

**CHESHIRE INLAND WETLANDS AND WATERCOURSES COMMISSION
PUBLIC HEARING
TUESDAY, JULY 18, 2017
TOWN HALL 84 SOUTH MAIN STREET
COUNCIL CHAMBERS AT 7:30 P.M.**

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

I. CALL TO ORDER

Chairman de Jongh called the public hearing to order at 7:31 pm.

II. PLEDGE OF ALLEGIANCE

All present recited the pledge of allegiance.

III. ROLL CALL

Ms. Dunne called the roll.

Members present were Robert de Jongh, Charles Dimmick, Dave Brzozowski, Earl Kurtz, Kerrie Dunne, Will McPhee and Thom Norback.

IV. DETERMINATION OF QUORUM

Chairman de Jongh determined there were enough members present for a quorum.

V. BUSINESS

Ms. Dunne read the legal call for the continuation of the public hearing on the following item:

1.	Permit Modification	APP	2016-005A
	Clearview Farm Preserve, LLC	DOR	6/06/17
	Mountain Road (Cornwall Ave Ext. 2016-005)	PH	7/05/17
	Resubdivision	PH	7/18/17
		MAD	8/22/17

Chairman de Jongh informed all present that the protocol the public hearing follows; all present (Commission members and the public) will have an opportunity to ask questions and have comments following that.

Chairman de Jongh said as noted this is a continuation of a public hearing we had two weeks ago.

Chairman de Jongh said there were three items that we had concerns about so we're going to try to keep the comments or questions just on these three items.

Chairman de Jongh said the items were the DEEP report, the RWA report and there was some question about the report from Chesprocott.

Attorney Anthony Fazzone of Fazzone Ryan Ricciuti LLC, Cheshire was present on behalf of the applicant.

Ted Hart, PE and Bill Root, soil scientist of Milone and MacBroom were also present on behalf of the applicant.

Attorney Fazzone addressed the Commission.

Attorney Fazzone said on the outset he would like to note one house keeping matter on the minutes on the minutes from last week, on page two next to the last paragraph what's missing there was the fact that he had mentioned during the previous approval of this application that we're seeking to modify the Commission had determined the activity was "not significant".

The request for the correction was verified as being correct based on the February 2, 2016 meeting minutes; the activity was determined "not significant".

Chairman de Jongh stated the correction/change is noted for the record.

Attorney Fazzone said since the last public hearing we have received a letter from Chesprocott basically approving the testing, reporting to the Planning and Zoning Commission that the testing was done and as somewhat typical they want additional testing on two of the eleven new lots.

Attorney Fazzone said they have filed along with the letter from Chesprocott we've also filed a copy of the map that was stamped by Chesprocott on which the test pits and proposed septic system locations are shown.

Dr. Dimmick said after reviewing the letter that lots eleven and seven would need additional soil testing prior to submittal of individual plot plans.

Ms. Simone said for the record Attorney Fazzino did submit a copy of a site plan that does have a stamp from Chesprocott on it dated July 7, 2017.

Attorney Fazzino said next we received a letter that also has been submitted from the DEEP – the Natural Diversity Database section and they reported and provided recommendations and the applicant is in agreement with those recommendations; he said it was done when the full application was previously approved.

Attorney Fazzino stated the applicant certainly is willing to accept the condition of any approval received on the modification that we follow the recommendations of the DEEP.

Attorney Fazzino said third we did receive a report from the Regional Water Authority and again the applicant agrees has they have in the past to follow the recommendations of the regional Authority.

Attorney Fazzino said it (the report) does talk about some activities in the 50' upland review area; we discussed at the last meeting that there is a non-encroachment line proposed.

Attorney Fazzino said for the most part that non-encroachment line follows the tree line as it will end up and it approximates pretty closely the 50' upland review area.

Attorney Fazzino said those recommendations as they apply to that are acceptable to the applicant and notification of that will be set forth in the declaration of covenants and restrictions that will be filed and that will talk about the non-encroachment line and those declarations are now given to people who buy lots and they are asked to sign a letter acknowledging that they have received and understand the declaration and covenants and restrictions.

Attorney Fazzino said so we don't have people who can come back now say "they didn't know I had to belong to the homeowner's association".

Attorney Fazzone stated so that's where we are with respect to the three issues.

Attorney Fazzone said Ted Hart has a couple of things.

Ms. Dunne said she had a question on the Regional Water Authority – number 3 asks for the person or part responsible and an inspection schedule – has that been added.

Attorney Fazzone said he believed that's done through the wetland approval – that Suzanne goes out and inspects the sedimentation controls and after certain rains it's required to be inspected by the professional engineers.

Ms. Simone said just to elaborate – that is if the Commission decides to make that a stipulation.

Chairman de Jongh said before Mr. Hart begins – for the purposes of the public hearing to make the public aware – they obviously don't have copies of these reports what he'd like to do is take a few minutes to just highlight the conditions that we laid out by RWA as well as the DEEP.

Chairman de Jongh said the letter from RWA (dated July 12, 2017) stipulated that based on the information submitted they had the following comments:

- (1) erosion and sedimentation control plan appears adequate;
- (2) if the residences are to be heated with fuel oil; it should be stored above ground. Fuel storage tanks and associated piping in the basement should be segregated from floor drains and sumps to prevent spills and leaks from discharging to the environment;
- (3) stormwater management systems need proper maintenance in order to be effective (this was pointed out by Ms. Dunne). The person or party responsible for inspection and maintenance of the stormwater management system should be identified on the site plan. Inspections should be conducted at least twice a year and maintenance should be done at least annually;
- (4) the site plan meets our minimum recommended wetland buffer width. The wetland buffer should remain in relatively natural state. The use of lawn care chemicals in the buffer should be discouraged.

Chairman de Jongh said that's from RWA.

Ms. Simone said just to follow up – staff does go out and does an inspection of the erosion controls which is standard and that's prior to issuance of the building permit but as far as ongoing maintenance for the storm water or ongoing monitoring from the stormwater management system that is something someone else would have to do and provide reports.

Attorney Fazzone said they are inspected – the schedule of maintenance that's set forth in the declaration that's going to be filed – that's was a schedule suggested and agreed to with the town engineer's office in the event the homeowner's association should fail to maintain the detention basins then the town can go out and do it and back charge the individual homeowners and the homeowners consent by being party to that declaration that if they don't pay when billed their properties can be liened.

Attorney Fazzone said hopefully there's an inducement there that things will be maintained.

Chairman de Jongh said in regards to the letter from DEEP;

“The additional following protection strategies will be in place in order to protect the turtles:

Exclusionary practices will be required to prevent any turtle access into construction areas. These measures will need to be installed at the limits of disturbance as shown on the plans.

Exclusionary fencing must be at least 20 in tall and must be secured to and remain in contact with the ground and be regularly maintained (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through.

All staging and storage areas, outside of previously paved locations, regardless of the duration of time they will be utilized, must be reviewed to remove individuals and exclude them from re-entry.

All construction personnel working within the turtle habitat must be apprised of the species description and the possible presence of a listed species, and instructed to relocate turtles that are found inside

work areas or notify the appropriate authorities to relocate individuals.

Any turtles encountered within the immediate work area shall be carefully moved to an adjacent area outside of the excluded area and fencing should be inspected to identify and remove access point.

In areas where silt fence is used for exclusion, it shall be removed as soon as the area is stable to allow for reptile and amphibian passage to resume.

No heavy machinery or vehicles may be parked in any turtle habitat.

Special precautions must be taken to avoid degradation of wetland habitats including any wet meadows and seasonal pools.

The Contractor must search the work area each morning prior to any work being done.”

Chairman de Jongh stated that letter was from DEEP.

Chairman de Jongh said that (reading the letters) was for the benefit of the public on the issues that were raised at the last meeting.

Attorney Fazzone said Ted Hart would like to clarify a couple of issues.

Ted Hart, PE addressed the Commission.

Mr. Hart said he had two very quick things that came up at the last hearing.

Mr. Hart said we talked about the soils erosion and sediment control berm – as shown on the plan.

Mr. Hart said this berm that’s part of our temporary sedimentation and erosion control plan runs behind lots one through six and it is temporary.

Mr. Hart said there was some question as to whether it would remain or not and it won’t – it is temporary and with that we don’t believe it’s necessary because we have graded these lots – he thought he explained this last time – that we have graded these lots to drain towards the new road and this green area you see on this watershed

map is the watershed that will be picked up by the drainage system that we'll be proposing and the sediment for the stormwater basin and then the stormwater basin discharges over to north Roaring Brook.

Mr. Hart said so you can see there's very little land left that would drain down the slope towards Mountain Road and the houses on Mountain Road.

Mr. Hart said so there's going less water once this is constructed and these lots are graded; there will be less water once this is constructed and these lots are graded – there will be less water going towards the residences on Mountain Road – he thought about 2 acres less drains towards Mountain Road.

Mr. Hart said you can see it picks up all the houses in this area.

Mr. Hart said he thought that was everything he had – he just wanted to go through that.

Mr. Norback said he understood the grading being done will lessen the amount of water going that way but isn't hard pan pretty prevalent over there.

Mr. Hart stated no – not at all.

Mr. Hart explained when they did their testing they found that it's a Branford silt loam and it's got deep gravel deposits underneath and it's a very porous soil so it doesn't have hard pan in this area at all.

Mr. Norback said so it wouldn't travel down slope – subterranean.

Mr. Hart stated no – the rain fall that falls on the subdivision in this area will soak in very nicely – it shouldn't be a problem with any kind of runoff here.

Mr. Hart said right now it's relatively flat and it will remain fairly flat – but we are going to kind of tip the grading back (towards the road).

Dr. Dimmick said he didn't recall the Branford silt loam – you're right the water will go through it easy enough but that soil has a tendency to want to erode fairly easily and if it's left bare to be wind blow fairly easily so he presumed cautions and safe guards will be taken.

Mr. Hart stated yes – its relatively flat too so you're not going to get a lot of erosion here – a lot of gulling and batch run off so they only place we have any of those slopes are around the detention basin – everything else in here – you don't see a lot of grading – it's very, very flat though this area (shown on the plan).

Dr. Dimmick said the main precaution he would give is to get that vegetated as fast as possible; because his experience with it is if it's bare it will erode fairly easily – if it's dry it blows.

Mr. Hart replied okay.

Chairman de Jongh asked Mr. Hart with that being said – are there measures that you plan on undertaking to make sure that the items Dr. Dimmick had highlighted would not take place.

Mr. Hart said on the road they can – if it's a very dry period – we can wet that down but it depends on the time of year – even right now it's fairly wet out so we'll have to see about the weather conditions.

Chairman de Jongh said for the record he is trying to make sure the applicant is stating that they will take whatever measures necessary to prevent any kind of erosion off site to the down grade from that development.

Mr. Hart stated for the record – they'd agree to that.

Chairman de Jongh asked if there were any other questions from Commission members or staff.

There were no other questions asked.

Chairman de Jongh said at this point they would open the hearing to audience for any questions they may have and again we're not going to revisit the items we spent a large amount of time on at the last meeting; he said the floor is open for those members of the public that which to ask questions about the three items we highlighted partially the DEEP report, the RWA report or the Chesprocott report.

Kevin Joy, 920 Cornwall Avenue, asked how they got approval from Chesprocott when the other tests weren't done.

Mr. Hart stated Chesprocott approved the subdivision plan and said that when we come back with our final plot plan for each house they wanted a couple of additional tests on two of the lots.

Mr. Hart said that's typically because they know the soils out here are good and are consistent.

Chairman de Jongh said for the record it's also not uncommon for this Commission to ask for individual site plan approvals so while the development itself make get the approval of this Commission – individual sites may not.

Chairman de Jongh said if there's evidence that comes before us that shows concern this Commission will not approved that particular site plan whether its lot 11 or lot 7 – they won't get permission to build that particular lot.

Dr. Joan Smallwood, 469 Mountain Road clarified for the record that the minutes from last time – she was identified as Jean – her name is Joan (minutes will be corrected).

Dr. Smallwood said with regard to the individual lot approval – will the public have input at that time with concern.

Chairman de Jongh stated no – they will not – there will not be a public hearing.

Dr. Smallwood said she wanted to ask a question that was not one of those three categories.

Dr. Smallwood said she thought there were some issues here that the Commission has not to date been made aware of and that is concerning many members of the public.

Dr. Smallwood said the question she has to begin with and she will have more – she said she's waiting to hear when the applicant is going to disclose publicly that they plan to rip up and totally reconstruct Mountain Road in the area of the proposed Beachwood Court.

Chairman de Jongh stated that's a Planning and Zoning issue because it's outside the purview of this application.

Dr. Smallwood said except the construction will be within 15' of the Deaconwood detention pond which empties into North Roaring Brook and there are also sidewalks that are going to be constructed there within feet of the Deaconwood detention pond.

Dr. Smallwood stated she thought this was a wetlands issue.

Chairman de Jongh said unfortunately the problem that we have is the application before us does not include that work.

Dr. Smallwood replied it does – it's mentioned in the fine print on plan RP-1.

Chairman de Jongh said the application before us does not include that work so the references to that proposed work as far as he understands it is not part of the information that this Commission has before us and it's not something we can undertake in terms of discussion for this particular development.

Dr. Smallwood said then she would ask why it's not before you (the Commission) and doesn't the conclusion from that be that the applicant can choose what they submit and thereby slip things by your Commission that are relevant to wetlands.

Ms. Simone asked the applicant's representatives if they could address the comments that are on the site plan she is referencing.

Mr. Hart said we do have a note on the plan that may have to lower the grade of Mountain Road and we will be contacting Regional Water Authority if we get too close to their water main.

Mr. Hart explained it's only a small portion of Mountain Road – and the reason for that is the grade that we have to maintain for this 50' right of way has to be lowered slightly so we don't encroach – we don't have to go beyond that 50' right of way to do any grading.

Chairman de Jongh said he's confused now – so we're talking about having to do work outside of the applicant before us in order to satisfy the concerns for this application – because there's no work proposed on Mountain Road that's been presented to this Commission so far.

Mr. Hart stated it's been on the plans all along.

Chairman de Jongh stated that it hasn't been in any of the discussions.

Chairman de Jongh said he's a little bit embarrassed that the public brings up something about discussing work on Mountain Road that we haven't been informed of.

Ms. Dunne asked what part of the plan this is on so we can also look at it.

Mr. Norback asked why they use the word may – maybe to be done – does it need to be done or it doesn't need to be done.

Mr. Hart stated that at this point it looks like they will have to do it but were hoping that we can get around that and not have to do it but right now it looks that's something we'll probably be doing.

Mr. Norback said don't grades tell the tail.

Mr. Hart replied yes.

Mr. Norback said then one would think it would be on a bullet point then.

Mr. Hart stated that's why we have it on the plans.

Mr. Norback said but you did present it as may – interesting.

Ms. Dunne said she'd repeat her question – where on the plan is it – what are you looking at – what page are you on – where are you.

Commission members reviewed the plans showing the proposal under discussion.

Mr. Hart said the new grades are shown on SP-1 on Mountain Road – it shows the proposed crosswalk – it shows some regarding of Mountain Road and then it also shows on RP-1 – there's a note on RP-1.

Chairman de Jongh said he goes back to his question why this wasn't part of the narrative when we were talking about in the public record.

Attorney Fazzone replied he thought the bottom line here is that we hope that does not have to be done and if it has to be done we would come back to this Commission for a permit to do it.

Dr. Dimmick asked to request staff to look into this and report back to us. He said he didn't it includes what we are permitting tonight – we are permitting tonight only that which has been presented to us to be permitted but he thought staff needed to check into this for future reference.

Chairman de Jongh said he thought so to but he also thinks there is some influence on this application – he said he's a little bit concerned that all of a sudden something is being brought up like this – he's not saying that the applicant has intentionally omitted this from the conversation but the fact of the matter is it has not been part of the conversation – he stated he's not happy about it.

Ms. Simone asked Mr. Hart if he could describe what type of work might need to be done – what is exactly referenced and what might need to be done.

Mr. Hart explained in the lower left hand corner of SP-1 it shows what we are planning on doing – we are going to be lowering the road in that small section by .7' – less than a foot and regrading it.

Ms. Simone that detail is removing the pavement.

Mr. Hart stated its removing the pavement and then repaving.

Ms. Simone asked if it will be exposing soils – will you get down to the soil level.

Mr. Hart said we'll get down to the road sub-base.

Ms. Simone asked if the sub-base is usually graveled.

Mr. Hart said gravel – yes.

Ms. Simone said so utilities will not be affected.

Mr. Hart said we are not planning on changing any utilities but as he said we have to coordinate with South Central Regional Water Authority and they will make that call – they don't know how deep there water mains are.

Ms. Simone said just for as a matter of course when Regional Water Authority does work in town roads they do not notify our department so for example yesterday on Highland Avenue Regional Water Authority did work in the middle of the road in pavement to connect a water service – so it's a standard course of action it doesn't come before this Commission but that's not to say that the Commission should be notified when it comes to a plan like this.

Mr. McPhee said he just wants to be clear – when you say .7' how long on Mountain Road – the complete width will be taken out – are you going anywhere outside of the existing road.

Mr. Hart stated no – we're not going outside the existing road – it's going to be approximately a section of 100' long.

Mr. McPhee said about the complete width of the road – repaved and regraded.

Mr. Hart said right.

Mr. McPhee asked if the road was going to stay in the exact same location and you're just changing the grade.

Mr. Hart said they'd just be lowering it slightly.

Mr. McPhee asked if there are sidewalks going in that are closer to the wetlands.

Mr. Hart said there are sidewalks – those were shown on the plan all along and he thought those were requested for providing access so we are putting in a sidewalk on the east side of Mountain Road – a short section about a 50' to 60' section.

Mr. McPhee asked if that was within a 50' upland review area.

Mr. Hart said it's next to that detention basin if you're going to call that a wetlands.

Ms. Simone asked if that area was flagged and inspected.

Mr. Hart stated no it was not.

Dr. Dimmick asked about the drainage pipe that goes into and out of the detention basin – that is currently about 4' below the paving and so you say it will be about 3' below the paving when they finish; you are not disturbing it.

Mr. Hart replied correct.

Mr. Hart said again, it's a very minor amount – its 7/10ths – it's just to make the grade work.

Mr. McPhee said he doesn't have a problem with the change in the grade of the road because it's not something we are normally notified of – but installing sidewalks within 50' of an upland review area is something we should be notified of and something that should have been on this application if it's in front of us.

Dr. Dimmick said the question is whether that detention basin is within our jurisdiction – which he did not know off hand.

Mr. McPhee said someone needs to identify that – like the applicant's soil scientist and it shouldn't be at the eleventh hour.

Chairman de Jongh asked at what point will be find out whether or not this work has to be done.

Mr. Hart said right now he thinks we should consider it has to be done; we are going to be talking to the Regional Water Authority also.

Mr. McPhee said to be clear the sidewalk has to be done as part of the Planning and Zoning permit application.

Chairman de Jongh said so the installation of sidewalks in the upland review area is not information that's part of this application and it was not part of the narrative.

Mr. Hart said it's always been on the plan – he didn't know if it was put in as part of the narrative – no.

Chairman de Jongh stated it was not part of the narrative – the revelation took place tonight.

Ms. Simone said and it was not evaluated as far as impacts to the upland review area – the total calculations that were provided didn't include this.

Mr. Hart said right – it did not; and we'll have to a soil scientist look at that detention basin but generally we don't concern all detention basins wetlands.

Mr. McPhee asked Dr. Dimmick if he was in agreement with that.

Dr. Dimmick said you have to keep in mind that depending on how the detention basin works it may or may not be a wetland but it also may or may not be a watercourse – if the detention basin holds water for a long enough time after a rain storm then it becomes a watercourse – it becomes regulated that way.

Dr. Dimmick said watercourses can be either natural or artificial and in the case of – it's certainly not perennial but if it is intermittent then it becomes a regulated thing; if it's truly ephemeral – if the water goes in there and 36 hours later it's gone then it's not a watercourse by state definition; but if it sits there a couple of weeks then its intermittent and it becomes regulated.

Mr. McPhee said we need to find that out.

Chairman de Jongh said he knew we had identified three items that were carried over from the last the public hearing and all three of those items were address however this issue about the impact of the detention basin because of the installation of those sidewalks – that's not clear tonight and we additional information relative to what the calculations on that might be.

Chairman de Jongh said he was of the frame of mind of keeping the public hearing open to allow information to come back on that so this Commission is satisfied; it may be a non-issue.

Chairman de Jongh said he is not happy about being blind-sided about this.

Dr. Smallwood said she'd like to follow up on that – with respect the how long the water lasted in the detention pond – she said she lives across the street from it – it has water in it most of the year – it becomes dry in middle to late summer but November often through July there is usually water in it.

Dr. Dimmick said we can verify that partly by having someone take a look at the condition of the soils in the bottom of the pond as to how long the water tend to sit there and if that's true then it becomes an intermittent watercourse and it becomes regulated – even if it's not on our map and even if we were not aware of it previously – it would be like a vernal pool in that case.

Dr. Smallwood said she wanted to read from the small print on RP-1 – it says Mountain Road to be reconstructed to lower grade approximately 7" at proposed center line; intersection with western edge of pavement; Mountain Road grade to be transitioned back to existing grade with limits of reconstruction to be confirmed prior to construction; existing drainage patterns to be maintained on Mountain Road.

Dr. Smallwood said it looks to her they will be actually be lowering and changing the lowest point of Mountain Road but that may be an issue for Planning and Zoning and she's planning to bring that up there.

Dr. Smallwood said she would say they have not as far as she knows disclosed to anyone what length along Mountain Road that would be affected to bring it back to existing grade.

Chairman de Jongh said he thought they mentioned 100'.

Mr. Hart said based on the grading on the plan it looks like it's a 130'.

Dr. Smallwood said in addition to that the Deaconwood detention pond drains into North Roaring Brook by a 30" reinforced concrete pipe that's circular; they are now proposing and this again is on RP-1 they are proposing to replace that with elliptical pipe so her question follow up is how far back to they intend to be replacing that pipe and will it be all the way back to North Roaring Brook; and how do they plan to intergrade to connect elliptical pipe with circular pipe.

Mr. Hart said the elliptical pipe will go to a catch basin – it will transition in a catch basin – we are not going to try to butt them together.

Mr. Hart explained it basically will go from Mountain Road to the manhole in the curb on Mountain Road to catch basin CD-3 which is at the back of Dr. Smallwood's property.

Mr. Hart said they are basically taking a round pipe and in putting in an elliptical pipe just to get the proper cover over the pipe.

Dr. Smallwood said the next question she has is in respect to the drainage pipe that's going to be installed to drain the detention pond to North Roaring Brook.

Dr. Smallwood said according to where this silt fencing is listed on SP-1 construction is going to extend beyond the silt fence – is that acceptable.

Mr. Hart said the proposed pipe that Dr. Smallwood is explain will extend about 10' beyond the silt fence to the existing discharge point of the 48" culvert that's in North Roaring Brook; we can add additional silt fence in that area if that's requested.

Ms. Dunne asked wasn't that required in the DEEP report – the silt fence around the area.

Mr. Hart stated they do have silt fence all around the construction area; the installation of this pipe is something that will take about a day to dig a trench and put the pipe in.

Ms. Dunne said that can still cause harm to the habitat that's there.

Mr. Hart said it is temporary and they can add a little bit of silt fence there.

Chairman de Jongh said he thought it would be to the applicant's advantage to add that additional section of silt fence.

Mr. Hart stated they can make that a condition of approval if they'd like.

Ms. Simone said for the record she would recommend that be shown on the plan as opposed to it being a stipulation.

Chairman de Jongh said if the plans can be made and corrected showing that and a copy of revised plans submitted to staff that would be great.

Chairman de Jongh said again it's his recommendation they keep this public hearing open for receipt of that information regarding the

evidence that came before us this evening; so, we can entertain the comments; and continue the hearing to get the issues answered.

Dr. Smallwood said she had other issues to discuss.

Chairman de Jongh said the applicant need to be prepared to address any wetland issues.

Tracey Jewette, 920 Cornwall Avenue, submitted a copy of a letter she planned to read tonight.

The letter was submitted into the record.

Mr. Jewette read the letter that addressed concerns about the plan of conservation and development and wetlands and watercourse resource conservation. She said her opinion the permit should be denied; she also had concerned about the plan of conservation and development being followed.

Dr. Dimmick commented that we are totally exempt from the plan of conservation and development – it has nothing to do with the wetlands commission.

Dr. Dimmick said the town's plan of conservation and development is a town document – we are not a town agency – we are an agency of the state appointed by the town and what the town has for planning and zoning or conservation development does not affect us one way or the other.

Dr. Dimmick said they (Ms. Jewette) had all good points but they are addressed to the wrong place.

Tom Grimshaw, 470 Riverside Drive, asked about the berm on the east side – those houses have had flooding right along – what he is worried about is maybe not initially but with wear and tear on that property if increased flooding occurs into that area these people will be defenseless against remediation of increased water flow into their basements.

Mr. Grimshaw said he thought he had heard last time that the berm was going to be permanent; at Planning and Zoning he heard it wasn't and was confirmed tonight – he said he'd like to request that the Commission look at making that permanent; and one of the

things that should be checked by the homeowners' association and remediated if there is any ensuing problems that could not occur or could not occur for 5 to 10 years.

Chairman de Jongh asked Mr. Hart if they have any kind of calculations that show what the current flow off site is and what it would be after development.

Mr. Hart stated they did not calculate the flow towards Mountain Road because we basically had taken the watershed away from that area so we're going to have less – he said he thought one of the biggest problems with the water in the back yard from what he's been hearing from the neighbors is a 12" pipe that goes under the existing road that was roughed out and it seems to be somewhat blocked; the water goes through it but it has to bubble up to come out so the flow has been backed up there.

Mr. Hart showed on the plan the plan done by Carl Mattson Associates back in 1974 and then updated in 1977 for the proposed road at that time which was to come through Mountain Road and come down the 50' access way and cross North Roaring Brook so they roughed that in and then they put the drainage in and 30" RCP and catch basins along the way.

Mr. Hart said what you can see on this plan is that in 1974 there was an existing ditch and 12" pipe that was to remain and it goes underneath the 30" pipe that was put in over the top as part of the road construction.

Mr. Hart said it was noted by the neighbor to the south that it discharges – an area shown on the plan – and it bubbles up out of the ground so it's not free flowing – the outlet channel appears to be blocked with debris and leaves and whatever else so all of this area drains down through here and goes into that 12" pipe.

Mr. Hart said as he said before – this area here – as shown on the plan – is all being pulled away from the back yards of Mountain Road so we are actually reducing the watershed area to Mountain Road by 2 acres.

Mr. McPhee asked is it a temporary berm and not a permanent berm.

Mr. Hart said because we don't want to keep it there; it doesn't need to be there.

Mr. McPhee asked wouldn't it be natural vegetation kept planted with certain grasses that would serve as a barrier for noise, nuisance and lighting from the new developments – that's not under our purview but the berm could also act as just an insurance that the water does not flow into the backyards.

Mr. Hart again bringing this away from the backyards and the slopes here – the soil is a very coarse gravel soil we're not going to get a lot of runoff so that's why we don't want to keep that berm.

Mr. McPhee asked what is the obstacle in keeping the berm – is there something affecting any other plans – he said he didn't understand why it can't be permanent.

Mr. Hart said they just don't want to have it right in the backyards of these homes.

Mr. McPhee asked if it would be on the property line.

Mr. Hart stated no- he showed on the plans the location of the berm.

Chairman de Jongh said so it actually follows the non-encroachment line.

Mr. Hart said no – there are no wetlands over here – shown on the plan (where the berm is shown).

Mr. Grimshaw asked about the retention basin – he said if he understood correctly the ejection site has a four-inch diameter pipe as the ejection from the bottom of that – he's wondering if a calculation was made on a 100 year flood – if that is enough to be able to carry that water off without overflowing and just emptying right down that road into houses that are on Mountain Road right next to that.

Dr. Dimmick said as he listens to the presentation – they have three outlet structures there – the 4" pipe is the one at the bottom there and there are two other structure higher up; he said they are very similar to the ones he first designed back in 1974 – he said it's his design he came up with in 1974 and it works very well.

Chairman de Jongh said for the record he'd like the applicant to address that question.

Mr. Hart said the outlet structure for that storm water basin is designed with a 4" under drain and then up the Mill River another 3' or so there's a 4" orifice and above that there's a V-notch weir and on the top of this structure and on the top of this structure there is a wide open grate; so if the water gets up that high it's just going to pour into the grate but its designed not to get above the V-notch weir for the 100 year storm.

Mr. Grimshaw said for the record he remembered the site of the toxic waste dump being fairly close to one of the proposed homes and from this map he sees here he didn't know where the toxic dump site is compared to the actual lots – he asked if that could be pointed out.

Chairman de Jongh said he thought we were crossing over the (P&Z) line.

Dr. Smallwood stated she had several comments – we were talking about the berm on the side of Mountain Road – if that were to be permanent she thought it should be set back from the edge of the slope because otherwise it would impair access of rain water to the vegetation that's planted on those slopes.

Dr. Smallwood said her next comment – several of the proposed lots there – the homeowners will own part or all of that slope coming down to the Mountain Road neighbors and presumably they would have the right to cut that vegetation which would then affect the erodibility of that slope down to their homes and that's a concern from their point of view.

Dr. Smallwood commented on the 12" pipe – that drains ground water – actually empties into wetlands so it's a second arm of the wetlands that goes down to the whole thing downstream so it is relevant to wetland issues in her opinion.

Dr. Smallwood said with respect to grading we've heard a number of times on both privately and publicly this development will be graded like a shallow bowl so all drainage goes down towards the road and that's not consistent with the maps that are drawn that they are graded toward the road only in the front areas of the properties for up to maybe 30' and the rest is graded back to be absolutely level from the edge of the slope; the drainage pattern goes down towards the detention pond; same is true for the back properties and in one

area directly into Roaring Brook without ever going into the detention pond.

Mr. Hart said as he said before - this area (on the plan) shaded in green drains towards our catch basin system and pipes that are in the proposed road and discharges to the basin – there are some areas of the backyards that go directly to Roaring Brook and there's an small area at the top of the slope that goes down towards Mountain Road – that is also going to go in its normal direction.

Mr. Hart said we are picking up over two acres that would normally go toward behind the homes on Mountain Road and that's going to be directed to our stormwater basin and then to Roaring Brook above the outlet of the 48" culvert.

Chairman de Jongh said just for his own edification – the area between what was the proposed berm and virtually the line which is on the illustrated map where the home sites are – are proposed to be included that area is going to be draining on a flat surface and not being drained towards the road surface – is that correct.

Mr. Hart stated yes – it's a very flat surface up through here (as shown on the plan).

Chairman de Jongh said again – current site conditions have all of that flowing towards Mountain Road properties at this point – correct.

Mr. Hart replied not all of it – about half of this site- about 2 acres we're bring back away from Mountain Road; and all of the homes that we are proposing are going towards our system and not towards Mountain Road.

Chairman de Jongh said so your proposal takes about what percentage of the runoff that we normally flow towards Mountain Road away from the Mountain road properties.

Mr. Hart said he hasn't figured out the totals but he could do that – its 2 acres – he reviewed the plans showing the current divide of the water going through the subdivision water going to the east towards the backyards of the homes on Mountain Road and its shows the additional area that we're going to be picking up in our system and taking away from Mountain Road – so its 30% or 40% somewhere around there.

Chairman de Jongh said he'll go back to the question about the berm again – he said he understands esthetically you don't want the berm there and it's more of an esthetic preference as opposed to a practical one – but if we're only taking 30% of what was originally runoff towards the Mountain road properties – wouldn't installation of a permanent berm or something that would impede the flow of water from that site down to the Mountain Road properties make sense from a practical standpoint.

Mr. Hart said the benefit is very minimal because basically you're talking about a sliver of land – he showed on the plan and the area that goes down to the backyards on Mountain Road – and there's just a very small sliver in here that might be able to be picked up by that berm; he said we just heard the concern about the vegetation not getting enough water; he said leaving it just the way it is in the way we designed it is just fine.

Dr. Smallwood said her next comment had to do with these homes are being built on a plateau that is well above the homes below.

Dr. Smallwood said the issue is that this development will be served by public water and will not be served by public sewers so the water that is coming into these properties is going to be going into primarily the septic system.

Dr. Smallwood said because they have very good drainage it's going through the soil and hitting ground water and the seasonal high ground water levels in that area significantly close to the surface of many of our homes and we already have flooding issues.

Dr. Smallwood said adding that much public water she believed is a real issue and threat to us – it's going to add water to the flow that's going in the 12" pipe down to the wetland.

Dr. Smallwood said she had a calculation she wanted to submit (for the record) where she calculated the incoming volume based on EPA estimates of per person use per day and it calculates out if you assume the ground water is net moving from the north end of the development south to the wetlands; the volume is the equivalent of a 250' long column of water that is 1' deep 1' high and almost 2.5' deep moving into the wetlands every single day – she said he thinks that's a significant impact on the wetlands and she would ask (the

Commission) to think about that and she would submit her calculation to show that.

Dr. Dimmick said it comes out to 3000 gallons a day – 75 gallons per person a day 4 people per household – actually in that kind of development 3.2 people per household – it comes out to about 3,000 gallons.

Dr. Smallwood said EPA said 80-100 gallons per person so she averaged that and then those house as she was told would be at least 4 bedroom so that would be more than 3 people – that would be between 4-5 people per house hold.

Dr. Dimmick commented about the infiltration rate of those soils going down – if there are sands and gravels under the Branford silt which was testified – those soils normally can infiltrate somewhere around 8,000 gallons a day per acre. He talked about the infiltration rates.

Dr. Smallwood said she thought they needed to think about the net if it's going into the wetlands.

Dr. Dimmick said the state has told us that what goes down into the ground then leaves our jurisdiction as a wetlands Commission.

Dr. Smallwood said he mentioned that last time and a court case that sort of solidified that and she was wondering what that might be; she said two things – she suspected it doesn't involve ground water than then becomes surface water at wetlands and it might not involve wetlands that are a public drinking water supply area.

Dr. Dimmick said he'd try to reach that case – and look through his files to see where he came across it.

Dr. Smallwood said it put us the public in kind of a distressing position because there really is no jurisdiction – no commission that addressed the overall question of the impact on the environment; there are consequences to the environment for having no review on those broader issues.

Dr. Smallwood said her next comment is at the last public hearing she asked the engineers to explain in details how the detention pond was going to protect the wetlands by protecting them from both sedimentation and from chemical pollutants; she said she was

disappointed by the answer – she thought they should hear in more detail on that.

Dr. Smallwood said they have been talking about how the detention pond is according to the DEEP stormwater manual and she's read up on that and she would say there are least ten ways in which this detention pond either does not conform to or is in actual contrast to what is in that stormwater manual; so, she'd like them to address that.

Mr. Hart explained the DEEP stormwater manual – it's a guide and as you look through it there's probably several hundred ways to treat stormwater – but they do reference the stormwater quality basins as a primary treatment for the removal of total suspended solids whereas say a hydromantic separator or something like that is not considered a primary treatment – it's considered a secondary treatment – it will remove sediment but it does not work as effectively as a stormwater pond – basically the stormwater pond works as the water comes in the water will collect in that pond and settle out.

Mr. Hart explained we do have an underdrain in it that will filter some of the sediment if it gets that far and the main function of sediment removal is just settling and that's why these basins are as big as they are – they are fairly large and collect a lot of storm water and hold it for a period of time before it discharges so it's a settling mechanism that removes the sediment and it's been studied for years; he talked about the use of the basins and why they are recommended because they remove pollutants from the stormwater.

Dr. Smallwood continued by saying the detention pond has been at various times – well initially it was presented as a dry pond; which she kept pointing out that the bottom of it below ground water level for much of the year – so it's not a dry pond; then it was presented as a wet pond but it's not that it would be 3' deep but because of the conditions she finds it hard to believe that it's a wet pond so it goes back and forth at different times of the year.

Dr. Smallwood said the two types of ponds having different purposes she thinks is something that is not been clarified.

Dr. Smallwood said she thought they have not addressed the validity of this pond to screen out floatables.

Dr. Smallwood said she would ask that they go through the stormwater manual and review this – she didn't want to have to go through the ten different things – one thing is the minimum requirements is that the slow flow orifice be a minimum diameter of 6" and this one is 4"; it's not supposed to be sitting in a FEMA flood plain and the new FEMA flood plain which she'll call a flood zone which was instituted in May 16, 2017 but has been in its proposed form for around more than a year and a half.

Dr. Smallwood said it actually shows that the affected flood plain in a 100-year storm goes over half of where that detention pond is supposed to be situated; she said she thinks that's a problem; the entire pond is at an elevation lower than what the flood elevation is supposed to be at that point.

Dr. Smallwood said at the Planning and Zoning hearing last week they decided to evade that issue by suddenly coming up with their own calculated flood zone that was entirely different and didn't seem to present specific data that would justify how they calculated that – what numbers did they plug into the computer and why to come up with zone that magically said there's no problem there; she said she thought they needed to hear about that.

Dr. Smallwood said the last thing that she had in mind to say is at North Roaring Brook there is now the 48" culvert which takes North Roaring Brook under the road bed – there's a 30" pipe that takes water from Deaconwood to North Roaring Brook and now in between those two its purposed a third pipe that drains the detention pond into North Roaring Brook; and all three of those pipes come into that area where there's scour pond.

Dr. Smallwood said all three come in at different horizontal angles – a couple of them come in at different vertical angles and she thinks in her opinion is that's the great recipe for turbulence and further scour and further erosion; she didn't know if they considered that an issue but it may be especially in a 100 year storm.

Dr. Smallwood said she would point out this is also being called a flood plain and there are areas – the wetlands included – there's a small area near the north of this property that is a plain but the rest of it is not level – she talked about the flow of the stream and the flow of water and the vertical drop of 30' and that is really significant; she commented about water coming down a slope versus water spreading out on a level plain – it's very different; and she is very

concerned about where that water is going to flow and the FEMA proposal; their regulation backs her up.

Ms. Simone asked Dr. Smallwood for her calculations to submit (for the record).

Ms. Dunne said you've (Dr. Smallwood) has been given us some opinions and facts and you're a doctor.

Dr. Smallwood stated she's not active at this point but she's a research biologist doing laboratory research; she's not a geologist; she's not a hydrologist and not an engineer – that is an applied science; but as a scientist she has a pretty good idea of the principals behind a lot this and how to design studies, collect data and interpret them properly.

Mr. Hart said he just wanted to talk briefly about the flood plain lines – what they have shown (on the plans) is the two different FEMA flood plain lines – the blue is the more currently that they came up with the last couple of years and the yellow is what was here before when they first mapped this area; both of these flood plain maps were not studied by FEMA; they drew the lines on the plan and they basically took them from the old US GS maps and then they put them on newer plans but they never calculated the velocity, the depth of water so they never did a detailed study and if you look at the blue line which is the current lien – it's does down the hill in about 50' it goes down 8'; he said flood plains don't generally do that so they never did a detailed study of this area – the mapping really doesn't represent exactly what's happening out there; they did do a study and gave it to Planning and Zoning but the flood plain requirements are not something that is covered in wetlands.

Mr. Hart said they were asked to do that by engineering just because they thought that they road might be under water and it's not.

Chairman de Jongh asked if there were any other issues that we need to make the applicant aware of so that they can be prepared to address these at the next meeting.

No other questions were asked of the applicant.

Chairman de Jongh said he'd suggest they keep this public hearing open for the receipt of that information and discussion of such at our next meeting; again, we'll try to limit the discussion to the item that

we brought up this evening. He said unless there is an agreement on the part of the applicant we'll have to close the public hearing at the next meeting.

Ms. Simone said by state statute it will have to close within 35 days of opening unless the applicant volunteers for an extension.

Chairman de Jongh said so they'll have to address all of the issues at the next meeting which is going to be August 1.

Chairman de Jongh said by consent of this Commission they'd keep this public hearing open for the receipt of that information.

Ms. Simone stated for the record documentation regarding the statements Dr. Smallwood made on the record were submitted for the record.

VI. ADJOURNMENT

The public hearing was adjourned at 9:00 pm by consensus of Commission members present.

Respectfully submitted:

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