

Appendix 7

Analysis of Existing Protections and Potential Gaps in Protection

Eightmile River Watershed Management Plan

Gap Analysis: Summary of Current Protections

Threat = Development—Habitat Fragmentation

Mean Rank Score = 1

Municipal

There are no specific regulations at the town level that address habitat fragmentation issues as a result of new development proposals. However, open space set aside requirements for each town encourage set asides that protect wildlife resources or connections to other existing or planned open space resources.

East Haddam—Requires development of a “Conservation Subdivision” plan that requires identification of conservation areas, including land that protects NDDB areas as defined by DEP, and wildlife habitats. House sites are to be located on suitable soils outside of the conservation areas.

Local wetland regulations provide for the protection of habitat functions within wetlands and watercourses, although cannot address habitat functions of adjacent uplands.

East Haddam Inland Wetland regulations include a 400 foot review area around vernal pools which allows for a more comprehensive look at habitat conditions and needs, although municipal wetland decisions cannot be based on upland habitat issues.

Lyme—Requires open space set aside in each subdivision, The set aside may include wildlife habitat and unusual ecological features. (subdiv. Reg. Sec. 4.9) Local wetland regulations same as East Haddam, except no vernal pool upland review area.

Salem—May require open space set aside as part of subdivision. Open space includes important natural resources such as wildlife corridors. Local wetland regulations same as East Haddam, except no vernal pool upland review area.

No towns currently have significant habitat information available to assist in such decisions beyond the state Natural Diversity Database and what the applicant provides.

State

There are no state regulations directly addressing habitat fragmentation related to local development issues.

Section 26-310 of the Connecticut General Statutes provides that any activity authorized by a state agency must not threaten the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat designated as essential to such species.

Federal

There are no federal regulations directly addressing habitat fragmentation related to local development issues.

Section 7 of the Federal Endangered Species Act requires all federal agencies ensure that any action authorized, funded or carried out by the agency is not likely to jeopardize the continued existence of an endangered or threatened species, or result in destruction or adverse modification of a critical habitat of a species.

Gap Analysis: Summary of Current Protections

Threat = **Nonnative Invasive Species**

Mean Rank Score = 2

Municipal

There are no municipal regulations in place that address invasive species. As well, there is no comprehensive assessment at the town level of existing invasive species, their location or quantity.

State

Public Act 03-136 established the Invasives Plants Council responsible for among other things making recommendations to control and abate the spread of invasive plants and publish annually a list of invasive or potentially invasive plants.

The state has established that no person shall import, move, sell, purchase, transplant, cultivate or distribute any invasive plants as identified in the list provided in CGS 22a-381d. In addition no state agencies can use such plants.

The Invasive Plant Atlas of New England is working to set up "Rapid Responders" who are teams of experts who can quickly assess a situation and devise an actions plan for a specific location.

Federal

In 1999 Executive Order 13112 was issued that established The National Invasive Species Council (Council) to help coordinate and ensure complementary, cost-efficient and effective Federal activities regarding invasive species.

As a part of the Executive Order all federal agencies are required to prevent the introduction of invasives species, and not authorize or fund actions that would advance invasives. In addition the Council was required to come up with a National Invasive Species Management Plan.

Gap Analysis: Summary of Current Protections

Threat = **Development—Impervious Surfaces**

Mean Rank Score = 3

Municipal

East Haddam does require the disclosure of the amount of impervious cover to be created in a new development and P&Z reserves the right to establish restrictions on one or more lots where it cannot be accurately predicted or enforced in advance.

Lyme does not regulate impervious cover in any way.

Salem limits impervious surfaces in the Golf Course Planned Residential Development zone at 13% and the Adult Age Restricted Floating Zone at 15%.

State

The state has no direct regulations over levels of impervious cover.

The State Water Quality Anti-Degradation Policy does require that existing water uses are protected and maintained in all cases. As well in waters considered “high quality” the protection of water quality is required.

General permits are required for the discharge of stormwater from small municipal separate storm sewer systems. East Haddam, Lyme and Salem are all exempt from this program.

CT River Gateway Commission—

The Commission created through CGS Sec. 25-102d that is responsible for the scenic and ecological preservation of the Gateway Area. The Gateway area is from ridgeline to ridgeline of the eight communities at the mouth of the CT River, extending upstream 30 miles and encompassing 30,000 acres. It includes East Haddam and Lyme. The Eightmile River Watershed is not in the Gateway area in East Haddam, but is in the Gateway area in Lyme. The Commission accomplishes its mission through land protection and the creation of zoning standards to be adopted and enforced by the participating towns. The Commission must approve any amendments, adoptions, or repeals of zoning, subdivision or planning regulations, review zoning board of appeals applications for compatibility and work with DEP on recommending and approving state land acquisition projects in the Gateway Zone.

The Gateway Zone standards provide guidance on maximum building coverage per lot. Coverage ranges from 10-25% in residential areas depending on lot size, 25% in industrial areas and 40% in commercial areas.

Federal

The federal government has no direct regulatory control over levels of impervious cover.

The Clean Water Act does have certain tools related to maintaining water quality that are relegated to the state to implement.

Gap Analysis: Summary of Current Protections

Threat = **Development— Poor Stormwater Management**

Mean Rank Score = 4

Municipal

East Haddam closely follows the State Stormwater Design Manual for development of new stormwater systems. Some of their general performance criteria includes reducing peak flow and the generation of stormwater, utilizing pervious surfaces and promoting infiltration.

Waivers to stormwater management requirements can be granted if the applicant can prove no deterioration of biological function or habitat among other things.

Lyme has no stormwater system design guidance in place.

Salem has no stormwater system design guidance in place. The P&Z commission “may require the installation of various storm drainage improvements for the whole or any part of a subdivision “.

All towns require state erosion and sediment control standards.

State

General permits “Phase II” are required for the discharge of stormwater from small municipal separate storm sewer systems. Colchester, East Haddam, Lyme and Salem are all exempt from this program.

The State Water Quality Anti-Degradation Policy does require that existing water uses are protected and maintained in all cases. As well in waters considered “high quality” the protection of water quality is required.

Federal

The Clean Water Act does have certain tools related to maintaining water quality that are relegated to the state to implement, e.g. the “Phase II” program.

Gap Analysis: Summary of Current Protections

Threat = Roads — Habitat Fragmentation

Mean Rank Score = 5

Municipal

East Haddam, Lyme & Salem

There are no specific municipal regulations that address habitat fragmentation issues as a result of new road development. However, open space set aside requirements for each town encourage set asides that protect wildlife resources or connections to other existing or planned open space resources.

There is no significant habitat information available to assist in such decisions beyond the state Natural Diversity Database and what the applicant provides.

Local wetland regulations provide for the protection of habitat functions within wetlands and watercourses, although cannot address habitat functions of adjacent uplands.

No town requires cape cod curbs or other specific wildlife friendly features to new roads.

Additional East Haddam — Inland Wetland regulations include a 400 foot review area around vernal pools which allows for a more comprehensive look at habitat conditions and needs, although municipal wetland decisions cannot be based on upland habitat issues.

State

There are no state regulations directly addressing habitat fragmentation related to state roads.

Section 26-310 of the Connecticut General Statutes provides that any activity authorized by a state agency must not threaten the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat designated as essential to such species.

For state roads designated as “Scenic Roads” the state Scenic Road Advisory Committee must review and determine whether any proposed changes to the designated road would alter the characteristic that made the road eligible for “Scenic” status, including natural features. As well, drainage and curbing will be accomplished with consideration given to the characteristics of the scenic road.

If significant adverse effects are identified, the Advisory Committee can recommend alternatives to the Commissioner of DOT who makes the final decision.

One of the characteristics that made Rt. 156 eligible for scenic road status is the scenic quality of the Eightmile River along the roadway.

Federal

There are no federal regulations directly addressing habitat fragmentation related to roads.

Section 7 of the Federal Endangered Species Act requires all federal agencies ensure that any action authorized, funded or carried out by the agency is not likely to jeopardize the continued existence of an endangered or threatened species, or result in destruction or adverse modification of a critical habitat of a species.

Gap Analysis: Summary of Current Protections

Threat = Roads — Poor Stormwater Management

Mean Rank Score = 6

Municipal

East Haddam closely follows the State Stormwater Design Manual for development of new stormwater systems. Some of their general performance criteria includes reducing peak flow and the generation of stormwater, utilizing pervious surfaces and promoting infiltration.

Waivers to stormwater management requirements can be granted if the applicant can prove no deterioration of biological function or habitat among other things.

Lyme has no stormwater system design guidance in place.

Salem has no stormwater system design guidance in place. The P&Z commission “may require the installation of various storm drainage improvements for the whole or any part of a subdivision “.

State

“Phase II” general permits are required for the discharge of stormwater from small municipal separate storm sewer systems. Colchester, East Haddam, Lyme and Salem are all exempt from this program.

The State Water Quality Anti-Degradation Policy does require that existing water uses are protected and maintained in all cases. As a result no state level actions should be approved that would degrade a water bodies ability to support existing and designated uses.

For state roads designated as “Scenic Roads” the state Scenic Road Advisory Committee must review and determine whether any proposed changes to the designated road would alter the characteristic that made the road eligible for “Scenic” status, including natural features. As well, drainage and curbing will be accomplished with consideration given to the characteristics of the scenic road.

If significant adverse effects are identified, the Advisory Committee can recommend alternatives to the Commissioner of DOT who makes the final decision.

Federal

The Clean Water Act does have certain tools related to maintaining water quality that are relegated to the state to implement, e.g. the “Phase II” program and the anti-degradation policy.

Gap Analysis: Summary of Current Protections

Threat = Riparian Corridor — Cutting, Excavation, Filling, Cultivation

Mean Rank Score = 7, 11, 24

Municipal

East Haddam — Has 100 foot regulated upland review area along wetlands and watercourses, providing an opportunity for the IWC to review activities within 100 feet of the corridor to determine if impacts would result to the wetland or watercourse itself. Grazing, farming, clear cutting for the expansion of crop land, and landscaping on residential property is considered “as of right” and permitted in inland wetlands and watercourses. They defer to CT DEP to address construction of dams, reservoirs, and other facilities necessary for public water supply.

Subdivision reg 3:02,b,l notes land subject to flooding shall not be subdivided for residential or any other use that would increase the hazard.

Salem — Any clearing, grubbing, filling, grading, excavating, or removal or deposition of material within 75 feet of a wetland or watercourse, is a regulated activity. As well, any similar activity in any other non-wetland or non-watercourse area outside the 75 foot area that is likely to likely to impact or affect wetlands or watercourses is regulated. “As of right” uses and deferrals to CT DEP are consistent with East Haddam. Net buildable calculations do not allow inclusion of upland review area in determining buildable area of a lot.

Lyme — Areas within 100 feet of all wetlands and watercourses are considered regulated. The location of a septic within 150 feet of all wetlands and small watercourses, and within 200 feet of larger water bodies and water courses is regulated. “As of right” uses and deferrals to CT DEP are consistent with East Haddam. Criteria for decisions by IWC include assessing a proposed activity as it relates to chemical & biological properties, state water quality classifications, and natural habitat among other things.

State

DEP has exclusive jurisdiction for regulating activities in or affecting wetlands or watercourses done by state agencies. An advisory decision can be provided to DEP by the local IWC. As well DEP has jurisdiction over tidal wetlands and navigable waters.

Activities in upland areas are not considered regulated activities. Activities within 1,000 of a tidal wetland or navigable river in coastal areas requires a coastal site plan review by DEP, although any comments or recommendations are only advisory in nature.

Sec. 3c of the revised CT River Gateway Commission Standards call for no building or other structure shall be constructed, reconstructed, enlarged, extended, moved or structurally altered within one hundred (100) feet of the high tide line, as defined in the Connecticut General Statutes, of the Connecticut River or any of its tributaries or associated wetlands.

In relationship to timber cutting the new Gateway Standards (Sec. III, F. 1.) call for no cutting of vegetation within a strip of land extending fifty(50) feet in horizontal distance inland from the high tide line, as defined in the Connecticut General Statutes, of the Connecticut River or any of its tributaries or associated wetlands, except as provided in this section.

Federal

Federal jurisdiction, through Sec. 404 of the Clean Water Act, is through the Army Corps of Engineers for dredge and fill activities in wetlands and watercourses that meet federal definitions.

Activities in upland areas are not considered regulated activities in these instances. If something triggers Army Corps jurisdiction they can then consider secondary impacts to related upland resources.

Gap Analysis: Summary of Current Protections

Threat = **Development — Suburban Lawns**

Mean Rank Score = 8

Municipal

East Haddam — No regulations specifically address impacts from suburban lawns. Residential landscaping is allowed “As of right” in wetlands and watercourses.

Salem — No regulations specifically address impacts from suburban lawns. Residential landscaping is allowed “As of right” in wetlands and watercourses.

Lyme — No regulations specifically address impacts from suburban lawns. Residential landscaping is allowed “As of right” in wetlands and watercourses.

State

The DEP Pesticide Management Program has a main goal prevent adverse human health or environmental effects from the misuse of pesticides. They license pesticide applicators and enforce proper use of pesticides, among other things. They do not directly regulate the use pesticides on suburban lawns.

Federal

EPA has overall responsibility for registering or licensing pesticides for use in the U.S. They relegate responsibility for this program to CT. They do not directly regulate the use pesticides on suburban lawns.

Gap Analysis: Summary of Current Protections

Threat = **Lack of Information/Analysis on of Resource Location, Quality and Vulnerability**

Mean Rank Score = 9

Municipal

All towns have available to them the state Natural Diversity Database, the NRCS soils data, geology data, floodplain data, potential vernal pool mapping, and information provided to them by applicants or consultants the town hires in response to an application. East Haddam and Lyme also have archaeological survey information from a state survey effort. Also, information from Audubon, the CT Butterfly Atlas, The Center for Plant Conservation, and the New England Wildflower Society, among others is available.

Towns do not have detailed habitat or species information, instream flow or hydrologic information, specific water quality information, wetland functions and values information, detailed vernal pool surveys, information conveying the key aspects of the cultural landscape in their community, or detailed knowledge of important archaeological sites.

Importantly, towns do not have the staff time or specific expertise to take advantage of some of the information they have and little resources to collect new information on their own.

As well, staff and commission time and expertise available to learn and implement new planning, zoning, and inland wetland approaches and strategies is limited.

State

The state offers the towns a substantial amount of GIS data including NDDDB, soils, geology, water bodies, along with other data, however little technical expertise to implement.

The state also publishes a bi-annual water quality report to congress that includes a listing of impaired waters and the potential causes of impairment. Chemical, physical and biological water quality data is available for certain water bodies.

Fisheries data may be available from DEP efforts to sample the Eightmile River system on a regular basis.

Training seminars are available to planning, zoning and inland wetland commission members at different times. The wetlands training includes information on understanding the law and regulations, wetland identification, wetland functions and values, reading development site plans, alternatives evaluation, construction practices including controlling erosion and sedimentation, and related areas. Also part of this basic program and in cooperation with Connecticut's Office of the Attorney General, a "legal issues" workshop is presented.

At least one member of staff of the IWC must have completed the comprehensive training program and it must be offered to at least one members or staff annually.

Federal

Information that may be of interest to local commissions and staff typically includes USGS stream flow data and water quality studies, FEMA floodplain maps, and US Fish & Wildlife species and habitat information.

Gap Analysis: Summary of Current Protections

Threat = **Development - Wetland/Vernal Pool Filling & Alteration**

Mean Rank Score = 10, 12

Municipal

East Haddam — Wetland and watercourse definition consistent with state statute. Separate definition included for vernal pools. Decision criteria for determining whether a regulated activity will be permitted includes: the environmental impact to the wetland or watercourse; review of prudent and feasible alternatives; the relationship of the short and long term impacts of the proposed activity on the long-term productivity of the wetland or watercourse; irretrievable loss of resources that would be caused and the ability to mitigate such losses; effect on wetlands or watercourses outside the area of proposed activity; assessing suitability of activity based on balancing environmental protection and need for economic growth; and others.

Salem — Wetland and watercourse definition consistent with state statute.

Decision criteria is similar to East Haddam.

Lyme — Wetland and watercourse definition consistent with state statute, except intermittent watercourses are not defined. Lyme decision criteria is similar to East Haddam, although they provide 9 specific measures of environmental impact to consider, they also specifically raise the issue of characterizing and assessing the degree of injury to unique habitat and habitat loss, and they have an additional criteria to assess any proposed actions by the applicant to put deed restrictions or easements on their property that would be beneficial to the wetlands and watercourses associated with the proposed activity.

State

State statutes (CGS § 22a-38) provide definitions for local municipalities to follow in defining wetlands and water courses.

DEP has exclusive jurisdiction for regulating activities in or affecting wetlands or watercourses done by state agencies. An advisory decision can be provided to DEP by the local IWC. As well DEP has jurisdiction over tidal wetlands and navigable waters.

No direct regulatory guidance to municipalities is offered for vernal pools, other than they can be regulated just as wetlands.

Federal

The Clean Water Act "Section 404" program is the principal way by which the federal government protects wetlands and other aquatic environments. Federally regulated wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

The Corps of Engineers regulates construction and other work in navigable waterways under Section 10 of the Rivers and Harbors Act of 1899 and the discharge of dredged or fill material into "waters of the United States" under Section 404 of the Clean Water Act. "Waters of the United States" are navigable waters, tributaries to navigable waters, wetlands adjacent to those waters and/or isolated wetlands that have a demonstrated interstate commerce connection. The Corps regulatory program goal is to ensure protection of the aquatic environment, while allowing for necessary economic development.

Any activity that occurs in a component of, or within 0.25 miles up or downstream of the main stem or tributaries of a river segment of, the National Wild and Scenic River System, must be reviewed by the Corps under the procedures of Category II, regardless if it meets the Category I size of impact thresholds. This condition applies to both designated Wild and Scenic rivers and

rivers designated by Congress as study rivers for possible inclusion while such rivers are in an official study status. The Corps will consult with the National Park Service (NPS) with regard to potential impacts of the proposed activity on the resource values of the Wild and Scenic river. The culmination of this coordination will be a determination by the NPS and the Corps that the work:

- 1) may proceed as proposed;
- 2) may proceed with recommended conditions; or could pose a direct and adverse effect on the resource values of the river, and an individual permit is required.

Gap Analysis: Summary of Current Protections

Threat = **Groundwater/Surface Water Diversions & Impoundments**

Mean Rank Score = 13

Municipal

East Haddam — The IWC regulations do not directly address the withdrawal or diversion of water.

However, the regulations identify regulated activities to include the alteration of a watercourse if the alteration was not specifically recognized “as of right”. As such, it appears the IWC could regulate a diversion or withdrawal if it so wished.

They defer to CT DEP to address construction of dams, reservoirs, and other facilities necessary for public water supply.

Salem — Same as East Haddam.

Lyme — Same as East Haddam.

State

CT General Statute 22a365 requires the DEP to regulate all diversions of 50,000 gallons per day or more at locations where there is 100 acres or more of watershed area above the withdrawal/diversion point.

A diversion means any activity which causes, allows or results in the withdrawal from or the alteration, modification or diminution of the instantaneous flow of the waters of the state

Decision criteria include among other things the effect on wetlands, waste assimilation, and fish and wildlife habitat.

Diversions in existence prior to 1982 and registered with the State were never reviewed for environmental impacts and are permanently allowed as of right by the holders of the registration. The Eightmile River Watershed has 8 such diversions, none of which are consumptive at this time.

Stream flow regulations and standards exist for stock streams affected by a dam.

Federal

Potential protection of water quantity comes from the Clean Water Act and the implementation of related state water quality standards (see U.S. Supreme Court decision PUD NO. 1 OF JEFFERSON COUNTY et al. v. WASHINGTON DEPARTMENT OF ECOLOGY et al.)

However, CT standards do not currently have a reference to, or standard for, instream flow.

The Wild & Scenic Rivers Act states (Sec. 7a) *“The Federal Power Commission [FERC] shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act (41 Stat. 1063) as amended (16 U.S.C. 791a et seq.), on or directly affecting any river which is designated in section 3 of this Act . . . and no department or agency of the United States shall assist by loan, grant, license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration. “ and Section 10 (a): “Each component of the national wild and scenic rivers system shall be administered in such a manner as to protect and enhance the values which caused it to be included in said system . . .”*

Gap Analysis: Summary of Current Protections

Threat = Roads—Watercourse Crossings, including bridges and culverts

Mean Rank Score = 14

Municipal

There are no specific regulations addressing impacts from existing watercourse crossings. New crossings would be reviewed under inland wetland regulations. See wetlands worksheet for details.

East Haddam has detailed requirements for applicants of new developments along existing roads. Road upgrades, including drainage upgrades to the existing road can be required.

State

There are no specific regulations addressing impacts from existing watercourse crossings.

The CT Stormwater Quality Manual does have a brief section devoted to “Other Road, Highway and Bridge Maintenance” (sec. 5.2.4). While it addresses many issues associated with siltation and erosion there are no recommendations addressing aquatic habitat and fish passage.

Federal

There are no specific regulations addressing impacts from existing watercourse crossings.

There are federal/state partnerships in different parts of the country that work on removing upstream passage barriers for targeted fish species.

Gap Analysis: Summary of Current Protections

Threat = **Roads—New Road Creation**

Mean Rank Score = 15

Municipal

East Haddam— Pavement width is 18-24 feet. Minimum 50' radius; serving no more than 20 lots; road to be less than or equal to 2000'. Encourage hammer heads. See Stormwater worksheet for details on required stormwater design. Road layout criteria do not directly address habitat fragmentation or conservation.

Salem— Regulations state roads are to be of a width that is 'adequate and convenient for present and prospective traffic'. Town road ordinance 26 feet and curbs required. Cul-de-sac minimum 50' radius; road to be less than or equal to 1500'. See Stormwater worksheet for details on required stormwater design. Road layout criteria do not directly address habitat fragmentation or conservation.

Lyme—No street shall have less than 60 foot right of way. It is recognized some streets may need to be wider. No actual street width is provided. Cul-de-sac only allowed on roads less than or equal to 800'. (Subdivision Regs, Sec. 5) Regs are silent on radius. Lyme hasn't had a new road in nearly 20 years. See Stormwater worksheet for details on required stormwater design. Road layout criteria do not directly address habitat fragmentation or conservation.

State

The State requires any development of real property, improvement of real property, acquisition of transportation facilities, or grants for the acquisition of transportation facilities that costs over \$100,000 be consistent with the State Plan of Conservation & Development.

The Secretary of OPM submits to the State Bond Commission, prior to the allocation of any bond funds for any of the above actions, an advisory statement commenting on the extent to which such action conforms to the Plan of C&D. In the State 2004-2009 Draft Plan the great majority of land in the Eightmile Watershed is identified as either: existing preserved open space; conservation area, preservation area, or rural lands. Specific strategies for each classification are included. All are consistent with sustaining rural character and the conservation values of the landscape.

In accordance with Connecticut Environmental Policy Act (CEPA) regulations, state agencies are required to undertake a comprehensive evaluation of any applicable action that might significantly affect the environment. An important requirement of this evaluation process is for the sponsoring agency to assess the consistency of its proposed action with the C&D Plan. After the sponsoring agency has taken into account all public and agency comments and made its final decision on the proposed action, OPM must make a determination as to whether the evaluation satisfies CEPA requirements.

State Permits and Compliance Requirements For Rte. 11 include:

Connecticut Environmental Policy Act (CEPA)

Inland Wetlands and Watercourses Act (IWWA)

Water Quality Certification (CWA §401)

Change of Use Permit for Public Water Company Watershed Lands

Tidal Wetlands Act/Permit

Coastal Consistency Review

National Pollutant Discharge Elimination System

Stormwater and Floodplain Certification

Indirect Sources of Air Pollution Regulations

Federal

Federal permits and compliance requirements for a new road such as Rte. 11 include:

National Environmental Policy Act (NEPA)

Federal Water Pollution Control Act (Clean Water Act), §404 Permit

Clean Air Act Conformity Determination

Endangered Species Coordination

Hazardous Materials Regulations

Historic Preservation Act

Section 4(f) Evaluation

Section 6(f) Evaluation

Public Health Service Act (Safe Drinking Water Act)

Executive Order 11990 (Wetland Protection)

Executive Order 11988 (Flood Hazard Reduction)

Executive Order 12898 (Environmental Justice)

Gap Analysis: Summary of Current Protections

Threat = **Golf Course and recreation Areas**

Mean Rank Score = 16

Municipal

There are no specific regulations at the town level that address the creation or management of golf courses per se.

Salem (zoning regs section 4.2.18 stipulates that for a Golf Course Planned Development, if public water supply is to be provided, the applicant shall submit a plan to the Commission as part of the Environmental Management Report. Also requires stormwater management plan and water management budget, emphasis on maintaining water quality, as well as an Environmental Management Report o address development parcel and surrounding land characteristics that influence the site.

State

There are no direct state regulations that address golf course creation and management.

Federal

There are no direct federal regulations that address golf course creation and management.

Gap Analysis: Summary of Current Protections

Threat = Road Sand/Salt Application & Catch Basing Failure Mean Rank Score = 17

Municipal

East. Haddam: No official policy for sand/salt, unofficial is bare tar policy, they excessively sand and salt. They clean catch basins and sweep annually, he is trying to get them to increase catch basin cleaning and sweeping near lakes to twice a year.

Salem: No official policy on roads, they use state recommended mix of 7 to 2 sand to salt ration. Sweeping and cleaning once a year in the spring (after 4/15) or more times as needed in certain areas. They own their own sweeper and catch basin cleaner.

Lyme: no information.

State

DOT policy is a 7 to 2 mix. Sweep and clean basins once a year.

Phase II MS4 Stormwater permits require certain steps to be taken to manage municipal stormwater systems. East Haddam, Salem and Lyme are exempt from this program.

Federal

There are no direct federal regulations that address roads and sand and salt application, sweeping or catch basin cleaning.

Gap Analysis: Summary of Current Protections

Threat = **Forest Management**

Mean Rank Score = 18

Municipal

Lyme Zoning Regs Sect 8.4: commercial cutting of timber shall occur only with a permit. Appendix A outlines standards for cutting and stream protection, methods, etc.

East Haddam has extensive zoning regs sect 20, regarding permitting, harvesting methods and restrictions, grading for logging roads, etc. Gateway requires a permit for harvesting more than 5 acres.

Salem: no forest management regs

State

State of CT does not have Timber Harvesting Guidelines or statewide Forestry Regulations (the Forest Practices Act) governing practices (CGS 451a Sec. 23-65f-23-65q). They do have a statewide certification program to license foresters and harvesters for harvests in excess of 25,000 board feet (or 50 cords or 150 tons) in any 12 month period. CGS Sec 23-65k Municipal regulation of forest practices permits Lyme and E. Haddam, among other towns, to authorize its inland wetlands agency to adopt regulations consistent with the state regs as are necessary to protect the forest land within its jurisdiction (except for state owned forestland managed by DEP)

Federal

There are no direct federal regulations that address forest management on private lands.

Gap Analysis: Summary of Current Protections

Threat = **Development —Septic Systems, esp. maintenance**

Mean Rank Score = 19

Municipal

All local sanitarians follow state health code. They all stated that maintenance is on an as needed basis (as in when a system fails).

E. Haddam: Subdiv. Regs sects 3 & 4 stipulate design and install according to CGS and State of CT Public Health Code and conformance with regs and reporting to the Sanitarian and East Haddam Water Pollution Control Authority. Distance between septic and wetlands/watercourses is on a case by case basis.

Lyme and Salem (all towns) must follow CT Public Health Code and Sanitarians reporting requirements. Lyme has 200' upland review area (setback?) for specifically identified waterbodies, and a 150' for all other waterbodies.

State

CGS 7-245,246F defines a community sewerage system and CGS 19a-36 indicates technical requirements. State public health code has 25' setback from streams.

Federal

Sec 319 of the Federal Water Pollution Control Act regulates groundwater quality.

Gap Analysis: Summary of Current Protections

Threat = **Development—Failed Erosion & Sedimentation Controls**

Mean Rank Score = 20

Municipal

All towns recommend use of the E&S guidelines.

E. Haddam: E&S controls are required for disturbed areas less than ½ acre cumulatively on review by zoning enforcement officer. Subdivision regs sect 4 provides detailed stormwater management guidelines and recommends use of State Stormwater Design Manual and CT Guidelines for E&S Control. Requires E&S Control plan.

Lyme: requires a plan for disturbance of any size in the Gateway Conservaion Zone and the Commission has discretion to require E&S Plan for any site that has potential for significant erosion. Subdivision regs sect 3.6 requires a detailed soil erosion and sediment control plan.

Salem: Zoning regs sect 11 states E&S control plan shall include specific locations, diversions, structures, and narrative to indicate design criteria used in the design of control measures. E&S plan requires for Planned Recreational/Residential communities and proposed developments disturbing more than one-half acre of land.

State

The 2002 State Guidelines on Erosion & Sedimentation controls provided guidelines on implementation and design.

Federal

There are no direct federal regulations that address E&S Controls.

Gap Analysis: Summary of Current Protections

Threat = Roads—Hazardous Materials Spills

Mean Rank Score = 21

Municipal

All local fire departments and emergency planners stated they call DEP and defer to state standards.

State

DEP Oil and Chemical Spill Response Division operates per CGS sections 22a-450, 451 and 454. Division operates 24 hrs a day with a rapid response to addressing all reported spills. CT environmental law establishes “strict liability” meaning the person or business which caused the spill and the owner of the property where the spill occurred are responsible for clean-up (monetarily if not physically).

Federal

Gap Analysis: Summary of Current Protections

Threat = **Earth Material Extraction**

Mean Rank Score = 22

Municipal

East Haddam—Filling, removal, or excavation of earth materials is permitted in all zones with the exception of land designated as the “Conservation (Gateway) Zone”, with exceptions for grandfathered and residential uses.

Basic regulations in established governing operation of gravel extraction, including requirements for drainage, grading, noise, traffic,, revegetation, etc. 100 foot buffer from property line established.

Disturbed may not exceed five acres.

No permit necessary where building permit granted as long as activities not to exceed 300 cubic yards of materials.

Slopes are to be 1:3 for restoration of site.

Bedrock quarrying is prohibited.

Salem—Basic regulations in established governing operation of gravel extraction, including requirements for drainage, grading, noise, traffic,, revegetation, etc.

No pit deeper than 4 foot unless safe access and egress.

Slopes for drainage to be 1:2.

Excavation allowed in RUA, RUB and I zones by special permit.

Minimum of 40 acres required for manufacturing and processing of material in the I zone, and 500 foot setback from Rural or Residential zone.

Stone crushing allowed only in industrial zone, without approval of Commission. Washing, screening and processing allowed in all zoning districts.

Refers to ponds to be acceptable outcomes of gravel operation.

Lyme—Basic regulations in established governing operation of gravel extraction, including requirements for drainage, grading, noise, traffic,, revegetation, etc.

200 foot setback from property line for resource extraction activities. Disturbed may not exceed five acres. Removal of soil & earth materials prohibited in the conservation (Gateway) zone, except for residential purposes. Bedrock quarrying, along with washing and crushing operations are not allowed anywhere.

State

Natural Diversity database, stormwater and/or point source discharge permit and 401 water quality certification may be necessary.

Federal

404 Army Corps Permit may be necessary.

Gap Analysis: Summary of Current Protections

Threat = **Change in Topography**

Mean Rank Score = 23

Municipal

East Haddam—Requires new streets to follow natural contours wherever practical.

Salem—Requires new streets to follow natural contours wherever possible. (subdiv. Regs. 6.4.2)

State

No direct regulatory control.

Federal

No direct regulatory control.

