

**CHESHIRE INLAND WETLANDS AND WATERCOURSES COMMISSION
PUBLIC HEARING
TUESDAY, MARCH 3, 2015
TOWN HALL 84 SOUTH MAIN STREET
COUNCIL CHAMBERS AT 7:30 P.M.**

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

Members Absent: Will McPhee and Thom Norback.

Staff: Suzanne Simone.

I. CALL TO ORDER

Chairman de Jongh called the public hearing to order at 7:30 pm.

II. PLEDGE OF ALLEGIANCE

All present receipted the pledge of allegiance.

III. ROLL CALL

Ms. Dunne called the roll.

Members in attendance were Robert de Jongh, Dave Brzozowski, Kerrie Dunne, Charles Dimmick and Earl Kurtz.

IV. DETERMINATION OF QUORUM

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

V. BUSINESS

1. Permit Application	APP	2015-001
Apex Developers, LLC	DOR	01/20/15
Jarvis Street	PH	02/17/15
		POSTPONED
	PH	03/03/15
Resubdivision	MAD	04/07/15

Ms. Dunne called the legal notice to open the public hearing on the following item:

Chairman de Jongh explained to those present how the public hearing would take place – allowing the applicant to make their presentation then opening the hearing up for questions and comments from Commission members, staff and members of the public.

Attorney Anthony Fazzone was present. Ryan McEvoy, PE and Bill Root, Soil Scientist of Milone and MacBroom were also present on behalf of the applicant.

Attorney Fazzone stated that Ryan would pass out the plan that was requested by Commission when we are at the meeting several weeks ago.

Attorney Fazzone stated that the applicant is proposing a subdivision and is pursuant to section 44 of the Town of Cheshire Zoning Regulations.

Attorney Fazzone said just by way of background in respect to this regulation - it is the exact same regulation that the subdivision that would be generally to the east – the Moss Farms subdivision – that regulation was promulgated actually around that subdivision and if you were to look at a language of that regulation itself you'll see that there were two purposes to the regulation – one which was to provide some affordable housing and the other was to allow smaller lots with greater density and I'll quote from the regulation “to provide more efficient allocation and maintenance of common useable open space for recreation and or conservation.”

Attorney Fazzone said if you looked at the overall subdivision on Moss Farms you'll see that there's significant open space and this evening you'll see that the applicant here is also proposing some significant open space which would be a continuation of that town owned open space and the open space that's owned by the Cheshire Land Trust and it's pretty much the balance of the river corridor from Jarvis Street down to the town owns river front.

Mr. McEvoy addressed the Commission.

Mr. McEvoy explained he was going to briefly go over the location of the property then turn it over to Bill Root, certified soil scientist, to discuss the delineation of the wetland on this site

Mr. McEvoy explained this property is on the north side of Jarvis Street – Dundee Drive, a residential roadway located to the east; Maple Hurst Court, a small cul-de-sac off of Dundee Drive and Orlenton Court to the north again all part of the subdivision adjacent to the site.

Mr. McEvoy stated the property is 22 acres in size and it is also known as 920 Jarvis Street. He explained that part of this application involves construction activities on two of the frontage lots adjacent to 920 Jarvis Street but first being the 986 Jarvis Street which is nearest to the wetlands and floodplain and Ten Mile River and the second is 966 Jarvis Street.

Mr. McEvoy explained the site is an irregular in shape and is bounded by a residential subdivision to the east and the north and the western boundary is the Ten Mile River - the Ten Mile River being shown in blue on the map - the center line of the river represents the property line.

Mr. McEvoy said the wetlands are shown on the map in the beige color.

Mr. McEvoy said the site is generally steep in grade for the most part with a high elevation on the eastern side at elevation 220 with a low at the river of the northern most edge at approximately 132; there are some relatively moderate slopes throughout the center of the site and is currently occupied by a single family house that is currently served by subsurface sewer disposal system.

Mr. McEvoy said with that he would turn it over to Bill Root before he gets too far so he can discuss his investigation of the property.

William Root, certified soil scientist with Milone and MacBroom addressed the Commission.

Mr. Root stated he flagged the wetlands on the site and submitted a report dated December 21, 2014 “Inland Wetlands Delineation Report”.

Mr. Root said the wetlands were flagged in September 2014. He said there’s a fairly sharp demarcation between the uplands and the wetlands on the site and Ten Mile River flows northward.

Mr. Root said there’s a fairly broad flood plain forest on both sides of the river and as you get to the more upland soils there is a rather

steep 6' to 8' to 10' embankment at the edge of the river near where the normal floodplain would be.

Mr. Root said the inland wetland delineation you can on the map. He said the floodplain forest provides a good amount of flood control to a very broad flat area and would seasonally flood so a floodplain like that is a very broad vegetated and provides very good pollutant renovation and provides trapping of sediment.

Mr. Root stated the underlying soils are sand gravel based and have a very strong connection to the aquifer for recharging and discharge - the Ten Mile River flowing through this part of Cheshire is well known to be a very significant wildlife habitat and generally supports the turtles that are State listed species of special concern Wood turtle and Box turtles that are found fairly routinely up and down the corridor.

Mr. Root said there are high functions and values along the river with a sharp demarcation between the uplands which are also sand and gravel based soils and the sort of mucky floodplain forest in this area.

Mr. Root said the common species that you find down here are Red Maple and Elm and Pin Oak and there's a very strong developed understory of shrubs and Winter Berries and Spice Bush and Sweet Pepper Bush and there's also the herbaceous layers that are well developed too with a number of ferns and sedges.

Mr. Root said so there's a very nice and diverse habitat along the Ten Mile River and a floodplain forest is on both sides.

Mr. Root said another area that he flagged is slightly off the property behind the house on Orlenton Court - there may have been some filling in this area and there is a slight trough behind the homes - there's a number of pipes that discharge into it - you can see the shading (on the plans) and there's a depression about 4' or 5' deep which is conveyed - northward there is a culvert cross pipe and then going into the flood plain forest that's north of Orlenton Court so there's a big broad floodplain forest - well developed and good flood control and wildlife habitat with a very sharp demarcation and upland setting very suitable soils for development and sort of mucky floodplain forest along the river.

Mr. McEvoy said he wanted to expand on one of the items that Mr. Root raised is the small watercourse that's off the property - there is a minor area of upland review - 50 foot off set of that wetland that

falls on this property with an exception of a small area on the north east corner of the site - the remainder of the site drains directly towards the Ten Mile River and this particular area does drain underneath the road and then eventually to the Ten Mile River on the north side Orlenton Court.

Mr. McEvoy said what they are proposing on this site is a 15 lot residential subdivision under the planned residential subdivision regulations in section 44 of the zoning regulations in which allow for an increased density on properties such as this - very similar to the adjacent subdivision next door.

Mr. McEvoy said the subdivision will consist of 14 new lots with the existing house on 920 Jarvis Street to remain as part of the subdivision which would be the fifteenth lot itself.

Mr. McEvoy said all of these proposed houses and the existing house will take access off in a new town road built to town standards with the standard roadway width and a cul-de-sac, etc.

Mr. McEvoy said the road begins between 986 and 966 Jarvis Street and that's approximately 10,050 linear feet towards the cul-de-sac.

Mr. McEvoy stated these lots are smaller in size then the typical lot in an R-40 with minimum lots of 10,000 square feet - it does allow for a tighter more compact development was smaller side and front yard setbacks so what you see on this particular plan is a more condensed and more efficient layout then a more traditional are R-40 development.

Mr. McEvoy explained as part of this they are treating storm water management from both of the proposed roadways and the individual houses and driveways themselves through two storm water management basins shown on the plans.

Mr. McEvoy said the larger one located behind 986 Jarvis Street will handle almost the entire roadway system along with all the proposed houses on the east side of the road and the small basin to the rear of some houses on the west side of the road with handle simply the roof runoff.

Mr. McEvoy said the design of the storm water management system with both of these basins with result in a net decrease in flow off the site under the 10, 25, 50 and 100 year storm in accordance with the town zoning regulations and engineering requirements.

Mr. McEvoy said at the previous meeting it was requested by Dr. Dimmick to investigate whether it is in fact appropriate to detention given the proximity to the river.

Mr. McEvoy said they did look at the overall watershed of the Ten Mile River and the placement of this property in that watershed area – he said he had a graphic for the Commission to consider.

Mr. McEvoy handed out a graphic to Commission members.

Mr. McEvoy explained the graphic shows the overall watershed of the Ten Mile River which is approximately 20 square miles in size and our site is located roughly at the half way point of the watershed itself.

Mr. McEvoy stated there are about 9 square miles upstream of the site and about 11 square miles downstream of the site.

Mr. McEvoy said the typical protocol with respect to detention in a watershed such as this which is a relatively small river system that feeds into the Quinnipiac is you would have detention unless; they also did look at previous analysis of the river that were done by their firm in the early 1990s and the timed peak of the river in this particular area for the 100 year storm is approximately 2 hours after the start of a storm so he testified earlier without having the facts that it was several hours or almost a day in order of magnitude when in fact it's a little more flashy then what he had originally estimated.

Mr. McEvoy talked about the hydrology model that shows how our site will interact when the peak discharge will occur from the basins – and that will occur at approximately .55 hours – just over a half hour after the start of the storm.

Mr. McEvoy explained that they looked back at the model done in the early 1990s and the small storm event that was analyzed as part of the Ten Mile River system was the 10 year storm event which had a time to peak of an hour and a half; so the 10 year storm event maximum flow will occur an hour after our basin is already starting to recede and the peak flow is starting to fall back; he said it is reasonable and it is appropriate and in fact he had discussions with the town engineer and he agrees that on this particular site that detention is appropriate to handle increases in runoff.

Mr. McEvoy said as part of the basin design it's not just a means of retaining or holding back water it's also provides for water quality renovation from proposed impervious surfaces.

Mr. McEvoy talked about including a sediment chamber and basin; he explained the process in which it would work and that the bottom of the basin is over excavated to allow for water quality volume which is recommended in the 2004 Water Quality Manual.

Mr. McEvoy explained the process to follow as recommended in the 2004 Water Quality Manual.

Mr. McEvoy also spoke about the outflow from the basin which is designed as a level spreader outlet rather than a traditional point discharge or flared end section we have an excavated, small depression that will allow for runoff exiting the basin to enter into this minor depression and sheet flow exiting as opposed to a point discharge which could cause erosion downstream- this will sheet flow into the wetlands and the watercourses and will mimic the existing condition without any erosive velocities coming out of the outlet structure itself.

Mr. McEvoy is they are before the Commission to seek approval for the regulated activities and although they don't have any direct wetland impacts associated with this development they do have three proposed activities within the upland review area.

Mr. McEvoy said the first being a discharge from the detention basin which is the largest activity within the upland review area.

Mr. McEvoy said the second is a minor amount of grading behind one of the first properties on the west side of the road and that's because they are upgrading an existing drainage outfall that is located on the front portion of 986 Jarvis Street which collects some of the runoff from the developed areas of the lots along Jarvis along with the existing lot and also some of the areas from the upslope development off Orlenton Court and we are proposing to upgrade that to handle the ten year storm event which is the design standard for town drainage systems.

Mr. McEvoy said they also have a detailed set of erosion control plans for the site.

Mr. McEvoy said they have significant amounts of grading in order to create the houses on the eastside of the road so they want to provide for adequate protection measures so that there is no runoff from the construction into the wetlands and they have accomplished that by providing for two sediment traps – one located on the east side of the road – one located on the west side of the road in a different

location then the proposed basins – they reason for that is the collection of silt and runoff during construction won't in anyway damage the construction of the basin itself – you have a separate place where the undesirable siltation will occur during construction can be collected and removed from the site without compromising the volume of the detention basin itself.

Mr. McEvoy said they also have silt fence and hay bales located downslope of any of the proposed disturbances on the west side – they also have a detailed narrative and a constructive sequencing of the site.

Mr. McEvoy said there are a few areas where they have steep slopes – the steep slopes will protected with erosion control blankets which will prevent any excessive runoff on those steep slopes after the slopes have been established and until such time vegetation takes hold in the mat itself.

Mr. McEvoy said that is a brief description of the proposed activities for the site – as part of the subdivision and one of the more important components for both Zoning and Wetlands is the dedication of open space as part of it.

Mr. McEvoy said the parcel is 22 acres in size and what they are proposing with the development is a total of just under 12 acres of space to be dedicated to open space or preservation with almost 8 of it is going to be dedicated to the town – the 8 acres to the town will include the entire wetland corridor with the exception of a small area that's going to be deeded to the front property owner and the remaining acreage is going to be dedicated to the homeowners association.

Mr. McEvoy explained Mr. Fazzone had some meetings with Planning staff and it was indicated that the wetland areas would possible more appropriate to be dedicated to town open space where as the open space on the surrounding the proposed lots would perhaps be more appropriate under the ownership of a homeowners association as opposed to the town itself.

Mr. McEvoy said so given that over 50% of the site will be dedicated to open space – we think this has a very strong potential to increase the value of the open space that the town already controls which is substantial in this area.

Mr. McEvoy showed on the plans the area of the existing open space the town controls either through the town directly or through the

Cheshire Land Trust and currently there is approximately 187 acres of open space that is in control and preserved and protected land and with our proposed development we'll add an additional 12 acres to that – again greater than 50% of our site to preservation and one of the items that was noted during the initial hearing with respect to vernal pools was that there is a significant amount of vernal pools in the adjacent subdivision to the north.

Mr. McEvoy said one thing they did do and he may have Bill Root speak on this a little bit – he said he looked at the town topography in the area and in the area of the Ten Mile Lowlands there are dozens of small – some manmade pockets – others it's hard to determine from the topography – but dozens of pockets that may or may not act as vernal pool type habitats.

Mr. McEvoy said he wanted to bring that to the Commission's attention that they did look at the history of this area and it is apparent that there is a large amount of natural resources well to the north of our site but there are no such pools in our particular area.

Mr. McEvoy said he wanted to show the Commission this graphic to let them know they were interested in the environmental aspects of the surrounding areas.

Chairman de Jongh asked about the calculations that he was utilizing earlier regarding the runoff from the site where he was calculating the various degrees of flooding – were the calculations taken into the consideration the rains in 1982-3 where we had pretty severe flooding – was that type of situation calculated or did they use that as part of the calculations.

Mr. McEvoy stated they did a master drainage study for the town in 1993 and part of that used available regression models that were done in the 70s of all the flood prone rivers in town – he said he didn't know if they took into account of any specific flooding events from the 80s but he did know that it was in an effort to analysis the various culverts and bridges in town so in respect to any particular flooding he was not sure.

Chairman de Jongh said he remembers the severity of that particular event and there were a number of streets in town that were absolutely flood – it was a disaster and he would imagine that low area there on Jarvis Street would too have been impacted as on as well.

Mr. McEvoy said he can say the 100 year flood elevation based on the FEMA model is this particular area – at the bridge crossing at Jarvis Street – the 100 year flood is at approximately 138 and descends to about 136 in the northern portion of the site and the lowest floor elevation in our building is at about 145 so we are significantly higher than even the 100 year flood elevation by some 7’.

Mr. McEvoy said the discharge out of our basin in this area is slightly above the 100 year flood elevation itself – they are discharging about 137.5 in this particular area and we are at 137 and change so our basin is above the 100 year flood elevation – all the houses are significantly above the 100 year flood elevation so we certainly feel that we’ve provided for adequate safety measures with respect to the flooding of the Ten Mile River.

Dr. Dimmick asked about the grading on lots 5, 6 and 7 just above one of the detention basins.

Dr. Dimmick said you have a lot of regrading that is going on immediately adjacent to the detention basin. He said he particularly concerned about the stability of the erosion controls that you put in there because you talk about other places making sure you are were not going to get silt into the detention basins as the result of the regrading that’s spot seems to be particularly sensitive.

Mr. McEvoy said the important thing to note and the intent is having a temporary sediments basin trap as they are referred is that we are directing runoff away from those areas during construction until vegetation takes hold so that we aren’t going to be essentially filling them with construction sediment.

Dr. Dimmick said that you can’t do that with that particular slope and the one directly above the basin there.

Mr. McEvoy said it is why it’s important and critical that we have the erosion control blankets in place in this particular area - those blankets are generally considered very effective even at slopes at 1:1 grade and we are proposing the rear of these lots to be 1:3 so it’s a much more gentle slope then even the manufacturers claim that their products can adequately handle.

Dr. Dimmick said this application in front of us is primarily for subdivision and road construction - does it also include all the regrading.

Mr. McEvoy replied yes he said the important thing to know about a development like this that not unlike the traditional R40 or R 80 residential subdivision is that all the activity has to occur as part of the road construction for the purpose of that construction – for the basins and features of that nature - there are really very little areas particularly on the west side of the road where we are not going to have to clear in order to build the development – it's important to note that particularly on these first three houses on the west side of the road - we actually direct the back yards of those houses into the basin itself so in order to construct the drainage swale – it's a gentle swale to more than 3% in grade but we still have the goal of directing all of that runoff even from the back yards into this basin so the development of these lots don't really happened in a box; in this case it happens generally together.

Mr. McEvoy said he wanted to speak about some of the regulated impacts themselves associated with and the total square footage is approximately 3500 square feet and there are three areas in total but the actual earth work and the actual site disturbance required to construct these is really and essentially limited to very minor amount grading behind the second house on the western side of the property – excavation of about 2 feet with the creation of a level spreader outlet in the detention basin - and the installation just inside the 50 foot upland review area for a 24 inch culvert which conveys some of the overland flow from the properties east – including some of the properties on the adjacent subdivision.

Mr. McEvoy said the actual amount of earthwork required within the upland review area itself is very limited to and essentially is only a couple feet of excavation for the basin outlet and a little bit of grading behind one of the houses in one small discharge into the upland areas so he understand there is a large amount of activity proposed on this site but certainly the regulated activities themselves are relatively minor in nature.

Chairman asked who is going to be responsible for cleaning out the sediment chambers.

Mr. McEvoy stated the town he believed takes that responsibility for that – he said there is an easement over the discharge from the town drainage into the basin – the actual maintenance of the basins themselves are typically handled by the homeowners association – that is something we are discussing with Planning and Zoning - from the perspective of history and every subdivision he has worked on in recent past has required the homeowners association maintain the basins themselves since the sediment chambers actually collect

town road drainage or will collect town road drainage - he believes those are maintained periodically or checked by public works staff .

Chairman de Jongh said the reason why he asked the question is because although we talk very highly of homeowners associations the reality is after a while they become inept and fail to do the things the homeowners association are initially charged to do and he'd hate to see those chambers all of sudden not get not get maintained.

Mr. McEvoy said that is certainly a concern for every subdivision - he said it's his understanding that public works typically handles these basins and if they notice a deficiency for there is some sort of problem and the homeowners association isn't maintaining then - they will actually do the work or contract it out and back bill the association or properties part of the association; he said that was his understanding from public works staff but he didn't know if that's how they handle it every time.

Ms. Dunne said just to follow up – you were talking about the vernal pools - she had wondered if they had actually done an inspection of the property for vernal pools and aren't they in the surrounding areas.

Mr. Root said they flagged wetlands in September but didn't do a search for vernal pools – he said he and Ryan had talked about it and he thought the best desktop study and that they could do was what Ryan already explained to you was to take a look at the general topography in the area and the town's website has a layer and pools and when you look at the topo here you see these depressions all throughout the site. He's said he had discussion with John Milone about this site - and it was the first time he heard of vernal pools had to do with well this development here; he noted the site is well known for supporting vernal pool activity.

Mr. Root said what he can say is that the type of map and that type of topography does not exist on this site which is what Ryan explained to you – the second thing he'll say - in general these floodplain forests that are very flat and do flood fairly frequently – every year – every two years or five years generally don't support a lot of vernal pool habitat because they are relatively short lived creatures - salamanders and frogs and things like that and they don't put their breeding effort into something that's going to get washed or be underwater every year or two years or three years – it's generally not going to be productive for them which is the reason why most vernal pools are in upland habitats where they are not going to be flooded like that; so in general an active flood plain like this part of the Ten

Mile you don't get a lot of vernal pool development; so those are the facts to support a conclusion –so to say we didn't do a survey for them because it wasn't the best season to do it – we actually didn't do a survey.

Dr. Dimmick asked Mr. Root to talk about turtles.

Mr. Root explained up and down the Ten Mile corridor there are Wood turtles and are active up and down the Ten Mile corridor; Box turtles are an upland species and generally aren't often associated with a forested floodplain Wood turtles however are – they are very aquatic and over winter in the river– and forage in the upland areas during the active time of the year.

Mr. Root said the river is about 200' away - but there is no reason you wouldn't expect to find wood turtles and the floodplain forest - he said he didn't think there was Box turtle activity on this site because it is so heavily wooded and they often prefer more open county power lines and other areas where they can get berries.

Mr. Root stated they contacted DEEP Natural Diversity Database because there are hits as his report showed and the Natural Diversity Database maps and there are circled all over the site and the DEEP reported back that there were indeed turtles reported in the corridor and their letter we have and he though was part of the application and they didn't object to the application or the development and they recommended what they used as standard protocol for turtle protection which they list and we generally put on our site plans when we get around to doing specifications for the project which they consists of silt fencing which is considered perimeter silt fencing.

Transcription equipment malfunction: remainder of minutes to be prepared and filed as an amendment to the March 3 2015 public hearing minutes

VI. ADJOURNMENT

Respectfully submitted:

Carla Mills
Recording Secretary
Cheshire Inland Wetland and
Watercourse Commission