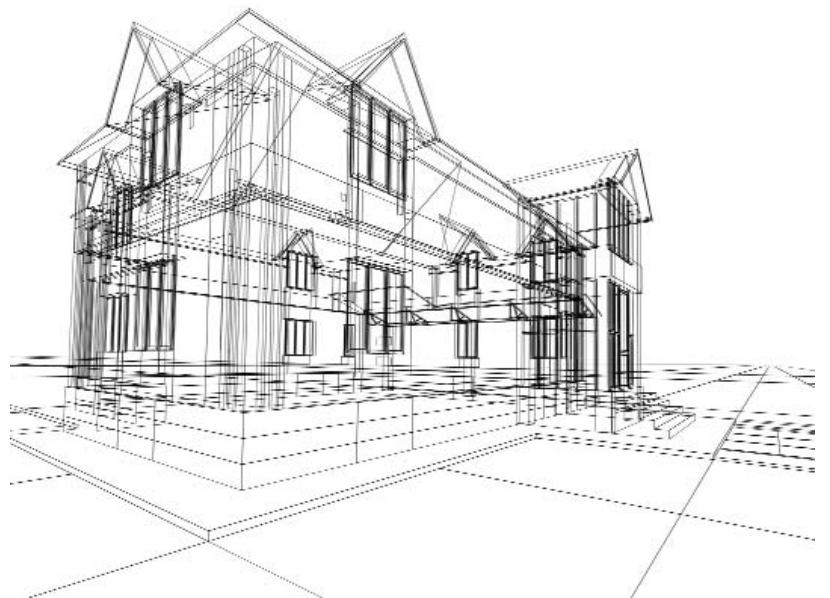
Office of Long Island Sound Programs

Phone: 860-424-3034



Boards, Commissions, Agencies and Committees

Planning Considerations



Description

Environmental stewardship is the careful and responsible management of the state's natural resources and the environment for both present and future generations.

Landscape stewardship is a broader effort by the CT DEP to promote environmental stewardship combined and balanced with thoughtful and responsible growth, with the overall goal of enhancing the quality of life in the state.

Municipal Connection

Municipalities are on the front line of environmental and landscape stewardship through the implementation of their regulatory authorities and responsibilities related to land use.

Municipal Responsibility

Municipalities are encouraged to make land use and development decisions in a manner that supports both environmental and landscape stewardship, and provides for sustained economic health.

Statutory Citations

Municipal Zoning: CGS Sections 8-1 through 8-13a

Municipal Planning: CGS Sections 8-18 through 8-30f

Coastal Management: CGS Sections 22a-90 through 22a-112

Discussion

There are several basic tenets in environmental and landscape stewardship:

- design with the land by avoiding:
 - steep slopes
 - significant blasting
 - significant grading

- development in floodways
- highly erodible soils
- prime agricultural soils
- notable trees;
- preserve sensitive resources by protecting them from direct (e.g., dredging, filling) and indirect adverse impacts (e.g., changes in hydrology, temperature, shading, nutrient loading, water quality). Sensitive resources include:
 - vernal pools
 - other wetlands, both inland and tidal, including floodplains
 - habitats for species of greatest conservation need (federally or state-listed as rare, endangered and threatened species of plants and animals)
 - FEMA (Federal Emergency Management Agency) floodways and NFIP (National Flood Insurance Program) 100-year floodplains
 - coastal resources (with some exceptions such as “shorelands,” developed shorefront, and certain areas of coastal hazard zones);
- preserve cultural resources and traditional working lands including:
 - stone walls
 - cemeteries and graveyards
 - historic sites
 - working farms;
- minimize environmental impacts by encouraging “green building” practices including:
 - implementing low impact development techniques to maintain site hydrology
 - landscaping with native species
 - utilizing energy efficient site and building design; and

Environmental and Landscape Stewardship

- promote vibrant urban, suburban and village centers by encouraging:
 - infill development
 - brownfields reuse
 - mixed uses
 - “walkable” downtowns
 - transit oriented development
 - alternate transportation (e.g., providing bikeways, trail connections)
 - variety in housing opportunities.

These basic tenets can be applied at all levels of land use planning, from statewide and regional planning through municipal planning and zoning to the design of neighborhoods or individual sites. Municipalities are encouraged to participate in regional planning activities, which may include watershed planning, aquifer protection area management and/or coastal management. Town-wide planning and design efforts are likely to include reviews and updates of local plans of conservation and development, water pollution control plans, sewer service areas, subdivision regulations, and/or zoning regulations. Those responsible for planning for neighborhood revitalization and/or the development of individual site plans are encouraged to incorporate the tenets noted above.

Potential CT DEP Permits, Registrations and/or Certifications

None specific to this program.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

Yes. On the Web at:

www.ct.gov/dep/landscapestewardship. Select “Tools for Towns and Cities” on the left navigation bar.

Web Pages

www.ct.gov/dep/landscapestewardship

Although not a CT DEP Web page, information on creating a sustainable community is available through *ICLEI - Local Governments for Sustainability*. ICLEI is an international association of local governments and national and regional local government organizations that have made a commitment to sustainable development. Several Connecticut municipalities are members. Additional information can be found on-line at: www.iclei.org/.

Contacts

Office of the Commissioner
Planning and Program Development
Landscape Stewardship Initiative
Phone: 860-424-3618

Bureau of Water Planning and Land Reuse
Watershed Coordinators Program
Phone: 860-424-3020

Bureau of Water Planning and Land Reuse
Office of Long Island Sound Programs
Coastal Planning Section
Phone: 860-424-3034

Descriptions

Watershed

A watershed is an area of land that drains or sheds water into a specific body of water, such as a lake or a river. Every body of water (e.g., rivers, lakes, ponds, streams, estuaries and Long Island Sound) has a watershed and everybody living in Connecticut lives within a watershed.

Watershed Management

Watershed management describes the process of integrating, coordinating and implementing comprehensive land use and water management practices to protect and improve the quantity and quality of the water and other natural resources within a watershed.

Municipal Connection

With few exceptions, municipalities are responsible for planning and regulating land development within their boundaries (state and federal actions and tribal actions on reservation lands are the key exceptions). Unless carefully designed, constructed and maintained, land use and/or development can have a detrimental impact on water resources, including contributing nonpoint source pollution, which is the number one threat to water quality (see the fact sheets on *Stormwater Management* (Public Works) and *Nonpoint Source Pollution Management* (Boards, Commissions, Agencies and Committees) for more information).

By actively participating in watershed-based planning efforts, municipalities can effectively and efficiently reduce the impact of development on water quality and quantity. Incorporating principles of responsible growth, and considering and mitigating the effects of development on downstream waters are typically part of these efforts. Implementing Low Impact Development best management practices can further protect water quality and quantity (see fact sheet on *Low Impact Development* (Boards, Commissions, Agencies and Committees) for further information).

Municipal Responsibility

Municipalities have no regulatory responsibilities under CT DEP's watershed management program; however, they are strongly encouraged to participate in any local watershed management effort. The CT DEP will coordinate with municipalities on a regional level on any such effort.

Because municipalities are principally responsible for planning and zoning for growth, development, and land use, they assume responsibility for ensuring that land use is consistent with public goals for maintaining and protecting water quality. Participation in watershed-based planning efforts is an effective way to ensure that water quality goals are addressed effectively and growth is managed in a responsible manner.

Statutory Citation

Not applicable.

Discussion

Land and water resources are naturally connected and together, they support the state's entire environment. As rainwater or melted snow runs downhill in a watershed, it collects and transports sediment and other materials and carries them into the receiving waterbody (wetlands, rivers, streams, lakes, ponds and Long Island Sound), which can result in significant amounts of pollution over time. Watershed management helps control pollution of the water and other natural resources in the watershed by identifying the different kinds of pollution present in the watershed, where the pollutants come from, and how they are transported. Watershed management can also recommend ways to reduce or eliminate these pollution sources. Watershed management balances the demands on natural resources to provide for multiple uses including adequate water supply, recreation, ecological demands and aesthetic purposes. Watershed management integrates multiple environmental concerns related to land use and water

Watershed Management

resources into a single comprehensive approach.

Watershed management is a process that results in a unified plan or blueprint of how to best protect and improve the quality and quantity of water and other natural resources in a watershed, while simultaneously supporting economic development and growth. Integrating resource management in this manner is an effective and efficient way to ensure long-term quality of the land and water resources in the state's watersheds.

The CT DEP has a statewide Watershed Management Program with coordinators assigned to various geographic regions (see map at www.ct.gov/dep/watershed). The Watershed Coordinators work with municipalities, non-profit organizations and others on a wide variety of watershed projects and issues. The issues to be resolved in a watershed management plan vary depending on the specific characteristics of the watershed and may include: ensuring adequate stream flows; addressing flooding, erosion, or siltation; protecting riparian habitat; managing invasive species; and providing for recreation and water supply. Other watershed issues relate to chemical quality, low flows, high flows, fish passage, habitat, and activities on the upland that impact all of these environmental components. Watershed management is the integration of all aspects of water resources management that may impact water quality and quantity, including how it relates to land use.

Very often, watershed boundaries extend beyond political boundaries into adjacent municipalities and/or states. That is why a comprehensive planning process that involves all affected municipalities in the watershed is essential to successful watershed management. Since all partners have a stake in the health of the watershed, the process should be inclusive and engage all affected parties in the watershed as a means to successful, long-term management of the land and water resources. Involving all affected parties, including municipalities, is also an efficient way to

prioritize the implementation of watershed management plans in times when resources may be limited.

Potential CT DEP Permits, Registrations and/or Certifications

This is not a regulatory program so there are no specific CT DEP permits associated with it. However, please be aware that CT DEP permits may be required for individual actions identified in a watershed management plan.

Financial Assistance

Grants may be available to develop and implement watershed-based planning. For more information, see <http://www.ct.gov/dep/watershed>.

Model Regulations for Municipal Consideration

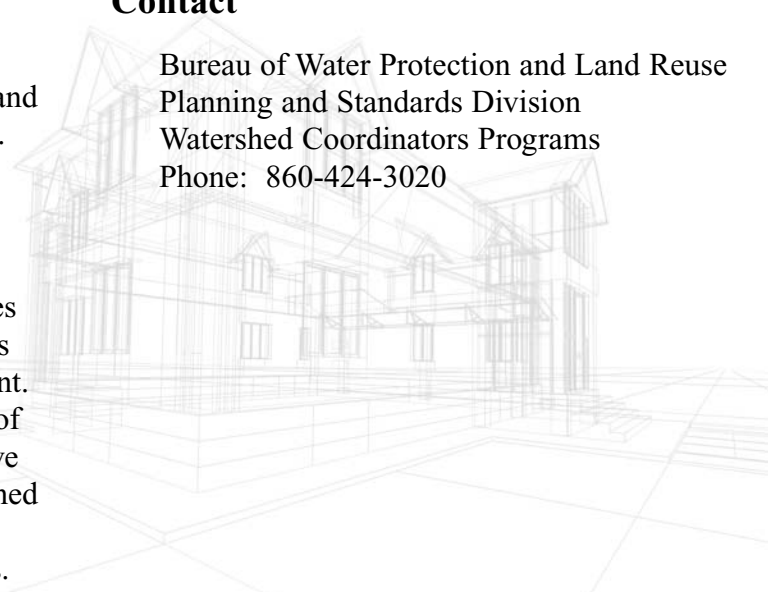
Yes. See www.ct.gov/dep/landscapestewardship. Select "Tools for Towns and Cities" on the left navigation bar and scroll down to "Model Regulations."

Web Page

<http://www.ct.gov/dep/watershed>

Contact

Bureau of Water Protection and Land Reuse
Planning and Standards Division
Watershed Coordinators Programs
Phone: 860-424-3020



Description

Floodplains are areas adjacent to a body of water (river, stream, lake, pond, etc.) that become flooded under certain conditions.

Municipal Connection

Municipalities are primarily responsible for determining the activities that are appropriate for areas within floodplains, either through their planning efforts, including plans of conservation and development and hazard mitigation planning, or through the permitting authority of the local inland wetlands and watercourses commission.

Municipal Responsibilities

All Connecticut municipalities are responsible for planning for flood hazard mitigation, which logically includes restricting use of floodplains to those that are compatible with periodic flooding.

Coastal municipalities are required under the Connecticut Coastal Management Act to ensure that development in coastal floodplains proceeds in a manner that minimizes risk to life and property, and that non-structural solutions to flooding problems are promoted over structural solutions.

Statutory Citations

Inland: CGS Sections 25-68b through 25-68h

Coastal: CGS Sections 22a-90 through 22a-112

Discussion

Flooding is the number one natural hazard in Connecticut. Flooding generally occurs in floodplains, which are areas adjacent to a body of water (river, stream, lake, pond, etc.) that under certain conditions, often related to rainfall or snowmelt, become flooded.

Floodplains can vary in width depending upon the contours of the land surrounding the water body.

Flooding can significantly disrupt the operation of a municipality. It can interrupt essential services, disrupt or destroy public infrastructure, and place high demands on public safety officials. In addition, flooding can cause substantial personal property damage.

National Flood Insurance Program

Property damage from flooding is not covered by standard homeowners insurance, but only by the purchase of individual flood insurance policies. Such policies are only issued in communities that are participating in the National Flood Insurance Program (NFIP). Participation in the NFIP requires a community to adopt and enforce floodplain management regulations designed to mitigate the effects of flooding on new and improved structures.

The NFIP standards should be considered minimum guidelines. They are intended to maintain the flood capacity of waterways and reduce potential impacts to buildings and other structures within the floodplain. However, they do not address emergency access during a major flood event. Nor do NFIP standards address any of the other environmental functions that floodplains provide. These functions include: supporting valuable and sensitive habitat for flora and fauna, some of which may be species of special concern; providing valuable soils that should be preserved for agricultural use; and protecting and enhancing water quality. Municipalities are encouraged to protect these public values by adopting floodplain management regulations and ordinances that are more stringent than those necessary to meet the minimum standards set by the NFIP.

Stream Channel Encroachment Lines

In order to lessen the flooding hazards to life and property, CT DEP regulates the placement of encroachments and obstructions riverward of stream channel encroachment lines. Stream channel encroachment lines have been established for about 270 linear miles of

Floodplain Management

riverine floodplain throughout the state, and are shown on stream channel encroachment line maps, which are on file in the town clerk's office in affected towns. An index to the maps is available from CT DEP. In making a decision on a stream channel encroachment line permit application, CT DEP must consider the impact of proposed activities both on the floodplain environment, including wildlife and fisheries habitats, and the flooding hazards the proposed activity poses to people and property.

Coastal Management

Under the Connecticut Coastal Management Act, coastal cities and towns are required to ensure that development in coastal flood plains proceeds in a manner that minimizes risk to life and property, and that non-structural solutions to flooding problems are promoted over structural solutions. Non-structural solutions include, but are not limited to: locating or relocating residential and other sensitive uses outside of the flood zone to the extent possible; establishing buffers that include coastal flood hazard zones, where practicable; and minimizing densities within coastal flood zones. Structural solutions, which are strongly discouraged and in some instances disallowed, include seawalls, bulkheads, revetments, riprap and other materials that prevent natural erosion of shorelines.

Potential CT DEP Permits, Registrations and/or Certifications

Stream Channel Encroachment Line permits are required for the placement of encroachments and obstructions riverward of stream channel encroachment lines, which have been designated for certain stream locations.

Any state agency proposing an activity, including providing funding via grant or loan for an activity by others, within or affecting a floodplain or which impacts natural or man-made storm drainage facilities must acquire a Floodplain Management Certificate. Such activities include: a) the proposed placement of

any structure, obstruction or encroachment within the floodplain area; b) any proposal for site development which increases peak runoff rates; c) any grant or loan which affects land use, land use planning or the disposal of state property in floodplains; or d) any program regulating flood flows within the floodplain.

If an activity is proposed in a floodplain waterward of the high tide line in tidal, coastal or navigable waters, CT DEP coastal permits are generally required.

All floodplain projects should be reviewed to determine whether municipal inland wetlands and watercourses and/or municipal zoning approval are required.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Pages

Flood Management

www.ct.gov/dep Under "Programs and Services" at the top of the page, select "Flood Management."

Stream Channel Encroachment Lines

www.ct.gov/dep/permits&licenses Select "Air, Waste, Water and Land Use" then select "Land Use Permits." Scroll down to "Programs Administered by the Inland Water Resources Division" and select "Stream Channel Encroachment Fact Sheet."

Coastal Permits

www.ct.gov/dep/coastalmanagement Select "Coastal Permitting."

Coastal Management Manual

www.ct.gov/dep/coastalmanagement Select "Coastal Planning" on the left navigation bar then select "Coastal Management Manual."

Contacts

Inland Floodplains

Bureau of Water Protection and Land Reuse

Inland Water Resources Division

Phone: 860-424-3019

Coastal Floodplains

Bureau of Water Protection and Land Reuse

Office of Long Island Sound Programs

Phone: 860-424-3034



Aquifer Protection Area Program

Description

Connecticut's Aquifer Protection Area (APA) Program protects major public water supply wells in high yield sand and gravel aquifers to ensure a high quality supply of public drinking water for present and future generations.

Municipal Connection

Eighty-one municipalities in Connecticut with active public water supply aquifers that serve more than 1000 people are required to establish Aquifer Protection Areas (sometimes referred to as "wellhead protection areas").

Municipal Responsibility

Affected municipalities have specific regulatory responsibilities under this program to protect public water supply aquifers as required by statute.

Statutory Citation

CGS Sections 22a-354a through 22a-354bb

Discussion

Long-term, sustainable water supply is a concern in Connecticut. There are certain areas of the state where high-yield, sustainable sand and gravel aquifers exist. Although most areas in Connecticut overlie groundwater aquifers, the APA Program protects only sand and gravel aquifers that have public water supply wells supplying 1000 people or more. The CT DEP, affected municipalities and water companies share responsibilities for the APA Program.

The Role of CT DEP

The CT DEP is responsible for: the overall administration of the APA Program; establishing state mapping; developing land use regulations and standards; approving aquifer protection area maps and local regulations; and developing guidance materials. The CT DEP also: provides training for the local APA officials and aquifer protection agency members; assists municipal aquifer protection agencies with program

implementation; directly regulates major facilities, state facilities and public service companies (utilities) located within the aquifer protection areas; and educates the public about ground water protection.

The Role of Municipalities

Municipalities in the program are required to appoint an existing board or commission as the aquifer protection agency. However, the members of this agency essentially "wear two hats" and it is important for the appointed board or commission to distinguish between their actions under the aquifer protection authorities and responsibilities and those of their other functions.

Municipalities with aquifer protection agencies must adopt stand-alone regulations that are separate from other municipal regulations (e.g., they can not be incorporated into the municipal zoning regulations). The local aquifer protection regulations must be consistent with and, according to a recent opinion by the Attorney General, cannot be stricter than those established by CT DEP.

Municipalities must also inventory land uses within the aquifer protection area and designate the aquifer protection area boundary. The aquifer protection agency regulates land use activities within the aquifer protection area by: registering existing regulated activities; issuing permits for new regulated activities; overseeing regulated facilities; and educating citizens about ground water protection.

The Role of Water Companies

Water companies, both municipal and private, are required to map aquifer protection areas according to state mapping regulations. When this mapping is finalized, it defines the regulatory boundaries for the municipal land use regulations. In addition to mapping, the water companies assist towns with their protection programs and oversight of the aquifer protection area, conduct well field monitoring to warn of contamination, and plan for land acquisition and protection around well fields.

Aquifer Protection Area Program

Potential CT DEP Permits, Registrations and/or Certifications

Regulatory responsibility is shared between the CT DEP and local aquifer protection agencies. The CT DEP regulates major manufacturing-type activities, utility facilities, and state facilities. Municipalities regulate all other land use activities in aquifer protection areas.

Regulated land uses include activities that use, store, handle, or dispose of hazardous materials and other potential ground water contaminants. Businesses that participate in these activities within an aquifer protection area are required to register their existing regulated activities and, if changes are proposed, obtain permits for new regulated activities. Establishing new regulated activities on new sites is prohibited in aquifer protection areas.

All registered and permitted activities are required to follow best management practices or standards designed to minimize the possibility of ground water pollution.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

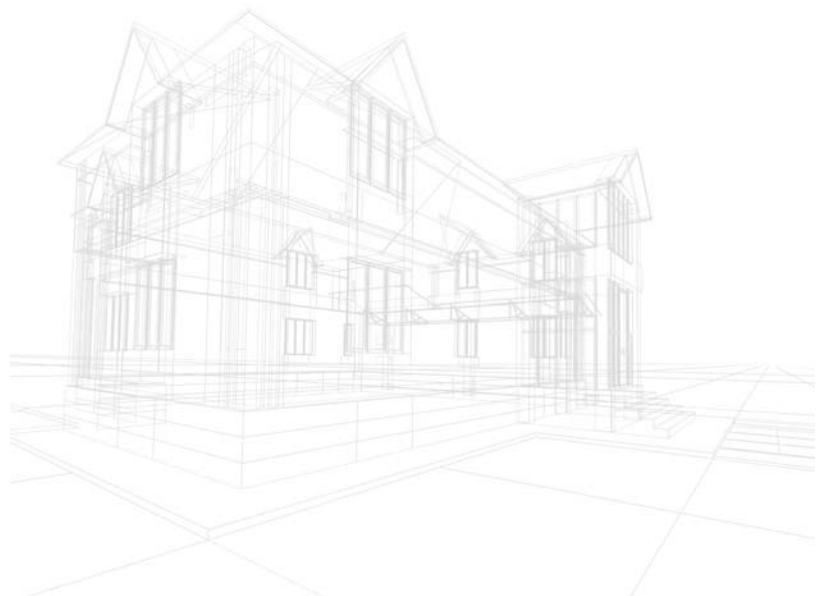
Yes. Follow the “Municipalities” link on the Web page noted below.

Web Page

www.ct.gov/dep/aquiferprotection

Contact

Bureau of Water Protection and Land Reuse
Planning and Standards Division
Aquifer Protection Area Program
Email: aquiferprotection@po.state.ct.us
Phone: 860-424-3020



Description

Runoff from either rainfall or snowmelt moves over and through the ground and along the way, it picks up and carries natural pollutants and pollutants resulting from human activity. This mix of runoff and the contaminants it carries is considered “nonpoint source pollution” (NPS). Unlike point sources of pollution (e.g., a company’s wastewater discharge or a municipal sewage treatment plant outfall), NPS comes from many dispersed points of origin. Although runoff from land surfaces is the primary source of NPS in Connecticut, failing septic systems, contaminants infiltrated into the groundwater and changes to natural hydrology also contribute to the problem.

Municipal Connection

Developed land is a significant cause of NPS and constitutes an overall greater threat to water quality than point source discharges such as industrial outfalls. In Connecticut, by law and by custom, municipalities control most land use and development within their boundaries.

In many parts of the state, contributions from numerous small residential parcels of property combine to form potentially problematic NPS areas, which can have a major impact on the state’s water resources. Municipalities can play a significant role in educating residents on how their behavior contributes to nonpoint source pollution.

Municipalities have the ability to assess their current land management practices when deciding how to reduce potential impacts of NPS.

Municipal Responsibility

Most municipalities in Connecticut are required to comply with the MS4 Stormwater General Permit (see the fact sheet on *Small Municipal Separate Storm Sewer Systems* (MS4) under the Public Works for more information). Beyond that, most municipalities

have no specific requirements to implement state NPS requirements. However, towns are strongly encouraged to review their land use regulations (zoning, subdivision and inland wetlands) and modify them where necessary to incorporate nonpoint source best management practices.

Statutory Citation

CGS Section 22a-430(b)

Discussion

NPS is unlike water pollution from point sources (e.g., factories, permitted stormwater outfalls, municipal wastewater treatment facilities) in that it is diffuse in both its origin and the way in which it enters ground and surface waters. It is like point sources of water pollution, however, in that it may ultimately affect many different uses of water resources. If pollutants from NPS become sufficiently concentrated, as might happen over time if such sources are not controlled, the surface or groundwater may become impaired and unable to support desirable uses (e.g., fishing or swimming). The presence of this pollution can result in beach closures; fishing and shellfishing restrictions and prohibitions; and sedimentation or other impairment of aquatic habitats, including low dissolved oxygen (hypoxia), which can cause fish kills and loss of other aquatic organisms. Large amounts of freshwater runoff discharged directly into saltwater tidal wetlands along the coast can also upset the delicate balance of fresh and salt water in the wetland ecosystem, often resulting in the invasion of undesirable freshwater plant species and the degradation of tidal wetlands.

Pollutant levels, or loadings, from NPS are influenced by human activities and are also closely linked to rainfall, thunderstorms, snowmelt and other weather conditions that contribute to runoff. Runoff from developed land is the primary source of NPS in Connecticut. This is commonly known as “urban runoff,” regardless of whether it originates in our cities, suburbs or village

Nonpoint Source Pollution Management

areas. Converting undeveloped land to residential, commercial or industrial uses or to roads, highways and bridges can cause or increase site erosion during and after construction. The sediment created by this erosion is a significant component of NPS pollution. Poorly planned development can also increase post-construction NPS runoff volumes and velocity when vegetated areas are paved or covered with buildings.

Urban runoff can carry sediments, nutrients, road salts, heavy metals, petroleum hydrocarbons, and pathogens, and transport them into receiving waters. Some air pollutants (e.g. mercury, nitrogen and acidifying compounds) are added through atmospheric deposition. Additionally, failing or inadequate septic systems can cause localized water quality problems, releasing pathogens and nutrients to groundwater and surface waters that ultimately discharge to Long Island Sound. Even properly functioning conventional septic systems can release nutrients that contribute to hypoxia problems. One of the biggest challenges to controlling NPS is that urban runoff has many sources.

When considering new development, or modifications to existing land development, there are measures municipalities can take to reduce and mitigate NPS pollution. A project in the Jordan Cove watershed in Waterford, CT compared NPS runoff from a traditional subdivision with that from a subdivision designed and constructed to include multiple NPS best management practices (BMPs). The results of 10 years of monitoring this project have demonstrated that the use of NPS BMPs greatly improved the quality of receiving waters when compared to the subdivision that did not implement the comprehensive management measures.

Additional information on minimizing NPS can be found in the *2004 Connecticut Stormwater Quality Manual* available on-line at www.ct.gov/dep/stormwater. Whether a permitted stormwater point source or true NPS

runoff, many of the practices that are promoted in this manual apply. More specifically, this manual provides guidance on the measures necessary to protect the waters of the State of Connecticut from the adverse impacts of post-construction stormwater and NPS runoff. With a focus on site planning, source control, and runoff treatment practices, this manual is intended for use as a planning tool and design-guidance document by the regulated and regulatory communities involved in stormwater and NPS quality management.

Connecticut's NPS Program

A significant strength of Connecticut's NPS Program is its "networked" approach to nonpoint source management. Joint nonpoint source management programs have been initiated with: the USDA Natural Resources Conservation Service and Farm Services Agency; the State Departments of Public Health, Transportation, and Agriculture; Soil and Water Conservation Districts; University of Connecticut Cooperative Extension System; regional planning organizations; municipal government agencies (wetland, zoning, planning, and conservation commissions); academic institutions; watershed associations; environmental groups; and business and trade organizations. Citizens groups have played a major role in volunteer monitoring, planning, and public involvement activities.

Financial Assistance

Under section 319 of the federal Clean Water Act (§319), Connecticut receives federal grant money which can support a wide variety of activities aimed towards managing NPS. The current focus is on developing and implementing watershed-based plans designed to correct NPS-related impairments, particularly for those bodies of water included on the List of *Connecticut Waterbodies Not Meeting Water Quality Standards*. Guidance on developing watershed based plans is available on the CT DEP Web site at www.ct.gov/dep/watershed.

The NEMO Program

The NEMO (Nonpoint Education for Municipal Officials) Program, located at the University of Connecticut, was created in 1991 to assist local land use decision-makers in understanding the NPS impacts of their decisions and alternatives available to manage NPS. Although not a CT DEP program, NEMO is a valuable source of information and training related to NPS. Additional information is available on-line at http://clear.uconn.edu/tools/lid_reg/.

Potential CT DEP Permits, Registrations and/or Certifications

While there are no CT DEP permits specific to NPS control, the following CT DEP permits, registration or authorizations influence NPS and may be required:

Water Diversion Permit

Section 401 Water Quality Certification

Stream Channel Encroachment Lines Permit

General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Surface Water;

Stormwater and Dewatering Wastewaters from Construction Activities

Stormwater Associated with Industrial Activities

Applicable policies, guidelines and regulations may be found in:

- Water Diversion Regulations
- CT Water Quality Standards and Classifications
- 2006 List of Connecticut Waterbodies Not Meeting Water Quality Standards
- Remediation Standard Regulations
- General Conditions Applicable to Water Discharge Permits and Procedures and Criteria for Issuing Water Discharge Permits

Financial Assistance

Yes, through Section 319 of the federal Clean Water Act.

Model Regulations for Municipal Consideration

Although not specific to NPS, model stormwater management regulations are available at: www.ct.gov/dep/stormwater. Scroll down to the link to the *2004 Connecticut Stormwater Quality Manual*. Model ordinances are found in Appendix C.

See “Tools for Towns and Cities” link on the left navigation bar of the CT DEP Landscape Stewardship Web pages at: www.ct.gov/dep/landscapestewardship.

Web Page

www.ct.gov/dep/nps

Contact

Bureau of Water Protection and Land Reuse
Planning and Standards Division
Watersheds, Lakes and Nonpoint Source
Implementation Program
Phone: 860-424-3020



Description

Coastal management in Connecticut is a comprehensive, cooperative program that functions at all levels of government to guide the activities taking place where the land meets the sea to protect coastal resources and promote water-dependent uses.

Municipal Connection

The 36 coastal municipalities in Connecticut have specific responsibilities to protect coastal resources and promote water-dependent uses while supporting sustainable economic uses of coastal lands. Most of this responsibility statutorily lies with the local planning and/or zoning commissions and zoning boards of appeals.

Municipal Responsibility

Connecticut's coastal municipalities are responsible for implementing Connecticut's coastal management program when making land use and development decisions through the coastal site plan review process.

Statutory Citation

CGS Sections 22a-90 through 22a-112

Discussion

Connecticut's coast is a valuable asset worthy of protection. Our coastal area provides myriad opportunities to residents and tourists alike for recreation, public access, commercial fishing, marine trades and international shipping, as well as habitat for fish, shellfish, birds, plants and other wildlife. We all use our coast and we all have to work together to make sure it is available for future generations.

Coastal management goals and policies are stated in the Connecticut Coastal Management Act (CGS sections 22a-90 through 22a-112), and are applied by municipal planning, zoning, and combined planning and zoning commissions and zoning boards of appeals to projects within the coastal boundary, which extends approximately 1000 feet landward

from mean high water or the upland edge of tidal wetlands. (Mean high water is recognized as the waterfront landowner's property line.)

By law, municipalities are instrumental in coastal management in Connecticut. Through the coastal site plan review process, municipal coastal programs and harbor management, municipalities ensure that land use and development in the coastal boundary is consistent with the statutory goals and policies. To help municipalities with this responsibility, each of the 36 coastal towns has a designated coastal management liaison within CT DEP's Office of Long Island Sound Programs. Coastal municipalities are encouraged to update their municipal coastal program plan, or the coastal management section of the local plan of conservation and development to reflect the statutory goals and policies. The Office of Long Island Sound Programs can provide technical assistance in these efforts and may be aware of funding sources to help develop or implement such plans.

In implementing coastal management, the CT DEP encourages municipalities to take special consideration of:

- urban waterfront revitalization;
- watershed management and nonpoint source pollution control;
- protecting and encouraging water-dependent uses;
- increasing public access;
- restoring coastal habitat;
- planning for coastal hazards;
- promoting harbor management;
- facilitating research;
- managing and protecting coastal resources; and
- protecting the public trust (the land and waters waterward of mean high water).

Coastal Management

Potential CT DEP Permits, Registrations and/or Certifications

Authorizations are required for work in tidal wetlands and waterward of the high tide line within tidal, coastal or navigable waters.

Financial Assistance

Financial assistance is not available at this time (6/2008). Occasionally planning grants are available.

Model Regulations For Municipal Consideration

Tidal Wetlands Buffers:

www.ct.gov/dep/wetlands Select “Tidal Wetlands” then select “Tidal Wetlands Buffer Guidance Document.”

Coastal Site Plan Review Exemptions:

www.ct.gov/dep/coastalmanagement Select “Coastal Land Use Planning” then select “Coastal Manual.” The *Coastal Site Plan Review Exemptions Fact Sheet* is in Section I of the Manual.

Stormwater:

www.ct.gov/dep/stormwater follow link to the *2004 Connecticut Stormwater Management Manual* and see Appendix C.

Web Page

www.ct.gov/dep/coastalmanagement

Contact

Bureau of Water Protection and Land Reuse
Office of Long Island Sound Programs
Coastal Planning Section
Phone: 860-424-3034



Description

Careful planning of the layout, construction, repair and maintenance of existing and future streets and roads can minimize potential environmental impacts associated with local transportation systems.

Municipal Responsibility

Municipalities are authorized by statute to “establish, lay out, construct, reconstruct, alter, maintain, repair, control, operate, and assign numbers to streets, alleys, highways, boulevards, bridges, underpasses, sidewalks, curbs, gutters, public walks and parkways.” Many new roads are created through the subdivision of land, which is regulated on the local level. Such roads must comply with standards set forth by the municipality. Municipalities are responsible for maintenance and repair of non-state public roads within their boundaries.

Statutory Citations

Street and Roads: CGS Section 7-148(c)(6)(C)

Public Shade Trees: CGS Sections 23-58 through 23-65e and CGS Section 7-131(d).

Discussion

Comprehensive planning for new or reconstructed municipal road systems should be done to facilitate movement throughout and between municipalities, to minimize potential adverse impacts to Connecticut’s environment and to protect and enhance the local quality of life. From an environmental perspective, municipalities should carefully consider layout options, stormwater management techniques and the ultimate streetscape, including street trees and other plantings.

Layout

How municipalities choose to locate, construct, reconstruct, and maintain their roadways can make a vast difference in Connecticut’s natural and cultural environment. Innovative

alternatives to traditional layouts and standard design, construction, operation and maintenance can reduce air pollution, protect water resources, minimize waste disposal costs and, in many instances, save other monies. Planning new roads in a grid or carefully interconnected fashion, rather than in a series of cul-de-sacs, provides for improved traffic flow, particularly on nearby arterial roads, as well as improved emergency access, evacuation, and overall public safety. However, there are trade-offs to be considered. As examples: 1) where the terrain would require substantial earth-moving to establish a gridded road system, it may be more appropriate to follow the contours of the landscape; and 2) conservation subdivisions typically rely on cul-de-sacs to provide vehicular access, in part as an effort to minimize the footprint of the development. Regardless, consideration should be given to providing adequate interconnections between roads, both new and existing (i.e., limit the establishment of new cul-de-sacs).

Designing new streets and roads with the narrowest paved surface able to accommodate use and access needs can calm traffic and aid in mitigating road-related nonpoint source pollution. In some cases, utilizing pervious pavers or structurally-supported vegetation can provide increased functional width for emergency vehicles on roads that might otherwise be considered too narrow.

Stormwater

Streets, roads, highways, parking lots and other paved areas for vehicle use constitute the bulk of the impervious surfaces in Connecticut. Studies have shown that as the percentage of impervious surface in a watershed rises, the quality of streams and rivers falls. There are ways to counteract this effect. With careful planning, the construction or improvement of streets, roads and parking lots can incorporate stormwater management best management practices, which will lessen the impact on the environment.

Streets and Roads Planning

A sampling of stormwater best management practices related to streets and roads includes:

- narrowing roads to the extent practicable without jeopardizing safe and reasonable emergency access;
- reducing or eliminating curbing;
- utilizing sheet flow, vegetated swales or other ground surface practices that encourage infiltration (rather than subsurface piped collection systems); and
- incorporating alternatives to impervious pavement where appropriate.

Stormwater best management practices can promote and advance environmental stewardship and responsibly address quality-of-life issues. Detailed information on alternative road and parking lot design is provided in CT DEP's *2004 Connecticut Stormwater Quality Manual* (see Chapter 4).

Streetscape / Landscaping

The vitality of urban, suburban and village centers, and the beauty of the highways and byways that connect them, often relate to their individual streetscapes, which are the elements that make up the street scenery, or the overall appearance of the street. Vibrant, active streetscapes encourage pedestrian activity. While there are many bits and pieces that make up a successful streetscape, and while these items vary from case to case, one of the most important elements is landscaping. Trees adjacent to roads and streets are an integral part of an environmentally healthy community both in terms of the ecological services provided by trees and the role that trees play in the social cohesiveness of a community. Among the benefits provided by trees are:

- mitigation of the heat island effect through the shading of pavement and evaporation of moisture, which increases human comfort, improves local environmental conditions and reduces energy consumption;

- air-quality improvements, including the production of oxygen, filtering of fine particulates, removal of specific gases and reductions in the production of ozone (largely due to cooling effects);
- reduced need for stormwater management through the interception and evaporation of rainfall, improved soil drainage and transpiration of moisture from the soil;
- attractive social environments for outdoor interactions, such as occurs in parks, in neighborhoods and along commercial streets;
- an increased sense of place; and
- often, enhanced economic value to local businesses, or to local residential property values.

The benefits of trees are enhanced greatly when the planting of trees along streets and roads is properly planned and when these trees are appropriately maintained.

Proper maintenance of street trees is critical to the trees' survival and can avoid a serious threat to public safety due to the risk of falling limbs, or outright failure of such trees.

State law requires that each municipality appoint a tree warden to address the "care and control" of all trees along public roads and on public grounds, except along state highways and where a park commission has control of the park trees. The CT DEP's Urban Forestry Program works closely with tree wardens, providing educational opportunities, technical assistance and occasional financial support through a small, urban forestry grant program.

Potential CT DEP Permits, Registrations and/or Certifications

None are specific to this program; however, related permits include the MS4 Stormwater General Permit.

Financial Assistance

The Urban Forestry Grant Program, which can help fund street trees, is usually announced annually in early spring.

Model Regulations for Municipal Consideration

None are specific to this program; however, the *2004 Connecticut Stormwater Management Manual* (Appendix C) contains model regulations regarding stormwater. Other model regulations are posted on the CT DEP Landscape Stewardship Web pages under “Tools for Towns and Cities” which is found on the left navigation bar.

Web Pages

Stormwater

www.ct.gov/dep/stormwater

Street Trees and Urban Forestry

www.ct.gov/dep/forestry

Invasive Species

www.ct.gov/dep/invasivespecies

Landscape Stewardship

www.ct.gov/dep/landscapestewardship

Contacts

Street Layouts and Stormwater

Bureau of Water Protection and Land Reuse
Planning and Standards Division
Watershed Management and Coordination
Program

Phone: 860-424-3020

Street Trees and Urban Forestry

Bureau of Natural Resources
Forestry Division
Urban Forestry Program

Phone: 860-424-3178



Description

A brownfield site is generally defined as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant...”

Municipal Connection

Because of our long industrial history, there are thousands of sites in Connecticut which are or may be polluted. Most municipalities in Connecticut, whether urban, suburban or rural, contain one or more brownfield sites. Cities and towns are often best positioned to determine which sites in their communities are underutilized due to known or perceived pollution and associated liability.

Municipal Responsibility

Municipalities can play a vital role in moving brownfield sites back into productive reuse. Redevelopment of these sites will decrease public health risks, and increase municipal tax bases. Municipalities are best suited to discuss future use or reuse of properties with the property owner. They can initiate planning for site reuse to be done by the municipality or a selected developer, or encourage property owners to investigate their sites. Municipalities can also conduct an investigation of an unwilling owner’s property, or properties with no owner, and they can seek state and federal brownfield funding which is available for investigation and remediation.

Statutory Citations

Urban Sites Remedial Action Program: CGS Section 22a-133m;

Voluntary Transfer Act: CGS Section 22a-133x and CGS Section 22a-133y; and

Property Transfer Act: CGS Sections 22a-134a through 22a-134f.

Discussion

In the early 1990s, the federal government and the states began to focus attention on the problems associated with brownfield sites. Once used for industrial, manufacturing or commercial businesses, these sites were lying abandoned or unused due to known or suspected contamination with hazardous substances. Unknown environmental liabilities were preventing communities, developers and investors from restoring these properties to productive use and revitalizing impacted neighborhoods. To support brownfields clean-up and reuse, the CT DEP established the position of Brownfields Coordinator.

The clean-up and reuse of brownfields typically involves multiple state agencies. To facilitate the redevelopment of these sites, The Office of Brownfield Remediation and Development (OBRD, www.ctbrownfields.gov) provides a “one stop” state resource for information on the programs and services available for brownfield redevelopment in Connecticut. This office is located within the Department of Economic Development (www.ct.gov/ecd). The CT DEP is an essential partner and CT DEP’s Brownfields Coordinator works closely with OBRD.

In addition to the work of CT DEP’s Brownfields Coordinator, CT DEP remediation programs and standards are in place to help promote the cleanup and redevelopment of brownfields and other contaminated sites. When clean-up is necessary, the CT Remediation Standard Regulations (RSRs) establish clear cleanup standards which must be met to ensure the safe reuse of contaminated sites. The Voluntary Remediation Programs and Property Transfer Program provide mechanisms through which property owners can work with the state to assess environmental conditions at their properties and ensure that cleanups will meet state standards. In some cases, state funding may be available to assist with assessment and/or

Brownfields Remediation

remediation of brownfield sites. For example, the Urban Sites Remedial Action Program can provide state funding for cleanup of sites deemed to be significant to the economy of the state. The State also works to limit the liability of prospective purchasers through the use of Covenants Not to Sue.

To improve the efficiency of the brownfields clean-up program without compromising environmental protection, Connecticut established a licensing program that enables private licensed environmental professionals to oversee approved clean-up efforts. In specific circumstances, a site clean-up can be conducted under the supervision of a Licensed Environmental Professional (LEP). In these cases, the LEP must verify that a site investigation has been performed in accordance with prevailing standards and guidelines, and that pollution on the property has been remediated in accordance with both the Remediation Standard Regulations and any remedial action plan developed for the site and approved by the CT DEP. The LEP program has facilitated the clean up of numerous brownfields sites.

To encourage brownfields redevelopment by limiting liability from a state perspective, Connecticut has established two types of “Covenants Not To Sue” that are available to prospective purchasers of contaminated property, current owners of contaminated property, or lending institutions, to provide relief from liability for additional remediation once a property has been remediated to current standards. Entities responsible for causing the contamination are not eligible for a Covenant Not to Sue.

Potential CT DEP Permits, Registrations and/or Certifications

Covenants Not To Sue pursuant to CGS §22a-133aa are granted at the Commissioner’s discretion. The fee for this covenant is waived for municipalities.

Covenants pursuant to CGS §22a-133bb are non-transferable, less protective, and non-discretionary.

State law provides liability protection for “innocent landowners” as defined by CGS §22a-452e.

Financial Assistance

A state funding summary can be found at: <http://www.ctbrownfields.gov/>. Select “Funding & Assistance” at the top of the page.

In addition, USEPA administers competitive grants for brownfield investigations and remediation at <http://www.epa.gov/brownfields/>. USEPA grants can take longer to obtain, but grant money can be obtained for investigation and/or remediation. In addition, USEPA allows the grant funds to be used for grant administration purposes.

Model Regulations for Municipal Consideration

No.

Web Pages

www.ctbrownfields.gov/

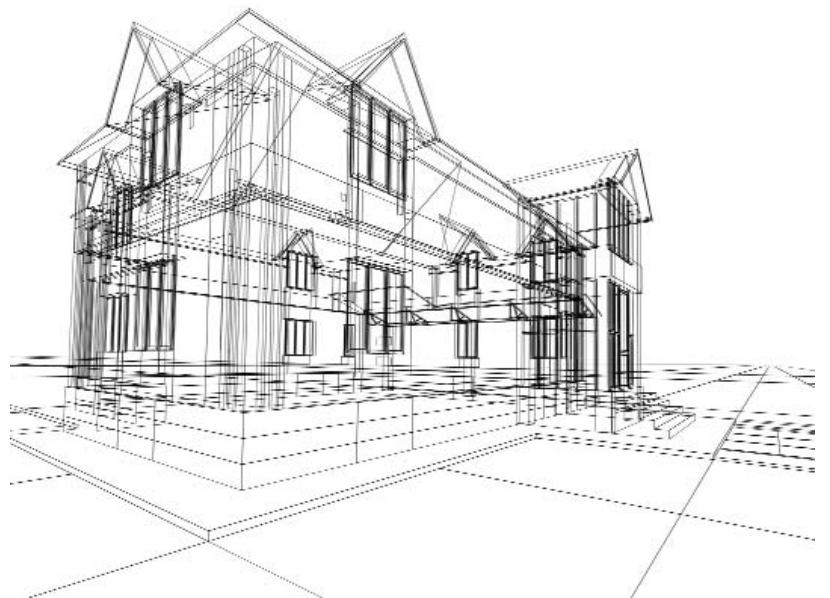
www.ct.gov/dep/remediation

Contact

Brownfields Coordinator
Bureau of Water Protection and Land Reuse
Remediation Division
Phone: 860-424-3705

Boards,
Commissions,
Agencies and
Committees

Development
Standards
Considerations



Environmentally Sensitive Land Use Practices

Description

Environmentally sensitive land use practices involve making land use and development decisions in a manner that is protective of environmental resources. Such practices need not impede, and in fact often support, responsible growth of municipalities.

Municipal Connection

By law and by custom, municipalities have primary responsibility for land use and development decisions in Connecticut. Each land use and development decision has the potential to directly or indirectly impact valuable environmental resources. Many of these impacts are incremental and cumulative in nature. Municipalities are encouraged to make land use and development decisions that are simultaneously protective of the environment and supportive of economic development.

Statutory Citations

Municipal Zoning: CGS Sections 8-1 through 8-13a;

Municipal Planning: CGS Sections 8-18 through 8-30f;

Coastal Management: CGS Sections 22a-90 through 22a-112; and

Inland Wetlands and Watercourses: CGS Sections 22a-37 through 22a-45a

Discussion

Planning

Land use decisions in Connecticut are made primarily at the local level based on the municipal plan of conservation and development (POCD) and local zoning, subdivision, and inland wetlands and watercourses regulations. Because these plans and regulations vary from town to town, the level of environmental protection may also vary. The CT DEP has compiled a list of recommendations to enhance protection of

sensitive resources. While neither mandatory nor exhaustive, the following suggestions are offered for consideration by local land use authorities:

- conduct a town-wide build-out analysis to understand how the community will change over time under the existing regulations. If the results are unsatisfactory, consider amending local zoning, subdivision and/or inland wetlands regulations to achieve a more acceptable build-out scenario;
- establish criteria to identify sewer service and sewer avoidance areas (see the fact sheet on *Wastewater Management Planning* under Wastewater Planning and Management) and honor these criteria;
- adopt a regulation or ordinance with specific requirements for regularly scheduled street sweeping and catch basin clean-outs to minimize the amount of sediment, contaminants, and floatable debris entering watercourses through the municipal stormwater management system (see the fact sheet on *Nonpoint Source Pollution Management* under Boards, Commissions, Agencies and Committees and the fact sheets on *Stormwater Management* and *Street and Road Management* under Public Works);
- consider establishing a means (e.g., transfer of development rights) to provide some financial equity between landowners whose property is identified for conservation/protection and those whose property is identified for development;
- consider concentrating development in urban, suburban and village centers;
- adopt a formal preference for infill, and brownfields clean-up and redevelopment over disturbing undeveloped “greenfields;”
- require all new development to incorporate “green building” techniques. A green building is one for which the indoor and outdoor (building and landscape setting) environmental qualities have been considered

Environmentally Sensitive Land Use Practices

and protected during its design, construction, maintenance and use;

- require all new development to include proper stormwater management incorporating low impact development practices (see the fact sheet on *Low Impact Development* under Boards, Commissions, Agencies and Committees). In redevelopment, require the retrofitting of existing stormwater systems with nonpoint source pollution controls;
- use a Geographic Information System (GIS) to map biologically and culturally important features in the community. Use this map (or maps) as a basis for identifying both areas to be developed or redeveloped and areas to be protected from development;
- reduce allowed development densities in environmentally or culturally sensitive areas, and within flood-prone areas;
- include in the local POCD an inventory of wetlands, floodplains, prime agricultural lands, unique habitats, and other areas sensitive to development, and their adjacent (buffer) areas for possible open space acquisition; and
- consider establishing or increasing protective vegetative buffers between development and sensitive resources, such as but not limited to: vernal pools, tidal wetlands, habitats for plant and animal species of greatest conservation need, and floodways. These buffers should be designed to protect resources from both direct development impacts and secondary impacts associated with stormwater runoff.

Land Reuse

One of the tenets of responsible growth and landscape stewardship is to reuse existing, under-utilized developed properties. These properties can be categorized as “brownfields” or “grayfields.” *Brownfields* are industrial or commercial sites that sit idle or underused because of real or perceived environmental

pollution (see fact sheet on *Brownfields Remediation* under Land Use Boards, Commissions, Agencies and Committees). *Greyfields* are generally vacant or under-utilized commercial or office developments where contamination is not an issue. In contrast, greenfields are properties that have only been minimally developed or not developed at all (think forests, farms and other unprotected open spaces).

Currently in Connecticut and elsewhere, market forces push development away from brown- and greyfields to greenfields because it is generally more immediately profitable to avoid the costs associated with either pollution clean-up or site razing by locating new development on greenfields. However, from a responsible growth and landscape stewardship perspective, greenfields should be the last places considered for development. Land reuse, the remediation of brownfields and redevelopment of both brown- and greyfields, has many benefits. It can:

- maximize the use and efficiency of existing infrastructure;
- alleviate some of the development pressures on greenfields;
- improve the economic viability of urban, suburban and village centers; and
- improve the quality of life for all Connecticut citizens.

Municipalities are encouraged to work towards increasing land reuse and decreasing the conversion of greenfields to other uses.

Although not a CT DEP program, Connecticut municipalities may find the resources of *ICLEI, Local Governments for Sustainability* helpful. ICLEI is an international association of local governments (and national and regional local government organizations) that offers member municipalities technical consulting, training and information services to build capacity, share knowledge and support local government in the implementation of

sustainable development at the local level.
Information about ICLEI is on-line at
www.iclei.org/

Potential CT DEP Permits, Registrations and/or Certifications

None specific to this program.

Financial Assistance

Financial assistance is not available at this time
(6/2008).

Model Regulations for Municipal Consideration

www.ct.gov/dep/landscapestewardship Select
“Tools for Towns and Cities” on the left
navigation bar and scroll down to “model
regulations.”

Web Pages

CT DEP

www.ct.gov/dep/landscapestewardship Select
“Tools for Towns and Cities” on the left
navigation bar.

ICLEI

www.iclei.org/

Contacts

Landscape Stewardship

Statewide:

Office of the Commissioner
Planning and Program Development
Landscape Stewardship Initiative
Phone: 860-424-3618

Coastal Municipalities:

Bureau of Water Protection and Land Reuse
Office of Long Island Sound Programs
Phone: 860-424-3034



Description

Low Impact Development (LID) is a land planning and engineering design approach that focuses on minimizing adverse impacts of development on water quality and quantity by mimicking what nature has been doing for ages. The basic approaches to LID include managing stormwater by infiltrating, filtering, storing, evaporating, and detaining stormwater runoff close to its source.

Municipal Connection

In Connecticut, land development is the number one cause of nonpoint source pollution (NPS), and nonpoint source pollution is the number one threat to water quality. How land is developed can also significantly impact stormwater flows and can exacerbate flooding. By law and by custom, municipalities have primary responsibility for land use and development decisions in Connecticut. Each of these decisions has the potential to impact valuable resources.

Many municipal boards, commissions, agencies and committees (e.g. planning and/or zoning, inland wetlands and watercourses, conservation, and aquifer protection) have responsibilities associated with land use that may coincide with CT DEP programs and authorities, such as stormwater management, sediment and erosion control, wetlands and watercourses protection, surface water quality, aquifer protection, public water supply, and open space preservation.

Municipal Responsibility

Municipalities have no specific responsibilities to implement LID principles; however, the CT DEP encourages the adoption of LID requirements into municipal land use regulations. The discharge of stormwater may require compliance with the requirements of one or more of the CT DEP stormwater general permits.

Statutory Citations

Municipal Zoning: CGS Sections 8-1 through 8-13a

Municipal Planning: CGS Sections 8-18 through 8-30f

Coastal Management: CGS Sections 22a-90 through 22a-112

Inland Wetlands and Watercourses: CGS Sections 22a-37 through 22a-45a

Discussion

Traditional stormwater management relies on collecting and quickly shunting stormwater to receiving waters, often through underground pipe systems, to alleviate flooding of streets and property. This stormwater management approach can result in impacts to the receiving waters including inadequate base flow, swings in temperature and alterations to hydrology. Many times the flooding problems are merely moved to somewhere further down the system and the natural hydrology and water quality are negatively affected. These physical impacts can have detrimental effects on ecosystems, even when water quality is not compromised. Recently there has been a paradigm shift from traditional “collection and conveyance” stormwater management techniques towards considering stormwater a local resource asset.

LID is a design strategy that supports the notion of stormwater as a local resource asset and has as its goal maintaining or replicating the predevelopment hydrologic regime. It is generally implemented on the site level through the use of design techniques that minimize both stormwater runoff and alteration of the natural ground. The hydrologic functions of storage, infiltration, and ground water recharge, as well as the volume and frequency of discharges, are controlled through the use of integrated stormwater best management practices (BMPs). In some instances, a single BMP is sufficient to maintain pre-development

Low Impact Development

hydrologic conditions; however, it is more often the case that a variety of sequential BMPs (i.e. a “treatment train”) are needed to adequately manage stormwater.

These multifunctional site designs incorporate alternative stormwater management practices. One such practice is the use of “functional landscaping” that acts as stormwater facilities. Functional landscape components might include flatter grades or stormwater storage in depressions and open drainage swales. Other strategies include the preservation or protection of environmentally sensitive site features, such as riparian buffers, wetlands, steep slopes, mature trees, flood plains, woodlands and highly permeable soils. LID measures are often more cost effective and require less maintenance than conventional, structural stormwater controls; however, not all sites are suitable for LID. Site suitability depends on such factors as soil permeability, depth to water table and slope. Although the use of LID on suitable sites may not completely replace the need for conventional stormwater controls, LID practices offer an additional benefit in that they can be integrated into infrastructure and are more cost effective and aesthetically pleasing than traditional, structural stormwater conveyance systems.

Basic LID principles are in many respects similar to those recommended for environmental and landscape stewardship (see fact sheet on *Environmental and Landscape Stewardship* under Boards, Commissions Agencies, and Committees). LID principles include:

- Design with the land by avoiding:
 - steep slopes;
 - significant blasting;
 - significant grading;
 - highly erodible soils;
 - prime agricultural soils; and

- unnecessary land disturbance (This avoids soil compaction, which reduces infiltration and often results in alteration of native vegetation. It can also decrease stormwater infiltration, pollutant attenuation, sediment trapping, shading that may offset thermal impacts, and any area of natural habitat.), and

- Minimize environmental impacts by encouraging “green” building practices including:
 - promote stormwater infiltration; and
 - encourage landscaping with native species.

Municipalities are encouraged to make land use and development decisions that are simultaneously protective of the environment and supportive of economic development. Municipal decisions about land use, and the design and management of municipal facilities (streets, roads, buildings, athletic fields, etc), especially stormwater management systems, impact the quality of our surface and ground waters. If NPS pollution is properly considered, mitigated and managed, these decisions can alleviate a major threat to water quality. LID can be integrated into the planners’ toolbox with major design goals of:

- identifying and preserving natural functions;
- maintaining natural hydrology;
- respecting abutter’s properties;
- maintaining local property values;
- sustaining groundwater supplies; and
- maintaining high water quality.

Potential CT DEP Permits, Registrations and/or Certifications

There are no CT DEP permits or certifications associated solely with Low Impact Development; however, the CT DEP has several general permits for stormwater management. These include:

General Permit for the Discharge of Stormwater Associated with Small Municipal Separate Storm Sewer Systems

General Permit for the Discharge of Stormwater Associated with Construction Activities

General Permit Associated with the Discharge of Stormwater from Commercial Activities

General Permit for the Discharge of Stormwater Associated with Industrial Activities

Financial Assistance

LID projects may be eligible for funding through the federal Clean Water Act Section 319 NPS Management program, which is administered by the CT DEP. Information is posted at www.ct.gov/dep/financialassistance, follow the link under “Water.”

Model Regulations for Municipal Consideration

Yes. See *2004 DEP Stormwater Quality Manual*, Appendix C at www.ct.gov/dep/stormwater.

See “Tools for Towns and Cities” link on the left navigation bar of the CT DEP Landscape Stewardship Web pages at: www.ct.gov/dep/landscapestewardship.

Web Pages

Low Impact Development
www.ct.gov/dep/landscapestewardship See “Tools for Towns and Cities” on the left navigation bar.

Stormwater
www.ct.gov/dep/stormwater

Contacts

Statewide NPS Program

Bureau of Water Protection and Land Reuse
Planning and Standards Division
Watershed Management/NPS/Lakes
Management Programs
Phone: 860-424-3020

Coastal Nonpoint Source Pollution Management Program

Bureau of Water Protection and Land Reuse
Office of Long Island Sound Programs
Phone: 860-424-3034

Stormwater Permitting

Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division
Stormwater Group
Phone: 860-424-3018

Landscape Stewardship

Office of the Commissioner
Planning and Program Development
Landscape Stewardship Coordinator
Phone: 860-424-3618



Boards, Commissions, Agencies and Committees

Resource Considerations



Description

There are many types of wetlands in Connecticut but from a regulatory standpoint, Connecticut recognizes two categories: inland wetlands and tidal wetlands.

Inland wetlands are defined by soil type and include poorly drained, very poorly drained, alluvial and floodplain soil types. Inland wetlands include watercourses, which are defined broadly to mean rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private. Inland wetlands may not always appear wet. By statutory definition, inland wetlands do not include tidal wetlands.

Tidal wetlands are flat, vegetated areas that are subject to flooding by the tides. They occur along the shores of Long Island and Fishers Island Sounds and tidal embayments and tidal rivers. The broad category of tidal wetlands includes salt marshes, brackish marshes and tidal freshwater marshes.

Municipal Responsibility

Municipalities directly regulate activities in or adjacent to inland wetlands and watercourses except for activities by state and federal agencies. The CT DEP regulates all activities in tidal wetlands; however, municipalities are responsible for ensuring that adjacent upland development does not harm these resource areas.

Statutory Citations

Inland Wetlands: CGS Sections 22a-36 through 22a-45a

Tidal Wetlands: CGS Sections 22a-28 through 22a-35a

Lakes Management Grants: CGS Sections 22a-339a through 22a-339h

Discussion

Wetlands and watercourses contribute to the quality of Connecticut's environment and to the well-being of its citizens. Wetlands are commonly referred to using familiar terms such as: marsh, swamp, salt meadow, bog, river, brook, pond or lake; however, Connecticut has very specific legal definitions for inland wetlands, which include most, but not all, freshwater habitats whether still water or flowing, and for tidal wetlands, which can be saline (salty), brackish or freshwater. These two wetland types are legally distinct and their regulatory requirements differ.

Inland Wetlands

Except for activities by state and federal agencies, activities in and near inland wetlands and watercourses are regulated by municipal inland wetlands commissions (IWWC). The CT DEP does not have the authority to hear, mediate, or negotiate appeals from local IWWC decisions; all such appeals must be filed in Superior Court.

The CT DEP provides training for municipal inland wetlands commissioners. Pursuant to the CGS Section 22a-42(d) at least one member of the inland wetlands agency or staff of the agency is required to complete the *Municipal Inland Wetland Commissioners Training Program*. The full course comprises three segments. Each municipality is provided a voucher allowing one person to attend the annual training program without cost. Additional municipal attendees may attend upon payment of a course fee. In addition, the CT DEP offers a DVD that covers the topics discussed in Segment I of the training course.

In addition to the value of inland wetlands as a whole, lakes and ponds enhance the landscape and are used extensively for swimming, fishing, boating, and other forms of recreation. Money spent on recreation is important to local and state economies, and the high property values of lakefront homes augment local tax revenues. These benefits deteriorate with a decline in lake water quality. Thus,

Water as a Natural Resource

caring for Connecticut lakes is important to the preservation of natural resources, stimulation of economic growth, and elevating the quality of life in the State.

Lakes and ponds are regulated under the statutes that control activities in and adjacent to inland wetlands. However, the CT DEP has a separate Lakes Management Program that supports the protection and restoration of ecological integrity and recreational value of Connecticut's lake and ponds. It should be noted that dredging of a lake, pond or basin requires prior authorization from the CT DEP in addition to any necessary local authorizations.

When present in small quantities, algae and other aquatic vegetation are beneficial to lakes and ponds. However, when these plants become overabundant, they can lower the recreational and aesthetic qualities in a body of water, and also alter some of the natural qualities such as fish community structure. The CT DEP offers a guidebook to the management of nuisance aquatic vegetation. The use of pesticides to control nuisance aquatic vegetation requires prior approval of CT DEP aquatic pesticide application permit.

Tidal Wetlands

Although activities within tidal wetlands are regulated exclusively by the CT DEP, cities and towns are responsible for ensuring that adjacent upland development does not harm these resource areas. The Connecticut Coastal Management Act contains policies and standards regarding tidal wetlands that must be applied during the municipal Coastal Site Plan Review (CSPR) process. In general, through the CSPR process local land use boards and commissions in coastal municipalities must ensure that development will not result in degradation of tidal wetlands, and that tidal wetlands are preserved, protected and, to the extent practicable, restored. The CT DEP has a tidal marsh restoration program to bring back marshes that have historically been degraded.

Minimizing Impacts to Surface Waters

There are several actions a municipality can take to minimize impacts to surface water resources (inland wetlands, tidal wetlands, lakes, ponds, streams, rivers, Long Island Sound). These include:

- updating the municipal Plan of Conservation and Development, adopting or updating a Municipal Coastal Program, if applicable, and revising local zoning and subdivision regulations to better protect surface water resources by planning for and requiring development setbacks and vegetated buffers from the upland edge of these resources. Buffers should be wide enough to protect the resource from stormwater runoff, erosion, construction, and other negative impacts that might result from development on the adjacent upland; and
- requiring that new development include low impact development techniques to manage stormwater. Low impact development techniques should be designed and implemented to minimize changes in runoff rates and volumes and to pre-treat runoff to remove grease, grit and other contaminants. For more information, see the fact sheet on *Low Impact Development* under Boards, Commissions, Agencies and Committees.

Potential CT DEP Permits, Registrations and/or Certifications

The CT DEP regulates activities in tidal wetlands and in coastal waters through the Coastal Permitting Program.

Dredging of inland lakes, ponds or basins is jointly regulated through both the municipal inland wetlands and watercourses programs as well as a general permit administered by CT DEP or an individual water diversion permit.

The CT DEP administers the Federal 401 Water Quality Certification Program in both inland and tidal areas of Connecticut.

The application of pesticides to control nuisance aquatic vegetation requires an aquatic pesticide application permit.

Municipalities are required to regulate activities in and adjacent to inland wetlands, water bodies, and watercourses, excluding tidal wetlands.

Financial Assistance

Inland Wetlands: no financial assistance is available at this time (6/2008).

Tidal wetlands: no financial assistance is available at this time (6/2008).

Lakes: funding is periodically available. Check on-line at: www.ct.gov/dep/financialassistance and select "Water."

Nuisance Aquatic Vegetation: no financial assistance is available at this time (6/2008).

Model Regulations for Municipal Consideration

Inland Wetlands

www.ct.gov/dep/wetlands Select "Inland Wetlands."

Tidal Wetlands

www.ct.gov/dep/wetlands Select "Tidal Wetlands," then select "Tidal Wetlands Buffers Guidance."

Web Pages

Inland Wetlands

www.ct.gov/dep/wetlands Select "Inland Wetlands."

Tidal Wetlands

www.ct.gov/dep/wetlands Select "Tidal Wetlands."

Lakes Management

www.ct.gov/dep/wetlands Select "Lakes and Ponds" on the left navigation bar.

Nuisance Aquatic Vegetation

www.ct.gov/dep/invasivespecies.

Contacts

Inland Wetlands and Watercourses

Bureau of Water Protection and Land Reuse
Inland Water Resources Division
Wetlands Management Section
Phone: 860-424-3019

Tidal Wetlands

Bureau of Water Protection and Land Reuse
Office of Long Island Sound Programs
Coastal Permitting Program
Phone: 860-424-3034

Lakes Program and Nuisance Aquatic Vegetation

Bureau of Water Protection and Land Reuse
Lakes Program
Phone: 860-424-3716

Aquatic Pesticide Application

Bureau of Materials Management and
Compliance Assurance
Engineering and Enforcement Division
Pesticide Program
Phone: 860-424-3369



Description

“Endangered species” means any native species documented by biological research and inventory to be in danger of extirpation throughout all or a significant portion of its range within the state and to have no more than five occurrences in the state, and any species determined to be an “endangered species” pursuant to the federal Endangered Species Act.

“Threatened species” means any native species documented by biological research and inventory to be likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range within the state and to have no more than nine occurrences in the state, and any species determined to be a “threatened species” pursuant to the federal Endangered Species Act, except for such species determined to be endangered by the Commissioner in accordance with section 4 of this Act.

“Species of special concern” means any native plant species or any native non-harvested wildlife species documented by scientific research and inventory to have a naturally restricted range or habitat in the state, to be at a low population level, to be in such high demand by man that its unregulated taking would be detrimental to the conservation of its population, or has been extirpated from the state.

Municipal Connection

Municipalities are encouraged to consult CT DEP’s Natural Diversity Data Base Endangered Species and Significant Natural Community Maps when engaged in conservation and development planning, and for CT DEP permit applications requiring preliminary endangered species review.

Municipal Responsibility

Individual municipalities are not required, but are strongly encouraged, to conserve state-listed plants, animals and their habitats.

Statutory Citation

CGS Sections 26-303 through 26-312

Discussion

The Connecticut Endangered Species Act (ESA), passed in 1989, recognizes the importance of our state’s plant and animal populations and the need to protect them from threats that could lead to their extinction. The overall goal of the legislation is to conserve, protect, restore and enhance any endangered or threatened species and their essential habitats. Species are listed according to their level of risk, and their status is reviewed every five years.

Potential CT DEP Permits, Registrations and/or Certifications

None specific to this program. The consideration of the presence and protection of threatened and endangered species may be a component of permits issued by the CT DEP.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Page

www.ct.gov/dep/endangeredspecies

Contact

Bureau of Natural Resources
Wildlife Division
Endangered Species Program
Phone: 860-424-3011



Public Works



Pictured —
Road Maintenance,
Farmington, Connecticut

Includes: Waste Materials Management, Infrastructure and Property Management

The authorities and responsibilities of local public works officials vary from municipality to municipality; however, they typically include overseeing and maintaining municipal facilities and infrastructure and providing certain public services. Depending upon the municipal structure, these duties may include oversight of the operation and management of: municipal buildings; facilities for managing solid and other wastes (landfill or transfer station); streets and roads; stormwater and flood control components; the municipal vehicle fleet; municipal parks and grounds; and/or urban forests, including street trees.

Municipal public works officials also often provide a number of public services including waste and recycling collection, street sweeping and cleaning, leaf collection and clean up of vacant properties. In virtually all these efforts, there is a link between actions of the local public works officials and the responsibilities and authorities of the CT DEP. To aid in coordination between municipal public works officials and the CT DEP, this section of *The Municipal Primer* includes fact sheets on the following topics:

- *CT DEP Permitting Overview for Public Works Officials*

Waste Materials Management

- *Municipal Solid Waste Management*
- *Disaster Debris Management Planning*
- *Recycling*
- *Composting and Organics Recycling*
- *Brush, Stump and Untreated Wood Waste Management*
- *Hazardous and Universal Wastes*

Stormwater

- *Stormwater Management*
- *Small Municipal Separate Storm Sewer Systems (MS4) Stormwater Program*
- *Planning for a Flood and Other Natural Hazards*

Municipal Facilities

- *Dams*
- *Dredging*
- *Fleet Selection and Operation*
- *Mobile Air Emission Sources*
- *Indoor and Outdoor Lighting and Appliances*
- *Landscape and Lawn Care*
- *Renovation, Demolition and Construction*
- *Streets and Road Management*
- *Underground Storage Tank Systems*



Public Works

Municipal wastewater collection and treatment facilities, parks and recreation, board of education facilities, and public safety issues are discussed under other sections of *The Municipal Primer*. In some instances, these activities may be related to the municipal public works responsibilities. Other related fact sheets in *The Municipal Primer* are:

Nonpoint Source Pollution Management (Boards, Commissions, Agencies and Committees)

Aquifer Protection Area Program (Boards, Commissions, Agencies and Committees)

Low Impact Development (Boards, Commissions, Agencies and Committees)

Potable Water Program (Public Health)



CT DEP Permitting Overview for Public Works Officials

Description

The CT DEP administers many different permitting programs, each of which protects the state's resources by regulating the emission of pollutants, facility operations, or land-use activities. The CT DEP also administers many recreational and natural resource licenses that regulate boating, fishing, activities in state parks and activities affecting wildlife. Professional and occupational licenses in the environmental field, such as commercial arborist, solid waste facility operator, Licensed Environmental Professional (LEP), commercial fishermen, forest practitioner and taxidermist are also administered by the CT DEP.

Municipal Connection

Many routine, day-to-day operations of municipalities are subject to CT DEP permitting and/or licensing requirements.

Municipal Responsibility

Municipalities are responsible for acquiring any necessary CT DEP authorizations prior to the conduct of any CT DEP-regulated activities.

Statutory Citation

Various

Discussion

It is the policy of the State of Connecticut "to conserve, improve and protect its natural resources and environment and to control air, land and water pollution in order to enhance the health, safety and welfare of the people of the state" (CGS Section 22a-1). The CT DEP carries out this policy by regulating activities that may impact these natural resources and the environment. Activities may be regulated through the issuance of individual permits, general permits or other short authorization processes.

Individual Permits

Individual permits are issued directly to an applicant for specific activities, generally at a specific site(s). Individual permits are written to control a proposed activity in a manner that is protective of the environment. Therefore, if a municipal activity might in some way impact the environment or the state's natural resources, the municipality will likely need to apply for and obtain a permit. In the event of a complex project, several permits may be required.

General Permits

General permits are used to authorize a group of similar activities by one or more registrants throughout a prescribed geographic area. General permits also streamline the permitting process and are cost-effective for both the CT DEP and the registrant. A general permit establishes mandatory operating conditions for conducting an activity using procedures that protect human health and the environment. Authorization of an activity under a general permit is governed by the specific conditions and requirements of that general permit. A list of activities authorized by general permits can be found in the *User's Guide to Environmental Permitting* (See the Web site information, below.)

There are three basic types of general permits or ways of authorizing activities using a general permit:

- 1) an activity described in a general permit may be initiated without prior registration (some of these permits may require later registration);
- 2) registration is required prior to initiation of the activity (this registration frequently requires certification of a professional engineer); or
- 3) CT DEP approval is required prior to initiation of the activity (in some cases, this approval will contain site-specific conditions in addition to those already contained in the general permit).

CT DEP Permitting Overview for Public Works Officials

The applicable method of authorization is specified in each general permit. In almost every case of an eligible minor activity, general permits are quicker and more cost-effective for both the Department and the applicant.

Other Short Permit Processes

Certain activities can be authorized through shortened permit processes. These abbreviated processes include emergency and temporary authorizations and Certificates of Permission (COP). The *Short Permit Process Fact Sheet* found in the *User's Guide* provides information on these authorizations.

User's Guide to Environmental Permitting

The "*User's Guide to Environmental Permitting*" is posted on the CT DEP Web site to aid prospective permittees in identifying specific permits needed for a given activity. In the event of a complex project, multiple permits may be required. Questions regarding the need for a permit should be directed to the appropriate program staff, or the Department's Permit Assistance Office.

Refer to the permit guide chapter of *The Municipal Primer* for a more comprehensive description of CT DEP permits and licenses, and information on the permit process.

Potential CT DEP Permits, Registrations and/or Certifications

For information on permits and licenses that may apply to specific municipal activities, Refer to the *Municipal Activity / CT DEP Permit Matrix* in the Permit Guide chapter of *The Municipal Primer*.

Financial Assistance

Permit application fees are typically 50 percent of the fees that private individuals would pay for the same activity. Other financial assistance for regulated projects may be available depending upon the specifics on an individual project. See *Grants and Financial Assistance* Web page: www.ct.gov/dep/financialassistance.

Model Regulations for Municipal Consideration

No.

Web Pages

CT DEP Main Permitting Web Page
www.ct.gov/dep/permits&licenses

General Permit List
www.ct.gov/dep/permitguide Select "List of General Permits"

Users Guide to Environmental Permitting
www.ct.gov/dep/permitguide

Grants and Financial Assistance
www.ct.gov/dep/financialassistance

Contact

Office of the Commissioner
Planning and Programming Development
Permit Assistance Office
Phone: 860-424-3003



Public Works

Waste
Materials
Planning and
Management



Description

Municipal solid waste (MSW) is defined as material thrown away from homes and commercial establishments (commonly called rubbish, trash, refuse, or garbage).

Municipal Connection

Municipalities or municipal authorities in Connecticut are required by law to provide for the safe and sanitary disposal of all solid waste generated within their boundaries.

Municipalities must also make provisions for recycling of mandated items. There are specific waste management and disposal issues raised by both typical municipal operations and by materials brought to a municipal waste disposal facility (transfer facility or landfill) that cities and towns must address.

Municipalities or municipal authorities in Connecticut have specific responsibilities related to managing solid waste and recyclables generated within their boundaries (including those related to municipal ownership or operation of solid waste facilities such as transfer stations, composting sites, and landfills).

Municipal Responsibility

Municipalities or municipal authorities in Connecticut are required by law to provide for the safe and sanitary disposal of all solid waste generated within their boundaries.

Municipalities must also make provisions for recycling of the state-mandated recyclables (see fact sheet on *Recycling* under Public Works).

Statutory Citation

CGS Sections 22a-207 through 22a-256ee

Discussion

There are many different items that, together, constitute municipal solid waste. According to the US EPA 2006 national figures, the major MSW material types generated nationwide in

the US (by weight) were:

- paper and paperboard products (34 percent)
- yard trimmings and food scraps (25 percent)
- plastics (12 percent)
- metals (8 percent)
- rubber, leather, and textiles (7 percent)
- wood (6 percent)
- glass (5 percent)
- other miscellaneous wastes (3 percent)

Waste streams can exhibit variability community by community depending upon demographics and can vary seasonally as well.

Municipal Role

Under the Connecticut state law, the management and disposal of solid waste is the responsibility of individual municipalities. MSW management involves a variety of activities related to solid waste disposal or processing activities (storage, transfer, volume reduction, recycling, incineration, etc.); however, most final disposal of MSW currently occurs at resource recovery (waste-to-energy) plants. Few Connecticut municipalities have active landfills or resource recovery plants, but rather cities and towns generally operate solid waste transfer stations where waste is collected and transferred to an appropriate disposal, reuse, or recycling location.

Most Connecticut cities and towns have historically been members of regional solid waste and recycling authorities or committees to facilitate their solid waste management responsibilities. Municipalities are encouraged to

- continue to play an active role in the proper and efficient management of solid waste in their communities;
- expand their source reduction and recycling efforts;

Municipal Solid Waste Management

- increase enforcement of local recycling ordinances;
- enact or amend ordinances to reflect new state programs; and
- change purchasing practices to create less waste and purchase environmentally preferred products (see fact sheet on *Purchasing Practices* under Financial Assistance)

CT DEP Role

The CT DEP has responsibilities and authorities related to planning for solid waste management and permitting solid waste facilities. The Department offers a wide range of technical information regarding solid waste management and disposal online at www.ct.gov/dep/solidwaste.

Planning – In December 2006, the CT DEP adopted an updated *Solid Waste Management Plan* which advocates a long-range vision for solid waste management that includes: 1) increasing source reduction, reuse, and recycling and shifting away from a “throwaway society” toward a society that recognizes and manages solid wastes as valuable raw materials; and 2) managing solid waste requiring disposal in an efficient, equitable, and environmentally protective manner, consistent with the state statutory solid waste hierarchy presented in the *Solid Waste Management Plan* (see page 13 of this plan).

The CT DEP State Solid Waste Management Advisory Committee was established to help guide the implementation of the Plan, identify emerging issues and solutions, and participate in any revisions to the Plan as necessary. This advisory committee is open to all and can be joined at any time by subscribing to the CT DEP SW Advisory Committee list serve. A link to the subscribing page can be found by selecting “Solid Waste Plan” at www.ct.gov/dep/solidwaste.

Solid Waste Facility Permitting – Historically, municipalities were required to obtain:

- individual solid waste permits for the construction and operation of their solid waste landfills, transfer stations, and other solid waste facilities;
- recycling general permits for specific types of recycling facilities; and
- registrations for their leaf composting sites.

In January 2008 the Department adopted the *General Permit for a Municipal Transfer Station* for solid waste and recyclables. Any municipality seeking to construct and/or operate a municipal transfer station that can comply with the General Permit requirements can file to register a facility. This General Permit applies to municipal transfer stations that process less than 120 tons per day and provide only limited processing of certain wastes. Please see the General Permit for additional information. Facilities currently operating under an individual permit for a solid waste facility or under a recycling general permit may be eligible for this General Permit. This General Permit is not applicable to landfills. More information can be found on-line or in the Permit Guide chapter of *The Municipal Primer*.

Solid Waste Facility Operator Certification – Operators of landfills, transfer stations, volume reduction facilities, resources recovery facilities and material resource recovery facilities in Connecticut must be certified through the CT DEP. For more information check on-line at www.ct.gov/dep/solidwaste and follow the link for “Solid Waste Operator Certification” or look in the Permit Guide chapter of *The Municipal Primer* under “Professional and Occupational Licensing.”

Role of the Connecticut Resources Recovery Authority – Approximately two-thirds of Connecticut’s municipalities contract with the Connecticut Resources Recovery Authority (CRRA), a quasi-public agency, for their

municipal solid waste management needs. The CRRA was established to serve the interests of its municipal customers and is a critical player in MSW management in Connecticut. See Section 5.2.5 of the December 2006 *CT State Solid Waste Management Plan* for a more detailed discussion of the role of CRRA.

Potential CT DEP Permits, Registrations and/or Certifications

Individual Permit for a Solid Waste Facility

General Permit for a Municipal Transfer Station

Solid Waste Facility Operator Certificate.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No

Web Page

www.ct.gov/dep/solidwaste

Contact

Bureau of Materials Management and Compliance Assurance
Engineering and Enforcement Division
Phone: 860-424-3366



Description

Disaster Debris Management Planning is preparing for the management of debris generated by natural disasters before such a disaster strikes.

Municipal Connection

Local governments will be the first to respond to a natural disaster situation making it prudent for municipalities to plan for effective debris removal.

Municipal Responsibility

Each municipality is responsible for coordinating the clearance, removal, storage and disposal of all debris deposited on or moved to municipal properties within their boundaries and jurisdictions. Though not mandated, it is recommended by both federal and state emergency response programs that local governments develop a comprehensive Disaster Debris Management Plan to be better prepared to manage disaster debris and to qualify for the financial incentives offered under the Federal Emergency Management Agency (FEMA) Pilot Program (see FEMA 325 Debris Management Guide, July 2007, for more details).

Statutory Citation

Not applicable.

Discussion

There is a high probability that the State of Connecticut will be affected by a natural disaster such as a hurricane, a nor'easter, ice storm and/or flood event. Recognizing that it is critical to return municipalities back to normal for economic and quality-of-life reasons, the goal and role of the state is to facilitate prompt and efficient recovery. Implementing emergency waste management practices that are reasonable and cost effective and, at the same time, protective of human health and the environment is an essential component of any post-disaster recovery effort. Without advanced

planning, it will be impossible to efficiently respond to a natural disaster.

To facilitate the management of disaster debris the CT DEP prepared the *State of Connecticut's Disaster Debris Management Plan* (DDMP), an addendum to the State's Natural Hazard Mitigation Plan. The DDMP establishes the framework for state agencies and municipalities to properly manage debris generated by a natural disaster. Additional pre-event planning by municipalities will ensure prompt recovery.

The effectiveness of all activities associated with massive debris clearance, removal, and disposal activities depends upon pre-event preparation and planning and efficient operations. Typical activities that should be considered in a disaster debris management plan include, but are not limited to

- identifying sources of staff, equipment, and funds to devote to debris removal;
- having contracts in place for debris removal and for monitoring those involved in that removal;
- identifying staging areas for the storage, handling and reduction of debris ("Temporary Debris Storage and Reduction Sites," TDSRS); and
- consideration of how to phase clean-up activities.

Such activities will rely on debris disposal strategies and policies developed by the CT DEP and, if necessary, will be implemented under the Governor's emergency powers. The CT DEP will provide municipalities with the necessary technical assistance and oversight to assure proper debris management, recycling and disposal. In the event of a catastrophic natural disaster, if the municipalities cannot effectively manage debris removal or are overwhelmed by the magnitude of the task, the State will respond to requests for assistance.

Disaster Debris Management Planning

A critical step in the planning process is the identification and preparation of TDSRS prior to a natural disaster event. Debris management guidance from FEMA strongly recommends that both state and local governments be responsible for pre-identifying TDSRS, preferably on public property. This will allow post-disaster cleanup efforts to begin quickly and efficiently. Municipalities are required to obtain CT DEP permits for the TDSRSs.

Planning ahead by thinking through the various steps of the municipal response efforts (and how to appropriately document them for FEMA reimbursement) is key to minimizing confusion, maximizing organizational efficiency, implementing an appropriate response, and receiving a timely reimbursement. Guidance material explaining the planning process is available on CT DEP's Web site, as well as the FEMA Web site, <http://www.fema.gov/government/grant/pa/policy>.

Municipalities are encouraged to contact the CT DEP and the CT Department of Emergency Management and Homeland Security (860-256-0800 or toll free 1-800-397-8876) to request assistance with the local planning process.

Potential CT DEP Permits, Registrations and/or Certifications

CT DEP permitting programs apply to the location of Temporary Debris Storage and Reduction Sites. Implementation of the local plan may require other state and local permits.

Financial Assistance

Financial assistance for planning is not available at this time (6/2008).

Model Regulations for Municipal Consideration

None

Web Page

www.ct.gov/dep/solidwaste Follow the link for "Disaster Debris Management Preparedness."

Contact

Bureau of Materials Management and Compliance Assurance
Division of Enforcement and Engineering
Solid Waste Enforcement Program
Phone: 860-424-3130



Description

Recycling is the separation or diversion of an item or items from the solid waste stream and the processing of those items into a material product. Recycling includes the production of compost.

Municipal Connection

Connecticut has designated several items as “recyclables.” Connecticut’s recycling laws require separation of state-designated recyclables by everyone who generates them. State laws include requirements for municipalities to have a mandatory recycling ordinance, to identify a municipal recycling contact, and to make provision for recycling of designated recyclables generated within town borders. Connecticut law also prohibits haulers from knowingly mixing separated (mandated) recyclables with other solid waste.

Municipal Responsibility

Each municipality is required to:

- make provision for the separation, collection, processing and marketing of designated recyclables generated within its borders;
- have a mandatory recycling ordinance;
- identify a municipal recycling contact; and
- make provision for recycling of designated recyclables generated within town borders.

Also, municipal actions with respect to solid waste and recyclables must be consistent with the current *Connecticut Solid Waste Management Plan* (adopted in 1991 and amended in 2006).

Statutory Citations

Various. See Web pages.

Discussion

The benefits of recycling include conservation of natural resources; reduction in the emission of air and water pollutants; reduction in energy and water use; reduction in greenhouse gas emissions; and reduction in the amount of solid waste requiring disposal, thereby reducing disposal capacity needs and waste disposal costs. Recycling also helps the economy through job creation, business development, and added product value.

The state’s designated list of recyclables includes the following items:

- corrugated cardboard;
- glass and metal food and beverage containers;
- newspaper;
- high-grade, white office paper (required for non-residential only);
- scrap metal;
- lead acid storage batteries;
- used crankcase oil from engines;
- nickel cadmium rechargeable batteries;
- leaves; and
- grass clippings (which are prohibited from other disposal options).

The enforcement of the state’s recycling laws is a joint effort shared by municipalities, haulers, disposal facilities and the CT DEP.

Municipalities

Each municipality is required to make provisions for the separation, collection, processing, and marketing of designated recyclables generated within their boundaries. CGS Section 22a-220 mandates a minimum goal for municipalities to recycle and/or source reduce their waste by 40%, a goal that has been superseded by the most recent *State Solid Waste Management Plan* (see below).

Recycling

Municipalities are also statutorily required to adopt a recycling ordinance, designate a municipal recycling contact, and submit an annual recycling report to the CT DEP.

The *State Solid Waste Management Plan*, amended December 2006, increases the recycling/source reduction goal for municipalities to 58%. To achieve this goal, the plan recommends municipalities increase the amount of waste diverted through source reduction, reuse, recycling and composting. The plan also calls for municipalities to enforce their local recycling ordinances and explore strategies to increase recycling rates.

The CT DEP is authorized to issue orders against any city or town not in compliance with these requirements. Municipalities have statutory authority to establish fines for violations of their recycling ordinances and should both enforce local recycling ordinances and explore strategies to increase recycling rates.

Generators

By statute, all generators of solid waste, including residents, businesses, institutions, and government must separate or provide for separation of designated recyclables.

Haulers

Waste haulers are subject to several recycling requirements. Examples include registration in the municipalities in which they operate and helping municipalities enforce local recycling ordinances. Haulers are prohibited from knowingly mixing solid waste with separated recyclables. Haulers are subject to a civil penalty up to \$2,500 for each violation and up to \$10,000 for a subsequent violation of this prohibition (CGS Section 22a-220a(f)).

Solid Waste Facilities

An owner or operator of a resources recovery facility or other solid waste transfer or disposal facility who observes significant quantities of designated recyclables in the loads received at their facility is required by statute to provide prompt notification to the driver of the vehicle delivering the load and to the recycling contact of the municipality from which the load originated. The owner or operator of each such facility is also required to conduct periodic, unannounced inspections of loads delivered to these types of solid waste facilities to assist municipalities and the Commissioner of the CT DEP in accurately assessing compliance with recycling requirements. Such owners or operators are also required to conduct additional inspections upon the request of the Commissioner of the CT DEP. Facility owners or operators of resource recovery facilities and landfills who fail to comply with the requirements are subject to civil penalties of \$500 to \$5,000 for each violation.

CT DEP

The CT DEP has statutory and regulatory authorities to enforce state recycling statutes and regulations. The CT DEP can seek penalties and may issue an order or take legal action under the solid waste statutes. The CT DEP undertakes site investigations of all solid waste facilities and responds to complaints.



Potential CT DEP Permits, Registrations and/or Certifications

Construction and Operation of a Solid Waste Facility

General Permit to Construct and Operate Certain Recycling Facilities

General Permit for a Municipal Transfer Station

General Permit for the Addition of Grass Clippings at Registered Leaf Composting Facilities

Leaf Composting Registration

Material Resources Recovery Facilities Operator Certification.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Pages

General recycling information

www.ct.gov/dep Select “Recycling” under “Programs and Services” at the top of the page.

State Solid Waste Management Plan (amended 2006)

www.ct.gov/dep Select “Publications” at the top of the page, then select “Planning Documents” and select “State Solid Waste Management Plan.”

Laws and regulations governing recycling

www.ct.gov/dep/recycle Select “General Information” on the left navigation bar, then select “Recycling Laws and Regulations.”

Contact

Bureau of Materials Management and Compliance Assurance
Recycling Program
Phone: 860-424-3365



Description

Composting is a biological process during which naturally occurring microorganisms, bacteria and insects break down organic materials such as leaves, grass clippings and food scraps into a soil-like product called compost.

Municipal Connection

Municipalities are responsible for managing the wastes generated within their boundaries. Leaves are a part of the municipal solid waste stream and are a designated recyclable item. Under the state's latest *Solid Waste Management Plan*, the goal for waste reduction has been increased to 58%. Removing compostable organic materials from the waste stream through a municipal composting project will help achieve this goal and will provide valuable compost for municipal landscaping needs.

Municipal Responsibility

Municipalities are required to recycle leaves, a designated recyclable, and are encouraged to recycle other organic materials as a means to minimizing the amount of solid waste that otherwise must be disposed of.

Statutory Citations

CGS Section 22a-220(f) and CGS Section 22a-229(a)

Discussion

Organic materials that are kept separate from the trash are easily recycled and should be thought of as a resource, not a waste. Significant increases in recycling rates can be achieved through composting and other organics recycling efforts. The CT DEP has successfully focused efforts on establishing large-scale leaf-composting facilities; promoting home composting and grasscycling; and sponsoring pilot programs to compost organics at CT DEP headquarters, schools and other institutions, including a bi-town pilot

project in southeast Connecticut. These programs help keep food scraps, yard trimmings and grass out of the waste stream, reduce waste handling and disposal costs, return valuable nutrients to the soil, and reduce the need for chemical fertilizers, thereby decreasing non-point source pollution.

Approximately 60 municipalities operate leaf-composting facilities, and several elementary schools have composting programs. The City of Middletown is establishing a vermi-composting (composting with worms) project for local and institutional generators.

The CT DEP has developed a manual on composting for schools to help municipalities address these important issues. The information contained in the manual may also be useful to other large municipal institutions with high levels of organic waste.

Potential CT DEP Permits, Registrations and/or Certifications

The need for a CT DEP permit varies depending upon the specifics of the project.

Municipal permits may be required.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Page

www.ct.gov/dep/recycle Select "Composting" under "Featured Links" on the right side.

Contact

Bureau of Materials Management and
Compliance Assurance
Recycling Program
Phone: 860-424-3365

Brush, Stump and Untreated Wood Waste Management

Description

“Brush” is defined in the recycling general permit as “tree stumps and cut or broken branches and shrubs.”

“Untreated wood,” as defined in the recycling general permit, is “wood to which no adhesives, paints, stains, fire retardants, pesticides, or preservatives have been applied.”

Municipal Connection

Municipalities generate brush and untreated wood as part of their day-to-day operations.

Municipal Responsibility

Brush, stumps and untreated wood are part of the municipal solid waste stream. Each municipality is required make provisions for the disposal of solid waste generated within its borders.

Statutory Citation

CGS Section 22a-220(a)

Discussion

Storm events, landscape maintenance, and the clearing of land for development are a sampling of the activities that generate untreated organic materials (e.g., brush and stumps). CT DEP promotes the chipping and reuse of source-separated clean wood as an efficient use of natural resources, reducing disposal needs at landfills and resource recovery facilities. Chipped land-clearing debris can be used in landscaping applications, as compost bulking agents and soil amendments, and in temporary land stabilization projects done in a manner that poses no threat to surface or ground waters of the state.

CT DEP cautions that only untreated wood is suitable for such reuse. Treated wood such as plywood, furniture, wood waste from construction, renovation and demolition, pressure treated timber, painted or stained wood, or any other surface-treated wood

should not be chipped and reused directly on land, or used as a compost-bulking agent. Treated wood should only be disposed of at permitted solid waste facilities.

To facilitate the chipping of untreated wood for reuse, CT DEP has developed a recycling general permit that allows certain recycling facilities to process brush and untreated wood. Under this permit, a registered facility can store up to 2,500 cubic yards of unprocessed clean wood and no more than 1,000 cubic yards of processed clean wood.

Wood processing requires large, specialized equipment. There are businesses that have invested in this equipment to provide chipping and grinding services to developers, municipalities, state agencies, and homeowners. For information on brush and stump grinding facilities and services, see the *Brush and Stump Fact Sheet* at www.ct.gov/dep/recycle (Follow the “Information for Municipalities” link on the left navigation bar). Or visit the CT Department of Administrative Services (www.das.state.ct.us) state contract for grinding services, or check your local Yellow Pages.

Potential CT DEP Permits, Registrations and/or Certifications

General Permit to Construct and Operate Certain Recycling Facilities.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Page

www.ct.gov/dep/recycle Select “Information for Municipalities and State Agencies” on the left navigation bar then select the link to “Brush and Stump Management.”

Brush, Stump and Untreated Wood Waste Management

Contact

Bureau of Materials Management and
Compliance Assurance
Waste Engineering and Enforcement Division
Phone: 860-424-3366



Descriptions

Hazardous waste is waste that is dangerous or potentially harmful to human health or the environment. Hazardous wastes can be liquids, solids, contained gases, or sludges (e.g. vehicle fluids, fluorescent lamps, pesticides, etc.).

Certain hazardous wastes can be classified as “universal waste” which includes the following:

- batteries;
- pesticides;
- thermostats;
- lamps; and
- used electronics.

Universal wastes are:

- generated in a wide variety of settings other than the industrial settings usually associated with hazardous wastes;
- generated by a vast community (typically greater than 1,000 sources); and
- may be present in significant volumes in non-hazardous waste management systems.

Municipal Connection

Municipalities generate hazardous and universal wastes during normal operational activities. Among municipal facilities, public works departments are typically the main generators and managers of hazardous waste. Many municipal facilities generate some amount of universal waste.

Municipalities that collect household hazardous waste and/or universal waste must properly manage the collection and disposal of these waste materials.

Municipal Responsibility

Municipalities must properly handle and store the hazardous and/or universal waste they generate until it can be transported for proper

disposal. For hazardous waste, a permitted hazardous waste hauler must be hired to manifest and transport the waste to a licensed RCRA treatment, storage or disposal facility. Municipalities that collect household hazardous waste must obtain the proper CT DEP permit and safely manage its collection and disposal according to the permit. Universal waste must be stored, transported and disposed of in accordance with the “Universal Waste Rule.”

Statutory Citations

Hazardous Waste: CGS Sections 22a-114 to 22a-134z

Universal Waste: Section 22a-449(c)-113 of the Regulations of Connecticut State Agencies (RCSA),

Discussion

Hazardous waste is a waste that is dangerous or potentially harmful to human health or the environment. It can be the by-product of a manufacturing process or simply a discarded commercial product, like cleaning fluid or pesticide.

In Connecticut, hazardous waste is regulated under the state’s Hazardous Waste Management Regulations, which are often referred to as “RCRA” (pronounced reck’ra), after the federal Resource Recovery and Conservation Act. Basically, the regulations define two types of RCRA hazardous waste: “listed wastes,” which are those specifically listed in the regulations; and “characteristic wastes,” which are those that are ignitable, corrosive, reactive, or toxic.

Universal wastes may be present in significant volumes in non-hazardous waste management systems. Because contaminants are present in the items identified as universal wastes, they require special handling for disposal. The CT DEP subscribes to the U.S. EPA’s “Universal Waste Rule,” which governs the handling and disposal of these waste materials. The primary

Hazardous and Universal Wastes

goal for the universal waste program is to encourage recycling. However, batteries, thermostats, pesticides, lamps and used electronics being sent for disposal may also be managed under the universal waste rule. In addition to defining universal waste, this rule establishes requirements that include: how long universal waste can be stored, the labeling and marking of containers, storage area standards, shipping, tracking, and employee training. For more information, see the “Universal Waste” link on the drop down list at www.ct.gov/dep/waste.

Most municipal facilities, including public works garages, parks facilities, schools and offices, generate RCRA hazardous waste and/or universal waste during normal operations. Municipalities that collect hazardous and/or universal wastes from households must manage them appropriately. Common RCRA and universal wastes generated by municipalities and households include: vehicle fluids, contaminated absorbents, paint, cleaning fluids, aerosol cans, batteries, fluorescent lamps, pesticides, laboratory waste and pool chemicals.

Potential CT DEP Permits, Registrations and/or Certifications

Hazardous Waste:

Hazardous Waste Land Disposal Facility Permit

Hazardous Waste Generator Notification (“EPA ID Number”) or a solid waste permit that has provisions for managing household hazardous waste (i.e. General Permit for the One Day Collection of Household Hazardous Waste and Certain Generators, General Permit for a Municipal Transfer Station, or an individual solid waste transfer station permit)

Universal Waste:

Universal Waste Rule

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Page

www.ct.gov/dep Under “Programs and Services” at the top of the page, select “Hazardous Waste” or “Universal Waste.”

Contacts

Hazardous Waste

Bureau of Materials Management and Compliance Assurance
Waste Engineering and Enforcement Division
Hazardous Waste
Phone: 860-424-3023

Universal Waste

Bureau of Materials Management and Compliance Assurance
Waste Engineering and Enforcement Division
Compliance Assistance
Phone: 1-888-424-4193 (toll free)



Public Works

Stormwater
Planning and
Management



Description

Stormwater is water resulting from rain or snowmelt that runs off surfaces such as rooftops, paved streets, highways and parking lots. The water eventually flows directly into a local stream, river, lake, or Long Island Sound; or it may be diverted into a storm drain and continue through storm pipes until it is released into a local body of water.

Municipal Connection

Municipal decisions about land use and the design and management of municipal facilities (streets, roads, buildings, athletic fields, etc), especially stormwater management systems, impact the quality and quantity of surface and ground waters. If stormwater is properly considered, mitigated and managed, these decisions can alleviate a major threat to water resources.

Municipal Responsibility

One hundred and thirteen Connecticut municipalities are subject to the Stormwater from Small Municipal Separate Storm Sewer Systems General Permit and the specific requirements it contains (also see the fact sheet on *Small Municipal Separate Storm Sewer Systems (MS4)* under Public Works). Non-participating municipalities are encouraged to amend their operations and management plans for municipal facilities and their zoning regulations to incorporate stormwater best management practices.

Some municipal activities may require other stormwater general permits for construction or operation.

Statutory Citation

CGS Section 22a-430b

Discussion

The CT DEP Role

The U.S. Environmental Protection Agency (EPA) has mandated a number of permit

programs to deal with stormwater pollution. In Connecticut, these programs are administered by the CT DEP. Not all of them apply to municipal activities, but municipal officials should be aware of them and ensure they meet all pertinent requirements.

- The General Permit for the Discharge of Stormwater Associated with Industrial Activities (Industrial General Permit) requires industrial facilities to cover or remove materials whose exposure to precipitation could produce polluted stormwater. Certain municipal activities, such as the public works or highway garage and municipal landfill or transfer station, require industrial general permits.
- The General Permit for the Discharge of Stormwater Associated with Construction Activities (Construction General Permit) requires developers and builders to implement stormwater management plans and practices that will prevent the movement of soil and sediments off construction sites and into nearby streams and water bodies. Municipal construction activities could require construction general permits depending on the area of disturbance.
- The General Permit Associated with the Discharge of Stormwater from Commercial Activities (Commercial General Permit) requires operators of commercial sites with large paved areas, such as malls, movie theaters, and supermarkets, to undertake actions such as parking lot sweeping and catch basin cleaning to keep stormwater clean before it reaches water bodies.
- The General Permit for the Discharge of Stormwater Associated with Small Municipal Separate Storm Sewer Systems (MS4 General Permit), only recently implemented in Connecticut, requires each affected municipality to take steps to keep the stormwater entering its storm sewer systems clean so that contaminated stormwater is not discharged to the receiving waters. One important element of this permit

Stormwater Management

is the requirement that towns implement public education programs to make residents aware that stormwater pollutants emanate from many of their everyday activities, and to inform them of steps they can take to reduce pollutants in stormwater runoff.

The CT DEP is working to engage stakeholders to prevent the introduction of pollutants into stormwater through its Nonpoint Source Pollution Management and Coastal Nonpoint Source Pollution Control Programs. Through these programs, the CT DEP is encouraging municipalities to help mitigate (or lessen) the impacts of urban runoff by adopting regulations that require the use of best management practices when designing, constructing, operating and/or maintaining land development projects (i.e., anything that disturbs or alters the land).

Municipal role

The MS4 General Permit applies to MS4-listed municipalities, which must comply with the terms and conditions of the permit. Municipalities do not have direct authority to regulate nonpoint source pollution (NPS) discharges; however, they can influence NPS discharges both through their land use regulations and by establishing an inspection and pump-out schedule for subsurface sewage treatment (septic) systems (a contributor to NPS). The CT DEP offers technical assistance for this effort to cities and towns. There is additional information on the MS4 Program in the fact sheet on *Small Municipal Separate Storm Sewer System (MS4) Stormwater Program* under Public Works.

Potential CT DEP Permits, Registrations and/or Certifications

General Permit for the Discharge of Stormwater Associated with Small Municipal Separate Storm Sewer Systems (MS4)

General Permit for the Discharge of Stormwater Associated with Construction Activities

General Permit Associated with the Discharge of Stormwater from Commercial Activities

General Permit for the Discharge of Stormwater Associated with Industrial Activities

Financial Assistance

None available at this time (6/2008).

Model Regulations for Municipal Consideration

Yes. See Appendix C of the *2004 Connecticut Stormwater Management Manual*.

Web Pages

General Stormwater Information

www.ct.gov/dep/stormwater

MS4 List

www.ct.gov/dep/stormwater Select “Stormwater from Small Municipal Separate Storm Sewer Systems (MS4)” general permit. The list is an addendum to the general permit.

Stormwater Manual

www.ct.gov/dep/stormwater Scroll down to select the link to the *2004 Connecticut Stormwater Quality Manual*.

Contacts

Statewide NPS Program

Bureau of Water Protection and Land Reuse
Planning and Standards Division
Phone: 860-424-3020

Coastal NPS Program

Bureau of Water Protection and Land Reuse
Office of Long Island Sound Programs
Phone: 860-424-3034

Stormwater Permitting

Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division
Stormwater Group
Phone: 860-424-3018

Small Municipal Separate Storm Sewer Systems (MS4) Stormwater Program

Description

The Small Municipal Separate Storm Sewer System (MS4) Stormwater Program is a national stormwater management program developed by the U.S. EPA and delegated to the states for implementation. In Connecticut, this program is overseen by the CT DEP. The MS4 Stormwater Program contains standards related to how cities and towns manage their stormwater infrastructure, systems that collect, transport and discharge stormwater, and what measures are taken to reduce or eliminate the discharge of pollutants to those systems.

Municipal Connection

Phase I of the MS4 Stormwater Program affected municipalities with populations of 100,000 or greater and with separate storm sewer systems. In Connecticut, only the City of Stamford qualified for this phase of the MS4 program.

Phase II of the MS4 Stormwater Program affects municipalities with Urbanized Areas as determined by the U.S. Census Bureau. In Connecticut, this affects another 113 cities and towns. The Phase II Program requires affected municipalities to develop a Stormwater Management Plan addressing how they manage and maintain their stormwater infrastructure.

Municipal Responsibility

There are five cities in Connecticut with populations over the 100,000 threshold for the Phase I involvement; however, only Stamford has separate sanitary and storm sewers allowing them to participate in Phase I. Stamford is required to continue to implement their stormwater management plan, submit annual reports to CT DEP and annually sample stormwater discharges during a rainstorm event.

The 113 municipalities included in Phase II of the MS4 Program, including the other four cities with populations of 100,000 or greater,

must develop a Stormwater Management Plan, submit annual reports and take stormwater discharge samples during a rainstorm once a year.

The Connecticut municipalities not involved in Phase I or Phase II are not required to follow the MS4 Stormwater Program; however, they are encouraged to consider minimizing stormwater impacts through the adoption of stormwater best management practices. Stormwater management is further discussed in the fact sheets on *Stormwater Management* under Public Works and *Nonpoint Source Pollution Management* and *Low Impact Development* in the Land Use Commissions, Boards and Committees section.

Statutory Citation

CGS Section 22a-430b

Discussion

Polluted stormwater runoff is often transported to municipal separate storm sewer systems and eventually discharged into local rivers and streams without treatment. This can cause significant water quality problems. CT DEP's *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems*, commonly called the MS4 Permit, requires each municipality to take steps to ensure that the stormwater entering its storm sewer systems is clean before entering water bodies. One important element of this permit is the requirement that towns implement public education programs to make residents aware that stormwater pollutants emanate from many of their everyday living activities, and to inform them of steps they can take to reduce pollutants in stormwater runoff.

Compliance with the MS4 general permit initially required the submission of a Part A Registration (due April 9, 2004) and a Part B Registration (due July 9, 2004). Each affected municipality was then required to prepare and implement a Stormwater Management Plan. The Stormwater Management Plan must

Small Municipal Separate Storm Sewer Systems (MS4) Stormwater Program

include a series of Best Management Practices (BMPs) to address six specific topics: 1) public education and outreach; 2) public participation; 3) illicit discharge detection and elimination; 4) construction stormwater management; 5) post-construction stormwater management; and 6) pollution prevention and good housekeeping. Each January, the affected municipalities must submit an annual report discussing their compliance progress for the previous year. Annually, each municipality must also sample at least six drainage outfalls for 12 parameters and submit the results with their annual reports. The intent of this program is to improve water quality through the management of nonpoint source pollution. For further information, see the fact sheets noted under *Municipal Responsibility*, above.

Potential CT DEP Permits, Registrations and/or Certifications

General Permit for the Discharge of Stormwater Associated with Small Municipal Storm Sewer Systems (MS4)

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Page

www.ct.gov/dep/stormwater

Contact

Bureau of Materials Management &
Compliance Assurance
Water Permitting Division
Stormwater Section
Phone: 860-424-3018



Planning for a Flood & Other Natural Hazards (Natural Hazard Mitigation Plan)

Description

A Natural Hazard Mitigation Plan examines the history and risk of natural disasters, evaluates geographic vulnerability, outlines which hazard mitigation measures merit the greatest priority, and identifies long-term measures to reduce losses from future disasters.

Municipal Connection

Municipalities are vulnerable to property and monetary losses and loss of life due to natural hazards. Developing, adopting and implementing a natural hazards mitigation plan can aid in identifying and reducing these risks. Once a local plan is approved by the Federal Emergency Management Agency (FEMA) and the Connecticut Department of Emergency Management and Homeland Security, the municipality will be eligible for pre-disaster mitigation and post-disaster mitigation funding to aid in implementing the plan.

Municipal Responsibility

Municipalities must develop and adopt hazard mitigation plans in order to receive pre-disaster and post-disaster mitigation funding.

Statutory Citation

Not applicable.

Discussion

In December of 2007, Connecticut adopted an updated Natural Hazard Mitigation Plan that identifies natural hazards, including flooding, hurricanes and winter storms. The Plan examines Connecticut's history and risk of natural disasters, evaluates geographic vulnerability, outlines which hazard mitigation measures merit the greatest priority, identifies long-term measures to reduce losses from future disasters and identifies the State's capability to recover from the impact of each hazard.

Flooding is the number one cause of damage and fatalities resulting from natural disasters in Connecticut each year. Flooding can occur at any time of the year from rainfall associated with various types of weather events. The next most damaging natural hazard in Connecticut is high wind events that down trees and power lines causing damage to buildings and communications and transportation infrastructure. High winds can result from hurricanes, tornadoes, and severe thunderstorms. Severe winter storms that bring heavy snow, ice and coastal flooding also occur and cause heavy damage in Connecticut. Other less frequent natural hazards include droughts, forest fires, hail, and minor earthquakes. The impacts from each of these natural hazards can be lessened through proper planning.

In order to receive pre-disaster and post-disaster mitigation funding, municipalities must draft and adopt local hazard mitigation plans. Once a community has a FEMA-approved local hazard mitigation plan, the municipality is then eligible to apply for federal grant monies for activities outlined in the plan. Such activities may include public education, purchasing floodplain property, culvert upgrades, storm shutters for wind mitigation, and dry hydrants in forest fire areas. Natural hazard mitigation plans must be updated every 5 years.

As a companion to natural hazard mitigation plans, the Department is also encouraging all municipalities to develop disaster debris management plans. Please see the fact sheet on *Disaster Debris Management Planning* under Public Works for more information.

Potential CT DEP Permits, Registrations and/or Certifications

This is a planning program. There are no permits specific to this program.

Planning for a Flood & Other Natural Hazards (Natural Hazard Mitigation Plan)

Financial Assistance

Natural hazard planning and management grants are typically offered by the Federal Emergency Management Agency (FEMA). Information is available online at www.fema.gov. Select “Grants” in the left navigation bar.

Model Regulations for Municipal Consideration

No.

Web Page

www.ct.gov/dep Select “Flood Management” under “Programs and Services” at the top of the page.

Contact

Bureau of Water Protection and Land Reuse
Inland Water Resources Division
Flood Management Program
Phone: 860-424-3706



Public Works

Municipal
Facilities



Description

Dams are man-made or artificial barriers constructed to impound water. Dams are typically provided with spillway systems to safely pass a broad range of flows over, around or through the dam.

Municipal Connection

Numerous municipalities own or are otherwise responsible for maintaining and managing dams. Recent changes to the general statutes (P.A. 07-61, now codified) authorize the chief executive official of a municipality, or their designee, to inspect any dam when the official reasonably believes that a public safety concern exists, provided the dam is subject to the CT DEP's jurisdiction (see below) and it is located within the municipality. A report of any such inspection must be filed with the Commissioner of CT DEP as required by statute. This inspection authority includes dams on private property.

Municipal officials also field questions from dam owners and are encouraged to forward those questions to CT DEP.

Municipal Responsibility

Municipalities that own or are otherwise responsible for maintaining and managing dams have specific responsibilities for inspection, maintenance, repair and emergency operation under this program.

Statutory Citation

CGS Sections 22a-401 to 22a-415

Discussion

Dams and their associated reservoirs have been and continue to be an important resource and economic factor in Connecticut's economy. These structures have provided mechanical and hydroelectric power, municipal water supply sources, flood control protection and recreational amenities. In the future, dams will continue to provide these benefits and services to Connecticut's citizens.

Dams are characterized based on their hazard classification as either: 1) those dams whose failure might endanger life or property downstream; and 2) all other dams. The CT DEP generally regulates the construction and major repair of dams that fall under the first category. Other dams are typically regulated by local inland wetlands agencies and, in some instances, other municipal authorities.

Dams and their associated dikes should not be thought of as a part of the natural landscape, but rather as artificial structures requiring continuing inspection and maintenance. Maintenance is an ongoing process that not only involves such routine items as mowing grass and clearing spillways, conduits, channels, trash racks, etc., but also requires regular inspections of the structure and its various components. Dams also have specific operational requirements. For example, in the cases of high hazard and significant hazard dams, carefully developed emergency operation plans should be in place.

CT DEP's efforts are directed to ensuring the safety of dams through a program of periodic inspections and the administration and enforcement of Connecticut's dam safety statutes and regulations. During storm events, municipal officials can assist CT DEP by calling the Dam Safety Section (see below) when a problem is detected or a citizen reports something about a dam that poses a public safety concern.

Potential CT DEP Permits, Registrations and/or Certifications

Permit for Dam Construction, Alteration, Repair and Removal.

Financial Assistance

Design and construction of dam repairs for existing municipally-owned dams are eligible for a state/local cost-sharing program. Contact the Dam Safety Program for more information.

Dams

Model Regulations for Municipal Consideration

None.

Web Page

www.ct.gov/dep Under “Programs and Services” at the top of the page, select “Lakes Management” then look for the link to “Dams”

Contact

Bureau of Water Protection and Land Reuse
Inland Water Resources Division
Dam Safety Section
Phone: 860-424-3706 or 860-424-3019

In an emergency after normal business hours,
call 860-424-3333



Description

Dredging is the removal of sand, silt, mud, etc. from the bottom of a lake, pond, river, bay, Long Island Sound, or other body of water.

Municipal Connection

Many municipalities own or operate marinas, boat launches, public swimming beaches or other marine facilities. These facilities may require dredging to maintain operational water depths. Lakes and ponds, particularly those dependent upon dams to maintain water levels, may also require dredging to maintain the viability of the waterbody and/or the integrity of the dam.

Municipal Responsibility

Dredging in inland wetlands and watercourses is subject to dual regulation by the local inland wetlands and watercourses commission and by the CT DEP under the statutes regarding water diversion.

Dredging in tidal, coastal and navigable waters is subject to CT DEP regulation to the exclusion of local regulatory authorities.

Dredging activities, whether inland or coastal, also typically require authorization from the U.S. Army Corps of Engineers (ACOE).

Municipal officials are encouraged to refer citizens requesting authorization for dredging in tidal, coastal or navigable waters to the CT DEP.

Statutory Citations

Inland: CGS Sections 22a-37 through 22a-45d and CGS Sections 22a-365 through 22a-378a

Coastal: CGS Sections 22a-359 through 22a-363f

Discussion

Dredging can be carried out mechanically with an excavator or crane, either of which may be fitted with a clamshell bucket or dragline.

Dredging can also be accomplished hydraulically by a barge-mounted pump that sucks up a slurry of water and sediment and pumps it to a settling basin or dewatering location.

Impacts

Dredging is disruptive to the bottom of a waterbody within the actual “footprint” being dredged. Any aquatic resources present, such as submerged aquatic vegetation, shellfish beds, spawning areas, intertidal flats, and tidal wetlands, are directly and adversely impacted by dredging activities. Sediments suspended in the water column by the dredging operation have the potential to drift outside of the dredging footprint and impact other resources such as spawning fish and shellfish.

Appropriate management of the dredged sediments after dredging depends upon the physical component (gravel, sand, silt, clay) and chemical characteristics of the dredged sediment. Physical and chemical testing of the sediments will determine suitable management options. Clean sediment may be reused in accordance with applicable state statutes; contaminated sediments may be suitable for limited reuse in accordance with the Remedial Standard Regulations (RSRs) Sections 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies.

Potential CT DEP Permits, Registrations and/or Certifications

Inland Permits:

General or Individual Permit for Lake, Pond and Basin Dredging under CGS Sections 22a-45a and 22a-378a (General Permit valid for projects affecting less than 6,000 c.y. and 1 acre) (CT DEP)

Inland 401 Water Quality Certification (CT DEP)

Municipal inland wetlands permits

Dredging

Coastal Permits:

Coastal 401 Water Quality Certification (CT DEP)

Structures, Dredging and Fill under CGS Sections 22a-359 through 22a-363f (CT DEP)

Other: A federal permit from the U.S. Army Corps of Engineers is typically required for dredging regardless of the location of the activity. Contact the Corps' New England District Regulatory Branch at 1-800-343-4789 for more information on federal dredging permits.

Contacts

Inland Wetlands or Watercourses

Bureau of Water Protection and Land Reuse
Inland Water Resources Division
Phone: 860-424-3019

Coastal, Tidal or Navigable Waters

Bureau of Water Protection and Land Reuse
Office of Long Island Sound Programs
Permitting Section
Phone: 860-424-3034

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Pages

Inland

www.ct.gov/dep Select "Programs and Services" at the top of the page, then select "Water" then select "Regulating Water" on the left navigation bar.

Coastal

www.ct.gov/dep/coastalmanagement Follow the link to "Coastal Permitting."

401 Water Quality Certification

www.ct.gov/dep/permitguide Scroll down to and select "410 Water Quality Certification."



Description

Fleet selection and operation pertains to the selection, operation and maintenance of municipal motor vehicles, including passenger cars, light trucks, and heavy equipment.

Municipal Connection

Municipalities typically have a fleet of municipal vehicles, ranging from passenger cars to heavy construction equipment. How these vehicles are selected, operated and maintained can significantly reduce a municipality's impact on the environment.

Municipal Responsibility

Municipalities are encouraged to select, equip, operate and maintain all vehicles in a manner that minimizes their environmental impact.

Statutory Citation

Not applicable.

Discussion

Driving any vehicle has a significant impact on the environment, from the resources used for its manufacture, to how and how much it is driven, to the final disposal of the vehicle. This impact is compounded for municipalities which typically have a fleet of vehicles ranging from cars to light trucks to heavy construction equipment, and often, school buses. There are many ways to reduce the environmental impact of motor vehicles. These include retrofitting diesel exhaust systems to reduce air pollution; choosing the smallest, most energy efficient vehicle to meet the need; slowing down or turning off the engine if stopped for more than a minute or two (except at a traffic light or stop sign); making other driving-style changes and properly maintaining tire pressure and engines.

Potential CT DEP Permits, Registrations and/or Certifications

None specific to this program.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Pages

www.ct.gov/dep/p2 Select "State/Local Governments" on the left navigation bar, and then select "Public Works Garages & Fleet Maintenance."

Selecting a green vehicle

www.epa.gov/greenvehicle

Contact

Office of the Commissioner
Policy and Program Development
Pollution Prevention Program
Phone: 860-424-3297



Description

Mobile air emission sources include a variety of vehicles and mobile equipment (trucks, buses, passenger cars, motorcycles, construction equipment, lawn and garden equipment, marine vessels, etc.) that utilize a motor or engine powered by fossil fuel.

Municipal Connection

Municipalities own and/or operate a number of mobile air emission sources, including municipal passenger cars, light duty trucks, school buses, lawn care equipment, and heavy duty equipment for waste collection, road construction and maintenance, and other routine municipal functions.

Municipal Responsibility

Municipalities are strongly encouraged to take the steps outlined below to limit mobile air emissions.

Statutory Citation

CGS Sections 22a-170 through 22a-206

Discussion

Mobile air emission sources contribute a significant amount of the emissions that cause air quality concerns in Connecticut and across the country. Connecticut's air quality attainment efforts involve a balanced strategy that includes reductions in emissions from the stationary, area and mobile source sectors. Municipalities play a critical role in achieving air quality goals, particularly with respect to mobile air emissions.

Using motor vehicle air emission controls reduces ozone precursors, fine particulate matter, toxics and carbon dioxide. These pollutants contribute to air quality problems. Connecticut's reduction strategy focuses on:

- maintaining an effective motor vehicle inspection and maintenance program to ensure that motor vehicles are kept tuned to meet emission standards;

- reducing the amount of fuel burned and the amount of evaporation of these fuels;
- requiring only the "cleanest" new vehicles be sold in the state;
- making efforts to clean up older diesel vehicles through either fleet turnover or retrofitting with emission reduction technology; and
- decreasing the number of vehicle miles traveled (VMT).

Municipalities can assist in these efforts by:

- participating in programs to retrofit school buses and other mobile sources;
- buying the lowest-emission vehicles possible that suit the intended purposes when replacing fleet vehicles;
- expediting the replacement of older fleet vehicles;
- reminding all municipal staff and contractors to avoid idling for more than three minutes; and
- supporting reductions in VMT by adopting land use regulations that promote walk-able communities and development densities that can support mass transit.

Potential CT DEP Permits, Registrations and/or Certifications

None specific to this program.

Financial Assistance

Grants are available through CT DEP when funding allows. See www.ct.gov/dep/financialassistance and select "Air."

Model Regulations for Municipal Consideration

No.

Mobile Air Emission Sources

Web Page

www.ct.gov/dep Select “Air” under “Programs and Services” at the top of the page then select “Mobile Air Sources” on the left navigation bar.

Contact

Bureau of Air Management
Planning and Standards Division
Toxics and Mobile Source Program
Phone: 860-424-3027



Municipal Connection

In their day-to-day functions, municipal facilities utilize a wide variety of indoor and outdoor lighting, appliances and machinery that consume electricity.

Municipal Responsibility

Municipalities must meet the standards set forth in the Connecticut General Statutes 13a-110a for outdoor lighting. Beyond that, municipalities are strongly encouraged to utilize environmentally-friendly, energy saving lights, appliances and machinery wherever practicable.

Statutory Citation

CGS Section 13a-110a

Discussion

Outdoor Lighting

Since 2000, several new state laws have been enacted related to outdoor lighting. Currently the following requirements apply:

- all new streetlights must be “full cutoff,” a classification in which no direct light is visible from the fixture above the 90-degree horizontal;
- utility companies are required to shield all floodlights leased by the utility company for private property illumination; and
- all new commercial construction must utilize full cutoff light fixtures.

At the local level, a number of Connecticut municipalities have ordinances to control lighting. An example is the Town of Branford ordinance passed in 1997 to control site lighting through a zoning amendment. Its purpose is to maximize the effectiveness of site lighting while avoiding unnecessary upward illumination and illumination of adjacent properties, and to reduce glare.

Fluorescent Lights

Even actions as simple as changing the types of light bulbs used in municipal buildings can reduce environmental impacts and, typically, save money. Fluorescent lights are an energy efficient lighting option when compared to incandescent lights; however, fluorescent bulbs are categorized as “mercury-added lamps.” As such, they must be properly recycled to prevent mercury from entering the environment. Towns are required to dispose of these bulbs as “universal waste,” and therefore, they cannot be thrown out with the regular trash (see the fact sheet on *Hazardous and Universal Wastes* under Public Works more information). Some lamp wholesalers and distributors have established programs to take the spent bulbs or lamps back from their customers and send them off for recycling. This system is commonly referred to as reverse distribution. Municipalities should encourage their residents to dispose of compact fluorescent bulbs appropriately, either by taking advantage of reverse distribution opportunities or disposing of them at household hazardous waste collections.

Fluorescent Ballasts

A second caution when converting to or using fluorescent lights involves the handling and disposal of the ballasts. In older models of fluorescent light fixtures, the ballasts typically contain small amounts of PCBs (a known carcinogen). The CT DEP encourages switching these older ballasts out for new PCB-free ballasts. The old ballasts must be handled and disposed of properly.

Light Emitting Diodes Traffic Signals

Traffic Signals utilizing Light Emitting Diodes (LEDs) use approximately 85% less energy, are brighter and longer lasting than incandescent lights, and have a payback period of between 2 to 3.5 years. A number of cities and towns, including Stamford, Hamden, Hartford, and New Haven, have installed LED traffic signals for their intersections. Municipalities can utilize existing state contracts to purchase environmentally

Indoor and Outdoor Lighting and Appliances

preferable traffic signals by contacting the Connecticut Department of Administrative Services (DAS) at 860-258-0347.

Appliances

According to the U.S. EPA, the cities and towns in New England spend nearly one billion dollars every year on energy for buildings and schools. Further, energy used in buildings is the number one source of greenhouse gas (GHG) emissions in most communities. There are energy efficient models of virtually everything from exit signs, water coolers, and copy machines, to computers, vending machines and heating and cooling systems. Most of these appliances are available in energy-saving versions that have earned an Energy Star from the U.S. Environmental Protection Agency and the U.S. Department of Energy. When installing new appliances or switching out old ones, choose such high energy efficiency appliances.

Machinery

Certain types of machinery used at municipal facilities (e.g., water pumps used at sewage treatment plants, HVAC equipment) may also be high users of energy. To the extent practicable, such machinery should be selected, maintained and operated to maximize its energy efficiency.

Potential CT DEP Permits, Registrations and/or Certifications

None specific to this program.

Financial Assistance

Financial assistance is not available at this time (6/2008). Municipalities are encouraged to contact their utility provider to see what assistance programs they may have available.

Model Regulations for Municipal Consideration

No.

Web Pages

Fluorescent Light Bulbs, LED Traffic Signals and Energy Efficient Appliances

www.ct.gov/dep/p2 Select "State/Local Governments" on the left navigation bar, and then select "CT DEP Energy Resource Guide for Municipalities" under "Energy Efficiency, Conservation and Climate Change."

PCBs

www.ct.gov/dep/pcb

Contacts

Fluorescent (mercury-added) Lights

Office of the Commissioner
Planning and Program Development
Pollution Prevention Program

Phone: 860-424-3297

Toll-free Mercury Hotline:

1-877-537-2488

Fluorescent Ballasts

Bureau of Materials Management and
Compliance Assurance

PCB Program

Phone: 860-424-3368

Energy Efficient Appliances

Office of the Commissioner
Planning and Program Development
Pollution Prevention

Phone: 860-424-3297



Description

Landscape and lawn care includes the design, planting and tending of outdoor areas primarily for aesthetic reasons or for active or passive recreation. Areas subject to landscaping and lawn care are often proximate to buildings, roads or other aspects of the built environment.

Municipal Connection

Municipalities own and/or manage properties with landscaping and lawns. There are environmentally responsible methods of maintaining landscaping and lawns that municipalities are encouraged to incorporate into their operation and management plans.

Municipal Responsibility

Starting July 1, 2009, municipalities are prohibited from routinely using pesticides on grounds of schools with students in grade 8 or under.

It is unlawful to import, move, sell, purchase, transplant, cultivate or distribute any of the invasive plants listed in CGS Section 22a-381d (see Web link below).

Municipalities are encouraged to consider the other issues discussed below.

Statutory Citations

Public Shade Trees: CGS Sections 23-58 through 23-65e

Pesticides: CGS Sections 22a-46 to 22a-66z

Invasive Species: CGS Sections 22a-381 through 22a-381d

Discussion

Trees and Urban Forestry

Increasing plantings of street trees not only improves aesthetics, but also can improve air quality and, by providing shade, reduce the heat generated by the sun hitting sidewalks, streets and roads, and buildings. Trees can also aid in stormwater management and the

mitigation of climate change by taking up (sequestering) carbon from the atmosphere.

Trees are also an important asset in most parks. They provide shade, buffer the outside world, provide food and shelter for wildlife, and are often attractive features by themselves. In addition, trees in the urban environment provide other benefits including reducing air pollution. The planting of trees in public parks should be carefully planned, from the selection of the tree to the manner of planting. Likewise, over their lifespan, park trees need maintenance to protect their health and to keep the space around them safe for public use.

The urban forestry program within the CT DEP Forestry Division works closely with tree wardens and others involved in street and park tree-maintenance efforts, providing educational opportunities, technical assistance and occasional financial support through a small urban forestry grant program.

Municipal Woodlands

The CT DEP Division of Forestry, through its Private and Municipal Land Program, is able to provide advice and direction to municipalities on the management of municipally-owned woodlands. The service foresters within this program are available to meet with municipal officials responsible for these woodlands and provide in-the-field, hands-on recommendations as to how the municipality might appropriately manage these lands.

Organic Land Care for Municipalities

Each year more people become concerned about the effect of chemicals on children, pets and the environment. Typical land care chemicals include pesticides and fertilizers. Many municipalities are rethinking their use of these chemicals in an effort to minimize their impacts. In fact, under state law effective July 1, 2009, municipalities are prohibited from routinely using pesticides on grounds and fields of schools with students in grade 8 or under. To address these issues, some municipalities have begun practicing a safe alternative to pesticide and fertilizer use called

Landscape and Lawn Care

organic land care. Organic land care involves a “whole systems approach” to maintaining the landscape without synthetic fertilizers and pesticides and starts with nurturing healthy and fertile soil. Healthy soil supports the development of healthy grass, which is naturally resistant to weeds, diseases and pests. The CT DEP’s Office of Pollution Prevention, with input from the Connecticut Chapter of the Northeast Organic Farming Association (NOFA), and the UCONN Plant Science Department, has produced a short DVD for municipal officials who want to learn more about what it takes to “go organic.” The 7 ½ minute DVD is available at no cost through CT DEP’s Pollution Prevention Program (see contact information below).

Integrated Pest Management

Integrated Pest Management (IPM) is the use of all available pest control techniques including biological controls and the judicious use of pesticides, when warranted, to maintain a pest population at or below an acceptable level, while also decreasing the unnecessary use of pesticides. An IPM program can be implemented to maintain landscapes as well as to control structural pests and rodents. When the application of pesticide is necessary as part of an IPM protocol, the least toxic product is used first.

Rain Gardens

A rain garden is a depression (usually about 6 inches deep) that collects runoff from a roof, driveway or yard and allows it to infiltrate into the ground. Rain gardens are typically planted with shrubs or perennials, and can be colorful, landscape highlights that will also provide important environmental benefits (adapted from *Rain Gardens in Connecticut*, UCONN Cooperative Extension System, College of Agricultural and Natural Resources). Rain gardens can help manage runoff by providing opportunities for infiltrating stormwater into the soils. For more information on stormwater, see the fact sheets on *Stormwater Management in Public Works*, *Nonpoint Source Pollution Management* and *Low Impact Development in*

Land Use Boards, Commissions, Agencies and Committees.

Invasive Plant Species

Invasive plant species are non-native plants that are disruptive in a way that causes environmental or economic harm, or harm to human health. In minimally-managed areas, invasive plants crowd out native plants. The presence of invasive plants alters the way plants, animals, soil, and water interact within native ecosystems, often causing harm to other species in addition to the plants that have been crowded out.

Characteristics that make plants invasive include:

- the ability to establish new plants and grow rapidly under a wide variety of site conditions;
- a high reproductive rate;
- the ability to disperse wide distances, often by the spreading of vegetative fragments as well as seeds;
- the lack of the natural controls on growth and reproduction that would be found where the invader is native.

In Connecticut, the Connecticut Invasive Plants Council has developed a list of non-native invasive plants that cause (or have the potential to cause) environmental harm in minimally-managed areas. Unfortunately, several plant types that were popular landscaping species in the past are now recognized as invasive (examples include: Norway maples, Russian and Autumn olive, burning bush, barberry and many of the honeysuckle species). Removing non-native invasive plants and replacing them with native species of trees, shrubs and herbaceous plants can provide improved foraging areas for birds and other wildlife.

It is unlawful to import, move, sell, purchase, transplant, cultivate or distribute any of the listed non-native invasive plant species in Connecticut.

Potential CT DEP Permits, Registrations and/or Certifications

Any person performing pesticide applications on school grounds must have pesticide applicator (supervisory and/or operator) certification.

A permit is required for application of pesticides to the waters of the State to control aquatic vegetation.

Financial Assistance

Financial assistance is available for certain landscaping projects. For more information, select the “Forestry” link at www.ct.gov/dep/financialassistance.

Model Regulations for Municipal Consideration

None.

Web Pages

Urban Forestry

www.ct.gov/dep/forestry

Integrated Pest Management

www.ct.gov/dep/ipm

Organic Lawn Care

www.ct.gov/dep/p2 Select the “State/Local Governments” link on left navigation bar, and then select “Organic Land Care & Integrated Pest Management.”

Invasive Species

www.ct.gov/dep/invasivespecies

Contacts

Trees and Urban Forestry

Bureau of Natural Resources
Urban Forestry Program
Phone: 860-424-3178

Organic Lawn Care and Integrated Pest Management

Office of the Commissioner
Planning and Program Development
Pollution Prevention Program
Phone: 860-424-3297

Organic Lawn Care

Bureau of Materials Management and Compliance Assurance
Pesticides Division
Phone: 860-424-3369

Invasive Species

Bureau of Natural Resources
Wildlife Division
Phone: 860-424-3011



Description

Renovation is the repair, remodeling, rehabilitation or reconstruction of structures and/or infrastructure.

Demolition is the razing or removal of structures, roads, parking lots and other facilities and infrastructure.

Construction is the building of new structures, roads, parking lots and other facilities and infrastructure.

Municipal Connection

Municipal officials may be directly involved in renovation or demolition of out-dated or damaged municipal facilities, or the construction of new facilities or infrastructure. Alternatively, they may have responsibilities related to permitting such activities proposed by others (e.g., building official or fire marshal). Either way, there are specific issues related to renovation, demolition and construction that must be properly addressed in order to protect human health and the environment.

Municipal Responsibility

Municipal officials directly involved in renovation, demolition and construction, or those responsible for permitting or inspecting such activities proposed by others, must be aware of the state's environmental, health and safety requirements and should be aware of the "red flag" issues discussed below.

Statutory Citations

Solid Waste: CGS Sections 22a-207 through 22a-256ee

Hazardous Waste: CGS Sections 22a-114 through 22a-134z

Discussion

There are a number of environmental, health, and safety requirements that apply to those individuals or entities that hire, oversee, or conduct renovation, demolition and/or

construction work. Some of the most common requirements relate to: asbestos, lead-based paint, fugitive dust and air emissions, dewatering, sandblasting and power-washing, construction and demolition waste, treated wood, land-clearing debris, chemical products, mercury, Polychlorinated Biphenyls (PCBs), used electronics and batteries, underground storage tanks, spills and other contamination, and site clean-up issues. Situations involving these items or activities must be properly managed in order to adequately protect human health and the environment.

The CT DEP has also developed a list of "red flag" issues to aid local officials involved in renovation and demolition in determining applicable requirements and key contacts for more information.

Potential CT DEP Permits, Registrations and/or Certifications

Depending on the specific activities involved in the project, a permit or permits from CT DEP may be required.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Pages

www.ct.gov/dep/constructioncontractors

Environmental, Health and Safety Requirement

www.ct.gov/dep/solidwaste Select "Information for Municipalities" then "Construction, Renovation and Demolition Waste Management and Recycling."

"Red Flag" List

www.ct.gov/dep/solidwaste Select "Information for Municipalities" on the left navigation bar then select "Red Flag List."

Renovation, Demolition and Construction

Contact

Office of the Commissioner
Planning and Program Development
Pollution Prevention Program
Phone: 860-424-3365



Description

As used here, street and road management includes maintenance and repair activities such as street sweeping and plowing, the maintenance of stormwater collection and disposal systems as they relate to streets and roads, and the management of debris from road construction and demolition projects.

Municipal Responsibility

Municipalities are responsible for the layout, construction, repair and maintenance of local streets and roads. Many typical maintenance activities relate to CT DEP responsibilities, including: winter anti-icing and de-icing; snow management; street and parking lot sweeping; stormwater system maintenance (including catch basin inspection and cleaning); and highway construction and demolition debris management.

Statutory Citations

Stormwater: CGS Sections 22a-416 through 22a-438

Solid Waste: CGS Sections 22a-207 through 22a-256ee

Hazardous Waste: CGS Sections 22a-114 through 22a-134z

Discussion

Municipal street and road maintenance practices may adversely affect Connecticut's environment. When done properly, these effects can be minimized. Winter anti-icing and de-icing, the management of plowed snow, the maintenance of the stormwater management system, and the disposal of waste from highway construction and demolition are all potential threats to Connecticut's environment. Each of these is discussed below and the preferred and/or required management methods are identified.

Street and Road Anti-icing and De-icing

Traditionally, anti-icing (treatment to prevent icing) and de-icing (treatment to respond to icing) have primarily relied on a combination of sand and salt. However, the application of sand and salt has associated environmental impacts that include increased accumulation of sediment in nearby wetlands and watercourses, and in some instances, increased levels of salt in nearby drinking water supplies. The Department encourages municipalities to carefully manage the storage of these materials and adjust their road anti- and de-icing practices to minimize potential impacts to wetlands, watercourses and/or public or private drinking water supplies. Knowing the locations of sensitive resources in relation to the municipal road system is an essential component to environmentally sensitive materials management.

Recent evaluation by the Connecticut Department of Transportation (CT DOT) has revealed that under most circumstances, the use of sand is unnecessary as an ice treatment on roadways and results in additional costs in terms of energy, transportation, manpower, storage and environmental impacts. Although not a CT DEP program, the environmental implications are significant, so this information is included here. Additional information can be obtained from the CT DOT, Office of Intermodal and Environmental Planning at 860-594-2005.

Snow Management

Typical road maintenance activities include plowing snow accumulations from bridges, roads and parking areas for ease of travel and parking, and to provide more space for subsequent snow storms. Snow that accumulates on these areas routinely collects sand, salt, oils, grease, dirt, litter and other debris and contaminants.

Historically, snow clearing activities often included collecting accumulated snow and dumping it into surface waters; however, this mixture of snow, sand, debris, etc. can smother aquatic life in the bottom of streams and rivers

Street and Road Management

and degrade the aesthetics of the surface water with silt plumes and litter. Large quantities of snow (and the sand and debris it may contain) may also cause blockage of storm drainage systems, resulting in increased chance for localized flooding.

To avoid these potential environmental consequences, snow accumulations removed from roadways, bridges, and parking lots should be stockpiled only in upland areas, where sand and other debris will remain after the snow melts after which it can be removed for proper disposal. To prevent potential contamination or sedimentation problems, snow should not be deposited in the following areas:

- rivers, streams, lakes, ponds or other waterbodies, regardless of their degree of ice cover;
- freshwater or tidal wetlands or in areas immediately adjacent to wetlands;
- on top of storm-drain catch basins;
- in storm drainage swales;
- on stream or river banks that slope toward the water; or,
- in areas immediately adjacent to (within at least 100 feet of) private or public drinking water well supplies.

Street and Parking Lot Sweeping

Sediment and debris that collects on paved parking lots, roads and other paved surfaces may contain low levels of chemical compounds such as lead, sodium and compounds associated with asphalt and motor oils that can subsequently contaminate stormwater. Removal of the sediment and debris reduces the potential for these materials to contribute nonpoint source pollution. Street sweeping is highly recommended as a removal technique; however, its effectiveness varies considerably and is particularly dependent upon the type of sweeper used. In addition to low levels of

pollutants, the sediment and debris collected and removed by street sweeping may contain debris such as leaves, broken glass, and small pieces of metal. The presence of these materials makes the proper reuse or disposal of street sweepings more critical. The potential for reuse depends upon the intended purpose and whether or not street sweepings have been tested for contaminants. For more information, please see CT DEP's *Guideline for Municipal Management Practices for Street Sweepings & Catch Basin Cleaning*. This document can be found by following the "Information for Municipalities" link on www.ct.gov/dep/waste.

Stormwater System Maintenance/Catch Basin Inspection and Cleaning

In order to maintain their intended function, stormwater drainage and treatment system components should be inspected and cleaned at least annually. Structural deterioration of any part of the system should be repaired immediately. Annual inspection and cleaning of catch basins and stormwater inlets preserves the sediment-trapping function of these devices and also prevents accumulated sediment, trash, and other pollutants in the storm drain system from reaching receiving waters. Removal of sediment and decaying debris from catch basin sumps and other sediment trapping system components yields aesthetic and water quality benefits, including a reduction in foul odors, suspended solids and bacteria, while also preventing the introduction of substances in the receiving waters that compete with native fish and other aquatic organisms for oxygen. For more information, please see CT DEP's *Guideline for Municipal Management Practices for Street Sweepings & Catch Basin Cleaning*, noted above. This document can be found by following the "Information for Municipalities" link on www.ct.gov/dep/waste.

Highway Construction and Demolition Debris Management

Asphalt, concrete, brick and block, and clean fill earthen materials, referred to as construction and demolition aggregate debris (C&D), are generated during most construction and renovation projects and some demolition-related activities. Asphalt, concrete and other inert materials can be considered clean fill. The CT DEP promotes recycling construction and demolition aggregate to conserve resources and diminish potential illegal dumping in environmentally sensitive areas. Municipalities have found a cost-saving opportunity and private companies have discovered a growing business in processing and recycling C&D materials. In fact, many construction companies now operate mobile crushing, screening, and sorting facilities for custom recycling work on construction and demolition sites. On-site recycling at construction and demolition projects has many economic advantages. C&D rubble crushed and reused on site as sub-base and backfill material reduces costs for disposal, transportation and fill-replacement on some projects. As an alternative to on-site recycling of C&D, municipalities or private companies can stockpile C&D in a centralized location and periodically crush and sort the aggregate materials into reusable, locally-generated construction products. In either case, all associated equipment should be properly permitted.

If recycling is not a viable option, surplus concrete generated during road construction, repair or reconstruction may often be managed as clean fill. In some cases, however, it must be managed as solid waste or hazardous waste. There is a fact sheet on *Renovation, Demolition and Construction* under Public Works.

Potential CT DEP Permits, Registrations and/or Certifications

Small Municipal Separate Storm Sewer Systems (MS4) General Permit

General Permit for Storage and Processing of Asphalt Roofing Shingle Waste and/or for the Storage and Distribution of Ground Asphalt Aggregate for Beneficial Reuse

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

See Appendix 4 of the *2004 Connecticut Stormwater Management Manual* (Web link is provided below).

Web Pages

Street Sweeping and Catch Basin Cleanings
www.ct.gov/dep/waste Select “Information for Municipalities” on the left navigation bar.

Stormwater Maintenance (Stormwater Manual)
www.ct.gov/dep/stormwater Select *2004 Connecticut Stormwater Quality Manual*.

Snow Management
www.ct.gov/dep/stormwater Scroll down to “Related Guidance” and select the “Snow Disposal” link.

Highway Construction and Demolition Debris Management
www.ct.gov/dep/waste Select “Information for Municipalities” on the left navigation bar, then select “Construction, Renovation and Demolition Waste Management and Recycling.”

Street and Road Management

Contacts

Snow Management

Bureau of Water Protection and Land Reuse
Water Permitting Division
Stormwater Section
Phone: 860-424-3020

Storage, Disposal and Reuse of Street Sweepings and Catch Basin Cleanings

Bureau of Materials Management and Compliance Assurance
Recycling Program
Phone: 860-424-3366

Stormwater Best Management Practices

Bureau of Water Protection and Land Reuse
Water Permitting Division
Stormwater Section
Phone: 860-424-3018

Highway Construction and Demolition

Debris Management

Office of the Commissioner
Planning and Program Development
Pollution Prevention Program
Phone: 860-424-3365



Underground Storage Tank Systems (Tanks and Piping)

Description

An underground storage tank (UST) system is a vessel designed to contain liquids such as petroleum products, the volume of which (including the volume of any connected underground pipes) is 10 percent or more beneath the surface of the ground and is invisible for inspection.

Municipal Connection

Municipalities are responsible for underground storage tank systems at their various public facilities such as schools, public works facilities, administrative buildings, libraries, senior centers and/or other public buildings.

Municipal Responsibility

Municipalities that own or operate a nonresidential UST system that: 1) is currently in use; 2) will be brought into use; or 3) was taken out of service (even if empty), must file a notification with the CT DEP and the local fire marshal (see CT DEP Web site for notification forms) unless such notification has previously been filed. Subsequent notifications must be submitted within thirty days following changes in any of the information required on the notification form. Most UST systems are subject to requirements for regular monitoring and maintenance.

Statutory Citation

CGS Sections 22a-449 et. seq.

Discussion

Underground storage tanks and associated integral piping sometimes leak, and when they do, they can create a pollution problem in both soil and groundwater. Because they are hidden from sight, it may take a long time to realize that they are leaking. In terms of property management, one of the best actions that can be taken is the removal of old or non-corrosion-protected underground storage tank systems. For nonresidential UST systems subject to the filing requirements identified above, filing the appropriate notification form

with CT DEP and the local fire marshal will also comply with both state and U.S. EPA requirements for UST registration and notification. For information about current UST registrations, please call the number in the Contact section below.

The tanks and piping in nonresidential UST systems must be protected from corrosion. Most UST systems require some regular testing and/or monitoring. Spill and overflow controls are required for gasoline, diesel, waste oil and CERCLA-regulated, hazardous material UST systems.

The Underground Storage Tank Petroleum Clean-Up Account Program (UST Account) provides financial assistance for the investigation and clean-up of sites impacted by leaking underground petroleum storage tanks, enabling owners to meet the requirements of federal regulations for financial responsibility. The UST Account provides coverage of up to one million dollars per release, for taking corrective actions and for third-party liability costs. Notwithstanding this financial coverage, the responsible party for a release must bear all corrective action and third-party liability costs when less than ten thousand dollars. Note that environmental damage caused by UST systems containing heating fuel used for on-site heating purposes is ineligible for reimbursement under the UST Account.

Potential CT DEP Permits, Registrations and/or Certifications

CT DEP registration/notification of nonresidential, underground storage tanks is required. Note that heating fuel UST systems with less than 2100 gallons capacity are exempt from the registration/notification requirements, as long as they are used solely for on-site heating.

Registration with the local fire marshal is required.

Check with the local building official and/or land use office regarding whether other municipal permits are required.

Underground Storage Tank Systems (Tanks and Piping)

Financial Assistance

Information on the Underground Storage Tank Clean-up Account Program is available online at: www.ct.gov/dep/financialassistance. Select “Site Clean-up.”

Model Regulations for Municipal Consideration

No.

Web Page

www.ct.gov/dep/ust

Contact

Bureau of Materials Management and
Compliance Assurance
Storage Tank and PCB Enforcement Unit
Phone: 860-424-3374





Wastewater Planning and Management



Photo: CT DEP

Pictured —
Wastewater Treatment Plant,
Jewett City, Connecticut

Wastewater is generated in every municipality and there are different approaches to its management. The issues surrounding how sewage, or wastewater, is managed are very complex and have significant implications for landscape stewardship and responsible growth. Higher densities of development that may be supportive of responsible growth require more intensive wastewater management. Conversely, the availability of more intensive wastewater management systems can increase pressure for more dense development, sometimes in areas that may be sensitive to development for other reasons.

Municipalities are responsible for planning and managing, or making arrangements to manage, the wastewater generated within their boundaries. Solutions to municipal wastewater management are not “one size fits all” and optimal approaches vary by municipality and situation. Wastewater treatment approaches can generally be separated into two categories: 1) centralized sewer systems (e.g., municipal wastewater/sewage treatment plants); and 2) decentralized systems (e.g., individual on-site septic systems and/or community sewerage systems*).

Another variable in wastewater planning is the technology selected for treatment, which can range from traditional to alternative technologies. Specific municipal situations may call for the use of only one of these approaches or technologies; however, it is more likely that a combination of approaches and technologies will be appropriate for managing wastewater generated within municipal boundaries.

The CT DEP and the CT Department of Public Health share regulatory (permitting) responsibility for wastewater management in Connecticut.

To aid in coordination between municipal wastewater management efforts and the CT DEP, this section of *The Municipal Primer* provides fact sheets on:

- *Municipal Wastewater Management Planning*
- *Wastewater Management Approaches*
- *Regulating Wastewater at the State Level*



* “community sewerage system” is defined in statute to mean “any sewerage system serving two or more residences in separate structures which is not connected to a municipal sewerage system or which is connected to a municipal sewerage system as a distinct and separately managed district or segment of such system” (CGS Section 7-245(3)).

Municipal Wastewater Management Planning

Description

CT DEP uses “sewage” and “wastewater” interchangeably. “Sewage” is defined in the Connecticut General Statutes to mean “human and animal excretions and all domestic and such manufacturing wastes as may be detrimental to public health (CGS Section 22a-423).

Municipal Connection

A municipality is responsible for managing the wastewater generated within its boundaries.

Municipal Responsibility

Through their Water Pollution Control Authority (WPCA), municipalities are responsible for managing, or making arrangements to manage, the wastewater generated within their boundaries. For rural towns, this responsibility may require only the development and implementation of a water pollution control plan. However, most municipalities have more complex wastewater management needs and their responsibilities are correspondingly more complex.

Statutory Citations

CGS Sections 7-245 through 7-273a

CGS Section 22a-416(b)

Discussion

Wastewater is generated in every city and town, and each municipality is responsible for planning and managing, or making arrangements to manage, the wastewater generated within its boundaries (CGS Sections 7-245 through 7-273a). In most municipalities, this responsibility lies with the local Water Pollution Control Authority. In many instances, managing wastewater will involve the construction and operation of a municipal wastewater treatment facility. In other cases, it will involve reliance on individual, on-site septic systems. In most municipalities, however, wastewater is managed through a

combination of a municipal facility and on-site septic or other wastewater management systems.

Water Pollution Control Plans

Municipalities should plan for wastewater management and a key authority in this effort is the ability to prepare a Water Pollution Control Plan (WPCP)(CGS Section 7-246). A WPCP is a strategic plan that summarizes wastewater management issues in a municipality, and sets forth general goals and objectives and specific implementation measures. While such plans are not mandatory, they do provide for more orderly wastewater management. For non-sewered areas, the WPCA should develop a WPCP that describes the means by which municipal programs are carried out to avoid community wastewater pollution problems. A WPCP must identify areas with existing or planned sewer service, as well as areas where the municipality wants to avoid the installation of municipal sewers. The WPCP must also identify where “community sewerage systems”¹ and decentralized wastewater management districts are specifically allowed, and conversely, disallowed.

For some rural municipalities without existing municipal facilities, the development of a WPCP may be all that is necessary to adequately plan for wastewater management. Such a plan might include a goal of relying solely on individual, subsurface wastewater treatment systems and include implementation measures consisting of the hiring of a qualified sanitarian and the establishment of a town-wide schedule for the inspection and maintenance (pump-out) of each system. Coordination with local health officials during the development of this plan is strongly recommended.

¹ a community sewerage system is “any sewerage system serving two or more residences in separate structures which is not connected to a municipal sewerage system or which is connected to a municipal sewerage system as a distinct and separately managed district or segment of such system” (CGS Section 7-245(3)).

Municipal Wastewater Management Planning

Municipal Wastewater Facilities Plan

For most Connecticut municipalities, wastewater management issues are too complex to be adequately addressed solely by a WPCP. In these instances, the WPCP should be supplemented with a Municipal Wastewater Facilities Plan (MWFP). An MWFP (often referred to as either a “facilities plan” or “engineering report/s”) is any document produced by or for a municipal WPCA that relates to the conveyance or treatment of wastewater. A complete MWFP is often, but not always, a series of documents that provide a clear description of existing conditions including identification of problem areas, an analysis of alternatives and costs, and a WPCA’s long-term intentions for managing their wastewater disposal needs.

Sewer Service Area Map

An MWFP also typically includes a map delineating areas where sewer service exists or is planned, and areas where sewers are to be avoided. It may also identify decentralized management districts, as well as areas where community sewerage systems will be allowed or will be prohibited. Such a map is commonly called a “sewer service area map” (SSA map). Having an approved SSA map is a logical and necessary planning tool that can be utilized not only by the municipality for wastewater management, but by the municipal planner, the planning and/or zoning commission, economic development agency and other local officials to guide development to those areas most suited for more intensive use.

An SSA map must be consistent with the State Plan of Conservation and Development (Plan of C&D) to demonstrate eligibility for Clean Water Fund financing for any sewer extension project or proposed wastewater treatment plant upgrade costing more than \$200,000. (More information on the Plan of C&D is available on the Office of Policy and Management Web site at: www.ct.gov/opm Select “Publications” at the top of the page then select “Physical & Natural Resources;” then *Conservation and Development. Policies Plan 2005-2010*). If a

municipality’s SSA map is approved by CT DEP as part of the MWFP, such approval demonstrates consistency with the Plan of C&D and can be a key to potential funding through the Clean Water Fund.

The best time to develop an SSA map is when there is no large development pending that requires a change in the existing sewer service. Based on CT DEP’s experience, a reasonable schedule for SSA development is 6-9 months assuming it is an inclusive process that involves all concerned parties, as discussed below.

Coordinating Planning Efforts

The provision of wastewater management, along with potable water availability, is a key municipal service that may influence land development patterns. In many cases, higher densities of development can be accommodated in areas where centralized sewage treatment systems can provide a level of treatment that meets state standards. Community sewerage and alternative treatment systems may or may not support relatively dense development. Individual, on-site septic systems generally require more land area per system, particularly where the water supply is provided by on-site wells. Thus, reliance on individual, on-site septic systems is often a contributing factor to sprawl.

Because of the significant land use implications of wastewater treatment planning, each WPCA is strongly encouraged to conduct their planning in a comprehensive way by coordinating with all relevant municipal departments, agencies, boards and commissions. It is especially important to coordinate with the local health department and sanitarians, planning, zoning, conservation, inland wetlands and watercourses, agriculture, historic preservation, and economic development commissions, the municipal finance board, and the chief elected official. The local land use agencies should also consider the MWFP and associated SSA map in their planning efforts and these

Municipal Wastewater Management Planning

documents should become an integral part of the municipality's plan of conservation and development.

CT DEP Reviews

In addition to reviewing Municipal Wastewater Management Plans, the CT DEP must review and approve all extensions and modifications of wastewater conveyance facilities (sewers and pumping stations) and treatment facilities prior to the initiation of construction. When submitted to CT DEP, the project design documents undergo a technical review for consistency with standards established by the New England Interstate Water Pollution Control Commission, and for consistency with Connecticut's Plan of C&D prepared by the CT Office of Policy and Management (OPM).

Potential CT DEP Permits, Registration and/or Certifications

Wastewater Treatment Plant Discharge Permit

Wastewater Treatment Plant Operator Certification

Approval of plans and specifications of all wastewater infrastructure

Financial Assistance

Financial assistance is generally available for wastewater management planning. Follow the link for "Water" at www.ct.gov/dep/financialassistance.

Model Regulations for Municipal Consideration

No.

Web Pages

www.ct.gov/dep Select "Programs and Services" at the top of the page, then select "Municipal Wastewater."

Department of Public Health

www.ct.gov/dph Select "Environmental Health" then follow the link for "Subsurface Sewage (Septic Systems)."

Contact

Bureau of Water Protection and Land Reuse
Planning and Standards Division
Municipal Facilities Section
Phone: 860-424-3704



Description

Wastewater management approaches are ways to collect, treat and dispose of wastewater (sewage).

Municipal Connection

Municipal water pollution control authorities can utilize more than one approach to wastewater management within their water pollution control plan.

Municipal Responsibility

Municipalities are responsible for the management of wastewater generated within their boundaries.

Statutory Citations

CGS Sections 22a-416 through 22a-438

CGS Sections 22a-475 through 22a-483

CGS Sections 22a-500 through 22a-519

Discussion

On-site Wastewater Management

Some municipalities rely entirely on on-site subsurface wastewater disposal without the establishment of a district. This wastewater management approach is suitable in areas where the development densities do not exceed the soils' ability to renovate and absorb the wastewater discharges. Small on-site septic systems (those systems with capacity of less than 5,000 gallons per day) are regulated through the local sanitarian or director of health and the Connecticut Department of Public Health. Larger systems require authorization from the CT DEP.

Centralized Wastewater Systems

Centralized wastewater collection, treatment and disposal systems typically include a collection system of pipes that convey wastewater to a single, large treatment system, often called a "sewage treatment plant." There are approximately 90 Connecticut municipalities that operate publicly-owned

centralized wastewater systems. With an average life expectancy of 20 years, treatment plants must periodically be rebuilt so they continue to meet the minimum national standard of secondary treatment. In addition, many municipalities must modify or rebuild their plants to meet higher levels of treatment, called advanced treatment, in order to meet "fishable-swimmable" water quality standards in the river receiving the discharge. Other needs that prompt system modifications include correction of combined sewer overflows, and increasing the hydraulic capacity of a plant and/or expanding the sewer system to meet growth needs or to address septic system failures in existing developed areas. The newest identified need is nutrient removal to protect Long Island Sound from low levels of dissolved oxygen which are threatening fish and other aquatic life.

Decentralized Wastewater Management Districts

Decentralized wastewater management districts are an approach to managing wastewater characterized by multiple and scattered subsurface sewage treatment and disposal systems. There are three types of wastewater systems that can be used in a decentralized approach:

- 1) a conventional subsurface sewage treatment and disposal system (conventional system), which consists of a house sewer connected to a septic tank connected to a leaching field, along with any necessary pumps or siphons and any groundwater control system on which the operation of the leaching field is dependent;
- 2) a community subsurface sewage treatment and disposal system (community system), is defined in statute as any sewerage system serving two or more residences in separate structures. Most community systems are not connected to a municipal sewerage system; however, some may be part of a municipally-managed decentralized wastewater management district; and

Wastewater Management Approaches

- 3) an alternative subsurface sewage treatment system (AT system), which is often designed for nutrient reduction (typically nitrogen).

A decentralized wastewater management district can rely on one of these approaches or it can include a combination of conventional systems, community systems and alternative systems.

Municipalities have authority to create decentralized wastewater management districts, which are areas designated by the municipality through a local ordinance. In order to establish a decentralized wastewater management district, there must be an engineering report stating that the existing subsurface sewage disposal systems may be detrimental to public health or the environment and that decentralized systems are required to correct the problem. The engineering report must be approved by the Commissioner of CT DEP with concurrence by the Commissioner of Public Health, after consultation with the local director of health. Approval of decentralized management districts typically requires a municipal commitment to upgrading individual systems to a pre-determined standard, through conventional septic systems, alternative technology, or both. A key to a successful district is the continued management by the municipality.

The benefits of establishing decentralized wastewater management districts include: new tools for improved management of new and existing sewage systems; use of alternative treatment technologies for remediation of existing problems; and the avoidance of large-scale infrastructure (centralized treatment systems). In some instances, decentralized wastewater management may be a cost-effective way to address municipal wastewater issues; however, in other instances installation and operation of a decentralized wastewater management district may be as costly as a centralized wastewater system. Decentralized alternatives require a substantial local

maintenance and management commitment in order to be properly implemented. The implementation of such a district requires a coordinated effort between the local health department and the local water pollution control authority.

Regional Water Pollution Control

Authorities

Under CGS Sections 22a-500 through 22a-519, two or more municipalities may create a regional water pollution control authority to provide municipal wastewater services for each of the constituent municipalities of the regional authority. The ownership and operation of the municipal wastewater infrastructure belongs to the regional authority and not the individual constituent municipalities.

Potential CT DEP Permits, Registrations and/or Certifications

Wastewater Discharge Permit

Financial Assistance

The CT DEP provides funding, as available, to municipalities for wastewater management through the Clean Water Fund. See www.ct.gov/dep/financialassistance and select “Water.”

Model Regulations for Municipal Consideration

No.

Web Pages

www.ct.gov/dep Under “Programs and Services” at the top of the page, select “Water” then select “Regulating Water” on the right navigation bar, then select “Subsurface Sewage Treatment and Disposal Systems / Septic Systems.”

Department of Public Health

www.ct.gov/dph Select “Environmental Health” then follow the link for “Subsurface Sewage (Septic Systems).”

Contact

Bureau of Water Protection and Land Reuse
Planning and Standards Division
Municipal Facilities Section
Phone: 860-424-3704



Description

“Sewage” is defined in state statute to mean “human and animal excretions and all domestic and such manufacturing wastes as may be detrimental to public health” (CGS Section 22a-423). CT DEP uses “sewage” and “wastewater” interchangeably.

Municipal Connection

A municipality is responsible for managing the wastewater generated within its boundaries. Planning for wastewater management will result in frequent contact with the CT DEP and the CT Department of Public Health (CT DPH).

Municipal Responsibility

Many activities related to municipal wastewater management require prior authorization and/or approval from the CT DEP or the CT DPH.

Statutory Citation

CGS Sections 22a-416 through 22a-599

Discussion

Although the CT DEP is responsible for regulating discharges to the waters of the state, including both surface waters and groundwaters, it has delegated permitting authority over household and small commercial subsurface disposal systems to the Commissioner of the Department of Public Health (CT DPH) and local sanitarians. How this responsibility is divided is dictated by statute and is based on the type and size of wastewater system proposed. In general, systems involving the discharge of less than 5,000 gallons per day (gpd) of domestic sewage to any one lot are regulated by the CT DPH and/or the local director of health.

Systems with flows greater than 5,000 gpd are regulated by the CT DEP. Additional information on the systems under CT DEP’s authority can be found on CT DEP’s Wastewater Web page (see below). For additional information on the CT DEP programs that regulate subsurface disposal systems, please refer to the section of *The Municipal Primer* titled: *Guide to CT DEP Permits, License and Other Authorizations*.

Potential CT DEP Permits, Registrations and/or Certifications

Wastewater Discharge Permit

Approval of plans and specifications of all wastewater infrastructure

Financial Assistance

The CT DEP provides funding, as available, for municipal wastewater management through the Clean Water Fund. See www.ct.gov/dep/financialassistance and select “Water.”

Model Regulations for Municipal Consideration

No.

Web Pages

www.ct.gov/dep Under “Programs and Services” at the top of the page, select “Water” then select “Regulating Water” on the left navigation bar, then “Subsurface Sewage Treatment and Disposal Systems / Septic Systems.”

Department of Public Health

www.ct.gov/dph Select “Environmental Health” then follow the link for “Subsurface Sewage (Septic Systems).”

Regulating Wastewater at the State Level

Contacts

Systems regulated by CT DEP

- Centralized/municipal wastewater collection and treatment systems

Bureau of Water Protection and Land Reuse
Planning and Standards Division
Municipal Facilities Section
Phone: 860-424-3704

- Conventional septic systems with design flows greater than 5000 gallons per day, including sites where multiple smaller systems on a single “lot” have a combined flow greater than 5000 gallons per day
- Community sewerage systems*
- Any sewerage system utilizing alternative treatment technology, regardless of size

Bureau of Materials Management and
Compliance Assurance
Permitting and Enforcement Division
Subsurface Disposal Program
Phone: 860-424-3018

* “community sewerage system” is defined in statute to mean “any sewerage system serving two or more residences in separate structures which is not connected to a municipal sewerage system or which is connected to a municipal sewerage system as a distinct and separately managed district or segment of such system” (CGS Section 7-245(3)).

Systems where regulation is delegated to others

- Conventional septic system with design flow greater than 2000 gallons per day but less than 5000 gallons per day

DPH Sewage Program
860-509-7296

- Conventional septic system with design flow less than 2000 gallons per day

Local health department in the town the site is located





Public Health

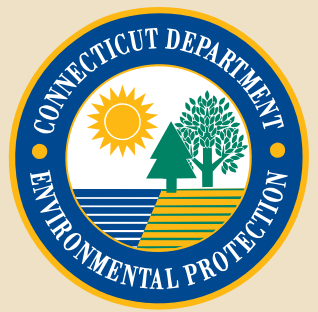


Photo: CT DEP

Pictured — Low Ground Pressure Excavator Used for Wetland Restoration

Municipal health officials and sanitarians have authorities and responsibilities related to protecting public health, some of which intersect with CT DEP programs. In particular, CT DEP has programs related to certain on-site septic systems, drinking water supply wells, the clean-up of contaminated sites, and wetland restoration/mosquito control. Municipal health departments and sanitarians should be aware of these programs and are encouraged to contact CT DEP for related information or assistance. To aid in coordination between municipal health officials and sanitarians and the CT DEP, this section of *The Municipal Primer* provides fact sheets on the following topics:

- *Mosquito Management and Control*
- *Potable Water Program*

Other fact sheets in *The Municipal Primer* related to municipal health officials and sanitarians functions are:

Brownfields Remediation (Boards, Commissions, Agencies and Committees)

Municipal Wastewater Management Planning (Wastewater Planning and Management)

Wastewater Management Approaches (Wastewater Planning and Management)

Regulating Wastewater at the State Level (Wastewater Planning and Management)

Outdoor Wood-Burning Furnaces and Wood Stoves (Public Safety and Building Official).



Description

Connecticut's Mosquito Management and Control Program is a comprehensive, intergovernmental program to prevent the transmission of mosquito borne diseases.

Municipal Connection

Most of the responsibility for local mosquito control statutorily lies with the local health departments.

Municipal Responsibility

Municipalities are responsible for implementing the state public health statutes as they pertain to mosquito control.

Statutory Citation

CGS Sections 22a-45b to 22a-45d, inclusive

Discussion

Certain mosquitoes can harbor and transmit pathogens that cause diseases. Typical mosquito-borne diseases found in Connecticut include Eastern Equine Encephalitis (EEE) and West Nile Virus (WNV).

In order to manage mosquitoes to minimize the risk from these diseases, Connecticut has a Mosquito Management Program (CT MMP), which is a multi-agency effort including the CT DEP, the Connecticut Department of Public Health, the Connecticut Agricultural Experiment Station, the Connecticut Department of Agriculture, and the University of Connecticut. During the mosquito season, the CT MMP collects samples of the state's mosquito population (both adults and larvae, which are an immature stage of mosquito development), and tests for the presence of EEE and WNV.

As part of its role in the CT MMP, the CT DEP actively manages mosquitoes using two general approaches: 1) the widespread use of biological controls; and 2) the judicious use of

insecticides. Biological controls involve using the natural predators of mosquitoes and most frequently include water management techniques in mosquito breeding areas. These techniques improve access to the mosquito-breeding sites for fish that consume mosquito larvae and pupae (another sub-adult development stage of mosquitoes). Biological control provides more permanent mosquito management than chemical insecticides; however, when biological controls are inappropriate or insufficient, select insecticides are judiciously applied. Insecticides used for mosquito management are grouped into two categories: 1) larvicides, used to control immature (larval) mosquitoes in aquatic habitats, and 2) adulticides, used to control adult mosquitoes. The insecticides used by the CT DEP are safe for the environment and do not pose any adverse threat when used in accordance with label instructions.

A number of other products on the market claim to have mosquito control capabilities. In most cases, these products have not been rigorously tested and do not perform as advertised. Mechanical traps such as ultraviolet "bug zappers" or devices that repel using ultrasonic sound waves, do not meet advertiser claims. In fact, bug zappers attract few mosquitoes and may actually kill beneficial insect predators so they should not be used for mosquito reduction. Natural predators, such as bats and certain bird species, including purple martins, eat mosquitoes. Although mosquitoes make up only a small portion of these predators' diets, bats and purple martins can reduce the severity of an infestation.

The CT DEP Wetlands Habitat and Mosquito Management Program provides technical assistance to municipalities regarding mosquito habitat and control options using Integrated Pest Management (IPM) alternatives (see the fact sheet on *Landscape and Lawn Care* under Public Works for more on IPM).

Mosquito Management and Control

Potential CT DEP Permits, Registrations and/or Certifications

Applicators must be licensed by the CT DEP to apply pesticides.

CT DEP pesticide permits may be needed, depending upon the mosquito control product/s to be used.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Pages

www.ct.gov/mosquito

www.ct.gov/dep/pesticides

Contact

Bureau of Natural Resources
Wildlife Division
Wetlands Habitat and Mosquito Management Program
Franklin Wildlife Management Area
391 Route 32
North Franklin, CT 06254
Phone: 860-642-7630



Description

The CT DEP's Potable Water Program ensures that safe drinking water is available to private and public well owners whose drinking water supply is polluted by human activities.

Municipal Connection

Sometimes human activities can lead to contamination of drinking water supplies. When this occurs, the individual, or the city or town, can turn to the CT DEP for help. If possible, the CT DEP will identify the party or parties responsible for the contamination and secure from them an alternate drinking water supply. If a party responsible for the contamination cannot be identified, or if the responsible party does not have the resources to provide an alternate water supply, the CT DEP may negotiate a consent order with the municipality to ensure an alternate, safe drinking water supply.

Municipal Responsibility

In instances where the responsible party can be identified and has the resources to ensure an alternate drinking water supply, the municipality has no specific responsibilities under this program. Otherwise, the CT DEP may negotiate a consent order with the municipality to ensure an alternate, safe drinking water supply.

Statutory Citation

CGS Section 22a-471

Discussion

Leaking underground fuel oil or gasoline tanks, improper handling or disposal of industrial and commercial chemicals, misapplication of fertilizers and pesticides, road-salting activities, site-grading activities (including blasting and the handling and storage of earth material), and other human actions can result in contaminated drinking water supplies. Any person whose well water is affected by a pollution source other than

naturally occurring substances may seek help through the CT DEP's Potable Water Program.

CT DEP staff works closely with local health authorities, environmental consultants and the CT Department of Public Health staff to conduct well water sampling and site assessments, and communicate technical and public health information to residents affected by pollution of well water. This coordinated effort provides a comprehensive approach to solving potable water problems.

When a responsible party causing the pollution cannot be identified, the Potable Water Program will provide affected residents with a short-term supply of drinking water (i.e., bottled water and/or water treatment system). The Potable Water Program will work with the municipality to arrange for an engineering report that investigates the situation and provides recommendations and alternatives for the long-term provision of potable water. Such report is generally funded through a CT DEP grant to the municipality where the pollution has occurred.

All other public drinking water issues are managed by the Connecticut Department of Public Health Drinking Water Section.

Potential CT DEP Permits, Registrations and/or Certifications

This is not a CT DEP regulatory program so there are no permits or certifications specific to this program.

Financial Assistance

The CT DEP provides grants to municipalities to provide potable water when necessary. See www.ct.gov/dep/financialassistance. Select "Site Clean-up" then select "Regulations for (potable water) Grants to Municipalities"

Model Regulations for Municipal Consideration

No.

Potable Water Program

Web Page

www.ct.gov/dep/remediation Look for the link to “Potable Water Program.”

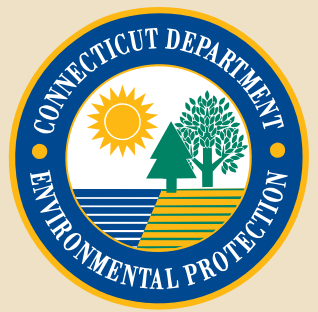
Contact

Bureau of Water Protection and Land Reuse
Remediation Division
Potable Water Program
Phone: 860-424-3705





Parks and Recreation



Pictured —
Cotton Hollow Preserve,
Glastonbury, Connecticut

Municipalities typically acquire, operate and maintain municipal parks and forests and provide recreational opportunities and programs. The CT DEP acquires, operates and maintains state parks and forests and provides public recreational opportunities and programs within these state amenities. To aid in coordination between municipal parks and recreation agencies and the CT DEP, this section of *The Municipal Primer* includes fact sheets on the following topics:

- *Greenways*
- *Outdoor Recreation*
- *Protected Open Space*
- *State Parks and Forests*

While many other fact sheets in *The Municipal Primer* may be helpful to parks and recreation agencies, some that may be of particular interest are:

Dredging (Public Works)

Fleet Selection and Operations (Public Works)

Landscape and Lawn Care (Public Works)

Low Impact Development (Boards, Commissions, Agencies and Committees)

Wildlife Issues: Animal Possession, Nuisance Animals & Wildlife Rehabilitators (Public Safety and Building Official)

Grants and Financial Assistance (Financial Assistance).



Description

A “greenway” is a corridor of open space that may serve various functions:

- 1) it may protect natural resources, preserve scenic landscapes and historical resources, or offer opportunities for recreation or non-motorized transportation;
- 2) it may connect existing protected areas and provide access to the outdoors;
- 3) it may be located along a defining natural feature, such as a waterway, or along a man-made corridor, including an unused right-of-way, traditional trail or rail route, or historic barge canal; and/or
- 4) it may be a “green space” along a highway or around a village; or any combination of these items.

Municipal Connection

Greenways are often established, owned and/or maintained by the municipalities where they are located. Greenways can make communities better places to live by preserving and creating open space, and they can strengthen local economies by protecting the environment and providing areas for passive recreation and alternative transportation. Greenways can also preserve and highlight areas with historic or cultural value.

Municipal Responsibility

Municipalities are encouraged to participate in this non-regulatory program by planning for and designating greenways.

Statutory Citation

CGS Sections 23-100 through 23-102

Discussion

Greenways are a specific type of open space that can help conserve native landscapes and ecosystems by protecting, maintaining, and restoring natural, connecting, linear corridors.

Greenways can provide opportunities for recreation, exercise, and alternative transportation, as well as corridors for the movement of wildlife between habitats. In addition, these areas can separate and buffer incompatible use of adjacent land. Greenways may also promote economically efficient and productive uses for lands that may otherwise be marginal for development. They can also contribute to local tourism and to the preservation of scenic, cultural, and historic assets in the state.

The Greenways Small Grants Program (Greenways License Plate Program) provides for the planning, design, and implementation of greenway projects around the state, and offers education about these projects. Property acquisition and construction are not eligible for funding through this program but may be eligible for funding through the Open Space and Watershed Grant Program described on the fact sheet for *Protected Open Space*.

Potential CT DEP Permits, Registrations and/or Certifications

None, this is not a regulatory program.

Financial Assistance

Financial assistance may be available. Please see www.ct.gov/dep/financialassistance and select the “Greenways” link.

Model Regulations for Municipal Consideration

None.

Web Page

www.ct.gov/dep/greenways

Contact

Bureau of Outdoor Recreation
State Parks Division
Trails and Greenways Program
Phone: 860-424-3578

Description

Outdoor recreation activities include both organized sports such as soccer, football, or baseball, and more passive activities, such as hiking, picnicking or bird watching.

Municipal Connection

Municipalities typically provide recreational opportunities for their residents. Many of these activities take place outdoors. The municipal role in outdoor recreation differs from that of the CT DEP in two fundamental ways: 1) municipal recreational facilities and programs are intended to serve primarily the residents of that municipality rather than a larger regional or statewide population; and 2) the nature of the facilities and activities provided for at the local level tend toward the more intensive, active and/or organized forms of recreation. Athletic fields, tennis courts, golf courses, swimming pools or beaches, boating facilities, and hiking trails are typical of the types of recreational facilities that municipalities may provide.

Municipal Responsibility

There are no overarching CT DEP requirements for municipalities regarding outdoor recreation. However, municipalities are encouraged to provide outdoor recreational opportunities for their residents. Like all other municipal activities, depending on the specifics of a project to provide outdoor recreation opportunities, CT DEP permits or licenses may be required.

Statutory Citation

CGS Sections 23-1 through 23-27k

Discussion

Statewide Comprehensive Outdoor Recreation Plan

The CT DEP's recreation efforts are guided by the Connecticut Statewide Comprehensive Outdoor Recreation Plan 2005-2010 (SCORP). Generally, CT DEP funding provided to

municipalities for recreational development will be evaluated based, in part, on consistency with the SCORP. Consequently, when considering outdoor recreation grants to municipalities, the project rating and scoring systems will give priority to projects based on the needs identified in the SCORP. These include: multi-use trails; swimming access at freshwater, saltwater or pools; picnic areas, shelters or playgrounds; boating access; and toilet and parking facilities. Projects that are accessible from local transit routes will also be favored.

Greenways

Greenways are linear open spaces that can help conserve native landscapes and ecosystems by protecting, maintaining, and restoring natural connecting corridors. They can provide opportunities for recreation, exercise, and alternative transportation by supporting hiking trails and/or bike paths. In addition, these areas can separate and buffer incompatible adjacent land uses and promote economically efficient and productive uses for lands which may be marginal for development. Greenways can also contribute to local tourism and to the preservation of scenic, cultural, and historic assets in the state. For more information, see the fact sheet on *Greenways*.

Managing Outdoor Municipal Recreational Facilities

Ensuring environmental stewardship of outdoor municipal recreational facilities is frequently a matter of following the guidance offered in the fact sheets provided in the "Municipal Facilities" section under Public Works, particularly the fact sheet on *Landscape and Lawn Care*. However, golf courses and marinas and other boating facilities present unique challenges and opportunities for improved environmental protection.

Ball Fields

Turf ball fields have the potential to adversely impact the environment through the improper use of fertilizers, pesticides and herbicides. To mitigate this potential, ball field managers

Outdoor Recreation

should consider minimizing the use of these items on playing fields and other landscaped areas. To the extent feasible, ball field managers are encouraged to use alternative pest controls, such as integrated pest management. This is discussed in greater detail in the fact sheet on *Landscaping and Lawn Care* under Public Works.

Turf ball fields may also be routinely watered to maintain the playing surface. Such watering should be done with care to ensure that the use of water is optimized. Tailoring the watering amounts and schedules based upon such things as time of day (early morning is recommended), recent rainfall, weather conditions (evaporation and transpiration by plants is reduced on overcast and/or cool days), and other factors can significantly reduce water use. Depending upon the sophistication of the watering system, the best management practices developed for golf course water use may be helpful to turf ball field managers (see below).

Golf Courses

Similar to ball fields, golf courses have the potential to impact the environment through the improper use of fertilizers, pesticides and herbicides. To mitigate this potential, golf course operators should follow the guidance offered above.

Additionally, golf courses require significant amounts of water to maintain optimum playing conditions. The CT DEP has developed best management practices for golf course water use (BMPs) that are intended to promote water conservation, preserve or improve water quality and protect water resources. These BMPs were developed by a work group consisting of course superintendents, environmental regulators, and specialists from local engineering, scientific, and irrigation consulting groups. They were developed for the use of golf course planners, architects, developers, and local regulators who may need assistance and guidance in developing new golf courses, or making changes to existing

golf courses, under the regulatory and environmental constraints that exist in the State of Connecticut.

Marinas and Other Boating Facilities

Many municipalities operate recreational boating facilities. In addition to the other “green” practices discussed above, Connecticut offers several programs specific to the marinas and other boating facilities. Municipalities that operate marinas, other boating facilities and/or municipal vessels are eligible for participation in these programs.

The Boating Infrastructure Grants (BIG) program, funded by the Sport Fish Restoration Account of the Aquatic Resources Trust Fund, provides funding for public and private agencies and marinas and other facilities that offer transient tie-up opportunities for non-trailerable (26’ or over in length) recreational boats.

Connecticut’s Clean Marina Program is a voluntary program that encourages inland and coastal marina operators, including municipalities, to minimize pollution. The program also recognizes Connecticut’s marinas, boatyards, and yacht clubs that go above and beyond regulatory compliance as “Certified Clean Marinas.”

As a companion to the Clean Marina Program, the Clean Boater Program encourages the state’s boaters to learn about and use clean boating techniques. Municipal officials and employees who use boats as part of their municipal duties are encouraged to take the Clean Boater Pledge. Tips on how to be a clean boater are available on the CT DEP website at www.ct.gov/dep/boating.

Participating in the Clean Vessel Act (CVA) grant program is a great way to upgrade a municipal marina’s boat waste handling facilities and provide customers with quick and convenient waste handling. A harbormaster or harbor management commission can develop a presence on the water by operating a CVA funded pumpout boat program. The CT DEP

Office of Long Island Sound Programs administers the CVA Grant Program in Connecticut. This program provides federally funded matching grants for qualifying projects that provide boat sewage disposal facilities. Up to 75% of the cost of an approved project may be reimbursed.

Municipal marina operators are advised that work in (or in some cases near) the water is regulated and the regulatory authority depends upon the type of waterway. Work within the review area of inland wetlands and watercourses is controlled by the municipal inland wetlands agency; work in coastal waters or tidal wetlands is regulated under the CT DEP coastal permitting program. See the Guide to CT DEP Permits, Licenses and Other Authorizations section of *The Municipal Primer* for more information.

Potential CT DEP Permits, Registrations and/or Certifications

Permits and licenses related to general property management are listed on various facts sheets under Public Works in *The Municipal Primer*.

Permits and licenses related to specific recreational uses on municipal properties are as follows.

- Boating facilities, swim floats and other structures in tidal coastal and navigable waters are subject to CT DEP's coastal permitting authorities.
- Boating facilities and other facilities in inland wetlands, lakes, ponds, streams and rivers are subject to local inland wetlands and watercourses regulations.
- Boating facilities and other facilities within stream channel encroachment lines are subject to CT DEP's stream channel encroachment line authorities.

Use of State Parks and Forests for organized recreation activities requires prior approval. For more information, see fact sheet on *State*

Parks and Forests under Parks and Recreation in *The Municipal Primer*.

Financial Assistance

Funding may be available for outdoor recreation through the following programs:

Greenways and Trails

www.ct.gov/dep/greenways Select "Sources of Funding" on the left side;

Boating Infrastructure Program and Clean Boaters Program

www.ct.gov/dep/boating Select "Grant Information" on the left side;

Clean Vessel Act Program

www.ct.gov/dep/cva Select "Grant Information" on the left side.

Model Regulations for Municipal Consideration

No.

Web Pages

Outdoor Recreation

www.ct.gov/dep/recreation

Greenways

www.ct.gov/dep/greenways

Boating

www.ct.gov/dep/boating

Clean Marina Program

www.ct.gov/dep/cleanmarina

Clean Vessel Act Grant Program

www.ct.gov/dep/cva

Contacts

SCORP

Office of the Commissioner
Planning and Program Development
Phone: 860-424-4110

Greenways and Trails

Bureau of Outdoor Recreation
Greenways and Trails Program
Phone: 860-424-3578

Outdoor Recreation

Boating

Bureau of Outdoor Recreation
Boating Division
333 Ferry Road
Old Lyme, CT 06371
Phone: 860-434-8638

Clean Marina/Clean Vessel Act

Bureau of Water Protection and Land Reuse
Office of Long Island Sound Programs
Phone: 860-424-3034



Description

Protected Open Space (POS) is land preserved in perpetuity predominantly in its natural scenic and open condition for the protection of natural resources. Recreation consistent with such protection may be allowed in POS. When POS is Class I or Class II water supply watershed lands, improvements necessary for the protection or provision of potable water may be allowed.

Municipal Connection

As key partners, municipalities play a major role in establishing and safeguarding POS in Connecticut.

Municipal Responsibility

Individual municipalities are not required to participate in this program but they are encouraged to do so.

Statutory Citations

CGS Section 23-8 and CGS Sections 23-73 through 23-99

Discussion

Connecticut's natural diversity and scenic beauty add immeasurably to the quality of life for its residents. The state's prosperity has always depended upon its natural resources. Forests and farms contribute to a healthy and diverse economy. Parks and open lands improve the quality of life and help attract businesses. Natural areas and waterways provide critical wildlife habitats, clean water for drinking and recreation, and scenic natural beauty, which are the foundation of the tourism industry.

The CT DEP envisions a mixed landscape that offers multiple benefits: providing outdoor recreation to Connecticut's citizens; protecting water supplies; preserving fragile, natural communities and homes for plants and animals; offering green spaces for city residents; and providing a functioning, natural

landscape for the harvesting of farm and forest products. In 2007, the CT DEP updated *The Green Plan*, which identifies priority conservation areas to help attain this vision.

Not all undeveloped land is protected open space; much of it will eventually be developed. However, for Connecticut to remain an attractive state in which to live, work and conduct business, it is critical that development be balanced with land conservation. This was recognized by the state legislature in 1999 when they created the Open Space and Watershed Grant Program, administered by the CT DEP. This program helps municipalities, nonprofit land conservation organizations and water companies purchase land and/or conservation easements in order to permanently protect valuable open space.

The Open Space and Watershed Grant Program legislation established a goal of permanently protecting a total of 21 percent of Connecticut's land area; 10 percent to be held by the State of Connecticut and 11 percent to be held collectively by municipalities, nonprofit land conservation organizations and water companies, whose Class I and Class II watershed lands are included in this share. The Open Space Acquisition Program intends to achieve these goals by 2023, which means that the state and its open space partners must remain committed to acquiring open space for the next fifteen years. The recently updated *The Green Plan*, mentioned above, guides acquisition under this program. Open Space and Watershed Grants are available to municipalities, land trusts and water companies for a variety of projects related to open space protection. Requests for proposals are issued annually. For municipalities, this is a cost-share program for the protection of open space including Class I and Class II water supply watershed lands. Distressed communities are also eligible for funding for resource enhancement and protection projects. The percentage of appraised value covered by the Open Space and Watershed Lands Acquisition Grant Program is set by statute (CGS Sections

Protected Open Space

7-131d through 22a-131k) and, depending upon the individual project, may be up to 50-75 percent.

Potential CT DEP Permits, Registrations and/or Certifications

None, this is not a regulatory program.

Financial Assistance

Funding for protecting open space is provided by the CT DEP, as funds allow. See Web page for Open Space and Watershed Grant Program noted below.

Model Regulations for Municipal Consideration

No.

Web Pages

Open Space and Watershed Grant Program
www.ct.gov/dep/financialassistance Select the “Open Space” link.

The Green Plan
www.ct.gov/dep/landscapestewardship From the “Quick Links” drop down menu, select “Open Space.”

Contact

Bureau of Outdoor Recreasion
Land Acquisition and Management Division
Municipal Grants Program
Phone: 860-424-3081



Description

State parks are state-owned recreational facilities that are designed and maintained for public visitation.

State forests are state-owned, multiple-use lands that provide commercial forest products, protect watersheds, provide wildlife habitats and host recreational facilities.

Municipal Connection

State parks and forests may be located within one or more municipalities. These state-owned resources can support the environmental, social and economic health of communities.

Municipal Responsibility

Municipalities have no specific responsibility to state parks and forests beyond those of the general public (i.e., honor the applicable rules and regulations and the property boundaries). Municipal public safety officials (police and fire) are typically first responders to emergency situations in state parks and forests. However, the CT DEP Division of Environmental Conservation Police are the police authority for these areas.

Statutory Citation

CGS Sections 23-1 through 23-27k

Discussion

The State of Connecticut owns a variety of lands managed by the CT DEP for specific purposes. These lands include state parks and forests. These areas are primarily intended to be used for passive recreation (e.g., hiking, birding, picnicking, and the like). Some state parks also offer supervised swimming. Residents of host communities are encouraged to responsibly enjoy these areas in ways consistent with the purposes for which they have been established. An entrance or parking fee is collected at some state parks and forests.

State Parks

State parks offer valuable recreational opportunities to both Connecticut residents and non-residents. Many organized recreational activities can be accommodated at state parks provided the organizers apply to the CT DEP State Parks and Education Division to register their proposed activities. Events must be in keeping with the mission of the CT DEP and State Parks Division. The state has approved such diverse activities as hang gliding, tai chi day, dog shows, boy scout events, and historical reenactments.

State Forests

The CT DEP manages state forests to promote a vigorous, resilient, forest environment capable of sustaining the wide range of demands that the public places on these lands. These demands include a variety of recreational experiences, protection of natural diversity (including threatened and endangered species), preservation of unique sites (geologic, cultural and archeological), provision of raw materials and forest products, and maintenance of wildlife and fisheries habitats.

Potential CT DEP Permits, Registrations and/or Certifications

Many activities proposed within state parks or forests require pre-approval by the CT DEP.

Financial Assistance

Not applicable.

Model Regulations for Municipal Consideration

Not applicable.

Web Pages

State Parks

www.ct.gov/dep/stateparks

State Forests

www.ct.gov/dep/forestry

State Parks and Forests

Contacts

State Parks

Bureau of Outdoor Recreation

State Parks Division

Email: dep.stateparks@po.state.ct.us

Phone: 860-424-3200

State Forests

Bureau of Natural Resources

Forestry Division

Phone: 860-424-3630





Public Safety
and Building
Official



Public Safety and Building Official (Includes Open Burning Official)

There are several areas where municipal public safety officials and the CT DEP interact. Specifically, Environmental Conservation Police can support and may require support from local police departments in the response and investigation of emergency situations and/or illegal activities. Local public safety officials should be aware of the requirements of certain CT DEP programs. To aid in coordination between local public safety officials and the CT DEP, *The Municipal Primer* provides fact sheets on the following topics:

- *Environmental Conservation Police*
- *Environmental Justice*
- *Open Burning*
- *Outdoor Wood-burning Furnaces and Wood Stoves*
- *Wildlife Issues: Animal Possession, Nuisance Animals and Wildlife Rehabilitators*

The other fact sheet in *The Municipal Primer* related to public safety issues is:
Fleet Selection and Operation (Public Works).



Description

Connecticut Environmental Conservation Police (EnCon Police) are certified police officers who are schooled in specific areas related to the EnCon Police missions listed below.

Municipal Connection

Environmental Conservation Police can support and may require support from local police departments in the response and investigation of emergency situations and/or illegal activities.

Statutory Citations

CGS Sections 26-5, 26-6 and 29-18

Discussion

The EnCon Police protect the public and Connecticut's natural resources through public education and outreach, prevention of crime and accidents, and the enforcement of environmental and other laws and regulations. They work in the following areas:

Fish & Game

- statewide enforcement of hunting, fishing and trapping laws and regulations;
- inspection of taxidermy operations for compliance with laws and regulations;
- joint enforcement efforts with other states and special agents of the U.S. Fish and Wildlife Service to detect, deter, apprehend and prosecute violators of federal fish and game laws; and
- investigation or assistance in the investigation of hunting-related incidents that result in death or injury to persons, and maintenance of officers trained in the reconstruction of such incidents.

Recreational Boating

- patrolling all waters within the state and on Long Island Sound to enforce recreational boating rules;
- inspection of recreational boats for compliance with boating laws and regulations;
- performing search and rescue operations;
- investigation of boating accidents that occur on Connecticut waters;
- maintenance of a "Boating Accident Reconstruction Unit" (B.A.R.U.) to reconstruct boating accidents that involve death or serious physical injury; and
- oversight of lake authority marine patrol units on Lake Candlewood and Lake Housatonic.

Commercial Fishing

- statewide enforcement of state and federal laws and regulations pertaining to the commercial harvest of fish and shellfish;
- inspection of commercial fishing vessels for compliance with commercial fishing laws and regulations;
- inspection of retail and wholesale seafood dealers and establishments for compliance with commercial fishing laws and regulations; and
- joint enforcement efforts with other states and special agents of the National Marine Fisheries Service to detect, deter, apprehend and prosecute violators of federal fish and game laws.

Wildlife Management

- responding to complaints about sick, injured or nuisance wildlife;
- assisting CT DEP biologists with monitoring Connecticut's black bear and moose populations;

Environmental Conservation Police

- providing information to the public regarding living with wildlife; and
- when necessary, chemical immobilization of large wildlife such as black bear, moose or white tail deer.

State Parks And Forests

- primary policing for Connecticut state parks and forests;
- patrolling state parks and forests to deter criminal activity;
- investigating crimes and enforcing all state laws and regulations on CT DEP-owned properties; and
- performing search and rescue operations.

Recreational Vehicles

- enforcing state laws and regulations pertaining to the operation of snowmobiles and all-terrain vehicles (ATV) on CT DEP-owned or leased property, or on the frozen surface of public bodies of water; and
- assisting other agencies with the enforcement of ATV and snowmobile laws and regulations on other properties.

Homeland Security

- patrolling public watershed areas;
- waterborne patrolling of shipping ports;
- waterborne patrolling of navigable waterways;
- waterborne patrolling off Millstone Point Nuclear Power Plant in Waterford; and
- serving as primary, on-water backup agency for U.S. Coast Guard.

Public Education and Outreach

- providing function-related information, education and assistance to the public at various events and locations.

Potential CT DEP Permits, Registrations and/or Certifications

None.

Financial Assistance

Not applicable.

Model Regulations

Not applicable.

Web Page

www.ct.gov/dep/enconpolice

Contacts

Bureau of Outdoor Recreation
Environmental Conservation Police Division

To Report a Crime: 860-424-3333

Turn In Poachers (TIP) Line: 800-842-4357

Routine Administrative Inquiries:

Administrative Headquarters
860-424-3012

Eastern District Headquarters

860-295-9523

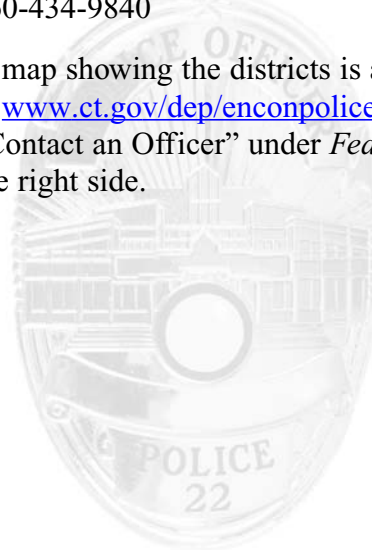
Western District Headquarters

860-485-0226

Marine District Headquarters

860-434-9840

A map showing the districts is available online at www.ct.gov/dep/enconpolice Select “Contact an Officer” under *Featured Links* on the right side.



Description

Environmental justice means that all people should be treated fairly under environmental laws regardless of race, ethnicity, culture, or economic status.

Municipal Connection

The Department's Environmental Justice Program provides assistance to local law enforcement agencies in the areas including but not limited to:

- illegal dumping;
- asbestos contamination;
- lead paint contamination;
- auto body shops;
- housing sanitation;
- school sanitation;
- schoolyard habitat development; and
- public participation plans.

Municipal Responsibility

To apply federal, state and local environmental and public health ordinances equitably to all its citizens.

Statutory Citations

CGS Section 22a-1a
Public Act 08-94

Discussion

The Department's environmental equity policy states that, "no segment of the population should, because of its racial or economic makeup, bear a disproportionate share of the risks and consequences of environmental pollution or be denied equal access to environmental benefits."

The CT DEP Environmental Justice Program incorporates principals of environmental justice into aspects of the CT DEP's program

development, policy making, and regulatory activities, including but not limited to:

- assessing the effectiveness of CT DEP efforts in the state's urban areas;
- enforcing of the state bottle bill;
- maintaining a registry of bottle redemption centers;
- investigating and responding to environmental and, in consultation with local and state departments of health, public health complaints from municipal officials;
- increasing public participation in the agency's decision making process;
- identifying community health concerns in consultation with local and state departments of health;
- enhancing public participation in administrative proceedings;
- educating municipalities on CT DEP regulations, policies and procedures; and
- providing training material on permitting processes.

Public Act 08-94 provides some protections for distressed municipalities and those neighborhoods and communities that are economically disadvantaged from what are termed "affecting facilities." Affecting facilities are statutorily defined to include any:

- electric generating facility with a capacity of more than ten megawatts;
- sludge or solid waste incinerator or combustor;
- sewage treatment plant with a capacity of more than fifty million gallons per day;
- intermediate processing center, volume reduction facility or multi-town recycling facility with a combined monthly volume in excess of twenty-five tons;

Environmental Justice

- new or expanded landfill, including, but not limited to, a landfill that contains ash, construction and demolition debris or solid waste;
- medical waste incinerator; or
- major source of air pollution, as defined by the federal Clean Air Act.

This legislation affected the listed activities proposed in either: 1) municipalities listed on the Connecticut Department of Economic and Community Development *Distressed Municipalities List*; or 2) in a United States census block group for which thirty-percent or more of the population are living below two hundred percent of the federal poverty level. As of January 1, 2009, an applicant who seeks a CT DEP permit for a new or expanded affecting facility or Siting Council approval for an affecting facility must:

- provide a *Public Participation Plan* as part of their application; and
- negotiate the need for and terms of a community environmental benefits agreement with the municipality. Prior to negotiating the terms of such an agreement, the municipality is required to provide the neighborhood or community where the facility is proposed to be sited with an opportunity to be heard regarding the need for and terms of a community environmental agreement.

In addition to the affecting facilities named in Public Act 08-94, an applicant seeking a solid or hazardous waste permit in a “distressed municipality,” as identified on the *Connecticut Department of Economic and Community Development Distressed Municipalities List*, must submit an environmental justice plan to the CT DEP. *An Environmental Justice Plan Guidance Document* for permit applicants is available upon request from the CT DEP Environmental Justice Program.

Potential CT DEP Permits, Registrations and/or Certifications

The Environmental Justice Program is not a regulatory program; however, specific environmental justice requirements are added to certain permit programs in listed distressed municipalities and economically disadvantaged neighborhoods or communities.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Page

www.ct.gov/dep/environmentaljustice

Contacts

Office of the Commissioner
Environmental Justice Program

Administrator - 860-424-3044

Outreach & Education - 860-424-3053

Complaint Investigation - 860-209-5612
860-463-6875

Illegal Dumping Hotline - 1-866-363-3867



Description

“Open burning” means the burning of brush on a residential property provided that the open burning is conducted by the resident (or designated agent) of the property and a permit for such burning has been obtained from the local burning official. For the most part, businesses are not allowed to open burn.

As it relates to open burning, “brush” means shrubs, vegetation or prunings less than three inches in diameter at the widest point.

Combustible wood products that are not considered brush include, but are not limited to: construction and demolition waste, or land-clearing debris such as stumps.

Municipal Connection

The chief executive officer of each municipality is responsible for nominating all local burning officials and has the authority to revoke any nomination. All burning official nominations must be certified by the Commissioner of CT DEP.

The open burning of brush at a municipal landfill, transfer station or municipal recycling center is allowed, provided the requirements outlined in the discussion below are met.

Municipal Responsibility

Except for actions on state-owned property, municipalities have the authority to regulate or ban the open burning of brush for any purpose within their boundaries. If open burning is not banned, the municipal open burning official (OBO) is responsible for issuing open burning permits to residents within such municipality.

Only the OBO can issue open burning permits for the following activities proposed on non-state-owned properties:

- 1) fire training exercises;
- 2) eradication or control of insect infestations or disease;
- 3) agricultural purposes;

- 4) clearing vegetative debris following a natural disaster; and
- 5) vegetative management or enhancement of wildlife habitat, or ecological sustainability on municipal property, or any privately-owned property permanently dedicated as open space.

Open burning laws of the state or municipality may be enforced by any peace officer within that peace officer’s area of jurisdiction. Note that this will not appear in a peace officer’s “ticket book” since it is not an infraction, but a misdemeanor crime, subject to fine and imprisonment. Municipalities may establish other enforcement tools through local ordinances.

Statutory Citation

CGS Section 22a-174(f)

Discussion

Open burning can pollute the air and make it difficult for people with respiratory problems to breathe. Open burning can also create smoke and odor nuisances, as well as health risks to nearby residents, particularly in densely populated areas. Therefore, the CT DEP encourages the use of alternate methods of disposing of brush, such as chipping, grinding, composting and recycling.

The burning of non-processed wood for campfires and bonfires is not prohibited providing such activity is conducted in a manner that is consistent with any local restrictions imposed on such burning and that it does not create a nuisance.

No open burning of brush shall occur:

- 1) when national or state ambient air quality standards may be exceeded;
- 2) where a hazardous health condition might be created;
- 3) when the forest fire danger in the area is identified by the Commissioner of CT DEP

Open (Outdoor) Burning

as extreme and where woodland or grass land is within one hundred feet of the proposed burn;

- 4) where there is an advisory from the Commissioner of the CT DEP of any air pollution episode;
- 5) where prohibited by an ordinance of the municipality; and
- 6) in the case of a municipal landfill, when such landfill is within an area designated as a “hot spot” on the open burning map prepared by the Commissioner.

Municipalities are allowed to conduct open burning of brush at a municipal landfill, transfer station or municipal recycling center, provided a permit for such burning is obtained from the local fire marshal of the municipality where the facility is located. Such permit, along with the approval of the chief executive officer, must be submitted to Commissioner of CT DEP by the fire marshal. A permit for the open burning of brush at a municipal landfill, transfer station or recycling center shall be issued no more than six times during any calendar year. The burning of leaves, demolition waste or other solid waste deposited in such landfill is prohibited.

The burning of wood or other waste materials in a drum or other similar container is prohibited.

Potential CT DEP Permits, Registrations and/or Certifications

The Commissioner of CT DEP is responsible for:

- certifying the nomination of any local burning official;
- approving or disapproving any OBO’s proposed permitting of burning brush at a municipal landfill, transfer station or municipal recycling center; and,
- authorizing, in writing, fire breaks for the purpose of controlling forest fires, and

controlled fires in salt water marshes to forestall uncontrolled fires.

In addition, the Commissioner of CT DEP is responsible for authorizing open burning for the following purposes on state-owned properties:

- fire training exercises;
- eradication or control of insect infestations or disease;
- agriculture;
- clearing vegetative debris following a natural disaster; and
- vegetation management, enhancement of wildlife habitat or ecological sustainability.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Page

www.ct.gov/dep Select “Programs and Services” at the top of the page, then select “Air” then select the “Open Burning” link on left navigation bar.

Contact

Bureau of Air Management
Engineering and Enforcement Division
Field Enforcement Program
Phone: 860-424-3702

Outdoor Wood-Burning Furnaces and Wood Stoves

Description

An outdoor wood-burning furnace (OWF), is a wood-fired boiler in a small, insulated shed with a smoke stack. OWFs heat water that is carried through underground pipes to heat a home or building, domestic hot water, a swimming pool, a spa or a hot tub.

Woodstoves are heat and/or cooking sources most commonly installed within a residence.

Municipal Connection

Outdoor wood-burning furnaces and wood stoves generally lack air pollution controls in their smoke stacks or chimneys, and as a result, they contribute to air pollution. The release of smoke and particulate matter can be a nuisance to neighbors (thereby generating complaints), and a threat to air quality.

Wood stoves can generate complaints from neighbors relating to particulate emissions. If complaints are not effectively addressed at the municipal level, the CT DEP can be contacted to provide assistance.

Municipal Responsibility

Municipalities have the authority to regulate the location of OWFs and share enforcement authority with the CT DEP.

Municipal building permits are required for OWFs and for wood stoves. Local zoning permits are frequently required for the structure that houses an OWF.

Statutory Citation

CGS Sections 22a-170 through 22a-206

Discussion

Outdoor Wood-burning Furnaces

It is widely recognized that the OWF market is a niche market and there are many more woodstoves than OWFs in Connecticut and throughout New England. Nevertheless, OWFs appear to be creating the bulk of smoke-related nuisances on the residential level. Therefore,

the Department has notified trades people involved in the installation of such units about location requirements and the possible outstanding challenges associated with OWFs.

Smoke from OWFs contains unhealthy amounts of particulate matter (PM), dioxin, carbon monoxide, nitrogen dioxide, sulfur dioxide, hydrochloric acid, formaldehyde and other toxic air pollutants. Current state law specifies that all OWFs installed after July 11, 2005, must:

- burn only wood that has not been chemically treated;
- be located not less than 200 feet from the nearest residence not being served by the unit; and
- have a chimney that is more than the height of the roof peaks of residences located within 500 feet of the OWF, provided the chimney height is not more than 55 feet.

The state law governing OWFs does not alter the municipality's authority for regulating land use, including OWFs. In fact, CT DEP has found OWFs can still create local nuisances, even when in full compliance with the statutory location requirements. Options available to municipalities include, but are not limited to:

- adopting more restrictive location requirements for the installation of OWFs within their jurisdiction;
- limiting installations near schools, churches, commercial districts and other sensitive areas, as the statute only addresses requirements for set-backs from residences;
- requiring a zoning permit or special exception for the installation of an OWF (a building permit is required for the shed, the plumbing and any associated electrical work);
- requiring, as part of the local zoning or building permit process, documentation by

Outdoor Wood-Burning Furnaces and Wood Stoves

a licensed surveyor or professional engineer that the location of the OWF, distances to residences, and comparative heights of the stack and proximate residential rooflines meet the statutory standards, and that the installation of the OWF is in accordance with the manufacturer's written instructions.

Wood Stoves

Wood stoves are a popular source of heat in Connecticut homes. Although wood stoves rely on renewable resources and are frequently recommended by climate change mitigation proponents, they do produce smoke that contains unhealthy amounts of various pollutants. Careful operation of wood stoves can reduce their adverse impact on air quality. The best operational techniques include, but are not limited to:

- avoiding using wood stoves on days when the air quality index is high for particulate matter;
- using only seasoned firewood;
- using small, hot fires;
- refraining from burning garbage; and
- refraining from "bedding down" a fire to keep it burning for an extended period of time.

If there is a lot of smoke, it is a sign that something is wrong. Municipalities are encouraged to educate their wood stove owners on these best operation practices. Wood stoves manufactured and sold after July 1, 1992 must be certified by the U.S. Environmental Protection Agency (EPA). Encouraging residents to buy or use an EPA-certified wood stove will improve efficiency and minimize air quality effects.

Air Pollution Complaints

The CT DEP Air Pollution Complaint Line, 860-424-3436, is open for all concerns regarding smoke and other air pollution. It is operated from 8:00 am - 4:30 pm, Monday through Friday; voice mail is available for complaints made during evening and weekend hours, or a complaint can be emailed to dep.aircomplaints@ct.gov.

Potential CT DEP Permits, Registrations and/or Certifications

No CT DEP permits are required for OWFs or wood stoves.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Pages

www.ct.gov/dep Under "Programs and Services" at the top of the page, select "Air," then select "Outdoor Wood Furnaces" under "Featured Links" on the right side of the page.

Air Quality Index

www.ct.gov/dep Select "Air Quality Index" from right navigation bar under "Updates & Advisories."

Contact

Bureau of Air Management
Engineering and Enforcement Division
Field Enforcement Program
E-mail: dep.aircomplaints@ct.gov
Phone: 860-424-3702

Wildlife Issues: Animal Possession, Nuisance Animals & Wildlife Rehabilitators

Description

Wildlife issues include concerns regarding wild animal possession, the handling and management of nuisance wild animals and the role of wildlife rehabilitators.

Municipal Connection

Municipal officials, particularly police and/or animal control officials, are frequently contacted regarding wild animal possession, nuisance animals in and around yards, and animals that are found sick, injured or orphaned.

Local zoning officials may be contacted by individuals applying for state permits to possess wildlife. Falconers and wildlife educators are required show proof to CT DEP that they are in compliance with all local laws before obtaining permits to house wild animals on their property.

Municipal Responsibility

A municipal zoning enforcement officer may be asked to review local land use laws to determine if a municipality prohibits the possession of wildlife or the building of structures that house wildlife. When applicable, zoning enforcement officers may be asked to sign CT DEP application materials for falconers, educators and/or wildlife rehabilitators stating that these individuals are in compliance with all local land use ordinances.

Statutory Citation

CGS Sections 26-1 through 26-168a

Discussion

Each year, the CT DEP Wildlife Division receives several thousand calls for assistance from residents who have problems with wild animals. These conflicts typically include: wild animals damaging crops, livestock or property; wild animals posing a threat to human safety; injured or diseased wild animals; or wild

animals taking up residence in areas where they are unwanted. Information and suggestions for resolving nuisance wildlife problems are available on the CT DEP Web site for the most common species, including bats, bears, beavers, coyotes, deer, foxes, geese, pigeons, raccoons, skunks, squirrels and woodchucks. Homeowners can also refer to the list of *Nuisance Wildlife Control Operators* on the CT DEP Web site to find a local company that can be hired to remove nuisance animals.

The Department appoints volunteers as wildlife rehabilitators. Once trained, wildlife rehabilitators are authorized to care for sick, injured and orphaned animals. A list of these volunteers is available on the CT DEP Web site. Please note that wildlife rehabilitators are *not* allowed to care for black bears, bobcats, coyotes, adult deer, adult raccoons, adult fox, adult skunk or venomous snakes.

CT DEP licenses are required to possess raptors (birds of prey) for the purpose of falconry. As part of the licensing process, an applicant must demonstrate to the CT DEP that the structures that will house the birds are consistent with local zoning requirements, and that the practice of falconry is permitted in the land use district in which it will occur.

Potential CT DEP Permits, Registrations and/or Certifications

Wildlife Custodians:

Authorization is required to care for sick, injured or orphaned wild animals as volunteers.

Nuisance Wildlife Control Operators:

Authorization is required to trap and remove nuisance animals from structures and yards, and charge a fee for their services.

Falconry:

Authorization is required to possess up to three raptors for the purpose of hunting and is issued only to licensed falconers.

Wildlife Issues: Animal Possession, Nuisance Animals & Wildlife Rehabilitators

Possession Permits:

Authorization is required to possess wild animals for the purpose of education or public exhibit.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations

No.

Web Pages

General Wildlife

www.ct.gov/dep/wildlife

Black Bear Information

<http://www.ct.gov/dep/blackbear>

To Report a Black Bear Sighting

<http://www.depdata.ct.gov/wildlife/sighting/beerpt.htm>

List of Licensed Nuisance Wildlife Control Operators

www.ct.gov/dep/wildlife Select “Nuisance/Distressed Wildlife” on left navigation bar, then follow the link under “Nuisance Wildlife Control and Rabies Brochure.”

Contact

Bureau of Natural Resources
Wildlife Division
Phone: 860-424-3011





Schools and Education



Pictured — Welles Library,
Newington, Connecticut

The CT DEP is intent on working with local school districts to ensure that Connecticut educators have opportunities for training in a variety of environmental topics, and that public school facilities provide a safe environment for students, educators and other staff. To meet the first goal, the CT DEP offers teacher training workshops on a wide range of environmental topics. To achieve the second goal, certain standards have been established regarding the operation and management of existing schools, as well as standards to be applied in the design and construction of new schools. To aid in coordination among municipal schools, education departments, and the CT DEP, this section of *The Municipal Primer* provides fact sheets on the following topics:

- *Environmental Education and Outreach*
- *Green Building Requirements for Schools*
- *Operations and Maintenance for Schools*

Other school-related fact sheets in *The Municipal Primer* are:

Landscaping and Lawn Care (Public Works)

Fleet Selection and Operation (Public Works)

Mobile Air Emissions (Public Works)



Description

Environmental education and outreach is an effort by the CT DEP to teach, and provide support for teaching, about our natural and man-made environment.

Municipal Connection

Schools, families and youth groups can participate in programs at sites throughout Connecticut. The CT DEP provides professional development to municipal nature center staff and other non-formal educators, and to formal education professionals. Municipalities can co-sponsor environmental, historical and cultural programs (e.g. Valley Rivers Celebration, SPLASH).

Municipal Responsibility

There are no specific responsibilities beyond those required of the general public. Sometimes there are fees for programs and bus permits.

Statutory Citation

Not applicable.

Discussion

The CT DEP can help with information and resources for use in the classroom, at home, or in the local community, including educator workshops, student field trips, educational resources and public education courses. There are a number of year-round education facilities operated by the CT DEP, including Kellogg Environmental Center in Derby and Dinosaur State Park in Rocky Hill, as well as seasonal programs offered at 25 parks and forests throughout the state. Programs can be arranged through CT DEP's Education & Outreach staff.

The CT DEP offers teacher workshops and provides Continuing Education Units (CEU's). State parks and forests are wonderful venues for school field trips enhancing the classroom curriculum. Bus permits must be obtained in advance and, in certain areas, other fees apply.

School classes and families can visit environmental centers, historical museums and state parks to learn more about Connecticut's natural, historical and cultural assets.

The CT DEP's *No Child Left Inside* is a major state initiative designed to reconnect youngsters with the outdoors, build the next generation of environmental stewards, and showcase Connecticut's state parks and forests. As part of the *No Child Left Inside* initiative, Connecticut state park day passes are provided annually to the main branches of the libraries in all 169 towns and cities.

Potential CT DEP Permits, Registrations and/or Certifications

None specific to this program.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations

No.

Web Page

www.ct.gov/dep/education

Contact

Bureau of Outdoor Recreation
Division of State Park
Education & Outreach
Email: dep.stateparks@ct.gov
Phone: 860-424-3973

Description

A “green building” is one for which the indoor and outdoor (building and landscape setting) environmental qualities have been considered and protected during its design, construction, maintenance and use.

Municipal Connection

Connecticut municipalities are responsible for providing public education and the facilities (schools) necessary to house public education activities.

Municipal Responsibility

As of January 1, 2009, minimum standards for green buildings will be imposed on construction of certain school facilities, depending upon type and cost of the project and the level of state funding. Affected projects will be:

- new construction of a school facility that is projected to cost \$5 million or more, of which \$2 million or more is state funding; and/or
- renovation of a public school facility that received \$2 million or more in state funding.

Statutory Citation

CGS Sections 16a-38 through 16a-38k

Discussion

Connecticut is supporting responsible growth which, in general terms, is: economic, social, and environmental development that uses land and resources in ways that enhance the long-term quality of life for Connecticut’s current and future generations.

Green building is one of the tools used to advance responsible growth. There is a lot of information available on green building and not all authors agree on all aspects, but almost everyone agrees that green buildings are:

- energy efficient;
- site responsive;
- water conserving;
- materials sensitive; and
- healthy for their occupants.

Under current state law and associated regulations that are under development, municipalities are required to ensure that all persons associated with school construction both know about green design, construction and maintenance, and follow the applicable regulations. If a proposed school construction project is not in compliance with these regulations, state law requires that state funds be withheld.

While the CT DEP plays only a supportive role in implementing this program, the green building requirement for schools is included here due to its strong environmental connection. Complying with these regulations will result in schools that consume less energy and conserve natural resources. These schools will be more comfortable, and easier and less costly to maintain.

Potential CT DEP Permits, Registrations and/or Certifications

None specific to this program.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Green Building Requirements for Schools

Web Pages

General Green Building

www.ct.gov/dep/landscapestewardship Select “Tools for Towns and Cities” and scroll down to select the “Green Building” link,

CT Green Building Council

www.ctgbc.org For Green Schools information, select “Events” on the left side, then select “Events Archive” in the pop-up box.

Contact

Office of the Commissioner
Planning and Program Development
Pollution Prevention Program
Phone: 860-424-2071



Description

The upkeep, servicing, repair and running of municipal educational facilities.

Municipal Connection

Connecticut municipalities have primary responsibility for education in grades K-12 (kindergarten through grade 12). This responsibility includes the operation of school facilities. There are several major environmental issues that should be addressed in school facilities operation plans, including air quality; the use of pesticides; composting; and the disposal of fats, oils and greases from cafeterias.

Municipal Responsibility

Municipalities are required to comply with statutory restrictions on the use of pesticides on school grounds and with the CT DEP general permit requirements for the discharge of wastewater from food preparation establishments (including school cafeterias).

In addition, municipalities are encouraged to establish and enforce “no-idling zones” for diesel vehicles and school buses and develop school composting programs.

Certain school programs (e.g., vocational-agricultural, mechanical shop) may require specific CT DEP permits.

Statutory Citations

Air Pollution Control

CGS Sections 22a-170 through 22a-206

Pesticides

CGS Sections 22a-46 through 22a-66z

Solid Waste

CGS Sections 22a-207 through 22a-256ee

Water Pollution Control

CGS Sections 22a-416 through 22a-599

Discussion

Air Quality

Children breathe 50% more air per pound of body weight than adults. This makes children more sensitive to air pollution. Most of the ground-level air pollution in Connecticut is generated by motor vehicles. Monitoring studies have shown that a line of idling school buses waiting to drop off or pick up students is a significant source of motor vehicle exhaust affecting school children.

One approach to limiting the effects of school bus exhaust emissions on air quality is through retrofitting the exhaust systems on the buses. However, this is a costly project and there is only limited funding available. Unless and until school buses are provided with up-to-date emission controls, prohibiting or limiting idling (anti-idling efforts) can be an effective, low-cost way to significantly and immediately reduce exposure to diesel pollution.

Research has shown that constant reminders significantly improve compliance with an idling restriction. To effectively promote awareness of the environmental and health effects of bus idling on school children, and to reduce unnecessary idling, the CT DEP provides free anti-idling signs to Connecticut public schools that agree to post them. The CT DEP also encourages school systems to conduct an outreach effort to employees, students and parents on the idling impacts of all motor vehicles on health and air quality. (See fact sheet on *Fleet Selection and Operation* under Public Works for more information on idling.)

School bus idling is not only an outdoor air quality problem, but it also frequently affects air quality within the schools. The typical proximity of school bus queuing locations to the air intakes for school buildings can draw diesel exhaust into school ventilation systems. School buildings frequently have lower air exchange rates so once diesel exhaust enters a school building it is slow to dissipate. This can be a prime contributor to elevated indoor

Operations and Maintenance for Schools

pollution levels in school buildings. While this can be readily addressed by anti-idling efforts, it is only one source of poor indoor air quality in schools. The CT Department of Public Health is primarily responsible for indoor air quality issues and offers a “Tools for Schools” program to address most other causes of poor indoor air quality.

Use of Pesticides at Schools

Prior to 2007, Connecticut banned the use of lawn care pesticides at pre-schools and elementary schools. In 2007, the General Assembly expanded that State-wide ban to schools with students through grade eight (K-8). There is an emergency provision that allows a school superintendent, in coordination with other appropriate authorities, to authorize emergency applications of lawn care pesticides when the problem is related to health emergencies at K-8 schools.

If pesticides are being applied to a school (or school grounds) serving grades 9 or higher, pesticide certification is required, except if an emergency application is necessary, or the pesticide is in the form of baits or general use sanitizers.

Composting for Schools

Organic materials such as cafeteria food waste are highly recyclable if kept separate from the trash. These materials should be thought of as a resource, not a waste. Composted organic materials can be used to mulch landscaped areas and reduce the need for fertilizers. Schools have a ready source of compostable materials in the food wastes from their cafeterias. The Town of Mansfield, with financial and technical assistance from the CT DEP, developed a manual that outlines the steps necessary for establishing and maintaining a successful, school-wide composting program for cafeteria school scraps. It is available for download on the CT DEP Web site at www.ct.gov/dep/recycle. Follow the link for “Schools.”

Fats, Oils and Greases

Schools are the primary municipal facilities that include commercial-type kitchens (also known as food preparation establishments). Any such kitchen produces a significant amount of fats, oils and greases (FOG). Discharging these wastes to wastewater collection and treatment systems (i.e., pouring them down the drain) creates significant environmental and public health problems throughout much of Connecticut. In recognition of this issue and to assist both municipalities and private facilities that generate FOG, the CT DEP created a *Fats, Oils, and Grease (FOG) Model Program* for discharges to sanitary sewerage system and a FOG general permit that requires the installation and maintenance of grease traps or automatic grease recovery units. The general permit covers facilities that have the potential to discharge wastewater containing fats, oils and greases above 100 mg/L (milligrams per liter) as a result of preparing or serving food prepared by hot processes. Facilities generating FOG discharges below this threshold are exempt from the permitting requirements. Any municipal school with FOG discharge above this threshold is subject to the requirements of the *General Permit for the Discharge of Wastewater Associated with Food Preparation Establishments*.

Potential CT DEP Permits, Registrations and/or Certifications

Pesticides Operator Certification

General Permit for the Discharge of Wastewater Associated with Food Preparation Establishments (FOG)

Other permits may apply for specific schools programs (e.g., vocational-agricultural, mechanical shop). Additional information is available through the CT DEP Permit Assistance Office at 860-424-3003.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Pages

Anti-idling

www.ct.gov/dep/air

CT Department of Public Health (DPH)

www.ct.gov/dph Select “Environmental Health” on the left side of the DPH home page, then select “Indoor Environmental Quality” in the center of the page then scroll down and select “Tools for Schools.”

Organic Land Care

www.ct.gov/dep/p2

Composting for Schools

www.ct.gov/dep/recycle

Fats, Oils and Greases

www.ct.gov/dep/permits&licenses Follow the “Air, Waste, Water and Land Use” link, select “Water Discharge Permits and General Permits” then scroll down to “Food Preparation Establishment Wastewater” in the General Permits section and select the link to the “Fats, Oils and Greases Model Program.”

Contacts

Pesticides

Bureau of Materials Management and Compliance Assurance
Pesticide Management Program
Phone: 860-424-3369

Anti-idling

Bureau of Air Management
Enforcement Section
Phone: 860-424-3702

Composting for Schools

Bureau of Materials Management and Compliance Assurance
Recycling Program
Phone: 860-424-3365

Fats, Oils and Grease

Bureau of Water Protection and Land Reuse
Municipal Facilities Section
Phone: 860-424-3018

General Permit Questions

Office of the Commissioner
Planning and Program Development
Permit Assistance Office
Phone: 860-424-3003





Financial Assistance



Pictured — Connecticut Clean Water Fund Project, Plainville, Connecticut

The CT DEP administers grants and financial assistance programs that can fund municipal activities related to environmental protection and enhancement. Major programs include the Clean Water Fund, which assists with the design and construction of wastewater treatment plants, and the Open Space and Watershed Lands Acquisition Program, which helps municipalities permanently protect valuable open space. There are numerous other financial assistance programs available to municipalities. A partial list includes those that help with underground storage tank removal and clean-up, urban forestry efforts, watershed-based planning, the development of public access to Long Island Sound, and the development of boating infrastructure. Eligibility criteria vary from program to program.

The CT DEP also offers municipalities guidance on ways to save money by reusing materials, and protect the environment by choosing environmentally-preferred products.

To aid in coordination between municipal agencies and the CT DEP, this section of *The Municipal Primer* provides fact sheets on the following topics:

- *Grants and Financial Assistance*
- *Reducing Costs Through Source Reduction and Materials Reuse*
- *Purchasing Practices (Recycled Products and Environmentally Preferred Purchasing)*

A related fact sheet in *The Municipal Primer* is:

Fleet Selection and Operations (Public Works).



Description

Grants and financial assistance are programs through which the CT DEP makes funding available for use by municipalities for specific projects.

Municipal Connection

Municipalities are eligible for funding through a number of grant and financial assistance programs administered by the CT DEP.

Municipal Responsibility

Municipalities are not required to seek funding from the CT DEP for eligible projects; however, they are encouraged to do so. When funding is sought and granted, municipalities must fulfill the obligations of the awarded assistance.

Statutory Citations

Various, contact the individual funding program if a citation is needed.

Discussion

The CT DEP administers a number of grant programs and other funding opportunities for which municipalities are eligible. The list below includes the primary grant programs for which the CT DEP routinely or frequently has funding available. Other programs are periodically announced and identified on the CT DEP Web site when funds are available.

Clean Water Fund

Connecticut's Clean Water Fund (CWF) provides a combination of grants and loans to municipalities to undertake water pollution control projects and water supply projects eligible for the drinking water fund. Projects funded fall under these categories:

- water pollution control;
- sewage treatment plant construction and upgrades;

- nutrient removal projects protecting Long Island Sound;
- nonpoint source pollution control projects affecting Long Island Sound;
- river restoration;
- drinking water treatment plant upgrades; and
- waterline installation.

Proposals are accepted on a continual basis. Funding amounts vary depending upon the specifics of the project. For more information on this program, please call 860-424-3325.

Open Space

The Open Space and Watershed Land Acquisition Grant Program provides financial assistance to municipalities and nonprofit land-conservation organizations to acquire land for open space, and to water companies to acquire land as Class I or Class II water supply property. Grants may be awarded for the purchase of land that is: 1) valuable for recreation, forestry, fishing, or conservation of wildlife or natural resources; 2) a prime natural feature of the state's landscape; 3) a habitat for native plant or animal species listed as threatened, endangered or of special concern; 4) a relatively undisturbed, outstanding example of an uncommon native ecological community; 5) important for enhancing and conserving water quality; 6) valuable for preserving local agricultural heritage; or 7) eligible to be classified as Class I or Class II watershed land. Consistency of the prospective purchase with the goals of the CT DEP's *The Green Plan* will improve the potential for funding under this program.

Depending on project type and applicant category, awards are not to exceed 50-75% of fair market value of the property. The Open Space and Watershed Land Acquisition Grant program solicits projects annually, as funding allows. For more information on this program, please call 860-424-3016.

Grants and Financial Assistance

Other Funding Programs

Site Remediation

Site clean-up or remediation can be an expensive component of a redevelopment project. The funding for such efforts can be complex and may require coordination with several different government agencies at both the federal and state levels. Much of the core funding for site clean-up comes from the U.S. Environmental Protection Agency through a variety of different grant programs (www.epa.gov/ebtpages/cleanup.html). The Connecticut Office of Brownfield Remediation and Development is generally responsible for administering these funds. Information on these programs can be found on their Web site at www.ct.gov/ctbrownfields. Although these are not CT DEP-administered grant programs, the environmental benefit of site clean-up is substantial and these sources of funding assistance merit mention here.

Underground Storage Tank Petroleum Clean-Up Account Program

The CT DEP administers the Underground Storage Tank Petroleum Clean-Up Account Program. This program provides financial assistance for the investigation and clean-up of sites impacted by leaking underground storage tanks and enables petroleum tank owners to meet the financial responsibility requirements of federal regulations.

The Account provides coverage of up to one million dollars per release for taking corrective actions and for third party liability costs. Although this coverage is available for the clean-up of substantial releases, the party responsible for a release must bear all corrective action and third-party liability costs less than ten thousand dollars. For more information on the Underground Storage Tank Petroleum Clean-up Account Program, call 860-424-3370.

Boating Infrastructure Grants

Boating Infrastructure Grants (BIG) provide funding to:

- provide dockage, moorings and shoreside amenities (restrooms, dockside utilities, recycling and trash receptacles, electric service, water supplies, pay telephones) for recreational boats 26 feet or more in length;
- provide safe harbors for transients;
- enhance access to recreational, historic, cultural, natural and scenic resources, including navigational aids, dinghy docks, etc.);
- strengthen community ties to the water's edge and its economic benefits;
- promote public/private partnerships and entrepreneurial opportunities;
- provide continuity of public access to the shore; and
- promote awareness of transient boating opportunities.

This grant is offered to marinas, municipalities, and boating clubs that will provide public boating access. Applications are due August 1st annually. The CT DEP is able to grant two levels of funding. Tier I is a minimum of \$30,000 up to a total of \$90,000 and Tier II is for projects over \$100,000 annually. Tier II projects are scored nationally. For more information on the Boating Infrastructure Program, please call 860-434-8638.

Clean Vessel Act Grants

The Clean Vessel Act Grants Program provides funding for new marine sewage disposal facilities and for the operation and maintenance of existing marine sewage disposal facilities. Marine sewage disposal facilities include marine sanitation device holding tank pumpout facilities, marine portable toilet holding tank dump stations, and pumpout boats.

This grant is offered to marinas, municipalities, and marine organizations with operational responsibilities involving the boating public. The range of awards is unrestricted and based on estimated project costs. A minimum of a 25% match in funding is required. For more information on this program, please call 860-424-3034.

Forestry

The CT DEP Forestry Division offers two types of urban forestry grant opportunities: America the Beautiful (ATB) grants and Urban Forestry Education (UFE) grants. These grants are intended to initiate and augment important urban forestry efforts at the local level. The ATB grants are offered to municipalities and 501(c)3 non-profit organizations. The UFE grants are offered to schools, 501(c)3 non-profit organizations and municipalities that wish to complete an urban forestry project involving education, outreach and/or the production or updating of materials that support education and outreach regarding urban forestry. Funds from these programs have supported such diverse projects as tree planting, street tree inventories, tree maintenance programs and the design of tree guidebooks.

Grant awards are dependent upon available funding and generally are less than \$8,000; however, there may be opportunities for substantially larger grant awards. With either grant, the maximum amount offered for any one project requires at least a 50% match. Grants are available as funding allows. For more information on these programs, please call 860-424-3178.

Greenways and Trails

Greenways Small Grants Program (Greenways License Plate Program)

The Greenways Small Grants Program is offered to municipalities, regional planning organizations, and non-governmental organizations for the planning, design, and implementation of, and education about, greenway projects around the state. Property

acquisition and construction are not eligible for funding under this program. Funds for grants are generated by sales of Greenways License Plates. The request for proposals is issued annually in the fall. Grants up to \$5,000 are available. For more information on this program, please call 860-424-3578.

National Recreational Trails Program (also known as RTP or Symms Act)

The National Recreational Trails Program provides funding for construction of new trails, maintenance and restoration of existing trails, purchase or lease of equipment, acquisition of trail easements, and developing trail access for people with disabilities. The CT DEP may award grants under this program to private nonprofit organizations, municipalities and state agencies. The request for proposals for this reimbursement grant program usually goes out in June. The range of awards varies depending upon project specifics and available funding. The minimum required match is 20%, which can be in the form of in-kind services. For more information on this program, please call 860-424-3578.

Habitat Management/Restoration

Long Island Sound Habitat Restoration (Coves and Embayment Enhancement)

Funding can be used for the planning, design, and implementation of projects aimed at the restoration of degraded coastal coves and embayments, and tidal wetlands. This program is offered to coastal municipalities when funds are available. The range of awards varies depending on project specifics. Restoration value and the availability of matching funds improve the competitiveness of the project. For more information on this program, please call 860-424-3034.

Landowner Incentive Program (LIP)

The Landowner Incentive Program provides technical advice and cost assistance to landowners for habitat management that will result in the protection, restoration, reclamation, enhancement, and maintenance of habitats that support fish, wildlife and plant

Grants and Financial Assistance

species considered at risk. This program is offered to private landowners, sportsmen's clubs, conservation organizations, landowner associations, corporations, and land trusts. Although this grant program is not available for municipalities, it is included here so municipal officials can pass this information along to interested residents. Awards under this program are generally limited to \$25,000 and a minimum 25% match is required. For more information on this program, please call 860-295-9523.

The Lakes Grant Program

The Lakes Grant Program provides funding for lake restoration studies and projects at lakes that have public access. Funds for the Lakes Grant Program are used to abate lake eutrophication by conducting diagnostic studies and then developing and implementing restoration projects. Types of projects funded include dredging, algae control, stormwater infrastructure improvements and aquatic weed control.

This program is offered to municipalities, lake associations that are taxing districts, and lake authorities. Funding varies based on individual project costs and available funding. Matches, which may be in-kind, are 25% of the cost of a study and 50% of the cost of a project. For more information on this program, please call 860-424-3716.

Long Island Sound License Plate Grants

The Long Island Sound License Plate Grants Program provides funding for:

- the development of public outreach and education programs to increase the public's awareness of the need to preserve and protect Long Island Sound and its resources;
- increased or enhanced public access to Long Island Sound;
- protection and restoration of habitat essential to the Long Island Sound ecosystem; and
- scientific research of Long Island Sound that

responds to a clear need for additional information about the natural resources of the Sound.

This program is offered to municipalities, academic institutions, private individuals, corporations, state agencies, and 501(c)3 nonprofit organizations. Funding is available for projects that do not qualify for alternate sources of funding. Grants are generally limited to a maximum of \$25,000. Providing a match, either funding or in-service, improves the competitiveness of a project. For more information on this program, please call 860-424-3034.

Section 319 Nonpoint Source Grants

The Nonpoint Source (Section 319) Grant Program utilizes federal funding for the prevention, control and/or abatement of nonpoint source pollution. Eligible projects support the implementation of the Connecticut's Nonpoint Source Management Program. Funding priorities are for:

- implementation projects, particularly those that address a documented nonpoint source-related water quality impairment identified on Connecticut's *List of Impaired Waterbodies*;
- development of implementation plans;
- Total Maximum Daily Load (TMDL) analyses; or
- Section 319-defined watershed-based plans.

This program is offered to any interested public or private organization in Connecticut. Applicants are encouraged to partner with other public agencies (e.g., a municipality can partner with a regional planning agency). Funding is from a pass-through grant from the U.S. Environmental Protection Agency. Grant amounts depend upon the specifics of the project and the available funding. A non-federal match equal to at least 40% of the total dollar amount of the project is required. For more information on this program, please call 860-424-3730.

Potential CT DEP Permits, Registrations and/or Certifications

The need for a CT DEP permit varies depending upon the specifics of the funded project. For assistance, call the program contacts listed above or the Permit Assistance Office at 860-424-3003.

Model Regulations

No.

Web Page

www.ct.gov/dep/financialassistance

Contacts

Various. See Web page or call phone numbers listed above.



Reducing Costs Through Source Reduction and Materials Reuse

Description

Source reduction is a strategy to reduce waste materials through well-planned purchasing that focuses on multi-use products and reusing existing resources when acceptable. The goal is to have less material requiring disposal by extending the useful life of a given product.

Municipal Connection

Municipalities purchase many non-durable items. Purchasing “single use” or disposable items should not be the first consideration. Emphasis should be placed on reusing items, when practicable, and purchasing in bulk.

Municipal Responsibility

Municipalities can set an example for their residents on the practice of source reduction.

Statutory Citation

CGS Sections 22a-207 through 22a-256ee

Discussion

Source Reduction

Municipalities can save money and protect the environment by practicing source reduction. The CT DEP encourages municipalities to review their purchasing practices and institute appropriate changes to prioritize the reuse of existing resources and the purchase of alternatives to single use or disposable items. These practices typically save money and reduce the amount of materials needing disposal.

Reuse of Waste Materials

In keeping with the slogan “reduce, reuse, recycle,” there are ways that some waste materials can be reused. Beneficial use means using a solid waste either in a manufacturing process to make a product or as an effective substitute for materials used in a commercial product. While this may not often be appropriate for municipal activities, there may be some occasions when a city or town can

either utilize beneficial reuse or connect with a manufacturer in need of a specific waste the municipality has available. Municipalities are also encouraged to consider donating surplus materials (new or used) to charities, churches, schools, etc. before sending them for recycling or disposal.

Materials Exchange

In some instances, the material deemed ready for disposal might be something someone else can use in a materials exchange. Before disposing, explore material exchanges. They may provide important reuse opportunities for the community.

Potential CT DEP Permits, Registrations and/or Certifications

None specific to this program.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations

No.

Web Page

www.ct.gov/dep/solidwaste See “Beneficial Use of Solid Waste” and “Reduce, Reuse, Recycle” links.

Contact

Bureau of Materials Management and
Compliance Assurance
Recycling Program
Phone: 860-424-3365

Purchasing Practices (Recycled Products and Environmentally Preferred Purchasing)

Description

Recycled products are products made partially or totally from recycled materials.

According to the U.S. Environmental Protection Agency, “environmentally preferred products” (EPP) are “products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. The product or service comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal.”

Municipal Connection

There are many products that municipalities use on a day-to-day basis that can be replaced by EPP. Making such substitutions can significantly lessen the municipalities’ adverse impacts on the environment. Municipalities can acquire EPP through existing state contracts.

Municipal Responsibility

The use of EPP is not required of municipalities, but it is available to them through open state contracts. Municipalities are encouraged to use EPP.

Discussion

There are several things municipalities can do to save money and protect the environment. Some of these relate to purchasing practices. Municipalities are encouraged to consider buying recycled products or environmentally preferred products.

Purchase of Recycled Products

Purchasing products made from recycled materials (e.g., 100% post-consumer copier paper, pencils made from old denim jeans, or carpeting made from soda bottles) has many benefits for the environment, including:

- creating markets for materials collected in residential and business recycling programs;

- reducing air and water pollution;
- saving natural resources;
- supporting the development of green technologies;
- creating jobs; and
- reducing emissions of the greenhouse gases that contribute to global warming.

Environmentally Preferred Products

EPP are products that function as well as non-EPP, but have a lesser effect on the environment in their creation, distribution, use and/or disposal. Rather than having to clean up after a pollutant release, one of the goals of the EPP program is to utilize products that make pollutant releases less likely in the first place. Examples of EPP that municipalities might use are: environmentally-friendly cleaning products; low VOC (volatile organic compound) adhesives, sealants and paints; and energy efficient vehicles, office machines and appliances.

Potential Permits, Registrations and/or Certifications

None specific to this program.

Financial Assistance

Financial assistance is not available at this time (6/2008).

Model Regulations for Municipal Consideration

No.

Web Page

www.ct.gov/dep/recycle Select “Information for Municipalities and State Agencies” on the left navigation bar.

Contact

Office of the Commissioner
Program Planning and Development
Pollution Prevention Program
Phone: 860-424-3297



Guide to
CT DEP
Permits,
Licenses and
Other
Authorizations



Guide to CT DEP Permits, Licenses and Other Authorizations

Introduction

To carry out the mission of the CT DEP and the statutory responsibilities established by the legislature, the Commissioner of the CT DEP regulates activities that may impact the state's natural resources and environment. The CT DEP administers many different permitting programs that protect the state's resources by regulating the emission of pollutants, facility operations, and/or land use activities. The CT DEP also administers many recreational and natural resource licenses which help the Department manage boating, fishing, activities in state parks, and activities affecting wildlife. Professional and occupational licenses in environmental specialties, such as commercial arborist, solid waste facility operator, wastewater treatment facility operator, Licensed Environmental Professional (LEP), commercial fishing, forest practitioner and taxidermist, are also administered by the CT DEP.

This part of *The Municipal Primer* provides information on:

- *Air, Waste, Water and Land Use: Short Permit Processes*
- *Air, Waste, Water and Land Use: Individual Permit Process*
- *Air, Waste, Water and Land Use: Typical Individual Permit Process Flow Chart*
- *Air, Waste, Water and Land Use: Individual Permits List*
- *Matrix of CT DEP Permits Typically Required by Municipal Function / Operation*
- *Professional and Occupational Licensing*
- *Recreational and Natural Resources Authorizations*

Many routine, day-to-day operations of municipalities are subject to CT DEP permitting and/or licensing requirements. Other municipal activities that are infrequent or non-routine may also require prior approval by the CT DEP. Municipal officials are responsible for securing any necessary authorizations prior to conducting any CT DEP-regulated activities.



Air, Waste, Water and Land Use: Short Permit Processes

The CT DEP permit programs regulate activities that may impact the State's environmental quality. In addition to individual permits and licenses, the CT DEP has developed several expedited and short processes to facilitate the permitting of minor activities in its major permit programs. These processes include general permits, Certificates of Permission (COP), and temporary and emergency authorizations.

General Permits

The CT DEP has the authority to issue general permits in the major program areas, including the air, water, and waste programs. This authority allows the Commissioner to develop and issue a single permit to cover similar minor activities throughout a prescribed geographic area (e.g., the installation of swim floats in tidal, coastal or navigable waters, or the construction and operation of a municipal transfer station and recycling center). A general permit sets terms and conditions for conducting an activity in a manner that protects the environment. To date, fifty six different general permits cover a wide range of activities.

There are three basic types of general permits or ways of authorizing activities using a general permit. Each general permit describes the necessary level of approval needed to initiate an activity, which can include one or more of the following:

- a person conducting an activity described in a general permit may initiate the activity without prior registration (some of these permits may require later registration);
- registration is required prior to initiation of the activity (this registration frequently requires certification of a professional engineer); or
- CT DEP approval is required prior to initiation of the activity. In some cases, this approval will contain site-specific conditions in addition to those already contained in the general permit.

In almost every case where minor activities are proposed, general permits are quicker and more cost-effective for both the Department and the applicant. Additional information on general permits is provided in the *User's Guide to Environmental Permits*, available on-line at www.ct.gov/dep/permitguide. Questions regarding the eligibility of an activity should be directed to the appropriate program staff, or the CT DEP Permit Assistance Office. Online contact information is available through the *User's Guide to Environmental Permits*.

Certificates of Permission

A Certificate of Permission (COP) is a certificate issued for certain minor coastal activities involving dredging, erection of structures, or placement of fill in any tidal, coastal or navigable waters of the state. The specific activities eligible under this program are listed in CGS Section 22a-363b and include: substantial maintenance and minor alterations or amendments of previously authorized or pre-jurisdiction structures, fill, obstructions and encroachments; maintenance dredging of maintained permitted dredged areas; removal of derelict structures and vessels; and other enumerated minor activities. Questions regarding the COP eligibility of any planned activity should be directed to the Office of Long Island Sound Programs at 860-424-3034.

The COP process involves the filing of a simplified application and an application fee. Applicants for a COP receive a response from the Commissioner within 45 days of the application submission date, and a decision on the application no later than 90 days after the date of submission.

Air, Waste, Water and Land Use: Short Permit Processes

Emergency and Temporary Authorizations

The CT DEP is authorized by CGS Section 22a-6k to issue, in appropriate situations, emergency and temporary authorizations for certain activities. Additionally, CGS Section 22a-363d extends the emergency authorization authority to activities subject to the coastal structures, dredging and fill regulatory program. Emergency authorizations are limited to situations that pose an imminent threat to human health or the environment. These authorizations can be issued quickly and will contain conditions appropriate for the activity. Temporary authorizations are only available for activities for which the Department has been authorized to issue general permits, and they are relatively short in duration (i.e., less than 30 days). Questions regarding the eligibility of a planned activity should be directed to the Office of Long Island Sound Programs at 860-424-3034.

This overview is designed to answer general questions and provide basic information. Please refer to the appropriate statutes and regulations for the specific regulatory language of the different permit programs. This document should not be relied upon to determine whether or not an environmental permit is required. It is the individual's responsibility to obtain and comply with all required permits.



Air, Waste, Water and Land Use: Individual Permit Process

The CT DEP administers many permit programs which regulate activities that may impact the state's environmental quality. These programs protect air, land and water resources by regulating the emission of pollutants, operation of facilities, and use of land. In addition to individual permits and licenses, the CT DEP has developed expedited and short processes to facilitate the permitting of minor activities in its major permit programs, see *Air, Waste, Water and Land Use Short Permit Processes* for more information. For activities that do not meet the criteria for short or expedited permit processes, individual permits and licenses are required. The following describes the permitting process and the permitting programs that adhere to this process.

Permit Application Process

The process begins with the submission of a complete permit application, including all required documentation and any applicable fees. In most cases, the applicant must publish notice of the application in a newspaper of general circulation in the affected area and submit a copy of the notice to the Department. The applicable permit application instructions identify whether or not this notice is necessary. For a list of all CT DEP permits and licenses, visit the *User's Guide to Environmental Permits* online at www.ct.gov/dep/permitguide.

Upon receipt of an application, the Department performs an initial review to determine if all the necessary items (completed form, compliance information, fee, etc.) have been submitted and notifies the applicant accordingly. If the application is insufficient, the missing information will be identified. Every effort should be made to respond promptly to a notice of insufficient information. An insufficient application will not be processed and may ultimately be rejected, requiring reapplication with a new filing fee.

Once an application is sufficient, it moves to the technical review stage. During technical review of an application, CT DEP staff will determine if the proposed activity meets the applicable standards. In making this determination, it is often necessary for Department staff to request clarification or additional information in order to fully evaluate the environmental impact of the proposed activity.

After technical review, a tentative determination is made by the Department as to whether a permit should be issued. If the tentative determination is to grant the permit, a draft permit will be prepared outlining the terms and conditions that the permittee will be required to meet. Notice of the Department's tentative determination is published and a period of time is allowed for public comment. Depending upon the specific permit program and the level of interest or concern about the project, a public hearing about the application may be held. Hearings are presided over by an impartial hearing officer who subsequently issues a proposed decision. After an opportunity for oral argument before the Commissioner, a final decision on the application is issued. If no hearing is necessary, the process proceeds directly to the final decision stage and a permit is issued. Note: only a very small percentage of applications go through the administrative hearing process. For more information, see the *Public Participation Fact Sheet* available online at www.ct.gov/dep/permitguide.

After a permit becomes effective, the applicant / permittee must comply with the terms and conditions of that permit. Permittees should carefully read their permits and any statutes and regulations that apply. Violations of a permit may expose the permittee to civil and criminal sanctions.

The permit application process is illustrated in the *Air, Waste, Water and Land Use: Typical Individual Permit Process* flow chart.

Air, Waste, Water and Land Use: Individual Permit Process

Pre-Application Assistance

While most projects require only one or two simple permits, some projects can be very complex. Complex projects may require many different permits and include fairly complicated application requirements. CT DEP has a pre-application process to assist with these more complex projects. In some cases (particularly projects involving the land use programs), CT DEP encourages pre-application meetings to expedite the process. These meetings may be helpful in identifying any application requirements unique to the project. For more information on pre-application assistance, please view the CT DEP fact sheet for Pre-Application Assistance available online at www.ct.gov/dep/permitguide.

The Permit Assistance Office can answer general questions regarding permitting. This office can also provide professional staff referrals for answers to questions of a project-specific or technical nature. A pre-application conference may help you fully understand the permit application requirements for your proposed project regardless of its complexity. Questions regarding the application requirements, the permitting process, or the merit of a pre-application meeting, should be directed to the Permit Assistance Office at 860-424-3003, or to the specific permit program.

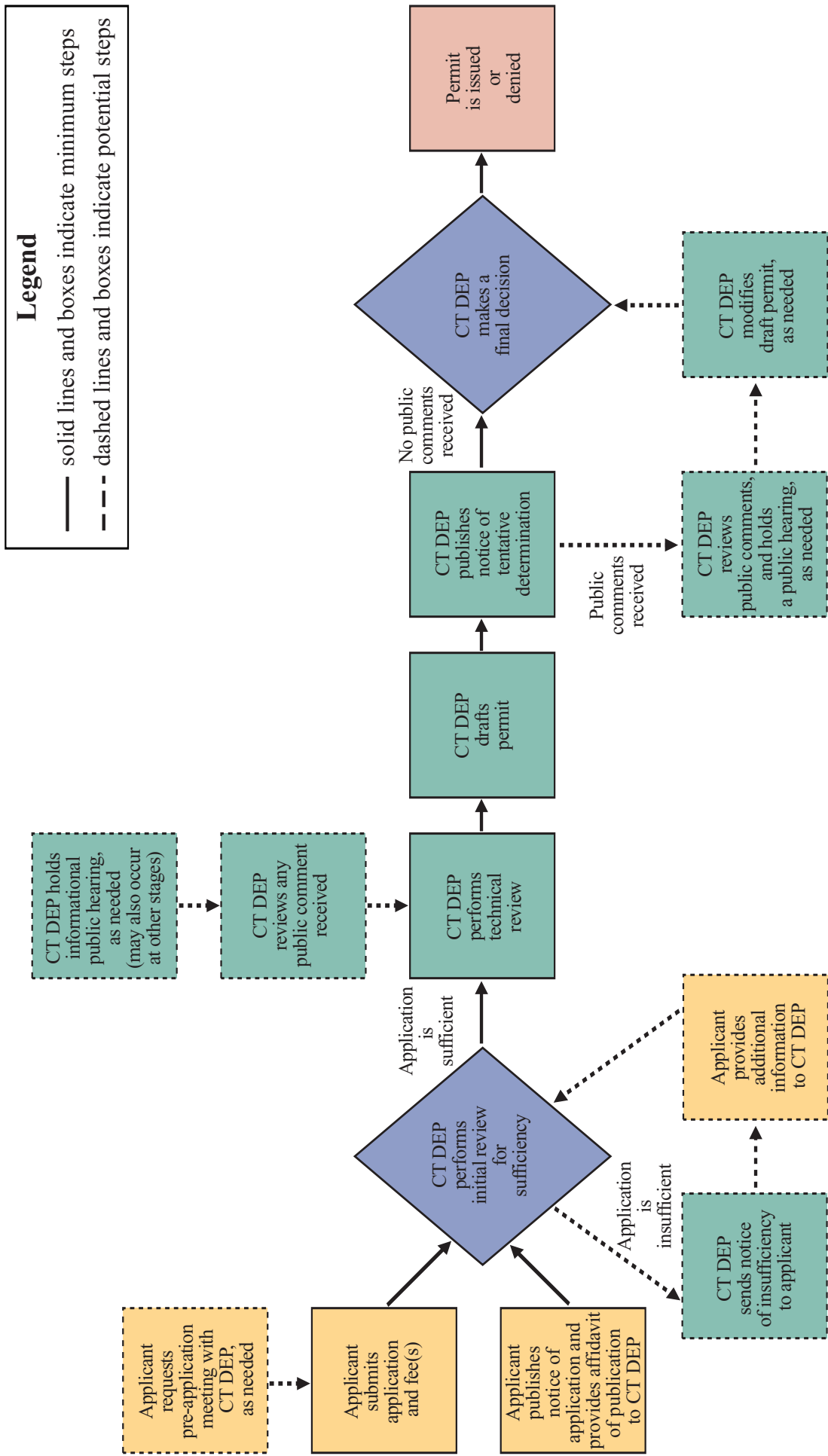
This overview is designed to answer general questions and provide basic information. Please refer to the appropriate statutes and regulations for the specific regulatory language of different permit programs. This document should not be relied upon to determine whether or not an environmental permit is required. It is the individual's responsibility to obtain and comply with all required permits.





Air, Waste, Water and Land Use: Typical Individual Permit Process

The process of applying for and obtaining an individual permit may differ slightly from program to program, but almost all programs follow the generic process depicted here:



Air, Waste, Water and Land Use: Individual Permits List

The CT DEP administers many permit and licensing programs that regulate air, water, waste and land use (see www.ct.gov/dep/permits&licenses). Not all of the permit programs described here apply to municipalities, but they are included for general information purposes. The CT DEP uses individual permits, general permits and other short processes to regulate activities within each permit program. Individual permits are issued directly to an applicant, whereas general permits are issued to authorize similar activities by one or more registrants throughout a prescribed geographic area.

Authorization of an activity under a general permit is governed by the specific requirements and condition of that general permit. General permits streamline the permitting process and are cost-effective for both CT DEP and the registrant. The CT DEP encourages applicants to determine whether a proposed activity may be eligible for authorization under a general permit before applying for an individual permit. To assist in this effort, a *List of General Permits* is available online at www.ct.gov/dep/permitguide. Information on other short processes, such as emergency and temporary authorizations and Certificates of Permission (COP), that may apply to a proposed activity are described in the section titled *Air, Waste, Water and Land Use Short Permit Processes*. Questions regarding the eligibility of an activity for a General Permit or other short process should be directed to the appropriate program staff, or the Department's Permit Assistance Office at 860-424-3003.

An explanatory list of CT DEP's permit programs is provided below. For further information on any of these programs, the individual or short permit processes, or to view the corresponding fact sheets, please refer to the "*User's Guide to Environmental Permitting*" located on the CT DEP Web site at: www.ct.gov/dep/permitguide.

Air

- **Air Emissions - New Source Review Permits**
The New Source Review permit program regulates emissions released into the air from new and modified stationary sources. Examples include but are not limited to: paint spray booths; metal degreasers; metal plating and surface treatment operations; printing operations; boilers, generators, and other fuel-burning equipment; incinerators; stationary internal combustion engines such as diesels and turbines; chemical reactors and mixers; volatile liquid storage; rock crushing operations; and many other manufacturing or processing operations.
- **Air Emissions - Distributed Generators and Emergency Engines Permits**
Smaller-scale electric generating units distributed throughout an electrical system are referred to as "distributed generators" and are regulated by the CT DEP, as is the operation of emergency engines. Distributed generator and emergency engine owners and operators are obligated to comply with the requirements of the Distributed Generators and Emergency Engines permit program.
- **Air Quality Permitting Options for Customer-side Distributed Generation**
Customer-side distributed generators are smaller-scale (less than 65 MW) electric generating units distributed throughout an electrical supply system and located at the facility of a retail end-user of electricity. The owners of certain new fossil-fuel-fired distributed generators are required to obtain a CT DEP permit to control potential adverse air quality impacts from the construction and operation of such generators. Prior to beginning the construction of any new customer-side distributed generator or modifying an existing generator, the owner or operator must determine whether or not an air quality permit is required.

Air, Waste, Water and Land Use: Individual Permits List

- **Air Emissions - Title V Operating Permits**
Operators of major sources of air pollution, and certain other sources, may be required to obtain a Title V operating permit in accordance with the federal Clean Air Act Amendments of 1990. A Title V operating permit is a facility-wide permit that brings together all applicable state and federal air pollution control requirements in a single permit. It provides a means of implementing federal maximum achievable control technologies (MACT) standards and acid rain requirements. These permits include record keeping and monitoring requirements.
- **Permits for the Construction of Indirect Sources of Air Pollution**
This permit program applies only to the construction of highway projects that will become part of the state highway system. The purpose of the program is to ensure that new highway projects meet all applicable state and national ambient air quality standards. Because highway projects are the focus of this program, the Connecticut Department of Transportation (DOT) applies for most of the indirect source permits in the state. However, any private developer who plans to build a road that connects with a state highway, such as for a mall located next to an interstate, may need to obtain an indirect source permit.
- **X-Ray and Ionizing Radiation Source Registrations**
This permit program regulates the use of ionizing radiation and radioactive materials. Ionizing radiation includes, but is not limited to: gamma rays, x-rays, alpha and beta particles, neutrons, protons, high-speed electrons, and other atomic or nuclear particles. Radioactive material includes any materials (solid, liquid, or gas) that spontaneously emit ionizing radiation. Applicants/registrants include hospitals using radioactive materials or isotopes for the diagnosis or treatment of diseases, for research, or for other applications; and owners/operators of devices emitting x-rays which are used for diagnostic or therapeutic purposes by or under the supervision of a licensed practitioner of medicine, surgery, osteopathy, chiropractic, naturopathy, dentistry, podiatry, or veterinary medicine and surgery, as authorized by law.

Waste

- **Aerial Pesticide Application Permits**
This permit program regulates the use of pesticides and fertilizers when applied by aircraft. Applications are evaluated by the Pesticides Program staff to ensure that the pesticides are products which are appropriate to the site and will not cause unreasonable environmental effects. The program staff also ensures that affected property owners have been properly notified.
- **Aquatic Pesticide Application Permits**
This permit program regulates the use of any chemicals proposed for application to the public or private waters of the state for control of aquatic organisms. These organisms are usually water weeds or algae, but could include mosquitoes or unwanted fish. Applications are evaluated by the Pesticide Program staff for the potential of causing unreasonable adverse effects to humans or the environment. Only chemicals registered for aquatic sites may be used under these permits.
- **Marine Terminal Licenses**
This licensing program regulates oil, petroleum and chemical bulk-storage facilities that receive product from, or dispense it to, ships or barges. In considering applications, the Marine Terminals Program staff reviews engineering design and certification of aboveground storage facilities, as well as the type of product stored, the storage capacity, and the age and condition of the facility tanks and other containment systems.

Air, Waste, Water and Land Use: Individual Permits List

- **Solid Waste Facility**
This permit program regulates a variety of activities related to solid waste disposal or waste processing activities including but not limited to the storage, transfer, volume reduction, recycling, or incineration of solid waste.
- **Special Waste or Asbestos Disposal Authorization**
This program regulates the disposal of “special waste” into solid waste disposal areas (landfills), composting operations and resources recovery facilities (RRF). As long as the waste is not hazardous waste pursuant to Section 22a-115 of the Connecticut General Statutes (CGS) or radioactive material subject to CGS Section 22a-148, “special waste” includes the following: 1) sludges, liquid, solids and contained gases from water treatment, sewage treatment or industrial sources; fly-ash and casting sands or slag; and contaminated dredge spoils; 2) scrap tires; 3) bulky waste; 4) asbestos; 5) industrial residue; and 6) biomedical waste. In reviewing an application, the Engineering and Enforcement Division must consider the waste characteristics and determine if disposal at the designated facility is appropriate.
- **Waste Transportation**
This permit program regulates activities related to the transportation of waste oil, petroleum and chemical liquids, hazardous waste, and biomedical waste. Additionally, any person acting as a contractor to contain or remove or otherwise mitigate the effects of discharge, spillage, uncontrolled loss, seepage or filtration of such substance, material, or waste must also apply for a spill contractor permit.
- **Hazardous Waste Treatment, Storage and Disposal Facilities**
This permit program regulates facilities that manage hazardous waste as identified pursuant to the federal Resource Conservation and Recovery Act (RCRA). RCRA hazardous wastes are the wastes identified in Title 40 of the Code of Federal Regulations (CFR) Part 261 and regulated in Connecticut pursuant to Sections 22a-449(c)-100 through 110 and Section 22a-449(c)-11 of the Regulations of Connecticut State Agencies (RCSA). Management, as used in this permit, may be through treatment, storage or disposal.
- **Resource Conservation and Recovery Act (RCRA) Post-Closure Permits**
A RCRA post-closure permit is required for the period following the active life of a hazardous waste facility or management unit. This permit addresses post-closure care and ground water protection requirements for hazardous waste landfills, surface impoundments, waste piles and land treatment units.
- **CGS Section 22a-454 Waste Facility**
This permit program regulates facilities engaged in the collection, storage, treatment or disposal of waste oil, petroleum, chemical liquids or hazardous wastes.

Note: A facility that manages only its *own* non-RCRA hazardous waste and does not accept hazardous waste of any kind from off-site does not need a CGS Section 22a-454 permit for the treatment or storage of its own non-RCRA hazardous waste. However, a RCRA Part A and Part B permit pursuant to regulations adopted under CGS Section 22a-449 may be necessary to manage its own RCRA hazardous wastes. For further information consult the CT DEP Website www.ct.gov/dep/permits&licenses (Under “Air, Waste, Water and Land Use” select “Waste and Materials Management Permits and General Permits” then select “CGS Section 22a-454 Waste Facilities”)

Air, Waste, Water and Land Use: Individual Permits List

Land Use

Coastal (Long Island Sound Programs)

- Coastal Permits

The coastal permits program regulates a variety of activities in tidal wetlands and in tidal, coastal or navigable waters of the state through two different permit programs: “Tidal Wetlands” and “Structures, Dredging and Fill.” Some examples of regulated activities are:

- the erection of structures including, but not limited to, breakwaters, docks, pilings, booms, marine railways, culverts, floats, jetties, ramps, utility lines/cables, roadways, walkways, buildings, decks, etc.;
- dredging for the purposes of maintaining existing channels, turning basins, vessel berths, mooring areas and other waterfront facilities;
- the placement of any obstacle, obstruction, encroachment or fill; and
- maintenance or repair of certain existing structures, obstructions, or encroachments.

- Coastal 401 Water Quality Certification

The Coastal 401 Water Quality Certification program regulates any application for a federal license or permit from any person seeking to conduct an activity that may result in any discharge into coastal navigable waters, including all coastal wetlands. Such persons must obtain certification from CT DEP that the discharge is consistent with the federal Clean Water Act and the Connecticut Water Quality Standards. Any conditions contained in a water quality certification become conditions of the federal permit or license.

Inland Water Resources

- Dam Construction

This program regulates the construction, alteration, repair or removal of dams, dikes, reservoirs and similar structures, which may endanger life or property by breaking away or otherwise changing. Upon completion of the work to the satisfaction of CT DEP, a certificate of approval will be issued by CT DEP to the owner of the dam. The certificate of approval must be filed on the land records, and it may contain terms and conditions that CT DEP deems necessary to protect life and property.

- Flood Management Certification

This program requires Department approval of either a certification or an exemption for all state actions in or affecting floodplains or natural or man-made storm drainage facilities.

- Inland 401 Water Quality Certification

The Inland 401 Water Quality Certification program regulates any application for a federal license or permit from any person seeking to conduct an activity that may result in any discharge into inland navigable waters, including all inland wetlands, watercourses, and natural and man-made ponds. Such persons must obtain certification from CT DEP that the discharge is consistent with the federal Clean Water Act and the Connecticut Water Quality Standards. Any conditions contained in a water quality certification become conditions of the federal permit or license.

Air, Waste, Water and Land Use: Individual Permits List

- **Inland Wetlands and Watercourses**
This program regulates activities undertaken by state agencies in or affecting inland wetlands or watercourses.
- **Stream Channel Encroachment Lines**
This program regulates the placement of encroachments and/or obstructions riverward of stream channel encroachment lines in order to lessen the hazards to life and property due to flooding. Stream channel encroachment lines have been established for about 270 linear miles of riverine floodplain throughout the state, and are shown on stream channel encroachment line maps, which are on file in the City/Town Clerk's office in the affected municipality. An index to the maps is available from CT DEP.
- **Water Diversion**
This program regulates activities which cause, allow or result in the withdrawal from, or the alteration, modification or diminution of, the instantaneous flow of the waters of the state. In general, a permit is required to conduct activities that result in the alteration of surface water flows, and withdrawals of surface and ground water exceeding 50,000 gallons in any 24-hour period. Diversions existing on or before July 1, 1982 which were registered with the Department on or before July 1, 1983 do not require a permit. Exemptions for minor diversions are described in the regulations.

Water

- **Wastewater Discharges**
This permit program regulates discharges to waters of the state and issues discharge permits in three major categories:
 - **discharge to surface waters**, either directly or through municipal storm-sewer drainage systems, or through other drainage systems such as wetlands or swales. This program is also known as the National Pollutant Discharge Elimination System (NPDES);
 - **discharge to ground waters** from any source, including but not limited to, large septic systems, agricultural waste management systems, and all waste landfills; and
 - **discharge to Publicly Owned Treatment Works (POTW)**, through municipal sanitary sewer drainage systems, or through combined storm and sanitary sewer systems. All wastewaters (other than domestic sewage) that are hauled directly to a POTW require either a pre-treatment permit or are regulated under the POTW's permit. Domestic sewage hauled directly to a POTW is regulated by the CT Department of Public Health, not the CT DEP.



Matrix of CT DEP Authorizations Typically Required by Municipal Function / Operation

In the absence of detailed information about a project and its location, it is very difficult to accurately predict the specific permits that may apply. The chart that follows provides *general guidance* as to the types of permits that may be required for given projects or activities or for work in specific areas. Please be aware that not all authorizations indicated for an activity will be required, and conversely, some projects will require authorizations in addition to those shown.

An “information icon” ⓘ indicates that the specified permit may be required and the CT DEP recommends that project proponents seek additional information to determine the actual applicability of the permit to the specific project. General permits are listed where it is likely that they will apply. Other portions of *The Municipal Primer* provide basic information on the CT DEP permitting programs and should be consulted for further information. Additionally, review of the online fact sheet for each permit program is strongly recommended. The online fact sheets, located on the CT DEP permits and licenses Web page: www.ct.gov/dep/permits&licenses, provide further guidance and include contact information.

This chart is provided for informational purposes only and is not meant to identify all permits that might be required on a given project. It is the municipality’s responsibility to coordinate with the CT DEP to ensure that all applicable permits are acquired prior to initiation of a municipal project. Individual permit program contacts are identified in *The Municipal Primer* and on the CT DEP Web site, or contact the Permit Assistance Office at 860-424-3003.

CT DEP Permit Programs

Municipal Activity or Facility (new, improved and/or expanded)

	Air Emissions - New Source Review Program (includes boilers)	Waste - Solid Waste Facility	Waste - Special Waste or Asbestos Disposal Authorization	Waste - Waste Transport	Waste - Hazardous Waste Treatment, Storage and Disposal Facilities (Resource Conservation & Recovery Act, RCRA)	Waste - Resource Conservation & Recovery Act (RCRA) Post Closure Permits	Waste - Hazardous Waste Generation Notifier	Water - Wastewater Discharges	Water - Diversion	Water - 401 Water Quality Certification	Water - Stream Channel Encroachment Lines	Water - Coastal Permits	Water - Dam Safety	Pesticide Certification	Underground Storage Tank Registration	Potential Site Remediation and/or Property Transfer Issues	General Permits (GP) or Registrations	Occupational or Operator Certificates
Common Facilities / Activities / Utilities / Equipment																		
General Construction Activities	ⓘ	ⓘ						ⓘ		ⓘ	ⓘ	ⓘ	ⓘ		ⓘ	ⓘ	Stormwater (Construction) GP Distributed Generation (Air) Permit by Rule	
Air Emissions	ⓘ																Distributed Generation (Air) Permit by Rule General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution	
Water Related Activities								ⓘ	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ				Stormwater GP (see "Stormwater Discharges" below)	
Stormwater Discharges							↙										Stormwater GP (see note)	
Waste Disposal		ⓘ	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ										Stormwater (Industrial) GP	
Emergency Generators	ⓘ																Distributed Generation (Air) Permit by Rule	
Underground Storage Tanks														ⓘ			Stormwater (Industrial) GP	
Site Remediation															ⓘ		Groundwater Remediation GP Stormwater (Construction) GP	
Heating / Cooling Systems	ⓘ																Minor Boiler Blowdown GP Minor Noncontact Heat Pump GP	
On-site Septic							ⓘ										Domestic Sewage GP	
Landscaping / Lawn Care														ⓘ			Commercial Arborist License Pesticide Operator or Supervisory Certificate	
Pesticide Application														ⓘ			Pesticide Operator or Supervisory Certificate	
Hazardous Waste					ⓘ	ⓘ	ⓘ											
Food Service																	Fats, Oils and Greases (FOG) GP	
Work within...																		
Inland Wetlands or Watercourses (includes wetlands, rivers, streams lakes and ponds)								ⓘ	ⓘ	ⓘ		ⓘ	ⓘ				Lake, Pond and Basin Dredging GP Minor Grading GP Minor Structures GP Utilities and Drainage GP Habitat Conservation GP	
Coastal Waterfront												ⓘ		ⓘ			Beach Grading GP Buoys and Markers GP Coastal Remedial Activities Required by Order GP Maintenance of Catch Basins and Tide Gates GP Marina and Mooring Field Reconfiguration GP Minor Seawall Repair GP Osprey Platforms and Perch Poles GP Pump-Out Facilities GP Removal of Derelict Structures GP Swim Floats GP	
Stream Channel Encroachment Lines											ⓘ							

↙ The type of stormwater permit that may be required depends on the specifics of the project. There are minimum thresholds to these permits (e.g., total area of disturbance). In many cases, municipal activities that meet the minimum threshold will be eligible for stormwater general permits; however, in some instances, individual stormwater/wastewater discharge permits may be required.

CT DEP Permit Programs

Municipal Activity or Facility (new, improved and/or expanded)

	Air Emissions - New Source Review Program (includes boilers)	Waste - Solid Waste Facility	Waste - Special Waste or Asbestos Disposal Authorization	Waste - Waste Transport	Waste - Hazardous Waste Treatment, Storage and Disposal Facilities (Resource Conservation & Recovery Act, RCRA)	Waste - Resource Conservation & Recovery Act (RCRA) Post Closure Permits	Waste - Hazardous Waste Generation Notifier	Water - Wastewater Discharges	Water - Diversion	Water - 401 Water Quality Certification	Water - Stream Channel Encroachment Lines	Water - Coastal Permits	Water - Dam Safety	Pesticide Certification	Underground Storage Tank Registration	Potential Site Remediation and/or Property Transfer Issues	General Permits (GP) or Registrations	Occupational or Operator Certificates
Aquifer Protection Areas																	Aquifer Protection Area Program	
Floodplain																	CGS Section 25-68 Flood Management Certification (if State funded project)	
Public Works Also see "General Construction Activities" and "Work Within..." above																		
Highway Garage / Vehicle Maintenance Facility (including vehicle washing)	Ⓢ	Ⓢ				Ⓢ	Ⓢ							Ⓢ	Ⓢ		Distributed Generation (Air) Permit by Rule General Permit to Limit Potential to Emit from Major Stationary Sources of Air Pollution Hydrostatic Pressure Testing GP Stormwater (Industrial) GP Vehicle Maintenance Wastewater GP	Pesticide Operator or Supervisory Certificate
Salt Storage																	Stormwater (Industrial) GP	
Roads and Bridges	See "General Construction Activities" and "Work Within..." above																	
Water Facilities Also see "General Construction Activities" and "Work Within..." above																		
Sewage/Wastewater Treatment Facility	Ⓢ						Ⓢ	Ⓢ									Distributed Generation (Air) Permit by Rule Nitrogen Discharge GP Stormwater (Industrial) GP	Wastewater Treatment Facility Operator Certification
Sewage Sludge Incinerator or Composting Facility	Ⓢ	Ⓢ					Ⓢ										Stormwater (Industrial) GP	
Small Municipal Separate Stormwater System (MS4)																	Municipal Separate Storm Sewer System (MS4) GP	
Stormwater Discharges Ineligible for GP								Ⓢ										
Drinking Water Treatment Facility									Ⓢ								Dam Safety Repair and Alteration GP Water Diversion for Consumptive Use GP Water Treatment GP	
Sewer or Water Pipeline Repair Work																	Utilities and Drainage GP	
Solid Waste Also see "General Construction Activities" and "Work Within..." above																		
Transfer Station																	Municipal Transfer Station GP Stormwater (Industrial) GP	Solid Waste Facility Operator Certification
Landfill	Ⓢ	Ⓢ			Ⓢ	Ⓢ											Stormwater (Industrial) GP	Solid Waste Facility Operator Certification
Special Waste or Asbestos Disposal			Ⓢ														Stormwater (Industrial) GP	
Waste Transportation (if not contracted out)				Ⓢ														
Volume Reduction Facility	Ⓢ	Ⓢ															Stormwater (Industrial) GP	Solid Waste Facility Operator Certification
Recycling Facility																	Municipal Transfer Station GP Recycling GP Stormwater (Industrial) GP	Solid Waste Facility Operator Certification
Leaf Composting																	Leaf Composting Registration	
Grass Clippings																	Grass Clipping GP Must be located at a registered leaf composting site	
Scrap Tires																	Scrap Tire GP	
Asphalt Roofing																	Asphalt Roofing GP	
Disassembled Used Electronics (DUE)																	Disassembled Used Electronics GP	

CT DEP Permit Programs

Municipal Activity or Facility (new, improved and/or expanded)

Air Emissions - New Source Review Program (includes boilers)	Waste - Solid Waste Facility	Waste - Special Waste or Asbestos Disposal Authorization	Waste - Waste Transport	Waste - Hazardous Waste Treatment, Storage and Disposal Facilities (Resource Conservation & Recovery Act, RCRA)	Waste - Resource Conservation & Recovery Act (RCRA) Post Closure Permits	Waste - Hazardous Waste Generation Notifier	Water - Wastewater Discharges	Water - Diversion	Water - 401 Water Quality Certification	Water - Stream Channel Encroachment Lines	Water - Coastal Permits	Water - Dam Safety	Pesticide Certification	Underground Storage Tank Registration	Potential Site Remediation and/or Property Transfer Issues	General Permits (GP) or Registrations	Occupational or Operator Certificates
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Recreation Areas																		
Also see "General Construction Activities" and "Work Within..." above																		
Ball Fields																	Stormwater (MS4) GP	Pesticide Operator or Supervisory Certificate
Swimming Pool																	Swimming Pool GP	
Marine Swimming Beach																	Beach Grading GP Swim Floats GP	
Parks, Forests, etc.													ⓘ	ⓘ			Stormwater (MS4) GP	Commercial Arborist Pesticide Operator or Supervisory Certificate
Golf Course								ⓘ						ⓘ			Diversion of Water for Consumptive Use GP Stormwater (MS4) GP	Pesticide Operator or Supervisory Certificate
Marina											ⓘ						Minor Seawall Repair GP (Coastal Marinas) Stormwater (MS4) GP	
Lake, Pond or Basin														ⓘ			Lake, Pond or Basin Dredging GP	Pesticide Operator or Supervisory Certificate
Miscellaneous Facilities																		
Also see "General Construction Activities" and "Work Within..." above																		
Schools	ⓘ								ⓘ	■				×	ⓘ		Distributed Generation (Air) Permit by Rule Domestic Sewage GP Fats, Oils and Grease GP Wastewater GP	Pesticide Operator or Supervisory Certificate
Fire Department	ⓘ								ⓘ								Vehicle Service GP	
Dams												ⓘ						

■ Contact CT DEP Permit Assistance Program at 860-424-3003 for specific requirements for school related shop and/or vocational-agricultural activities.

× Regarding pesticide use at schools, Public Act 07-168 (effective date: October 1, 2007) expanded the prohibition on applying lawn care pesticides (previously banned at preschools and elementary schools) to schools with students up through grade eight. The law extends, from 2008 to 2009, the exemption to the ban for pesticides applied on school grounds, if the applications are made in accordance with integrated pest management plans. The act also makes violation of the pesticide ban enforceable by the CT DEP.

- If a municipality is applying pesticides to a school (kitchen, classrooms, bathrooms, etc) or to the "school grounds," then a pesticide certification is required. Exceptions to this requirement include emergency pesticide application and the use of baits or general use sanitizers (CGS Sections 10-231a through 10-231d).
- If the municipality is applying general use pesticides to the town property other than the grounds of a school, and there is not a certified supervisor pesticide applicator involved, then a pesticide operator certification is not required. If there is a certified pesticide supervisor overseeing an application of pesticides, then the person applying the pesticides must have an operator certification.
- If permit or restricted use pesticides are being applied, (mosquito control growth regulators, aquatic weed control), the law states that a certification is required.
- Municipalities are exempt from examination and certification fees; however, their certification can be used only within the municipality.

Professional and Occupational Licensing

The CT DEP's professional and occupational licensing responsibilities are divided into two areas: environmental quality and natural resources licensing. Both areas are administered by the CT DEP to ensure that competent professionals are protecting the environment and natural resources in accordance with applicable state laws and regulations. Additional information about each of the programs listed below is available online at www.ct.gov/dep/permits&licenses.

Environmental Quality Licenses

- Commercial Arborist

An arborist license is required for persons advertising, soliciting or contracting to do arboriculture in Connecticut. As defined in CGS Section 23-61a:

Arboriculture means any work done for hire to improve the condition of fruit, shade, or ornamental trees by feeding or fertilizing, or by pruning, trimming, bracing, treating cavities or other methods of improving tree conditions, or protecting trees from damage from insects or diseases or curing these conditions by spraying or any other method.

With respect to the use of pesticides, the licensed arborist is a supervisory pesticide applicator. For all intents and purposes, "certificate" means "license" in the commercial arborist program.

- Pesticide Certification

There are two levels of commercial certification: supervisory and operational. In addition, farmers and other growers are classified as private applicators.

- A **commercial supervisory certificate** is required for commercial applicators who are responsible for deciding whether or not pesticides are to be employed, how they are to be mixed, where they are to be employed, what pesticides are to be used, the dosage and timing involved in the pesticide use and the methods of application and precautions to be taken in the use of such pesticides. The supervisory certificate allows the licensee to purchase restricted-use pesticides from a registered dealer. This is the highest level of pesticide applicator certification recognized by the CT DEP

- A **commercial operator certificate** is required for commercial applicators who actively use pesticides in other than a supervisory capacity. This certification allows the holder to use pesticides only under the direction of a certified supervisor. The operational certificate does not allow the holder to purchase restricted pesticides or to establish a pesticide business.

- A **private applicator certificate** must be obtained by a farmer in order to purchase and use restricted-use pesticides on agricultural crops. Only one certificate per farm is needed.

- Licensed Environmental Professional

Professionals wishing to engage in the business of verifying site remediation and clean-ups pursuant to CGS Section 22a-134a, and/or conducting and verifying site remediation and clean-ups pursuant to CGS Sections 22a-133x and 22a-133y, are required to obtain an Licensed Environmental Professional (LEP) license. The Commissioner may approve the use of an LEP to verify that a parcel has been investigated in accordance with prevailing standards and guidelines and remediated in accordance with the Remediation Standard Regulations.

- Solid Waste Facility Operator

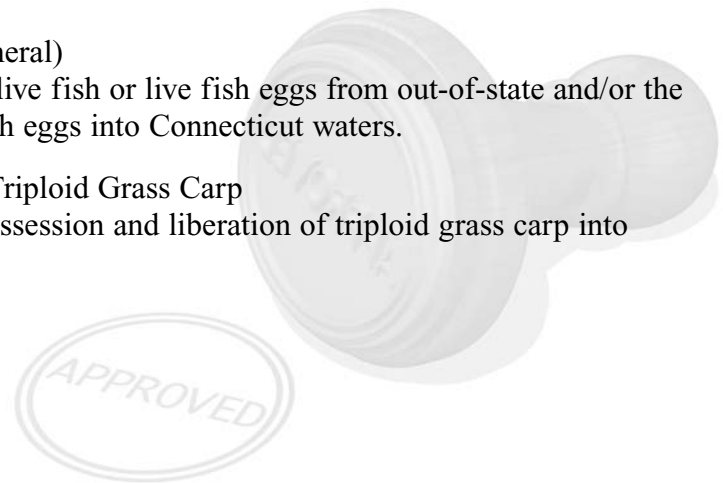
All solid waste facilities permitted by the CT DEP, including landfills, transfer stations, volume reduction facilities, resources recovery facilities and material resource recovery facilities, must be operated by a certified solid waste facility operator.

Professional and Occupational Licensing

- **Wastewater Treatment Facility Operator Certification**
The Wastewater Treatment Facility Operator Certification Program has four levels of operator certification: Classes I through IV (lowest to highest). The original intent of the certification program was to assure competent superintendents and shift operators for wastewater treatment plants of various types and complexity. Due to the increasing complexity of new facilities, all wastewater treatment facility operators are now required to be certified, at a minimum, at the Class I level. The requirements for each class of certification are based on the level of sophistication of the corresponding class of treatment plant. Certification in a particular class qualifies an individual to be a superintendent of any plant of that class or lower. Operators are encouraged to become certified at levels above their job requirements to allow for future advancement and for personal gratification.

Natural Resource Licenses and Permits

- **Commercial Fishing Licenses and Permits**
A commercial fishing license is required to take, or to land for sale regardless of where taken, fish, lobsters, blue crabs, squid, sea scallops and bait species from both the inland and marine districts. For further information on commercial fishing, contact CT DEP Fisheries Division at 860-434-6043, or write to Marine Fisheries Office, P.O. Box 719, Old Lyme, CT 06371.
- **Commercial Fishing Vessel Permit**
This permit is required for all vessels used for activities authorized under commercial fishing licenses (e.g. use of commercial fishing gear, even if for personal use). This permit does not apply to vessels used only for activities associated with the Inland Commercial Bait License, Marine Commercial Bait License, Commercial Blue Crab License, or Commercial Shad License.
- **Environmental Tourism Cruise Vessel Permit**
This permit authorizes a vessel to be used for the temporary collection of marine fish and invertebrates for educational or tourism purposes. All animals must be returned to the water prior to completion of the daily tour.
- **Importation of Live Fish (Bait Dealers)**
This permit is required for commercial fish hatcheries and bait dealers to import live fish or live fish eggs into Connecticut.
- **Importation and/or Liberation Permit (General)**
This permit authorizes the importation of live fish or live fish eggs from out-of-state and/or the liberation (stocking) of live fish or live fish eggs into Connecticut waters.
- **Importation and/or Liberation Permit for Triploid Grass Carp**
This permit authorizes the importation, possession and liberation of triploid grass carp into inspected/approved ponds.



Professional and Occupational Licensing

- **Forest Practitioner**
According to the Forest Practices Act, a certified forester may:
 - plan or design forest practices, including but not limited to forest management plans and cutting plans;
 - represent the landowner as his or her agent in the sale of commercial forest products;
 - solicit the purchase of commercial forest products;
 - execute written or oral contracts and agreements for the purchase of commercial forest products; and
 - participate in the execution of commercial forest product harvest operations.
- **Nuisance Wildlife Control Operator**
Nuisance Wildlife Control Operators (NWCO) are individuals who can advertise services and charge fees for the purpose of handling nuisance wildlife problems. NWCOs are not CT DEP employees; however, their activities are governed by regulations, policies and procedures established by the CT DEP.
- **Taxidermist**
A CT DEP license is required to practice taxidermy in Connecticut.
- **Wildlife Rehabilitator**
All persons seeking to rehabilitate wildlife must complete a volunteer wildlife rehabilitator application. These applications are used to assess each individual's qualifications and experience with wildlife rehabilitation. Information regarding the applicant's facilities, veterinary resources, and affiliations with other environmental organizations provides supplemental qualifications.

Related Non-CT DEP Environmental Professional and Occupational Licenses

- **Environmental Practitioner Licensure**
The Environmental Practitioner Licensure Program is administered by the Department of Public Health Asbestos Program. This Unit certifies, licenses and regulates environmental health professionals in the Asbestos, Lead, Septic, and Sanitarian disciplines. These licensed professionals protect human health and the environment by operating within the constraints of the regulations using state-of-the-art practices. The Unit's main charge is the management and enforcement of the assorted licensing regulations for environmental health practitioners and training providers. The Unit also provides assistance to local health officials and updates training providers with periodic newsletters.
- **Shellfish Licensing**
This license is administered by the Department of Agriculture Aquaculture Program. Aquaculture is the business of farming aquatic plants and animals. It includes operations such as growing shellfish on underwater leases in Long Island Sound, and raising trout or hybrid striped bass in inland freshwater tank farms.

Recreational and Natural Resources Authorizations

The CT DEP administers numerous recreational and natural resources permit and license programs. They include permits and licenses related to:

- day visits to state parks and state forests;
- camping in state parks and state forests;
- boating and water sports;
- fishing, hunting and trapping;
- scientific collection.

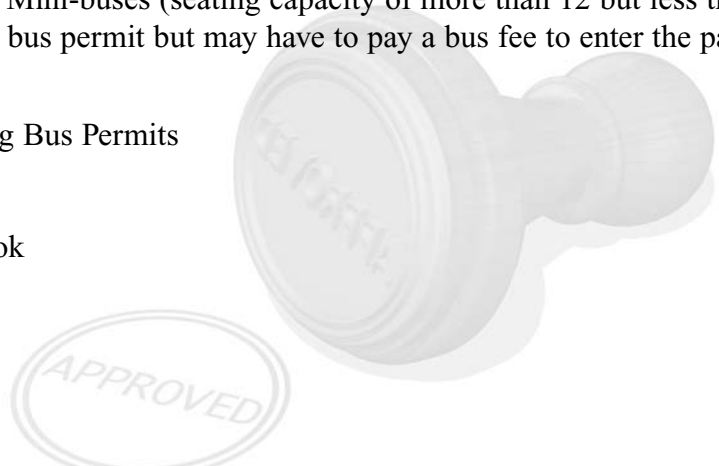
Authorizations within each program are briefly described below. Additional information can be found on the CT DEP Web site at www.ct.gov/dep/permits&licenses.

Day Visits to State State Parks and State Forests

- **Season Pass for State Parks**
For the frequent park visitor, Connecticut offers a special season pass at a nominal fee. The pass allows vehicles with window stickers to have unlimited access to any state park or recreation area without paying any parking fees that may be otherwise applicable.
- **Charter Oak Pass (Life Use)**
The Charter Oak Pass provides access to state parks and forests and is available free to Connecticut residents, 65 years of age or older.
- **Heritage Passport**
The Heritage Passport allows a family (2 adults and up to 4 children) to gain admittance to three facilities (Dinosaur, Fort Trumbull and Gillette Castle State Parks) for unlimited visitation until Columbus Day of the calendar year in which it was purchased. The Heritage Passport cost is \$50.00 and can be purchased at any of the three facilities.
- **State Park Bus Permits**
Certain state parks and recreation areas require a bus permit if the buses entering the area have a seating capacity of 30 or more passengers. Mini-buses (seating capacity of more than 12 but less than 30 passengers) are not required to obtain a bus permit but may have to pay a bus fee to enter the park or recreation area.

State Parks and Recreation Areas Requiring Bus Permits

Black Rock	Lake Waramaug
Bluff Point	Mansfield Hollow
Burr Pond	Mashamoquet Brook
Chatfield Hollow	Mount Tom
Day Pond	People's Forest
Devil's Hopyard	Quaddick
Gay City	Rocky Neck
Gillette Castle	Sherwood Island
Hammonasset Beach	Silver Sands
Harkness Memorial	Sleeping Giant
Hopeville Pond	Squantz Pond
Indian Well	Stratton Brook
Kent Falls	Wadsworth Falls
Kettletown	Wharton Brook



Recreational and Natural Resources Authorizations

For additional information on bus permits and fees, please contact the State Parks Division at 860-424-3200 Monday through Friday from 8:30 am to 4:30 pm, or consult the CT DEP Web site at www.ct.gov/dep/stateparks.

Camping Opportunities in State Parks and Forests

CT DEP offers campgrounds in thirteen state parks or forests. State parks with camping areas include: Black Rock, Devil's Hopyard, Hammonasset Beach, Hopeville Pond, Housatonic Meadows, Kettletown, Lake Waramaug, Macedonia Brook, Mashamoquet Brook, Rocky Neck, and Salt Rock. State forests with camping areas include: American Legion State Forest and Pachaug State Forest. The CT DEP also offers horse camping areas in Natchaug State Forest and Pachaug State Forest.

There is a toll-free telephone number and an online system to reserve campsites at state park and forest campgrounds. Reservations for all state campgrounds can be made online at www.reserveamerica.com, or by calling toll-free: 1-877-668-CAMP (2267) during the following hours:

Peak Season (March 15 – Labor Day)	Off Peak Season
Monday - Friday: 8am - 8pm	Monday - Friday: 9am - 5pm
Saturday and Sunday: 9am - 3pm.	

Boating and Water Sports

- **Safe Boating Certification**
A Safe Boating Certificate (SBC) allows an individual to operate any recreational vessel registered in Connecticut except a personal watercraft ("Jet Ski" type vessel) on Connecticut's waters. A Certificate of Personal Watercraft Operation (CPWO) will allow an individual to operate any recreational vessel including a personal watercraft. Any person required to have a Safe Boating Certificate or a Certificate of Personal Watercraft Operation must have the certificate on board at all times while operating the vessel.
- **Marine Event Permits**
Section 15-121-A6 of the Regulations of Connecticut State Agencies requires that a Marine Event Permit be obtained for a marine parade, regatta, race, tournament, exhibition, or other activity held on Connecticut waters when:
 - the participant or spectator vessels may cause interference with navigation;
 - the event needs exclusion areas for non-participating vessels;
 - the fallout zone of any fireworks display includes a portion of state waters;
 - the event needs the use of a state boat launch; or
 - the event requires the modification or suspension of a boating law or regulation.
- **Navigation Marker Permit**
The in-water placement of navigation markers is regulated by the CT DEP. If the placement is proposed by a non-municipal entity, that entity must obtain signed approval from the chief elected authority of the municipality or the designated lake authority, if applicable.

Recreational and Natural Resources Authorizations

- Water-ski Slalom Course or Jump Permit

Each application for a Water-ski Slalom Course/Jump Permit must satisfy certain requirements under current state law. CGS Section 15-134(f)(1)(C) requires that a statement addressing the safety and environmental impact of the proposed slalom course/jump be attached to the Water-ski Slalom Course/Jump Permit Application and submitted to the Department of Environmental Protection.

Fishing

- Fishing Licenses

Fishing licenses are required for anyone 16 years of age or older who wishes to fish in the Inland District. Licenses are issued on a calendar-year basis and expire on December 31st. Licenses may be purchased online at www.ct.gov/dep (look for featured link on the right side of the page), or at any town hall, designated vendor (tackle shop), the CT DEP Store, or by phone: 860-424-3700. Currently, fishing licenses are not required for recreational fishing in marine waters. For other permits related to fisheries (e.g., fishing tournaments, importation/liberation, etc.) please see the section on Natural Resources Permits.

- Marine Fishing Tournament/Derby Permit

A permit is required to conduct a marine fishing tournament or derby open to persons 16 years of age and older (as described under Section 26-159a-26 of the Regulations of Connecticut State Agencies, see back of application). There is no charge for this permit.

- Inland Fishing Tournament/Derby Permit

A permit is required to conduct a fishing tournament or derby involving anglers 16 years of age and older on inland waters open to public fishing. Open water catch-and-release-only tournaments can be granted an exemption from Bass Management Area special regulations. Exemptions are available for all Bass Management Lakes from September 1 through June 30, and for Gardner Lake and Mansfield Hollow Reservoir from July 1 to August 31.

- Special Regulations on Association Controlled Waters

A permit is necessary for any association owning or controlling the fishing rights in any stream or pond to have special open and closed seasons, daily creel and season limits, and legal lengths of species taken from such waters.

- Private Waters Designation

The registration of private waters is required for any owner of private waters who desires to remove fish from such waters.

Hunting and Trapping

- Hunting and Trapping

There are numerous licenses related to hunting and trapping activities. Some examples of necessary applications are: Private Land Consent Form, Free Landowner Deer Permit Application, Use of a Crossbow Application, Dog Training Area Application and Falconry Application Materials. For more information, please consult the CT DEP Web site: www.ct.gov/dep/wildlife. Select “Wildlife Publications” on the right side of the page then scroll through the publications listed.

Recreational and Natural Resources Authorizations

Scientific Collection

- Aquatic Species, Plants and Wildlife

The CT DEP is interested in obtaining new and updated information on critical natural resources from Connecticut's citizens for inclusion in the Natural Diversity Data Base (NDDDB). Information that documents verifiable reports of species or communities is incorporated into the NDDDB. Please note, the removal of even one specimen from a population can affect its survival. Therefore, collecting of specimens is strongly discouraged and is not allowed on state property without the proper permit.

- Educational Mineral Collection

A limited number of mineral sites located on state property are accessible on a permit basis for public educational mineral collecting. Educational mineral collection permit applications are accepted after January 1st of each year for the period ending the following December 31st. The CT DEP will evaluate requests and issue permit letters to approved groups through their designated contact. A maximum of one group per day will be scheduled for each site. The following sites are available for mineral collecting field days that are scheduled and sponsored by one or more of the mineral clubs, nature centers, schools or Connecticut museums:

- Case Quarries - Meshomasic State Forest, Portland
- Clark Hill Quarries - Meshomasic State Forest, East Hampton
- CCC Quarry - Cockaponset State Forest, Haddam





Appendices



Appendix I - Topical Index

TOPIC	FACT SHEET	LOCATION
401 Water Quality Certification	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, and Agencies Committees / Introduction
Air Emissions	Mobile Air Emission Sources	Public Works / Municipal Facilities
Air Emissions	Renovation, Demolition and Construction	Public Works / Municipal Facilities
Appliance Selection	Indoor and Outdoor Lighting and Appliances	Public Works / Municipal Facilities
Aquifer Protection	Aquifer Protection Area Program	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Asbestos	Renovation, Demolition and Construction	Public Works / Municipal Facilities
Brownfields	Brownfields Remediation	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Brush and Stumps	Brush, Stump and Untreated Wood Waste Management	Public Works / Waste Materials Planning and Management
Coastal Development	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
Coastal Development	Coastal Management	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Coastal Management	Coastal Management	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Coastal Permitting	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
Composting	Composting and Organics Recycling	Public Works / Waste Materials Planning and Management
Construction	Renovation, Demolition and Construction	Public Works / Municipal Facilities
CT DEP Jurisdiction	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
CT DEP Permits	CT DEP Permitting Overview for Public Works Officials	Public Works / Introduction
Dams	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
Dams	Dams	Public Works / Municipal Facilities
Demolition	Renovation, Demolition and Construction	Public Works / Municipal Facilities
Diesel Vehicle Exhaust	Mobile Air Emission Sources	Public Works / Municipal Facilities
Disaster Debris	Disaster Debris Management Planning	Public Works / Waste Materials Planning and Management
Disaster Planning	Disaster Debris Management Planning	Public Works / Waste Materials Planning and Management
Dredging	Dredging	Public Works / Municipal Facilities

Appendix I - Topical Index

TOPIC	FACT SHEET	LOCATION
Drinking Water	Aquifer Protection Area Program	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Drinking Water	Potable Water Program	Public Health
Endangered Species	Endangered Species	Land Use Boards, Commissions, Agencies and Committees / Resource Considerations
Environmental Conservation Police	Environmental Conservation Police	Public Safety and Building Official
Environmental Education	Environmental Education and Outreach	Schools and Education
Environmental Justice	Environmental Justice	Public Safety
Environmental Stewardship	Environmental and Landscape Stewardship	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Environmentally Preferred Purchasing	Purchasing Practices (Recycled and Environmentally Preferred Purchasing)	Financial Assistance
Federal Permits	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
Flood Preparedness	Planning for a Flood and Other Natural Hazards (Natural Hazard Mitigation Plan)	Public Works / Stormwater Planning and Management
Floodplain Management	Floodplain Management	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Garbage	(See Solid Waste)	
Grants and Financial Assistance	Grants and Financial Assistance	Financial Assistance
Green Building	Green Building Requirements for Schools	Schools and Education
GreenCircle Awards	GreenCircle Awards	Inside Back Cover
Greenways	Greenways	Parks and Recreation
Harbor Management	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
Hazardous Waste	Hazardous and Universal Waste	Public Works / Waste Materials Planning and Management
High Tide Line	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
Indoor and Outdoor Lighting	Indoor and Outdoor Lighting and Appliances	Public Works / Municipal Facilities
Integrated Pest Management	Landscape and Lawn Care	Public Works / Municipal Facilities
Invasive Species	Landscape and Lawn Care	Public Works / Municipal Facilities
Lakes Management	Water as a Natural Resource	Land Use Boards, Commissions, Agencies and Committees / Resource Considerations
Land Use	Environmentally Sensitive Land Use Practices	Land Use Boards, Commissions, Agencies and Committees / Development Standards Considerations

Appendix I - Topical Index

TOPIC	FACT SHEET	LOCATION
Land Use	Brownfields Remediation	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Land Use	Coastal Management	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Land Use	Environmental and Landscape Stewardship	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Land Use	Landscape and Lawn Care	Public Works / Municipal Facilities
Landscape Stewardship	Environmental and Landscape Stewardship	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Landscaping	Landscape and Lawn Care	Public Works / Municipal Facilities
Lawn Care	Landscape and Lawn Care	Public Works / Municipal Facilities
Lead-based Paint	Renovation, Demolition and Construction	Public Works / Municipal Facilities
Long Island Sound	Coastal Management	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Low Impact Development	Low Impact Development	Land Use Boards, Commissions, Agencies and Committees / Development Standards Considerations
Materials Reuse	Reducing Costs Through Source Reduction and Materials Reuse	Financial Assistance
Mean High Water	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
Mercury	Renovation, Demolition and Construction	Public Works / Municipal Facilities
Mosquitoes	Mosquito Management and Control	Public Health
MS4	Small Municipal Separate Storm Sewer Systems (MS4) Stormwater Program	Public Works / Stormwater
Municipal Vehicles	Fleet Selection and Operation	Public Works / Municipal Facilities
Natural Hazard Mitigation Plan	Planning for a Flood and Other Natural Hazards (Natural Hazard Mitigation Plan)	Public Works / Stormwater Planning and Management
Natural Hazards	Planning for a Flood and Other Natural Hazards (Natural Hazard Mitigation Plan)	Public Works / Stormwater Planning and Management
Nonpoint Source Pollution	Nonpoint Source Pollution Management	Land Use Boards, Commissions, Agencies and Committees / Development Standards Considerations
Office Equipment	Indoor and Outdoor Lighting and Appliances	Public Works / Municipal Facilities
Open Burning	Open (Outdoor) Burning	Public Safety and Building Official
Open Space	Protected Open Space	Parks and Recreation
Organic Land Care	Landscape and Lawn Care	Public Works / Municipal Facilities
Outdoor Burning	Open (Outdoor) Burning	Public Safety and Building Official
Outdoor Recreation	Outdoor Recreation	Parks and Recreation

Appendix I - Topical Index

TOPIC	FACT SHEET	LOCATION
Outdoor Wood-burning Furnaces	Outdoor Wood-burning Furnaces and Wood Stoves	Public Safety and Building Official
PCBs	Renovation, Demolition and Construction	Public Works / Municipal Facilities
Permitting	CT DEP Permitting Overview for Public Works Officials	Public Works / Introduction
Permitting	Guide to CT DEP Permits, Licenses and Other Authorizations	Guide to CT DEP Permits, Licenses and Other Authorizations
Pesticides	Landscape and Lawn Care	Public Works / Municipal Facilities
Potable Water	Potable Water Program	Public Health
Purchasing	Purchasing Practices (Recycled and Environmentally Preferred Purchasing)	Financial Assistance
Purchasing Recycled Products	Purchasing Practices (Recycled and Environmentally Preferred Purchasing)	Financial Assistance
Recognition	GreenCircle Awards	Inside Back Cover
Recycled Products	Purchasing Practices (Recycled and Environmentally Preferred Purchasing)	Financial Assistance
Recycling	Reducing Costs Through Source Reduction and Materials Reuse	Financial Assistance
Recycling	Composting and Organics Recycling	Public Works / Waste Materials Planning and Management
Recycling	Recycling	Public Works / Waste Materials Planning and Management
Redevelopment	Brownfields Remediation	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Renovation	Renovation, Demolition and Construction	Public Works / Municipal Facilities
Responsible Growth	Environmental and Landscape Stewardship	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
School Bus Retrofits	Mobile Air Emission Sources	Public Works / Municipal Facilities
Schools, Operation and Maintenance	Operations and Maintenance for Schools	Schools and Education
Schools, Requirements for New Schools	Green Building Requirements for Schools	Schools and Education
Schools, Requirements Regarding Pesticides	Operations and Maintenance for Schools	Schools and Education
Sewage	(See Wastewater)	
Site Clean-up	Brownfields Remediation	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Site Planning	Environmentally Sensitive Land Use Practices	Land Use Boards, Commissions, Agencies and Committees / Development Standards Considerations
Site Planning	Low Impact Development	Land Use Boards, Commissions, Agencies and Committees / Development Standards Considerations

Appendix I - Topical Index

TOPIC	FACT SHEET	LOCATION
Site Planning	Environmental and Landscape Stewardship	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Site Remediation	Brownfields Remediation	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Smart Growth	(See Responsible Growth)	
Solid Waste	Reducing Costs Through Source Reduction and Materials Reuse	Financial Assistance
Solid Waste	Municipal Solid Waste Management	Public Works / Waste Materials Planning and Management
State Forests	State Parks and Forests	Parks and Recreation
State Parks	State Parks and Forests	Parks and Recreation
Stormwater	Low Impact Development	Land Use Boards, Commissions, Agencies and Committees / Development Standards Considerations
Stormwater	Small Municipal Separate Storm Sewer Systems (MS4) Stormwater Program	Public Works / Stormwater
Stormwater	Stormwater Management	Public Works / Stormwater Planning and Management
Stream Channel Encroachment Lines	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
Street and Road Management	Street and Road Management	Public Works / Municipal Facilities
Street and Road Planning	Streets and Roads Planning	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Transportation	Street and Road Management	Public Works / Municipal Facilities
Transportation	Streets and Roads Planning	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Trash	(See Solid Waste)	
Treated Wood Waste	Renovation, Demolition and Construction	Public Works / Municipal Facilities
Underground Storage Tanks	Underground Storage Tanks Systems (Tanks and Piping)	Public Works / Municipal Facilities
Waste	Brush, Stump and Untreated Wood Waste Management	Public Works / Waste Materials Planning and Management
Wastewater	Wastewater Management Approaches	Wastewater Planning and Management
Wastewater Planning	Municipal Wastewater Management Planning	Wastewater Planning and Management
Wastewater Regulation	Regulating Wastewater at the State Level	Wastewater Planning and Management
Water as a Natural Resource	Water as a Natural Resource	Land Use Boards, Commissions, Agencies and Committees / Resource Considerations
Water, Drinking	Aquifer Protection Area Program	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Water, Drinking	Potable Water Program	Public Health

Appendix I - Topical Index

TOPIC	FACT SHEET	LOCATION
Watershed Management	Watershed Management	Land Use Boards, Commissions, Agencies and Committees / Planning Considerations
Wetlands, Inland	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
Wetlands, Inland	Water as a Natural Resource	Land Use Boards, Commissions, Agencies and Committees / Resource Considerations
Wetlands, Tidal	Avoiding Jurisdictional Conflicts	Land Use Boards, Commissions, Agencies and Committees / Introduction
Wetlands, Tidal	Water as a Natural Resource	Land Use Boards, Commissions, Agencies and Committees / Resource Considerations
Wetlands, Tidal	Guide to CT DEP Permits, Licenses and Other Authorizations	Guide to CT DEP Permits, Licenses and Other Authorizations
Wildlife Rehabilitators	Wildlife Issues: Animal Possession, Nuisance Animals and Wildlife Rehabilitators	Public Safety and Building Official
Wildlife, Nuisance	Wildlife Issues: Animal Possession, Nuisance Animals and Wildlife Rehabilitators	Public Safety and Building Official
Wildlife, Possession of	Wildlife Issues: Animal Possession, Nuisance Animals and Wildlife Rehabilitators	Public Safety and Building Official
Wood Waste	Brush, Stump and Untreated Wood Waste Management	Public Works / Waste Materials Planning and Management
Woodstoves	Outdoor Wood-burning Furnaces and Wood Stoves	Public Safety and Building Official

Appendix II - CT DEP Website Shortcuts

TOPIC	SHORTCUT ADDRESS:
Advisory Groups	www.ct.gov/dep/advisorygroups
Air Quality Index	www.ct.gov/dep/aqi
Aquifer Protection	www.ct.gov/dep/aquiferprotection
Biodiesel	www.ct.gov/dep/biodiesel
Black Bears	www.ct.gov/dep/blackbear
Boating	www.ct.gov/dep/boating
Calendar of Events	www.ct.gov/dep/calendar
Camping	www.ct.gov/dep/camping
Clean Marina Program	www.ct.gov/dep/cleanmarina
Clean Vessel Act Program	www.ct.gov/dep/cva
Coastal Management	www.ct.gov/dep/coastalmanagement
Compact Fluorescent Lamps	www.ct.gov/dep/cfl
Composting	www.ct.gov/dep/composting
Connecticut Diesel Reduction Initiatives	www.ct.gov/dep/dieselreduction
Directions to DEP Facilities	www.ct.gov/dep/directions
Disaster Debris Management Preparedness	www.ct.gov/dep/disasterdebrismanagement
Earth Day	www.ct.gov/dep/earthday
Education	www.ct.gov/dep/education
Electronic Waste (E-Waste)	www.ct.gov/dep/e-waste
Emergency Response and Spill Prevention	www.ct.gov/dep/spills
Employment/Jobs	www.ct.gov/dep/jobs
Endangered Species	www.ct.gov/dep/endangeredspecies
Environmental Conservation Police	www.ct.gov/dep/enconpolice
Environmental Justice	www.ct.gov/dep/environmentaljustice
Environmental Quality Records File Room	www.ct.gov/dep/fileroom
Financial Assistance	www.ct.gov/dep/financialassistance
Fishing	www.ct.gov/dep/fishing
Fisheries Licenses & Permits	www.ct.gov/dep/fishinglicense
Flood Management	www.ct.gov/dep/floodmanagement
Foliage Report	www.ct.gov/dep/foilage
Forest Fire Danger	www.ct.gov/dep/forestfiredanger
Forestry	www.ct.gov/dep/forestry
Geographic Information Systems	www.ct.gov/dep/gis
Geology	www.ct.gov/dep/geology
GreenCircle Award Program	www.ct.gov/dep/greencircle
Greenways	www.ct.gov/dep/greenways
Hazardous Waste	www.ct.gov/dep/hazardouswaste
Household Hazardous Waste	www.ct.gov/dep/hhw
Hunting & Trapping	www.ct.gov/dep/hunting
Integrated Pest Management (IPM)	www.ct.gov/dep/ipm
Integrated Water Quality Report	www.ct.gov/dep/iwqr

Appendix II - CT DEP Website Shortcuts

TOPIC	SHORTCUT ADDRESS:
Invasive Species	www.ct.gov/dep/invasivespecies
Landscape Stewardship	www.ct.gov/dep/landscapestewardship
Laws & Regulations	www.ct.gov/dep/laws-regs
Long Island Sound	www.ct.gov/dep/lis
Long Island Sound License Plate Program	www.ct.gov/dep/lislicenseplate
Mercury	www.ct.gov/dep/mercury
Municipal Primer	www.ct.gov/dep/municipalprimer
Nitrogen Control Program	www.ct.gov/dep/nitrogencontrol
Nonpoint Source Pollution Program	www.ct.gov/dep/nps
Open Burning	www.ct.gov/dep/openburning
Open Space	www.ct.gov/dep/openspace
Outdoor Recreation	www.ct.gov/dep/recreation
Outdoor Wood Furnaces	www.ct.gov/dep/owf
State Parks - Alcohol Policy	www.ct.gov/dep/parkalcoholpolicy
Rental of Park Facilities	www.ct.gov/dep/parkfacilitiesrental
PCBs	www.ct.gov/dep/pcb
Permits & Licenses	www.ct.gov/dep/permits&licenses
Pesticides	www.ct.gov/dep/pesticides
Pollution Prevention	www.ct.gov/dep/p2
Public Notices	www.ct.gov/dep/publicnotices
Radiation	www.ct.gov/dep/radiation
Recreational Trails Program	www.ct.gov/dep/rectrails
Reduce, Reuse, Recycle	www.ct.gov/dep/recycle
Regulating Waste Storage, Treatment, Transportation & Disposal	www.ct.gov/dep/waste
Release Reporting Advisory Committee	www.ct.gov/dep/rrac
Remediation/Site Clean-up	www.ct.gov/dep/remediation
Solid Waste	www.ct.gov/dep/solidwaste
Solid Waste Management Plan	www.ct.gov/dep/swmp
Solid Waste Advisory Committee	www.ct.gov/dep/SWAdvComm
Special Use of State Parks and Forests	www.ct.gov/dep/parkspecialuse
Sportsmen Licensing	www.ct.gov/dep/sportsmenlicensing
State Parks & Forests	www.ct.gov/dep/stateparks
Store (DEP Store)	www.ct.gov/dep/store
Stormwater Management	www.ct.gov/dep/stormwater
TMDL	www.ct.gov/dep/tmdl
UST	www.ct.gov/dep/ust
Users Guide to Environmental Permits	www.ct.gov/dep/permitguide
Water Quality Standards and Classifications	www.ct.gov/dep/wqsc
Watershed Management	www.ct.gov/dep/watershed
Wetlands	www.ct.gov/dep/wetlands
Wildlife	www.ct.gov/dep/wildlife

Updates available online at www.ct.gov/dep Select "About Us" at the top of the page, then select "Website Shortcut Addresses."

DEPARTMENT OF ENVIRONMENTAL PROTECTION HEADQUARTERS

Main

Headquarters

79 Elm Street
Hartford

860-424-3000

EnCon Police Routine Calls
860-424-3012

Marine

Headquarters

333 Ferry Road
Old Lyme

Boating

860-434-8638

Marine Fisheries

860-434-6043

EnCon Police Routine Calls

860-434-9840

Eastern District

Headquarters

209 Hebron Road

Marlborough

860-295-9523

EnCon Police Routine Calls

860-295-9523

Western District

Headquarters

230 Plymouth Road

Harwinton

860-485-0226

EnCon Police Routine Calls

860-485-0226

Please check our website

www.ct.gov/dep

or call ahead for

directions and hours.



Connecticut

Department of Environmental Protection

You are welcome to subscribe to DEP's electronic alerts. These include public notices of:

- Proposed Actions including new or modified regulations, permits (both individual and general) and State Implementation Plan (air quality) revisions;
- Grants and Requests for Proposals

To sign up for e-alerts, please visit our web site:

www.ct.gov/dep

For current information on many of DEP's advisory groups, please check on-line at

www.ct.gov/dep/advisorygroups.

The DEP is an affirmative action/equal opportunity employer.

In conformance with the Americans with Disabilities Act, individuals with disabilities who need information in an alternative format to allow them to benefit and/or participate in the agency's programs and services should call TDD(860) 424-3000 and make their request to the receptionist.

Requests for accommodations to attend meetings and/or educational programs, sponsored by the DEP, must be made at least two weeks prior to the program date. These requests may be made directly to Marcia Z. Bonitto, ADA Coordinator, via e-mail at Marcia.Bonitto@po.state.ct.us

January 2008



Connecticut
Department of
Environmental
Protection

Gina McCarthy
Commissioner

How to
Contact the
DEP

www.ct.gov/dep

79 Elm Street
Hartford, CT 06106-5127

Emergency / 24 Hour Numbers

Emergency Dispatch

(Nights, Weekends, and Emergencies)
1-800-424-3333

Emergency Spill Reporting

860-424-3338
Or Toll Free
1-866-DEPSPI (1-866-337-7745)

Environmental Conservation Police

Routine Calls - See back of brochure
Emergencies - 1-800-424-3333

TIP—Turn in Poachers

(Wildlife or Fishing Violations)
1-800-842-HELP
1-800-842-4357

General Information

Climate and Energy

860-424-3027

Communications & Press Contact

860-424-4100

Environmental Justice / Equity

860-424-3002

Land Acquisition and Management

860-424-3016

Landscape Stewardship

860-424-3618

Mosquito Information

1-866-WNV-LINE (1-866-968-5463)

Permit Ombudsman & Small Business Program

1-860-424-3003

Pollution Prevention

860-424-3297

Information Centers

DEP Store

860-424-3555

Public Files

860-424-4180

Water Related Issues

Aquifer Protection

860-424-3020

Coastal Management, Permits and Municipal Liaisons

860-424-3034

Dam Safety

860-424-3706

Flood Alert and Management Program

860-424-3706

Industrial Wastewater Discharge

860-424-3018

Municipal Facilities for Wastewater Disposal

860-424-3704

Municipal Inland Wetlands Program

860-424-3019

Stormwater

860-424-3018

Subsurface Wastewater Disposal

860-424-3018

Watershed Management

860-424-3020

Water-related Industrial Discharge or Municipal Facilities Complaints

860-424-3018

Air Related Issues

Air Emission Permits

869-424-4152

Air Pollution Complaints

E-mail: dep.aircomplaints@po.state.ct.us
Phone 860-424-3436

Daily Air Quality Index

Online at www.ct.gov/dep/aqi
Phone 860-424-4167

Mobile Sources

860-424-3027

Radiation

860-424-3029

Waste Related Issues

Brownfields and Site Clean-up

860-424-3705
Brownfields Coordinator
860-424-4166

Hazardous Waste

860-424-3023—Main number
1-888-424-4193 — Compliance Assistance

PCBs

860-424-3338 to report a spill
860-424-3368—all other PCB calls

Pesticides

860-424-3369

Recycling

860-424-3365

Solid Waste

860-424-3366

Underground Storage Tanks

860-424-3374

Recreation

Boating Classes, Marine Events and State Boat Launches

860-434-8638

Hunting and Fishing Licenses

860-424-3105

State Parks

Toll Free 1-866-287-2757

Wildlife

Nuisance Wildlife

860-424-3011

Report a Bear Sighting

Online at www.ct.gov/dep/wildlife
Phone 860-675-8130

Don't See What You Need?

Try Calling
860-424-3003
Or Check Our Website
www.ct.gov/dep



GreenCircle Awards

The Commissioner of the Department of Environmental Protection challenges everyone in Connecticut to do a little extra to help improve the quality of life in our beautiful State. If you've made Connecticut cleaner and greener, you deserve to be a GreenCircle member. Any municipality, business, institution, individual or group operating or living in the State of Connecticut is eligible to participate. Previous winners are encouraged to apply again for recognition of on-going efforts or new projects.

GreenCircle Awards are given in four general categories: 1) energy conservation, 2) transportation, 3) pollution prevention or recycling-related activities; or 4) projects that promote natural resource conservation or environmental awareness. Please tell us about your efforts in these areas by going to the Green Circle Web page: www.ct.gov/dep/greencircle and filling out an application form.

For more information, contact the GreenCircle Award Program by phone at 860-424-3003, or by surface mail sent to:

GreenCircle Award Program
Planning and Program Development
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127