

SURVEYING ENGINEERING LAND PLANNING Northeast Civil Solutions IN CORPORATED

www.northeastcivilsolutions.com

February 26, 2021

Ms. Carla Nixon, Director of Planning Town of Cumberland 290 Tuttle Road Cumberland, Maine 04021

RE: Blanchard Oaks Subdivision, 365 Blanchard Road – Chris Axelson Workshop Meeting

Dear Ms. Nixon:

Northeast Civil Solutions, Inc. (NCS) is pleased to submit the attached Workshop Meeting Application and information for a proposed 13 lot conservation subdivision located at 365 Blanchard Road on behalf of Mr. Chris Axelson. The property is identified as lot 68A on the Town's Tax Map R08 and is located within the Rural Residential 2 (RR2) Zoning District.

Mr. Axelson has a Purchase and Sales Agreement to buy 44.15 of the 51.18-acre property from the current owner Suzanne McCormack, Trustee^{*}, who will retain the roughly 7 acres of remaining land.

The existing property is entirely wooded with two jurisdictional streams, 5.35 acres of wetland and three significant vernal pools. The wetlands and vernal pools were delineated by Albert Frick and Associates in 2016 and will be re-verified this spring. There are no existing trails on the property and no sustained slopes over 20%. In addition, no part of the property is located within the 100-year flood plain nor in the town's designated resource protection district. The Maine Department of Inland Fisheries and Wildlife (IF&W) provides an online habitat mapper and they do not identify any high value riparian, plant or animal habitats on the property.

Net Density:

Gross Lot Area	=	1,923,369 sf
Sustained Slopes >20%	=	- 0 sf (sustained for 30,000 sf or more)
Wetlands	=	- 233,022 sf
Roads and Parking	=	- 119,473 sf (as shown on proposed plan)
ROW/easements	=	- 0 sf
100 Flood Zone	=	- 0 sf
Resource Protection	=	- 0 sf
Net Residential Area	=	1,570,874 sf

- 1 dwelling unit allowed per 2 net acres (87,120 sf)
- Total lots = (Net Lot Area) / 2 Acres = 1,570,874 sf / 87,120 sf = <u>18.03 Lots</u>

Minimum Lot Area:

• Min. Lot Size = (50% Gross lot area) / (Total lots) = 961,684 sf / 18 = <u>53,427 sf</u>

Proposed Layout:

We feel like this property is well suited for a conservation subdivision and have provided a conceptual layout for a potential development. While there are a number of natural resources on the site, there is ample room for the 13 proposed single-family house lots with minimal impact to those resources.

The property offers two areas of forested upland bisected by a stream and some wetlands. The proposed plan would create a road that runs through the middle of each upland area and snakes around the stream to avoid impacts to the greatest extent practicable. The road alignment will create a longer than allowed dead end road, so we will be asking for a waiver from this standard, at the preliminary plan phase, in order to avoid impacts to the wetlands and stream.

Online soils mapping indicates appropriate soil types for the use of underground septic systems. The soils also show adequate permeability for the use of forested buffers to treat stormwater derived from this development. Naturally vegetated buffers are easy to maintain, provide excellent stormwater treatment and are low impact on the land itself.

The proposed layout provides over 51% of the gross lot area as open space and allows for interconnectivity by way of the road ROW and easements to access the open space. In addition, along the southeastern property boundary, within the 75-foot buffer zone, we are proposing a 15-foot-wide strip of land which may be used as a future path to connect open space areas within the adjacent subdivision development.

We look forward to discussing this project with the Planning Board at the next workshop meeting.

Sincerely, Northeast Civil Solutions, Inc.

Travis Letellier, P.E. #13920 Director of Engineering

CC: Chris Axelson, Applicant Jim Fisher, NCS President





ID Site Address	Owner Name	Co-Owner Name	Owner Address	Owner City	Owner St	ate Owner Zip
346 BLANCHARD ROAD	HAYDEN KAREN I	HAYDEN EDMUND MCKENDRIE III	I 346 BLANCHARD ROAD	CUMBERLAND	ME	04021
8 WHITNEY RD	TERISON CARL JR	C/O ANETTE TERISON	62 ORCHARD ROAD	CUMBERLAND	ME	04021
BLANCHARD RD	MCCABE PETER J	MCCABE CINDERELLA J	345 BLANCHARD ROAD	CUMBERLAND CTR	ME	04021
345 BLANCHARD ROAD	MCCABE PETER J	MCCABE CINDY J	345 BLANCHARD ROAD PO BOX 17	CUMBERLAND	ME	04021
333 BLANCHARD RD	MCCABE JOHN E		333 BLANCHARD ROAD	CUMBERLAND CTR	ME	04021
333 BLANCHARD ROAD	MCCABE JONATHAN K	MCCABE KARA E	333 BLANCHARD ROAD	CUMBERLAND	ME	04021
372 BLANCHARD ROAD	FRIEDMAN PAUL D	FRIEDMAN LAURA S	372 BLANCHARD ROAD	CUMBERLAND	ME	04021
366 BLANCHARD ROAD	JONES CASSANDRA M	JONES SCOTT A	366 BLANCHARD ROAD EXT	CUMBERLAND	ME	04021-3211
412 BLANCHARD RD EXT	BRIGGS RICHARD H	LOWERY MARY A	412 BLANCHARD ROAD EXT	CUMBERLAND	ME	04021
371 BLANCHARD ROAD	KALINICH BEATRICE	KALINICH JEFFREY	371 BLANCHARD ROAD	CUMBERLAND	ME	04021
379 BLANCHARD ROAD	WILDES BRUCE S	WILDES NANCY J S	P 0 B0X 54	CUMBERLAND	ME	04021
BLANCHARD RD	YOVINO, SETH J		16 HATHORN POINT RD	TENANTS HARBOR	ME	04860
4 STONEWALL DRIVE	REGO, MATTHEW	REGO, MERIDITH	4 STONEWALL DR	CUMBERLAND	ME	04021
10 STONEWALL DRIVE	PITTS STEVEN M & RODNA L	PITTS STEVEN M - TRUSTEE	10 STONEWALL DRIVE	CUMBERLAND	ME	04021
24 STONEWALL DRIVE	WHEELER PATRICIA J	STINNEFORD RYAN S	24 STONEWALL DRIVE	CUMBERLAND	ME	04021
BLANCHARD RD EXT	CHASE CUSTOM HOMES + FINANCE INC		290 BRIDGTON ROAD SUITE 2	WESTBROOK	ME	04092
15 STONEWALL DRIVE	PETZAL DAVID E	PETZAL ARLENE A	15 STONEWALL DRIVE	CUMBERLAND	ME	04021
5 STONEWALL DR	LINDVALL II, JAMES W	CARR, LINDSAY A	5 STONEWALL DR	CUMBERLAND	ME	04021
354 BLANCHARD ROAD	NEVULIS JEFFREY M	NEVULIS NICOLE J	354 BLANCHARD ROAD EXT	CUMBERLAND	ME	04021
WESTBRANCH RD	TOWN OF CUMBERLAND		290 TUTTLE ROAD	CUMBERLAND CTR	ME	04021
385 BLANCHARD RD EXT	FAIRBANKS MARK A	FAIRBANKS CHRISTA L	385 BLANCHARD ROAD EXT	CUMBERLAND	ME	04021
20 DEL RAY DRIVE	MCCABE, JENNIFER C		PO BOX 705	CUMBERLAND	ME	04021
48 ORCHARD RD	DAVIS, MATTHEW J		48 ORCHARD RD.	CUMBERLAND	ME	04021
BLANCHARD RD EXT	PIAMPIANO ROBERT J	PIAMPIANO BRENDA T	3 HIGH STREET	BRUNSWICK	ME	04011-1909
BLANCHARD RD	MCCABE JONATHAN		333 BLANCHARD ROAD	CUMBERLAND CTR	ME	04021
ORCHARD RD	W P CLARK & SONS, HOME BUILDERS, INC		11 HEIDI LN	RAYMOND	ME	04071
CORTLAND CT	W P CLARK & SONS, HOME BUILDERS INC		11 HEIDI WAY	RAYMOND	ME	04070
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302 392 390 PbB 388 388 388 388 388 388 388 38	
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372 370 56 368 56 368 368 30 56	
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	LEGEND
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STREAM CENTERLINE	$ \begin{array}{c} \hline \\ \hline $
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PROJECT NUMBER: 42361	1 SMA 3/1/21 SUBMITTED FOR TOWN REVIEW ACAD FILE: 42361-WORKSHOP SA-2.DWG SCALE: 1" = 100' DATE: MARCH 1, 2021 Drowing Nome: WORKSHOP SA-2 VARCH 1, 2021
/	Project Name: BLANCHARD OAKS SUBDIVISION BLANCHARD ROAD, CUMBERLAND, MAINE Owner/Applicant:
	CHRIS AXELSON
3- -2	Northeast Civil Solutions Incorporated 381 PAYNE ROAD, SCARBOROUGH, MAINE 04074 tel 207.883.1000 fax 207.883.1001 e-mail / website info@northeastcivilsolutions.com www.northeastcivilsolutions.com

AND PROJECT\42000\42361 AXELSON - CUMBERLAND\PLANSET\42361-WORKSHOP SA-2.DI



LOT #7 59,167 S.F. 1.36 Ac.	LOT #8 68,880 S.F. 1.58 Ac.			
OPEN SPACE 198,916 S.F. 4.57 Ac. STREAM CENTERLINE			LEGE	ND BOUNDARY LINE EDGE OF PAVEMENT
				EDGE OF GRAVEL RIGHT-OF-WAY LINE ABUTTER VERNAL POOL WETLAND CENTERLINE OF STREAM
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	<mark>3- -2 </mark> SHEET 2 OF 3	NCS	Northeas 381 PAYNE ROA tel 207.883.1000 100'	AD, SCARBOROUGH, MAINE 04074 e-mail / website info@northeastcivilsolutions.com www.northeastcivilsolutions.com 200' 400'

Subdivision Type Recommendations for Blanchard Oaks

Cumberland Lands and Conservation Commission Based on 3/1/21 Northeast Civil Solutions Plans)

The Lands and Conservation Commission (LCC) recommends that Blanchard Oaks be developed as a Conservation Subdivision based on the criteria listed in Subdivision of Land - General Provisions – Purpose (250-1) and the criteria listed in Section B (3) of the General Subdivision Standards (250-5).

The proposed subdivision contains several streams, wetland areas, and three vernal pools. In addition, the subdivision borders on the open space of neighboring subdivisions. The proposed open space is broken into two parcels. In addition to protecting the streams, wetlands and vernal pools, the largest parcel (16.04 acres) will help protect wildlife habitat in the area. The smaller parcel of open space (6.68 acres) will help protect streams and wetlands. Between the two parcels, the 75 ft buffer surrounding the subdivision should serve as an adequate wildlife corridor connecting the two parcels, and will help protect the stream and wetlands in that buffer.

In terms of trails, the plan does not show any existing trails in the property. However, the LCC provided informal comments concerning the possibility of future trails based on the initial subdivision plan. These comments have been already been incorporated in the most recent plan. In particular, the most recent plan provides an easement for residents to access the larger area of open space and also a 15-ft wide corridor within the proposed open space that would connect to open space of a surrounding development (see map below).

Overall, the LCC believes the proposed development falls within the criteria for a Conservation Subdivision and thinks the developer is proposing a reasonable developmental plan for the subdivision. The LCC recommends that the Planning Board approve the proposed 13-lot Blanchard Oaks subdivision (plus 1 retained lot) as a Conservation Subdivision.



From:	Contact form at Cumberland ME
То:	Christina Silberman
Subject:	[Cumberland ME] 365 Blanchard Rd Ext "Blanchard Oaks" (Sent by James Lindvall, james@jtleahy.com)
Date:	Friday, March 5, 2021 10:39:31 AM

WARNING: This is an external email that originated outside of our email system. DO NOT CLICK links or open attachments unless you recognize the sender and know that the content is safe!

Hello csilberman,

James Lindvall (james@jtleahy.com) has sent you a message via your contact form (<u>https://www.cumberlandmaine.com/user/22/contact</u>) at Cumberland ME.

If you don't want to receive such e-mails, you can change your settings at <u>https://www.cumberlandmaine.com/user/22/edit</u>.

Message:

Good Morning Christina,

My name is James Lindvall and I live at 5 Stonewall Dr, Cumberland. I am one of the abutters for the above mentioned subdivision. As a neighbor, town resident and area realtor I wanted to express my full support for this project.

The real estate market is desperate for quality homes in this area as inventory continues to erode. This means that we need more homes to meet the current demand for buyers. In the past, the spring and summer would generally bring enough inventory to the market to meet that demand. A positive result of the pandemic is that some Maine communities have become premier destinations as many people flee major cities and urban living. However at the same time, owners have become more wary about selling even though home prices are soaring. One of the best ways to increase inventory and try and meet some of that demand is to encourage builders and developers to continue to grow and do business responsibly in our communities.

Furthermore, this project will bring more taxes to the city and jobs to community. So for these reasons I am in strong support of developments like these in our community.

Thank you,

James Lindvall

Total Control Panel		Login
To: <u>csilberman@cumberlandmaine.com</u> From: bounces+13876194-7113- csilberman=cumberlandmaine.com@sendgrid.net	Message Score: 1 My Spam Blocking Level: Custom <u>Block</u> this sender	High (60): Pass Medium (75): Pass Low (90): Pass Custom (50): Pass
	Block sendgrid.net	

From:	Carla Nixon		
To:	edmund.m.hayden@gmail.com		
Cc:	Planning Board; Christina Silberman		
Subject:	Blanchard Rd (Ross Estates) Subdivision		
Date:	Wednesday, March 10, 2021 12:16:26 PM		
Attachments:	image001.png image002.png image003.png image004.png		

Hello Mr. Hayden,

My assistant, Christina, forwarded your email to me so that I could respond to your questions. I have written my responses below after each of your questions/comments.

The Planning Board will take comments at the workshop on Tuesday night, but they should be focused on the question of whether the subdivision style should be conventional or traditional. There is more information on this in my responses below.

Please let me know if you have any other questions. As you can see, I have copied the Planning Board on this message so they are aware of your views.

Thank you very much for writing and sharing your concerns.

Best, Carla



Carla Nixon Director of Planning, Town of Cumberland 207-829-2206 www.cumberlandmaine.com 290 Tuttle Road, Cumberland, Maine 04021

From: Edmund Hayden <<u>edmund.m.hayden@gmail.com</u>>
Sent: Wednesday, March 10, 2021 11:30 AM
To: Christina Silberman <<u>csilberman@cumberlandmaine.com</u>>
Subject: 365 Blanchard Road Ext. Major Subdivision

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Christina,

Hello. I live at 346 Blanchard Rd Ext. and have a variety of concerns about the proposal just as I and many neighbors did the a couple of years ago with a similar proposal.

13 new homes represents a 66% increase to the dead ended neighborhood and is simply too large. The number of lots that are allowed in a subdivision is not subjective. It is based on the Town's Zoning and Subdivision Ordinances which were adopted by the Town Council. The Planning Board's job is to determine if the applications it reviews are in compliance with those ordinance requirements. The general explanation on how many lots are allowed is that the total acreage of the parcel, less any acreage that has wetlands or other unfavorable conditions, is divided by the minimum lot size for the zoning district in which the proposed subdivision is located. That is how the Applicant arrived at the 13 lots.

The resulting traffic increases along a straight stretch of the road where many non residents drive 50+ mph already is unacceptable.

A traffic study will be conducted by the Applicant and reviewed by a peer review engineer that works for the Town. This is something that will happen at a future meeting when the formal review process with the Planning Board begins. <u>This workshop has a very narrow focus</u>: to determine if the style of the subdivision should be a "Conservation Subdivision" or a "Traditional Subdivision". In this case, the Applicant is only proposing a conservation style subdivision which is the Town's preferred style as it preserves at least 50% of the site as open space.

It is a difficult site to build on and there are concerns about the water. We are all on wells that tap into the same general aquifer and during the latest droughts wells were a major concern. Additional wells up where much water flows is a major concern. At a minimum there should be a complete groundwater study for a development this large. I understand this could affect all the way to Skillins Road.

During the formal review process, the Applicant will need to demonstrate that there is adequate water to serve the 13 homes. A hydro-geological study may be required by the Planning Board if there are concerns about this. Often the Planning Board only requires that a local well driller state whether there have been any difficulties with providing well water to area homes in the past.

What happens to the residents negatively affected if they are? That should not happen if the required procedures for ensuring that the new homes will not adversely affect existing homes.

There is also the fire retention pond which has been extremely low the past two summers with the droughts. Can the town provide town water out there?

The extension of public water to this area of town is an expensive undertaking. The Town Council would have to appropriate funds for this as a capital project. As for fire protection, there is a separate ordinance on Fires and Fire Protection. The proposed subdivision must comply with this section. You can find it on the Town's website. Type in "Fires and Fire Protection" in the block for a "quick search".....it is Chapter 96 of the Cumberland Code.

I am not developer but the site seems much more appropriate for 2-3 new homes not 13. Thank you. Mac Hayden

Jeff Nevulis
Planning Board; Carla Nixon; William Longley; Christina Silberman
nicole.nevulis@gmail.com
BLANCHARD ROAD EXTENSION PLANNED SUBDIVISIONS
Thursday, March 11, 2021 11:09:30 AM

WARNING: This is an external email that originated outside of our email system. DO NOT CLICK links or open attachments unless you recognize the sender and know that the content is safe!

Good morning Carla/Cumberland Planning Board.

We are writing in response to both developments proposed on Blanchard Road Extension. We welcome the new development; the impact of it needs to be noted and considered. The addition of 17 new homes in the Westbranch Rd, Blanchard Road Extension, and Stonewall community will transition the area away from rural and towards a traditional suburban neighborhood. As residents residing directly on Blanchard Rd Ext, we are most impacted.

The change in dynamic brings up concerns that need addressing:

- Volume Increase & Speed of Street Traffic:
 - Volume increases 17 new homes = 28 new travelers, plus visitors on the road
 - Existing speed issues (already brought to the police)
 - Drivers who miss the right turn to Orchard or go the wrong direction on Blanchard, once realizing their mistake, speed excessively out of the extension. This increases during fairground events and orchard season.
 - There are already landscaping services, and construction vehicles are often observed at high rates of speed.
 - General traffic is going at high rates of speed.
 - Police have been advised. We were informed the Ext is unposted and thus 25 MPH.
 - Given the above, we strongly feel safety and speed need addressing. We have a small
 police department, and we would like to look at cost-effective ways to manage traffic speed
 on the road. The price of a life is worth the inconvenience and cost of traffic calming
 measures.
 - Street Lighting There is minimal street lighting in the area, which is a concern
 - Environmental impact of runoff
- Proposed New Street Location:
 - Close to our driveway, exit from Westbranch, and exit from Blanchard Ext. Given the above, and in general, It seems that it will create more potential for an accident and difficult for our ability to exit and enter our driveway. We'd like to see it as a four-way stop. There have been several close calls already with pedestrians and bicyclists almost being hit at this intersection, including my wife.
- Public Safety:
 - Our understanding is the existing community has fire protection from the fire pond along Blanchard Rd Ext. We are unsure of the location of the next closest fire hydrant beyond the fire pond. Over the past few years, during dry spells, the fire pond has dropped significantly

in volume.

• 15 Foot Buffer – There is mention of a 15-foot buffer strip for a future path for adjoining subdivision development. What exactly is this?

We appreciate your consideration of the impact this brings to our neighborhood and quality of life.

Best Regards.

Jeff & Nicole Nevulis

Total Control Panel			<u>Login</u>
To:	Message Score: 1	High (60): Pass	
csilberman@cumberlandmaine.com	My Spam Blocking Level: Custom	Medium (75): Pass	
From: jnevulis@sprintmail.com		Low (90): Pass	
	Block this sender	Custom (50): Pass	
	Block sprintmail.com		

This message was delivered because the content filter score did not exceed your filter level.

Jennifer Hazard
Christina Silberman
Ted Hazard
14-lot major subdivision 365 Blanchard Rd. Ext./traffic concerns
Thursday, March 11, 2021 12:06:03 PM

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Christina,

I live on 48 Westbranch Road, off the Blanchard Road Extension. As you're likely aware, building has already begun on the Extension road. My family of four regularly walks what we call "the loop," which goes from our street to Stonewall Drive, down the Extension road, and back. It's a walk many of my neighbors enjoy. Since construction started on one house on the Extension road, our loop walk has often been interrupted by trucks barreling down the road with no concern for pedestrians or speed.

Our small community is made up of young families, seniors and teenagers like mine. I worry that the traffic will become worse with more construction and more homes. I'm even more concerned that someone will inevitably get hurt.

During the last town meeting, some of my neighbors joined the call to express their concerns, but were unable to voice them (there were technical issues and time constraints). We enjoy the quiet and rural nature of our community, and would prefer the builder keep to the original plan of just 3-4 homes.

Thanks in advance for taking time out to hear my concerns.

All best,

Jen

Jennifer Hazard she/her/hers <u>hazardmaine@gmail.com</u> <u>jenhazard.com</u> 207.749.0249

To: William Shane, Cumberland Town Manager and Members of the Planning Board RE: <u>Proposed Blanchard Road Ext Developments - potential impacts to local water supplies</u>

Thank you for the opportunity to comment on the proposed developments on Blanchard Road Extension. I am not opposed to the development itself but do have **serious concerns related to maintaining an adequate residential water supply in an area that depends on bedrock wells**. One of the Town's responsibilities during the development review process is to ensure that the proposed actions do not result in detrimental impacts to existing properties and uses. The ability for existing residences to have ongoing access to adequate water supplies – whether through preserving the integrity of the current aquifer or providing an alternative means (e.g., extending the Portland Water District line from Skillins Road to the existing and proposed developments) - would fall within that general remit. Without a proper water supply, existing properties could be rendered "unfit" for residential use and potentially become stranded assets. It is important to ensure that any Townapproved developments do not lead to that.

I have included some preliminary information for your consideration. **The average person in the United States uses approximately 82 gallons of water per day with the average single-family household using 300 gallons a day.** ^{1, 2} A general breakdown of that usage is illustrated below.



There are approximately 44 homes in the existing upper Blanchard Road Extension, Stonewall Drive and Westbranch Road neighborhood that depend largely on bedrock wells for their source of water. This is a somewhat arbitrary delineation since the homes on the lower Blanchard Road Extension, as well as those on Orchard Road (including the new development of 10 additional homes) may also have a hydrologic link to these same groundwater sources. But, for the sake of this discussion, we will focus on the 44 existing homes and the proposed 20 new homes of the Blanchard Road Extension developments that are currently being reviewed.

Using the figures above, the 44 existing homes are using approximately 13,200 gallons of water a day. This translates into

more than 4.8 million gallons a year. An additional 20 homes would increase that demand by nearly 50%, or by at least 6,000 gallons a day, resulting in a total yearly demand of more than 7 million gallons a year. Again, this does not take into consideration the other new development on Orchard Road which may be tapping some of the same groundwater resources.

- 1. USGS, 2018. Summary of Estimated Water Use in the United States in 2015.
- 2. EPA, 2021. How We Use Water. Accessed March 14, 2021.

	Existing	Proposed
Number of homes	44	64
Daily Water Use (gallons)	13,200	19,200
Yearly Water Use (millions of gallons)	4.8	7.0

Based on the geographic proximity of the homes and the general geology of the area, it is highly likely that these sources are all drawing from the same aquifer and/or grouping of aquifers. It is also highly likely, based on surficial typologies and water features, that they are also **sharing the same recharge areas – some of which may be located in the area of the proposed development**.

Yields, recovery rates and areas of recharge are key components in determining whether or not there is adequate water supply to support a well for residential use. There is an increasing complexity to that determination when it extends beyond a single well. Therefore, it is important to have a trained hydrogeologist conduct this work – and one with a working familiarity with southern Maine geology and bedrock wells.

In addition to basic water needs, there are also fire safety implications. The Town's Fire Department recognized that there is not an adequate water supply in this area for typical hydrant-based interventions. Therefore, the houses in the Westbranch Road development (and possibly other residences in this area) were required to install fire protection sprinkler systems including associated on-site storage tanks. The fire pond located on Blanchard Road Extension is an identified "back-up" source but is sensitive to drought conditions, with the water level dropping precipitously last summer. An increased residential density, without supplemental sources of water, will further exacerbate this issue. It will impact the fire safety of both the existing and proposed structures and could have larger insurance implications.

Based on the information above, I would request that **the Town require a water study to be completed before granting final approval for this development and/or allow for binding contingencies if the study revealed inadequate groundwater resources**. The study would be conducted by a practicing groundwater hydrologist that it is licensed in the state of Maine. The entity conducting this work should be hired directly by the Town and should not have either a professional or personal conflict of interest with this proposed work. The Town could still request funding of this study by the developer or owner as a condition of the development approval process, but it is critical that the actual engagement and accountability of the hired hydrogeologist be to the Town and, through that, the citizens that it represents. The inquiry would:

(1) establish the characteristics of the existing aquifer(s) that currently provide water to this area;

(2) determine the overall capacity (how much water the aquifer can store, and where the water table currently sits) and yield (the rate at which the water be extracted) of that water supply;

(3) identify the main source(s) of the groundwater resources and key areas of recharge;

(4) establish the average recovery times (how long it takes the water supply to be replenished dependent on the volume and rate at which it is extracted);

(5) highlight any areas of concern with respect to seasonal variations (e.g., lower water tables in summer because of evaporation or in winter if key recharge areas are frozen over, etc.);

(5) determine the ability of the current groundwater resources to support additional households and development without detrimentally impacting the existing homesteads that depend on it; and,

(6) any other essential information that the hydrogeologist may need in making this determination.

As a resident of Cumberland, I am excited to welcome new families to the area and have more people join our neighborhood. My comments do not represent an anti-development perspective but rather one that ensures a balance between short-term gains and longer-term considerations – the latter being a **key determinant in maintaining a sustainable future for the Town and its communities, and avoiding the potential creation of stranded assets**.

I am glad to engage in a longer discussion if there is an interest and am very much looking forward to your response. I will be sharing this letter with others in my neighborhood who have likewise expressed concern over maintaining an adequate water supply, so there may be additional follow up on those fronts as well. Again, thank you for your efforts and the opportunity to participate in the process.

Sincerely,

ZZ Churchil

Lisa L. Churchill Licensed Maine Geologist (#428) 27 Westbranch Road LisaLChurchill@outlook.com