# TOWN OF RYE – BOARD OF ADJUSTMENT Wednesday, June 21, 2017 7:00 p.m. Rye Town Hall

Members Present: Chair Patricia Weathersby, Vice-Chair Shawn Crapo, Patrick Driscoll, and Alternates Charles Hoyt and Gregg Mikolaities.

Others Present: Planning/Zoning Administrator Kimberly Reed

# I. Call to order and Pledge of Allegiance

Chair Weathersby called the meeting to order at 7:00 p.m. and led the Pledge of Allegiance.

#### II. Applications:

Chair Weathersby stated that a Notice of Decision has been drafted, in regards to the special exception request, for Harbor Street Limited Partnership for the last meeting. She would like a chance to review the minutes, along with the draft, before the Board approves the draft Notice of Decision. She would like to move this to the July 5<sup>th</sup> meeting.

Motion by Patrick Driscoll to continue the consideration of the Notice of Decision for Harbor Street Limited Partnership to the July 5<sup>th</sup> meeting. Seconded by Shawn Crapo. All in favor.

Note: Sitting for the following application: Patricia Weathersby, Shawn Crapo, Patrick Driscoll, Gregg Mikolaities and Charles Hoyt.

1. Harbor Street Limited Partnership of 7B Emery Lane, Stratham, NH for property owned at 421 South Road, Tax Map 4, Lot 31 requests a Variance from Section 301 for property located at Tax Map 4, Lot 25 to permit a driveway within the following: 1) a 17' x 16' wetlands crossing 51ft from a vernal pool where a 100 ft setback is required; (2) 2,900 s.f. within the vernal pool buffer where a 100 ft buffer is required; (3) 3,510 s.f. within the wetlands buffer where a 75ft buffer is required. Property is in the Single Residence District. Case #14-2017.

Chair Weathersby noted that the Board heard the background and facts for this property at the last two meetings for the special exception. This meeting will be dealing with the variance application. She also noted that the members sitting for this application sat for the special exception as well.

**Attorney Mark Johnson, representing the applicant,** presented to the Board. He stated that the various exhibits and testimony that was heard for the special exception (June 7) will be carried forward to this case as well. He continued that it is his intent to give an overview of the project. The variance

requirements are a bit different than the special exception requirements. He will also have Jim Gove, Christian Smith and Tim Stone explain how they looked at this project. He pointed out that he asked the experts to submit a summary of their presentation. He continued that another presentation for this meeting is an alternative analysis, which looked at a different access to the upland area.

Attorney Johnson stated that the variance requirement in New Hampshire has changed over the years. In 2011, the New Hampshire Supreme Court altered its interpretation of the statute finding a model that is moderately more favorable to property owners seeking variances. The court recognized that a previous standard for obtaining a variance required applicants to show a deprivation so great as to effectively prevent the owner from making a reasonable use of the land. The court has moved away from a standard that was very difficult for an applicant to meet. The zoning by-law has certain prohibitions. When an applicant goes before the ZBA, it is because they cannot meet some requirement or by-law. He explained they are before the Board seeking a variance to access the upland area. This, in itself, does not mean the applicant does not have a right to the variance, nor does it mean that it is not something the Board shouldn't consider because it does not meet the by-laws. There is currently a five-prong test for variances. The Board has to find that the variance (1) would not be contrary to public interest, (2) the spirit of the zoning ordinance is observed, (3) substantial justice is done, (4) values of surrounding properties are not diminished, and (5) literal enforcement of the ordinance would result in unnecessary hardship. He stated that they are seeking a variance from Section 301 of the zoning ordinance, which sets forth provisions in the Wetlands Conservation District. The request is to permit the construction of a 12ft wide paved driveway, with 2ft shoulders, approximately 190ft in length, a portion of which will cross through the outer edge of the wetlands and vernal pool buffers on Lot 2. The impact will be 3,510sf of buffer.

Attorney Johnson submitted a plan to the Board showing the Chisholm lot. He stated that this plan shows what they are seeking relief from. (He pointed out Lot 2 and the wetland area on the plan.) He continued that they are looking to access an upland area of over 2 acres through a driveway. The use of the property for a single-family house is certainly consistent with zoning in the area. The relief being requested does not really depend on this being a lot or not. It's going from one area on the road to the upland on the lot. He continued this is proposed Lot 2 of the subdivision but the relief being requested is to access the upland area on that lot. The only way to access the upland area that makes any sense, is through the driveway being proposed. The use could be for recreation. It could be that someone owns a bunch of land in the back and wanted to access the upland and therefore, wanted to go through the driveway to access it. If someone wanted to do that, they would need to go before the ZBA also. The fact that there may ultimately be a house on that lot doesn't mean the applicant isn't entitled to relief. He noted that the Planning Board has had extensive peer review. Sebago Technics has reviewed the plan for the Town and have given an opinion that the lots comply with zoning. The applicant is not looking for relief in lot area or in setbacks to make it a buildable lot. It is a lot that complies. They are looking for access from one part of the lot to the other part of the lot. He stated that Mark West has looked at the wetlands and vernal pools, as part of his peer review for the Town, and has agreed with the flagging of all the lots, including Lot 2.

Member Crapo asked why it is unreasonable to take the Chisholm one lot and turn it into a subdivision with one less lot.

Attorney Johnson explained the zoning by-law provides for a mechanism to obtain relief. Certain court cases and statutory provisions are given so the relief can be granted; however, the Board can always turn it down so certain construction cannot be done. The Board has the authority to do that. He commented that he thinks the Board would be exceeding their authority in doing that. The applicant is seeking relief to put a driveway in to ultimately access a lot on that property. The Planning Board will review this and make a determination on the density of this particular plan. A tremendous amount of open space is being conserved on the overall project. There's a large portion of the Chisholm parcel that is being conserved as well. He continued that they meet the requirements for the variance and to say "have one less lot" is not consistent with the by-laws or statute.

Member Crapo asked why it would be unreasonable to do the subdivision with one less lot. He pointed out that the lots are not yet created.

Attorney Johnson stated he thinks it is unreasonable to lose a lot. The applicant has a right to come before the Board and show that they meet the requirements of the statute, the use of the property is reasonable and granting the variance is consistent with the use of the property and the regulations. The Board can always tell an applicant that they are not going to be granted the variance. The applicant will probably not be able to do the property they want to do. He continued that Planning Board is the Board that will determine the density. The Planning Board will say that the number of lots, including Lot 2, is the appropriate number of lots for the subdivision. The Zoning Board's purview is whether or not the requirements have been met for the granting of a variance.

**Jim Gove, Gove Environmental**, submitted a copy of his summary and presentation to the Board. He explained that in terms of doing an alternative analysis, he looked at the Army Corps of Engineers Guidelines.

\*Please see attached Gove Environmental Services, Inc. Memorandum, 6/21/17

Attorney Johnson submitted a copy of the Alternative Analysis to the Board.

\*Please see attached Alternative Analysis, 6/21/17

Mr. Gove continued that he wanted to go over a couple of things that came up regarding some of the testimonies that were given at the last meeting. There was some discussion about the two vernal pools and whether or not they might have rare species. He noted that he went back and reviewed the data. Not only were the egg masses counted, but also the types of egg masses. There were egg masses of Wood Frogs and egg masses of Spotted Salamanders; however, there were no egg masses for the Blue Spotted Salamander, nor the Marbled Salamander. Not only were there no egg masses found in this vernal pool, there were no egg masses found in the two other pools on the site. There was no evidence found of the rarer species that utilize vernal pools in this area. He continued that the way the Army Corp of Engineers views the guidelines, they say for the project purpose, (in this case the project purpose is to get to the uplands), look at avoidance and minimization to the maximum extent practical. What cannot be avoided, some sort of compensatory mitigation should be provided.

He continued that the first option is Option 1 with total buffer impact of 3,510sf. When impacts are looked at, secondary impacts are considered because there are no direct impacts. The area is going to be bridged so there are no direct wetland impacts. There was a question on whether bridging a wetland would in any way trigger a DES permit. That is addressed in the NH DES Wetland Permit Rules, under

projects that do not require a permit, which basically says someone is allowed to span an area and that would not be considered a wetland impact that requires a permit.

Chair Weathersby asked if the footings would need a permit.

Mr. Gove explained that footings are outside of the area. As long as the footings are outside the wetland area, and it is being spanned, a dredge and fill permit is not needed.

Member Crapo asked if the Army Corps Guidelines were designed for putting together a residential neighborhood.

Mr. Gove replied it is for everything. Those guidelines have to be utilized for everything; whether it is looking at highways, residential, commercial or a recreational ballfield. He continued that secondary impacts include; (1) sedimentation into wetlands; (2) removal of excessive vegetation into the buffer, (3) leachate from septic system entering the wetlands; and (4) runoff from lawns and other areas from entering the wetlands. Sedimentation into the wetlands will be avoided by the installation of erosion controls. Further, there is going to be a "no cut" restriction placed around this area. There will actually be signage around the area saying this is a "no cut" area. Also, it is being suggested that spruce and fir be planted along both sides of the driveway following construction. They will both provide additional buffering in this area and provide a compensatory mitigation. The runoff would essentially have to go through an area of no cut, undisturbed, forested buffer. In looking at the guidelines from the "Wetlands and Surface Waters Guidebook for N.H. Municipalities", the 100ft buffer will do a tremendous job in removing any pollutants from this area. The secondary impacts will be mitigated by the additional buffering, the preservation of the area and the restriction of it being a "no cut" zone.

Mr. Gove stated that in looking at Option 2, access through lot 1, the numbers are larger than Option 1. The buffer impact would be 4,750sf. The difficulty with this option is that there will be a road much closer to the vernal pools. Plus, this will be accessing through an area that the Planning Board already deemed that they wanted to have restored. This would require an After-the-Fact Permit from the NH DES Wetlands Bureau. It would also "fly in the face" of what the Planning Board wants the applicant to do in that area. It would result in areas of this roadway having more direct runoff into vernal pool areas. From that standpoint, it is not a preferred alternative. Option 3, would access Lot 2 between Lot 3 and Lot 4, curving around a portion of the wetland buffer. He noted that this is a 4K area and they really cannot go through the 4K area. He explained that a 4K (4,000sf) area is an area the Planning Board has set aside for the location of a septic system. Anywhere in that 4K area, a septic system can be located; however, the 4,000sf area has to be maintained indefinitely to provide for places for new systems to be built if one fails. He continued that Option 4 has a total buffer impact of 4,560sf. The more difficult issue is that this will be going directly upslope. In looking at Option 1, it is relatively flat. Option 2, is also relatively flat. However, Option 3 is going up a slope. Creating a slope will cause people to use a lot of sand and salt on the driveway during the winter. The runoff will go through the buffer and into the wetlands.

Member Crapo asked how steep it is.

Mr. Gove stated that it is clearly straight downhill and is fairly significant.

Member Crapo stated that in looking at the contours it is 64 from the closest end of the house to the highlight on the plan in orange. It is 60 past the orange before the curve.

Mr. Gove explained this is basically 160ft. In this area, it is an 8ft drop with 2ft contours. Referring to the options, he stated that the last consideration is the No Build Option. That is certainly an option the Board may consider. He continued that they are putting a "no cut", "no disturb" area over this. The ordinance does not say that. The ordinance basically says that 50% of the trees can be removed or vegetations and shrubs can be removed that are less than 4.5 inches in diameter. In terms of the long-term maintenance of the vernal pool, with the "no cut" "no disturb" restriction over this area, would provide greater protection than the Town's ordinance, as it exists today. Homeowners typically find ways of expanding their outside living space, under these guidelines in the ordinance. He commented the No Build Option is not necessarily the best option for the vernal pool system.

Chair Weathersby stated that the ordinance restricts the cutting of any trees greater than 4.5 inches in diameter.

Mr. Gove agreed. He explained it does not restrict the removal of the herbaceous layer and the removal of all the shrub. For the species that utilize the vernal pool, the herbaceous layer and shrub are critical to their life span. If the areas have shrubs and herbaceous layers removed, the habitat goes away. It is not the trees they utilize. It is all the under storage that they utilize. If in fact someone clears behind their house, it will have a detrimental impact upon vernal pool species.

Chair Weathersby noted that this is a blank slate. The lots can be reconfigured and the road could be moved. She asked if this had been explored.

Mr. Gove stated that all the lot lines could be erased and one question could be asked. That would be how to access that viable piece of upland. Whether it is looked at blank or the lot lines exist, the alternative analysis is still the same because there is no option of accessing the upland through property they don't have. This is a large piece of viable uplands. It has test pits that passed that are essentially outside the buffer. If that upland is to be accessed, the alternative analysis has to be used to determine which way it should be accessed. That is why he believes the alternative analysis still matches, even if everything is erased and it is left as a blank slate.

Chair Weathersby noted that they have to go through a buffer to get there.

Mr. Gove agreed.

Chair Weathersby asked how much upland is with Lot 2.

Christian Smith, Beal's Associates, replied that it is 2.5 acres.

Mr. Gove commented this is about 100,000sf.

Chair Weathersby stated that she understands there will be some grading or fill in connection with the driveway.

Mr. Gove commented that they are pretty much at grade with a lot of it. He noted that there are more trees because it is utilizing the logging area, where as Option 3 would involve more cutting of trees.

Referring to Option 3, Member Crapo stated that there is a curve coming out between Lots 3 and 4. He asked if going between Lots 4 and 5 would eliminate the curve.

Mr. Gove noted that area comes in contact with the Red Maple Swamp that goes into the Cedar Swamp. Not only will the buffer be hit, but it will also encroach closer to the large wetland system.

Chair Weathersby commented this is based on where the houses were placed.

Mr. Gove explained that it would still be bringing a road further down slope with more direct runoff to the most valuable wetland on the site.

Chair Weathersby commented it would be possible to go through the first part of Option 3, loop down and not be in the buffer.

Mr. Gove agreed.

Christian Smith submitted his summary and presentation to the Board.

\*Please see attached Beal Associates, PLLC, 6/21/17

Mr. Smith stated that they have gone through the full peer review with Sebago Technics. They have issued a memo stating the drainage plans and individual lot development plans are in compliance with the Town of Rye Land Development Regulations. He continued there was a question at the last meeting about the capacity of the concrete span. That can carry over 200cf per second. The drainage analysis shows the area, under the 100-year storm, is roughly just over 25cf per second. The span can carry 10 times what the land can produce for runoff under the 100-year storm event. (He pointed out the areas on the plan that will need some modest grading, which will largely be in the area to enter on to the span.)

Chair Weathersby asked how many square feet will be disturbed.

Mr. Smith replied it will be 3,510sf within the buffer.

Chair Weathersby asked for a description of the fill; how high and how much volume.

Mr. Smith explained they have not run the actual calculations because it is going to depend on the final bridge design. It is assumed that this will be about a 3.5 to 6ft clear span.

Member Crapo asked what needs to be further flushed out for the design.

Mr. Smith replied structural engineering. The company that is chosen to do the design work will need to design the footings, concrete mix and rebar for the reinforcement.

Member Crapo pointed out they have proposed numbers on its width and length. He asked if that could change.

Mr. Smith replied that it is highly unlikely.

Chair Weathersby noted that they will be voting on what is presented.

Mr. Smith stated that he sent the details to Severino, who does most of Mr. Falzone's road construction work. Severino said that they have nearly the identical structure. He does not foresee any major changes to the length and width of the span.

Chair Weathersby asked what affect, if any, will the addition of the fill have on the function of the wetland buffer.

Mr. Smith replied there will be no impact. The water will all run in the same direction as it does now.

Chair Weathersby asked if this is true even if the road is built up.

Mr. Smith replied yes.

Member Driscoll clarified that nothing else has changed over the last few weeks.

Mr. Smith replied no.

Member Driscoll asked if everything from the last presentation is still accurate.

Mr. Smith replied yes. He pointed out they did receive the sign off from Sebago Technics.

Referring to the bridge (span), Member Crapo asked for the change in the elevation.

Mr. Smith replied that the rise is going to be somewhere between 3.5 and 6ft.

Member Crapo commented that he is comparing this against a statement of "Option 3 is too steep a driveway" to here where there will be a need to go up and then down. This is creating a slope in the driveway and people are going to salt it, which will now be in the wetlands and going over the bridge.

Mr. Smith explained there will be excavation removing the roadway. That is part of the open space underneath the bridge.

Chair Weathersby asked about the change in elevation from approaching the bridge to entering the bridge.

Mr. Smith replied it would be approximately 3ft.

Tim Stone, Stonehill Environmental, submitted his presentation and summary to the Board. \*Please see attached, Stonehill Environmental, 6/21/17

Mr. Stone stated that several comments came up at the last meeting with where this site sits with regards to the Wellhead Protection Area. (He pointed out the proposed site to be developed on the plan. He also pointed out the 4,000sf Wellhead Protection Area on the plan.) He commented it is an arbitrary radius that is set based on the yield of the wells. He continued the Wellhead Protection has been modified with extensions. They were modified because of extensive geophysical studies that indicated there were bedrock fracture lineaments where the studies say the vast majority of the water for the wells is being drawn from. The vast majority of the water is coming from the northeast/southwest trends. This is very consistent throughout New England. He noted that the area shaded in red on the plan, is the area that the pollutants from septic systems would most likely be drawn up into the wells, which is upgradient. The area in green, which is downgradient of the wells, is least likely to contribute to contamination to the wells. If there is anywhere in the Wellhead Protection Area that a site could be located in the southeast corner, this vicinity is least likely of an area that could potentially contribute to contamination.

Referring to the regional and local flow, Mr. Stone stated that along South Road there is a drainage divide. Many roads in New England are on these drainage divides so there won't be water accumulating and flooding. Along South Road to the south of South Road, the flow is to the south and southeast. To the north of South Road, the flow is to the north towards Bailey Brook, Locke Pond and out towards the seacoast. He continued that drilling down deeper in, the flow is to the north, which is consistent with the regional map. He noted that he has real data for the site and it is consistent with what is seen on a regional basis. Groundwater is flowing essentially south to the north across the site. He noted that the data for the water levels that was collected is very consistent. There was a drought condition in the fall. The water level rose quite quickly because there was 13 inches of rain that fell at the end of October and into November. The water level continued to rise through early March. Even with all the rain in April and May, the water levels have dropped. This is very consistent with what one would expect with a typical groundwater system.

He continued that over 10 rounds of groundwater elevation data shows the water flows north across the site. It has been consistent with every round of groundwater levels that were collected. The construction of the driveway will have no impact on groundwater flow. This is too small a feature to have any influence on the flow.

Member Hoyt asked about the quality of water that comes off the road. He asked if it will have an effect on the ecosystem.

Mr. Stone stated that initially when the road is being paved there might be a little bit of oils and asphalt that come off the road. The petroleum products from a car are so incidental that natural biodegradation will pretty much break it down. If that were not the case, there would be contaminated groundwater everywhere. With respect to the salt, there will be no salt restrictions in the development. The homeowner's association is going to have to be on the ball in enforcing these things. It is worthwhile to make sure this does occur. He pointed out that what is done on the primary roads in Rye is probably far more of an impact than what would be seen in this development. He knows that Rye is concerned about developing future water supplies and there is some talk about whether this property could be used as a future water supply. The company that created the map with the extensions, went through all of Rye and identified ideal locations to develop wells. (He pointed the area out on the map that was identified for future wells.) He continued that as it gets closer to the seacoast, there is a risk of saltwater intrusion. The wells should be away from the coast so they are not introducing saltwater intrusion into the dry well

system or contaminate any bedrock wells. He stated it is very unlikely that anything could be developed here, meet the Wellhead Protection requirements and not have the risk of saltwater intrusion. The work that was done identified multiple areas around Town. The favorable location was based on the northeast/southwest trending area.

Chair Weathersby clarified that it is being said that this property would have no effect on that area because the groundwater flows off this property to the north and ultimately heads off to the east.

Mr. Stone confirmed. He continued that one of the other features of the property is a massive wetland area. Septic systems do contribute some levels of nitrate and other small concentrations of pollutants. The wetlands are kind of considered the lungs of the hydrogeologic system. They are incredible at cleansing the groundwater and surface water. He stated that they will be installing Septi-Tech Knight Systems, which are shown to be highly effective at reducing nitrate concentrations, as well as other contaminate concentrations. A typical system, discharges 40 to 60 milligrams per liter nitrates to groundwater. Within this development, the systems will be discharging 10 to 15 milligrams per liter nitrates. The environment has much greater capacity to reduce those through nitrates through natural degradation; from fixation of the nitrates in the soils and the wetland plants will take up any nitrogen as the groundwater surfaces to the north end of the site. It would be extraordinary to see any impacts with such advanced treatment systems. He pointed out that the systems need to be maintained, which will be overseen by the homeowner's association. The manufacturer will have to maintain the systems on an annual basis and the results will be reported to the Town of Rye. It should be the responsibility of the homeowner's association to be sure that the homeowners are respecting the rules by which the properties were purchased.

Mr. Stone stated that the final thing he would like to talk about is perimeter drains for the foundation of the house that is proposed for Lot 2 and the septic system. He reiterated that groundwater flow is to the north. The effluent that goes into the leach field gets further treatment after exiting the treatment tank. The water will percolate down to the water table and continue to flow north with the strong northerly gradient that was mapped throughout the study of the property. The slab for the home on Lot 2 is set at an elevation of 70ft. There is a contour line of 62ft, which is just north of the proposed home location. As of June 15<sup>th</sup>, the groundwater elevation was somewhere around 62ft so at this time of year, the water is 8ft below the slab of the home. The perimeter drains will operate very rarely and only under extraordinary conditions when the water level is exceptionally high. The groundwater elevation has not been seen above 70ft over the course of the monitoring. For the most part, the perimeter drain will not be operating.

Chair Weathersby asked if the existing wells shown on the plan are being used.

Mr. Stone stated that the Rye District Wells are being used.

Chair Weathersby asked if they are looking for places for new wells.

Mr. Stone stated that they are not at this time. It has been raised on whether this land should be looked at as a possible location for a new supply well.

Referring to the Rye Water District Wells, Chair Weathersby asked if there is a risk that as more water is pumped it will change the groundwater flowage.

Mr. Stone explained that as the wells get stressed more, they will likely extend their area of influence. The area of influence will be to the northeast/southwest. The pump test showed very little draw down because of the pumping of the wells. He continued that he was involved with another project near the Garland Well. The development was within 400ft of the sanitary radius of the well. The nitrates could not be detected because of the amount of water the wells were pulling in. He commented that the same goes for the wells on this property and all the residential wells in this vicinity. The wells along South Road are all upgradient, side gradient or off in a different drainage basin then where this site is. It would be impossible for anything occurring on this property to impact any of the adjacent wells.

Member Mikolaities noted that the Beal's' letter that was passed out earlier said there is a memo and plan attached to it. He commented that he did not get anything attached to the memo.

Mr. Smith submitted the development plans for Lot 2 to the Board.

Member Crapo asked how deep the wells are.

Mr. Stone replied the town wells are 350ft deep. The Groundwater Flow Map shows how groundwater flows regionally in the area. That is not necessarily looking at any certain elevation.

Member Crapo asked if this is regardless of depth or could the patterns change once it got 100ft deep. Going down in the cross sections of earth, can the patterns change?

Mr. Stone replied yes. This is intended to show how shallow water would be flowing from drainage divides. Getting into the bedrock, the divides remain relatively consistent until a system is stressed. The stress is pulling water in from the southwest and the northeast. He continued that a pump test diagram would show a drawdown of water along the linear feature.

Member Crapo asked if the tests need to be repeated over the years.

Mr. Stone stated they are talking about bedrock features that have been developed over 100's of 1000's of years. It is not likely to change. The availability of water and quality of water may change over time because of stressing the system; however, there are certain laws of psychics that would have to be worked at really hard to be broken.

Referring to the Groundwater Flow Map, Mr. Stone noted there is a 65-contour passing through vernal pool #1, on Lot 2. Monitoring well 1 measured 68.27ft a week ago in that well. The elevation of vernal pool 1 is around 68ft, as it is mapped. As spring ends, the vernal pool drops. The water table is now below the base of that vernal pool. The vernal pool is going to dry up. What is happening right now, is exactly what is expected to happen. Getting down into the lowlands, there is not as great a change in groundwater levels because it is controlled by the wetland in the lowland area. He reiterated the vernal pools will dry out in the summer. The groundwater data right now is showing exactly that.

Member Hoyt asked for a definition of a vernal pool.

Mr. Stone explained a vernal pool is an area that is wet in the spring, when water table conditions are high or it is collecting water from spring melt. The critters are using the area to lay their eggs. The pool then dries up and the critters migrate off into the forest.

Member Hoyt asked how many vernal pools are in the whole development.

Mr. Stone replied there are four pools. He continued the one thing about Option 1 for the driveway crossing is it is downgradient, with respect to groundwater flow. Any sort of incidental salt or drippage from a vehicle is going to run off the edge of the driveway and run downgradient away from the vernal pool. With respect to surface water flow, right now the flow is from the east to the west. Because of the orientation of the driveway, it does not change anything. The flow is naturally flowing into a lowland trough.

Chair Weathersby stated that the wetlands crossing of the driveway allows development on Lot 2. There were concerns, at the last meeting, about runoff from the home site because that is higher in elevation.

Mr. Stone stated that will be minimized by the appropriate application of slow release low nitrogen fertilizers. The key is leaving the 100ft buffer undisturbed. That is really the most important component of this. The buffer has a tremendous capacity to absorbed any contaminants that might be passing through it before it gets to the wetlands or vernal pool.

Member Crapo commented that restrictions are great but people do not follow them. He asked what would be the impact and how sensitive it would be.

Mr. Stone stated that having the no-disturb buffer goes a great way to mitigating any impact of someone who takes liberties in over fertilizing and over applying. He continued that it is an issue of who's watching the store and how things are enforced. It is an education process and an enforcement process. He noted that they will do their best to put meaningful restrictions and a process in place for monitoring and enforcement. He anticipates it will be far more than anything Rye has seen to date.

Referring to his prior project off Brackett Road, **Joe Falzone**, **Developer**, stated that not only could the homeowner's association enforce the cleaning of the basins and check the signs that were posted, but the Town can enforce things at the expense of the homeowner's association. Homeowners do not want to see that happen because the Town is not going to negotiate the best deal to do the work on the site. He continued that he is also required annually to have Beal's Associates go in and do a report of those basins, which are submitted to the Town. These types of restrictions can get built into it. Referring to Lot 2, he stated that there will be a deed restriction and the homeowners will be well aware of what has to be done.

Member Hoyt asked if there are any other materials that could be used for the road, other than asphalt. He asked if there was a material that is more environmentally friendly.

Mr. Smith explained that a pervious pavement could be used, which allow the water to infiltrate into the subgrade. He continued that a gravel could be used. Is it going to be better to have something pervious through the wetland buffer or something that isn't? It is kind of a 50/50 guess.

Member Driscoll clarified the bridge is concrete with whatever surface is chosen over the top.

Mr. Smith confirmed.

Mr. Stone stated that with an area as small as this, whether there is pervious pavement or open grass pavers, it does not have any meaning. It does not really change anything.

Attorney Johnson stated that the conclusion from the Sebago letter was that with the recent changes with the engineering aspect of the project, in particular the stormwater management plan of the project, meets the Town of Rye Land Development Regulations. He continued that relief is being requested from Section 301, to the extent that it is needed, to build the driveway shown on the plan. He continued that there was discussion on getting rid of a lot. It would not be reasonable to tell an applicant to just lose a lot. That would not be substantial justice and there would be no gain to the public. There would certainly be a detriment to the developer. A landowner has the right to use their property for what it was zone for. In this case, it is zone for residential use. He stated the Malachy Glen Associates Case dealt with a site plan where a wetland buffer prevented the building on the lot. It also prevented the access to the lot. The case went up to the Supreme Court. The Board granted access through a wetland buffer but didn't allow the building. Eventually, it was upheld that it could be built. The discussion in the case was about the mere fact that a project encroaches on a buffer, which was the reason for the variance request, cannot be used by the zoning board to deny a variance. The governing rule on substantial justice is that any loss to the individual that is not outweighed by any gain to the general public, would be an injustice. In this case, it would be about not being able to use the 2-acre upland with a minimal impact to the buffer. This would be a substantial injustice to not grant a variance to allow that.

Attorney Johnson reviewed the criteria for granting the variance, as outlined in his memo and summary submitted to the Board.

\*Please see attached memo, Johnson & Borenstein, LLC, Mark Johnson, Esq., 6/21/17

Speaking to Mr. Smith, Member Hoyt stated that they are dealing with a particular lot and it looks as if the wetlands encircles the whole uplands, even though some of it is not part of the property that is in question.

Mr. Smith commented they have not done that evaluation. Whether the wetlands wrap around and connect, he does not know.

Mr. Gove stated there was a question as to whether or not the wetland was over an acre. He commented that he was given permission by the abutter to go onto their property to evaluate the area. He did not see a flow going into that area. He was not able to verify that to the extent that he went. He went far enough to verify that the area was contiguous and open.

Referring to Section 301.8 B (1), Member Driscoll stated that it says, "surface alteration by addition of fill, excavation or dredging is prohibited". He continued there has been a lot of information on a lot of different aspects but there have not been any particulars on how much fill is going to be in there. There has only been a range. The Board has not heard what the excavation would be on that road and in that space. There has been a little bit of information given about the protection of the wetlands while that

work is being done. The most information the Board has on the fill is that there will be somewhere between 0 to 3ft of fill throughout the roadway.

Mr. Smith explained that any driveway that is built is going to start with excavating out the top soil. That will be back filled with the support gravel for the pavement. There will be cut and fill without question. He commented that they have not run an evaluation on the cut and fill through that section. The final design on the span is needed in order to run that evaluation. He noted that the span is not going to require any fill; however, they will need to cut to create the holes for the footings. Those will be back filled with support gravel to make the supports stable. The fill will be in the area to ramp up to get over the driveway crossing.

Chair Weathersby asked how wide the driveway is.

Mr. Smith replied it will be 12ft wide with 2ft shoulders on either side; 16ft.

Chair Weathersby opened to the public in support of the application. Hearing no comments, she opened to the public in opposition.

Anne Hodsdon, 427 South Road, read from her documents submitted to the Board.

\*Please see attached, Anne Hodsdon, 421 South Road

3 pages, including Truslow Resource Consulting Technical Memorandum

**Bob Seiner**, 399 **South Road**, reviewed his memorandum regarding consequences that could occur as a result of granting the variances.

\*Please see attached, Bob Seiner, 399 South Road

2 pages

**Jeff Ross**, 333 West Road, reviewed his remarks regarding the notion of "contrary to the public interest", as outlined in his memorandum. He also submitted exhibits along with the memo.

\*Please see attached, Jeff Ross, 333 West Road

4 pages, including:

- Exhibit 1, Beal's Associates Watershed Plan W2, submitted 3/31/17 with cross section drawn through Lot 2.
- Exhibit 2, Cross Section Illustration of Lot 2 by abutters/residents and drawn to scale from Exhibit 1.
- Exhibit 3, Stonehill Environmental Plume Path Cross Section/Lot 1 Septic System April 2017.

Steve Cash, 434 South Road, read from his memorandum regarding his concerns on the proposal.

\*Please see attached, Mr. Steven Cash, 434 South Road 4 pages

**Susan Cole-Ross, 333 West Road**, read from Section 306.2, The Purpose of the Aquifer and Wellhead Protection District.

\*Please see attached, Susan Ross, 333 West Road

Dr. Bud Barrett, 290 West Road, stated that in going over the minutes of the June 7th meeting, on page 22, the applicant was asked if a survey had been done. The applicant stated that a survey had not been done. They went out and identified what they could for egg masses. Another member had asked how they came to their conclusions if they were not going to look explicitly to animals of concern for the presentation. The applicant replied that "they do not conduct that kind of standard unless a specific species has been found. A person does not do an analysis, transect or grid, which cost up to \$20,000., when a Blue Spotted Salamander has not been found". He continued that he came across a Vernal Pool Documentation Form that was conducted on April 8, 2016. In vernal pool 1, it is listed that there were approximately 80 Wood Frog egg masses and approximately 70 Spotted Salamander egg masses. He wonders what happened the week before and the week after. Who else came down and used that pool? He stated that in a past life, a large project was scheduled for northern Maine. A species was found that was thought to have been extinct for over 80 years. The only reason they found the species is because they went out and looked. That particular endangered species was one of the "nails in the coffin" for that particular project. He stated that buffer zones are set and are very transitional. The applicant is planning on making a no cut zone, yet he is going to cut right through it to span over the narrowest part of the wetlands. Buffer zones are a lot like homeowner organizations. They'll do whatever the pressure tells them. Deed restrictions can be changed. The applicant is asking to violate the buffer zone and cross the wetland.

\*Please see attached documents submitted by Bud Barrett, 290 West Road Page 22 of the June 7, 2017 ZBA Meeting Minutes Vernal Pool Documentation Form – 2 pages

Carol Menard, 495 South Road, submitted and read from her documents.

\*Please see attached, Carol Menard, 495 South Road 4 pages, including Exhibit 4: Truslow Resource Consulting Technical Memorandum

Regarding Option 2 for access, Ms. Menard stated that this option would not exist if the owner had not left the road in place. It was left in place in violation of the permit termination on May 1, 2015. In regards to whether the 100ft buffer for the vernal pool is enough, the New England District Corps of Engineers Best Management Practice for vernal pools recommends 100 to 750ft of protection area, as the 100ft is not enough. She continued that she is curious to know from Mr. Gove which vernal pool is considered to be the most valuable and why. She would also like to know how much water needs to be pumped out of the vernal pool before construction of the span. In reference to the uniqueness of the property, two very large tracts of land with natural functioning wetlands on the backlands, to the west, abut this site. Another lot was recently developed to the west. Another property to the east also share these same configurations. The only difference is, all of these parcels, except the property at 561 which has 3 new homes, have one home on them. She pointed out that this site is very similar to the land surrounding it on either side. In terms of uniqueness of the property, it is actually very similar to the abutting property.

Chair Weathersby asked Ms. Menard to point out her property on the map and describe any wet conditions.

Ms. Menard pointed out her property on the map. Regarding the question on whether the wetlands continues on, she stated that it does not continue on. It is actually moderately dry land (Ms. Menard was

pointing out the boundary of her lot on the map. which abuts the parcel in question.) She noted that some maps show stream flow coming off her neighbor's property, across her property and down through.

Chair Weathersby asked for the location of her well to be pointed out.

Ms. Menard commented that her well is about 200ft due west.

Chair Weathersby asked if this is from the upland portion of Lot 2.

Ms. Menard stated that it is more in line with the vernal pool.

Hearing no further questions or comments from the public, Chair Weathersby opened back up to the applicant.

Regarding the question about the quantity of fill, Attorney Johnson explained they are not asking for approval for quantity of fill. They are asking for approval for 3,510sf of buffer impact. He continued that they are looking to access the uplands to put a house in there. In looking at the impact, it would be the same in terms of buffer impact. It is the access for the house that they are requesting before the Board. Regarding the deed restrictions, he stated that he knows what has to go into a deed restriction. He has done them for other projects. It is the intent to have a homeowner's association that cannot be changed without the consent of the Planning Board. The homeowner's association will have to be approved by Town Counsel. Town Counsel is going to insist on certain provisions.

Member Crapo stated that it was said earlier that a variance is being requested from 301.8 B 1, surface alterations by addition of fill, excavation and dredging is prohibited. He asked how the Board is supposed to gage how much disturbance that will be without knowing how much fill there is.

Attorney Johnson stated that the total disturbance area will be 3510sf.

Regarding the fill, Chair Weathersby asked for a description of the composition.

Mr. Smith explained the base material is essentially sand. DOT regulations are followed in regards to clean fill. The material will be screened and analyzed to make sure it meets the DOT specifications. There will be bank gravel which has more stone in it and crushed stone on which the pavement actually gets placed.

Chair Weathersby asked if there is any testing done of the materials for contaminants.

Mr. Smith explained the fill typically comes out of a clean pit; however, testing could certainly be a condition.

Chair Weathersby asked if there is other organic matter in the fill.

Mr. Smith replied it is less than 3%.

Chair Weathersby asked about the potential for invasive species and seeds.

Mr. Smith replied that it is virtually none. It is being compacted and any seeds are going to be crushed by the asphalt.

Member Crapo stated that there has been a question as to who filled out the application and who owns the property.

Mr. Falzone explained that he has full registered authority at the Town for the entities and the individual parcels that he has not closed on. The one parcel that has closed is in an LLC. Eventually, all the parcels will be brought together into one entity.

Referring to proposed Lot 2, Member Crapo asked if he owns this parcel.

Mr. Falzone replied that it is owned by Chisholm.

Chair Weathersby commented that there is no documentation from the Chisholms giving permission.

Mr. Falzone noted that documentation was filed with the Planning Board at the beginning.

Chair Weathersby stated that the Board needs something that authorizes WNRV, LLC to bring this to the Board. She asked if there is anything from the Chisholms.

Attorney Johnson commented that this can be provided to the Board.

Chair Weathersby noted that they have nothing in writing from the Chisholm Family. She continued that the Board can continue and if this approved there can be a condition that this be provided or the application can be continued until there is written acknowledgement that they have permission from the landowner.

Member Driscoll stated that it does not change anything for him, one way or the other, as long as the contingency is put in.

Member Crapo commented that it does not change things analysis wise.

Chair Weathersby stated that it sounds like the consensus of the Board is to continue and if this is granted this be made a condition. She asked if Harbor Street, LLC or WNRV, LLC have a signed Purchase and Sale Agreement for this property with the Chisholms.

Mr. Falzone confirmed.

Chair Weathersby asked if there is anyone from the public who would like to speak who has not yet spoken. Hearing no further comments, she closed the public hearing at 9:53 p.m.

Motion by Shawn Crapo to continue the application of Place, Beynon, Carter and Fairchild to the July meeting. Seconded by Patrick Driscoll. All in favor.

Chair Weathersby called for a recess.

The meeting was reconvened at 10:03 p.m.

Chair Weathersby stated that when the Board deliberates they should keep in mind the proposed conditions.

- Septic maintenance agreements
- Low nitrate fertilizers only
- No salt
- No cut in the buffers
- Test the fill for contaminants
- Planning Board approval
- Evidence of authority
- Approval and compliance of all Planning Board conditions

She continued that it is her understanding that the variances being requested are 301.8 B (1), 301.8 B (5). She asked the applicant the width of the area that is being cut.

Mr. Smith replied that the final width of the overall grading is 17 to 18ft to make up the 3510sf.

Chair Weathersby continued that the variances requested are also to 301.8 B (7). The variances are limited to the 3510sf of disturbed area.

Member Driscoll stated that he would have liked the applicant to clearly and efficiently identify the specifics of their variances before they started into their testimony. He appreciates the expertise and intelligence of the applicant and all the experts; however, he felt like it was a little bit wide in what it was addressing, as opposed to addressing certain areas of the variance. With the limited information provided addressing 301.8 B (1), which is surface alteration by addition of fill, excavation or dredging; finding special conditions of the property does not cause the proposed use to be reasonable. He continued it was clearly delineated where the road was. He liked to see there were three other options. That was very helpful to see what was going on and he liked their reasoning. He liked that the Town, in looking over the information, were in agreement on how the applicant delineated everything out. However, he wanted more information. He wanted to see a cross section on exactly what they were going to do for excavation for the path that was there. How many trees are in that area? What needs to be done through that path? He wanted to know the elevations and the height of the proposed bridge. He was a little concerned with the footings and the work that needs to be done for those. He found that it would be tough to handle that work without a decent amount of effected area in the actual wetlands.

Referring to 301.8 B (1), (5) and (7), Member Crapo stated that B (5) and (7) are kind of the subset of B (1). The key being 301.8 B (1), surface alteration by the addition for fill, excavation or dredging is prohibited. The Board has been given the square footage of area that is going to be disturbed. In all of the preparation that has been done, it is still not known how much fill there will be. There has still not been a final design on the bridge that is being proposed. This is a hypersensitive wetland situation where all the details need to be presented.

Chair Weathersby asked why this would matter.

Member Crapo stated that the argument was that they could not do the other option because of the slope of the land. Without a full analysis, there is not really an "apples to apples" comparison to move forward from. Even setting that aside, there is the issue of the impact to the wetlands. Doing nothing on this property, would not have any impact. This other 15 or 16 homes will have a general impact but this is the most direct impact to the vernal pool, which is what most of the buffer is there to protect, and the wetland that is being spanned. In regards to weighing the benefit to the owner versus the benefit to the general public, the applicant kept referring to this as it is similar to the residential neighborhood. It is residential right now for one lot and this is being carved up into several residences. He really wrestles with the reasonableness of trying to get one more lot. He does not think there are fully vested rights just because there are uplands, where water has to be spanned to get to. He does not see this as a vested right in this lot, other than for economic gain. The public does not necessarily benefit from having an extra home. There are other impacts that having that extra home can cause, as well as running vehicles through an area that otherwise would not be disturbed or could be part of another lot. He cannot get past the criteria test that the granting of this crossing is in keeping with the spirit, is not contrary to the public interest and that it outweighs protecting the resource to the public.

Member Mikolaities stated that he was a little discouraged, as complimentary as he was to this group at the last meeting. He seems like it was such a narrow focus. It seems like this was a Planning Board presentation. He would have liked to have seen the applicant address 301 and "dive" down into it. He understands what is being done and he has a lot of respect for the consultants. However, the burden is on them and he does not feel like they passed the burden test tonight. For a variance, the Board has to go through the votes and it is very specific language. He commented he was under impressed with this presentation. He does not think the information came through on why they are before the Board of the variances. He wanted more from the presentation.

Chair Weathersby asked if he had concerns about the project.

Member Mikolaities stated that he thinks it was less of a burden for the special exception. He voted "yes" last month. He is 100% struggling with this one.

Member Hoyt stated that he has had some time to think about this particular case. A variance is being requested to cross wetlands. The Board is being asked to look at a small portion of this project and not look at the bigger picture; however, that cannot be helped. It is 2 acres of upland. What other animals are going to be disturbed? Animals live there. There was a comment from the public that the setbacks from the vernal pool could be bigger because of the sensitivity of the area. He commented that he took that to heart but he also understands the applicant. He believes this project would be a beautiful homestead but not everyone would be a good steward of the property. He continued that he trusts the science, yet it is such a sensitive area and there is such a large amount of space. He is sure the bridge will work and the water will go underneath fine. He is having a hard time jumping on board with this application because it is so sensitive of an area.

Chair Weathersby stated that she disagrees about the presentation. She felt that it was helpful to have that much more information because the systems are all interconnected. It is such a sensitive area with the Aquifer and the amount of wetlands. She continued that is it a beautiful area and a very environmentally

sensitive area. After this presentation, she does not really have a problem with the groundwater aspect of the project. Her big issue is with the water runoff that is caused by the driveway and what the driveway allows which is the development of Lot 2. She is concerned about the cars, delivery trucks, everything else crossing the wetlands and the contaminants. It crosses the wetland and the flowing water that connects into this other system. She continued that they have said that they are not going to allow salt and sand on the roads; however, who is going to police this back in the woods. It's a nice aspiration but she has a concern that it will not be followed. She was disturbed by the results of the Hoefle Subdivision. There were problems with three out of five septic systems when there were safeguards in place that were not followed. There can be covenant and restrictions but there is some danger that the environment will not be protected by homeowners not following those. She continued that she looks at this as a blank slate. She thinks there is an alternative access to that land but another house lot might be lost. The applicant is trying to maximize the house lots. She understands that and understands the economic component to all of this. However, it is kind of torturing the land and endangering the environment by trying to get a house lot in this Lot 2 area as they are. She also does not feel there are special conditions of this property that distinguish it from other properties in the area. The properties are similar with a mixture of wetlands and uplands. She thinks that even this one lot will change the characteristic of the neighborhood. She is also concerned about Ms. Menard's well; however, she did not hear enough about that to have an opinion. The development of Lot 2 will have impact to neighboring property owners, particularly Ms. Menard.

Member Crapo commented it is an "island of upland". In looking at the map, it touches three different wetland areas and the buffers. Part of the buffer is not necessarily just the water, in particular with the vernal pool. Animals travel and that is how they use this vernal pool. Injecting a house in there and the activities related to it is affecting the animal travel and the use of the pool. He cannot see there is a benefit to gain by putting a house in there. There was no information that showed they have to get to this land. He noted that it is a clean slate. The whole subdivision could be reconfigured differently. The neighborhood is made up of homes that are close to the road with a large tract of land. The homes were all integral to a farm of some nature at one time, not 17 homes with an HOA. It definitely is changing the character of the area. He pointed out there are a series of three wetland areas around this land that would be negatively impacted by granting the variances and enabling the development of the home.

Chair Weathersby commented that she had some concerns about the vernal pool. She had more concerns about the wetland to the north, as it seems to be the way the water is flowing and the way the topography of the land goes. She is concerned about how that will be affected by the way the road is constructed, the development of the home and the nitrates flowing down into the larger wetlands to the west.

Hearing no further comments from the Board, Chair Weathersby called for a vote on variance relief for Section 301.8 B (1), surface alteration by the addition of fill, excavation or dredging are prohibited:

#### 1. Granting the variance would not be contrary to the public interest?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities – No Patricia Weathersby - No

#### 2. The spirit of the ordinance is observed?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities - No Patricia Weathersby - No

3. Substantial justice is done?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities - No Patricia Weathersby - No

4. The values of surrounding properties are not diminished?

Shawn Crapo - No Patrick Driscoll – Yes Charles Hoyt - Yes Gregg Mikolaities – No Patricia Weathersby - No

5. There are special conditions of the property that distinguish it from other properties in the area?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities – Yes Patricia Weathersby - No

6. There is no fair and substantial relationship between the general purposes of the ordinance provision and the specific application of that provision to the property?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities – No Patricia Weathersby - No

7. The proposed use is a reasonable one?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities - No Patricia Weathersby - No

# 8. Therefore, literal enforcement of the ordinance would result an unnecessary hardship?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities — No Patricia Weathersby - No

Chair Weathersby called for a vote on Section 301.8 B (5), cutting of trees:

### 1. Granting the variance would not be contrary to the public interest?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities – No Patricia Weathersby - No

### 2. The spirit of the ordinance is observed?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities – No Patricia Weathersby - No

# 3. Substantial justice is done?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities – No Patricia Weathersby - No

### 4. The values of surrounding properties are not diminished?

Shawn Crapo - No Patrick Driscoll – Yes Charles Hoyt - Yes Gregg Mikolaities – No Patricia Weathersby - No

5. There are special conditions of the property that distinguish it from other properties in the area?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities – Yes Patricia Weathersby - No

6. There is no fair and substantial relationship between the general purposes of the ordinance provision and the specific application of that provision to the property?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities - No Patricia Weathersby - No

7. The proposed use is a reasonable one?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities - No Patricia Weathersby - No

8. Therefore, literal enforcement of the ordinance would result an unnecessary hardship?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities - No Patricia Weathersby - No In regards to the tree cutting, Chair Weathersby noted that the Board did not receive information about the amount of trees being cut, the quality of the trees or the amount of vegetation. The applicant did not meet the burden of showing this would not have an impact.

Chair Weathersby called for a vote on Section 301.8 B (7), all other uses prohibited in the buffer:

### 1. Granting the variance would not be contrary to the public interest?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities – No Patricia Weathersby - No

# 2. The spirit of the ordinance is observed?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities – No Patricia Weathersby - No

### 3. Substantial justice is done?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities - No Patricia Weathersby - No

#### 4. The values of surrounding properties are not diminished?

Shawn Crapo - No Patrick Driscoll – Yes Charles Hoyt - No Gregg Mikolaities – No Patricia Weathersby - No

# 5. There are special conditions of the property that distinguish it from other properties in the area?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - Yes Gregg Mikolaities – Yes Patricia Weathersby - No 6. There is no fair and substantial relationship between the general purposes of the ordinance provision and the specific application of that provision to the property?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities - No Patricia Weathersby - No

7. The proposed use is a reasonable one?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities – No Patricia Weathersby - No

8. Therefore, literal enforcement of the ordinance would result an unnecessary hardship?

Shawn Crapo - No Patrick Driscoll - No Charles Hoyt - No Gregg Mikolaities - No Patricia Weathersby - No

Motion by Shawn Crapo to deny the variances with the decision being final at such time the Board approves the Notice of Decision. Seconded by Charles Hoyt. All in favor.

Robinson & Kimberly Berry of 52 Spring Street, East Greenwich, RI for property owned and located at 21 Brackett Road, Tax Map 22, Lot 70 request a Variance from Section 301.8 B (1) & (7) to allow for a porch 95' from the wetland where 100' is required. Property is in the Single Residence District, Flood Zone AE (9). Case #16-2017.

Attorney Tim Phoenix, representing the applicants, presented to the Board. He explained that it is a fairly large lot. The house has been placed very far to the front and very far to the right within the building envelope. The reason for the location is that there is a fair amount of ledge around the lot. When the Berry's got the house approved, they did get Shoreland Approvals for the house. After moving in, they decided that in order to have an exit out the back and enjoy the views of the marsh, they would like have a small enclosed porch; 8x16ft. He pointed out that it just barely breaks into the wetland buffer. They request is for 95ft from the wetland buffer, where 100ft is required. The Conservation Commission has looked at this proposal and has submitted a letter to the Board.

\*Please see attached, Rye Conservation Commission letter, 4/30/17

Attorney Phoenix noted that the Berries are agreeable to a stipulation that the buffer will be left in its natural state and no lawn will be established in the buffer.

Member Mikolaities asked if the porch is seasonal with no utilities.

**Robinson Berry, applicant**, replied that it is a screened porch that is not heated.

Attorney Phoenix reviewed through the criteria for granting the variances.

Member Crapo asked if the measurement is 95ft to the drip edge.

Alex Ross, Ross Engineering, confirmed.

Member Driscoll asked if there were any plans for gutters.

Mr. Berry replied that there were no plans for gutters.

Member Driscoll asked if the deck would be in the side yard setback if it was located on the north side of the house.

Attorney Phoenix confirmed. The side yard setback is a foot or so off the house.

Chair Weathersby asked if the porch will be on tubes or a foundation.

Mr. Berry replied it will be on sonotubes on ledge.

Chair Weathersby opened to the public.

**Mike Thiel, 34 Brackett Road**, stated that as long as the stipulations of the Conservation are met, he is fine with the project. He thinks it would be a hardship in that particular setting to not have a porch.

Hearing no further comments from the public, Chair Weathersby closed the public hearing at 10:55 p.m.

The Board did not have any issues with the proposal.

Chair Weathersby called for a vote on Section 301.8 B (1) and (7), assuming that the Conservation Commission's request is applied; the tidal buffer will be left in its natural state and no lawn will be established in the buffer. If the owners wish to additional plantings to the buffer, they must be included in the NH DES list of native plants.

#### 1. Granting the variances would not be contrary to the public interest?

Shawn Crapo - Yes Patrick Driscoll - Yes Charles Hoyt - Yes Gregg Mikolaities – Yes Patricia Weathersby - Yes

# 2. The spirit of the ordinance is observed?

Shawn Crapo - Yes Patrick Driscoll - Yes Charles Hoyt - Yes Gregg Mikolaities – Yes Patricia Weathersby - Yes

#### 3. Substantial justice is done?

Shawn Crapo - Yes Patrick Driscoll - Yes Charles Hoyt - Yes Gregg Mikolaities – Yes Patricia Weathersby - Yes

#### 4. The values of surrounding properties are not diminished?

Shawn Crapo - Yes Patrick Driscoll - Yes Charles Hoyt - Yes Gregg Mikolaities - Yes Patricia Weathersby - Yes

# 5. There are special conditions of the property that distinguish it from other properties in the area?

Shawn Crapo - Yes Patrick Driscoll - Yes Charles Hoyt - Yes Gregg Mikolaities — Yes Patricia Weathersby - Yes

# 6. There is no fair and substantial relationship between the general purposes of the ordinance provision and the specific application of that provision to the property?

Shawn Crapo - Yes Patrick Driscoll - Yes Charles Hoyt - Yes Gregg Mikolaities — Yes Patricia Weathersby - Yes 7. The proposed use is a reasonable one?

Shawn Crapo - Yes Patrick Driscoll - Yes Charles Hoyt - Yes Gregg Mikolaities – Yes Patricia Weathersby - Yes

8. Therefore, literal enforcement of the ordinance would result an unnecessary hardship?

Shawn Crapo - Yes Patrick Driscoll - Yes Charles Hoyt - Yes Gregg Mikolaities – Yes Patricia Weathersby - Yes

Motion by Shawn Crapo to grant the variances to Sections 301.8 B (1) and (7) to allow a porch 95ft from the wetland where 100ft is required with the condition of the adherence to the Conservation Commission's recommendations on lawn and plantings. Seconded by Charles Hoyt. All in favor.

- 3. Carmen & Katherine Place for property owned and located at 11 Fairhill Ave., Tax Map 20.2, Lot 96 request Variances from 603.1 for expansion of part of the existing non-conforming structure; from Section 204.3 C for an addition 22' from the front boundary of Fairhill Ave and a garage 21.6' from the front boundary of Eagle Rock Road where 30' is required; from Section 204.3 B for an addition 16.6' from the side property line where 20' is required; and from Section 304.5 for dwelling coverage where 11.7% exists, 17.1% is proposed and 15% is allowed; from Section 301.8B (2) for a septic tank 65' and a leachfield 62.3' from wetlands where 75' is required; and from Section 202.5 for a leachfield setback of 14.4' of rear property line where 20' is required. Applicant requests relief from the Building Code Section 7.9.2.2 for a septic tank that is 65' and a leachfield that is 71.4' from wetlands where 75' is required. Property is in the General Residence, Coastal Overlay District. Case #17-2017.
  - Continued to the July meeting. (See motion above.)
- 4. Charles & Lindsay Beynon of 362 Main Street, Unit 2, Charleston MA for property owned and located at 30 LaMer Drive, Tax Map 13, Lot 44 request Variances from Section 603.2 to tear down an existing building and replace with new; and from Section 301.8B (1) and 301.8B (7) for a driveway 56' from tidal marsh where 100' is required; from Section 203.3B for a building 15.2' from the side property line where 20' is required; and from Section 203.3C for a building 35.2' from the front property line where 40' is required. Property is in the single Residence District. Case #18-2017.
  - Continued to the July meeting. (See motion above.)

- 5. Stephen & Adela Carter for property owned and located at 620 Wallis Road, Tax Map 16, Lot 104 request Variances from Section 203.3A for a shed 10' from the rear property line where 30' is required and from Section 203.3B for shed 10' from the side property line where 20' is required. Property is in the Single Residence District. Case #19-2017.
  - Continued to the July meeting. (See motion above.)
- 6. Glenn Walker & Elizabeth Fairchild for property owned and located at 531 Brackett Road, Tax Map 17, lot 47 request a variance from Section 510.3 to allow for an 8ft fence where 6ft is allowed. Property is in the Single Residence District. Case #20-2017
  - Continued to the July meeting. (See motion above.)

# Adjournment

Motion by Patrick Driscoll to adjourn at 11:01 p.m. Seconded by Gregg Mikolaities. All in favor.

\*All corresponding paperwork and documents may be viewed at the Building Department, Rye Town Hall.

Respectfully Submitted, Dyana F. Ledger

Attachements 6-21-17

# **BOARD OF ADJUSTMENT**

-Rye, New Hampshire-

# NOTICE OF DECISION

Applicant/Owner:

Robinson & Kimberly Berry of

52 Spring Street, East Greenwich, RI

Property:

21 Brackett Road, Tax Map 22, Lot 70

Property is in the Single Residence District, Flood Zone AE(9)

Application case:

Case # 16-2017

Date of decision:

June 21, 2017

Decision:

The Board unanimously voted to grant the applicant's request for a Variance from Section 301.8 B (1) & (7) to allow for a porch 95' from the wetlands with the condition

- The tidal buffer be left in its natural state;
- That no lawn be established in the buffer; and
- If the owners wish to add any plantings to the buffer, they must be included in the NHDES list of native plants.

Patricia Weathersby,

Chairman

Note: This decision is subject to motions for rehearing which may be filed within 30 days of the above date of decision by any person directly affected by it including any party to the action, abutters and the Rye Board of Selectmen; see Article VII. Section 703 of the Town of Rye Zoning Ordinance. Any work commenced prior to the expiration of the 30 day rehearing / appeal period is done so at the risk of the applicant. If a rehearing is requested, a cease and desist order may be issued until the Board of Adjustment has had an opportunity to act



6-21-17

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Mark B. Johnson (MA, NH, DC) Donald F. Borenstein (MA, ME, NH)

> Lorri S. Gill (MA) Rachel Davis Baime (MA) Gregory R. Richard (MA, NH) Kathleen M. Heyer (MA, NH) Thomas D. Orr (MA)

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www.jbllclaw.com mark@jbllclaw.com

To: Zoning Board of Adjustment

From: Mark B. Johnson, Esq.

Date: June 21, 2017

Re: Stoneleigh Preserve, South Road, Rye, NH - Proposed Lot 2 Variance

Dear Members of the Zoning Board:

We have applied for a variance from § 301 (Wetlands Conservation District) of the zoning bylaw, which states, in relevant part:

- A. Buffer Description. The Wetlands Buffer shall include all land . . . 1. Within 100 feet of . . . the edges of all . . . vernal pools . . . 2. Within 75 feet of wetlands one (1) contiguous acre or larger in size . . . .
- B. Buffer Restrictions. The following restrictions shall apply in the Wetlands Buffer. Where such restrictions conflict with other requirements of this ordinance, the stricter regulation shall apply.
  - 1. Surface alteration by the addition of fill, excavation or dredging is prohibited.
  - 2. Septic systems are prohibited.
  - 3. Uses permitted by S 301.5 are permitted, provided that there is no surface alteration by the addition of fill, excavation or dredging.
  - 4. Signs that identify historic, conservation or wildlife areas are permitted.
  - 5. a. Forestry and woodlot management is permitted in accordance with sound forestry management practices provided that no more than fifty percent (50%) of the basal area shall be cut.
    - b. In other situations, thinning of existing brush and trees is permitted provided that there be no:
      - 1. Clear Cutting; or
      - 2. Cutting of live trees greater than four and one-half inches (4-1/2") in diameter, measured at a height of four and one-half feet (4-1/2') above ground level.

- 6. Uses permitted by Special Exception pursuant to § 301.7 may be permitted by Special Exception in the Wetlands Buffer, subject to the requirements of § 301.7.
- 7. All other uses are prohibited

We have requested a variance from § 301 to construct a driveway within the outer edge of wetland and vernal pool buffer areas on proposed Lot 2, which driveway will cross over but not physically alter any wetland soils, to provide access to upland to the west of wetland and buffer areas.

We believe we meet the requirements for a variance as follows:

# 1. The variance will not be contrary to the public interest

a. Granting the variance wouldn't alter the essential character of the locality

The locality is residential development. The granting of a variance to access uplands for a residential house lot will not alter the essential character of the locality or the neighborhood.

b. Granting the variance wouldn't threaten public health, safety, or welfare

The access driveway will not threaten public health, safety, or welfare, and will not cause any detrimental impact to the environment. The driveway crossing is down slope and downgradient from the vernal pool with respect to surface water flow and groundwater flow, respectively. The driveway crossing will also not interrupt existing surface or overland water flowpaths.

### Gove Environmental:

To determine the justification for any wetland, or wetland buffer, impact one considers compliance with the US Army Corps of Engineers avoidance and minimization standard (404B.1 Guidelines).

The Army Corp standard (paraphrased) is to use available technology and existing scientific knowledge to design the project to avoid and minimize, to the maximum extent practicable, wetland impacts. Where wetland impacts cannot be avoided, then compensatory mitigation should be provided either on site or off site.

Applying this standard, we conclude that granting a variance will not threaten public health, safety, or welfare – the access driveway will not increase flooding, will not endanger public health or safety in any other way, and will not cause any detrimental impact to the environment. There will be no direct impact to the wetland and minimal impact to the buffer.

Examples of potential detrimental impacts to wetlands and wetland buffers include: i) sedimentation into wetlands; ii) removal of excessive vegetation in buffer (clear cutting); iii) leachate from septic system entering the wetlands; and, iv) runoff from lawns and other surfaces into wetlands.

- i. The potential impacts of sedimentation and erosion will be avoided on Lot 2 by installation of a silt fence/wood chip berms/and coir logs to contain sedimentation during construction.
- ii. No cutting of vegetation in the buffer or wetland areas will be permitted after construction and occupancy of the residence, and the buffer areas will be marked in the field and noted on the deed.
- iii. The septic system leachfield is located 130 feet side gradient from the wetland area with respect to the local groundwater flow direction which has been well documented to flow to the north. As such, —any discharge from the septic system will flow to the north away from the, vernal pool.
- iv. The forested vegetated buffer will be maintained in its natural state, due to signage and deed restriction, thereby avoiding potential impacts from lawn nutrient runoff and runoff from other surfaces. 100' feet of forested upland has been proven by scientific studies to provide uptake of nutrients from lawn runoff.

# 2. The spirit of the ordinance is observed

a. Granting with variance wouldn't conflict with the zoning bylaw's basic objectives

The basic objective of the bylaw is to minimize negative impacts to the wetlands and wetlands buffer while permitting an owner reasonable use of the property. Granting a variance is appropriate because the access driveway as designed minimizes impacts to the buffer, has no direct impact to the wetland resource, and allows for use of the property.

# Gove Environmental

Granting the variance will allow reasonable use of the property while minimizing negative impacts on the wetlands and wetland buffers. Minimization of negative impacts to the wetlands and wetland buffer includes minimizing secondary impact effects from development. Secondary impacts include: removal of vegetation adjacent to the wetland, runoff into the wetland, sedimentation into the wetland, and isolation of the wetland by surrounding it with development adjacent to the wetland boundary.

The access driveway as designed will not impact the wetlands and will minimally impact the wetland buffer.

Secondary impacts have been minimized as well. Vegetation removal will occur only within the driveway bounds, and secondary vegetation impacts will be minimized through maintenance of existing vegetation after occupancy of the proposed residence through signage around the buffer and deed restrictions. Secondary impacts of runoff into the wetland is minimized by maintenance of siltation and erosion controls during construction, locating the bridge and driveway such the runoff goes away from the vernal pool area, and maintaining the vegetation in the wetland buffer by restriction of cutting or removal of forested vegetation. Secondary impacts of isolation have been minimized by protecting the remaining buffers around the wetlands by restriction of cutting the forested habitat, by only cutting vegetation in a narrow band to access the uplands by the driveway, and by not restricting amphibian movement (no curbing on the driveway).

# StoneHill Environmental

Due to the minimal disturbance of the proposed driveway crossing construction, granting the variance for the driveway crossing will not have any discernable impact on the hydrogeologic characteristics of the locality or threaten public health, safety or welfare. The driveway crossing will have no impact on groundwater flow direction across Lot 2 or on nearby properties. Over ten rounds of groundwater elevation data collected over the past nine months from monitoring wells installed in the vicinity of Lot 2 indicate a consistent and strong groundwater flow direction to the north. Installation of the driveway crossing will have no impact on the flow of groundwater to the north. With respect to water quality, the potential incidental impacts to groundwater quality from fluid drippages from vehicles, or driveway maintenance, would be minimal and, if present, be very localized in the immediate vicinity of the driveway little or no impact on the wetlands and wetland buffer.

#### 3. Substantial justice is done

A loss to the individual developer that is not outweighed by a gain to the general public is not substantial justice.

There is a need for residential housing in Rye; it is clear that Rye is a preferred place to live. The creation of a new lot by access to the upland will allow for more housing in Rye. That being said, 17 lots on a 100-acre parcel cannot be considered "overdevelopment." The general public gains by having additional housing. There is no loss to the general public, as there are minimal impacts to the wetland buffer and no direct impact to the wetlands.

# 4. The values of surrounding properties are not diminished

The values of the surrounding properties will increase as the proposed house will have a value in keeping or exceeding other homes in the area.

# 5. Literal enforcement of the provisions of the ordinance would result in an unnecessary hardship

- a. "unnecessary hardship" means that, owing to special conditions of the property that distinguish it from other properties in the area:
  - i. No fair and substantial relationship exists between the general public purposes of the ordinance provision and the specific application of that provision to the property; and

#### Gove Environmental

"Special conditions of the property that distinguish it from other properties in the area:" the only viable upland on the property is isolated by wetlands and wetland buffers.

The "general public purposes of the ordinance" are to protect the wetlands and wetlands buffer and minimize any impact to either resource. These purposes are met: the driveway as designed protects the wetland and wetland buffer, including the bridging of the wetland to avoid any direct impacts to it. There is no significant impact to the resources. Applying the ordinance provision effectively eliminates any use of the lot, as the upland cannot be accessed without crossing resource areas. As designed all direct impacts to the wetlands are avoided. All practicable methods of avoidance and minimization have been employed to ensure minimal impact on the resource areas while permitting use of the property. These methods include: crossing at the narrowest point of the wetland, restoring previously impaired wetlands (not just on this property), controlling construction activities to avoid excess sedimentation into the wetlands, controlling clearing of vegetation during and after construction, and reducing potential secondary impacts as discussed above.

#### ii. The proposed use is reasonable

The proposed use of the property is to construct a single-family home, specifically allowed in this zoning district. It is reasonable to permit a land owner to access the only viable uplands on the property. This driveway is the most reasonable location and designed to provide access to the upland area with the least impact to the natural resources.

b. <u>If can't meet definition of (A), then "unnecessary hardship" will be deemed to exist if, and only if, owing to special conditions of the property that distinguish it from other properties in the area, the property cannot be reasonably used in strict</u>

<u>conformance</u> with the ordinance, and a variance is therefore necessary to enable a reasonable use of it.

# Gove Environmental

"Special conditions of the property that distinguish it from other properties in the area:" the only viable upland on the property is isolated by wetlands and wetland buffers. If strict conformity with the ordinance is met, this lot cannot be used for the uses permitted in the district by the zoning bylaw, which means no reasonable use of the property. The usable upland cannot be accessed without crossing wetlands or wetland buffers. Access to viable uplands has always been considered reasonable, regardless of the use; where the proposed use is a single-family home, explicitly allowed in the district, the use is even more reasonable.

# ALTERNATIVE ANALYSIS 4 scenarios for use of Lot 2

# Option 1 (preferred)

Access to Lot 2 across Lot 2 - the access as described in the variance application. Restoration of 231 sf of wetland, crossing of 132 sf of wetland, with total buffer impact of 3,510 sf. A narrow driveway will have a minimal impact on the wetland buffer, no direct impact on wetlands via the bridge that spans the wetlands, accompanied by wetland restoration. Continued protection of the wetland and wetland buffers after construction. Deeds clearly note the restrictions. Signage to protect the remaining vernal pool buffers and wetland buffers on Lots 1, 2, 3 and 4. We should further suggest we will put buffer planting of evergreens (spruce or fir) to either side of the driveway following construction and between the building envelop and the vernal pool at the edge of the lawn on proposed Lot 2. This option will have no impact on Vernal Pool 1 or 2 which are upgradient of the driveway crossing with respect to surface water and groundwater flow.

#### Option 2

Access to Lot 2 via Lot 1 – the access will follow the well-developed access road, previously used for logging, which crosses through the wetlands and wetland buffers on Lots 1 and 2 (see plan). Driveway through 1,159 sf of wetlands, and through 4,750 sf of buffer. The driveway would cross the wetlands and buffer in the area of the old logging road to minimize tree clearing and disturbance to the forest. If the logging road is retained and the driveway created at that location to access the uplands on Lot 2, the impacts to the wetlands and vernal pools are greater, despite the intended use of culverts to prevent ponding on the upslope side of the driveway. This driveway is closer to the vernal pool with increased potential for direct runoff into the vernal pool. More buffer will be impacted. The wetlands would not be restored, so direct wetlands impacts would remain. Greater impacts to wetlands and wetland buffer.

#### Option 3

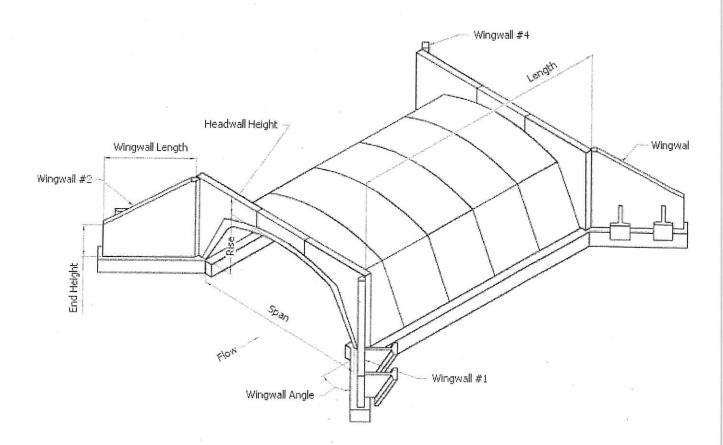
Access to Lot 2 via Lots 3 and 4 – a new driveway would be created as shown on the plan. Impact 4,560 sf of wetland buffers. This option would require the construction of a long, curved driveway, commencing at the subdivision road, heading west, and then curving to the south toward Lot 2. It would penetrate the buffer between the wetland that is downslope of the vernal pool and the wetland that extends onto the western abutting property. There would be no wetland bridge to construct. There would be extensive clearing of trees, as this area was not as heavily logged as the two other proposed driveway locations. Importantly, the topography must be considered. In contrast to the other two options, which are relatively flat, this proposal would run down a slope. Therefore, runoff from the driveway would flow downslope in a northerly direction and into the wetland that extends onto the abutting property to the west. It will

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flow to the north, both through wetlands and uplands, to the large red maple/white pine wetland at the top of the slope. Because it is a sloping driveway, the homeowner will need to use salt and sand on the driveway for safety, and to maintain traction to make the curve to the subdivision road. This will be part of the runoff from this lengthy driveway.

### Option 4

No build – no use of Lot 2, combine this lot with either Lot 1 or Lot 3, no access to the uplands of Lot 2. This prevents any reasonable use of Lot 2 by the property owner. Further it would have the potential for the long-term degradation of the vernal pool area as forestry is permitted, as is the removal of all understory up to trees of 4 1/2 inches in diameter. This would allow for all the shrubs and herbaceous layers to be removed, turning the whole area of buffer and some portions of the wetlands into a virtual park scene. The removal of the understory destroys much of the habitat that is utilized by the vernal pool species. Without the protections the applicant proposes to provide by the way of permanent no-cut areas of the buffer, it is very possible that a land owner will seek to "clean up" his/her property by removing the understory to have a nice area to walk in, all as allowed by the ordinance.



# BEALS · ASSOCIATES PLLC

6.21-17

70 Portsmouth Avenue Stratham, N. H. 03885 Phone: 603-583-4860

Fax: 603-583-4863

Date: June 21, 2017

Rye Zoning Board of Adjustment 10 Central Avenue Rye, NH 03870

Re:

Residential Subdivision at 421 South Road, Rye, NH

Tax Map 4, Lots 2, 27, 31 & 32

Dear Members of the Board:

This is written in support of the variance request specific to proposed lot #2 within the referenced subdivision (pending Planning board approval).

This correspondence shall serve as written verification that the Planning Board's civil engineering consultant (Sebago Technics) has reviewed and vetted the design plans to include individual lot development plans lots. Sebago has completed their final review of the plan sets and drainage analysis and issued a memo citing that the design plans and proposed drainage conveyance and treatment structures are in compliance with the Town of Rye's Land Development Regulations.

A copy of the individual lot development plan for proposed lot #2 and the memo from Sebago is attached for your records.

Sincerely,

Christian O. Smith, P.E.

Principal

Attachments



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3 Gove Environmental Services, Inc.

Memorandum

Date:

Wednesday, June 21, 2017

To:

Town of Rye, Zoning Board of Adjustment

From:

Jim Gove

Re:

Stoneleigh Preserve, South Road, Rye, NH

Subject:

Proposed Lot 2 Variance Natural Resource Summary.

It is the opinion of Gove Environmental Services, Inc. that variance requested for the placement of a driveway to access the uplands on proposed Lot 2 is the least impacting alternative for the project purpose. Our opinion is based upon the following:

As with any project, the resource, whether a wetland or a wetland buffer, needs to be identified, and then alternatives explored to determine the least impacting method of designing the project.

The Resource: The wetland was delineated and the boundaries confirmed by the Town's consultants. It is primarily a forested wetland area which was heavily logged several years ago. This forestry activity included extensive removal of trees (but would not be considered a clear cut), and fill placed in three locations to access the staging area that is currently proposed at the Lot 2 residential development envelope. Within a portion of this delineated forested wetland are two vernal pools. A small pool is located on the southern border of Lot 2 with Lot 1. The larger pool exists entirely on Lot 2. The assessment of both pools found egg masses of wood frogs and spotted salamanders. More importantly, egg masses of the rarer Jefferson-Blue Spotted Salamander or the Marbled Salamander were not found in these pools, nor in any of the other pools located on the site. Wood frogs and spotted salamanders are widespread and secure (not rare) throughout New Hampshire. During the spring, the vernal pool fills to capacity and flows out of the pool to the north into a long, narrow forested wetland that reaches a level area and the water sinks into the earth. It does not continue draining to the north to the large forested wetland at the toe of the hillslope.

Alternatives Analysis: Criteria for an alternatives analysis, typically conducted for direct wetland impacts, but can be applied to wetland buffer impacts, is based upon the U.S. Army Corps of Engineers avoidance and minimization standards that are outlined in the Clean Water Act 404B.1 Guidelines. To paraphrase, using the available technology and the existing scientific knowledge, the project should be designed, to the maximum extent practicable for the project purposes, avoid and minimize wetland (or wetland buffer) impacts. Those impacts that cannot be avoided, shall provide compensatory mitigation.



The Alternatives:

Option 1 is the preferred option. It has a total buffer impact of 3,510 square feet, which includes both verbal pool buffer and wetland buffer. The wetland area, which was partially filled by the logging operation, will be spanned by an open-bottom box culvert and the wetland restored. The fill will be removed. This bridge type structure will have footings placed outside of the restored wetland boundary. Such activities as spanning a wetland are allowed under NH DES Wetlands Bureau Rules Env-Wt 303.05 Project That Do Not Require a Permit, paragraph (r). By spanning the wetland area, the flow path of the vernal pool discharge is not interrupted or altered, i.e. no direct impact on the wetland.

With no direct impact, the alternatives analysis then focuses on secondary impacts, such as: 1) sedimentation into wetlands; 2) removal of excessive vegetation in the buffer; 3) leachate from septic system entering the wetlands; 4) runoff from lawns and other areas from entering the wetlands.

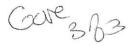
Sedimentation into wetlands will be avoided by the installation of erosion controls during construction and stabilization by vegetation following construction. To avoid runoff impacts to the vernal pool on a long-term basis, the driveway is downslope and is pitched to runoff away from the vernal pool. A no-cutting restriction placed upon the remaining wetland and vernal pool buffer areas with provide a greater level of protection than is currently afforded by the wetlands ordinance. Further, the buffer will be marked onsite, and buffer plantings of evergreens (spruce or fir) will be placed along either side of the driveway to enhance the existing vegetation in the buffers, as a form of compensation for the buffer impacts.

The impact of the septic system has been documented by StoneHill Environmental, Inc. in detail and will not be covered by this summary.

Runoff from lawns and other areas is mitigated by the presence of a no-cut, no-disturb buffer. It is well documented in "Buffers for Wetlands and Surface Waters – A Guidebook for New Hampshire Municipalities," May 1997, that a 100-foot undisturbed forested buffer will remove virtually all the runoff pollutants from farm fields and other areas. Maintenance of a no-cut, no-disturb forested buffer is key to protecting the vernal pool.

Option 2 would access proposed Lot 2 through Lot 1. It would have a total wetland buffer impact of 4,750 square feet, including both vernal pool and wetland buffers. This would utilize the existing logging haul road that filled in two wetland areas. The Planning Board has requested that the applicant restore the filled areas, which total 1,159 square feet. To utilize this option would require retention of the wetland impact; the wetlands would not be restored as requested by the Planning Board. The driveway would be closer to the vernal pools than in Option 1, and runoff would drain





directly into the vernal pools. The greater buffer impact and direct wetland impacts make this not the preferred option.

Option 3 would access proposed Lot 2 through Lots 3 and 4, curving around a portion of the wetland buffer. This option would impact 4,560 square feet of wetland buffer. The first portion of the impact in the buffer was located to avoid the 4,000 square-foot required septic system area on Lot 4. The second impact area goes directly upslope to the upland on Lot 2. The difficulty associated with this option is the construction and maintenance of a driveway on a slope. Unlike Options 1 and 2, which are relatively flat topography, this option has a sloping driveway that will runoff into the buffers on both the west and east, and potentially into both the wetlands located to the west and east. A sloping driveway will require the homeowner to utilize excessive salt and sand to allow safe passage in icy conditions. The long-term impacts of such usage will have a detrimental impact on the natural resources. Further, this option will require more tree cutting than either Option 1 or Option 2. This area was left in a more forested state than the access points identified in Options 1 and 2. Due to the potential from pollutant runoff from the sloping driveway and the more wetland buffer impacts, this is not the preferred option.

No-Build Option: The no build option would eliminate proposed Lot 2. It would deny all access to the uplands on Lot 2, and would render virtually no use of this area. This does not seem reasonable that uplands cannot be accessed. Further, there are long-term consequences of making this lot unbuildable and merging it with the other lots. The wetlands ordinance allows forestry in wetland buffers, and allows up to 50% of the basal area to be removed. It further allows for removal of all vegetation that is less than 4½ inches in diameter. Long-term, the areas of the buffer could become a virtual park with all removal of the herbaceous and shrub layers, all allowed by the ordinance. While this is not a certainty, homeowners typically find ways of expanding their outside living space. Removal of the herbaceous and shrub layers below the tree canopy will virtually doom the species utilizing the vernal pool. Option 1 will keep the forested areas of the buffer in a no-cut, no disturb state, with no removal of herbaceous or shrubs layers allowed.

For the above reasons, GES, Inc. opines that Option 1 is the preferred option to access the viable upland on proposed Lot 2.





I am Anne Hodsdon, 427 South Road

I am here tonight along with my fellow neighbors and abutters as we share a number of common concerns that need to be raised as a group. Toward a goal of efficiency, the discussions by abutters and concerned Rye residents represent consensus of thought of the entire group. We believe the special exception and variance do not meet the requirements of Rye's regulations and more importantly are **premature**.

R 6-21-17

We urge the Board of Adjustments **to deny this special exception and variance** for a driveway crossing **through** a valuable and historic wetland ecosystem **as it fails** to satisfy various criteria for the special exception and variance.

We have read the application and it is **complex and multi layered** as the owner, the Chisholm Family Trust, Tax Map 4, lot 25, is not the applicant, but rather, Harbor Street LLC. The application intertwines special exception and variance criteria from the property owner's perspective with that of the applicant's intentions. Harbor Street LLC's intentions are subject to actually closing and obtaining ownership of several Tax Map 4 parcels (25, 27, 32) and gaining Planning Board approval for a major housing development combining these parcels along with parcel 31 for a proposed 17 lot subdivision.

First, given the fact that there are significant seasonally wet, poorly draining soil areas along with some designated wetlands on, and adjacent to, proposed lot 2, and that this land has already been disturbed by the logging road, which according to Rye's regulations should have been restored by the **owner** over two years ago and coupled with last year's severe drought, it is impossible to totally assess the size of the regulation protected areas, the vernal pools and their respective buffers at a **high water state** until the **restoration** has been completed and a season cycle has occurred. Hence, it is **premature** to truly know that **the impact** will be only **minimal.** In addition, the fact that these wet parcels and vernal pools exist within a complex ecosystem completely within Rye's Wellhead Protection District where the natural topography has water flowing into an abutting Nature Conservancy land parcel that protects a rare Atlantic White Cedar swamp **as well as** being the habitat of the rare Hessel's Hairstreak butterfly, this application is **not in harmony** with the **general intent** of our zoning ordinance. **Nor is it in the spirit** of the ordinance as there is **no way to guarantee** that there will not be any **increase in the long-term susceptibility to potential pollutants. Thus this application is CONTRARY to public interest and injurious to the neighborhood.** 

Second, the application is purely for **further economic gain**. The owner of the parcel has over 50 acres on which to potentially apply for permits to develop. This application **to maximize** the lot potential for Harbor LLC is thus only to increase the sale proceeds to the owner.

I **respectfully** submit my comments in writing for the record along with data from 1) the U.S. Drought Monitor NH, 2) Extreme Precipitation Estimates from the Northeast Regional Climate Center and 3) on behalf of Dr. Bud Barrett, a concerned Rye resident, an exhibit to accompany his comments here tonight.

I am Anne Hodsdon, 427 South Road

283 6-21-17

I am here tonight to **respectfully resubmi**t a copy of my June 7<sup>th</sup> comments in support of denying the application from Harbor Street LLC for a special exception and variance for a driveway crossing through a **valuable** and historic ecosystem that includes wetlands and vernal pools as well as lying completely within Rye's Wellhead Protection District.

**In addition tonight**, I specifically and respectfully urge the Board of Adjustments to deny the **variance** application from Harbor Street LLC. The variance fails to meet the various requirements of Rye's regulations and more importantly is **premature**, **as was the special exception application**.

The application and it is **complex and multi layered** as the owner, the Chisholm Family Trust, Tax Map 4, lot 25, is not the applicant, but rather, Harbor Street LLC. The application intertwines **variance** criteria from the property owner's perspective with that of the applicant's intentions. Harbor Street LLC's intentions are subject to actually closing and obtaining ownership of several Tax Map 4 parcels (25, 27, 32) and gaining Planning Board approval for a major housing development combining these parcels along with parcel 31 for a proposed 17 lot subdivision.

First, the application is premature as Lot 2 does not exist.

Second, granting this variance is CONTRARY to public interest, it is INCONSISTENT with the spirit of the ordinance and poses long-term risks to the value of surrounding properties. The low lying, poorly draining land parcels, surrounding wetlands and the vernal pools exist within a complex ecosystem completely within Rye's Wellhead Protection District where the natural topography has water flowing into an abutting Nature Conservancy land parcel that protects a rare Atlantic White Cedar swamp as well as being the habitat of the rare Hessel's Hairstreak butterfly. There is no way to guarantee that there will not be any increase in the long-term susceptibility to potential pollutants. (Reference Danna Trustow, Feb 8, 2017 PB work session)

**There is NO Injustice to the owner NOR is there unnecessary hardship.** The **owner** of the parcel has over 50 acres on which to potentially apply for permits to develop. This application **is to maximize** the lot potential for Harbor LLC.

# TRUSLOW RESOURCE CONSULTING TECHNICAL MEMORANDUM

To:

Kim Reed, Town of Rye Planning and Zoning Administrator and Members of the

Planning Board, Town of Rye, NH

From:

Danna Truslow, Truslow Resource Consulting LLC

CC:

Michael Donovan, Counsel, Town of Rye:

Wetlands and

Subject: Attorney Donovan's and other Planning Board Questions

421 South Road Proposed Development

The following are excerpts from submitted text by Ms. Truslow, consulting hydrologist as peer review for the Town of Rye re. questions asked by the PB members and Atty. Donovan for use in discussion at the work-session on February 8, 2017.

Re. considerations of septic plumes:

The other uncertainty is the path of septic system influenced groundwater in areas of shallow bedrock. The NE development area is underlain by shallow bedrock and overburden is saturated only part of the year based on the water level data gathered during the fall and early winter of 2016. Bedrock groundwater flow is less predictable and flows preferentially with fracture zones. We don't have information on site-specific preferential fracture zones but there are fracture orientations on the outcropping rocks and the lineaments/fracture traces developed by the USGS/DES. Nearby homeowner well yields (NHDES one stop) suggest highly fractured bedrock very nearby including the Menard well to the west.

Flow in the vertical direction into bedrock from southern areas of the site may enter a deeper flow system and return to the shallow flow system at a greater distance than if the groundwater remained in the shallow overburden flow regime. (see rough DBT cross sections) potentially impacting groundwater at a greater distance from the development.

#### Lot 2 Vernal Pool

The plume from lot 1 currently skirts most of the vernal pool to the west, but the actual field may be farther east. Also the plume as drawn is at a concentration of 10mg/L at the center of this shallow wetland feature, which can change water chemistry in the pond especially with introduction of phosphorus to the groundwater as well, a common septic system discharge constituent.

(LOS)

Jeff Ross 333 West Road Rye, NH 03870

I respectfully request that the ZBA deny the variance for a driveway on the still to be confirmed Lot 2 of the development at 421 South Road in Rye because it is contrary to public interest.

The driveway will provide access to a home site on that land, and the construction of that home potentially endangers wetlands and a vernal pool within the town's Wellhead Protection Overlay District, posing a threat to the town's water supply.

That threat is posed by these unresolved questions:

1. What requirements exist for the fill to be used to "mound" the land up from the foundation slab to the height of the foundation walls, and what additional ground water contamination can result from the water that passes through it?

Mr. Smith of Beals & Associates stated at the last ZBA meeting that a surface hydrology analysis was done to show how much water would flow down the mounding, but there has not been consideration of what is in it and the contamination that could result.

Also, Exhibit 1 shows a drainage vector allowing runoff from the home site to head south, not north, directly into the buffer of a wetland and vernal pool.

2. How can the septic plume from the home's DLA pass through the ESHWT of only 24-25 inches just below without contamination of that water?

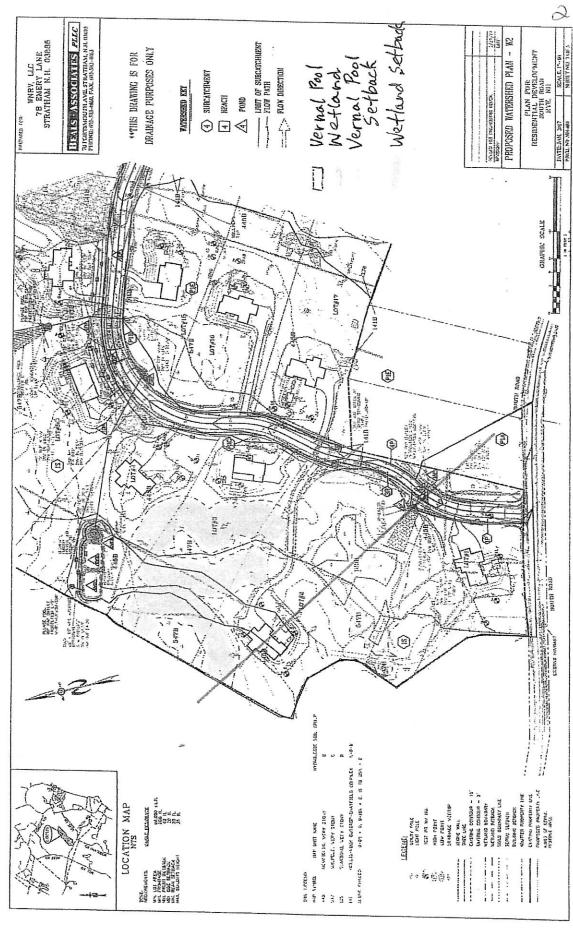
Mr. Stone of Stonehill Environmental stated at the last ZBA meeting that the septic plumes from the DLA on Lot 2 will flow north. He further stated that these plumes, like those on Lot 1, would be depressed as they headed north and thus pass under any vernal pools. But, on both Lot 1 and Lots 2 those plumes will regularly pass through the ESHWT barely 2 feet below ground before it is presumed to head in that direction. Contaminants from the septic plumes on Lot 2 entering ground water so close to the surface seems inevitable. Exhibits 2 and 3 illustrate this issue

For the purposes of comment and discussion, I submit these exhibits:

Exhibit 1: Beals & Associates Watershed Plan W2 submitted March 31, 2017 with cross section drawn through Lot 2

Exhibit 2: Cross section illustration of Lot 2 by abutters/residents drawn to scale from Exhibit 1

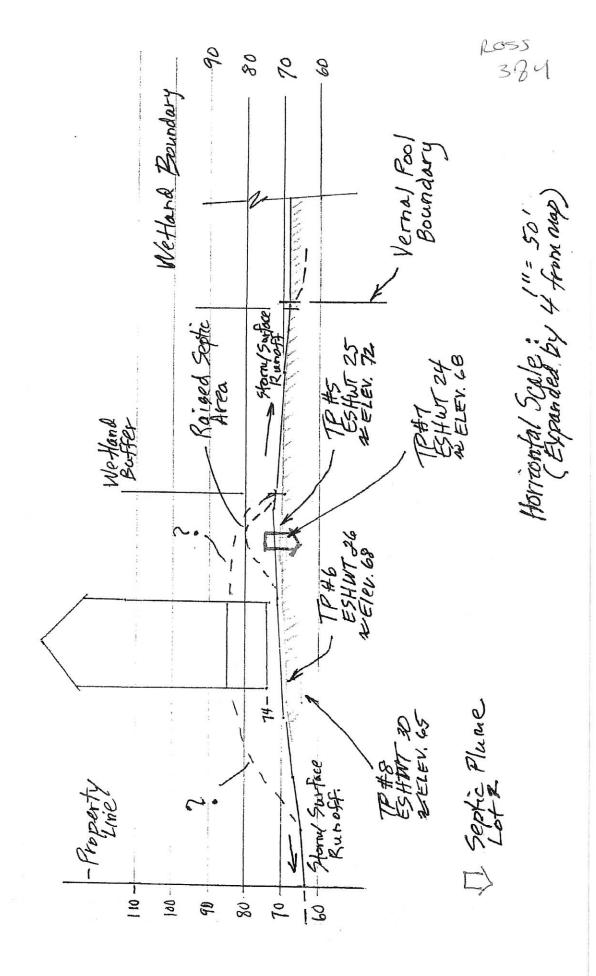
Exhibit 3: Stonehill Environmental Plume Path Cross Section/Lot 1 Septic System April 2017 referenced by Mr. Stone at ZBA meeting June 7, 2017

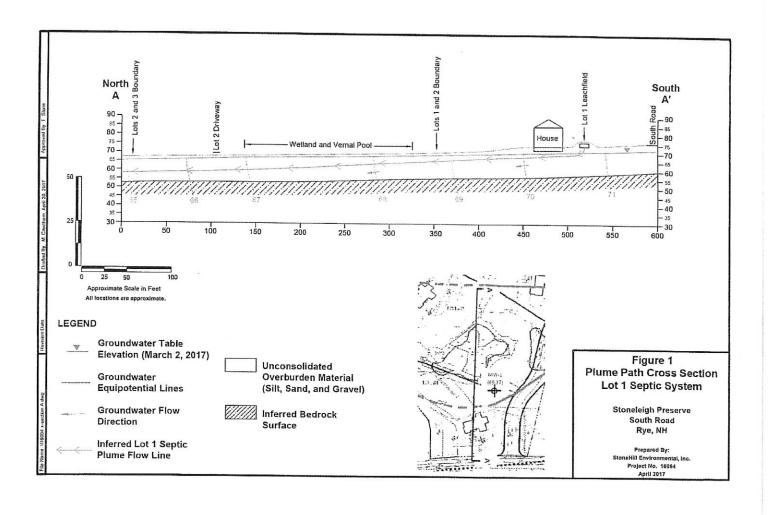


264

X-Section Lot 2

EXHIBIT 2A





6.21-17

Susan Ross 333 West Road

SECTION 306.2: The Purpose of the Aquifer and Wellhead Protection District is to protect, preserve and maintain the groundwater resources and groundwater recharge areas in Rye.

The Gold Standard is Rye's clean water.

From the Minutes of Feb. 8, 2017 Work-session of the Planning Board:

Vice-chair Winslow asked how far out could the water come from that gets drawn into Rye wells.

Mr. Stone (of StoneHill Environmental, Inc.) stated that the Wellhead Protection Area is a 4000 ft. radius around the wells. This area was done to create a safety area around the wells. In reality, the 4000 ft. radius may have little to do with where that well draws its water from. It is not really known where the well is drawing water from.

\*\*We respectfully request that the Board of Adjustment deny the variance to construct a driveway across Vernal Pool and wetlands buffers to prevent long-term increased susceptibility of groundwater to pollution from surface, road and septic runoff on the site and on surrounding land of abutters.

Because the need for clean water is increasingly imperative and because we do not know where Rye's wells draw from, over 730 Rye residents request that you deny the variance because it is clearly contrary to the public interest.

Ms Chairman and members of the Zoning Board of Adjustment, my name is Bob Some of Wolfe LINZE TO TALK BRIEFLY ABOUT THE CONSEQUENCES

OF GRANDAG THE VARIANCE.

As I understand it, the applicant is applying for a variance to construct a driveway for a house on a lot that doesn't actually exist yet. As detailed at the last ZBA meeting, the location of this proposed house is directly adjacent to a vernal pool and wetlands. This area has been designated as a "no disturb zone". The exact boundaries of these sensitive areas are still being determined due to conflicting drawings, and poor site markers. I personally saw a vernal pool marker located 10% Mar Gove to 15 feet inside of the high water mark on the site walk conducted on May 25<sup>th</sup>, 7 0 6660 1600, 2017. In DODITION TO SALT ON THE ORDICIONAL TO THE PROPOSED NOISE.

The applicant has made presentations regarding the proposed septic design and has touted how the specialized design is designed to significantly reduce nitrate from the effluent from the septic to the septic leach fields. These systems if properly installed and monitored will offer more protection to the surrounding sensitive areas. These designs are similar to those present at the subdivision located on Marjorie Way here in Rye. There was a recent review submitted on June 12, 2017 by Dana Truslow, the town's hydrologist, of these systems which will shed some light as to how they are performing. The Marjorie Way subdivision had very specific conditions of approval when it was approved and a Homeowners Association was created to make sure these conditions were followed. The applicant wants a similar Homeowners Association for his proposed subdivision.

The results of this review showed the following:

1. 3 of the 5 lots in the subdivision exceeded the proposed nitrate concentration limit. 60% of the subdivision.

limit. 60% of the subdivision.

When the subdivision.

Un to 37 mm/L

2. 2 of the 5 lots did not have the Denitrification system functional at the time of the start up. This was due to poor communication between the homeowners and the transmit septic installer.

TWIS DEUROPALE

Sienerala

- 3. The required homeowners association was established much too late and they were not diligent in enforcing the septic conditions of approval required by the planning board.
- 4. There was no constant communication between the town and septic installers to insure all the conditions of approval were being met. There was also no payment system in place to insure enforcement.

My point here is that, preventing any negative environmental impact to these sensitive areas next to this proposed house will be largely dependent on self-regulation by the homeowners association and also for the abutters within and outside the proposed development, an added extremely onerous task. It is not reasonable to for the town to add this type of regulation to the already long list of responsibilities the town's inspectors already have. If the town was to assume this responsibility, who pays for this?

As Marjorie Way subdivision shows, the difficulty of maintaining and monitoring this type of septic system and the failures that can result do not guarantee adequate protection of the town's water and wetlands...and are thus "contrary to the public interest."

This is a bad location for a house lot. The owner and the applicant can proceed for approval of 8 other proposed house lots on this property. He is adding this lot purely for economic gain. Denying this variance WILL NOT CAUSE UNNECESSARY HARDSHIP to the applicant.

I respectfully ask the members of the ZBA board to deny this variance from section 301 for the reasons I have just stated.

First, I'd like to go on The record being in agreement with my fellow citizens presentations in oggostion to the application.

Next I have some questions, essentions, essentions, and comments regarding the applications documents submitted on 3/19/2

On Page 1 of the application fore variance on the name of owner line who lubet is WNRV, LLC and is it the owner of record for tax map 4 lot 25.

On the signature sage (#1), is Richard

D. Vitali an officer or legal regresentative

of applicant Harbor Street 2 imited Tortnership.

Also on signature sage 4 is Richard D Vitalion officer or logal regressentative of WNRV, 2LC ?

1) Variance is contray to the problec interest

If one considers the two approaches Id's in the referenced Harkons well-ssociates code, i) the essential character of meighborhand a 2) public health safely & welfore the application fails both tests, the character of the neighborhood will indeed change when the # of homes in the immediate geographia area is to encrease 50-100%. The health safety + welfore of the public will be threatered regarding ets water supply, traffic and endangered species.

The soirit of the ordinance is not being observed

2) the soirit of the ordinance is not being observed because the application is invalid or improper

Substantial justice will be done
the explicient only notes a majetime
impart to explicant of seems the Board should
be concurred only to with the owner and applicant
has provided no information about a direct
and negative impact to them. He public
future covers to this deterritive water supply is
of great value

5) Special conditions of the property do
not distinguish it from other properties.
The application states Regardless of
whether a new hot 2 is created the owners
of that property should love the right
to develop the home! Have the owners
of the property provided any evidence
they will or want to develop a homeste.
The landowner has no intention
of building why to should a variance
be granted,

Last the application should be denied because no unnecessary hardship har been noted in the application. The application does not seem to address variance criteria 8 on page 3 regarding unnecessory hadship to the property owner. It would also seem that a could not in care a hardship if the property owner

they have no plan or intention of developing the lot.

Draft ZBA Minutes June 7, 2017

Mr. Smith explained the drainage easement for the Board

Lee zone being nwaded

2017 & 11 he Hour owner enforcempt

Dred restrictions charge

Member Driscoll asked if this would have any effect on the vernal pool, the wetlands or the wetland setbacks.

Mr. Smith replied it should not.

Chair Weathersby commented that there was mention that there were letters from the Natural Heritage Bureau regarding species of concern. She asked if any species were identified in this development.

Mr. Gove replied not in this area. There were species of concern that were located at Cedar Swamp and the much larger wetland area. It was well away from this site.

Member Driscoll asked how this is determined.

Mr. Gove explained that Natural Heritage determines this. There is a portion that is not owned by the Chisholm Family that is directly adjacent to the White Cedar Swamp, which is monitored and protected. The scientists have also been over to the Chisholm property, as well, to see the species that are utilizing the Cedar Swamp. These are identified species that have been recorded and provided to both N.H. Fish and Game and the Natural Heritage Bureau. He continued that on the lot as a whole, the species of concern are way to the back.

Member Crapo stated that earlier Dr. Barrett spoke about a survey. He asked if a survey has been done.

Mr. Gove replied no. He explained that they went out and identified what was available for egg masses within the vernal pool. The majority of the egg masses were not of the salamander type. They were the wood frog type. He continued that they put on waders and waded through the water. The egg masses are actually floating. The wood frog eggs are green and are very distinctive. The salamander eggs are a little bigger than a golf ball and are made of a hard mass. He reiterated that the majority of the eggs found were wood frog eggs and not salamanders.

Member Crapo asked if there is any detriment to the eggs if the vernal pool was to get deeper.

Mr. Gove replied no.

Member Driscoll asked how they came to the conclusion that they weren't going to look explicitly in to animals of concern for the presentation.

Mr. Gove explained they do not conduct that kind of standard unless a specific species has been found. A person does not do an analysis, transect or grid, which costs up to \$20,000., when a Blue Spotted Salamander has not even been found in the area. That kind of analysis is not done for every single vernal pool and certainly not for a vernal pool of this size, which has a limited number of egg masses.

Member Driscoll commented that someone would have to initially look for those species in order to find them. It seems like that work has not been done.

22

	VERN	IAL POOL DO	A TAMERIA MIT	ONTEODYS	- 0 8
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South	Rd Du	و		DATE:	4/0/11
I.D.: VP		OBSER	VATION WEAT	HER: Sono	18/16
RVER: 33	)TQ	PHOTO	S: yes		4 (00)
ARY INDICA	ATOR SPECIES				NOW FACE
der miblez	reore of recirs			(47), (47), (47), (47)	
Indicator Speci	es	Egg Masses	Tadpoles/La	arvae	Adults
74.75 YA		(#)			
Wood Frog		N80			
Spotted Salamand	er	170			
Jefferson-Blue spo	otted Salamander				
Marbled Salamano					
	iet .				
airy Shrimp		Yes No	)		
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Indicator Species:			Species:	Date Observed	Activity Observed
Indicator Species:	Date	Activity Observed	redaceous Diving	E	
Indicator Species: ingernail lams/shells	Date	Activity Observed	redaceous Diving eatle Larvae	E	
Indicator Species: ingernail lams/shells	Date	Activity Observed	redaceous Diving	E	
Indicator Species: ingernail lams/shells lam primp/shells	Date	Activity Observed P B	redaceous Diving eatle Larvae /ater Scorpions	E	
Indicator Species: ingernail lams/shells lam	Date	Activity Observed P B	redaceous Diving eatle Larvae	E	

Indicator Species:	Date Observed	Activity Observed	Species:	Date Observed	Activity Observed
Fingernail Clams/shells			Predaceous Diving Beatle Larvae	The second secon	
Clam shrimp/shells			Water Scorpions		
Spire-shaped snails/shells			Whirligig Beatle Larvae		
Phantom midge			Dragonfly Larvae/Nymphs		
Non-biting midge			Damselfly Larvae/Nymphs		
Water Scavenger beetle			Dobsonfly Larvae		
Crawling beetle			Caddisfly Larvae/Cases		

NOTES: N/A - No Visible Activity

(e. J. H mi barret POOL I.D.: 1/P-1

HABITAT CHARACTERIZATION:	
Choose the best descriptor for the physical setting  Claused upland depression  Pool associated with larger wetland complex  Other:	
Check all wetland types that best apply to this pool:	
Forested swamp T Wet meadow T Slow stream	
Shrub swamp Shallow pond Elondolain overflow	
Peatland (fen or bog) Abandoned beaver flowage T Headwater seepage	
Active beaver flowage Cother	
■ Surrounding habitat within 250 feet of pool (check all that apply):	
Inmanaged upland forest Right-of-way clearance	
Permanent road/driveway	
Nonintensive development (<25% habitat conversion)	
Intensive development (>25% habitat conversion)	
Agriculture/grassland T Other:	
NOTES: Cottail (minimum), lussoch, sparganium, poudwed edge spinea, winterberg, Red maple	
edre circuitado por	
Spired, windersery, kee maple	
	- T
HYDROLOGY:	
Select the pool's origin: Natural Natural-Modified C Unnatural C Unknown	-
in modified, dyingatural or unknown, describe any modern or historic human impacts to the westerner	
pour bout both pour both valuation	
Select the pool's estimated hydroperiod AND provide rationale for opinion.	
years and completely in drought years) growing season in most years)  Springensem + Poto Mogelon in Center of Pool	
The temperature of pool	
■ Maximum depth: C 0-12" (0-1 ft.) 12-36" (1-3 ft.) C 36-60" (3-5 ft.) C >60" (>5 ft.)	
Approximate size of pool (at spring highwater): Width: 100 Cm 7 ft Length: 100 Cm off	
Check size class: CB-0.1 acre D0.1-0.5 acre C 0.5-1 acre C >1 acre	
Type of inlet or outlet (a seasonal or permanent channel providing water flowing into or out of the pool):	
No inlet or outlet  Permanent inlet or outlet (channel with well-defined banks and permanent flow)  Other or University (channel with well-defined banks and permanent flow)	
Ephemeral inlet  (**Other or Unknown (explain):	
ramma D // /	
NOTES: Rutting from logging may have altered ephemenal outlet	
ephemenal octlet	

<sup>\*</sup>This form adapted from the Requirements of the NH DES Env-Wt 101.70, 101.81and 101.89 Vernal Pool Definitions \*\*For locations of vernal pools refer to accompanying plans or sketches

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6-21-17

Our concerns presented at the previous ZBA meeting on June 7, 2017 remain and we re-submit those for today's deliberation.

In addition, we present additional concerns today, primarily focused on water; the preservation of water quality, how it moves to our town wells and Aquifer, starting with the potential impacts of the driveway and subsequent home and habitation on water present on Lot 2.

Lot 2 is not yet a lot. The size and scope of this 17 lot Major Subdivision requires complex drainage structures and systems to manage the extensive drainage from the roads proposed, and the extensive water present onsite in naturally functioning wetlands. Residents are very concerned about the health and sustainability of Rye's Aquifer. The Coakley landfill plume crossing Rte. 1, increased biannual water testing requirements and requests for clean Rye water for areas with contaminated wells is definitive.

# Question: How far does water move to our wells?

The volumes of material presented and exchanged since last fall regarding the size, scope and requisite complexity of this proposal have resulted in productive debate. Ms. Danna Truslow's text for the PB work-session on Feb. 8, 2017 (Exhibit 4) submitted to this board discusses an abutter well on Lot 19 and water quality on Lot 2. I believe the final document was submitted at the non-public work-session.

This is a concern for our well and the other proximate abutter private wells along South Road. Our well is 460 ft. deep, produces 75 gallons/min. and is approx. 200 feet from the 2 proposed septic systems around the VP on Lot 2. Ms. Truslow provides an alternative understanding of the risks from contaminants on Lot 2 into highly fractured bedrock to our well.

2) Without site-specific information on how water moves through fractured bedrock, can the abutters be certain their wells won't be contaminated?

We respectfully request the Board of Adjustment deny the application for variance relief under Section 301 of the Rye Ordinance (Wetlands

Menar 272

Conservation District) to permit construction of a driveway through vernal pool and wetlands buffers because:

- 1.) Increased risk for contamination from septic influenced ground water on Lot 2 communicating with surrounding private drinking water wells.
- 2.) A variance granted in the Wetlands Conservation District and the Wellhead Protection District is not in the spirit of the ordinance and is contrary to the public interest under Section 306.2 C: to assure the availability of public and private water supplies for future growth of the town in accordance with the Master Plan.

The following is an excerpt from:

Wright Pierce Report to the Rye Water Board re. 421 South Road proposed development; Dated December 22, 2016

"Given that the lineaments pass through the property, it may be in Rye's best interest to evaluate the property for the potential development of a new bedrock groundwater source. The development of additional source capacity may not currently be a priority, but will likely become an issue in the future as additional build out occurs in the community. Purchasing and securing property for future development may be a prudent course for Rye. An assessment of the potential for bedrock well development at this site has not been completed. The site would be undevelopable as a new source once the subdivision is completed."

3.) Lastly, the temporary access road left in place by the owner after the permit expired in the spring of 2015 remains in place. The road was constructed by burying low western wetlands under several feet of gravel, recycled asphalt and woodchips? How can the extent of the wetlands be determined if the road has not been removed? How do we know what soils were buried? Substantial justice is not afforded the residents of Rye by granting a variance that will provide financial benefit to the owner when Lot 2 is sold.

10,2

### TRUSLOW RESOURCE CONSULTING TECHNICAL MEMORANDUM

To:

Kim Reed, Town of Rye Planning and Zoning Administrator and Members of

the Planning Board, Town of Rye, NH

From:

Danna Truslow, Truslow Resource Consulting LLC

CC:

Michael Donovan, Counsel, Town of Rye:

Subject: Attorney Donovan's and other Planning Board Questions

**421 South Road Proposed Development** 

The following text was developed to help in answering planning board questions posed since submittal of the consultant reviews on February 1, 2017. They are included here for reference for tonight's discussion.

# Are StoneHill's nitrate plume determinations reliable, what else do they need to take into account?

Overall, the plume location estimates and calculations are reliable, but plume coalescence is not fully represented in this analysis. Since the DLA's are large, there is uncertainty as to where the final leaching area will be. Depending on the location chosen, an evaluation of the mapped plumes could yield several results. An independently developed "plume" flow map using the 12/21/16 water level data shows additional plume coalescence from the lots on Francis Path and the cul-desac. Also as DLA positions change based on additional test pit information this may also alter plume flow paths.

The other uncertainty is the path of septic system influenced groundwater in areas of shallow bedrock. The NE development area is underlain by shallow bedrock and overburden is saturated only part of the year based on the water level data gathered during the fall and early winter of 2016. Bedrock groundwater flow is less predictable and flows preferentially with fracture zones. We don't have information on site-specific preferential fracture zones but there are fracture orientations on the outcropping rocks and the lineaments/fracture traces developed by the USGS/DES. Nearby homeowner well yields (NHDES one stop) suggest highly fractured bedrock very nearby including the Menard well to the west.

Flow in the vertical direction into bedrock from southern areas of the site may enter a deeper flow system and return to the shallow flow system at a greater distance than if the groundwater remained in the shallow overburden flow regime. (see rough DBT cross sections) potentially impacting groundwater at a greater distance from the development.

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### Geophysics

Several board members asked for an explanation of geophysical methods and how they could be used at the site. Geophysical surveys can be completed that characterize bedrock depths and can also identify probable zones of weakness and shallow groundwater flow. Seismic refraction, electromagnetic surveys and Ground penetrating radar have all been used independently and jointly to assess subsurface bedrock characteristics. They are not invasive (no drilling or test pits required) and can be used to characterize large areas. This technique is commonly used along with lineament/fracture trace mapping to identify favorable bedrock water supply areas.

#### Reference:

Clark, Steward F., R.B. Moore, E.W. Ferguson, and M.Z. Picard, 1996, Criteria and Methods for Fracture Trace Analysis for the New Hampshire Bedrock Aquifer. USGS Open file report 96-479.

Tim Stine 182

6-21-17-

# StoneHill Environmental, Inc.

#### MEMORANDUM

Date: June 21, 2017

To: Town of Rye, Zoning Board of Adjustment

From: Timothy Stone, PG - StoneHill Environmental, Inc.

RE: Stoneleigh Lot 2 Variance

In StoneHill's opinion, the variance being requested for the driveway crossing on the proposed Lot 2 within the Stoneleigh development will have no discernable impact upon groundwater flow or quality, or the wetlands and vernal pools both on Lot 2 and the downslope Lots 3 and 4. This opinion is based upon the following:

- 1. Over ten rounds of groundwater elevation data collected over the past nine months from monitoring wells installed in the vicinity of Lot 2 indicate a consistent and strong groundwater flow direction to the north. Therefore, the driveway crossing is located downgradient of the vernal pools on Lot 2 with respect to groundwater flow. The minimal surface disturbance that would result from the proposed driveway crossing through the buffer zone on Lot 2 will have no impact on the local groundwater flow direction to the north. Please refer to the attached groundwater flow map based upon the most recent groundwater levels measured on June 15, 2017.
- 2. With respect to groundwater or surface water quality impacts, the potential incidental impacts to groundwater quality from fluid drippages from vehicles or driveway maintenance, would be minimal and if present, be very localized to the immediate vicinity of the driveway with little or no impact on the wetlands and wetland buffer. Any incidental petroleum product drippages would be readily degraded by natural processes such as microbiological degradation. The developer has also committed to restrict winter road salt application within the development which will greatly minimize any impacts from road salt. As such, the proposed driveway crossing will have no impact on the site vicinity groundwater quality, nearby residential or municipal supply wells, and the large wetland area and Atlantic White Cedar swamp located to the north.
- 3. The homes within the Stoneleigh development will be utilizing SeptiTech-Denite advanced wastewater treatment septic systems which have a proven track record of reducing nitrate concentrations to 10-15 milligrams/liter (mg/l) as compared to tradition septic systems which typically discharge nitrates at concentrations of 40-60 mg/l. The use of SeptiTech systems results in a very significant improvement in the reduction of potential groundwater, wetlands and surface water impacts from septic systems. The proposed septic system leachfield on Lot 2 is 130 feet to the west and side gradient of the Lot 2 wetlands and vernal pool with respect to groundwater flow which is to the north. The treated discharge from the SeptiTech system is pumped to the leachfield where is will undergo further treatment and then descend to the water table. The treated discharge will then flow north from beneath the leachfield, away from the Lot 2 wetland area and vernal pools. As such, the Lot 2 septic system discharge will have no impact on the Lot 2 wetlands and vernal pools. As the leachate plume migrates north, it will also descend deeper below the water table and natural processes will result in additional

Stone 21/2

# StoneHill Environmental, Inc.

reduction in the pollutants typically found in domestic wastewater. The Planning Board will review the Operations and Maintenance Plan for the SeptiTech systems as well as impose conditions for inspection, maintenance and reporting to ensure that the systems are maintained and operating properly

4. While a perimeter foundation drain is planned to be installed beneath the home proposed to be built on Lot 2 as a precautionary measure, based upon anticipated groundwater levels and the basement slab design elevation of 70 feet, it is anticipated that the foundation drain will seldom operate, if at all. This is based upon documented seasonal high water levels indicated by both on-site soil morphology and actual site-wide groundwater elevation data collected over the past nine months. The foundation drain design indicates the drain will discharge to the west of the proposed home and away from the driveway crossing, wetlands and vernal pool in the eastern portion of Lot 2. Based upon the above, the foundation drain associated with the proposed home on Lot 2 will have no impact on the Lot 2 wetland features, or wetlands and properties downgradient of Lot 2.

6.21.17 Tim stere 2/62 445B LOT#4 LOT#3 60 HP) 65 70 Approximate Scale in Feet Figure 1 Monitoring Well MW-1 (68.27) (Groundwater Elevation in Feet) GROUNDWATER CONTOUR MAP

#### Legend:



Groundwater Contour Interval in Feet Above Mean Sea Level

Inferred Groundwater Flow Direction

Notes:

1. Basemap source: "Subdivision Site Plan" prepared by Beals Associates, PLLC., June 2016, revised February 23, 2017.

2. Field measurements by StoneHill Environmental, Inc., June 15, 2017.

LOTS 1 - 4 June 15, 2017

> Stoneleigh Preserve South Road Rye, NH

Prepared by: StoneHill Environmental, Inc. Project No. 16064 June 21, 2017

StoneHill Environmental, Inc.

Table 1
Groundwater Elevation Data

Stoneleigh Preserve South Road, Rye, NH

Monitoring Well	Well Depth bgs	Well Screen	Stickup	Top of Casing	Measurement	Depth to	Groundwate
MW-1	15.0	Interval bgs	Height	Elevation <sup>1</sup>	Date	Groundwater BTOC	Elevation
	15.0	5 - 15	3.0	74.12	10/18/16	13.11	61.01
					10/20/16	13.12	61.00
					10/26/16	10.88	63.24
	5*5				11/10/16	7.37	66.75
					11/21/16	5.56	
					12/21/16	4.82	68.56
					01/30/17	4.75	69.30
-					03/02/17	4.75	69.37
1				1	04/18/17	5.01	69.37
1					05/22/17		69.11
1				1	06/15/17	5.16	68.96
		•			00/13/[/	5.85	68.27
MW-2	11.0	1 - 11	3.0	56.38	10/18/16	12.12	44.20
1					10/20/16	12.18	44.26
1					10/26/16	9.26	44.20
1					11/10/16	6.22	47.12
				1	11/21/16		50.16
					12/21/16	4.44	51.94
					01/30/17	3.52	52.86
				1		3.32	53.06
1				6	03/02/17	3.13	53.25
1					04/18/17	3.41	52.97
1					05/22/17	3.66	52.72
					06/15/17	4.44	51.94
MW-3	11.0	1 - 11	2.9	42.11	10/18/16	0.74	
				77.5.5	10/20/16	8.71	33.40
				1	10/26/16	8.73	33.38
- 1				1		6.67	35.44
1				-	11/10/16	6.01	36.10
				ľ	11/21/16	5.19	36.92
					12/21/16	5.82	36.29
1					01/30/17	5.36	36.75
1					03/02/17	4.71	37.40
-					04/18/17	5.85	36.26
1					05/22/17	5.85	
					06/15/17	6.29	36.26
MW-4	0.0				SAME CONTRACTOR	0.23	35.82
10100-4	6.0	3 - 6	3.4	36.75	10/18/16	6.18	30.57
					10/20/16	6.20	30.55
1					10/26/16	4.15	32.60
				1	11/10/16	3.88	32.87
1				İ	11/19/16	3.43	33.32
1					12/21/16	3.54	
1					01/30/17	3.44	33.21
				1	03/02/17		33.31
				1	04/18/17	3.40	33.35
				1	05/22/17	3.67	33.08
						3.55	33.20
					06/15/17	4.09	32.66
ИW-5	12.5 7	.5 - 12.5	2.6	64.46	10/18/16	Dry	-ED C
					10/20/16	Dry	<50.5
					10/26/16		<50.5
					11/10/16	Dry	<50.5
						11.38	53.08
					11/19/16	7.88	56.58
					12/21/16	7.22	57.24
1				1	01/30/17	6.07	58.39
1					03/02/17	5.64	58.82
					04/18/17	6.49	57.97
					05/22/17	7.31	57.15
					06/15/17	8.90	55.56



	·				·		
MW-6	15.7	5.7 - 15.7	3.6	83.45	10/18/16	12.34	71.11
(Bedrock					10/20/16	12.39	71.06
Well)	1				10/26/16	5.88	77.57
1					11/10/16	NM	NM
l					11/19/16	4.55	78.90
					12/21/16	4.49	78.96
					01/30/17	4.43	79.02
					03/02/17	4.42	79.03
					04/18/17	5.13	78.32
					05/22/17	5.12	78.33
					06/15/17	5.61	77.84
MVV-7	7.5	3 - 8	2.3	67.56	10/18/16	Dry	<57.5
l					10/20/16	Dry	<57.5
l					10/26/16	Dry	<57.5
l					11/10/16	9.30	58.26
					11/19/16	6.54	61.02
					12/21/16	6.50	61.06
					01/30/17	5.22	62.34
					03/02/17	4.50	63.06
					04/18/17	5.92	61.64
					05/22/17	6.48	61.08
					06/15/17	7.27	60.29
MVV-8	10.0	8 - 10	3.0	69.04	10/18/16	9.96	59.08
					10/20/16	10.07	58.97
					10/26/16	5.62	63.42
					11/10/16	4.23	64.81
					11/19/16	3.43	65.61
					12/21/16	3.45	65.59
					01/30/17	3.19	65.85
					03/02/17	3.08	65.96
					04/18/17	3.35	65.69
					05/22/17	3.48	65.56
					06/15/17	4.06	64.98
							27 242 2507
MW-9	7.0	2 - 7	3.2	56.51	10/18/16	Dry	<46.2
					10/20/16	Dry	<46.2
					10/26/16	Dry	<46.2
					11/10/16	7.34	49.17
					11/19/16	5.41	51.10
					12/21/16	4.52	51.99
					01/30/17	4.28	52.23
					03/02/17	4.20	52.31
					04/18/17	4.65	51.86
					05/22/17	4.70	51.81
1					06/15/17	5.57	50.94
					00/15/17	3.37	50.94
Notos					L		

#### Notes:

All measurements in feet.

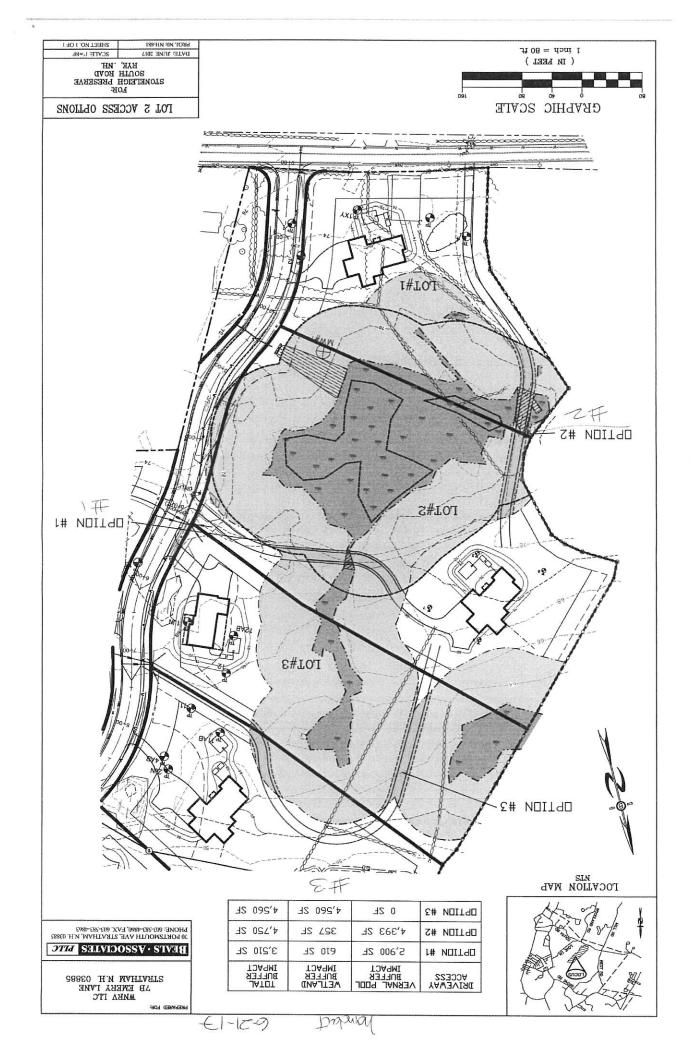
bgs = below ground surface.

BTOC = below top of PVC casing.

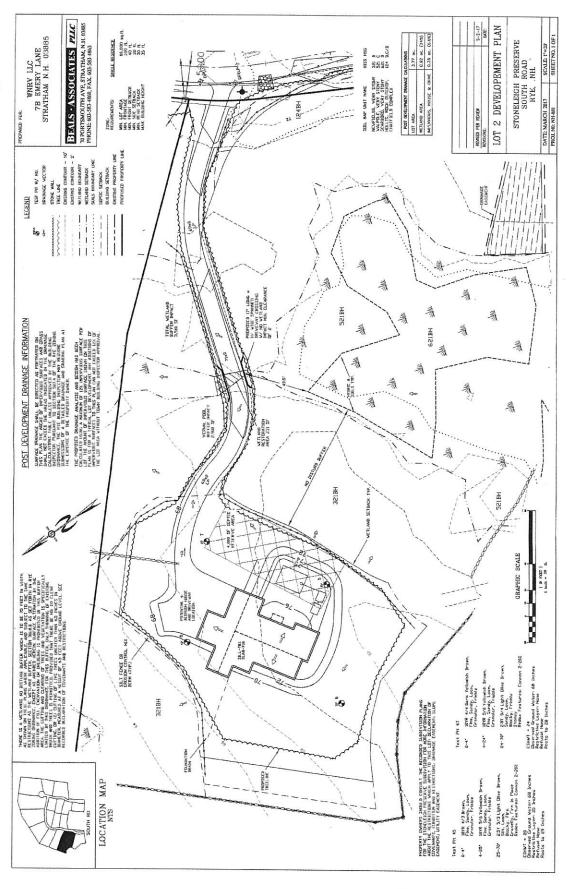
NM = not measured

<sup>&</sup>lt;sup>1</sup>Monitoring wells are 2 - inch diameter with the exception of MW-5, MW-7 and MW-9, which are 1.5 - inch diameter.

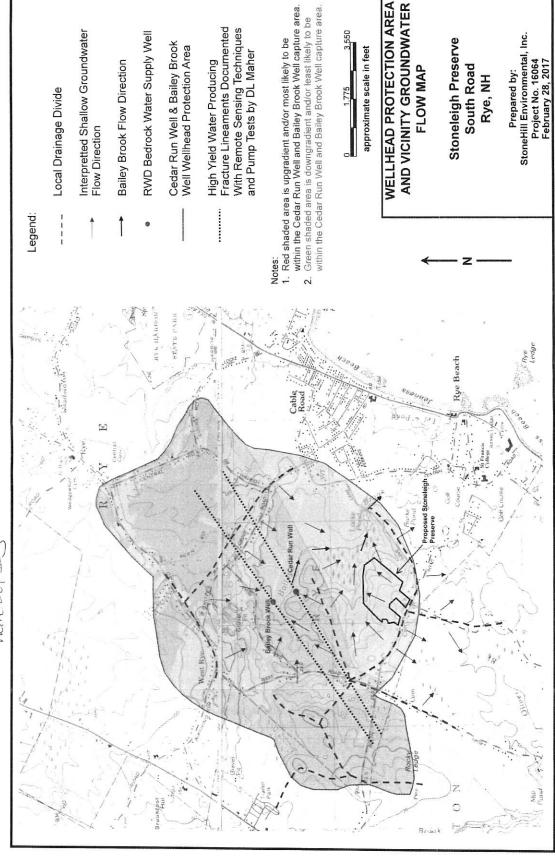
<sup>&</sup>lt;sup>2</sup>Level survey by Doucet Survey, Inc. on 10/20/16 using National Geodetic Vertical Datum based on mean sea level.



Charlingte 6-21-17



fin Store 6.21-17 handuct #3

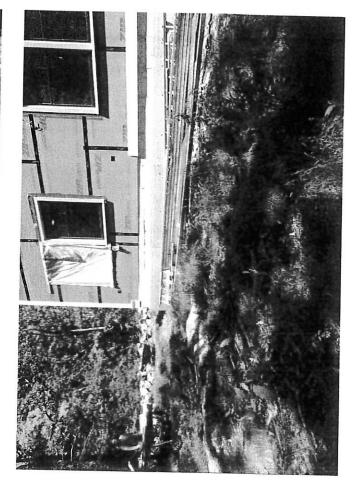


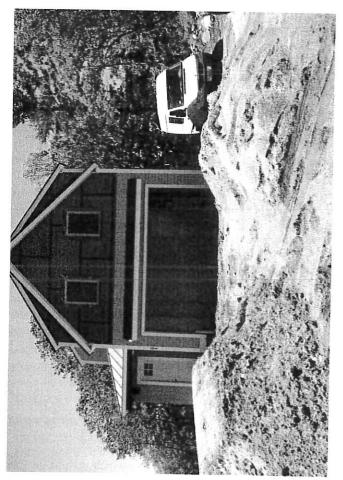
ZBA G/ZI/17



DI Grackett 621-17











# RYE CONSERVATION COMMISSION 10 CENTRAL ROAD RYE, NH 03870

April 30, 2017

RE: 21 Brackett Road

The Rye Conservation Commission conducted a site walk at 21 Brackett Road on April 26, 2017.

The owners wish to build an 8 foot by 16 foot deck on their existing structure. About 50% of the deck is in the 100 foot tidal buffer from Berry's Brook/Seavey Creek. The deck will be supported by three concrete posts on ledge. The owners have cut some small trees in the buffer but have complied with the requirements of the Shoreland Protection Act by leaving the larger trees in the buffer.

The Rye Conservation Commission recommends that the rest of the tidal buffer be left in its natural state and that no lawn be established in the buffer. If the owners wish to add any plantings to the buffer, they must be included in the NH DES list of native plants. If these recommendations are agreed to, the RCC has no objection to the proposed deck.

Sincerely,

Francis P. (Mike) Garvan II, Clerk