

**MINUTES
GREENWICH INLAND WETLANDS AND WATERCOURSES AGENCY
May 9, 2016**

Members present: Chairman Brian Harris, Vice Chairman Elliot Benton, Secretary Stephan Skoufalos, Joe Rogers, Jim Carr, Norma Kerlin.

Alternates present: Jay Schondorf and Steven Fong

Staff present: Patricia Sesto, Director; Robert Clausi, Senior Wetlands Analyst

Others present: John Albrecht, Mike Doherty, Michael Finkbeiner, Steven Studer, Matthew Studer, Michael Klein, Ted Hart, Bill Root, Carver Glezen, Christopher Marchesi, Ray Generro, Charlie Sinkler, Jayne Isford, Michael Klemens, Ted O'Hanlan, Linda Russo, Ted Fowler, Joe Risoli, Craig Huber, Luca Crisciola, Karri Breed

I. Call to Order

Chairman Brian Harris called the meeting to order at 7:06 p.m. in the Town Hall Meeting Room on the first floor of Greenwich Town Hall.

II. Seating of Alternates

Alternate Jay Schondorf was seated.

III. PUBLIC HEARING

1. APPLICATION #2016-002 – 345 West Putnam Avenue, 37 Oak Street, 26 Hemlock Drive and 0 West Putnam Avenue – Post Road Iron Works, Inc. and Carriero Family Limited Partnership -Tax #07-1148/s, 07-1425, 07-2033/s , 07-1135/s, 07-1136/s, 07-2190 (Continued)

Construction of a 355-unit apartment building 105 feet from wetlands and driveway 10 feet from wetlands.

Chairman Brian Harris introduced the application, noting the hearing was continued from the March 28, 2016 public meeting.

Bob Clausi read the list of documents into the record and reviewed the more substantive elements of his supplemental staff report and highlighted changes in the site plan. The applicant submitted a point by point response to questions and requests for information provided by staff and the Agency. While much of the information is as requested, some responses do not fully address the expressed concern.

The site remediation plan did not investigate two of the subject parcel just off of West Putnam and the applicant's consultant, Triton stated in the Phase I report that all areas of the site were

not accessible. There was also insufficient discussion in the Triton reports regarding impacts to wetlands and watercourses.

Mr. Clausi stated his recollection from the 2012 application on this parcel that the water in the catch basins on-site was itself contaminated. This water discharges to the wetlands east and west of the accessway off Hemlock Drive, yet no samples of water were taken in the latest investigation, nor was the receiving culvert properly examined. Sediments were found to be contaminated in the pond to the west, but no testing of sediments of the receiving wetland to the east was conducted. There were also no statements of potential correlations between the contaminated pond sediment and the types of pollutants generated from Post Road Iron Works.

A small area adjacent to and east of the paint shed has been highlighted for more immediate remediation. Mr. Clausi confirmed this area is outside of the Agency's normal upland review boundary and does not drain to the stormwater collection system. Consequently, no wetland permit would be needed for this discreet clean up.

Mr. Clausi, who disclosed his credentials as having been certified as an erosion and sediment control specialist, described the development plan as being extraordinarily complex. Thus a more detailed phasing plan is warranted and it should be prescriptive, as well as descriptive. The current construction sequence narrative contains redundant and contradictory statements, including troubling overlap of activities between phases. Mr. Clausi stated the applicant has not yet proven there is sufficient room on-site to manage the logistics properly.

Other points of concern and questions included what is the timeline for each Phase? Where in the overall plan does it show how and when each new phase of erosion and sedimentation controls are transitioned? Stripping and disturbing the entire site is contrary to Best Management Practices. How are the peak and total volume flows controlled during construction? The integrity of sediment trap #2 is questionable and as this is directly uphill from the eastern off-site wetland, there is a direct threat if it fails. Sediment trap #2 is sized for 1.3 acres, although a larger area contributes to it. Sediment trap #3 has insufficient details and it is unclear if it was sized to accept overland flows plus water pumped from the construction area.

Mr. Clausi then spoke to the vernal pools off-site but within 750 feet, the extent of their critical upland habitat. Three quarters of this site is within that critical upland habitat zone and the impact of its loss has not been addressed by the applicant. A reduction or loss of the vernal pool species will cause direct impacts.

The memorandum from Scott Marucci, P.E., DPW, was described, listing various pieces of additional information outstanding.

Patricia Sesto, Director, then reviewed her memo to the Agency. Her points included questions pertaining to current failures of the receiving sewer system and exacerbation of the condition from the proposed development, the selected variables of the Thermal Urban Runoff Model, information gaps in the remediation plan, greenroof seasonal efficacy variability, and integrity of the sediment trap system.

Steve Studer of Berchem, Moses & Devlin, P.C., addressed the Agency, stating the resumes of the applicant's consultants have been submitted, as have responses to the additional information letter and staff report, the revised Phase I report, Phase III report, and a soil remediation plan. Mr. Studer concluded by identifying the consultants present on behalf of the applicant.

Carver Glezen, LEP, Triton Environmental, Inc. spoke to the revised Phase I report and the remediation plan devised in association with the Phase III report. The Phase I was updated and confirmed 16 areas of concern; meaning there are 16 places on-site that have characteristics which warrant additional testing. The applicability of the Transfer Act was likewise examined and Triton concluded the business does not meet the criteria for an "establishment." The Phase III report describes the outcome and recommendations of 208 test sites and wells. Further, a geophysical survey was conducted to search for subsurface structures. None were found.

Elliot Benton questioned why no water samples were taken. Mr. Glezen responded Triton has been collecting water samples for several years now, so they were not needed for the Phase III. Mr. Benton questioned why this information was not supplied and requested it be, to which Mr. Glezen agreed.

The testing identified 13 release areas and any contaminants in the groundwater were below action criteria.

Brian Harris questioned why no testing was conducted at the culvert outflow. Mr. Glezen stated the sediments in the pond to the west were tested and the wetland to the east was not, as it is off-site and under different ownership. Mr. Glezen conceded no attempts to gain access were made by his company, nor was he asked to.

The remediation was described as being straight forward excavation of contaminated soil. Capping the contamination was not feasible given the plans for mass excavation associated with the proposed development. Protocols have been incorporated to monitor excavated soils beyond the known release areas.

Brian Harris asked why the central portion of the site was not tested. Mr. Glezen explained the Phase I report dictates where subsequent testing should be conducted. At the Phase I stage, there were no environmental concerns identified the areas in the central portion of the site. This assessment was made based on current use and examination of historic photos. This was also the reason the parcels near West Putnam Ave were not tested. The excavation will yield 2,000 cu.yds. and the E&S plan proposed by Milone and MacBroom is appropriate to protect areas outside of the work zone.

Members questioned the rationale for the location of the groundwater monitoring wells, efficacy of the E&S plan, why the pond is not proposed for remediation, implications if the Transfer Act were applicable, and reason for historic water sampling. According to Mr. Glezen, the water sampling began in response to a CT DEEP order, the remediation proposal would not change if the Transfer Act came into play, and the pond requires additional testing to develop a risk assessment. Mr. Studer interjected the need for such an analysis will be considered internally; the pond is outside the boundaries of the project. He stated the disposition of the pond is not information needed by the Agency in order to evaluate the proposed project. The Agency is to evaluate what will happen, not what has happened.

Brian Harris asked Mr. Studer if he is aware of any effort to contact the owners of the wetland immediately east of the site. Jim Carr asked if the pipe still discharges to this wetland. Mr. Studer confirmed flows still discharge to the wetland via the onsite culvert and no, no effort was made to gain permission to access the wetland.

Mr. Glezen then addressed relevant questions in the staff report and questions from the Agency. Testing was conducted west of the building during the Phase III investigation; building surveys are looking for lead, asbestos, etc. and a detailed plan for their removal will be devised. The buildings are 150-200 feet from the wetlands and there is a heavily regulated process for their removal. Brian Harris expressed concern water used in the process will be discharged to the stormwater system and ultimately the wetland.

A site monitor will be on location during all of the building and site remediation, and on-call for the mass excavation. Additional testing of the pond sediments is needed to identify the source of contamination and whether it exceeds an ecological threshold. Unlike soil, sediment does not have actionable level standards. The contaminants in the pond are the same as those found on the subject parcel. Discussion ensued to gain clarity on the potential the on-site contamination is the source of the pond's contamination. Road runoff entering the pond is likely a factor, too. Mr. Studer reiterated the pond's disposition is not the subject of this application. It is outside the property boundary and proposed scope of work. If remediation is warranted, an application will be filed.

Joe Rogers questioned the basis for concluding the iron works business did not generate more than 100 kg of waste per month after 1980. Mr. Glezen reviewed the information evaluated in making this determination. He also discounted the likelihood contaminated stormwater would produce an area of contamination. The pollutants are too well diluted to produce a localized contamination if there had been a breach in the culvert in the accessway.

Ted Hart, P.E., Milone and MacBroom began by addressing the letter identifying needed additional information. In an effort to address concerns regarding thermal pollution, he contacted town officials and the state in pursuit of a model. None was suggested. Consequently, a Thermal Urban Runoff Model from Wisconsin was used to assess the potential impacts to receiving waters from heated runoff. Mr. Hart explained the variables could not be modified, including the time period studied. Discussion of the applicability of the model ensued and in response to direct questioning, Mr. Hart expressed limited confidence in TURM.

Mr. Hart then spoke to the proposed greenroof. The soil layer is proposed to be 8 inches thick, as opposed to the normal 4 inches, producing a 13% reduction in runoff for a 100-year storm. This is too small a portion to starve the wetland and the wetland also relies on groundwater. Elliot Benton continued to question the hydrology budget for the wetland and the impact from diverting runoff. An analysis of the total annual volume of water diverted from drainage areas A, B, and C was requested. Jim Carr raised the point that drainage area C may also support the hydrology of the vernal pool to the north.

In response to a request for information, Mr. Hart stated the 12 inch culvert in the accessway flows full at a 25-year storm.

Clarification was offered by Mr. Hart regarding E&S controls, phasing, and DPW comments. Although phase 1 shows the entire site as exposed soil after step 8, only 2.5 acres will require

clearing. The balance of 1.8 acres is covered by buildings or pavement. Many of the comments raised by DPW are repeats of previous ones already addressed by Milone and MacBroom. The storm drainage plan meets the drainage manual standards. Further, getting rid of the industrial and contamination is a benefit.

Elliot Benton questioned the volume calculations of sewage generated from this proposed development, stating assumptions are being used to create an unrealistically low number.

Mr. Studer stepped in and challenged the innuendo of this question and one posed by Ms. Sesto in her memorandum. They have been working with DPW to address the sewage plan and to date DPW has rejected their proposed solution. There is not eminent risk of impact to the wetland and watercourse from sewage overflows.

John Albrecht, LEP and Michael Doherty, PE of AECOM, consultants for the Agency were asked to report their findings pertaining to the review of Triton's reports. Overall Triton conducted the Phase I and III investigations in accordance with industry practice. Their review did not encompass an evaluation of the remediation phasing plan. While the plan is acceptable in general, Mr. Doherty conveyed additional seven recommendations provided in the AECOM report. Of note, install an additional well to monitor groundwater in the overburden and further evaluate the stormwater collection system east of the paint and fabrication building that could be a pathway for contaminants to reach the wetlands.

John Albrecht described a different approach to characterizing arsenic contamination. Triton has evaluated it within the confines of identified Areas of Concern as opposed to evaluating the site in its entirety, acknowledging arsenic has the potential to be more spread-out.

Brian Harris questioned Mr. Albrecht regarding his assessment of the extent of areas tested. Should the area in the middle have been slated for more testing in the Phase I? Should the stormwater pipe in the accessway be tested more extensively? Mr. Albrecht concurred with the Triton reasoning regarding additional testing in the central part of the property, stating Triton's investigation and elimination of this area from further testing was appropriate. He did not concur with the limited testing along the drainage pipe and recommends more testing. Too many questions are left open regarding the pipe itself and the workings of the discharge pipe.

Charlie Sinkler of Apex Green Roofs addressed the Agency to address questions previously proposed. According to research at Penn State, green roof vegetation only accounts for 10% of precipitation retention. The depth and transmissivity of the growing medium is the most influential factor. Fertilizer is not needed as the plants themselves contribute back organic material. Quarterly maintenance is needed to keep weeds at bay, although the soil medium is designed for succulents and is not conducive to supporting herbaceous or woody growth.

The succulents are installed similar to sod, in carpets. This means the roof is functional from the start. The roof is designed to handle a live load, such that snow removal is not necessary. During cold months, the pore spaces in the growing medium still retain water to filter and absorb precipitation.

Ray Generro, Geotechnical Engineer with Noblis Engineering addressed the Agency to speak to acid rock drainage. When rock oxidizes, sulfuric acid and iron oxide form and lower the pH of the runoff. For the subject parcel, this is not an issue given the extent of metamorphic rock.

Metamorphic rock is rich in inert silicates and do not leach out sulfuric acid. This would hold true during excavation of the ledge, as well.

Groundwater will be seven feet below the lowest floor level, thus dewatering the excavated area will not be needed except to vacate stormwater. This will be pumped to a sediment trap.

Blasting is highly controlled and will only cause fissures one to two feet below the excavated area.

Bill Root, Professional Wetland and Soil Scientist of Milone and MacBroom presented information on shading. The models were generated by AutoCad, which allows the shading profile of the proposed building to be depicted in all four seasons throughout the day. Only during the winter months does the shade line cross into the wetland. During the growing season the shade lines stay fairly close to the building. Mr. Root will verify shade tolerant species are proposed at the base of the retaining wall on the north side of the building.

Mr. Root then spoke to the off-site vernal pools. He has examined the site conditions and landscape and found no reason to expect hydrologic impacts. Additionally, nearly all of the building is beyond the 750 foot terrestrial habitat boundary. Amphibians are forest dwelling and would avoid the residential landscape which separates the vernal pools from the subject property and the subject property lacks critical habitat itself. Mr. Root reminded the Agency the pools have been described as being low-rated tier II and III vernal pools by several biologists. The pond west of the Hemlock Drive accessway is too dry and would not function as a vernal pool. The wetland to the east was not evaluated; however no wood frogs were heard during their active season.

Michael Klein, Professional Soil and Wetland Scientist, Environmental Planning Services, LLC continued the ecological discussion. There is a history of work on-site to evaluate the value of the site and surrounding habitats. This work was conducted by Dr. Michael Klemmens, Land-Tech Consultants, and Mr. Klein, himself. Collectively, the site has been investigated more than 20 times from 2012-2016. Mr. Klein proceeded to describe seven wetlands on and off-site, all of which lie within an urban landscape matrix. Each vernal pool fails the criteria test and there is little chance of improving the landscape to a point of consequence to vernal pool species. Consequently, there is no significant impact to the wetland biota from the proposed development.

Pursuant to questions, Mr. Klein stated the size of the building would not matter given the urban landscape matrix and existing condition of the site; obligate species would cross lawns if necessary, but seek to avoid it; and the contaminants in the pond and potentially in the wetland have already done their damage, this is the existing condition; thermal pollution needs a sensitive receptor wetland or watercourse to have an impact and this is not the case here. Mr. Klein did confirm warmer water has lower oxygen levels and supports more robust populations of algae. Regardless, the urban wildlife will fair fine post development.

Atty. Studer offered closing remarks, restating his belief the Agency should be evaluating the proposed development and not be distracted by the contamination. Stephan Skoufalos countered by stating “if existing pathways are causing damage to the wetland, then the pathway is relevant.”

Norma Kerlin requested the applicant present feasible and prudent alternatives in light of the sewer issues.

Ted O’Hanlan, Esq., attorney of Robinson & Cole for the intervenors spoke. Consultants for the intervenors will not be presenting this evening since one report was received just this past Friday. Mr. O’Hanlan prefers to have all of their consultants present in one setting.

With regards to tonight’s presentation by the applicant, the applicant concedes contaminants are in the wetland. The pipe in question still conveys storm water. As such the issuance of a violation is in order. According to the applicant, the extent of contamination in the pond and wetland are yet unknown, as is the plan to remediate. An ecological risk assessment needs to be provided.

Mr. O’Hanlan continued to pursue the point that the development plan should be denied until such time as the ongoing violation is properly remediated. This is within the capacity of the Agency to do so. Further, the application is incomplete and the Agency is able to deny due to incompleteness.

Mr. O’Hanlan stated their reports are still in process and he can commit to their submission by May 18th. Mr. Studer likewise committed to submitting information requested at the hearing by May 18th.

Members of the public were invited to speak. No members of the public spoke.

Atty Studer expressed his frustration the intervenors are making no presentation nor are they submitting any information tonight.

Hearing no further comments, Chairman Harris continued the hearing to the May 23rd meeting when the intervenors will present their information.

IV. Other Business

V. Adjourn

With no further business, the meeting adjourned at 11:22 p.m.

Patricia Sesto
Wetlands Director