# Town Garage Site Hampton, Connecticut



Eastern Connecticut Environmental Review Team Report

Eastern Connecticut
Resource Conservation & Development Area, Inc.
Town Garage Site
Hampton, Connecticut



# **Environmental Review Team Report**

Prepared by the Eastern Connecticut Environmental Review Team

Of the

Eastern Connecticut
Resource Conservation & Development Area, Inc.

For the

First Selectman Hampton, Connecticut

June 2008

Report #618 **Acknowledgments** 

This report is an outgrowth of a request from the Hampton First Selectman to the Eastern Conservation District (ECD) and the Eastern Connecticut Resource Conservation and Development Area (RC&D) Council for their consideration and approval. The request was approved and the measure reviewed by the Eastern Connecticut Environmental Review Team (ERT).

The Eastern Connecticut Environmental Review Team Coordinator, Elaine Sych, would like to thank and gratefully acknowledge the following Team members whose professionalism and expertise were invaluable to the completion of this report.

The field review took place on Tuesday, March 25, 2008.

Karen Allen Stormwater Permit Engineer

DEP - Stormwater Management

(860) 424-3842

Jana Butts Senior Planner, AICP

Windham Region Council of Governments

(860) 456-2221

Scott Gravatt District Director

Eastern Connecticut Conservation District

(860) 774-8397, Ext. 3

Jeffrey Hunter Transportation Planner

DOT – Office of Intermodal Planning

(860) 594-2139

Dawn McKay Biologist/Environmental Analyst 3

DEP – Bureau of Natural Resources

(860) 424-3592

Brian Murphy Fisheries Biologist

**DEP Eastern District Headquarters** 

(860) 295-9523

Randolph Steinen Geologist

DEP – State Geological & Natural History Survey

UCONN – Geology (emeritus)

(860) 487-0226

Julie Victoria Wildlife Biologist

DEP – Franklin Wildlife Management Area

(860) 642-7239

Patricia Young Natural Resource Specialist

**Eastern Connecticut Conservation District** 

(860) 887-4163, Ext. 400

I would also like to thank Eric Thomas, DEP-Watershed Management, Neal Williams, DEP-Stormwater, Katie Driscoll, CTDOT, Glen Bagdoian, Northeast District Department of Health, Maurice Bisson, First Selectman, Allan Cahill and Melanie Johnston, Selectmen, Bob Bourgoyne, Wayne Kilpatrick, Marcia Kilpatrick, Joann Freeman, Conservation Commission members, Wayne DeCarli, Planning a& Zoning Commission member, and Daryl Christadore, Hampton Highway Department, for their cooperation and assistance during this environmental review.

Prior to the review day, each Team member received a summary of the proposed project with location and aerial photos. During the field review Team members received additional information. Some Team members made individual or follow-up visits to the site. Following the reviews, reports from each Team member were submitted to the ERT coordinator for compilation and editing into this final report.

This report represents the Team's findings. It is not meant to compete with private consultants by providing site plans or detailed solutions to development problems. The Team does not recommend what final action should be taken on a proposed project - all final decisions rest with the town. This report identifies the existing resource base and evaluates its significance to the proposed use, and also suggests considerations that should be of concern to the town. The results of this Team action are oriented toward the development of better environmental quality and the long term economics of land use.

The Eastern Connecticut RC&D Executive Council hopes you will find this report of value and assistance in reviewing this site for a town garage.

If you require additional information please contact:

Elaine Sych, ERT Coordinator CT ERT Program P. O. Box 70 Haddam, CT 06438

Tel: (860) 345-3977 e-mail: connecticutert@aol.com

# **Executive Summary**

## Introduction

The ERT was requested by the First Selectman of Hampton to assist in the review of a town owned parcel that is being considered for the development of a new town garage. The site is located on Route 97 just to the north of the Hampton Elementary School. The site was described as approximately 10 acres in size, but due to wetland constraints the property the ERT Team walked was about 5 to 5.5 acres in size. The site is steeply sloping and contains two streamcourses that flow into the Little River.

The garage project would entail construction of an 80 X 50 foot building that would contain an office, restrooms and maintenance bays for town vehicles. A paved parking lot for less than 10 cars would be constructed, as well as areas developed for petroleum products and fuel, and areas for dirt and debris accumulated from culvert and drainage maintenance.

The town is requesting the ERT for assistance in determining the best location of the building and associated development on the proposed site. Also requested was identification of limitations and opportunities with guidance and recommendations related to mitigation of stormwater runoff, erosion and sediment control, wetland, watercourse and river protection, well and septic suitability, and identification of required permits.

The ERT study will help guide the town's decision on what Team members have determined is a site with many development limitations.

## **Topography and Surficial Geology**

The site is located on a moderately steep hillside with a building proposed between two streams which may become intermittent during dry months. The glacial till on site contains numerous surface boulders and the excavation for the basement and footings may uncover more boulders. Trees on the banks of the neighboring school parking lot have deformed trunks from down-slope soil creep indicating that material placed there may be subject to creep on steep slopes. This may be a consideration when developing the adjacent site for a town garage. Excavation for the building basement on the uphill side may encounter water because of seasonally shallow groundwater. Bedrock does not appear to be a limitation.

## **Conservation District Review**

At the present time there is little site specific resource information for the parcel. According to Natural Resource Conservation Service (NRCS) Soil Web Survey there are two distinct non-wetland soils shown on the area proposed for the garage. They are

Canton and Charlton and Woodbridge soils. The Canton Charlton soil according to the NRCS Soil Interpretation chart is the best suited for on-site sewage disposal and the reminder of the soils on the site have limited potential. The largest non-wetland area on the 10 acre identified area is about 3.5 to 4 acres of land. This is surrounded by regulated soils and watercourses. Field inspection also revealed the possibility of another wetland system extending partway up the slope from the west. On site mapping is necessary for a final determination of wetland status.

Surface water is rated good to excellent and the groundwater is rated as natural quality potentially suitable for drinking.

#### Site Resource Recommendations:

- On site soil mapping for inland wetlands should be conducted prior to any further decisions regarding the parcel. The exact delineation of regulated areas is critical for the determination of "buildable land". This will also assist in determining a possible location for a septic system and determining the inland wetland regulated setback area.
- On site testing soil testing including deep test pits and percolation tests will be required as part of a development proposal. Location of the septic system will further determine the amount of buildable area remaining. It may be best to obtain this information in the near future to aid in determining site suitability.
- Further information concerning the Natural Diversity Data Base species is warranted.

#### Surface and Groundwater Recommendations:

- Pertinent DEP departments should be consulted to provide information and guidance on permitting requirements, to determine appropriateness of uses and development of criteria on this site.
- Management of materials storage and site containment with appropriate spill contingency plans and materials should be readily available with staff trained in proper procedures.
- Treatment of parking lot, access drive, roof water and Route 97 stormwater runoff should be designed according to the 2004 Connecticut Stormwater Standards at a minimum.
- Limitations on the use of herbicides and fertilizers should be instituted to reduce potential impacts to water resources.

#### **Erosion Control:**

Due to the surrounding wetlands, steep slopes and the amount of grading that generally accompanies a commercial/industrial building, access lanes, parking, storage yard, etc. any plan for development should prioritize protection of these areas. Site development should be restricted to the gentler portions of the site, outside of regulated setbacks to the extent possible.

#### **Stream Crossing:**

If a shared well is proposed between the school and garage than a water line crossing of the southern watercourse will be required. Strong considerations should be given to conducting a utility line crossing of the watercourse utilizing side borings instead of traditional trench methods if feasible. Boring methodology would preserve the integrity of the watercourse existing channel.

#### Conclusion:

According to the general mapping available, the site has fairly significant limitations such as the area available for septic, depth to groundwater, presence of inland wetland and watercourses and steep slopes. The town should carefully consider whether this site has the potential to meet existing needs as well as future needs, while protecting its natural resources.

## **The Natural Diversity Data Base**

The Natural Diversity Data Base maps and files show records for a State Special Concern species the Wood Turtle (*Clemmys insculpta*) in the site vicinity.

If wood turtle habitat exists on the site and will be impacted by the project the DEP Wildlife Division recommends that a herpetologist familiar with the habitat requirements of this species conduct surveys between April and September to see if turtles are present. An investigative report should be forwarded to the Wildlife Division for their review and recommendations.

## **Fisheries Resources**

The project site contains 2 small perennial headwater watercourses that join and form a tributary to the Little River. The watercourses are identified as Pearl Brook by DEP mapping. One of the important functions of this stream is to provide cold, clean and unpolluted waters to downstream areas of the watershed, which support an increased diversity of aquatic organisms. The Little River supports a very diverse and healthy coldwater fish community.

Potential impacts from garage development:

- Stream sedimentation the site is characterized by steep topography which presents a major challenge to properly control soil runoff. Pearl Brook could serve as a "direct conduit" for sediment to negatively impact downstream areas near the Little River that support fisheries resources.
- Stormwater pollution stormwater can contain a variety of pollutants that degrade water quality to the detriment of aquatic organisms. Pearl Brook could serve as a "direct conduit" for harmful stormwaters to be transported downstream to the Little River.

#### Recommendations/Comments:

- Given the presence of Pearl Brook and very steep slopes the project site presents a challenge to develop in an environmentally sensitive manner.
- This town property is not exactly suitable for any future development and as such, it would be best preserved for open space.
- If the site were to be developed the following guidance is offered:
  - o It is the policy of the CTDEP Inland Fisheries Division (IFD) that riparian corridors be protected with an undisturbed 100 ft. wide riparian buffer zone. It is difficult to determine if 100 foot buffers can be maintained at this site. Most likely local commissions would have to relax the 100 ft. wide buffer requirements in order to build the town garage.
  - It is recommended that an aggressive and effective soil and erosion control plan be developed and utilized as described in the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control Manual.
  - It is important to incorporate the latest stormwater technologies as described in the DEP 2004 Connecticut Stormwater Quality Manual.
     Particular attention should be made to stormwater discharges that outlet to Pearl Brook to ensure that instream erosion is not accelerated.

## Stormwater Management

The following DEP wastewater discharge permits would most likely be needed for the garage project:

- General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities
- General Permit for the Discharge of Stormwater Associated with Industrial Activities
- General Permit for the Discharge of Vehicle Maintenance Wastewater

Because of the steepness of the site and the proximity of the wetlands and the two watercourses particular care is needed in preparing and maintaining erosion and sediment controls. During construction it is recommended that stormwater runoff from Route 97 be diverted around the areas of disturbance and that as much natural buffer as possible be maintained between the construction activities and the wetlands.

The site is contained within a Natural Diversity Data Base area so coordination with the DEP Wildlife Division early in the planning process is recommended.

As part of the planning process the Town must carefully consider all possible uses for this site including outside storage of ancillary equipment and materials, storage of waste materials from road repairs and other town maintenance activities that may impact stormwater runoff, the wetlands and watercourses and the groundwater. There are special requirements for all types of storage areas including liquid de-icing materials that the town must comply with. There are also guidelines for the management of street

sweepings and catch basin cleanings. Vehicle maintenance and washing/rinsing activities must also be considered since **these wastewaters cannot be discharged to streams**, **storm sewer systems or to the ground.** It is recommended that the Town investigate wastewater-recycling systems for handling vehicle wash/rinse waters.

## Planning Review

The existing location of the Hampton Highway Garage on West Old Route 6 continues to be the most suitable site for expansion of a new garage if additional land can be acquired.

It would be preferable not to have any additional truck traffic in the proposed project area due to potential impacts to the character of Hampton Hill (a National Register Historic District), as well as Hampton Elementary School.

The proposed site is identified as "Existing Preserved Open Space" in the *Conservation* and *Development Policies Plan for the State of Connecticut*, 2005-2010. This is a known mapping mistake and it will probably not impede the town from receiving grant funding.

The proposed site is designated as "Rural Conservation Area" and as "Priority Preservation Area" in the *Windham Region Land Use Plan 2002*. The site is not in an area recommended for development. The general policy is that structural development is more appropriately located elsewhere.

#### Recommendations:

- Obtain a wetlands delineation as soon as possible, if the delineation is favorable proceed with topographic and property surveys. Prepare site plans enlisting the services of a professional engineer.
- Consider renewing efforts to acquire additional land adjacent to the existing facility on West Old Route 6.
- Consider splitting the public works facilities between the existing site and the proposed site.
- Create a Public Works Building Committee to oversee the project involving the first selectman, road foreman, representatives from the town land use agencies and professionals engaged in site development and facilities planning such as an engineer and architect.

## **DOT Traffic Review**

The CTDOT would like to review more detailed traffic information before making any final recommendations.

#### Issues to be considered are:

 Traffic data including build and no-build turning movements for the access drive should be provided. Potential safety impacts to Route 97 at the proposed ingress and egress points may need to provided.

- An accident analysis for any ingress and egress points on Route 97 may need to be provided.
- Trucks entering and exiting Route 97 may pose a safety concern due to their size, weight and operational characteristics.
- An examination of potential site line restrictions would be appropriate. As recommended previously, the earth berm should be adjusted to improve sightlines.
- A landing area at the point of ingress/egress should be considered and a right turn lane should also be considered.
- Possible shoulder widening and adjustment of pavement markings on Route 97 Southbound should be investigated.
- An access road be paved to minimize the amount of material being tracked onto the roadway during construction.
- An area, during construction, for construction trailers to load and unload, not on Route 97, should be considered.
- Signage warning motorists of trucks entering on Route 97 should be utilized.

# **Table of Contents**

|                                  | Page |
|----------------------------------|------|
| Frontpiece                       | 2    |
| Acknowledgments                  | 3    |
| Executive Summary                | 5    |
| Table of Contents                | 11   |
| Introduction                     | 12   |
| Topography and Surficial Geology | 17   |
| Conservation District Review     | 19   |
| The Natural Diversity Data Base  | 30   |
| Fisheries Resources              | 32   |
| Stormwater Management            | 37   |
| Planning Review                  | 41   |
| DOT Traffic Review               | 46   |
| About the Team                   | 47   |

# **Introduction**

## **Introduction**

The Hampton First Selectman has requested Environmental Review Team (ERT) assistance in reviewing a parcel of town owned land being considered for a new town garage facility.

The property is located on Route 97 just north of the Hampton Elementary School. The Team was told that the property was approximately 10 acres in size, but the area of the property walked by the Team with town officials is between 5 and 5.5 acres in size. This area was defined by the road and the two watercourses on the property. (Please see following maps.)

The town needs to construct a new town garage building that will be approximately 80 x 50 feet in size. The building will house an office, restrooms with shower facilities and maintenance bays for town vehicles. There will probably be above ground storage for fuel and petroleum products, and a paved parking area for less than 10 cars. The site may also be used to deposit dirt and debris accumulated from culvert cleaning and drainage maintenance. There may also be a future need for the storage of salt solution for winter road applications.

The site is steeply sloping with two watercourses that drain to the Little River. A small fire pond also exists on a corner of the property.





## **Objectives of the ERT Study**

The town is requesting the ERT for assistance in determining the best location of the building and associated development on the proposed site. Also requested was identification of limitations and opportunities with guidance and recommendations

related to mitigation of stormwater runoff, erosion and sediment control, wetland, watercourse and river protection, well and septic suitability, and identification of required permits.

The ERT study will help guide the town's decision on what Team members have determined is a site with many limitations.

## The ERT Process

Through the efforts of the Hampton First Selectman this environmental review and report was prepared for the Town of Hampton.

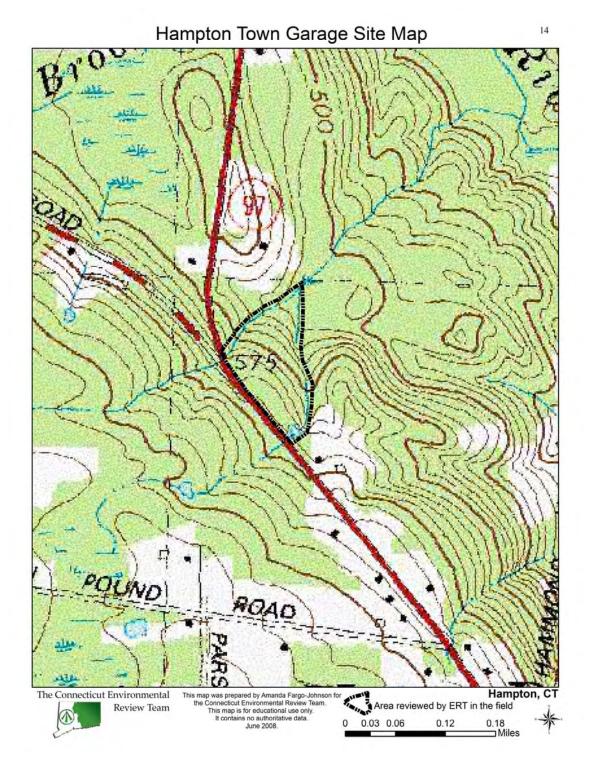
This report provides an information base and a series of recommendations and guidelines which cover the topics requested by the town. Team members were able to review maps, plans and supporting documentation provided by the town.

The review process consisted of four phases:

- 1. Inventory of the site's natural resources;
- 2. Assessment of these resources;
- 3. Identification of resource areas and review of plans; and
- 4. Presentation of education, management and land use guidelines.

The data collection phase involved both literature and field research. The field review was conducted Tuesday, March 25, 2008. The emphasis of the field review was on the exchange of ideas, concerns and recommendations. Being on site allowed Team members to verify information and to identify other resources. Some Team members made separate field reviews on their own or conducted map reviews.

Once Team members had assimilated an adequate data base, they were able to analyze and interpret their findings. Individual Team members then prepared and submitted their reports to the ERT coordinator for compilation into this final ERT report.



15

# Hampton Town Garage Site Color Aerial Map





This map was prepared by Amanda Fargo-Johnson for the Connecticut Environmental Review Team.

This map is for educational use only. It contains no authoritative data.

June 2008.

0.035 0.07

0.14 0.21 Miles

16

# Hampton Town Garage Site Aerial Map





This map was prepared by Amanda Fargo-Johnson for the Connecticut Environmental Review Team.

This map is for educational use only.

It contains no authoritative data.

June 2008.

Hampton, CT



# **Topography and Surficial Geology**

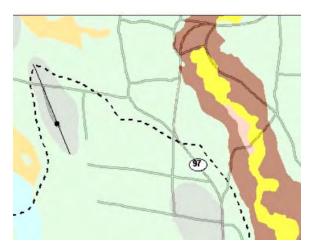
The site proposed by the town of Hampton for a new town garage is located on a moderately steep hillside adjacent to the town's elementary and middle school. The high side of the plot is along Rte. 97 where the elevation is just higher than 590' above sea level. Grading will probably take place down to an elevation near 540'. The relief is only about 50 feet but the distance over which the drop occurs is about 0.1 mile or less. Hence, the slope is moderate to steep (see below).





The building will be placed between two streams that were flowing at the time of the review. They may become intermittent during dry months. The southern most stream flows in a steep-sided valley 5-10 feet deep on the soils that cover the area (see above). Bedrock was not observed in the area.

The area is covered by fairly thick glacial till deposited during the last ice age. The till is moderately thick, but less than 50'. Two drumlins, which are underlain by thick till (greater than 50') are recognized nearby to the west and to the south of the parcel (see map below). Glacial melt-water stream deposits are found on the sides of the valley-bottom in which the Little River flows. They are not on the parcel, however.



Surficial geologic map of area surrounding town garage parcel (location is immediately north of rte-97 label. Pale green areas are covered by glacial till, gray areas by thick glacial till. Brown areas are covered by glacial melt-water stream deposits; yellow area is modern alluvium. Pale orange areas are swamp deposits. Dashed line shows position of ice margin about 16,500 ybp. Long line with dot is axis of drumlin. Map from Stone and others, 2005.

.

The till contains numerous boulders (see pictures below). An ice margin, dated at about 16,500 radiocarbon years before present (ybp) is mapped through the parcel (see map below). This marks a temporary still stand in the melt back of the ice margin at the end of the Ice Age. Boulders are normally found along such margins. Excavation for the basement and footings may uncover yet more boulders.





## **Some Final Observations**

Few trees have deformed trunks that indicate down-slope soil creep. The ones that do show that are on the banks of the parking lot for the neighboring school. That material was placed there and may be subject to creep on steep slopes.

Two flowing streams suggest that ground water beneath the parcel may be seasonally shallow, estimated by this observer at about 8-10 feet below the surface during wet periods when the streams flow. Excavation for the basement on the uphill side may encounter water.

The area is underlain by the Scotland Schist, a gray to silvery medium-grained schist. Generally the bedrock is poorly exposed and was not seen to crop out on the parcel.

# **Conservation District Review**

## **Introduction**

This proposal is for the possible location of a new town garage immediately adjacent to the local elementary school on Route 87. The total parcel owned by the town is approximately 30 acres, with the portion available for the garage estimated to be 10 acres. The site has frontage on Route 87 and is centrally located, facilitating access to all parts of town.

There are currently no improvements to this portion of the site. It would be served by onsite septic and well. There has been some consideration of sharing a well with the elementary school since a second well there is necessary.

While the main proposed use would be a town garage for storage, maintenance and washing of vehicles, the town is also considering possible uses such as emergency shelter, possible temporary classrooms and outside storage of stockpiled materials, including road sweepings, mulch and topsoil.

## **Site Resources**

#### Soils and Topography

Presently, there is little site specific resource information for the parcel. As part of Eastern Connecticut Conservation District's (ECCD) review, they have provided general soil mapping of the site, based on the Natural Resources Conservation Service (NRCS) Soil Web Survey, which is found at the end of this section. They have also included a Selected Soil Interpretations Chart for rating the soils in terms of small commercial buildings, on-site septic systems and for inland wetland soils.

According to the soils mapping, two distinct non-wetland soils are shown for the area of the proposed garage. These include Canton and Charlton (62C) and Woodbridge (47C).

Following is a brief description of each soil from the NRCS Soil Website.

#### **WOODBRIDGE SERIES**

The Woodbridge series consists of moderately well drained loamy soils formed in subglacial till. They are very deep to bedrock and moderately deep to a densic contact. They are nearly level to moderately steep soils on till plains, hills, and drumlins. Slope ranges from 0 to 25 percent. Saturated hydraulic conductivity ranges from moderately low or moderately high in the surface layer and subsoil and low or moderately low in the dense substratum. Mean annual temperature is about 48 degrees F., and mean annual precipitation is about 46 inches.

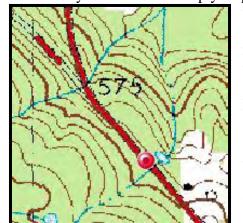
#### **CANTON SERIES**

The Canton series consists of very deep, well drained soils formed in a loamy mantle underlain by sandy till. They are on nearly level to very steep glaciated plains, hills, and ridges. Slope ranges from 0 to 35 percent. Saturated hydraulic conductivity is high in the solum and high or very high in the substratum. The mean annual temperature is about 46 degrees F. and the annual precipitation is about 44 inches.

#### **CHARLTON SERIES**

The Charlton series consists of very deep, well drained loamy soils formed in till. They are nearly level to very steep soils on till plains and hills. Slope ranges from 0 to 50 percent. Saturated hydraulic conductivity is moderately high or high. Mean annual temperature is about 50 degrees F., and mean annual precipitation is about 47 inches.

The site is fairly gently sloping immediately adjacent to the Route 97, then becomes moderately to somewhat steeply sloping proceeding eastward. Slopes adjacent to the



watercourses are very steep in some locations and subject to erosion. The terrain is characterized by numerous surface boulders at locations throughout the parcel.

It was mentioned during the ERT meeting that two soil test pits had been conducted immediately adjacent to Route 97 for the purpose of discerning the depth to ledge. It was also reported that the soil appeared to meet the minimum requirements for an on-site septic system, but had not yet been confirmed and would likely require the importing of selected fill

material. Per the Selected Soil Interpretation Chart, the soil designated by the symbol 62C is listed as the best suited for on-site septic disposal, while the remainder of the soils on site have limited potential.

#### Wetlands

As noted on the soil survey mapping and through a field inspection during the ERT

meeting, the site contains some upland areas interspersed by poorly drained or wetland soils. The largest non-wetland area on the ten acre portion of the site is approximately 3.5-4 acres of land according to the soil map. This area is surrounded by regulated soils and watercourses. Field inspections also revealed the possibility of another wetland system extending partway up the slope from the west. Onsite mapping is necessary for a final determination of



wetland status.

A small fire pond is situated immediately adjacent to the most southerly watercourse. Some water from the adjacent watercourse is routed through the pond and returned via a

culvert back to the watercourse.



Two watercourses are associated with the site wetland system, one above and one below the part of the parcel proposed for the garage location. These two systems originate from large wetland systems to the southwest of the site. The two small streams flow generally in a northeasterly direction joining together to flow to the Little River and ultimately to the Shetucket River. Surface water quality is rated good to excellent (A, AA) for the

site and groundwater is rated as natural quality with potentially suitable for drinking (GAA, GA), according to the Department of Environmental Protection.

#### **Species of Concern**

There are two "grey dots" depicted on the State Natural Diversity Database Map indicating the presence of threatened, rare or species of concern. DEP maintains the associated information on which specific species is represented by the dot. Please refer to the Natural Diversity Data Base section of this report for further information.

#### Vegetation

The parcel is wooded with species such as oak, maple birch, beech and some aspen dominating the canopy layer. Only one or two trees were noted to be of somewhat significant size. The understory is relatively sparse, although barberry, an invasive shrub, is present in significant colonies at various parts of the parcel.

## **Site Resource Recommendations**

- While it is understandable that the town does not wish to expend any more financial resources if this site is clearly not appropriate for the proposed garage, further information is warranted to assist in making that decision.
  - 1. On-site soil mapping for inland wetlands should be conducted prior to any further decisions regarding the parcel. The exact delineation of regulated areas is critical for a determination of "buildable land". This will also assist in determining a possible location for a septic system and determining the inland wetland regulated setback areas. While the soil map ECCD has provided shows only wetland systems above and below the proposed garage site, this map should be used for general purposes only, and on-site mapping will confirm whether additional wetland soils are present.

- 2. On-site soil testing which meets the State Health Code, including deep test pits and percolation tests, will be required as part of a development proposal. The location of the septic system will further determine the amount of buildable area remaining. Since the majority of soils in the anticipated location of the building are shown as Woodbridge soils and these soils are listed as somewhat limited for on-site septic, it may be best to obtain this information in the near future to aid in determining site suitability.
- Further information should be obtained from the DEP on which species are represented by the mapped grey dots. Further review by an appropriate specialist may be warranted depending on DEP's response.

## **Surface and Groundwater Protection**

The town anticipates using the garage for several purposes including vehicle maintenance and repair, washing, outside storage of materials, emergency shelter and possibly future classroom and meeting space.

Typical concerns with uses such as vehicle maintenance and vehicle washing are the potential for surface and groundwater pollution, should any of the regulated substances or wash waters not be properly contained within the building. Since municipal sewers are not available, then containment systems will be required to hold any regulated waste water and provide for spill control. DEP has very specific permitting requirements for vehicle maintenance and washing facilities as well as the storage of other materials, and they should be consulted early on during the decision making process.

Additional concerns on the site are related to the discharge of stormwater. This area already receives runoff from Route 97, with no current treatment other than overland

flow provided. In several areas road drainage is causing slope erosion which can also contribute sediment loads to wetlands and watercourses.

Stormwater discharge from this site needs careful attention. Beyond typical runoff associated with roof and parking lot drainage, public works facilities often temporarily store materials, as anticipated here, and conduct general cleaning and some maintenance



outside of the building. These activities can provide sources of contamination to ground and surface waters that are not removed through standard stormwater treatment methods.

#### **Recommendations:**

 The pertinent DEP departments should be consulted to provide information and guidance on permitting requirements, to determine appropriateness of uses and development criteria on this site.

- If the site is developed for a public works facility, standard stormwater controls designed for parking lot runoff should not be used as a substitute for proper material storage, site containment and management. Appropriate spill contingency plans and materials should be readily available, with staff trained on proper procedures.
- Treatment of parking lot, access drive, roof water and Route 97 stormwater runoff should be designed according to the 2004 Connecticut Stormwater standards at a minimum.
- Limitations on the use of herbicides and fertilizers should be instituted to reduce potential impacts to water sources.

## **Erosion Control**

At this point there are no site development plans and therefore it is not possible to comment on the extent of site work and adequacy of the erosion controls. Due to the surrounding wetlands, steep slopes and the amount of grading that generally accompanies a commercial building, access lanes, parking, storage yard, etc., any plan for development should prioritize protection of these areas.

#### **Recommendations:**

- Maintaining existing vegetated slopes adjacent to wetland and watercourse areas will assist in controlling slope erosion and protect sensitive resources.
- Site development should be restricted to gentler portions of the site, outside of regulated setbacks to the extent possible.
- Erosion control plans should be designed in accordance with the 2002 Guidelines for Soil and Sediment Erosion.

## **Stream Crossing**

If a well is proposed to be shared, between the school and a public works facility, then a water line crossing of the southern watercourse will be required. Selection of an appropriate crossing location and timing of activities is critical in preserving the stream.

#### Recommendations:

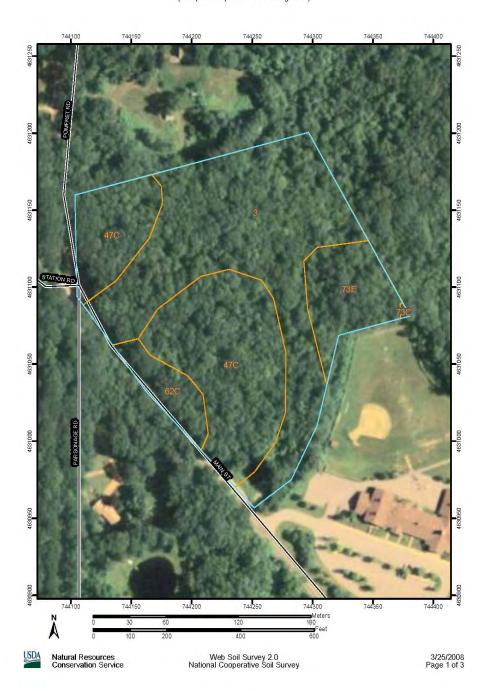
- Strong considerations should be given to conducting a utility line(s) crossing of the watercourse utilizing side borings instead of traditional trench methods, if feasible. Boring methodology would preserve the integrity of the watercourse existing channel.
- In the event that traditional trenching methods are deemed necessary then the following recommendations should be considered:
  - 1. Ideally a crossing location should be situated closer to Route 97, as areas adjacent to the watercourse have already been cleared and disturbed. A

- crossing site should be located along a portion of the watercourse where banks are less steep.
- 2. Crossings should be conducted during low flow months to minimize water handling issues and watercourse banks should be restored by appropriate regrading and vegetation.

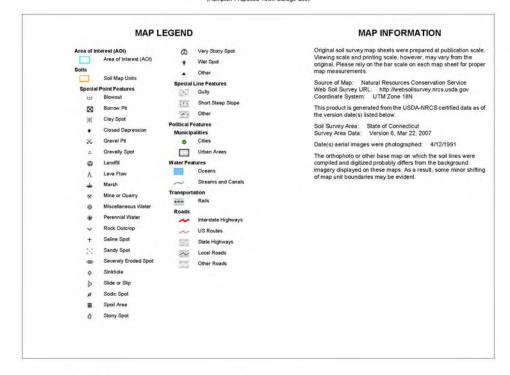
## **Conclusion**

According to the general mapping available, the site has fairly significant limitations such as the area available for septic, depth to groundwater, presence of inland wetland and watercourses and some steep slopes. The town should carefully consider whether the site has the potential to meet the existing needs as well as future needs, while still protecting its natural resources.

Soil Map-State of Connecticut (Hampton-Proposed Town Garage Site)



## Soil Map-State of Connecticut (Hampton-Proposed Town Garage Site)





Web Soil Survey 2.0 National Cooperative Soil Survey 3/25/2008 Page 2 of 3

## Map Unit Legend

| State of Connecticut (CT600)      |   |              |                |  |  |
|-----------------------------------|---|--------------|----------------|--|--|
| Map Unit Symbol                   | Map Unit Name   | Acres in AOI | Percent of AOI |  |  |
| 3                                 | Ridgebury, Leicester, and<br>Whitman soils, extremely<br>stony            | 6.0          | 48.0%          |  |  |
| 47C                               | Woodbridge fine sandy loam, 2<br>to 15 percent slopes,<br>extremely stony | 4.5          | 36.0%          |  |  |
| 62C                               | Canton and Charlton soils, 3 to<br>15 percent slopes, extremely<br>stony  | 0.7          | 5.4%           |  |  |
| 73C                               | Charlton-Chatfield complex, 3<br>to 15 percent slopes, very<br>rocky      | 0.0          | 0.1%           |  |  |
| 73E                               | Charlton-Chatfield complex, 15<br>to 45 percent slopes, very<br>rocky     | 1.3          | 10.5%          |  |  |
| Totals for Area of Interest (AOI) |   | 12.4         | 100.0%         |  |  |

|   |                                      | Selected Soil Inte                    | rpretati   | ons- State of Connect                 | icut                 |                                       |       |
|---|--------------------------------------|---------------------------------------|--|---------------------------------------|----------------------|---------------------------------------|-------|
| Map symbol and soil I<br>name   | Pct. of Eng - small commer buildings |                                       | ercial Eng - soil potential ratings of ssds (ct) |                                       | Inland wetlands (ct) |                                       |       |
|   | unit                                 | Rating class and<br>limiting features | Value  | Rating class and<br>limiting features | Value                | Rating class and<br>limiting features | Value |
| 62C—Canton and<br>Chariton soils, 3 to 15<br>percent slopes,<br>extremely stony |                                      |                                       |  |                                       |                      |                                       |       |
| Canton  | 45                                   | Very limited                          |  | High potential                        |                      | CT nonwetland                         |       |
|   |                                      | Slope                                 | 1.00   |                                       |                      |                                       |       |
| Charlton  | 35                                   | Very limited                          |  | High potential                        |                      | CT nonwetland                         |       |
|   |                                      | Slope                                 | 1.00   |                                       |                      |                                       |       |
| 73C—Charlton-<br>Chatfield complex, 3<br>to 15 percent slopes,<br>very rocky    |                                      |                                       |  |                                       |                      |                                       |       |
| Chariton  | 45                                   | Very limited                          |  | Low potential                         |                      | CT nonwetland                         |       |
|   |                                      | Slope                                 | 1.00   |                                       |                      |                                       |       |
| Chatfield   | 30                                   | Very limited                          |  | Low potential                         |                      | CT nonwetland                         |       |
|   |                                      | Slope                                 | 1.00   |                                       |                      |                                       |       |
|   |                                      | Depth to hard bedrock                 | 0.54   |                                       |                      |                                       |       |
| 73E—Charlton-<br>Chatfield complex,<br>15 to 45 percent<br>slopes, very rocky   |                                      |                                       |  |                                       |                      |                                       |       |
| Charlton  | 45                                   | Very limited                          |  | Low potential                         |                      | CT nonwetland                         |       |
|   |                                      | Slope                                 | 1.00   |                                       |                      |                                       |       |
| Chatfield   | 30                                   | Very limited                          |  | Low potential                         |                      | CT nonwetland                         |       |
|   |                                      | Slope                                 | 1.00   |                                       |                      |                                       |       |
|   |                                      | Depth to hard bedrock                 | 0.54   |                                       |                      |                                       |       |

#### **Data Source Information**

Soil Survey Area: State of Connecticut Survey Area Data: Version 6, Mar 22, 2007

#### **Selected Soil Interpretations**

This report allows the customer to produce a report showing the results of the soil interpretation(s) of his or her choice. It is useful when a standard report that displays the results of the selected interpretation(s) is not available.

When customers select this report, they are presented with a list of interpretations with results for the selected map units. The customer may select up to three interpretations to be presented in table format.

For a description of the particular interpretations and their criteria, use the "Selected Survey Area Interpretation Descriptions" report.

#### Report—Selected Soil Interpretations

|  |                        | Selected Soil Int                     | erpretation | ons- State of Connection                  | ut    |                                       |       |
|--|------------------------|---------------------------------------|-------------|---|-------|---------------------------------------|-------|
| Map symbol and soil name   | Pct. of<br>map<br>unit | Eng - small commercial buildings      |             | Eng - soil potential ratings of ssds (ct) |       | Inland wetlands (ct)                  |       |
|  |                        | Rating class and<br>limiting features | Value       | Rating class and<br>limiting features     | Value | Rating class and<br>limiting features | Value |
| 3—Ridgebury,<br>Leicester, and<br>Whitman soils,<br>extremely stony              |                        |                                       |             |   |       |                                       |       |
| Ridgebury  | 40                     | Very limited                          |             | Extremely low potential                   |       | CT wetland                            |       |
|  |                        | Depth to saturated zone               | 1.00        |   |       |                                       |       |
| Leicester  | 35                     | Very limited                          |             | Extremely low potential                   |       | CT wetland                            |       |
|  |                        | Depth to saturated zone               | 1.00        |   |       |                                       |       |
| Whitman  | 15                     | Very limited                          |             | Extremely low potential                   |       | CT wetland                            |       |
|  |                        | Ponding                               | 1.00        |   |       |                                       |       |
|  |                        | Depth to saturated zone               | 1.00        |   |       |                                       |       |
| 47C—Woodbridge fine<br>sandy loam, 2 to 15<br>percent slopes,<br>extremely stony |                        |                                       |             |   |       |                                       |       |
| Woodbridge   | 80                     | Very limited                          |             | Low potential                             |       | CT nonwetland                         |       |
|  |                        | Slope                                 | 1.00        |   |       |                                       |       |
|  |                        | Depth to saturated zone               | 0.39        |   |       |                                       |       |

# **The Natural Diversity Data Base**

The Natural Diversity data Base maps and files regarding the project area have been reviewed. According to our information, there are records for State Special Concern species Wood Turtle (*Clemmys insculpta*) in the vicinity.

Wood turtles require riparian habitats bordered by floodplain, woodland or meadows. They hibernate in banks of the river in submerged tree roots. Their summer habitat includes pastures, old fields, woodlands, powerline cuts and railroad beds bordering or adjacent to streams and rivers. This species has been negatively impacted by the loss of suitable habitat.

If Wood Turtle habitat exists on the proposed site and will be impacted by your project, the Wildlife Division recommends that a herpetologist familiar with the habitat requirements of this species conduct surveys between April and September to see if they are present. A report summarizing the results of such surveys should include habitat descriptions, reptile species list and a statement/resume giving the herpetologist's qualifications. The DEP does not maintain a list of qualified herpetologists. A DEP Wildlife Division permit may be required by the herpetologist to conduct survey work, you should ask if your herpetologist has one. The results of this investigation can be forwarded to the Wildlife Division and, after evaluation, recommendations for additional surveys, if any, will be made.

Standard protocols for protection of wetlands should be followed and maintained during the course of the project. Additionally, all silt fencing should be removed after soils are stable so that reptile and amphibian movement between uplands and wetlands is not restricted.

Please be advised that the Wildlife Division has not made a field inspection of the project site nor have they seen detailed timetables for work to be done. Consultation with the Wildlife Division should not be substituted for site-specific surveys that may be required for environmental assessments. The time of year when any work will take place will affect these species if they are present on the site when the work is scheduled. Please be advised that should state permits be required or should state involvement occur in some other fashion, specific restrictions or conditions relating to the species discussed above may apply. In this situation, additional evaluation of the proposal by the DEP Wildlife Division should be requested. If the proposed project has not been initiated within 6 months of this review, contact the NDDB for an updated review. If you have additional questions please contact Julie. Victoria@ct.gov, and reference the NDDB #16037.

Natural Diversity Data Base information includes all information regarding critical biologic resources available to us at the time of the request. This information is a compilation of data collected over the years by the Environmental and Geographic Information Center's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations

with the Data Base should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

#### **Wood Turtle**

(Clemmys insculpta)



**IDENTIFICATION:** A medium-sized turtle, readily distinguished by its sculptured, rough, moderately-domed carapace, black head, orange-red wash on its under limbs, and a yellow plastron with black squares along the edges. Adults 150-200 mm carapace length.

In contrast to Connecticut's other turtle species, the wood turtle is an animal of the northern forest biome, from the Great Lakes eastward through New England and northeastern Canada. Its southern range limit lies near Washington, DC. In Connecticut, the strongholds of wood turtle distribution are the eastern and western uplands. Although once quite common in the Central Connecticut Lowland, many populations have been reduced or even eliminated by habitat fragmentation. This species was never common in the coastal zone of the state. Wood turtles have extensive landscape-scale habitat requirements, requiring clean rivers and large streams with deeply undercut banks for hibernation, as well as extensive areas of floodplain, forest, and fields for summer foraging. Because of their extensive overland movements, they are very susceptible to road mortality. They take over a decade to reach sexual maturity, and have a low egg output, and limited juvenile survivorship. Loss of adults from breeding populations, whether from increased road mortality or by collection for the wildlife trade, is a major problem affecting the sustainability of wood turtle populations in Connecticut. Possession of any wood turtle is prohibited (Conn. Code Sec. 26-55-3-C) in Connecticut without regard to its origin, and collection within Connecticut is prohibited (Conn. Code Sec. 26-66-14-A). The wood turtle is a "Special Concern" species in Connecticut. International commerce in wood turtles posed such a threat that in 1992 this species was placed under international trade regulatory protection administered by CITES (Convention on International Trade in Endangered Species of Flora and Fauna). The wood turtle is of conservation concern throughout most of its range. Most states and provinces where it occurs afford it special status and/or some form of statutory protection.

# Fisheries Resources

## **Pearl Brook**

The town property proposed for development is bordered by 2 small perennial headwater watercourses that join and form a tributary to the Little River. These watercourses are identified as Pearl Brook by DEP mapping. Pearl Brook most likely supports a fish community in the stretch of stream near its confluence with the Little River. One of the more important functions of this stream is to provide cold, clean and unpolluted waters to downstream areas of a watershed, which support an increased diversity of aquatic organisms.





## **Little River**

The Little River supports a very diverse and healthy coldwater fish community. It is annually stocked by the DEP Inland Fisheries Division with over 4,400 adult (9-12") brook, brown and rainbow trout providing an important recreational fishery in the Town of Hampton. It is also known to support naturally reproducing brown trout populations often referred to as "wild brown trout" and native brook trout. In addition to salmonids, other stream dwelling fish, which can be found in abundant numbers, include: common shiner, longnose dace, fallfish, white sucker and tessellated darter.

## **Potential Impacts**

## Stream Sedimentation

The development area is characterized by steep topography, which presents a major challenge to properly control soil runoff. During any future development, disturbed topsoil may become exposed and susceptible to runoff events into Pearl Brook, especially near steep slope areas. Pearl Brook can serve as a "direct conduit" for sediment to negatively impact downstream areas near the Little River that support fisheries resources.

The negative impacts of sediment runoff have been well documented by researchers. Sediment will reduce populations of aquatic insects and fish by eliminating physical habitat while suspended sediments will reduce dissolved oxygen levels (Cordone and Kelley 1961). Suspended sediments may prevent successful nest development of trout (Bell 1986). As reported by Meehan (1991), sediment deposition can severely impact spawning substrate abundance and quality. Reductions in egg survival are caused by smothering and insufficient oxygen supply (Bell 1986). Meehan (1991) indicated that erosion and sedimentation of instream habitat could alter channel morphology by increasing the stream width-depth ratio, incidence and severity of stream bank erosion, channel braiding, and reduce pool volume and frequency.

#### **Stormwater Pollution**

Stormwaters can contain a variety of pollutants that degrade water quality to the detriment of aquatic organisms (Klein 1979). Pearl Brook can serve as a "direct conduit" for harmful stormwaters to be transported downstream to the Little River. Pollutants commonly found in stormwaters include hydrocarbons (gasoline and oil), herbicides, heavy metals, road salt, fine silts, and coarse sediment. Nutrients, total phosphorous and total nitrogen in stormwater runoff can fertilize stream waters causing water quality degradation. Additionally, fine silts in stormwaters that remain in suspension for prolonged periods often cannot be effectively removed from engineered stormwater detention basins and/or roadway catch basins.

## **Recommendations/Comments**

Given the presence of Pearl Brook that borders the property on the north and south boundaries and very steep slopes, the project site presents a challenge to develop in an environmentally sensitive manner. While the construction of an 80 ft. x 50 ft. in size town garage building seems fairly benign, required parking lots and possible future storage of salt may increase the footprint of development. In essence the development would have to be wedged in between two (2) watercourses and fairly significant amounts of fill would have to be imported onto the site to create level and stable building grades. Secondary and cumulative impacts to watercourses, most likely in the form of stormwater and sediment runoff would be very difficult to avoid and minimize. In essence, this town property is not exactly suitable for any future development and as such, it would best be preserved as open space. That being said, if local planners are to approve this parcel for development, the following guidance is provided.

## 1. Riparian Corridor Protection

It is the policy of the CTDEP Inland Fisheries Division (IFD) that riparian corridors be protected with an undisturbed 100 ft. wide riparian buffer zone. A riparian wetland buffer is one of the most natural mitigation measures to protect the water quality and

fisheries resources of watercourses. Without knowing the specific footprint of development, it is difficult to determine if 100ft. wide buffers can be maintained at this site. Most likely local planning commissions would have to relax 100 ft. wide buffer requirements in order to build this facility. IFD policy and supportive documentation can be viewed on the DEP website at:

http://www.ct.gov/dep/lib/dep/fishing/restoration/riparianpolicy.pdf and http://www.ct.gov/dep/lib/dep/fishing/restoration/riparianpositionstatement.pdf.

(Please view 100'wetland buffer map prepared by the ERT Office at the end of this section.)

#### 2. Erosion and Sediment Control Plan

Proper installation and maintenance of erosion/sediment controls is critical to environmental well being. It is recommended to develop an aggressive and effective soil erosion and sediment control plan that utilizes guidance as described in the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control manual. This includes such mitigative measures as filter fabric barrier fences, staked hay bales, and temporary sediment basins. Land disturbance and clearing should be kept to a minimum. Exposed, unvegetated areas should be protected from storm events. The local wetland enforcement officer should be responsible for checking this development on a periodic basis to ensure that all soil erosion and sediment controls are being maintained. Past siltation disturbances in Connecticut have occurred when individual contractors either improperly deployed mitigation devices or failed to maintain these devices on a regular basis.

#### 3. Stormwater Management

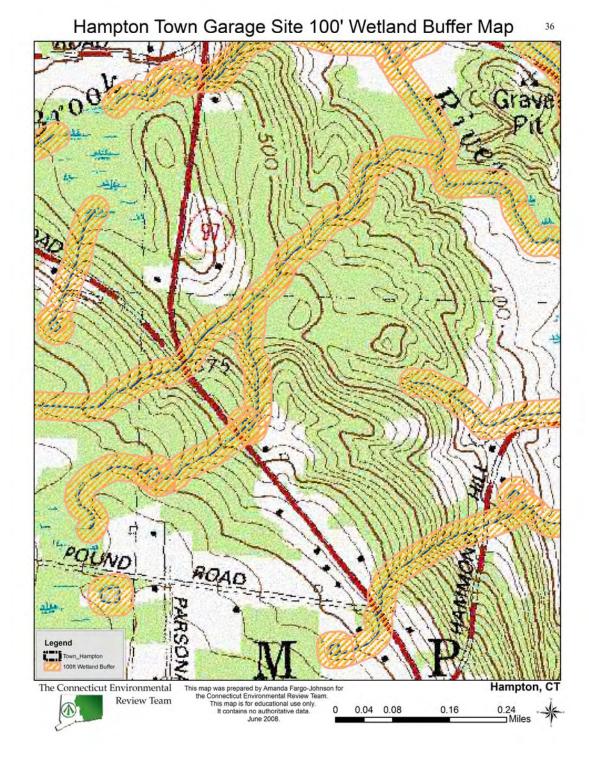
It is important that development design incorporate the latest stormwater technologies as described in the DEP 2004 Connecticut Stormwater Quality Manual. Particular attention should be made to stormwater discharges that outlet to Pearl Brook to ensure that instream erosion is not accelerated. Care should be exercised to control accidental spills from vehicle/equipment maintenance activities. Sediment basins and catch basins should be regularly maintained to minimize eventual adverse impacts to aquatic resources.

## **Literature Cited**

Bell, M.C. 1986. Fisheries handbook of engineering requirements and biological criteria. U.S. Army Corps of Engineers. Fish Passage Development and Evaluation Program. North Pacific Division, Portland, OR. 290 pp.

Cordone, A. J., and D. W. Kelley. 1961. The influences of inorganic sediment on the aquatic life of streams. California Fish and Game 47:189-228.

- Klein, R, D. (1979) Urbanization and Stream Quality Impairment. Water Resources Bulletin 15(4) 948- 963.
- Meehan, W.R. 1991. Influences of forest and rangeland management on salmonid fishes and their habitats. American Fisheries Society Special Publication 19, Bethesda, MD. 751 pp.



# **Stormwater Management**

The Town of Hampton ("the Town") is considering the construction of a new garage facility on approximately 10 acres of town owned property on Route 97. The site is expected to include a building to house an office, restrooms and maintenance bays for town vehicles, with above ground storage for fuel and petroleum products. Dirt and debris from maintaining roadway drainage systems may also be stored at the site and possibly brine solution in the future. The following DEP wastewater discharge permits would most likely be needed for this project:

- > General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities
- > General Permit for the Discharge of Stormwater Associated with Industrial Activities
- > General Permit for the Discharge of Vehicle Maintenance Wastewater

Information about each of these general permits is provided below.

# **DEP Stormwater Permitting – Construction**

As the site construction would involve the disturbance of over one acre, the project must comply with the requirements of Connecticut's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities (construction stormwater general permit). A registration for the construction stormwater general permit must be submitted to the Department of Environmental Protection (CTDEP) at least thirty days before the start of construction activities. If 10 or more acres of land will be disturbed, regardless of phasing, a Stormwater Pollution Control Plan (the "Plan") must also be submitted with the registration. The construction stormwater general permit requires that the "Plan shall ensure and demonstrate compliance with the Connecticut Guidelines for Soil Erosion and Sediment Control (the "guidelines"). Also, the Plan must be flexible to account for adjustment of controls as necessary to meet field conditions. Please note that many erosion, sediment control, and stormwater detention issues must be dealt with on a local level before being included in the Plan.

The Stormwater Pollution Control Plan must include a site map as described in Section 6(b)(6) of the permit, a description of the erosion and sediment controls that will be used during each phase of construction, details of each control used, details of all outlet structures and velocity dissipation controls, a description of procedures to maintain all erosion and sediment control measures, and a description of post-construction stormwater management. Specific dewatering procedures must be addressed. Section 6(b)(6)(C)(ii) recommends that dewatering wastewater be infiltrated into the ground where feasible, but if the discharge must be directed to a surface water then measures must be taken to minimize discoloration of the receiving stream. The locations of all stockpiled materials

must be shown along with necessary erosion control measures. The permit requires inspections by qualified personnel provided by the permittee at least once every seven calendar days and after every storm of 0.1 inches or greater. In addition, monthly inspections of stabilized areas must be conducted for at least three months *following* stabilization. The plan should note the qualifications of personnel doing the inspections and must allow for the inspector to require additional erosion and sediment control measures as necessary.

The permittee shall provide a copy of the Stormwater Pollution Control Plan to all contractors or developers conducting activities that may affect stormwater runoff. These additional contractors and developers must sign the contractor certification (Section 6(b)(6)(E)).

The Stormwater Pollution Control Plan must be maintained on site during construction and updated as necessary.

# Site Development Plan

A site development plan was not provided for this review. In general, the proposed site is bordered by Route 97 to the west, wetlands and Pearl Brook to the north and by wetlands and an unnamed brook to the south and east. The land slopes steeply downward away from Route 97. Because of the steepness of the site and the proximity of the wetlands and the two watercourses, particular care in preparing for and maintaining erosion and sediment controls will be needed. During construction, it is recommended that stormwater runoff from the road be diverted around the areas of disturbance and that as much natural buffer as possible be maintained between the construction activities and the wetlands.

The site is contained within a Natural Diversity Database Area so coordination with the DEP Wildlife Division early in the planning process is recommended.

It is recommended that the Town refer to the 2004 Connecticut Water Quality Manual for guidance in designing post-construction stormwater treatment and management systems for this site.

# **Stormwater Permitting – Industrial Activity**

A public works garage is considered an industrial activity that requires registration under Connecticut's *General Permit for the Discharge of Stormwater Associated with Industrial Activity* ("industrial stormwater general permit"). In addition to the submittal of the registration, conditions of the industrial stormwater general permit include the preparation of a site-specific and certified Stormwater Pollution Prevention Plan and annual sampling of the stormwater discharge from the site. The Stormwater Pollution Prevention Plan must address good housekeeping, vehicle and/or equipment washing,

vehicle and/or equipment fueling, spill prevention and response procedures, erosion and sediment controls, and inspection procedures.

As part of the planning process, the Town must carefully consider all possible uses for this site, including outside storage of ancillary equipment and materials, storage of waste materials from road repairs and other town maintenance activities, etc., that may impact stormwater runoff, the wetlands and watercourses, and the groundwater. Of specific concern at this site would be the storage of petroleum products, dirt and debris from roadway drainage maintenance, and the possible future storage of brine solution. All storage areas for chemicals and previously used chemical containers must be provided with impermeable secondary containment which will hold at least 110% of the volume of the largest container or 10% of the total volume of all containers in the area, whichever is larger, without overflow from the containment area. (Double-walled tanks meet this requirement.) All of these materials and their containers must be stored under a roof which minimizes stormwater entry to the containment area, except for those materials stored in containers of 100 gallon capacity or more, in which case a roof is not required. The Town should be aware that storage areas for liquid de-icing materials may also need to comply with these requirements in the future.

The DEP has developed guidelines, available at the DEP website, for the management of street sweepings and catch basin cleanings. The guidance states that stockpiles of street sweepings should be stored on an impervious surface and covered to minimize erosion, dust and runoff. In addition, stockpiles should be located at least 100 feet from wetlands and watercourses. Catch basin cleanings tend to be wet, contain higher levels of contaminants and may require the use of drying beds. Wet materials from cleaning culverts and other roadway drainage systems may require more restrictive handling, similar to the requirements for catch basin cleanings. The Town must consider how these materials will be stored and handled at this site to prevent impacts to the wetlands and watercourses.

# Vehicle Maintenance Wastewater Discharge

Vehicle maintenance wastewater means wastewater generated by floor washdown and incidental drippage from vehicles as a result of routine vehicle servicing operations, and washing/rinsing of vehicles or steam cleaning of engines. **Such wastewaters cannot be discharged to streams, storm sewer systems, or to the ground.** Because sanitary sewers are not available in this area, a holding tank(s) will be necessary to collect the wastewater until it can be hauled away for disposal. The discharge of vehicle maintenance wastewater to a public wastewater treatment facility, via pipe or by hauling, requires coverage under the *General Permit for the Discharge of Vehicle Maintenance Wastewater* (vehicle maintenance general permit). Wastewaters that are hauled to private treatment facilities do not require coverage under this general permit.

As part of the planning process for this facility, the Town must consider how much indoor space will be needed for vehicle maintenance and washing/rinsing activities, and

how such wastewaters are to be collected, treated and disposed. It is recommended that the Town investigate wastewater-recycling systems for handling vehicle wash/rinse waters.

Copies of these general permits and fact sheets with additional information can be obtained from the DEP website or by calling the Water Permitting and Enforcement Division at 860-424-3018.

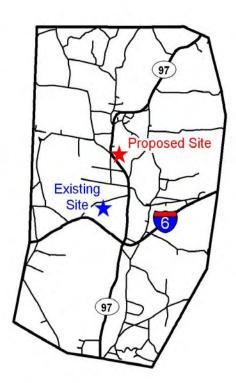
# **Planning Review**

# Prior Public Works Planning

The *Town of Hampton Plan of Conservation and Development* (adopted in 2006) refers to efforts to acquire land adjacent to the existing Hampton Highway Garage on West Old Route 6. These efforts were abandoned.

More recently, the Town of Hampton convened a Site Selection Committee to review properties that might be suitable for a new public works garage. The committee reviewed several properties that were either owned by the Town or that were for sale at the time. It is the preference of the Board of Selectman to avoid purchasing land, if at all possible. The land next to the Hampton Elementary School was determined to be the most viable option of the properties that were owned by the Town.

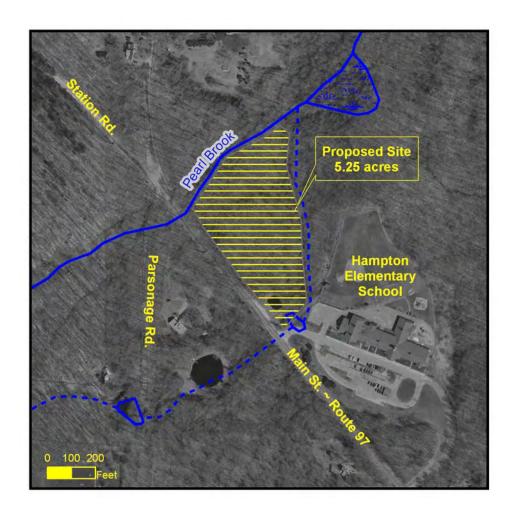
The existing location of the Hampton Highway Garage on West Old Route 6 continues to be the most suitable site for expansion.

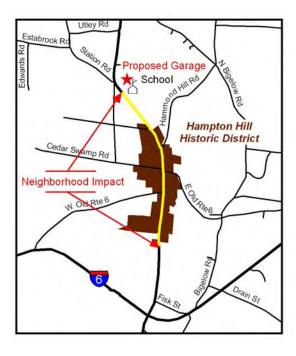


# Preliminary Site Analysis

The proposed site of the new public works garage is next to the Hampton Elementary School on Route 97, near the Hampton Hill National Register Historic District. The suggested design is intended to be consistent with historic structures in the neighborhood.

The area of land suggested for the new public works garage is approximately 5 acres. Not all of this land is buildable. There are watercourses on the property and potentially upland wetlands. A wetlands delineation by a professional soils scientist has not yet been conducted and will be required for any future development of the parcel. The services of a professional soils scientist should be retained immediately.





# **Traffic Impacts**

The new public works garage should be sited in an area that will minimize interference with residential areas. The proposed site will require that all truck traffic go through the Hampton Hill Historic District to travel to two-thirds of the area of town. Hampton Hill has the highest population density of any part of town.

It would be preferable to not have any additional truck traffic in this area due to potential impacts to the character of Hampton Hill, as well as Hampton Elementary School.

## Consistency with State Plan

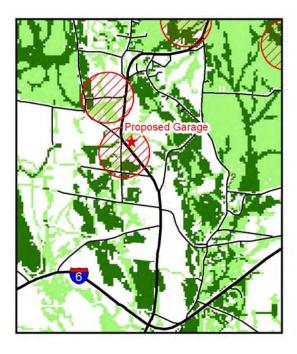
The proposed site is identified as "Existing Preserved Open Space" in the *Conservation* and *Development Policies Plan for the State of Connecticut*, 2005-2010. This is a known mapping mistake. It will probably not impede the town from receiving grant funding.

# Consistency with the Regional Plan

The proposed site is designated as "Rural Conservation Area" and as a "Priority Preservation Area" in the *Windham Region Land Use Plan 2002*. The proposed site may contain rare or endangered species as indicated by the red circles in the map below.

The proposed site is not in an area recommended for development. The general policy is that structural development is more appropriately located elsewhere. For development that does occur in these areas, the following conservation values should be applied:

- a. Minimal impact to existing topography and vegetation,
- b. Contribution to rural character by either blending with traditional rural structures and development patterns or by using existing topography and vegetation to create the least visible presence on the landscape, and
- c. Creation of open space linkages to maintain wildlife corridors and trail connections.



Red Circles indicate Natural Diversity Database Areas.

Green areas indicate areas important for conservation from the Windham Region Land Use Plan.

## **Overview**

The proposed site on Route 97 is probably not big enough to support a new public works garage. A flat site with five <u>buildable</u> acres is preferable. The proposed site is probably too limited by slopes and adjacent watercourses and is not ideally sited to minimize neighborhood impact. It is not in an area planned for future development.

Land should be sought in the vicinity of the existing Hampton Highway Garage. The current location is still the most suitable site for expansion, but additional land must be acquired to accommodate expansion. The property on West Old Route 6 has excellent access to all parts of town and is already contaminated; it is the best choice for these reasons. The land immediately behind the existing Hampton Highway Garage (to the south) slopes slightly towards the road, making expansion here highly visible. A better site would be land to the <u>west</u> of the existing site on West Old Route 6. This land is relatively flat and could provide visual screening, allowing the Hampton Public Works Department ample space while keeping activities virtually invisible from the road.

The Town of Hampton has an important public interest in meeting the service needs of the community while maintaining rural character and preserving natural resources. The land to the west of the existing Hampton Highway Garage seems to provide the best opportunity to meet all of these goals.

## **Recommendations**

- Obtain a wetlands delineation as soon as possible for the proposed site on Route 97.
  - If the wetlands delineation is favorable, proceed with topographic and property surveys (i.e. surveys of existing conditions).
  - Using the topographic and property surveys, prepare a conceptual site plan showing proposed buildings; onsite well and septic treatment areas; driveways, turnarounds, parking and loading areas; outdoor equipment and materials storage areas; proposed finished contours (cuts and fills); stormwater management facilities, and utilities infrastructure. Enlist the services of a professional engineer or engineering firm to assist in the preparation of these plans as well as to assist in facilities planning.
- Consider renewing the effort to acquire land to the west of the existing Hampton Highway Garage. This is the most suitable area for expansion because there is ample acreage, the ground is level and open, it is centrally located, and activities here can be visually screened from West Old Route 6. Additionally, groundwater contamination has already occurred in the area, making it more suitable for a public works garage and less suitable for residential uses.

- Consider splitting public works facilities between the existing site on West Old Route 6 and the proposed site on Route 97. This is not the best option and is only suggested as another alternative.
- Create a Public Works Building Committee to oversee the project. The
  Committee should include at least the following individuals: First Selectman,
  Road Foreman, representatives from the Planning and Zoning and Wetlands
  Commissions, and professionals engaged in site development and facilities
  planning such as an architect and a civil engineer. Ancillary members of the
  Public Works Building Committee could include: other municipal representatives,
  a realtor, a municipal finance advisor, legal counsel, and other individuals as
  appropriate or necessary.

# **DOT Traffic Review**

The CT Department of Transportation would like to review more detailed traffic information before making any final recommendations.

Pertinent issues that should be considered are as follows:

- Traffic data, including no-build and build turning movements for the proposed access drive should be provided. Potential safety impacts to Route 97 (Main Street) at the proposed ingress and egress points may need to be provided.
- An accident analysis for any ingress and egress points on Route 97 may need to be performed.
- Trucks entering and exiting the site via Route 97 may pose a safety concern due to their size, weight and operational characteristics.
- An examination of potential site line restrictions at the proposed access drive intersection would be appropriate. As recommended previously, the earth berm should be adjusted to improve sightline for the proposed ingress and egress points.
- To alleviate these concerns, proper signage and control of truck access to the site should be considered.
- Due to the characteristics of the proposed lot, and the proposed location on Route 97, a landing area at the point of ingress/egress should be considered. A Right turn lane should also be considered extending from the existing fire pond loading zone across the culvert and to the proposed entrance to accommodate heavy/ wide trucks.
- Possible shoulder widening and adjustment of pavement markings on Route 97
   Southbound in the vicinity of the proposed site, should be investigated. This will
   ensure sufficient width in the direction of truck travel for a by-pass around trucks
   entering the Town Garage facility from the North.
- An access road be paved a sufficient length to minimize the amount of material being tracked onto the roadway during construction.
- During construction, an area be considered, sufficient in size, to allow tractor trailers to unload construction equipment on the site and not on the roadway.
- That a signing arrangement warning motorists of entering trucks on Route 97 be utilized.

Eric Thomas Thames River Basin Coordinator CT DEP - Bureau of Water Protection and Land Reuse (860) 424-3548

## ERT Report Addendum

# **A Watershed Management Perspective**

# **General Watershed Characterization**

This public works development pre-proposal lies within the Little River sub-regional basin (DEP basin #3805), or watershed, which is approximately 43.28 square miles in size. This smaller watershed in turn is nested within the larger Shetucket River Regional Watershed (DEP Region Basin #38), which is about 125 square miles in size. The entire regional basin lies within Connecticut's boundaries. In turn, this regional basin is nested with the larger Thames River Major Basin, which ultimately discharges to Long Island Sound at New London and Groton. The northern reaches of the regional Shetucket River watershed originates here in Hampton and nearby Brooklyn, Chaplin, Eastford and Pomfret, before flowing through the major conduit, the Little River, through the towns of Hampton, Scotland, Canterbury, Lisbon and Sprague before joining the Shetucket River main stem (from the western basin area of Windham and Scotland and Sprague), in the Occum section of Norwich. The Shetucket River then flows south through Norwich, picking up the discharge of the Quinebaug River, eventually discharging into Norwich Harbor and the upper Thames River estuary, which flows 12 miles south to Long Island Sound at New London and Groton, CT.

The term watershed can mean different things to different people. Here, one can envision a "watershed" as the land area that drains to a common receiving water body such as a stream, lake or wetlands. It is an easily identifiable landscape unit that ties together terrestrial, aquatic, geologic, and atmospheric processes.

The major watercourse in this sub-regional basin is of course the Little River, with several upper basin tributaries that include Fuller, Hampton, and Murphy Brooks. Several sizeable ponds within the Town of Hampton include Hampton Reservoir and Pine Acres Lake, along with several smaller waterbodies. Large wetlands include Cedar Swamp in the northern portion of Town forming partial headwaters to Hampton Reservoir and the Little River above the area of this town-owned parcel.

This sub-regional Little River basin has a relatively rural human population of 4,955 across the landscape, with an average of nearly 114 people per square mile, according to the US Census 2000 statistics. This town-owned parcel is within a historic village settlement area. According to 1995 Land Use and Land Cover statistics developed by the University of Connecticut, nearly 74 % of the sub-regional watershed is classified as having deciduous forest cover, 9% in pasture/hay/grass, nearly 4% of coniferous forest

cover, and followed by a combined residential/active agriculture/turf land cover classification of around 6 %.

The CT Department of Environmental Protection (DEP) and the USDA- Natural Resources Conservation Service (NRCS) conducted a Unified Watershed Assessment (UWA) for all Connecticut regional basins or watersheds, as part of the 1998 federal Clean Water Action Plan. The assessments were the results of a compilation and review of available information on surface water conditions, land use conditions and known pollution sources. Local knowledge and critique was requested to reinforce the assessments. The Shetucket River Regional watershed was classified overall as a Category 1 watershed – identifying the watershed priority need for Protection (as opposed to Category 2 watersheds with priority for Restoration). The upper Little River sub-regional basin is considered to reflect the Class 1 designation, while the lower Little River, approximately in the Versailles area of Sprague, has considerable water quality and negatively impacted resource issues and would be considered in the Class 2 – restoration priority designation. The UWA Classification for the Little River subregional basin has assisted both DEP and NRCS with forming watershed management objectives to focus work towards protection of the relatively intact watershed processes and functions. These same agencies also use the UWA process to target watershed restoration funds made available under Section 319 of the federal Clean Water Act.

# **Water Quality Conditions**

#### **Surface and Ground Water Classification**

The current Connecticut surface water quality classification for the Little River, the 2 unnamed tributaries on this town-owned parcel (Pearl Brook), and the adjacent Fuller Brook tributary is  $\underline{A}$ . These waterbodies are either known or presumed to meet the water quality criteria which support designated uses. These surface waters have designated uses for: habitat for fish and other aquatic life and wildlife; potential drinking water supplies; recreation; navigation; and water supply for industry and agriculture. The management goal is to protect these designated uses. Permitted wastewater discharges are limited in Class A and AA surface waters.

The current Connecticut ground water classification for the associated development area is <u>GA</u>. The designated uses for GA waters are: existing private and potential public or private supplies of water suitable for drinking without treatment; baseflow of hydraulically-connected surface water bodies. The CT DEP presumes that ground water in such areas is, at a minimum, suitable for drinking or other domestic uses without treatment. The management goal is to protect these designated uses of the Little Mile River and Fuller Brook ground water resources.

#### **Water Quality Assessment**

The 2006 Connecticut Water Quality Assessment report (a.k.a. the biennial 305b Integrated Water Quality Report to Congress) indicates the Little River segment downstream from this town-owned parcel is in Full Support for Fish Consumption; but no other designated uses (including Recreation, as well as Habitat for Fish, Other Aquatic

Life and Wildlife) have been recently assessed. CT DEP has scheduled a water monitoring and assessment of the Little River/Shetucket River/Upper Thames River basin in 2010, where all designated uses for the Little River will be assessed and reported. The Department has not conducted a water quality assessment for Fuller Brook or the unnamed tributary on this parcel. There are no known impairments to segments of either the Little River or of Fuller Brook in the vicinity of this conceptual development proposal. There are chronic water quality impairments in the lower Little River corridor in Hanover section of Sprague, including the lowermost Little River and its impoundments of Versailles Pond and Papermill Pond.

# **Potential Water and Watershed Issues**

#### **Leachate and Wastewater Discharge Inventory**

There are no known wastewater discharges or leachate sources (LWW) included in the Connecticut DEP databases for the area included within or adjacent to this town-owned parcel. There is an active LWW discharge record (380505001) for an area upstream on the Little River, above this town-owned parcel. This database for the greater Thames River basin is being revised and will be brought forward for public comment later in 2008.

#### **Contamination or Potential Contamination Sites**

The Department maintains a database of "Hazardous Waste Facilities" as defined in Section 22a-134f of the Connecticut General Statutes. A review of the listings within the Town of Hampton does not indicate any sites within or proximate to this proposed development site. For more information about this statewide database, visit the CT DEP website at: <a href="http://www.dep.state.ct.us/wst/remediation/sites/sites.htm">http://www.dep.state.ct.us/wst/remediation/sites/sites.htm</a>

#### Registered Underground Storage Tanks (USTs)

There are no registered USTs in the CTDEP database in the immediate area of this townowned parcel. There are two registrations located further away in the historic village area.

#### **Consumptive Water Diversions**

The Department maintains a database of registered and permitted water diversions. There is one registered diversion record (3805-001-AGR0R1) for the Litke Little River Irrigation Pump. A cursory review of this information does not suggest direct impact concerns with this up-gradient, conceptual town garage parcel.

#### Water Supply Wells

A cursory review of the CT DEP's database indicates there is one identified non-community well in close association with this conceptual development proposal. Two other non-community wells (Hampton Congregational Church, and Our Lady of Lourdes Catholic Church) are in the general Hampton historic village area. The closest well is located at the Hampton Elementary school, although the CTDEP's internal GIS indicates a wrong location further down on Route 97. Pertinent information about the existing well

capacity and relevance to a proposed drilling of a new non-community well on this public works garage parcel will have to be examined.

#### Stream Channel Encroachment Lines (SCEL)

These SCELs are regulated areas in Connecticut. They are a nonstructural element in the State of Connecticut's ongoing effort to reduce the loss of life and property from flooding events. This program is administered to assure that floodplain development is compatible both structurally and hydraulically with the flood flows expected in 270 miles of the State's most flood prone rivers regulated under this program. The actual encroachment lines delineate the limits of State authority, and in general, roughly outline the limits of the national flood insurance program 100-year riverine floodplain. Town land use commissions reviewing site conservation and development proposals can assist State regulatory actions by alerting private and public landowners of designated SCELs. There are no SCELs designated for this or other segments of the Little River. Any questions regarding the SCEL program should be directed to the CT DEP Inland Water Resources Division at (860) 424-3019.

#### **Dams and Dam Safety**

The CT DEP maintains a database of dams. There are several dams in the upper Little River basin area. There are no identified high hazard or significant hazard dams listed within the Town of Hampton or nearby headwater areas of the Little River that would affect this town-owned parcel. One dam, registered at 6310-Richard Brown Pond Dam, with a BB Dam Hazard Classification (not considered a high or significant hazard, see information below), is located near but not within this town-owned parcel. The Dam Safety Section of the Inland Water Resources Division, CT DEP, is charged with the responsibility for administration and enforcement of Connecticut's dam safety laws. The existing statutes require that permits be obtained to construct, repair or alter dams, dikes or similar structures and that existing dams, dikes and similar structures be registered and periodically inspected to assure that their continued operation and use does not constitute a hazard to life, health or property. The dam safety statutes are codified in Section 22a-401 through 22a-411 inclusive of the Connecticut General Statutes. Sections 22a-409-1 and 22a-409-2 of the Regulations of Connecticut State Agencies, have been enacted which govern the registration, classification, and inspection of dams.

CTDEP maintains a computerized inventory of over 4,000 dams in Connecticut. Of these, approximately 1,500 fall under the Department's regulation since their failure may cause loss of life or property damage. The remaining dams are typically small and do not pose a significant hazard to the public. The ownership of Connecticut's dams is diverse. Approximately 84% (percent) are held privately and the remainders are held by public or non-profit entities. Over 40 flood control dams in the state are owned and operated at the federal and state level. The DEP holds title to more than 200 dams, most of which are located in state parks and forest areas.

In the 2006-2007 session, the General Assembly amended section 22a-409(a) of the Connecticut General Statutes through Public Act No. 07-61. As amended, *effective October 1*, 2007, the law requires the owner of property containing a high hazard dam or

significant hazard dam to record a document on the land records that identifies the existence and location of the dam, and whether the dam is categorized as a high hazard dam or a significant hazard dam. The Commissioner of Environmental Protection prescribed the *Notice of a High Hazard Dam or a Significant Hazard Dam Form* (Form) to be used for complying with these requirements. The Form must be completed by the owner of the property, on which a high hazard dam or significant hazard dam is located, and recorded on the land records in the municipality where the dam is located.

#### **Aquifer Protection Areas (APAs)**

This parcel is not located within an approved Aquifer Protection Area (APA). Additional information about the Connecticut APA Program, including guidance to municipalities for aquifer protection not included in the current designation areas, can be found at the CT DEP website at: <a href="https://www.ct.gov/dep/aquiferprotection">www.ct.gov/dep/aquiferprotection</a>.

#### **Surface Water Gaging Station**

The U.S. Geological Survey - Connecticut Water Science Center established and maintains an active station that monitors surface water discharge within the Little River. The station is located in the mid to lower Little River corridor, in the Hanover section of Sprague. Real-time data is available to access on-line, along with historic station records, at <a href="http://waterdata.usgs.gov/nwis/uv?01123000">http://waterdata.usgs.gov/nwis/uv?01123000</a>.

#### Natural Diversity Data Base (NDDB)

More detailed information is provided in the Natural Diversity Data Base section in this report. It is important to note in this section that the CT DEP (NDDB) database indicates two generalized polygons with records that overlap this town-owned parcel. The Town is strongly encouraged to contact the Department's Wildlife Division for specific instructions on how to best plan for development proposals that utilize this information.

# Storm Water Management and Treatment Practices

Considerable discussion took place during the March 12, 2008 ERT site visit about alternative site design and incorporation of low impact development (LID) elements into a formal application submission to the appropriate Hampton land use boards and commissions. One significant focus was on stormwater controls, which will be addressed more fully elsewhere in this report.

One useful technical resource for the Town's consideration is the following 2005 publication produced by the USDA Natural Resources Conservation Service - CT Office (NRCS). *Soil Based Recommendations for Storm Water Management Practices* CT-TP-2005-3) includes four soil survey interpretations that evaluate the suitability of Connecticut soils for four widely used post-construction stormwater runoff management systems. The purpose of these interpretations is to help people use soil survey information as a screening tool for successful selection and implementation of best management practices (BMPs) for stormwater runoff. NRCS personnel are available to

provide more information about these interpretations. Contact Lisa Krall, Soil Interpretation Specialist, at the NRCS State office in Tolland at (860) 870-4942 X 110.

Another valuable guidance document is the 2004 Connecticut Stormwater Quality Manual. Information about urbanizing stormwater characteristics can be found in Volume 2 of that manual. The Hampton Town Hall should have at least one copy of the manual. An online, downloadable version is also available on the CTDEP website at: <a href="http://www.ct.gov/dep/cwp/view.asp?a=2721&q=325704&depNav\_GID=1654">http://www.ct.gov/dep/cwp/view.asp?a=2721&q=325704&depNav\_GID=1654</a>. The CT DEP promotes this Manual for use as a planning tool and design guidance document. The Manual assists local (and state) land use commissions and government officials to design and review projects in a technically sound and consistent manner. A strong emphasis of the Manual is dedicated to site planning and design. This consists of preventative measures that address core causes of stormwater problems by maintaining the pre-development hydrologic functions and pollutant renovation mechanisms to the extent practical. Elements of such site design and planning include concepts raised in this review: alternative site design for transportation infrastructure and lot layout, watershed planning, and LID management practices.

It is generally recommended that reducing and treating runoff from all developed sites and reducing the amount of impervious surfaces, where feasible, is the best way to manage stormwater runoff. By promoting infiltration, the volume is reduced and impacts to water quality and quantity are minimized. Thus, stormwater must be addressed with appropriate Best Management Practices.

## **Groundwater Resources Protection**

The CT DEP has developed a useful guide for municipalities to promote locally-based groundwater resource protection. This guide and local town maps were provided during outreach presentations across the State – check with your Town Hall staff. Since the very large majority of Hampton residents rely on individual private water wells for drinking and other consumptive uses, it is the Town's best interest to proactively plan for and develop action steps to protect ground water resources for current and future Hampton residents. The Department's Water Quality Planning program can provide a copy of this municipal handbook and other guidance for site plan review to address concerns raised during the ERT request for development impacts to groundwater resources and eventual discharges to surface waters of Little River. Contact the CT DEP Water Quality Planning program at (860) 424-3020.

# **Connecticut State Policies and Plan 2005-2010**

The State Policies Plan serves as a statement of the development, resource management and public investment policies for the State. The Plan is used as a framework for evaluating plans and proposals submitted to OPM for review through mandated review processes. The latest revision of this five year Plan introduced six Growth Management Principles and associated policy recommendations intended to better integrate state planning functions across agency lines and to provide a more prescriptive advisory tool

for municipalities and Regional Planning Organizations when they revise their own plans. The current State Plan designates this area of the Little River watershed as a combination of Existing Preservation lands (this should be verified locally), and adjacent to Rural Community Center (this should be confirmed locally). The State Plan has an essential visual component known at the Locational Guide Map, available at several scales, including at the town level.

**Recommendation**: This document should be considered for background review by the Hampton land use boards and commissions when evaluating site conservation and/or development proposals, within a regional or watershed context, as consistent with the local Plan of Conservation and Development. The Hampton Town Hall should have an accessible State Plan copy to review. The Plan can also be viewed and downloaded off the Connecticut Office of Policy and Management website at: http://www.opm.state.ct.us/igp/cdplan/cdplan2.htm

The following are the State Policies Plan components of Conservation Area Policies as identified on the Locational Guide Map (in order of priority):

- 1) <u>Existing Preserved Open Space</u> Support the permanent protection of public and quasi-public land dedicated for open space purposes (e.g. Quaddick State Forest and State Park).
- 2) <u>Preservation Areas</u> Protect significant resource, heritage, recreation, and hazard-prone areas by avoiding structural development, except as directly consistent with the preservation value (e.g. Five Mile River floodway, inland wetlands, existing waterbodies, archaeological and natural resource of regional or state significance).
- 3) <u>Conservation Areas</u> Plan for the long-term management of lands that contribute to the state's need for food, water and other resources and environmental quality by ensuring that any changes in use are compatible with the identified conservation value (e.g. flood fringe areas, sand and gravel resource areas exceeding 50 acre feet, natural areas of local significance, including conservation easements).
- 4) <u>Rural Lands</u> Protect the rural character of these areas by avoiding development forms and intensities that exceed on-site carrying capacity for water supply and sewage disposal, except where necessary to resolve localized public health concerns (policy is to discourage development that exceeds on-site carrying capacity for water supply and sewage disposal and inconsistent with adjoining rural community character).

# **About The Team**

The Eastern Connecticut Environmental Review Team (ERT) is a group of professionals in environmental fields drawn together from a variety of federal, state and regional agencies. Specialists on the Team include geologists, biologists, foresters, soil specialists, engineers and planners. The ERT operates with state funding under the supervision of the Eastern Connecticut Resource Conservation and Development (RC&D) Area — an 86 town region.

The services of the Team are available as a public service at no cost to Connecticut towns.

# **Purpose of the Team**

The Environmental Review Team is available to help towns and developers in the review of sites proposed for major land use activities. To date, the ERT has been involved in reviewing a wide range of projects including subdivisions, landfills, commercial and industrial developments, sand and gravel excavations, active adult, recreation/open space projects, watershed studies and resource inventories.

Reviews are conducted in the interest of providing information and analysis that will assist towns and developers in environmentally sound decision-making. This is done through identifying the natural resource base of the project site and highlighting opportunities and limitations for the proposed land use.

# Requesting a Review

Environmental reviews may be requested by the chief elected official of a municipality and/or the chairman of town commissions such as planning and zoning, conservation, inland wetlands, parks and recreation or economic development. Requests should be directed to the chairman of your local Conservation District and the ERT Coordinator. A request form should be completely filled out and should include the required materials. When this request is reviewed by the local Conservation District and approved by the ERT Subcommittee, the Team will undertake the review on a priority basis.

For additional information and request forms regarding the Environmental Review Team please contact the ERT Coordinator: 860-345-3977, Eastern Connecticut RC&D Area, P.O. Box 70, Haddam, Connecticut 06438, e-mail: connecticutert@aol.com.