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## 2024 Blasting Permit

Crooker Construction, LLC  
P.O. Box 5001  
103 Lewiston Rd.  
Topsham, ME 04086  
Contact: Ian Messier, [ian@Crooker.com](mailto:ian@Crooker.com)  
207-729-3331

### Location of activity:

At the Crooker Construction, LLC Gravel Pit, Alna, Maine  
Tax Map R6, Lot 27

### Procedural Background:

On Feb. 17, 2003, the Alna Planning Board (hereinafter the Board) approved an application submitted by Maine Gravel Service and H.C. Crooker & Sons, submitted Feb. 1, 2002, for a gravel pit in Alna. The Alna pit was an expansion of an existing gravel pit in Whitefield. The Alna portion of the pit was described inconsistently in the application as either 36 acres or 41 acres. The Board's approval was subject to the following nine conditions:

#### *"II. Conditions:*

- 1. The Permittee will advise the Board of pending site visits by regulatory authorities and representatives of the Board will be allowed to observe such visits.*
- 2. The Permittee will advise the Board when its operations actually cross the town line in Alna and will, on an annual basis, advise the Board of how many square feet of surface area in Alna are open to active mining operations.*
- 3. The Permittee will provide the Town with copies of all permit monitoring or oversight reports, and any correspondence relating to such reports or activities, from any regulatory body, state or Federal, that has jurisdiction over the subject pit operation.*
- 4. The hours of operation of the pit will be no earlier than 6:00 AM to 6:00 PM Monday through Friday, with occasional Saturday operations within the agreed hours only when specific project work necessitates. That is, Saturday operation will not be authorized for routine business that can be accommodated within the weekday schedule.*
- 5. All trucks leaving the pit, both those owned by the Permittee and its affiliates and independent contractors buying from the pit, will have loads covered.*
- 6. Should blasting be required on the site, the Permittee will comply with the standards set forth in the requirements of the Town of Topsham Blasting Ordinance, and any updates or revisions to this Ordinance should they be adopted, provided such updates or revisions are no less stringent than the Ordinance now in force.*



7. Beginning at the Alna town line along the Bailey Road, the Permittee shall construct a berm, consistent in composition, height, slope, vegetation and road setback with that on the Whitefield road perimeters of the pit. This berm shall be extended so far as necessary along the Bailey Road parallel to the working pit as the pit is developed.

8. The Permittee will provide copies of regular monitoring reports of water levels from test wells on the pit site.

9. The Permittee will promptly advise the Board of any change in ownership or organizational structure of either of the entities to which this permit issued."

In August 2018, the successor to the original Permittee, Crooker Construction, LLC (hereinafter "Crooker" or the "Applicant") applied for permission to blast an area "not to exceed (1) acre... within the active working pit." The Board approved the application for a one-year permit on Sept. 14, 2018 subject to the following four conditions:

1. obtain landowners' permission to conduct water testing.
2. submit proof of liability insurance.
3. provide an appendix containing the Topsham Blasting Ordinance that is being followed in Alna.
4. provide an annual summary of turbidity testing results."

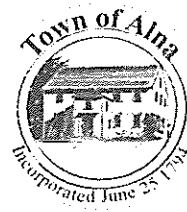
In September 2019, Crooker applied for permission to blast in the Alna gravel pit. The location of the blasting was depicted on the Site Plan as a "one acre quarry (Phase 1) 29,877 SF" within a yellow highlighted area on the Site Plan subject to a DEP permit. The Board approved the application for a permit to last until February 2021 on Sept. 7, 2019 subject to two conditions:

"contingent on receiving proof of your DEP permit and a summary, written in layman's terms, of the highly technical report you submitted."

On February 2, 2021, Crooker applied for permission to blast in the Alna gravel pit. The location of the blasting was depicted on the Site Plan as a "one acre quarry (Phase 1) 29,827SF" within a yellow highlighted area on the Site Plan subject to a DEP permit. The Board approved the application in writing for a one-year permit on Mar. 26, 2021.

On Mar. 1, 2022, Crooker applied for permission to blast in the Alna gravel pit. The location of the blasting was again depicted on the Site Plan as a "one acre quarry" within a yellow highlighted area subject to a DEP permit. The Board approved the application in writing for one year on April 11, 2022 subject to one condition:

"Crooker Construction provide at no cost, water testing for any resident of Alna that lives within 2000 feet of the pit and request a water test for turbidity and mineral content."



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On Mar. 7, 2023, Crooker applied for permission to blast in the Alna gravel pit. The location of the blasting was depicted on the Site Plan as the "2023 work area" and was described as including 2.07 acres. The Board approved the application by written approval dated April 6, 2023, subject to several conditions:

*"The approved blasting activity shall occur only in the area designated as the "2023 Work Area" on Figure 1 in your 2023 application. This permit allows for a maximum of 19 blasting days at the pit from April 6 2023 to December 31, 2023 a maximum of three blasts per blasting day, and the removal of a maximum of 100,000 CY yards of material.*

*"In addition to application requirements noted in earlier application approvals the Planning Board requires that in addition to the normal water quality testing that is stipulated by the Topsham Blasting Ordinance to be done at the 19 series wells that these wells should also be tested for the presence of hydrocarbons and PFAS chemicals by December 31 2023 and the results reported to the Alna Planning Board."*

On Mar. 25, 2023, the Alna Town Meeting adopted a moratorium on any new gravel pits or expansions of gravel pits affecting more than one acre of undisturbed land. The moratorium applied to any gravel pit expansion after Feb. 22, 2023. The Moratorium was for 180 days and was extended for two additional 180 day periods by the Alna Selectboard.

On Jan. 16, 2024, Crooker submitted the current application dated Feb. 6, 2024 for permission to blast in the Alna gravel pit. The Planning Board considered the application in meetings on Apr. 2, 2024 and April 9, 2024. The Board found that the application was complete for processing on April 9, 2024.

#### **Effect of the moratorium and jurisdiction to consider the application**

The Board considered the applicability of the moratorium. The Applicant argued that the moratorium had expired because the Applicant calculated the two 180 extensions from the date the Selectboard voted to extend the moratorium rather than from the date each moratorium period expired. The Applicant argued that the second extension of the moratorium was invalid because under that argument, the moratorium expired in January prior to the Selectboard action to extend. However, the Applicant failed to raise that argument at the time that the Selectboard voted on the second extension.

The Planning Board rejected the Applicant's argument and found that the moratorium was still in effect since the original 180 day moratorium was extended by two additional 180 day extensions for a total of 540 days from the date of applicability, Feb. 22, 2023.

Having found that the moratorium was still in effect, the Planning Board considered whether the terms of the moratorium allowed the Planning Board to consider Crooker's 2024 application. Section 1 of the moratorium states that the moratorium applies to "the expansion of any existing, actual and substantial Mineral Extraction Facilities and Operations within the Town of Alna." There is no question that the Crooker pit is an existing, actual and substantial Mineral Extraction Facility and Operation as defined in the moratorium.



Section 1(b) of the moratorium defines “expansion” as the “enlargement of the aggregate disturbed surface area of land by more than 1 acre.” At the April 2, 2024 meeting, the Applicant provided 3 additional visual depictions of the site, each identified as “Figure 2 Site Plan.” One of those depictions dated 4/1/2024 (hereinafter referred to as Figure 2A) showed the “2023 WORK AREA - 1.28 ACRES” outlined in red. The Applicant stated that all of the 1.28 acres was land that had been disturbed prior to the adoption of the moratorium. Based on that information the Board found that it had jurisdiction to consider the application in so far as it does not propose to operate on more than one acre of undisturbed land.

#### **Area proposed for blasting in 2024**

Condition 2 of Crooker’s 2003 permit requires the Permittee on an annual basis to “advise the Board how many square feet of surface area in Alna are open to active mining operations.” The Board finds that the Applicant has provided no evidence that that condition has been met.

A second version of the 2024 Figure 2 Site Plan depiction dated 4/1/2024 (hereinafter referred to as Figure 2B) shows the “2024 ANTICIPATED WORK AREA” outlined in blue. The Applicant was unable to provide the acreage of that area but a visual comparison of that acreage with the 2023 work area on Figure 2A indicates that the 2024 anticipated work area is 2 – 4 times as big as the 2023 work area. The Applicant stated that they needed that large an area in order to have flexibility in where they blasted based on the condition of the ground. The Applicant further stated that they planned to blast up to 60,000 or 65,000 CY in 2024 and that not more than one acre of undisturbed land would be blasted. The Applicant expressed a strong desire not to have an overall acreage limitation on the area where they would be permitted to blast as had been the case in previous years. The Board found that blasting within the blue outlined area labeled “2024 ANTICIPATED WORK AREA” so long as not more than one acre of undisturbed land is blasted and not more than 70,000CY of material in total, from both undisturbed and previously disturbed lands, is blasted was allowable.

#### **Water quality and groundwater levels**

Questions were raised about several water quality issues, including the impact of the operation on Spring Brook, turbidity testing, and ongoing testing of the Series 19 wells, and ground water levels.

Regarding Spring Brook, the Applicant agreed to conduct testing of the B-211 and B-212 wells and the surface water of Spring Brook just downstream of the confluence of Spring Brook with the tributary flowing in from the northeast, as depicted on Exhibit I of the public comments submitted by Jeff Philbrick on Mar. 28, 2024 or at a location in Spring Brook agreed to by the Applicant and the Board. The testing will be for temperature, turbidity, hydrocarbons, perchlorate, and PFAS. The specific PFAS testing method will be agreed to by the Applicant and Board, or, in the absence of agreement, will consist of EPA’s most recent recommended testing for PFAS in groundwater, currently methods 533, 537, or 537.1.

Regarding turbidity testing, in 2018, Crooker proposed to do turbidity testing in at least four neighboring homeowners’ wells as described in the application. This testing requirement was memorialized in the Board’s 2018 approval as Condition 4. The Applicant advised that the accepted range for turbidity is between 5 and 20 NTUs (Nephelometric Turbidity Units). The Dec. 19, 2023 report by Sevee and Maher Engineers indicates that all four Series 19 wells had turbidity values above 20 NTU (22, 24.5, 23.7, and



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20.5 NTUs) and exceeded the historical maximum range. The Board expressed its concerns and asked for additional information going forward.

The Applicant agreed that they would continue to monitor the Series 19 wells as well as the B-211 and 212 wells for all of the parameters, including turbidity, they have been testing since 2019 plus hydrocarbons and PFAS even though that information is not required by DEP at this time since the Applicant has withdrawn its application to quarry below the mean high water level in Alna. The Applicant has also agreed to provide water quality, including turbidity testing, to all surrounding residents who request it.

Regarding groundwater levels, the Applicant agreed that they would continue to monitor ground water levels in the B-212, B-216, B-19-1 and B-19-4 wells on a quarterly basis.

#### **Covered trucks**

Condition 5 of Crooker's 2003 permit is: "All trucks leaving the pit, both those owned by the Permittee and its affiliates and independent contractors buying from the pit, will have loads covered." Several members of the public have stated that many trucks exiting the Crooker pit do not have their loads covered as required. The Board finds that the Applicant has failed to comply with this condition. The Applicant acknowledged that finding and re-committed to enforcement of Condition 5 of the 2003 permit using increased staff training, a game camera, or other methods.

#### **Blast day/shots/events**

There was significant confusion regarding the definition and relationship among the terms blast "days," "shots," and "events." Crooker clarified that they are requesting a maximum of 20 blast days with a maximum of 2 shots/day, although they stated that most days there would only be one shot.

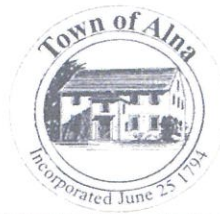
#### **Peak Particle Velocity and Peak Decibel Levels**

The 2023 review showed that in 2023 the blasting resulted in five exceedances of the Peak Particle Velocity limit and one exceedance of the Peak Decibel limit. The Applicant stated that anomalies in the testing methods accounted for some of these exceedances. The Board expressed its concerns and asked for additional information going forward.

#### **Conclusions and Approval**

Based on the written application and the above clarifications and agreements by the Applicant and the Board's findings above, the Board concludes that the application is consistent with the moratorium currently in effect in Alna and meets the standards of the Topsham Blasting Ordinance subject to the following conditions:

1. The Applicant will test the water in wells B-211 and B-212 and the surface water in Spring Brook during low flow conditions, between July and October.



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2. Blasting is limited to the area outlined in blue and labeled "2024 Anticipated Work Area" on Figure 2B submitted by the applicant, and not more than one acre of undisturbed land and not more than 70,000CY of material are blasted.
  3. The Applicant will enforce Condition 5 of its 2003 permit to ensure that all trucks leaving the site with loads are covered.
  4. The Applicant will immediately notify the Board if there are exceedances of the Peak Particle Velocity or Peak Decibel levels, describing any changes that will be made to avoid the exceedances in the future and/or explaining any anomalies in the data.
  5. The Applicant will comply with Condition 2 of its 2003 permit to report annually "how many square feet of surface area in Alna are open to active mining operations."

Consistent with the above findings, conclusions, and conditions, the application is approved.

Date: April 9, 2024

The Alna Planning Board

By: Cathy Johnson  
Cathy Johnson, Chair