TOWN OF FARMINGTON
INLAND WETLANDS COMMISSION

January 21, 2015

Present were Chairman Hinze, Commissioners Amato, Hannon, Isner, Quigley and Radacsi and Alternate Commissioner Wolf and Assistant Town Planner and Clerk. The meeting was called to order at 7:07 p.m.

NEW BUSINESS

Miss Porter's School – Lot 10 Mountain Road

Michael Bergin, CFO & COO, Miss Porter's School, reviewed his background, school history and the school's dedication to Farmington and expanding the athletic program at the school. Ken Costello, SMRT, said they received approval from the Farmington Historic District Commission and the Zoning Board of Appeals yesterday, January 20, 2015. Mr. Costello stated there are no wetlands on the site but that there is a watercourse/wetland south of the site within the upland review area and that is why they are before the Commission. The plans submitted for the athletic field improvements include and erosion and soil control plan, which included a hay bale row between two silt fences. Site work includes grading and filling, moving the field further to the south, improved parking area at the north end of the site, synthetic turf field with flat panel drains and ten inches of crushed stone. Collector pipes will be installed around the field to outlet south of the field to level spreaders. The proposed plan is under review with the Town Engineering Office and has been designed to State standards. The application will be reviewed thoroughly by the Town Plan and Zoning Commission after this Commission's review. Mr. Costello stated the E&S plan conforms to State and Town regulations.

Commissioner Wolf asked if parking is only proposed to the north of the site. Mr. Costello responded yes. Commissioner Wolf asked what amount of storm water infiltrates on the site now. Mr. Costello responded there is very little infiltration on the existing field because the soils are compacted. Commissioner Wolf asked about the cleanliness of runoff from the proposed field. Mr. Costello stated the DEP 2010 water quality report indicates no elevated health risks from artificial turf fields. It does indicate a potential for higher concentrations of zinc from certain fill material, but this fill will not be used on this field. Commissioner Wolf commented on the removal of trees and asked if the applicant to consider planting native vegetation along the southern property line to replace vegetation to be removed. Commissioner Wolf asked about the amount of runoff that will be generated with the new field. Mr. Costello responded the run off will be less than the current condition. Commissioner Wolf asked if lights will be installed. Mr. Costello responded no and added the field will be used for the same number of games and will be used for practice as it is today.

Commissioner Quigley asked if there is any existing runoff. Mr. Costello responded yes, there currently is a pipe system in addition to sheet flow that drains to the southern portion of the site. Commissioner Quigley asked Mr. Costello if there will be any change in the rate of flow

and if there were any concerns for contamination from the new field. Mr. Costello reviewed the plans and explained there will be a decrease in the rate of flow. Dick Webb, SMRT, stated a study was done by the State in 2010 of synthetic fields regarding drainage and there was only one type of base material that increased the level of zinc in runoff. That material will not be used on this field.

Commissioner Radacsi asked what will cause the decline in the rate of runoff. Mr. Costello responded the pipe system is designed to choke and hold the water to slow the rate down.

Commissioner Isner commented Miss Porter's School has been a good neighbor. He commented the DEP study did call for future research. There have been some concerns raised about the potential impact regarding run off, contaminants, increased temperature of runoff and that any improvements to the drainage design would be appreciated.

Commissioner Hannon commented the DEP study had difficulty getting adequate runoff for the study. He then asked for clarification on the base material under the turf. Mr. Webb short pile turf with a sand and shock/attenuation mix used for infill. Commission Hannon commented on some detail comments stating the erosion control blanket should be woven and not plastic due to problems with mesh materials and animals. Commissioner Hannon asked if the synthetic turf drainage system detail of non-woven filter fabric is slotted or acting as a barrier. Mr. Costello responded it is a separation fabric from the stone to the sub-basin.

Chairman Hinze asked if any test pits were done at the site. Mr. Costello responded yes. When asked what level they found hardpan Mr. Costello said he didn't have that information with him but he could get it for the Commission. Chairman Hinze asked if any of the trenches will break through the hard pan. Mr. Costello said he does not believe so. Chairman Hinze said they would like more time to walk the site and will table further discussion to the February 4, 2015 meeting. Chairman Hinze then stated that this is not a public hearing and explained the applicant could consent to allowing public comment, the public could submit concerns in writing through Town Staff to the Commission or the public could petition for a public hearing. The applicant said they would agree to permit public comment.

Harold Gorman, 24 Carrington Lane, expressed concern with the amount of run off that currently flows down to Carrington Lane and the potential for chemicals from cleaning the synthetic field that may also run off toward Carrington Lane. Mr. Webb responded reduced maintenance is required for the synthetic field and that no soaps or cleansers are used for cleaning and that water and sunlight clean the turf. Commissioner Wolf asked the applicant to provide maintenance guidelines for the Commission to review. Mr. Webb said they will provide for the next meeting.

The matter was tabled at 7:44 p.m.

OLD BUSINESS

Calco Construction – 168 Coppermine Road

Application for regulated activity in wetlands and within upland review area for construction of 12-lot cluster subdivision located at 168 Coppermine Road. Chairman Hinze the sub-committee to address some items brought up at the last meeting. In review, the sub-committee looked at several items that they requested additional information from the applicant or to consider investigating. Providing a minimum undisturbed vegetated buffer of 75 feet from Wetland A and 50 feet from Wetland B as recommended in the review letter from Connecticut Ecosystems, LLC dated November 3, 2014. Shorten the proposed road and reduce the number/density of the lots in order to reduce impervious surfaces and allow for increased infiltration. Reduce the size of the storm water basin, remove it from the tree canopy area, increase the separation of storm water discharge from the wetlands for scrubbing and cooling, and move the basin discharge upstream in Wetland A as recommended in the review letter from Connecticut Ecosystems, LLC dated November 3, 2014. Wetland A is a "headwaters wetland" that provides the source of streams and groundwater discharge; is vital for aquatic life, surface water detention, nutrient cycling and carbon sequestration, and sediment and other particle retention, forested, it moderates water temperature; it contributes organic matter for stream biota; it provides habitat. Wetland A flows into the Unionville Brook tributary. Unionville Brook is a cold water fishery. Unionville Brook requires the maintenance of low temperature and flow from wetland groundwater discharges from Wetland A. The maintenance of tree canopy is also required to maintain water temperature. Provide a storm water management system that better mimics the existing drainage patterns on the site in order to minimize centralized collection of storm water. Provide hooded catch basins for sediment control. Provide a comprehensive sedimentation plan for the complete project including through final grading and seeding to avoid deposition of sediments in the wetland resulting in mortality of wetland vegetation. Covered most of the construction process but not through seeding and grading. Since all the surrounded property neighbors who testified during the public hearing were concerned about basement flooding, provide an analysis of the storm water volume runoff into Wetland B and that impact on the adjacent off-site but connected wetland. Increase use of Low Impact Development principles as outlined in the review letter from Connecticut Ecosystems from November 3, 2014. The applicant has failed to provide necessary, sufficient and request information regarding the hydrological and ecological characteristics of the wetlands/watercourse, as required by Section 6(E)(significant activity)4 of the Town of Farmington Regulations for Inland Wetlands. Included in what they failed to provide is a wildlife inventory as recommended in the review letter from Connecticut Ecosystems, LLC dated November 3, 2014. A springtime survey of wetland wildlife to confirm whether or not a vernal pool exists on the property. A requested drawing of hydrology contours of the property or any impact or disruption from the installation of foundations or utilities, such as sewer, water, gas or electric trench cuts, included whether they will intercept the water table when in place. A determination of whether the property contains a true water table, a perched water table or both. A determination of whether each infiltration measure is functional at the seasonally high groundwater level, since the bottom of both the proposed temporary and permanent detention basins are below water level as determined by the applicant on May 21, 2014 and whether these basins will intercept the water table when

in place. A requested drawing to show the location of the watercourse and its variants within the wetland topography. A requested drawing to show the location of the tree canopy area within the wetland, upland review area and the open space. A requested tree inventory. The applicant has refused to pay for the costs of further studies and ongoing consultations to address these outstanding issues as required by Section 6(B) of the Town of Farmington Regulations for Inland Wetlands. Commissioner Hannon commented the applicant did not provide an enhanced Groundwater Recharge Volume analysis as requested by Connecticut Ecosystems, LLC in a letter dated November 3, 2014. Analysis is needed in order to estimate the reduction in ground water recharge volume due to increase in impervious surfaces, conversion of forest land into grass lawn area, and fill soils compacted by heavy construction equipment. Also need to analyze the impact of fragmenting the firm "restrictive" layer of soil in an effort to design a recharge system that more closely resembles existing conditions, thereby not adversely diverting groundwater from Wetland A. Applicant did not provide an explanation as to the impact of the potential high water elevation on the effectiveness and operation of the detention basin. Test pit data supplied by applicant shows a modeling elevation of 334.17' and running water at an elevation of 333.0'. Based on these elevations, the bottom of detention basin, as designed may be 1.5' to 3.5' below the "running water elevation" in the basin and 0.5' above the 6" outlet/orifice. Engineering department stated the bottom of detention basin should be a minimum of 1' above the modeling elevation. Applicant did not provide documentation showing the bottom elevation of the detention basin at 335.17' or higher. Plans do not provide adequate maintenance access to the proposed detention basin according to the Engineering Department review dated 12/10/14.

Applicant did not provide an explanation as to the discrepancy between the ground water measurements received from Kratzert Jones & Associates dated May 21, 2014 (which indicates a higher seasonal ground water elevation) and ground water measurements received from Kathleen Cyr dated June 6 and November 4, 2014. Both consultants hired by the applicant.

Commissioners Isner, Hannon, Hinze and Amato all stated on the record that they listened to the recording(s) for hearings they did not attend.

Commissioner Isner stated for the record that regarding professional expertise he has a Bachelor and Master's degree in Environmental Planning, has been an Environmental Regulator for 25 plus years. In addition to the time he has served on this Commission he was also a member of another town's Inland Wetland Commission for 20 years.

Chairman Hinze stated for the record he is a Licensed Professional Engineer in the State of Connecticut. He has been practicing engineering for about 15 years and practice in electrical, mechanical and plumbing. He is on construction sites very regular basis and is around other engineers that exchanges comments with regarding storm water, trenches for utilities, he designs that detail on plans. He has a Bachelor Degree in Electrical Engineering and a Master's Degree in Business.

Commission Hannon stated that he had previously stated his professional expertise on the record at the January 7, 2015 meeting.

The following MOTION was made and seconded (Hannon/Wolf):
After giving due consideration to all relevant factors including, but not limited to, those in Section 6 and Section 8 of the Farmington Regulations for Inland Wetlands and Section 22a-41 of the Connecticut General Statutes, I move to deny the application of Calco Construction, Inc. for regulated activities within the inland wetlands/watercourse and within the upland review area for construction of a 12-lot cluster subdivision at 168 Coppermine Road since such activities will result in adverse and substantial impacts to said wetlands/watercourse and there may be feasible and prudent alternative(s) to the proposed activity which have fewer adverse impacts on said wetlands/watercourse, and the applicant failed to submit any alternative as required in Section 6.E.9 of the Regulations.

The applicant may investigate the following types of alternatives:

a. Providing a minimum undisturbed vegetated buffer of 75 feet from Wetland A and 50 feet from Wetland B as recommended in the review letter from Connecticut Ecosystems, LLC dated November 3, 2014.

b. Shorten the proposed road and reduce the number/density of the lots in order to reduce impervious surfaces and allow for increased filtration.

c. Reduce the size of the storm water basin, remove it from the tree canopy area, increase the separation of storm water discharge from the wetlands for scrubbing and cooling, and move the basin discharge upstream in Wetland A as recommended in the review letter from Connecticut Ecosystems, LLC.

    1. Wetland A is a “headwaters wetland” that provides the source of streams and groundwater discharge; is vital for aquatic life, surface water detention, nutrient cycling and carbon sequestration, and sediment and other particle retention, forested, it moderates water temperature; it contributes organic matter for stream biota; it provides habitat.

    2. Wetland A flows into the Unionville Brook tributary. Unionville Brook is a cold water fishery. Unionville Brook requires the maintenance of low temperature and flow from wetland groundwater discharges from Wetland A. The maintenance of tree canopy is also required to maintain water temperature.

d. Provide a storm water management system that better mimics the existing drainage patterns on the site in order to minimize centralized collection of storm water.

e. Provide hooded catch basins for sediment control.

f. Provide a comprehensive sedimentation plan for the complete project including through final grading and seeding to avoid deposition of sediments in the wetland resulting in mortality of wetland vegetation.

g. Since all the surrounded property neighbors who testified during the public hearing were concerned about basement flooding, provide an analysis of the storm water volume runoff into Wetland B and that impact on the adjacent off-site but connected wetland.

h. Increase use of Low Impact Development principles as outlined in the review letter from Connecticut Ecosystems.

The applicant has failed to provide necessary, sufficient and request information regarding the hydrological and ecological characteristics of the wetlands/watercourse, as required by Section 6(E)(significant activity)4 of the Town of Farmington Regulations for Inland Wetlands including:

a. A wildlife inventory as recommended in the review letter from Connecticut Ecosystems, LLC ;

b. A springtime survey of wetland wildlife to confirm whether or not a vernal pool exists on the property;

c. A requested drawing of hydrology contours of the property or any impact or disruption from the installation of foundations or utilities, such as sewer, water, gas or electric trench cuts, included whether they will intercept the water table when in place;

d. A determination of whether the property contains a true water table, a perched water table or both;

e. A determination of whether each infiltration measure is functional at the seasonally high groundwater level, since the bottom of both the proposed temporary and permanent detention basins are below water level as determined by the applicant on May 21, 2014 and whether these basins will intercept the water table when in place;

f. A requested drawing to show the location of the watercourse and its variants within the wetland topography;

g. A requested drawing to show the location of the tree canopy area within the wetland, upland review area and the open space;

h. A requested tree inventory.

And applicant has refused to pay for the costs of further studies and ongoing consultations to address these outstanding issues as required by Section 6(B) of the Town of Farmington Regulations for Inland Wetlands.

The applicant did not provide an enhanced Groundwater Recharge Volume analysis as requested by Connecticut Ecosystems, LLC in a letter dated November 3, 2014. Analysis is needed in order to estimate the reduction in ground water recharge volume due to increase

in impervious surfaces, conversion of forest land into grass lawn area, and fill soils compacted by heavy construction equipment. Also need to analyze the impact of fragmenting the firm "restrictive" layer of soil in an effort to design a recharge system that more closely resembles existing conditions, thereby not adversely diverting groundwater from Wetland A.

Applicant did not provide an explanation as to the impact of the potential high water elevation on the effectiveness and operation of the detention basin. Test pit data supplied by applicant shows a modeling elevation of 334.17' and running water at an elevation of 333.0'. Based on these elevations, the bottom of detention basin, as designed may be 1.5' to 3.5' below the "running water elevation" in the basin and 0.5' above the 6" outlet/orifice.

Engineering department stated the bottom of detention basin should be a minimum of 1' above the modeling elevation. Applicant did not provide documentation showing the bottom elevation of the detention basin at 335.17' or higher.

Plans do not provide adequate maintenance access to the proposed detention basin according to the Engineering Department review dated December 10, 2014.

Applicant did not provide an explanation as to the discrepancy between the ground water measurements received from Kratzert Jones & Associates dated May 21, 2014 (which indicates a higher seasonal ground water elevation) and ground water measurements received from Kathleen Cyr dated June 6 and November 4, 2014. Both consultants hired by the applicant.

The above motion passed unanimously

OTHER BUSINESS
No Other Business

PLANNER'S REPORT
No Planner's Report

MINUTES
Upon a motion made and seconded (Quigley/Amato) it was unanimously

VOTED: To approve the minutes of the January 7, 2015 meeting.

The meeting adjourned at 8:09p.m.

SJM