

DEERFIELD PLANNING BOARD
P O BOX 159
DEERFIELD, NH 03037

JULY 27, 2022

MINUTES OF MEETING

PRESENT: Board members Peter Schibbelhute, Fred McGarry, Board of Selectmen's Representative (left meeting at 7:20PM), Robert Cote, Donald Wyman. Also present secretary Jane Boucher.

7PM Chair Peter Schibbelhute called the meeting to order.

APPROVAL OF MANIFEST

Fred McGarry moved to approve the manifest in the amount of \$1,682.83 and a time sheet for Jane Boucher (SNHPC Contract \$1,145.28, SNHPC Master Plan \$437.55. Time Sheet 24 Hours). Robert Cote seconded. Voted in favor.

APPROVAL OF MINUTES

Fred McGarry moved to approve the minutes of July 13 2022. Donald Wyman seconded. Voted in favor with Robert Cote abstaining.

PUBLIC HEARING/PLANNING BOARD APPROVAL /NORTHWOOD SUBDIVISION
Robb and Kristine Mooso, 172 Lynn Grove Road, Northwood, NH
were present.

Mr. and Mrs. Mooso provided plans for a subdivision in Northwood, NH requiring approval by the Deerfield Planning Board. The plans to include a note "The Town of Deerfield shall be notified of any change of use on Lot 1 other than the proposed garage. No additional traffic is proposed as a result of this subdivision."

Fred McGarry moved to authorize the Chair to sign the proposed plan for Robb and Kristine Mooso for a subdivision in the Town of Northwood, NH. Donald Wyman seconded. Voted in favor.

Chair Schibbelhute advised Mr. Mooso that he will also have to sign the approved mylar when it is signed by the Northwood Board of Selectmen

The Board agreed to table the Public Hearing scheduled for 7:15PM for Roscoe and Kathleen Blaisdell to follow the Continuation of the Public Hearing for Edward and Sandra Cross.

7:15PM CONTINUATION: PUBLIC HEARING MAJOR SUBDIVISION EDWARD AND SANDRA CROSS RANGE ROAD
Edward Cross, Roscoe Blaisdell, Christian Smith and several abutters were present.

Fred McGarry said he spoken with Steve Keach and had some significant issues with the fire pond. Mr. Keach agreed that a Hydrological study be performed and plans submitted . This would permit the the Board to grant conditional approval however would require the construction of the fire pond before any building permits are issued. The wording to be included on the plan reads "No building permits shall be issued for any lot in this subdivision until the proposed fire pond has been completed in accordance with the approved plans and is shown by a hydrological study to be capable of supplying 30,000 gallons of water for firefighting in a 50 year drought. Said study shall be completed to the satisfaction of the Deerfield Planning Board and Fire Chief."

Edward Cross noted that the firm he hired did not have the qualifications to do the study. He added that the Fire Chief had told him to build the fire pond and until that time no occupancy permits would be granted.

Peter Schibbelhute said that it would be necessary to have adequate fill for the building lots.

Fred McGarry noted that it is important that Mr. Cross work with Steve Keach.

Mr. McGarry said that he had sent comments regarding the study to the Board. A copy of the comments are attached to these minutes.

Christian Smith said that Edward Cross hired and they worked with National Fire Service. Mr. Smith noted that this site has a lot of water sent to it.

Rick Vandeburg, a Hydrologist, spoke saying the issue for them is the study does not provide enough data for them to be comfortable that during a 50 year drought enough water could be provided. He felt that a study could resolve the issue and abutters will be comfortable.

Ed Cross said that he will be willing to do what is best for the Town. He noted that when he began the project he asked the chief if he preferred a cistern or a pond and he said he preferred a pond. Mr. Cross said he was fine with the wording that Mr. McGarry provided.

Chair Schibbelhute said that a bond amount needs to be established by Steve Keach . Conditional approval needs to be granted before a bond amount is established. The note regarding that "No building permits be issued...." needs to be added to the plan.

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It was noted that several items including tree removal and replacement, were included on revised plans.

Mr. Cross provided a revised copy of Declaration of Covenants to be sent to Attorney Raymond for his review.

APPROVAL OF WAIVERS

Robert Cote moved to Grant a waiver from Section IV-5. Donald Wyman seconded. Voted in favor.

Robert Cote moved to Grant a waiver from Section IV-4 C. Donald Wyman seconded. Voted in favor.

CONDITIONAL APPROVAL

Donald Wyman moved and Robert Cote seconded to Grant Conditional Approval to Edward and Sandra Cross for a Major Subdivision on Range Road with the following conditions:
. Homeowners Association to be reviewed by Attorney James Raymond
. Bond to be established by Steve Keach
. Note included on plan: re "No building Permits be issued until proposed fire pond has been completed....."
Conditional Approval to lapse in 60 days . (September 27,2022).
Voted in favor.

8:30PM CONTINUATION; PUBLIC HEARING; ROSCOE AND KATHLEEN BLAISDELL;RESERVATION ROAD
Roscoe Blaisdell was present.]

Mr. Blaisdell noted that he will be requiring the installation of sprinkler systems and has spoken with the Fire Chief who is aware of this and indicated approval.

Board members asked that a note be put on the plan stating that installation , inspection, and testing of sprinkler systems be approved by the Fire Department before a Certificate of Occupancy be issued.

Robert Cote moved to Grant Conditional Approval to Roscoe and Kathleen Blaisdell for a Major Subdivision on Reservation Road (Map 418 Lot 62) with the following conditions:
. State Subdivision Approval Granted
. Monumentation Set
. Note on Plan regarding Sprinkler Systems.
Conditional Approval to lapse in 60 Days (September 27, 2022)
Donald Wyman seconded. Voted in favor.

The meeting was adjourned at 9PM.

Recorded and transcribed by Jane Boucher

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Pending Approval by the Planning Board

From: skeach@keachnordstrom.com,
To: mcgarry128@myfairpoint.net,
Cc: peteschib@gmail.com, lperryrh@gmail.com, f5fy@aol.com, mfisher@townofdeerfieldnh.com, cprolman@snhpc.org, bob.cote@yahoo.com,
Subject: RE: Cross Subdivision 50-Year Drought Study
Date: Tue, Jul 26, 2022 10:02 am

Fred

My calendar tells me we are scheduled to see each other this Wednesday morning at Blakes Hill Road. Perhaps we could take a few moments after to discuss/review the matter described in your message below.

Steve K.

-----Original Message-----

From: mcgarry128@myfairpoint.net <mcgarry128@myfairpoint.net>
Sent: Friday, July 15, 2022 9:56 AM
To: Steve Keach <skeach@keachnordstrom.com>
Cc: peteschib@gmail.com; lperryrh@gmail.com; f5fy@aol.com; mfisher@townofdeerfieldnh.com; cprolman@snhpc.org; bob.cote@yahoo.com
Subject: Cross Subdivision 50-Year Drought Study

Steve:

Sorry I was unable to reach you this morning.

I reviewed the study prepared by Beals Associates on the 50-year drought and the estimated impact on the proposed fire pond. The study was supposed to look at the impact on groundwater levels and groundwater flow in a year with precipitation consistent with the 50-year drought. What would be the level in the pond and would that result in a minimum of 30,000 gallons of usable storage?

In developing the precipitation amounts for Deerfield, the study uses precipitation amounts from four different locations: Deerfield; Surry, NH; Greenland, NH; and Manchester, NH. There is no discussion as to the rationale for choosing the non-Deerfield sites. Why was Surry, NH, which is over 50 miles from Deerfield, used instead of, say, Concord, NH? Why were portions of the data for these three sites used rather than 50 years of data for each? The compilation of partial precipitation data for these four sites arrives at a 50-year mean of 35.828 inches with the least amount of 27.49" in 2015. Tables showing temperature and precipitation were provided for Greenland and Surry Mountain Lake but none were provided for Manchester or for the limited data for Deerfield.

The study appears to depend entirely on the single test pit dug by Roscoe Blaisdell on August 9, 2021. Obviously, this is a single "data point" which is used for the design of the fire pond. The precipitation in 2021 was 44.2 inches according to Beal's data. The study fails to relate the precipitation in 2021 to the lowest precipitation in the last 50 years of 27.49 inches, which, by the way, is not necessarily the statistical 50-year drought precipitation. What would be the difference in the water table elevation at the fire pond in a year with only 27.49 inches of precipitation compared to the above-average precipitation in 2021?

The study predicts the water level in the fire pond will decline in direct relation to the change in annual rainfall. There is no information provided to justify this simple assumption. In addition, the predicted decrease in the water table of 8.39" is derived by subtracting the annual rainfall in 2015 from their computed

mean rainfall over the past 50 years. As mentioned above, the Blaisdell test pit was dug in a year which had rainfall 8.32" above the computed 50-year mean. Consequently, to be consistent, the study should have subtracted 16.71" (44.2"-27.49") from the 38-inch benchmark.

The groundwater flow into the fire pond and the elevation of water in the pond is dependent upon the horizontal hydraulic gradient and hydraulic conductivity of the soil. There is no discussion of the soil both at the fire pond site and upgradient of the site. Blaisdell provides a percolation rate in the upper 28" of soil at the site. The vertical percolation rate does not have any bearing on the seepage velocity and groundwater flow in the overburden soil.

In reviewing the ISO check list Location Recognition Request, I found several categories which were shown as "yes" which I did not see provided in the study. These were:

3. "Has the inflow of water source been considered including but not limited to ground wells . . ." The groundwater flow into the pond has not been provided or calculated.
6. "Has the outflow or consumption of water been considered, which include but not limited to, evaporation, transpiration, seepage irrigation and livestock demands?" There was no discussion of seepage out of the pond or evaporation from the pond.
7. Are variables addressed in the report? Normal pool elevation or drought pool elevation. Neither of these are discussed or provided in the report.

The design of the fire pond calls for a minimum of 1.5' of water over the intake pipe. NFPA calls for a minimum of 2' and the report fails to provide a reason for the variance from the NFPA standard.

Based on all of these unanswered questions, I have no confidence that this study adequately predicts that there will be 30,000 gallons of usable water in the fire pond in a 50-year drought.

Your letter to the Board dated July 12 acknowledges receipt of the Beals study and accepts an apparent endorsement by ISO on June 7, although I received no formal approval of the study. I believe you should take a critical look at the study and if necessary retain a hydrogeologist to assist you in your review.

Based on my review, it would appear Beals Associates will need to retain a licensed hydrogeologist to prepare a more in-depth study to determine the adequacy of the proposed fire pond for this project.

Fred McGarry