OFFICE OF ADJUDICATIONS

IN THE MATTER OF : APPLICATION NO. IW-2002-108

CT DOT RTE. 72 : MAY 8, 2006

PROPOSED FINAL DECISION

The parties have signed and submitted the attached Agreed Draft Decision for adoption as the Proposed Final Decision in this matter. Regs., Conn. State Agencies §22a-3a-6(1)(3)(A). I so adopt this agreement of the parties and recommend that the Commissioner issue the requested permit incorporating the terms and conditions set forth in the draft permit (Attachment A).

May 8, 2006
Date

/s/ James Malcolm
James Malcolm, Hearing Officer

AGREED DRAFT DECISION

I

SUMMARY

The Connecticut Department of Transportation ("Applicant"), seeks a permit from the Department of Environmental Protection ("DEP") to conduct regulated activities along the Route 72 corridor in the Town of Plainville and the City of Bristol. These activities are regulated by the DEP pursuant to the Inland Wetlands and Watercourses Act, General Statutes §22a-39 et seq. The proposed regulated activities will result from the relocation of Route 72 as a multi-lane roadway from its current terminus at Routes 72 and 372 (Forestville Avenue) in the vicinity of the Plainville/Bristol line to Route 229 (Middle Street) in Bristol. Ex. App.-1.

The Applicant and the DEP Inland Water Resources Division ("staff") are the only parties in this matter. Staff supports issuance of the permit and has submitted into the record a draft permit with special conditions that would authorize the applicant's proposed regulated activities. Ex. DEP-2; and Ex. DEP-6 through 9.

The relocation of Route 72 that is the subject of this permit application would improve public safety by reducing congestion on local roadways and improving levels of service at several intersections within the Route 72 corridor. The proposed project will alleviate these problems and provide a safer, more efficient Route 72 facility. Ex. App.-1, Attachment A-1, p.2 of 7.

The project has been planned to minimize wetland and watercourse impacts while meeting current highway design and safety standards. These proposed regulated activities, if conducted in accordance with the terms and conditions of the draft permit with special conditions, would be consistent with the applicable legal standards for issuance of the permit.

This permit should be issued in accordance with the terms and conditions of the draft permit with special conditions (Attachment A).

II

DECISION

A

FINDINGS OF FACT

1. The Application

On April 11, 2002, the Department of Transportation (DOT) submitted an application to the Department of Environmental Protection (DEP) Inland Water Resources Division for an Inland Wetland and Watercourses permit. After an extensive review process and substantial

coordination between the DOT and the DEP, the DOT submitted a final revised application dated January 13, 2006. Ex. App.-1. Upon determination of significant impact, the DEP was required to hold a public hearing, and published a notice of such hearing on January 19 , February 11 and February 13, 2006. Ex. DEP 3-5. A hearing was held on March 9, 2006 at Bristol City Hall. The record remained open until March 24, 2006 to allow time for the submission of additional written public comments.

2. The Project

General aspects of the project are presented below.

a. The proposed regulated activities that are the subject of this permit application (the "project") are all associated with the 3.8 kilometer (2.4 mile) extension of Route 72 in Plainville and Bristol. The project will begin approximately 245 meters (804 feet) east of the existing terminus of the Route 72 expressway in Plainville and will end at Route 229 (Middle Street) in Bristol. Generally, Route 72 will consist of 2.2 kilometers (1.4 miles) of multi-lane roadway on new location and 1.6 kilometers (1.0 miles) of existing roadway widening so as to provide two twelve-foot travel lanes in each direction. The proposed relocated Route 72 segment between the existing Route 72 terminus in Plainville and the relocated Pine Street and relocated Todd Street intersection in Bristol will be a divided four lane arterial roadway consisting of two travel lanes in each direction separated by a raised median. From the relocated Pine Street and relocated Todd Street intersection to the Pine Street and Mitchell Street intersection, the relocated Route 72 facility follows the existing Pine Street alignment as an undivided four lane roadway. From the Pine Street and Mitchell Street intersection, the relocated Route 72 facility diverges from Pine Street and continues as an undivided four lane roadway, extends over the Pequabuck River and converges with Middle Street opposite Riverside Avenue. As a result of the proposed work, 15 wetland and watercourse areas will be impacted (herein described as Wetland Areas 1, 2, 3, 4, 4A, 5A, 5B, 7, 8, 9, 10A, 10B, 11, 12 and 13). The vertical and horizontal geometry of the proposed roadway has been designed to be in conformance with current design standards.

The purpose of the project is to relocate the existing Route 72 segment along Forestville Avenue in Plainville and East Main Street, Broad Street and King Street in Bristol as a multi-lane roadway to improve local and regional travel. The upgrade is necessary because of; local congestion problems in the Forestville section of Bristol, inadequacy of the regional transportation system for east-west travel and safety issues indicated by high numbers of accidents. Pine Street, the other major existing east-west roadway in the study area, also experiences high numbers of reported accidents. A majority of these accidents on both of these major east-west roadways have occurred at intersections with cross streets and at driveways of major traffic generators. Of the seven signalized intersections within the existing Route 72 study area, four have consistently been identified by the Connecticut Department of Transportation as high accident rate locations. In addition, each of the existing major intersections along the existing Route 72 segment experience unacceptable levels of traffic operation, resulting in congestion, time delays, and accidents. The unacceptable level of service will further contribute to increased travel time delays and safety-related issues with projected increases in daily traffic volume.

Ex. App -1 & App.16E; Testimony of Gary Fontanella.

b. Traffic signalization improvements at eleven intersections within the corridor will enhance levels of traffic operation so as to reduce congestion, time delays and accidents. This project also involves the improvement of local roads immediately within the project corridor. Other major improvements along the relocated route include a new pedestrian bridge over Relocated Route 72, a new bridge over the Pequabuck River, a box culvert for the crossing of Yards Pond and numerous retaining walls. Major culvert installations or extensions as a result of the roadway improvements include the following:

- Extension of the existing 1200 millimeter (48 inch) reinforced concrete pipe under the Route 72 terminus section embankment at Sta. 123+500 left to accommodate the widened facility and maintain flow under Route 72.
- Extension of the existing 1200 millimeter (48 inch) reinforced concrete pipe under Forestville Avenue at Sta. 70+310 right to accommodate the widened facility and to maintain flow from an unnamed perennial stream tributary to the Pequabuck River.
- Provision of new twin 750 millimeter (30 inch) reinforced concrete pipes under Forestville Avenue at Sta. 70+360 left and right to replace the existing 600 millimeter (24 inch) pipe to maintain flow from an unnamed intermittent stream tributary to the Pequabuck River.
- Provision of new twin 750 millimeter (30 inch) reinforced concrete pipes under the new Relocated Route 72 embankment at Sta. 123+270 left and right to maintain flow from an unnamed stream tributary to the Pequabuck River.
- Provision of a new 450 millimeter (18 inch) reinforced concrete pipe to replace the existing 450 millimeter (18 inch) pipe which discharges stormwater into the Pequabuck River from East Main Street at Sta. 70+160 left.
- Provision of a new 900 millimeter (36 inch) reinforced concrete pipe adjacent to the new Relocated Route 72 embankment at Sta. 123+080 left to accommodate existing Condominiums and to maintain flow from an unnamed perennial stream tributary to the Pequabuck River.
- Provision of a new 1500 millimeter (60 inch) reinforced concrete pipe to replace the existing 450 millimeter (18 inch) pipe which discharges stormwater into the Pequabuck River from Relocated Route 72 at Sta. 122+770 left.
- Provision of a new 750 millimeter (30 inch) reinforced concrete pipe discharging stormwater into an existing wetland area from Emmett Street at Sta. 20+300 right to separate State from local drainage by supplementing the existing 450 millimeter (18 inch) pipe discharging at the same location.
- Provision of a new 375 millimeter (15 inch) reinforced concrete pipe to replace the existing 450 millimeter (18 inch) pipe discharging stormwater into the Pequabuck River from Pine Street at Sta. 120+615 left.

Ex. App.-1 and Ex. App.-2.

The overall storm drainage design for the catch basins and piping in the project area and hydraulic analyses conform to applicable state and federal guidelines.

Ex. App.-12A-12F; Testimony of Efinger Bartholomew.

During the public hearing, a member of the public expressed concerns regarding the existing flooding on Forestville Avenue. Existing flooding problems associated with minor storm events will be abated by the proposed improvements. Proposed improvements on Forestville Avenue will include curbing to collect all stormwater runoff and new catch basins and drainage pipes to adequately discharge the collected stormwater. Stormwater will generally discharge directly to the Pequabuck River by way of the proposed discharge pipe at Sta. 70+165 left or indirectly to the Pequabuck River by way of both the unnamed perennial stream tributary and unnamed intermittent stream tributaries to the Pequabuck River. All storm drainage designs for the catch basins and piping in the Forestville Avenue area conform to applicable state and federal guidelines. It should be noted, however, that a portion of Forestville Avenue is located within the 100-year Floodplain, which means it is subject to flooding during major storm events. A hydraulic analysis of the watershed shows that the there will be no increase in the floodway or base flood elevations due to the proposed improvements and, therefore, the project will not pose an adverse effect on flooding in the Forestville Avenue area.

Ex. App.-12E; Ex. App.-13A & 13B; Ex. App.-16D; Ex. DEP-8, pp.1-2.

b. The proposed Route 72 project has been identified by the DOT as a priority due to local congestion problems in the Forestville section of Bristol, inadequacy of the regional transportation system for east-west travel and safety issues indicated by high numbers of accidents on existing Route 72 (Broad Street and East Main Street in Bristol) and on Pine Street in Bristol, especially at intersections and at driveways of major traffic generators. Without improvements to the roadway, it is reasonable to assume the rate of accidents will increase, particularly with the expected increase in traffic volumes in this area. The project is intended to help improve capacity restraints and safety issues caused by current design deficiencies.

Ex. App.-1, Attachment B, Testimony of Gary Fontanella.

c. Improvements to the various roads include: general provision of two lanes in each direction for through traffic on Relocated Route 72 (both median and non median sections); provision of new or modified signalization at eleven intersections; provision of a new bridge crossing of the Pequabuck River, a pedestrian bridge at Forest Street and improvements to the Middle Street bridge over Pequabuck River; provision of a precast concrete box culvert at Yards Pond; provision of retaining walls; and provision of a 150-car commuter parking lot. Pursuant to state design guidelines, fill slopes for the roadway will be as flat as possible for safety purposes and to minimize wetland impacts. As part of State Project No. 17-137, the proposed improvements also include work on 28 local roads that intersect Route 72 or other state roads in this area of the Route 72 corridor. The local roads to be improved in Plainville include: West Main Street, Webster Street, Hoerle Court, McKernan Drive and Bohnemia Street. The local roads to be improved in Bristol include: Lincoln Avenue, Central Street, Kenney Street, Forest Street, Broad Place, Todd Street, Pine Street, Linwood Street, Jeanette

Street, Evergreen Street, Hemlock Street, Balsam Street, Barber Street, Poplar Street, Emmett Street, Benham Street, Lois Street, Sylvester Street, Bishop Street, Mitchell Street, Mountain Road, Sunnydale Avenue and Lake Avenue.

Ex. App.-1.

Watercourses/ Flood Control

d. Located within the limits of the project are the Pequabuck River and Yards Pond. The Pequabuck River within the project limits flows from west to east, through Bristol and into Plainville. The proposed Route 72 bridge will cross the Pequabuck River at a location approximately 140 meters (460 feet) down stream of the existing bridge on State Route 229 in Bristol. The Mitigation Site area is located on the Pequabuck River in Plainville, downstream of the existing Route 72 Bridge. Yards Pond, which will be divided into two ponds due to the construction of the proposed Route 72 crossing, flows from south to north and is located between Pine Street and Todd Street in Bristol. The pond outlets over a spillway and through a 1200 millimeter (48 inch) reinforced concrete pipe system which runs down Todd Street and outlets into a channel on the north side of Broad Street. The channel continues for approximately 50 meters (160 feet), at which point it flows under a driveway through a 1800 millimeter (6 foot) width by 1200 millimeter (4 foot) height box culvert and then into the Pequabuck River.

   An unnamed perennial stream tributary to the Pequabuck River is also located within the limits of the project. The unnamed perennial stream originates at the stormwater discharge point of an existing 375 millimeter (15 inch) reinforced concrete pipe located at Sta. 10+200 right, approximately 40 meters (131 feet) east of Lincoln Avenue in Bristol. The unnamed perennial stream continues in a channel in a west to east direction for approximately 130 meters (426 feet) before discharging through a 900 millimeter (36 inch) culvert under an access road to the Pine Plaza shopping center at Sta. 122+690. The unnamed perennial stream continues in a meandering channel for approximately 800 meters (2,624 feet) before discharging through a 1200 millimeter (48 inch) culvert under Forestville Avenue in Plainville at Sta. 70+310. The unnamed perennial stream continues in a meandering channel for approximately 250 meters (820 feet) before reaching the Pequabuck River approximately 170 meters (558 feet) east Forestville Avenue.

   An unnamed intermittent stream tributary to the Pequabuck River is also located within the limits of the project. The unnamed intermittent stream originates approximately 35 meters (115 feet) east of Leon Road in Plainville. The unnamed intermittent stream continues in a northeasterly direction for approximately 200 meters (656 feet) before discharging through a 600 millimeter (24 inch) culvert under Forestville Avenue at Sta. 70+360. At this point the unnamed intermittent stream merges with the unnamed perennial stream noted previously, ultimately reaching the Pequabuck River.

   Ex. App-1, 11 and 16B.

e. Federal Emergency Management Agency (FEMA) has established a 100-year floodway/flood zone on the Pequabuck River at the site of this project. The proposed project impacts the Pequabuck River and Yards Pond in the four (4) locations listed below:

1. At the proposed bridge carrying Route 72 over the Pequabuck River, located approximately 150 meters (492 feet) east of the existing Route 229 (Middle Street) bridge in Bristol and the proposed retaining wall along Riverside Avenue in Bristol.
2. At the proposed Route 72 roadway embankment between Central Street in Bristol and the Bristol/Plainville Town Line.
3. At the proposed wetland mitigation and streambank stabilization sites located south of the existing Route 72 expressway terminus bridge over the Pequabuck River in Plainville, CT.
4. At the proposed crossing of Yards Pond approximately 160 meters (525 feet) west of Broad Place.

The proposed bridge carrying Route 72 over the Pequabuck River in Bristol is configured as a three (3) span continuous structure with spans of 17-36-17 meters (56-118-56 feet). The substructure consist of two lines of piers adjacent to the river, each with eight (8) full height 1200 millimeter (4 foot) diameter concrete columns founded on concrete drilled shafts to bedrock. The two abutments are of the concrete stub type founded on concrete drilled shafts to bedrock. The hydraulic analysis shows that the Pequabuck River will flow under the proposed Route 72 Bridge with a 628 millimeter (2.06 foot) minimum under clearance during the 100-yr design storm. The final result of these analyses determined that all of the proposed improvements meet established regulatory and design requirements set forth by the appropriate agencies.

The proposed Route 72 roadway embankment between Central Avenue in Bristol and the Plainville Town Line encroaches into the existing 100-year floodplain along the south side of the Pequabuck River. The hydraulic analysis shows that there will be no increase in the encroached floodway conditions or the unencroached 100-year base flood and SCEL conditions. The final result of these analyses determined that all of the proposed improvements meet established regulatory and design requirements set forth by the appropriate agencies.

The proposed wetland mitigation area is located south of the existing Route 72 expressway terminus in the Town of Plainville. The wetland replacement sites are located on both the eastern and western sides of the Pequabuck River. The streambank stabilization site is located mainly along the western edge of the Pequabuck River starting approximately 100 meters (328 feet) downstream of the existing Route 72 bridge and continuing 450 meters (1,476 feet) downstream. The proposed wetland replacement mitigation and streambank stabilization measures were incorporated into the hydraulic analysis and showed no increase in the floodway elevations in Plainville or Bristol. The final result of these analyses determined that all of the proposed improvements meet established regulatory and design requirements set forth by the appropriate agencies.

The proposed relocated Route 72 embankment section across Yards Pond divides it into two

ponds. Hydraulic models were developed with a final recommendation that a 2,100 millimeter (7 feet) high by 3,000 millimeter (10 feet) wide box culvert, with a 1,200 millimeter (4 feet) high by 3,000 millimeter (10 feet) wide opening with a natural channel bottom through the culvert, be provided to connect the upper and lower ponds. This size will provide a maximum storage capacity while containing flows within the pond area and the proposed improvements meet all established regulatory and design requirements set forth by the appropriate agencies.

The results of these analyses indicate that there will be no increase in the 100-year floodway elevations due to the proposed work, and the increase of 0.53 feet at Section 2.13 in the Bristol Stream Channel Encroachment Line is acceptable since there are no impacts to adjacent properties.

Ex. App.–13A, 13B, 13C, 13D, 13E, 13F and 16D; Ex. DEP-8

Wetland and Watercourse Impact Sites/ Proposed Activities

f. The impacted areas on this project consist of palustrine, riverine and lacustrine wetlands located along floodplain watercourses and a pond. The current project will impact 15 wetland sites as follows:

- The Pequabuck River and wooded riparian floodplain community at the eastern end of the project corridor (Wetland Area Nos. 1, 2 and 3);
- Wooded wetland resources bordering on a small perennial stream, also within the floodplain of the Pequabuck River (Wetland Area Nos. 4-8);
- Yards Pond and infringing wooded wetlands (Wetland Area No. 9);
- The Pequabuck River and narrow, fringing wooded floodplain wetlands at the western end of the project corridor (Wetland Area Nos. 10, 11 and 12); and
- An isolated wooded wetland adjacent to Emmett St., which receives stormwater discharge (Wetland Area No. 13).

The total permanent impacts to wetland and water resources in the project corridor are as follows:

- Inland Wetlands & Watercourses: 3.05± acres (133,000± square feet);
- Floodplain (100-year): 7.21± acres (314,000± square feet) with 32,400± cubic yards of fill; and
- Pequabuck River Stream Channel Encroachment Line (SCEL): 3.31± acres (144,000± square feet).

Ex. App.-16B, p. 3

Additional temporary impacts (disturbance but not fill) in the project corridor are as follows:

- Inland Wetlands & Watercourses: 0.37± acres (16,000± square feet);
- Floodplain (100-year): 0.81± acres (35,200± square feet); and
- Pequabuck River Stream Channel Encroachment Line (SCEL): 0.38± acres (16,400± square feet).

Ex. App.-16B, p. 3

In addition, there will be wetland/watercourse resource creation and enhancement work within State Inland Wetlands and Watercourse, the Floodplain, and the Stream Channel Encroachment Line (SCEL) of the Pequabuck River to develop the replacement wetlands and provide bioengineering reconstruction of a portion of the river bank as part of the mitigation for this project. In total, the mitigation project will affect 4.80± acres (209,120± square feet) of Inland Wetland/Watercourse, Floodplain, and SCEL, with an additional temporary impact to 0.65± acres (28,130± square feet) of these adjacent resources for the access roadways during construction.

Ex. App.-1; Ex. App.-16B.

1. Wetland Impact Areas Nos. 1 and 2 (Station 123+500 Left & Right):

- This wetland area is comprised of the wooded and disturbed portions of the red maple dominated floodplain of the Pequabuck River. Vegetation includes red maple (*Acer rubrum*), box elder (*Acer negundo*) and cottonwood (*Populus deltoides*), black cherry (*Prunus serotina),* American elm (*Ulmus americana*), black birch (*Betula lenta*), silky dogwood (*Cornus amomum*), spice bush (*Lindera benzoin*) and a variety of groundcover species. This wetland community provides wildlife habitat for small birds and mammals, and provides a buffer between the residential areas and the floodplain area of the Pequabuck River. The sandy soil floodplain area has been disturbed by pedestrian and vehicle use. Wetland Impact Area No. 2 encompasses the floodplain area and sandy-bottom intermittent stream channels northwest of the existing Route 72 and southwest of the Pequabuck River. The area is vegetated by tree cover. The intermittent stream channels are bordered by a shrub community of predominantly speckled alder (*Alnus rugosa)* with interspersed species of silky dogwood (*Cornus amomum*) and pussy willow (*Salix discolor*).

- Impacts to these wetland areas will be:

	Permanent	**Temporary**
Inland Wetlands & Watercourses:	7,360± SF (1,300± CY)	2,180± SF
Floodplain (100-year):	21,950± SF (3,400± CY)	7,100± SF
SCEL:	52,700± SF (4,120± CY)	7,430± SF

- Proposed work in these areas includes realignment of the western terminus of the existing Route 72 Expressway which will result in the clearing and extension of

highway embankment, with permanent filling of Floodplain, SCEL and Inland Wetlands, including some areas of State regulated non-hydric alluvial soil wetland. Work will also occur within watercourse associated with the extension of the cross culvert on the north side of Route 72 (Wetland Area No. 2) and the placement of a scour hole on the south side (Wetland Area No. 1). The project has been designed here and elsewhere with steep side slopes to minimize wetland filling.

Ex. App.-16B, pp.4-5.

2. Wetland Impact Area No. 3 (Station 70+340 Left):

- This wetland is located north of the junction of existing Route 72 and the Forestville Avenue section of the highway. It is composed of a red maple dominated wetland with a sandy-bottom perennial stream channel created by the intermittent water flow from a 48 inch pipe under Forestville Avenue, which connects Wetland System No. 4 to Wetland System No. 3. The area surrounding the sandy-bottom stream channels is composed of a red maple (*Acer rubrum*) forested floodplain area. The intermittent stream flows north for about 80 feet and then turns in an easterly direction. The stream travels north of a residential area at the intersection of Forestville Avenue with the existing Route 72. The principal wetland functional values present include wildlife habitat, floodplain, and sedimentation control and water quality renovation relative to stormwater discharges in the area. The area supports small and large mammals and birds, and serves as a buffer for runoff waters travelling through the system to Pequabuck River. The area has been significantly disturbed by human use.

- Impacts to this wetland area will be:

	Permanent		**Temporary**
Inland Wetlands & Watercourses:	460± SF	(115± CY)	540± SF
Floodplain (100-year):	38,500± SF	(2,810± CY)	1,830± SF

- Work within this area will be limited to installation of an intermediate riprap apron and culvert end at the culvert outlet and the creation of a modified riprap channel to receive flow from the intermittent stream channel in Wetland Area No. 4A. Impact will be limited to work within watercourse and floodplain, although there will be net excavation associated with the work and development of the outlet channel.

Ex. App.-16B, p.5.

3. Wetland Impact Areas No. 4 & 4A (Station 70+300 Right and 123+270 Right & Left):

- Wetland System No. 4 consists of the bank and wooded riparian wetland associated with a small unnamed perennial watercourse which flows east from Wetland System

No. 5. The stream is located at the rear of developed residential and commercial properties along the south side of existing Route 72. Wetland impact area 4A is a highly eroded, wooded intermittent stream channel (watercourse) that originates from upgradient residential area runoff. The vegetation includes Eastern hemlock (*Tsuga canadensis*) and American elm (*Ulmus americana*) tree species with a groundcover of poison ivy (*Toxicodendron radicans*), jewelweed (*Impatiens carpensis*) and skunk cabbage (*Symplocarpus foetidus*). The sandy bottom intermittent stream channel narrows to 2 - 4 feet wide as it approaches the culvert under Forestville Avenue. The principal wetland functional values present include wildlife habitat and floodplain. This area provides some wildlife and aquatic habitat for small mammals, birds, amphibians, fish and aquatic life. However, this functional value is extremely limited and compromised in this area due to the limited stream corridor and highly disturbed nature of the area. This area is also located within the 100-year floodplain to the Pequabuck River.

- Impacts to these wetland areas will be:

	Permanent	**Temporary**
Inland Wetlands & Watercourses:	5,800± SF (690± CY)	460± SF
Floodplain (100-year):	37,700± SF (2,750± CY)	8,930± SF

- The culvert for the perennial stream in Wetland System No. 4 will be extended 15± meters (49± feet) to the west to accommodate roadway improvements to Forestville Ave, impacting the watercourse and placing fill within the floodplain. The construction of the new Route 72 extension will require the installation of 70±-meters (230± feet) of new culvert for the intermittent watercourse in Wetland No. 4A.

Ex. App.-16B, pp.5-6.

4. Wetland Impact Area No. 5A and 5B (Station 122+000 Left and 122+880 Left):

- Wetland System No. 5 is a narrow wooded riparian wetland bordering a small unnamed perennial stream system flowing in an easterly direction from Wetland System No. 7 to Wetland Areas Nos. 4 and 3. The stream is located in back of the residential and commercial properties of Forestville Avenue. The wetland systems consist of the aquatic habitat of the stream and the bank and bordering vegetated wetland to the intermittent stream. Coniferous and deciduous trees including Eastern hemlock (*Tsuga canadensis*) and American Elm (*Ulmus americana*) vegetate the banks. Some inland wetland flanks the stream corridor, mainly by immature trees including red maple (*Acer rubrum*). The principal wetland functional values present include wildlife habitat, floodplain, and sedimentation control and water quality renovation relative to stormwater discharges in the area. This area provides wildlife habitat for aquatic life, amphibians, reptiles and small birds and mammals. However, all of these functional values are significantly compromised due to the channelization

of the stream, the immediately adjacent development, and other human disturbance in this urban stream corridor.

- Impacts to these wetland areas will be:

	Permanent	**Temporary**
Inland Wetlands & Watercourses:	24,000± SF (12,700± CY)	1,080± SF
Floodplain (100-year):	22,400± SF (4,580± CY)	750± SF

- Two segments of an unnamed stream (Wetland Area No. 5A, eastern segment; Wetland System No. 5B, western segment) will be filled and relocated to the north to allow the construction of the new Route 72 extension. Construction activities will include the removal of shrub and forested bank vegetation; filling of stream channel; filling/grading of narrow vegetated wetlands; and rechannelization of stream to sustain base flows. In Wetland System No. 5A, a 130 meter (427 foot) length of stream channel will be altered, creating 70 new meters (230 feet) of new open channel with 60 meters (197 feet) of culverted channel to avoid impact to a multi-residential building. In Wetland System No. 5B, a 50 meter (164 foot) segment of stream will be replaced with a new channel. In this area, the work will result in permanent loss of wetlands and watercourse to accommodate the new roadway, all of which includes fill within the floodplain of the Pequabuck River, which extends into this area.

Ex. App.-16B, pp. 6-7.

5. Wetland Impact Areas No. 7 and No. 8 (Station 122+740 Right and 122+640 Right & Left):

- These wetland areas are broad wooded riparian wetlands bordering the unnamed perennial stream, at its headwaters. A dense shrub layer under a canopy of deciduous trees is the vegetation characteristic of both systems. Vegetation includes catalpa (*Catalpa bignonioides),* silky dogwood (*Cornus amomum*), green ash *(Fraxinus pennsylvanica*), staghorn sumac (*Rhus typhina*) and multiflora rose (*Rosa multiflora*). A significant amount of bird nesting was observed on site. The principal wetland functional values associated with these wetlands include wildlife and aquatic habitat, floodplain, and sedimentation control and water quality renovation relative to stormwater discharges in the area. Runoff enters the sites from the above shopping center first travels through a newly constructed man-made stormwater quality basin with a grass bottom and stone rip-rap sides and a second rock and stone detention area before reaching the lower elevation wetland depression area.

- Impacts to these wetland areas will be:

	Permanent	Temporary
Inland Wetlands & Watercourses:	67,640± SF (20,100± CY)	2,480± SF
Floodplain (100-year):	111,700± SF (18,700± CY)	2,690± SF

- The filling, grading and stream channelization and relocation within these two wooded and shrub wetlands south of East Main Street represent the single largest wetland impacts associated with the proposed Route 72 extension. In total, there will be direct impact to inland wetland and watercourse. Relocation of the watercourse will result in the creation of 0.05 +/- ha (0.12 +/- ac) of relocated watercourse 150 meters long (46 feet), replacing some of the lost watercourse area, although the replacement watercourses will be more channelized and less naturally meandering course. The proposed construction will isolate segments of the existing wetlands between the new Route 72 embankment and the existing steep topography north of Pine Plaza shopping center. Hydraulic connections will be made with new culverts to be installed beneath the highway embankment, which will be directed to a new discharge on the Pequabuck River (Wetland Impact Area No. 12) to lessen flooding frequency along the wetlands associated with the unnamed perennial stream.

Ex. App.-16B, pp. 7-8.

6. Wetland Impact Area No. 9 (Station 121+650 Left & Right):

- Wetland Area No. 9 consists of Yards Pond. This wetland system includes the pond itself and the bordering vegetated wetland, bank and land subject to flooding surrounding the open-water area. Vegetation around the perimeter of the pond includes cottonwood (*Populus deltoides*), black cherry (*Prunus serotina*), oak (*Quercus sp.*), red maple (*Acer rubrum*), white pine (*Pinus strobus*) and gray birch (*Betula populifolia*) trees and speckled alder (*Alnus rugosa*). Beyond the encircling fringe of vegetation, Yards Pond is surrounded by two commuter-parking areas. The pond receives runoff from the western commuter lot, which is located at a higher elevation than the pond area. The main source of water input for Yards Pond comes from Pine Lake, a water body located south of Pine Street. Overflow water from Pine Lake travels over a fenced-in concrete spillway, through a box culvert under Pine Street and then is released into Yards Pond. The pond has an urban and man-manipulated appearance. In comparison to the neighboring Pine Lake, which was recently reclaimed by dredging, Yards Pond appears eutrophic and stagnant. The Pond does, however, support aquatic life typical of a warm water fishery, waterfowl, reptiles and amphibians, and serves as a water storage area and pollutant filter. Submerged and partially submerged trees serve as perches over the open-water, utilized by bird species during hunting and feeding. The pond also provides stormwater and sedimentation control functional values, as well as including designated 500-year floodplain.

- Impacts to this wetland area will be:

	Permanent	Temporary
Inland Wetlands & Watercourses:	23,640± SF (9,300± CY)	5,550± SF

- The new extension of Route 72 will require a direct crossing of Yards Pond, with significant grading and filling of the pond and fringing wetlands. A box culvert will be constructed beneath the highway embankment to maintain hydraulic connection and maintain the existing flow pathway. The submerged culvert will allow for direct and unimpeded fish passage. Impacts to the wetland and watercourse in this area are the second largest impacts associated with the project.

Ex. App.-16B, pp. 8-9.

7. Wetlands Impact Area No. 10A & 10B (Station 100+000 Right to 100+450 Left):

- This wetland area is defined by a channelized portion of the Pequabuck River, with steep banks rising 10-20 feet above the base of the river. The waters of the Pequabuck River flow easterly over a stony riverbed. The banks are wooded with a narrow floodplain. The wooded margins and riverbed provides wetland/floodplain habitat for aquatic habitat. The banks, although having an urban appearance due to man-made urban debris, provide habitat mainly to small mammals.

- Impacts to these wetland areas will be:

	Permanent		Temporary
Inland Wetlands & Watercourses:	3,520± SF	(740± CY)	3,070± SF
Floodplain (100-year):	78,250± SF	(130± CY)	3,550± SF
SCEL:	88,800± SF	(3,530± CY)	5,700± SF

- Impacts within Wetland Area 10A area of the Pequabuck River include the construction of a new bridge and the construction of three nearby stormwater discharges along the banks of the river. The bridging of the Pequabuck River limits the impacts to wetland and watercourse resources in this area. The impacts resulting from the proposed construction of the two bridge abutments will affect limited areas of watercourse, inland wetlands, floodplain and SCEL. Construction impacts will be managed and minimized through a sequence of construction that avoids work within the river. There will be only minor loss of wetland functional values in this area associated with the floodplain and wildlife habitat. Impacts within Wetland Area 10B area of the Pequabuck River include the construction of a new retaining wall along the banks of the river to support the proposed roadway widening while minimizing impacts to the river. The impacts resulting from the proposed construction of the retaining wall will affect limited areas of watercourse, inland wetlands and SCEL. Construction impacts will be managed and minimized through a sequence of construction that reduces work within the river. There will be only minor loss of wetland functional values in this area associated with the wildlife habitat.

Ex. App.-16B, pp. 9-10.

8. Wetland Impact Areas Nos. 11 & 12 (Station 70+160 Far Left and 122+770 Far Left):

- These wetland impact areas are portions of the banks of the Pequabuck River, upgradient of Wetland Area No. 2, where new or upgraded stormwater discharges are planned. At Area No. 11, the river bank is located at the rear of a residential/commercial property where a lawn area extends immediately to the 8 foot tall bank. The bank is extremely steep (near vertical), with an existing stormwater discharge at a small concrete headwall, and with other portions of the river bank formed by timber cribbing. In Wetland Area No. 12, the river bank is located at the rear of a paved parking lot of a vacant brick factory building, where the parking lot extends to an old chain link fence at the immediate top of the 8 foot embankment. The 2:1 or steeper embankment is formed by concrete rubble, earth, and old mortared stone wall. The embankment is wooded with trees, vines, and some herbaceous species.

- Impacts to these wetland areas will be:

	Permanent	**Temporary**
Inland Wetlands & Watercourses:	190± SF (18± CY)	0± SF
Floodplain (100-year):)	3,550± SF (0 ± CY)	10,330± SF
SCEL:	2,150± SF (0 ± CY)	3,230± SF

- The upgrading of the existing stormwater discharge (Area No. 11) and placement of the new discharge (Area No. 12) will require only minor impacts to the watercourse and floodplain, all of which is within the SCEL.

Ex. App.-16B, pp. 10-11.

9. Wetland Impact Area No. 13 (Station 20+290 Right)

- This wetland impact area is an isolated wetland located off Emmett Street, adjacent to railroad tracks. The wooded and shrub wetland is formed in a depression and appears to receive much of its hydrology from an existing 450 millimeter (18 inch) stormwater discharge culvert. The wetland is 200 feet long by 75 feet wide. The wetland has no surface water outlet and all stormwater appears to infiltrate. There is significant scour at the location of the discharge and deep accumulations of sandy sediment from the discharge.

- Impacts to this wetland area will be:

	Permanent	Temporary
Inland Wetlands & Watercourses:	204± SF (9± CY)	603± SF

- Work within this area will include the installation of a preformed scour hole for the new 750 millimeter (30 inch) discharge culvert.

Ex. App.-16B, p. 11.

10. The Wetland Mitigation Sites A and B (Station 123+520 Right):

- The Wetland Replacement Mitigation Sites A & B will also directly affect regulated wetland areas, providing enhancement of disturbed floodplain sites. Site B is contiguous with Wetland Area No. 1. Site A is located northeasterly of Site B on the opposite side of the Pequabuck River. Both of the selected mitigation sites share similar characteristics. They are entirely located within the Pequabuck River floodplain. However, the sites are located outside of the flood flow pathway of the River because of the placement of the Route 72 embankment. The areas are currently partially wooded and partially highly disturbed and non-vegetated due to ATV use. The disturbed areas are principally upland in character whereas the vegetated portion of the areas includes a mix of wetland and upland areas.

- Impacts to this wetland area will be:

	Permanent	Temporary
Inland Wetlands & Watercourses:	209,120± SF (0 ± CY)	28,130± SF
Floodplain (100-year):	209,120± SF (0 ± CY)	28,130± SF
SCEL:	209,120± SF (0 ± CY)	28,130± SF

- Work within this area will involve creation of replacement wetland mitigation sites including lowering the existing grade and replanting with selected wetland plants and seed stock. Some temporary impact to wetlands will result due to site access, to be restored upon completion of the work. Between Wetland Replace Mitigation Sites A and B, 1098± feet of bank along the Pequabuck River will be restored through bank grading and re-vegetation and various techniques including the use of coir fascines, rock rolls, rootwads, rock weirs and plantings.

Ex. App.-16B, p. 11-13.

g. All of the identified wetlands within the project area show the effect of the adjacent urbanization, which isolates and fragments these resources, compromising their functional values, especially with regard to wildlife and aquatic habitat. The wetlands are habitat for wildlife tolerant of nearby motor traffic and disturbance by humans. However, the wetlands do provide an urban wildlife corridor that may be locally important. Most of these wetlands provide minor cover, feeding, breeding, and/or nesting habitat for one or more wildlife species, and are seasonal groundwater discharge sites, serving as a water source for flora and fauna. There may also be a limited positive role of the wetlands in pollutant and sediment

removal from the local urban stormwater runoff (e.g., heavy metals, petroleum hydrocarbons, road salts, and winter sand), although the channelization of streams limits this function. Severely eroded sections of the rivers and streams suggest that these corridors may be a net source of sedimentation to downgradient wetlands and water resources. Many of the wetlands continue to provide a potentially significant role in flood control by providing floodplain storage area to the Pequabuck River. Typical wildlife species observed and projected to be within the project corridor include suburban/urban adapted or tolerant wildlife species including, raccoon, gray squirrel, opossum, woodchuck, white-tailed deer, bluejay, black capped chickadee, garter snake, redback salamander, and American toad.

Ex. App.-16B, p. 2-3.

New impacts to wildlife within the project area have been minimized to the maximum extent practicable, but will directly impact the wetland and aquatic resource impacts along the unnamed perennial stream and within the Yards Pond area due to the roadway fill slopes. The enhancement of floodplain and wetland habitat along the Pequabuck River is an important compensatory means to offset the unavoidable impacts and to minimize long-term reduction in habitat values for existing wildlife species.

Ex. App.-16B, pp.6-9 and 16C, pp.3-5.

h. DEP Inland Fisheries Division recommended several measures to minimize impacts to fisheries resources. DOT has incorporated all of these recommendations into the design plans and construction contracts. This includes provision of two stone weirs and one rock vane in the area of the streambank stabilization to improve the quality of habitat, provision of permanently standing water at the Yards Pond culvert to allow for fish passage and provision of native stream channel material for the in the relocated stream channels along the roadway embankment for stabilization/protection of the channel bottom. In addition, all stream crossings have also been designed according to the concerns reflected in the comments of the DEP Fisheries Division.

Ex. App.-16C, Ex. DEP-7.

Fish would be associated with the Pequabuck River, Yards Pond, and the unnamed perennial stream. Such species would likely include a variety of warm water fish in Yards Pond (e.g., bluegill, perch) and urban tolerant riverine species in the Pequabuck River and perennial tributaries.

Ex. App.-16B, p. 2.

The effects of the project on aquatic habitat is largely limited to loss of some stream channel along the unnamed perennial stream in wetlands 4, 5, 7 & 8, and the filling of a portion of Yards Pond. The small stream filling will be compensated for in part by the relocation of stream channel along this segment of the corridor.

Proposed aquatic and wetland habitat mitigation will be performed along the Pequabuck River near Impact Area No. 1, where 4.8 acres of wetland replacement will be developed, including forested and shrub dominated floodplain wetlands, and areas of herbaceous growth and intermittent standing water. In addition, an 1100 ± linear foot segment of the Pequabuck River will be bioengineered to receive bank grading, stabilization and re-vegetation. To improve the flow of water and the quality of habitat in this segment, two stone weirs and one rock vane will also be installed. The riverbank stabilization/habitat enhancement is slated for a reach of the Pequabuck River recently designated as a Trout Management Area by the Inland Fisheries Division. Fishing is allowed year round however, there is a catch and release regulation that prohibits the harvest of trout.

(Applicants Exhibit-1; Wetland Permit Application, Revised January 2006, Applicants Exhibit-2; Site Plan, 3/09/06, Applicants Exhibit-16B; Testimony, Paul Davis, 3/09/06 and Applicant's Exhibit-16C; Testimony, Nicholas Wildman, 3/09/06; Ex. DEP-7.)

The DEP Inland Fisheries Division requested the DOT evaluate opportunities to provide vehicle parking at a site along the Pequabuck River to provide access for anglers utilizing the Pequabuck River area. Ex. DEP-7.

Two areas were evaluated by DOT as follows:

1. The first area was State owned property located off Forestville Avenue approximately 150 meters (500 feet) west of the existing Route 72 terminus. This area was not deemed appropriate for the following reasons:

   • This area could only accommodate 4 parking spaces without major grading of the area.

   • A parking lot in this area would create a possible traffic safety hazard because of the volume of traffic coming off of Route 72 which consists of a limited access highway immediately prior to the first area. Vehicular turns in and out of this parking lot would be difficult and dangerous with the traffic on Forestville Avenue. Movements would also be hindered at times by the queue from the left turn lane at the intersection with proposed relocated Rte 72.

   • In order to access the River from the lot, the public would have to cross an existing stream, wetlands and/or private property. Also, the grades are steeper off the back and sides of the lot, requiring additional grading.

   • The only other immediate potential access would be along the temporary access road located further to the West between houses numbered 95 and 97. Unfortunately, the Applicant only has temporary rights to this access during construction since it does not own the access road area.

2. The second area considered utilizing the access road located between houses numbered 95 and 97 and providing a parking area behind these properties. As stated previously, the Applicant doesn't own the access road area. Rather, they only have temporary rights to

this access during construction. This would require that the Applicant acquire permanent easements to this area which would adversely affect the businesses in this area.

Testimony of Gary Fontanella.

3. Mitigation

Wetland Mitigation Site

General aspects of the mitigation site are presented below.

a. Wetland mitigation sites will be located along the Pequabuck River at the existing westerly terminus of the improved Route 72, east of where it joins Forestville Avenue The goal of the mitigation site is to create approximately 4.8 acres of palustrine and floodplain to compensate for the loss of 3.05± acres of inland wetlands and watercourses and associated habitats that will occur as a result of the project impacts. In addition, there will be direct improvements to 1100± linear feet of presently unstable portions of the Pequabuck River, with important aquatic habitat enhancements.

Ex. App.-4 through 6; Ex. App.-16B, p.12; .

The wetland replacement enhancement area is incorporated into two separate sites with Replacement Wetland Mitigation Sites A and B located on alternate sides of the Pequabuck River, downgradient of the existing Route 72 crossing of the river. Site A is located easterly side of the river and Site B is located on the opposite, westerly side of the Pequabuck River. Site B is contiguous with Wetland Impact Area No. 1. Both of the selected mitigation sites share similar characteristics. They are entirely located within the Pequabuck River floodplain and Stream Channel Encroachment lines. However, the sites are located outside of the flood flow pathway of the river because of the placement of the existing Route 72 embankment. The areas are currently highly disturbed and non-vegetated due to past ATV use. The disturbed areas are principally upland in character, although all of the areas can be considered wetland soils as defined in 22a-38(15) as alluvial (active floodplain) soils.

Ex. App.- 4 through 6; Ex. App.-16B, p.12.

The mitigation sites will involve lowering the existing grade an average of 1 - 1.5 feet, with the provision of organically enriched wetland soils and vegetation to allow redevelopment of these areas as functional vegetated wetlands. Mitigation Site A will encompass 3.5± acres, including restoration as 1.5 acres of wooded wetlands, 1.5 acres of shrub wetland, 0.4 acres of emergent wetland and 0.1 acres of emergent/open water area. For Mitigation Site B, the plan will provide 0.8± acres of restored wetlands, comprised of 0.4 acres of wooded wetland, 0.2 acres of shrub wetland, 0.2 acres of emergent wetland and 0.1 acres of emergent/open water wetland. The restoration will include the planting of 835 wetland trees and 1435 wetland shrubs. Five different specialty wetland seed mixes would be used for providing herbaceous vegetation throughout the wetlands and within the emergent wetland portions. Six different tree species would be planted including red maple, gray birch, green ash, black

tupelo, pin oak, and black willow. Eleven different wetland shrub species have been selected for the mitigation sites, including winterberry, highbush blueberry, swamp azalea, sweet pepperbush, northern arrowwood, speckled alder red chokeberry, silky dogwood, red-osier dogwood, meadowsweet, and shadbush. The creation of undulating topography will maximize species diversity because small differences in the water available to the plants will encourage a wider range of wetland species to develop.

Ex. App.- 4 through 6;Ex. App.-16B, pp.12-13.

Between Replacement Wetland Mitigation Sites A and B, an 1100-foot segment of the Pequabuck River will be restored using a variety of bioengineering treatments. Seven different forms of bank stabilization, flow control, and bank grading have been prescribed along the length of the segment in response to the hydromorphic requirements in each area. The bank stabilization measures involve the application of coir fascines, rock rolls, and rootwads to protect the toe of the bank from erosive forces (Sta. 70+110.498 to Sta. 70+348.173). Above these treatments, the bank will be graded to engineered specifications and stabilized with biodegradable erosion control materials and plantings. These treatments are engineered to provide a natural and sustainable soil stabilization treatment. At the top of the bank, a series of conservation plantings will maintain the river corridor and provide soil stabilization, temperature control, and wildlife habitat services.

Ex. App.-10; Ex. App.-16C, p.2-3; Testimony of Nicholas Wildman.

Two stone weirs are proposed within the project area (Sta. 70+094.529 and 70+286.431. These weirs will be constructed from boulders (1meter diameter), and are engineered to reduce the force of the flowing water during medium and high flow periods. These weirs will also cause the formation of pools upstream of the structure, which will enhance fish habitat in the river. One rock vane will be installed on the right bank of the stream at Sta. 70+305.197 to deflect the erosive forces that could have dramatically undercut the bank downstream.

Ex. App.-7, 8 and 10; Ex. App.-16C, p.3-4; Testimony of Nicholas Wildman.

Finally, changes to the grading of the bank from Sta. 70+305.197 to Sta. 70+489.320 will increase the volume of the river to provide more storage in times of high water. In addition to the flood mitigation that this type of restored floodplain provides, allowing the water to move into this shallow area may reduce levels of nitrogen and other organic pollutants via natural biogeochemical processes.

Ex. App.-1, p. 18 of 20; Ex. App.-9.

b. The mitigation area has been developed after an examination of several different potential mitigation sites within the general project area. The selected two wetland replacement sites were chosen specifically because of their location downgradient of the embankment of the existing Route 72 highway, which provides a barrier to potential erosion associated with flood events along the Pequabuck River.

Ex. App.-15, p. 7 of 15.

c. The hydrology at the site is conducive to this proposed mitigation site plan. The wetland replacement sites are located within the floodplain of the Pequabuck River, but have been highly disturbed due to land use as ATV trails and illegal public dumping of debris. While much of the alluvial and sedimentary soils of this area are currently non-hydric, seasonal high groundwater is within 2-4 feet of the soil surface, and the proposed lowering of the grades by about 1.5 feet, will provide excellent groundwater hydrology for the intended plantings. The restoration and enhancement of this floodplain area will provide significant additional wildlife habitat for the Pequabuck River.

Ex. App.-15, p. 9 of 15.

d. The planting plan for the site has been designed to provide and maintain the ecological diversity and productive habitat function and value for the wetlands. The plan has also been designed to maximize species diversity, minimize erosion, and discourage the establishment of invasive species.

Ex. App.-7and 11; Ex. App.-16B pp.12-13; Ex. App. 16C, pp.4-5.

e. The non-inundated areas of the site will be seeded at the completion of excavation resulting in several overlapping vegetative zones. The seed mix will be selected to represent varying degrees of drought tolerance; seedlings will establish themselves based upon micro-topography and the resulting variation in soil moisture. Wet conservation grass seed mix will be used on the slopes to establish sod cover to minimize erosion.

Ex. App.-11.

f. The creation of the wetland will be monitored after construction and planting of herbaceous plant materials. One of the goals of monitoring will be to determine whether the wetlands are maintaining their functional values. Woody plantings will be delayed one year to ascertain hydrologic conditions. The permit will require the preparation and submission of monitoring reports for up to five years following the completion of construction. Minor modifications may be made at the time of construction; necessary modifications to grade will be made within a year of construction. Modifications to the plan will only be implemented with the authorization of the DEP. Submitted testimony by Don Mysling (Ex. DEP-7) indicated his understanding that construction of the wetland mitigation site would be completed prior to completion of Stage 1 – Phase 2 construction activities. The project contract specifications will identify schedule conditions for the mitigation site improvements. Because of time of year restrictions due to flooding and availability of dormant plant material, it is anticipated that construction of the wetland mitigation site will be completed prior to completion of Stage 1 construction activities. In addition, between Mitigation

Replacement Sites A and B, boulder and planting barriers will be put in place to prevent or discourage ATV access in the future and to protect these wetland mitigation sites.

Ex. App. 16B, p.13 and App.-15, p.12.

(Applicant's Exhibits-2 through 10; Displays, 3/09/06, Applicant's Exhibit-16B; Testimony, Paul Davis, 3/09/06 and Applicant's Exhibit-16C; Testimony, Nicholas Wildman, 3/09/06.)

Construction Mitigation: Erosion and Sedimentation Controls

g. Short-term impacts will be minimized through erosion and sedimentation control guidelines that will be included in the construction contract for the project as required by the DOT. These guidelines include: *Standard Specifications for Roads, Bridges and Incidental Construction* Form 816 (2004) *and Supplemental Specifications* (July 2005); *On-site Mitigation for Construction Activities*, Connecticut DOT Environmental Planning Division 1994; and *2002Connecticut Guidelines for soil Erosion and Sediment Control*. These guidelines address the installation, schedule for implementation, maintenance, inspection and expected results for the selected methods for erosion and sedimentation control. Adherence to these guidelines will assure minimization of adverse effects to fisheries or riparian habitat as a result of this project. These guidelines provide for protection of ground and surface water quality, and minimize the possibility of siltation and sedimentation within the area of regulated wetlands and watercourses.

Ex. App.-11

h. Specific care and special construction methods will be used. When existing piping is being repaired or upgraded, drainage work will be done during seasonal periods of low rainfall and flow. In drainage installations, accepted water-handling methods will be used. These include cofferdamming and piping to an adequate basin in accordance with Best Management Practices.

Ex. App.-11

i. The following specific erosion and sedimentation control measures are proposed:

    1. Silt fencing will be installed in conjunction with all disturbed and new soil slopes that could affect other areas;
    2. Exposed soils will be seeded with an approved erosion control mixture within seven days of the contractor reaching the appropriate grade;
    3. Sedimentation control measures will be installed around all catch basins receiving flow from unstabilized areas;
    4. Curbing use will be minimized to allow storm runoff to sheet flow off the roadway in order to filter sediment and any pollutants through roadside vegetated areas;
    5. Vegetated swales will be used in some areas; some will be lined with erosion control matting prior to turf establishment to reduce the risk of erosion and allow a quicker establishment of vegetation; and

6. Riprap splash pads or plunge pools, as appropriate, will be installed at stormwater discharge locations where erosion potential has been determined to be high.

Ex. App.-11.

Other Mitigative Measures

j. Mitigation measures observed in the design of the project include several design elements:

1. minimization of impacts by employment of steep side slopes and implementation of sedimentation and erosion controls;
2. minimization of impacts by limiting the use of curbing to encourage overland flow dispersed through stable vegetated areas or grassed swales;
3. minimization of impacts by providing deep sumps in catch basins in curbed areas to trap sediment to improve the quality of stormwater runoff prior to its discharge into surface waters;
4. minimization of impacts by providing nine hydrodynamic separators to facilitate removal of suspended particles prior to stormwater discharging into surface waters;
5. relocation of the unnamed perennial stream channel in Wetland Areas 4, 5, 7 and 8;
6. the replacement of lost inland wetlands and watercourses at two sites (Wetland Replacement Mitigation Sites A and B), totaling 4.8 acres of vegetated wetland.

Ex. App.-1; Ex. App.-16B, pp.11-12

k. A DEP Stormwater Discharge General Permit Registration will be required for the project. A Pollution Control Plan will also be developed in association with that registration.

l. During construction, the Contractor is required to inspect, report and repair any erosion. An on-site project engineer and staff of the DOT Environmental Planning Division will monitor the Contractor's work to ensure compliance with DEP and DOT regulations and guidance.

Ex. App.-11.

4. State Threatened, Endangered, or Species of Special Concern

The DEP Natural Diversity Database Maps[1] revealed that there are no State or Federally listed rare species within the project corridor.

[1] DEP Natural Diversity Database mapping includes information regarding critical biological resources available to the DEP. The information is a compilation of data collected over the years by the DEP Natural Resource Center's Geological and Natural History Survey and cooperating units of the DEP, private conservation groups, and the scientific community.

5. Alternatives

During the planning and design of this project, a continuous examination of design alternatives was conducted. Numerous alternatives were considered in consultation with the various units of the DOT, as well as the DEP, the U.S. Army Corps of Engineers, the Town of Plainville, City of Bristol, concerned citizens and regulatory agencies. Among the factors considered when assessing alternatives were geometric constraints, historical and archeological concerns, impacts to private property, and environmental concerns.

Several alternatives for the primary project were evaluated. The recommended action, including the construction of a Route 72 expressway extension as well as secondary road improvements, a bridge over Pequabuck River and a pedestrian bridge, were determined to be both feasible and prudent. Some of the other alternatives considered for this project included:

- No-Build.
- Transportation System Management.
- Arterial roadway terminating at Route 229 (proposed action).
- Arterial roadway terminating at Plymouth Town Line.
- Limited access expressway terminating at Route 229.
- Limited access expressway terminating at Plymouth Town Line.

Under the No-Build alternative, relocated Route 72 into Bristol would not be constructed beyond the present terminus at Forestville Avenue in Plainville. Existing and projected traffic would continue to rely upon the existing street network. Under the No-Build alternative, examination of potential spot improvement projects including minor widening, intersection and signalization changes and spot safety improvements already planned and programmed would be included.

The Transportation System Management alternative included measures to reduce single-occupancy vehicle usage by improving public transit, commuter rail service, fringe/commuter parking areas, and bikeways. Both the Transportation System Management and No-Build alternatives are not practical in and of themselves because they do not fully satisfy the study area transportation needs and are not consistent with local and regional planning efforts. However, elements of the Transportation System Management alternative with the opportunities to reduce vehicle usage are generally promoted for the region by the Connecticut Department of Transportation, unrelated to the project, and such elements complement the proposed action.

The original proposed action was that of the limited access expressway to the Plymouth Town Line. However due to insufficient capitol resources this proposed action was never fully implemented.

The proposed action consists of a four lane urban divided arterial highway extending from the Route 72 expressway terminus at Route 372 westerly to the Pine Street and Todd Street intersection. West of this intersection, the arterial highway would be an at-grade, curbed, four-

lane facility extending along Pine Street to a terminus at Route 229 under one of three options. The three options were considered in order to minimize wetland impacts and property takings. The project was placed in the selected location to minimize takings by following the steep topography to the south and constructing in relatively unoccupied spaces. However, the three options explored different termini treatments for the proposed relocation.

- Option 1: No river crossing.
- Option 2A and 2B: Crossing of the Pequabuck River.

Option 1 involves the relocation of the Route 72 expressway so as to join with Route 229 (Middle Street) south of the present Route 229 bridge over the Pequabuck River. This option involves the impact to nine (9) wetland systems for a total impacted area of 1.17 +/- hectares (2.88 +/- acres). This alternative would fail to eliminate or significantly reduce the traffic congestion at the intersection with Route 229 (Middle Street). Therefore, this option did not adequately meet the design objectives.

Option 2A is identical to Option 1 with the exception of the crossing of the Pequabuck River. This crossing occurs roughly from Pine Street, generally between Sylvester Street and Bishop Street, allowing the new Route 72 alignment to form a four-way intersection with Route 72 on Route 229 (Middle Street), north of the Pequabuck River opposite Riverside Avenue. This option involves the impact to 1.23 +/- hectares (3.02 +/- acres) of wetlands.

Option 2B is again similar to Option 1. However, with this alternative the river crossing occurs further west of the Option 2A crossing. Here the crossing will occur from Pine Street in the area of Mitchell Street. This option has slightly less impact to the wetland resources than Option 2A, 1.21+/- hectares (2.96 +/- acres) and has other construction related benefits and, therefore, became the selected alternative.

Option 2B is again similar to option 1 however with this alternative the river crossing occurs further west of the option 2B crossing. Here the crossing will occur roughly across from the present Mitchell Street. This option has slightly less impact to the wetland resources than option 2A (1.21+/- ha, 2.96 +/- ac) and other construction related benefits and, therefore, became the selected alternative.

Ex. App.-1; Ex. App.-16E; Testimony, Gary Fontanella.

At the public hearing expressed concerns relating to flooding and scenic issues regarding the embankment highway section across Yards Pond as opposed to a bridge treatment.
The Applicant adopted a recommendation for an embankment section with 1.5:1 side slopes with a box culvert, sized to provide a maximum storage capacity while containing flows within the existing pond area. The 1.5:1 side slopes reduces the impact to the wetlands compared to conventional slopes of 2:1. The use of a cross culvert of appropriate depth and width allows sufficient passage for fish and water between both ends of the pond without the added expense associated with the installation of a bridge. The proposed improvements meet all established regulatory and design hydraulic requirements set forth by the appropriate agencies. The

Applicant's assessment of the loss of flood storage at Yards Pond on flows downstream of the site shows that no adverse downstream flooding impacts will occur as a result of the fill at Yards Pond. The wetlands in this area are of low functional value and the aesthetic value of the pond is already compromised by the commuter parking lots on either side of the pond.

Ex. App.-13C; 16C, p.2; Testimony of Gary Fontanella and Paul Davis; Ex. DEP-9.

B

CONCLUSIONS OF LAW

The purposes and policies set forth in the Inland Wetlands and Watercourses Act are secured through the process and criteria outlined in §22a-41 of the General Statutes. Section 22a-41(b)(1) provides that where a permit application has been the subject of a hearing, the Commissioner must find that there is no feasible and prudent alternative to the proposed action before issuing a permit. In determining whether such an alternative exists, the Commissioner must consider all relevant facts and circumstances, including but not limited to, the six statutory factors outlined in §22a-41 (a*).*

The six factors set out in § 22a-41 (a) are:

(1) The environmental impact of the proposed regulated activity on wetlands or watercourses;

(2) The applicant's purpose for, and any feasible and prudent alternatives to, the proposed regulated activity which alternatives would cause less or no environmental impact to wetlands and watercourses;

(3) The relationship between the short-term and long-term impacts of the proposed regulated activity on wetlands or watercourses and the maintenance and enhancement of long-term productivity of such wetlands or watercourses;

(4) Irreversible and irretrievable loss of wetland or watercourse resources which would be caused by the proposed regulated activity, including the extent to which such activity would foreclose a future ability to protect, enhance or restore such resources, and any mitigation measures which may be considered as a condition of issuing a permit for such activity including, but not limited to, measures to (A) prevent or minimize pollution or other environmental damage, (B) maintain or enhance existing environmental quality, or (C) in the following order of priority: Restore, enhance and create productive wetland or watercourse resources;

(5) The character and degree of injury to, or interference with, safety, health or the reasonable use of property which is caused or threatened by the proposed regulated activity; and

(6) Impacts of the proposed regulated activity on wetlands or watercourses outside the area for which the activity is proposed and future activities associated with, or reasonably related to,

the proposed regulated activity which are made inevitable by the proposed activity and which may have an impact on wetlands or watercourses.

Applying these factors to this permit application, the following facts are found:

(1) ***Environmental Impacts***

The proposed project will result in some loss of wetlands and some disturbance to wetlands during the construction phase.

The project has been designed and planned to reduce impacts on wetlands to the greatest extent possible. Recommendations of DEP Fisheries Division have been incorporated into design plans and construction contracts, minimizing impacts to fisheries resources. Impacts to wildlife as a result of the project will be limited due to the restricted area of the project, and the existing disturbance of the area due to the existing roadway and residential properties. The minimization of project side slopes, relocation of stream channel, bridging of the Pequabuck River and addition of an oversized box culvert in Yards Pond, are among the design efforts that minimize impacts to wetlands and aquatic habitat.

Short-term impacts during construction will be reduced through measures to control sedimentation and erosion. These controls will assure that no permanent adverse effects will impact fisheries or riparian habitat. These measures will minimize the chance that siltation and sedimentation will encroach into the area of the regulated wetlands and watercourses. Ground and surface water quality will also be protected.

The impacted areas on this project consist of palustrine, riverine, and lacustrine wetlands located along floodplain watercourses and a pond. The project will impact 15 wetland sites along the Pequabuck River, a small unnamed perennial stream, Yards Pond, and at an isolated wooded wetland. The total permanent impacts to overlapping wetland and water resources in the project corridor, with 3.05± acres of Inland Wetlands & Watercourses; 7.21± acres of the 100-year floodplain, and 3.31± acres within the Stream channel Encroachment Line for the Pequabuck River.

To compensate for the loss of wetlands, a mitigation site will be developed to create and restore approximately 4.8± acres of floodplain wetland, and to restore 1100± linear feet of the Pequabuck River. The site has been designed to provide wetland wildlife habitat functions, as well as provide restored area of floodplain within the SCEL.

The project will not result in any significant short or long-term environmental impacts. The overall long-term impacts to the wetlands will be limited. The loss of 3.05± acres of wetlands that will result from the project will be compensated for by the restoration/creation of a 4.8± acre wetland mitigation site and the enhancement and stabilization of a presently degraded 1100± linear foot segment of the Pequabuck River. Short-term impacts will be controlled though the use of sedimentation and erosion controls during construction. Long-term impacts to the wetland system as a habitat for wildlife and fish will be minimal as a result of the implementation of the proposed mitigation measures.

(2) ***Alternatives***

There are no feasible or prudent alternatives to the present proposed plan for the project. The alternative of taking no action, or the "no build alternative", would not meet the goal of the project and obligation of the applicant to provide for a safe roadway. The project has been designed to minimize environmental impacts to the greatest extent possible. Where safety would be significantly and negatively impacted, the DOT reasonably rejected changes to the design that would only minimally improve the impact to the environment. The proposed plan for the Relocation of Route 72 is reasonable in view of the social benefits to be derived from an improved and safer roadway. The applicant has adequately demonstrated that the proposed plan is a feasible and prudent choice.

(3) ***Short and Long-term Impacts /Maintenance and Enhancement of Long-Term Productivity***

The record demonstrates that the short-term impacts of the project, primarily due to the construction activities that will be necessary, will be minimized through erosion and sedimentation control guidelines that will be included in the construction contract as required by the DOT. These guidelines will protect ground and surface water by minimizing the possibility of siltation and sedimentation within the area of the wetlands and watercourses impacted by the project. Adherence to these guidelines and the terms and conditions of the permit will assure that temporary impacts to the environment will be minimal.

The project will improve the functioning of some areas of the present wetland systems within the 4.8± acres of wetland mitigation and the 1100± linear feet of existing eroded and unstable Pequabuck River stream channel. Improvements to culverts and streambed channels will allow wildlife and fish to travel in and around the watercourses. The improvements as a result of the project will enhance riparian wildlife habitat and aquatic habitat along and within the Pequabuck River, as well as limit future destructive human access to these destabilized areas. The new wetland replacement mitigation sites (3.5± acres for Area A and 0.8± acres for Area B) will create a new, functioning wetland to mitigate the long-term wetland values lost to the project.

This project will impact the environment, both in the short and long term. However, the short-term impacts during construction will be tempered by construction mitigation efforts and the long-term impacts will be kept to a minimum. Improvements as a result of the project will enhance the overall long-term productivity of the wetlands and, where wetlands are lost, a mitigation site will be created as compensation. The proposed plans include steps that will be taken to rehabilitate some areas of the impacted wetlands immediately after construction is completed.

(4) ***Irreversible/Irretrievable Loss of Wetlands and Watercourses Resources and Mitigation Measures***

The proposed project keeps to a minimum the irreversible and irretrievable commitment of wetlands resources. In general, wetlands are an indispensable, irreplaceable fragile natural resource, and therefore, the project is designed to protect existing wetland areas to the greatest extent possible. Nevertheless, it is recognized that the wetlands within the urban project corridor are impaired in their existing natural state due to past land use practices, wetland fills, stream channelization, unmitigated stormwater runoff, and adjacent developments. In compensation for the unavoidable impacts, the applicant will mitigate the loss of wetlands by creating a wetland site to replace this natural resource and enhancing the riparian corridor and stream habitat along the Pequabuck River. The heavy ATV use and damage to the floodplain areas will be curtailed with the implementation of this mitigation.

The project will preserve some of the functions of the existing wetlands through relocation of stream channel of the unnamed stream and by instituting improvements to stormwater management. New culverts and improved storm drainage systems, including the use of Hydrodynamic Separators and deep sumps, will allow for better stormwater control and water quality. The commitment of wetland resources to the proposed project will not result in an unacceptable loss of irretrievable or irreplaceable wetland resources and the mitigation site that will be created will *restore, enhance and create* a productive wetland resource and riparian corridor along the heavily urban influenced Pequabuck River.

(5) ***Impact on Safety and Health or Reasonable Use of Property***

The improvements as a result of the project will provide a safer Route 72 for the public. The proposed Route 72 project has been identified by the DOT as a priority due to local congestion problems in the Forestville section of Bristol, inadequacy of the regional transportation system for east-west travel and safety issues indicated by high numbers of accidents on existing Route 72 (Broad Street and East Main Street in Bristol) and on Pine Street in Bristol, especially at intersections and at driveways of major traffic generators. Without improvements to the roadway, it is reasonable to assume the rate of accidents will increase, particularly with the expected increase in traffic volumes in this area. The project is intended to help improve capacity restraints and safety issues caused by current design deficiencies.

The proposed improvements will provide quicker access to the center of Bristol from I-84 and shift commuter patterns in the region by diverting vehicles from the Route 6 corridor north of the area. Construction of the proposed action will also result in improvements in the traffic operation level of service for many of the signalized intersections in the project corridor. With improved traffic operations throughout the project area, resulting from the proposed improvements, the number of accidents is expected to be reduced. Particularly, reductions in the number and rate of accidents should be realized along existing Route 72 through Forestville Center. Overall, implementation of the proposed improvements will result in improved traffic operations at each of the critical area intersections, thus providing for a safer roadway system.

In general, traffic delays can be expected during the construction period. The anticipated effect on traffic flow will be temporary in nature and not of a magnitude that will cause major shifts in travel patterns except for that which is intended to be accomplished through the relocation of Route 72.

The proposed improvements have been specifically located to minimize impacts on exiting land use development. For indirect impacts, secondary development often occurs along a new and improved transportation corridor. The proposed improvements would prohibit access to Route 72 east of the Pine Street and Todd Street intersection with the raised median. Access would be limited to the signalized intersections.

Existing flooding problems associated with minor storm events will be abated by the proposed improvements. A hydraulic analysis of the watershed shows that the there will be no increase in the floodway or base flood elevations due to the proposed improvements and, therefore, the project will not pose an adverse effect on flooding in the Forestville Avenue area. The results of hydraulic analyses reviewed and approved by the Connecticut Department of Environmental Protection indicate that there will be no increase in the 100-year floodway elevations due to the proposed work. The increase of 0.53 feet at Section 2.13 in the Bristol Stream Channel Encroachment Line is acceptable since there are no impacts to adjacent properties.

The proposed improvements will not have adverse impacts or pose a threat of injury or interference with the public health or safety of the reasonable use of property.

(6) ***Impacts on Wetlands Outside the Area and Inevitable Future Activities***

There is no evidence that the proposed project will have a negative impact on wetlands outside of the project area. The measures that will be taken during construction will prevent erosion and sedimentation that could encroach upon surrounding wetlands. Improvements as a result of the project, such as the creation, restoration and enhancement of 4.8± acres of floodplain wetland and 1100± linear feet of stream corridor will offset the impacts to wetlands. The wetland mitigation site that will be developed will have a beneficial impact, and will likely benefit the overall riparian wetland systems along the Pequabuck River corridor by providing nearly five (5) acres of additional, higher quality wetland wildlife habitat, providing regional food sources and habitat for the wetland associated wildlife that surround that area. The project as designed will not prevent future activities in and around Route 72. Those future activities, if designed in a fashion similar to the present plan, could also have an overall minimal impact on the environment.

RECOMMENDATION

The requirements of General Statutes §22a-41(b) have been met by this permit application. The record presented and consideration of all the relevant facts and circumstances pursuant to the six factors outlined in §22a-41(a) demonstrate that there is no feasible and prudent alternative to the

proposed project that meets the purpose of the project and that would cause substantially fewer impacts to the natural resources.

The reconstruction and reconfiguration of Route 72 will result in a safer and better roadway and a more efficient transportation system. The proposed plan strikes an appropriate balance between the obligation of the applicant to improve a road that is presently a risk to human health and safety and the mission of the DEP to protect the environment. The permit that is the subject of this application should be issued.

___/s/ Charles Walsh_____ __5/8/2006_____
Date

Charles H. Walsh
Assistant Attorney General
Representative for the Applicant – Connecticut Department of Transportation

ATTACHMENT A

DRAFT PERMIT, Draft Date 3/9/06

Permittee: Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 06131-7546

Attn: Edgar T. Hurle

Permit No: IW-2002-108
Permit Type: Inland Wetlands and Watercourses
Town: Plainville/Bristol
Project: DOT Project Number 17-137

Pursuant to Connecticut General Statutes Section 22a-39 the Commissioner of Environmental Protection hereby grants a permit to the Connecticut Department of Transportation (the "permittee") to conduct activities within inland wetlands and watercourses in the Towns of Plainville and Bristol in accordance with its application and plans which are part thereof filed with this Department on signed by Edgar T. Hurle and dated revised through (*latest revision date to be determined*), (the "plans"). The purpose of said activities is the reconstruction and extension of Route 72 (the "site").

AUTHORIZED ACTIVITY

Specifically, the permittee is authorized to permanently alter 3.05 acres of inland wetlands or watercourses for roadway construction and associated work in accordance with said application.

This authorization constitutes the permits and approvals required by Section 22a-39 of the Connecticut General Statutes and is subject to and does not derogate any present or future property rights or other rights or powers of the State of Connecticut, conveys no property rights in real estate or material nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state, or local laws or regulations pertinent to the property or activity affected hereby.

PERMITTEE'S FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THIS PERMIT SHALL SUBJECT PERMITTEE AND PERMITTEE'S CONTRACTOR(S) TO ENFORCEMENT ACTIONS AND PENALTIES AS PROVIDED BY LAW.

This authorization is subject to the following conditions:

SPECIAL CONDITIONS

1. If any changes are proposed in the water handling plan at the site from that which is shown on the permit plates, the permittee shall submit such changes to the Commissioner for review and written

approval. The permittee shall not implement any such plan until an approval is issued.

2. If any changes are proposed in the storm drainage system at the site, including any proposed swales, from that which is shown on the permit plates, the permittee shall submit such changes to the Commissioner for review and written approval. The permittee shall not implement any such plan until an approval is issued.

3. If any changes are proposed in the bank protection from that which is shown on the permit plates, the permittee shall submit such changes to the Commissioner for review and written approval. The permittee shall not implement any such plan until an approval is issued.

4. The permittee shall make necessary modifications to the project soil erosion and sedimentation controls at the site of the project, during construction and thereafter, to prevent pollution to wetlands and watercourses. The permittee shall report on such modifications as part of the monthly monitoring requirement in General Condition number 8. Such modifications shall comply with the "Connecticut Guidelines for Soil Erosion and Sediment Control", as revised. If design and implementation of such modifications require temporary alterations to regulated areas in excess of permanent or temporary disturbance shown on approved permit plates, the permittee shall submit such modifications, including hydraulic design of such, to the Commissioner for review and written approval prior to implementation at the site. If such implementation is required prior to continuation of work at the site, such work shall cease until such modifications are approved and implemented.

5. Prior to completion of Stage 1 – Phase 2 of the roadway project authorized by this permit, the permittee shall complete the wetland mitigation and streambank stabilization as shown on sheets 278 through 294 of the plan entitled, “Connecticut Department of transportation – Plan for relocation of Route 72 in the Towns of Bristol and Plainville,” date July 6, 2005 and revised to January 27, 2006.

GENERAL CONDITIONS

1. **Initiation and Completion of Work.** At least five (5) days prior to starting any construction activity at the site, the permittee shall notify the Commissioner of Environmental Protection (the "Commissioner"), in writing, as to the date activity will start, and no later than five (5) days after completing such activity, notify the Commissioner, in writing, that the activity has been completed.

2. **Expiration of Permit.** If the activities authorized herein are not completed by five years after the date of this permit, said activity shall cease and, if not previously revoked, this permit shall be null and void.

   Any application to renew or reissue this permit shall be filed in accordance with Sections 22a-6j and 22a-39 of the General Statutes and Section 22a-3a-5(c) of the regulations of Connecticut State Agencies.

In order to be considered timely, any such application must be filed at least 120 days prior to the expiration date of this permit.

3. **Compliance with Permit.** All work and all activities authorized herein conducted by the permittee at the site shall be consistent with the terms and conditions of this permit. Any regulated activities carried out at the site, including but not limited to, construction of any structure, excavation, fill, obstruction, or encroachment, that are not specifically identified and authorized herein shall constitute a violation of this permit and may result in its modification, suspension, or revocation. In constructing or maintaining the activities authorized herein, the permittee shall not store, deposit or place equipment or material including without limitation, fill, construction materials, or debris in any wetland or watercourse on or off site unless specifically authorized by this permit. Upon initiation of the activities authorized herein, the permittee thereby accepts and agrees to comply with the terms and conditions of this permit.

4. **Transfer of Permit.** This authorization is not transferable without the written consent of the Commissioner.

5. **Reliance on Application.** In evaluating the permittee's application, the Commissioner has relied on information provided by the permittee. If such information subsequently proves to be false, deceptive, incomplete or inaccurate, this permit may be modified, suspended or revoked.

6. **Best Management Practices.** In constructing or maintaining the activities authorized herein, the permittee shall employ best management practices, consistent with the terms and conditions of this permit, to control storm water discharges and erosion and sedimentation and to prevent pollution. Such practices to be implemented by the permittee at the site include, but are not necessarily limited to:

   a. Prohibiting dumping of any quantity of oil, chemicals or other deleterious material on the ground;

   b. Immediately informing the Commissioner's Oil and Chemical Spill Section at 424-3338 of any adverse impact or hazard to the environment, including any discharges, spillage or loss of oil or petroleum or chemical liquids or solids, which occurs or is likely to occur as the direct or indirect result of the activities authorized herein;

   c. Separating staging areas at the site from the regulated areas by silt fences or haybales at all times.

   d. Prohibiting storage of any fuel and refueling of equipment within 25 feet from any wetland or watercourse.

   e. Preventing pollution of wetlands and watercourses in accordance with the document "Connecticut Guidelines for Soil Erosion and Sediment Control" as revised. Said controls shall be inspected by the permittee for deficiencies at least once per week and immediately after each rainfall and at least daily during prolonged rainfall. The permittee shall correct any such

deficiencies within forty eight (48) hours of said deficiencies being found.

f. Stabilizing disturbed soils in a timely fashion to minimize erosion. If a grading operation at the site will be suspended for a period of thirty (30) or more consecutive days, the permittee shall, within the first seven (7) days of that suspension period, accomplish seeding and mulching or take such other appropriate measures to stabilize the soil involved in such grading operation. Within seven (7) days after establishing final grade in any grading operation at the site the permittee shall seed and mulch the soil involved in such grading operation or take such other appropriate measures to stabilize such soil until seeding and mulching can be accomplished.

g. Prohibiting the storage of any materials at the site which are buoyant, hazardous, flammable, explosive, soluble, expansive, radioactive, or which could in the event of a flood be injurious to human, animal or plant life, below the elevation of the five-hundred (500) year flood. Any other material or equipment stored at the site below said elevation by the permittee or the permittee's contractor must be firmly anchored, restrained or enclosed to prevent flotation. The quantity of fuel stored below such elevation for equipment used at the site shall not exceed the quantity of fuel that is expected to be used by such equipment in one day.

h. Immediately informing the Commissioner's Inland Water Resources Division (IWRD) of the occurrence of pollution or other environmental damage resulting from construction or maintenance of the authorized activity or any construction associated therewith in violation of this permit. The permittee shall, no later than 48 hours after the permittee learns of a violation of this permit, report same in writing to the Commissioner. Such report shall contain the following information:

(i) the provision(s) of this permit that has been violated;

(ii) the date and time the violation(s) was first observed and by whom;

(iii) the cause of the violation(s), if known

(iv) if the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and times(s) it was corrected;

(v) if the violation(s) has not ceased, the anticipated date when it will be corrected;

(vi) steps taken and steps planned to prevent a reoccurrence of the violation(s) and the date(s) such steps were implemented or will be implemented;

(vii) the signatures of the permittee and of the individual(s) responsible for actually preparing such report, each of

whom shall certify said report in accordance with section 9 of this permit.

For information and technical assistance, contact the Department of Environmental Protection's Inland Water Resources Division at (860)424-3019.

7. **Contractor Liability.** The permittee shall give a copy of this permit to the contractor(s) who will be carrying out the activities authorized herein prior to the start of construction and shall receive a written receipt for such copy, signed and dated by such contractor(s). The permittee's contractor(s) shall conduct all operations at the site in full compliance with this permit and, to the extent provided by law, may be held liable for any violation of the terms and conditions of this permit.

8. **Monitoring and Reports to the Commissioner.** The permittee shall record all actions taken pursuant to Condition Number 6(e) of this permit and shall, on a monthly basis, submit a report of such actions to the Commissioner. This report shall indicate compliance or noncompliance with this permit for all aspects of the project which is the subject of this permit. The report shall be signed by the environmental inspector assigned to the site by the permittee and shall be certified in accordance with Condition Number 9 below. Such monthly report shall be submitted to the Commissioner no later than the 15th of the month subsequent to the month being reported. The permittee shall submit such reports until the subject project is completed.

9. **Certification of Documents.** Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this permit shall be signed by the permittee, a responsible corporate officer of the permittee, a general partner of the permittee, or a duly authorized representative of the permittee and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense in accordance with Section 22a-6 under Section 53a-157b of the Connecticut General Statutes."

10. **Submission of Documents.** The date of submission to the Commissioner of any document required by this permit shall be the date such document is received by the Commissioner. Except as otherwise specified in this permit, the word "day" as used in this permit means the calendar day. Any document or action which falls on a Saturday, Sunday, or legal holiday shall be submitted or performed by the next business day thereafter.

Any document or notice required to be submitted to the Commissioner under this permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

The Director
DEP/Inland Water Resources Division
79 Elm Street, 3rd Floor
Hartford, Connecticut, 06106-5127

Issued by the Commissioner of Environmental Protection on:

_____ _____

Date Gina McCarthy, Commissioner