

**CESHIRE INLAND WETLANDS AND WATERCOURSES COMMISSION
PUBLIC HEARING
TUESDAY, JUNE 7, 2016
TOWN HALL 84 SOUTH MAIN STREET
COUNCIL CHAMBERS 7:30 P.M.**

Members present: Charles Dimmick, Kerrie Dunne, Dave Brzozowski, Earl Kurtz, Will McPhee and Thom Norback.

Members Absent: Robert de Jongh.

Staff: William Voelker, town planner. Suzanne Simone was not present.

Dr. Dimmick served as chairman pro-tem in Robert de Jongh's absence.

I. CALL TO ORDER

Dr. Dimmick called the public hearing to order at 7:30 pm.

II. PLEDGE OF ALLEGIANCE

All present recited the pledge of allegiance.

III. ROLL CALL

Ms. Dunne called the roll.

Members in attendance were Charles Dimmick, Kerrie Dunne, Dave Brzozowski, Earl Kurtz, Will McPhee and Thom Norback.

IV. DETERMINATION OF QUORUM

Dr. Dimmick determined there were enough members present for a quorum.

V. BUSINESS

Mr. Voelker read the legal notice for the public hearing on the following item:

- | | | |
|------------------------------------------|------------|-----------------|
| 1. Permit Application | APP | 2016-013 |
| Nosal Properties of Cheshire, LLC | DOR | 4/05/16 |

Fieldstone Court	SW	4/09/16
Site Plan	PH	5/17/16
	PH	6/07/16
	MAD	7/12/16

Matthew Ducsay, registered professional engineer with Milone and MacBroom was present on behalf of the applicant. William Root, certified soil scientist with Milone and MacBroom was also present.

Ed Pawlak, a registered soil scientist and certified professional wetland scientist, owner of Connecticut Ecosystems located in West Hartford, CT was also present.

Dr. Dimmick stated this was a continuation of a public hearing that was left open to receive additional information primarily concerning a vernal pool which is on the property.

Dr. Dimmick explained the applicant had proposed to fill in the vernal pool and create a replacement and the Commission had asked for expert testimony to be prepared by an independent expert Ed Pawlak and the main reason we are here tonight is to hear that and to hear how the applicant has responded to that.

Mr. Voelker said so the Commission is aware they have received copies of the communication – we did make sure that the applicant did see the communication and that there was a reaction to the new communication – we have before you tonight the revisions that were made to the plans which they (Matt) is going to go over for the benefit of the Commission.

Mr. Ducsay addressed the Commission. He explained since the last meeting having heard a lot of the discussion and testimony that was brought up we have submitted revised plans to the town in response to that.

Mr. Ducsay said mainly what we've done is – you can see the revised plan in front you – there are strikes of phasing line on the plan – the line in blue creates two phases on the plan – phase one and phase two; what this does essentially is allow the applicant to peruse the improvements on phase one portion of the site while still retaining what he refers to as the manmade vernal pool on site and allowing the field work and the monitoring of the vernal pool to continue.

Mr. Ducsay said as you can see on the plan we've added that phase line – in addition to that phase line we've added some additional S&E controls – the intent of this is to ensure any sediment laden water which is generated on site is diverted to our temporary sediment trap during construction and away from that manmade vernal pool area.

Mr. Ducsay showed on the plan – the blue line allows the applicant to do the development on site on this portion of the property which is building construction as well as implement storm water management system which is the basin as well some of the inlets located on site.

Mr. Ducsay said they have incorporated into the plan an diversion berm which runs pretty much parallel for the most part to that phasing line – that diversion berm again is to intercept any sediment laden water and divert it to our temporary sediment trap protecting the area of that manmade vernal pool during phase one construction.

Mr. Ducsay said they also incorporated into the plan set sheet VP which is the vernal pool creation plan that was presented at the last public hearing. He said what we've done to that plan is we've added some phase two S&E controls such that if that plan was to be approved and that vernal pool area created you have some additional S&E controls around the perimeter of that creation area to ensure the adjacent wetlands are not compromised or there is no sediment laden water which ends up entering into them.

Mr. Ducsay said in addition to that we've located on the plan amphibian guide fence – its essentially an 18" high concrete polymer fence which would more or less circumnavigate three-quarters of the detention basin and prevent any migration from these vernal pool areas into the storm water management area.

Mr. Ducsay said it's an eco-fence – there is a detail which has been provided under revised plans – it's an 18" high concrete polymer barrier – it's a vertical face.

Mr. Ducsay said in addition to that we have also slide the building 10" approximately to the east and the reason behind that is to facilitate some of the turning maneuvers on the west side of the building.

Mr. Ducsay said so we slide the building 10' to the east – it doesn't have any impact for activities we are proposing in terms of the upland or the wetland impact associated with the plans.

Mr. Ducsay said one of the other change we made is we have gone ahead and in response to the Fire Department comments and comments from the RWA – we have changed and revised the box truck parking area over here to an impervious surface.

Mr. Ducsay stated there was some concern from the RWA as well as the Fire Department about the potential for fuel leaks and leak detection in that area and in response to that we've gone ahead and changed that gravel surface to an impervious surface.

Mr. Ducsay said staff had asked us to locate the reference vernal pool on the plan and as he alluded to at the last meeting it is enclosed or encompassed in the wetlands – we have added that delineation for the referenced vernal pool located in this vicinity (shown on the plans) on site.

Mr. Ducsay said that pretty much summarizes the extent of the revisions made to the plan. He said at this point he was going to turn it over to Bill Root just to talk briefly about some of the field work and the ongoing field work that we have been doing as far as monitoring the vernal pools onsite.

Mr. Root addressed the Commission.

Mr. Root said Matt briefed you on some of the changes that were made in the plans in response to your comments and comments from Mr. Pawlak.

Mr. Root said the monitoring of the two staff gauges and the piezometer which is trying to keep track of the water elevations in the area has gone very well.

Mr. Root stated they are measuring weekly and so far the water surface elevation in all three locations - the two existing vernal pools and the proposed creation area are all the same elevation so the fear would be that one of the vernal pools or two were perched water table which would be up higher and we would lose the ground water in the creation area then it wouldn't be able to make a vernal pool or we would have to line it or something.

Mr. Root said so far its seems like the water surface elevation is uniform in that area which makes sense when you are out there and based on the soil types and things like that.

Mr. Root said so that's going well and it seems like it's going to be a fairly straight forward process to create the new vernal pool and since it's in the location it's a little bit more accessible to the forested wetland area – he said it may be a little bit more productive than the man made one that's getting filled because that one has low productivity then the one that's in the wetlands so that's where the monitoring stands at this point.

Mr. Root asked if there were any questions on that.

Dr. Dimmick said he was wondering at this point if Ed wanted to contribute now or wait – he asked for him to give his review now – he said we've received your written report and he has done some suggestions and he hoped the client has picked up on them.

Mr. Pawlak addressed the Commission.

Mr. Pawlak stated he was a registered soil scientist and certified professional wetland scientist, and owner of Connecticut Ecosystems located in West Hartford, CT.

Mr. Pawlak said he liked to begin by telling them something he normally tells Commissions any time he does a third party review - he said it's important that he tells you (the Commission) this.

Mr. Pawlak said as is the case with all third party reviews he neither supports nor opposes this project.

Mr. Pawlak said he doesn't take any view points on the merits of the project – that is he would never tell you (the Commission) on how they should vote on the project.

Mr. Pawlak said he does not come to the project with any preconceived notation.

Mr. Pawlak explained his sole responsibility is to give this Commission the benefit of his review within his area of expertise and to review the proposed site plans within those areas of expertise and make comments and recommendations to improve plans and reduce impacts.

Mr. Pawlak said he neither opposes nor supports the projects so he thought that was important to know.

Mr. Pawlak explained he did review the revised plans dated May 10, 2016 and he prepared his letter of June 2, 2016 in response to those plans.

Mr. Pawlak said he wanted to go over the high points with you now.

Mr. Pawlak said he included an appendix one of that letter – the ground water monitoring table that Milone and MacBroom provided and at that time they had completed four weeks of ground water monitoring.

Mr. Pawlak said you may recall he requested that they monitor the water elevations within the “reference pool” within the wetland and what he calls the “impact pool” the one that’s proposed to be filled and also requested that they install a piezometer adjacent to or in the area that they are proposing to create the vernal pool in order to monitor the ground water elevation at that point since the proposed creation involves an excavation into the ground water table.

Mr. Pawlak said Milone and MacBroom have been monitoring on a weekly basis and he expected they have additional data since June 1 – they may have one more week of data to share with you.

Mr. Pawlak explained that he identified two patterns in that data – the first as you expect is as you go from May through June the water surface elevation in the two vernal pools as well as the ground water elevation as measured in the piezometer has decreased and that makes sense as you are going from spring towards summer.

Mr. Pawlak said interestingly as Mr. Root pointed this out the water surface elevations at those three locations were not identical but quite similar and that is consistent with his expectations. He said he told you (the Commission) last month that it appears that the elevation in the vernal pools – the water surface elevation in the vernal pools was an expression of a high water table that had been exposed as a result of some historic excavation in the area.

Mr. Pawlak stated it does appear – the data that they have collected is consistent with that high water table within the swamp and extending into that impact vernal pool.

Mr. Pawlak said interestingly and he didn’t have an explanation for it but in three or the four monitoring occasions of the highest water

surface elevation was actually in the impact vernal pool and not by a lot which is outside a little higher elevation than the large wooded wetland so the ground water table does appear to maybe rise a little bit here or there maybe a little of approaching there but there wasn't a significant difference among the water surface elevations on any of the four monitoring date.

Mr. Pawlak said Milone and MacBroom has designed the preliminary grading (as he would characterize it) for the vernal pool creation and the importance elevation on that plan is the bottom elevation that they are going to excavate to and that's proposed at 190'.

Mr. Pawlak said as he pointed out in his letter at this point in time that elevation makes sense. He said on June 1 which was the last monitoring they did at that point and as he said he was interested in hearing what data they have collected since then but at that time the water surface elevation in vernal pool excavated to 190' would be 1.4' that was measured in the piezometer adjacent to the proposed creation.

Mr. Pawlak said that's a desirable depth for a vernal pool at that point in the season – it's still plenty of water to support the continued metamorphic development of the Wood frogs that would be expected to be in there.

Mr. Pawlak said the final grading of the vernal pool may need to be adjusted based upon the monitoring data that is gathered through the month of June.

Mr. Pawlak said recognizing that this is only one years' worth of data so far it's been a drier year than normal – there has to be a certain amount of professional judgement exercised but if the monitoring reveals a water surface elevation below 190' say at the end of June then that plan may need to be adjusted to drop that bottom grade of that proposed vernal pool lower than 190' – that's a discussion and decision that would have to be made at the end of the month after the monitoring is completed; that's tweaking that might be required but he didn't know but it doesn't affect the fundamental aspects of the proposed creation which he supports.

Mr. Pawlak said the proposed side slope grading of the vernal pool 3:1 that's reasonable – it's unlikely to result in erosion.

Mr. Pawlak said they have prepared a planting plan of 6 native trees and 24 native shrubs – species that were all native and he (Mr. Pawlak) endorsed them; they will be planted mostly around the perimeter of the pool and a few of the shrubs within the pool.

Mr. Pawlak said they do propose to stabilize the soils within and side slopes of the vernal pool with New England Wildlife Conservation mix – that’s a good choice of seed mix. He said he did point out in his letter that just as you plant a lawn – you can’t just put down seed mix and walk away from it – it may rain and you may get a desirable water raceme but it may be quite dry – he said he did point out that a note should be added to the plan that supplementary irrigation will be added as needed until the seed mix has germinated and growth is sufficiently tall so that those new plants are able to grow on their own.

Mr. Pawlak said the plan does specify that the vernal pool will be created between mid-August and mid-October – he said that’s a good choice of construction window because at that time any Wood frogs that would be in that area (impact vernal pool) would have metaphor and mitigated away from that pool so that’s a desirable construction window.

Mr. Pawlak said they do propose and he supported to stock pile the bottom soils from that impact pool and then use them in the final grading of the proposed pool to provide organic matter leave litter to the new pool.

Mr. Pawlak said Milone and MacBroom decided that they did not feel that it’s necessary or desirable to include a clay liner in the proposed pool and he agreed with that conclusion.

Mr. Pawlak explained as Mr. Root indicated this proposed vernal pool hydrology will be relying upon a season high water table and a clay liner would only interfere with that; a clay liner is only desirable if you don’t have a water table to support it and you are relying in surface water – you don’t want that to escape into the ground so there’s no need for a clay liner.

Mr. Pawlak said they are proposing to place course woody debris within the pool – that’s a good idea – logs and branches – particularly the underwater branches can serve as attachment sites for the Wood frog eggs.

Mr. Pawlak said they had recommended large boulders to be placed around the further of the pool – he said he thinks that’s a good idea in most mitigation scenarios but in context of a vernal pool he didn’t think that was necessary – those features really wouldn’t be useful to the amphibians that would be migrating there so he recommended they remove those boulders from the plan.

Mr. Pawlak said they do propose a three year monitoring program – he said that should commence in the first breeding season following construction – so if the construction of the pool occurred between August and October this year 2016 the monitoring would begin in 2017 and then in 2018 and 2019.

Mr. Pawlak said he gave some guidelines on what he thinks should be included in that monitoring – he recommended the monitoring be done on a weekly basis from March through July and that they amphibian egg masses be counted until the breeding season has been completed and its determined no additional egg masses are being added to the pool so at that point they can stop counting Wood frog and if they happened to see Spotted Salamander egg masses.

Mr. Pawlak said from that point forward he is recommending that they track the development of the amphibians that are developing metamorphosing within the pool until the eggs hatch; he talked about the details that should be monitored regarding development and then importantly document whether they actually leave the pool before it dries up and that’s all important information for you to know whether the vernal pool is successful and its main goal which is to provide breeding habitat for Wood frogs; he recommends those measures be included in the plan to describe the monitoring.

Mr. Pawlak said he is recommending that a piezometer be installed in the upland immediately adjacent to the vernal pool in order to measure the ground water level so that if a pool goes dry before the monitoring is complete we’ll know where the ground water elevation was at the end of July so if it’s necessary to make an adjustment and to deepen the pool a little bit because its drying out prematurely – we’ll know what elevation to excavate to – without that ground water data and it just goes dry you won’t know where the ground water is.

Mr. Pawlak said at his request the amphibian enclosure has been provided around the detention basin and he requested that it be kind of bent back at the ends – a return radius so that it curves back towards the wetland at the two ends - that’s going to be included on

the plan so that amphibians that encounter this barrier and when they get to the end they would go around the corner and down into the basin – they will be directed back towards the wetland. He said it was a good choice of product to keep the amphibians from breeding in that basin.

Mr. Pawlak said the project engineer recommended a diversion berm and swale which was his recommendation – that's on the plans to keep the silty water away from the pool during the construction.

Mr. Pawlak said and finally in item number ten he does recommend that the applicant consider enrolling the constructive pool and the reference pool in the Connecticut Association of Wetland Scientists Vernal Pool monitoring program after the 3 years of proposed monitoring is completed; he said he thought they would be interested in picking that up and following the progress for the referenced pool and the proposed creation pool.

Mr. Pawlak said this is something that can't be forced upon an applicant as a condition or otherwise – it's something that is voluntary but it could provide important information to guide wetland scientists and designers in future construction projects – its data that we would like to collect and ask that the applicant consider it.

Dr. Dimmick said at this stage he was going to ask if the Commission or staff had any questions of Ed Pawlak or the applicant.

There were no questions asked.

Dr. Dimmick asked if there was any member of the audience had questions for the applicant or Ed Pawlak.

There were no public questions.

Dr. Dimmick said he normally shouldn't comment at a public hearing but this is within his area of expertise just to put it on the record so that he is a ground water geologist and he is familiar with the ground water in that area. He explained he in avertedly had a piezometer in that area for 6 years – that is to say he lived directly north of there was a field stone basement and at certain times of the year the water would come in one side of the basement and run across the floor in a channel that the previous occupant had cut and run out through the drain on the other side so yes the ground water does fluctuate in that

area seasonally and in high summer the ground water is several feet lower then it is during the winter months.

Dr. Dimmick said he is just testifying to that from his own experience there.

Dr. Dimmick asked of there were any comments from any member of the audience on this.

There were no comments.

Dr. Dimmick asked if the applicant comfortable with the suggestions made by Mr. Pawlak or were there any problems with what's being presented; and suggestion number 10 we cannot impose on you but they might think of it as a way to publicizing good will for your organizations.

Dr. Dimmick said if there was nothing further he asked if there objection to closing the public hearing.

There were no objections.

The public hearing was closed.

VI. ADJOURNMENT

The public hearing was adjourned at 7:58 pm by consensus of Commission members present.

Respectfully submitted:

**Carla Mills
Recording Secretary
Cheshire Inland Wetland and
Watercourse Commission**