

VERMONT SUPERIOR COURT
Environmental Division
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Docket No. 79-7-19 Vtec

Katzenbach A250 Permit #7R1374-1

DECISION ON THE MERITS

Rebecca Beidler and Jeffrey Ellis, individually and d/b/a Peace of Earth Farm (together, Neighbors), appeal Act 250 permit #7R1374-1 issued on June 13, 2019 by the District #7 Environmental Commission (District Commission) to Christian and Clark Katzenbach (Applicants) for development and operation of a 3-acre commercial sand and gravel pit on property located off West Griggs Road in Albany, Vermont.

Neighbors raise ten Questions in their Amended Statement of Questions. The Court resolved Question 2 in an Entry Order issued December 23, 2019, by concluding that the successive application doctrine does not bar the present application. See Katzenbach A250 Permit #7R1374-1, No. 79-7-19 Vtec, slip op. at 3 (Vt. Super. Ct. Env'tl. Div. Dec. 23, 2019) (Walsh, J.). We held a four-day merits trial on the remaining Questions on January 12–14 and January 20, 2021.

Neighbors are self-represented, and Applicants are represented by David L. Grayck, Esq. The Natural Resources Board (NRB) is participating in this appeal pursuant to 10 V.S.A. § 8504(n)(3) and is represented by Gregory J. Boulbol, Esq.

Based upon the evidence presented at trial the Court issues the following Findings of Fact, Conclusions of Law, and Judgment Order that accompanies this Merits Decision.

Findings of Fact

Procedural Background

1. Applicants seek an Act 250 permit to operate a three-acre commercial sand and gravel pit (the Project) on their property located off West Griggs Road, identified in Book 39, Pages 201–03 of the land records of the Town of Albany, Vermont (the Property).
2. On August 29, 2017, the District Commission issued Land Use Permit #7R1374 (LUP 7R1374) for the Project.
3. The Project has been in operation since the granting of this permit.
4. Neighbors, who own property adjacent to the Project, were joined by Mimi Aoun and Judy Valley in a timely appeal to this Court.
5. The Court conducted a single-day trial on November 13, 2018, at the Orleans County Courthouse in Newport, Vermont. We conducted a site visit after trial on the same day.
6. Based upon the evidence presented at trial we issued a January 2, 2019 decision concluding that Applicants had failed to meet the initial burden of production for each of the criteria under review. We expressly noted that pursuant to 10 V.S.A. § 6087(c), Applicants had the opportunity to apply for reconsideration within six months of the January 2 decision after supplementing the application with evidence of compliance with the relevant criteria. See In re Times & Seasons, LLC, No. 45-3-09 Vtec, slip op. at 7–8 (Vt. Envtl. Ct. Mar. 29, 2010) (Durkin, J.) (discussing an Act 250 application for reconsideration), *aff'd*, 2011 VT 76, 190 Vt. 163.
7. On February 22, 2019, Applicants filed application #7R1374-1 with the District Commission for the same sand and gravel operation. The District Commission approved the application and issued Land Use Permit #7R1374-1 (the Dash 1 Decision and Dash 1 Permit) for the Project on June 13, 2019.
8. This proceeding concerns Neighbors’ appeal of the Dash 1 Permit, filed on July 12, 2019.

Project Overview

9. The Project occupies approximately 3 acres on Applicants' property, located off West Griggs Road in Albany, Vermont.

10. West Griggs Road is a Class IV dirt road, which means it is minimally maintained by the Town. See 19 V.S.A. § 302(b). Beginning at an intersection with Vermont Route 14, the road runs uphill to the southeast. The entrance to the sand and gravel pit, or the Project site, is approximately 1300 feet up West Griggs Road from Route 14, on the south side of the road.

11. Applicants own land on both the north and south sides of West Griggs Road, beginning at a western boundary approximately 1200 feet up the road from Route 14. The 3-acre Project site is located on the south side of West Griggs Road, near Applicants' western boundary.

12. There is a cluster of residences on the lower segment of West Griggs Road, near the Route 14 intersection. The houses are generally closer to West Griggs Road than Route 14, and one building is so close that extends into the West Griggs Road right-of-way.

13. Property owners with residences on West Griggs Road include Ms. Beidler and Mr. Ellis (Neighbors), and Judy Valley.

14. The property of Janice and Kenneth Adams is located at 397 Vermont Route 14 N., on the south side of West Griggs Road. The Adams property runs along West Griggs Road from the end of the residential area to Applicants' western boundary. The Adams residence is over 1000 feet from the pit, and their eastern property line is approximately 100 feet from the pit.

15. Neighbors live and work at 43 West Griggs Road. Their residence is within 100 feet of West Griggs Road; approximately 200 feet from Route 14; and approximately 1400 feet from the pit. Their property extends up the north side of West Griggs Road to a boundary with Applicants' land. The southeastern corner of their property is closest to the pit: approximately 100 feet away.

16. Neighbors are ecological farmers. In broad terms, this means that their farming operation uses organic inputs, minimal machinery, and no chemical pesticides or herbicides.

They maintain commercial vegetable gardens, greenhouses, and fruit trees on their property. They also cultivate mushrooms and raise various types of livestock, utilizing portions of their land for rotational grazing. They are concerned about the Project's potential impacts on their land, business, and quality of life.

17. Haul trucks access the Project site from Route 14, driving up West Griggs Road and turning right into the pit entrance. To leave the Project site, trucks turn left out of the pit entrance and head down West Griggs Road again to the Route 14 intersection.

18. Between the intersection and the pit entrance, parts of the road are quite steep.

19. The lower segment of the road, near Route 14 and the residences, is approximately 18 feet wide. Further up, the road narrows to 14 feet.

20. The Project is currently operating pursuant to the Dash 1 Permit. On appeal, Applicants' proposal mirrors the terms and conditions of the Dash 1 Permit with some exceptions. Aspects of the proposal carried over from the Dash 1 Permit include the following.¹

21. The hours of operation shall not exceed 6:30 AM to 6:00 PM, Monday to Friday, and 7:00 AM to 1 PM on Saturdays, with no operation on national holidays.

22. Water and/or calcium chloride will be used to control dust on haul roads, traffic area, and storage piles.

23. Trucks entering, exiting, or operating at the site will be covered when they are loaded with materials that may generate dust.

24. Only trucks with factory original (or equivalent) equipment will be allowed at the Project and on West Riggs Road.

25. There will be a maximum of 2.9 acres of open un-reclaimed pit area at any given time.

26. The annual rate of extraction will not exceed 30,000 cubic yards (CY) per year.

27. Total extraction will not exceed 121,000 CY over the 20-year operating life of the Project.

¹ We include only the terms and conditions with particular relevance to our consideration of the criteria under review on appeal.

28. The maximum Project truck traffic will be 40 one-way trips per day or 20 round trips (truckloads) per day.

29. In contrast to the proposal approved in the Dash 1 Permit, the proposal before this Court does not include on-site or off-site crushing of material. The District Commission previously approved up to 15 days of crushing operations per calendar year.

Experts and Witnesses

30. Nathan P. Sicard, P.E., an engineer with Ruggles Engineering Services, Inc., testified on behalf of Applicants as an expert witness. Mr. Sicard spoke to his report and accompanying exhibits regarding the Project's impacts on air pollution, aesthetics, floodways and streams, soil erosion, and traffic. He prepared his report after visiting the site and reviewing information presented to the District Commission, along with the study prepared by Applicant's sound expert and relevant permits including LUP 7R1374 and the Dash 1 Permit. Mr. Sicard has provided permitting design and support for at least ten Act 250 projects in the last five years, including quarries. He has been regularly involved with Act 250 projects since 2004 and has also consulted on numerous statewide transportation projects.

31. Eric L. Reuter is a Board-Certified acoustics consultant with Reuter Associates, LLC, a firm he founded to provide acoustic and noise control consulting services. Mr. Reuter testified on behalf of Applicants as a sound expert. He offered his study and assessment of noise impacts from the Project, based on sound measurements he took and modeling he conducted for various scenarios involving pit equipment, haul trucks, and traffic on Route 14. There was no monitoring of noise outside of the pit itself. Mr. Reuter has considerable experience in environmental sound control, evaluating sound propagation and impacts. He has managed several hundred environmental noise projects, including those involving mineral extraction and transportation. He has also worked on several Act 250 projects.

32. Brian Goodridge, a member of the Town of Albany selectboard, testified on behalf of Applicants. He relayed his knowledge of the Town's discussions with Applicants, and the maintenance and classification of West Griggs Road. He also gave his impressions of the road conditions and the general characteristics of Project area including nearby residences and traffic.

33. Clark Katzenbach testified on his own behalf as one of the Applicants. He discussed past, present, and future operations and maintenance activities associated with the Project. He also spoke to his knowledge and impressions of the Project area, including surrounding properties and West Griggs Road. Mr. Katzenbach also indicated that he understands the reasons for this Court's prior denial of the Project: a lack of evidence relevant to the Act 250 Criteria. He hired experts and worked to supplement the application with additional evidence to meet the burden of production.

34. Jeffrey Ellis testified on behalf of Neighbors. He provided background information, including his knowledge of the area and Neighbors' property, and he described their farming operations and recreational uses of the land. He also provided a detailed account of the impacts Neighbors have experienced and observations they have made regarding many aspects of the Project since it began operating.

35. Janice and Kenneth Adams each submitted affidavits which were accepted into evidence, stating that they have no objection to the Project or the noise from the Project. They also do not object to the noise and sound levels predicted by Mr. Reuter. Ms. Adams testified at trial to the same, and Mr. Adams adopted her testimony.

Criterion 1: Air Pollution

Dust

36. Mr. Sicard identified potential sources of airborne dust from sand and gravel extraction and associated operations: excavation and processing, the conditions at the extraction and processing site, and transportation. Depending on the project, processing may include screening, crushing, loading, and trucking.

37. Applicants propose to operate within 3 acres of exposed pit area at any given time. The Project will involve excavation, screening, loading, and transportation of sand and gravel.

38. Equipment used at the site will include an excavator, bucket loader, screen, and dump trucks. There is the possibility of more than one truck on-site at a given time. Once loaded, trucks will transport material down West Griggs Road.

39. Applicants are not proposing any crushing of material, on-site or otherwise.

40. Mr. Sicard testified the Project will generate some dust; however, the scope of the Project is small relative to other earth extraction projects in the region and its scale will limit potential dust impacts. He stated that the Project is set up well to contain dust within the site.

41. The conditions imposed by the Dash 1 Permit limit the volume of extraction to 30,000 cubic yards per year, thereby limiting the potential dust impacts.

42. The comparatively small size of the pit, with its triangular and narrow shape, will not provide enough space for a large, acute extraction face. Mr. Sicard explained that large open face conditions with acute, or right angles can allow wind to come up from the base and create dust. The restrictive size of the Project effectively controls dust by ensuring a relatively low face height and a more relaxed angle, limiting the potential for dust to become airborne.

43. Other significant factors in the amount of dust generated by excavation and processing include the amount of activity and the amount of precipitation. As operational intensity increases, more frequent dust control measures may be needed. Precipitation will reduce the potential for dust, while dry site conditions will increase the potential. Applicants should adapt dust control practices to suit the conditions at the site and the intensity of the activity.

44. Mr. Sicard also spoke about the potential for dust generated by trucks travelling up and down West Griggs Road. Trucks will pick up dust on the road as they drive along, and the higher the speed, the more dust will be picked up and thrown into the air.

45. West Griggs Road is narrow, and the middle segment between the start of the hill and the pit entrance has an average grade of approximately 15%. Mr. Sicard noted that the road sits between embankments or berms that can be 8–10 feet tall on either side, which he attributed to years of erosion. Combined with tree cover along most of the road's length, the effect is a "tunnel of vegetation." As most of the road is well shielded, most of the dust that becomes airborne is expected to settle back onto the road.

46. Applicants have made improvements to West Griggs Road, including the placement of gravel or crushed ledge materials which act as stabilizers and limit the amount

of dust attributable to fine sand and silt on the roadway. Mr. Katzenbach plans to make additional improvements and maintain the road over the life of the Project.

47. The width and grade of the road is expected to limit truck speed to around 5-10 miles per hour (mph) for safe operation. Low truck speeds will limit the amount of dust thrown into the air.

48. Though Condition 2 of the Dash 1 Permit issued by the District Commission incorporates a finding that the Town of Albany will be responsible for dust control on West Griggs Road, Applicants propose to take full responsibility for dust control measures.

49. Mr. Katzenbach will spray West Griggs Road and pit area with calcium chloride or water as necessary when dry and dusty conditions arise. Mr. Sicard testified that calcium chloride is commonly used by earth extraction projects and will effectively stabilize the road by binding soils together. While water can be used in the same way, calcium chloride is more effective in extreme heat. Applicants do not object to prioritizing calcium chloride over water for dust control.

50. Though Mr. Sicard expects comparatively more dust on the lower portion of West Griggs Road, which is more exposed, he concluded that Applicants' dust control measures will be adequate.

51. If the Project operates as proposed, following the control measures outlined above, dust from the road will not be a significant concern.

52. Section 5-231(4) of the Vermont Air Pollution Control Regulations applies to the Project and requires reasonable precautions to prevent particulate matter from becoming airborne.

53. Neighbors are concerned about dust impacts on their property. They have avoided using the southeastern corner of their property since the Project began operating, due to noise and dust issues from trucks entering and exiting the pit.

Exhaust Emissions and Fumes

54. There are two sources of exhaust emissions from the Project: exhaust from equipment working on-site and from trucks on West Griggs Road and Route 14.

55. Exhaust at the Project site will come from Applicants' excavator, bucket loader, and the portable generator associated with the screen, along with their haul trucks and the trucks of customers.

56. Mr. Sicard spoke to the potential exhaust impacts based on his observations and experience with heavy equipment. In his opinion, there will be no adverse air quality impacts from the exhaust of equipment working on-site. He stated that the distance between the pit and nearby residences is such that any fumes will disperse and dissipate before creating impacts. He also noted the small size of the Project and the Dash 1 Permit conditions limiting the hours of operation, rate of extraction, and truckloads of material per day as limiting factors.

57. As to exhaust emissions from trucks, Applicants rely on Vermont's Vehicle Emissions Inspection and Maintenance Program as well as the conditions imposed in the Dash 1 Permit.

58. Except for school buses and motor buses, all motor vehicles registered in Vermont must undergo a safety and visual emissions check each year. See 23 V.S.A. § 1222(a). Vehicles 16 model years old or newer must undergo an emissions or on board diagnostic (OBD) systems inspection on an annual basis as well. See *id.* Section 1222(a) applies to trucks associated with the Project.

59. In addition to the State inspection requirements, Applicants propose to carry forward conditions from the Dash 1 Permit requiring non-modified exhausts for their trucks, and factory original equipment or its equivalent for all trucks allowed at the Project. Applicants will place a sign at the pit entrance informing drivers of the requirement and take appropriate action when there is reason to believe that non-factory equipment is in use. Mr. Sicard opined that factory-original equipment will limit truck emissions.

60. On behalf of Neighbors, Mr. Ellis testified to his experience with exhaust fumes from the Project. He focused primarily on the fumes from trucks on West Griggs Road. The smell of diesel fumes is noticeable at numerous places on their property when trucks pass by, particularly in wooded areas and on the portion of Neighbors' property that runs along the road. Mr. Ellis has experienced some throat irritation and estimates that the smell can linger

for as long as 10 minutes. Neighbors' property also abuts Route 14, where heavy trucks often pass by, but Mr. Ellis indicated that he does not notice those fumes. The impacts from Project trucks have reduced his desire to work outside at the affected areas on their property, as he prefers not to breathe diesel fumes.

Noise

61. Neighbors have raised the issue of noise impacts from the Project, under Criterion 1 and Criterion 8. The Court's findings as to noise are described in full at ¶¶ 115–146.

Criterion 1(D): Floodways

62. Mr. Sicard presented a map from the Vermont Agency of Natural Resources (ANR) Natural Resources Atlas and a Flood Insurance Rate Map from the Federal Emergency Management Agency (FEMA), along with a topographic map he prepared with LIDAR data from the Vermont Center for Geographic Information.

63. The Project is not located within a designated river corridor.

64. The Project is not located within the special flood hazard area for the Black River shown on the FEMA Flood Insurance Rate Map.

65. Based on the information before the Court, neither the Project nor the larger tract on which it sits is within a floodway or floodway fringe.

Criterion 1(E): Streams

66. Neither the Project nor the larger tract on which it sits are located within 100 feet of a perennial stream or river, a designated special flood hazard area, or a designated river corridor. The nearest perennial river is the Black River, located well over 1000 feet to the east of the pit.

67. Mr. Sicard interpreted the topographic map he prepared, noting that surface water can be expected to flow perpendicular to the contour lines delineating changes in elevation.

68. The topographic map shows a ravine, indicated by tightly grouped v-shaped contour lines, beginning near the north side of West Griggs Road opposite the pit and proceeding roughly northward. The beginning of this channel is over 100 feet from the nearest area of disturbance at the pit.

69. Mr. Sicard characterized the ravine as an intermittent or ephemeral stream, where water will naturally flow during heavy precipitation events. There was inconclusive debate at trial as to whether water would be present on a more regular or seasonal basis.

70. Given the distance between the nearest disturbance and the stream, the Project is not “adjacent to” the stream.

71. The Project site is situated on a hill, and topographic contours show that water from uphill sources will be diverted away from the site rather than washing through it.

72. As to surface water discharge from the Project to the stream or nearby properties, Mr. Sicard concluded that there will be no impact to the stream and “almost zero potential” for discharge to Neighbors’ property. In part, this is because site is topographically shielded, and the work area at the pit will be maintained to slope toward the extraction face which allows water to pool on-site before being absorbed into the ground (infiltrating).

73. Neighbors presented photos of the pit entrance taken in November, 2019, showing evidence of a small amount of sediment transportation onto West Griggs Road. According to Mr. Sicard, the sediment appeared to be coming from embankments along the edge of the pit entrance which were not properly stabilized.

74. Mr. Katzenbach testified that he has seen water leave the pit entrance, but he also noted that he has taken steps to build up and stabilize the entrance and West Griggs Road at that location since the photos were taken. In accordance with plans submitted to the District Commission and this Court, he has stabilized the overburden embankments along the south side of the pit entrance and added material to West Griggs Road creating a 3% slope to the south, which will help prevent any water from crossing the road. Applicants will continue to maintain the pit entrance to minimize erosion and runoff.

75. Additional photos from 2010 through 2016, and testimony from Mr. Ellis, illustrated that areas of Neighbors’ property have experienced increasing erosion over the years. They have experienced significant flooding following major storm events like Hurricane Irene. The intermittent or ephemeral stream discussed above contributes to surface discharge onto their property. Neighbors are concerned that any additional

disturbance of the land above their property, which includes the pit, will lead to further runoff and erosion.

76. Mr. Sicard expects opined that the site is “99 percent self-contained,” and he does not expect any water from the pit entrance to cross the road and enter the stream. He also noted that any water escaping the pit entrance would follow the topographic contours and would not flow toward Neighbors’ property.

Criterion 4: Erosion

77. In addition to surrounding topographic features and the sloping work area, which both act to minimize erosion and discharge at the Project site, the sand and gravel material in the pit is well draining and therefore is not highly erodible.

78. On May 30, 2017, ANR issued Applicants an Authorization to Discharge stormwater runoff under their Multi-Sector General Permit (MSGP) 3-9003. The Authorization covers stormwater runoff from the pit and requires Applicants to comply with all terms and conditions of their MSGP, including inspection, monitoring, and reporting requirements.

79. In accordance with the Authorization, Applicants must also implement the best management practices (BMPs) specified by the Low Risk Site Handbook for Erosion Prevention and Sediment Control.

80. Applicants have offered their Authorization to Discharge to establish a rebuttable presumption of compliance with Criterion 4 as provided by Act 250 Rule 19.

81. Applicants will follow the requirements set forth in the Authorization to Discharge, as well as the Stormwater Pollution Prevention Plan for the site, prepared by Watershed Consulting Associates, LLC.

82. Once the extraction phase of the Project is complete, the site will be contained in accordance with Applicants’ reclamation plan. The pit will be graded, capped with topsoil, and seeded for revegetation. Applicants have stockpiled topsoil from the pit on-site, and that material will be used to cover the pit. Mr. Sicard noted that the current berms and piles of soil at the site are stable, and that revegetation will prevent the erosion that would occur from precipitation and other exposure if the pit were left open.

83. Potential erosion on West Griggs Road is not within the scope of Applicants' Authorization to Discharge.

84. Mr. Goodridge stated his understanding that West Griggs Road is Class IV in its entirety, meaning the Town is not responsible for maintaining it apart from culverts and bridges. Applicants presented a letter from the Town Selectboard to the same effect, stating the Town's position that Applicants will be wholly responsible for maintaining the section of road at issue here: West Griggs Road from the intersection of Route 14 to the pit. Mr. Katzenbach agrees that he is wholly responsible for maintaining the road.

85. When asked about the Town Road Foreman's role in ensuring that the road is maintained, Mr. Goodridge relayed that the Foreman inspects the many dirt roads in town. The Foreman will inspect West Griggs Road on a roughly seasonal basis and respond to complaints by working with Applicants to make sure the appropriate maintenance is done.

86. Mr. Sicard observed areas where Applicants have built up and stabilized the road with gravel and similar materials. In the absence of such stabilization, fine-grain soils can become susceptible to erosion and can be transported with the flow of water.

87. In Mr. Sicard's opinion, the truck traffic on West Griggs Road will not create an erosion concern, especially given Applicants' work on road maintenance.

88. Applicants submitted a site plan for proposed road improvements to the district commission and this Court. Mr. Katzenbach testified that he has begun making improvements in accordance with the plan, creating one of three stone-lined turn outs. He has not yet completed the additional turn outs, but will complete them if the Project is approved. The plan also depicts an existing water bar and vehicle pull-off.

89. In addition to improvements specified in the site plan, Mr. Katzenbach has applied Staymat to eroded areas along the upper and lower sections of West Griggs Road. He applied Staymat on parts of the upper section of the road in 2018, and most recently applied it on areas of the lower section in December 2020. Staymat is a type of gravel material that is effective in stabilizing dirt road and driveway surfaces to resist erosion.

90. Mr. Katzenbach will continue to improve the road in accordance with Applicants' plans, and maintain it using Staymat and other materials. He will follow the Vermont Better Backroads Manual.

91. Neighbors offered several photos and videos, taken in 2019 and 2020, to show what they believe to be erosion issues on West Griggs Road. Aside from photos of the pit entrance, addressed above in the context of Criterion 1(E), the photos were taken in and around the residential area. The videos show many areas of the road from the intersection with Route 14 to just before the pit entrance. Mr. Sicard identified an area near residences where the road lacked a well-defined crown, which led to some water flowing over the top of the road and some tracking of sediment. He opined that this is typical of gravel town highways and could be fixed through stabilization with gravel and rock. Other segments of the road appeared to him to be in excellent condition.

92. The photos and videos presented by Neighbors did not show unreasonable or dangerous erosion on West Griggs Road.

Criterion 5: Traffic

93. The Project will create additional truck traffic on West Griggs Road and Route 14. Applicants propose to carry forward conditions of the Dash 1 Permit which limit truck traffic to a maximum of 40 one-way trips, or 20 round trips per day.

94. Existing traffic on Route 14 is steady and includes heavy truck traffic. Existing traffic on West Griggs Road is minimal; most uses are related to the residences near Route 14. The upper section of the road is rarely used by vehicles other than haul trucks.

95. Near Route 14 and the residences, where West Griggs Road is wider, there is sufficient room for passenger cars to pass haul trucks as they travel up and down the road. There is sufficient room for two trucks to pass each other in opposite directions, although they may need to use some additional space in the right-of-way as they pass.

96. Beyond the residences, where the road narrows, it is not possible for two trucks to pass each other in opposite directions. There is a pull-off area about 700 feet up the road and about 200 feet from the pit entrance, which allows vehicles to pass each other.

97. Due to the width and grade of West Griggs Road, trucks traveling to and from the pit are expected to drive at 5–10mph.

98. Route 14 is designed to accommodate heavy traffic, and vehicle speeds are much higher than those on West Griggs Road.

99. Applicants have installed a “stop ahead” sign on West Griggs Road, 300 feet before the intersection with Route 14, and a stop sign at the intersection. The signage comports with recommendations from the Town.

100. Trucks traveling to the pit will arrive via Route 14 and turn either right or left onto West Griggs Road. Trucks leaving the pit turn left down West Griggs Road, travel to the stop sign, and then enter Route 14 heading north or south by turning right or left. Applicants represent that the percentage of trucks turning right or left thus far has been approximately 50/50.

101. Mr. Katzenbach sought and received a permit from the Vermont Agency of Transportation (VTRANS) for an asphalt apron extension at the end of West Griggs Road as it intersects Route 14. He has constructed the apron, which will strengthen the transition between Route 14 and West Griggs Road where the roadway is more susceptible to wear from truck acceleration and deceleration.

102. Traffic safety conditions are a concern when trucks back out into Route 14.

103. The Project will generate a comparatively small amount of truck traffic, and trucks will be moving slowly along the entire 1300-foot section from Route 14 to the pit. Truck speed will be slow through the residential area thanks to the stop sign and turning movements associated with entering or exiting Route 14.

104. If a car or truck is present at the stop sign on West Griggs Road, waiting to turn onto Route 14, there is enough space for arriving trucks to turn onto West Griggs Road.

105. Trucks have occasionally stopped on Route 14 to wait for oncoming traffic to pass before turning onto West Griggs Road. Mr. Ellis stated that he has seen trucks waiting on Route 14 while another truck exits West Griggs Road.

106. Mr. Ellis and Mr. Katzenbach confirmed that there have been occasions where a truck backed out into Route 14. The reason for this is not clear to the Court.

107. Trucks on West Griggs Road have occasionally backed down the road to reach the wider section near the bottom and allow trucks descending from the pit to pass.

108. The pit cannot accommodate more than two trucks at a time for loading and transportation. The Project does not operate as a “self-serve” establishment: customer pick-ups are scheduled, and Mr. Katzenbach can communicate with incoming and outgoing customer trucks through a CB radio channel. Applicants do not object to a permit condition requiring customer pick-ups to be scheduled.

109. In terms of traffic, this is a small extraction project. Traffic impacts will be minor.

110. Considering the scale of the Project, the amount of additional traffic, and the existing capacity of Route 14 and West Griggs Road, a formal transportation demand management (TDM) strategy is not warranted.

111. Mr. Ellis explained that Neighbors have historically used West Griggs Road for recreation, including walks with their dog. He asserted that haul trucks on the road take up almost all the available width, to the point where he no longer feels safe as a pedestrian. As a result, Neighbors have stopped taking their regular walks. A video submitted by Neighbors shows one of Applicants’ trucks driving up West Griggs Road, occupying most of the road. Tall embankments can be seen on either side of the road for a significant portion of its length. As Mr. Ellis noted, it would be difficult for a pedestrian to get out of the path of an oncoming truck.

Criterion 8: Aesthetics

112. The area surrounding the Project is rural and is characterized by low-density residential and agricultural uses. The land is primarily wooded, with some open areas.

113. Route 14 is a busy thoroughfare, with consistent traffic including heavy trucks.

114. Other gravel pits and similar operations exist in the area, including a pit about 2 miles away which is owned by the Town.

Noise

115. Natural sounds and the traffic on Route 14 define the noise characteristics of the area

116. Mr. Reuter conducted a study of noise impacts from the Project and provided background information about sound measurement to put his study in context. In preparing the study, he assumed that the Project would operate as proposed and as conditioned by the Dash 1 Permit. He also reviewed Applicants' other permits and Act 250 application materials, along with Mr. Sicard's report.

117. Sound levels are typically described in terms of decibels (dB). To account for frequency, or pitch, sound levels are typically "A weighted" and reported as dBA.

118. Decibels can be used in various ways, including to describe instantaneous sound or an average of sound energy over time. When measuring sound, the response time of recording instruments must be accounted for, because a computer can register changes in sound "faster" than humans.

119. The former Environmental Board, in In re Barre Granite Quarries, No. 7C1079 (Rev.)-EB (Dec. 8, 2000), designated a general standard for on-site noise which satisfies aesthetic concerns under Criterion 8 for commercial and industrial projects (the "Barre Granite standard"). Under the Barre Granite standard, instantaneous on-site noise from a prospective project under normal circumstances should not exceed 55 dBA Lmax at homes and areas of frequent human use, or 70 dBA Lmax at the property line. The Vermont Supreme Court has held that the Barre Granite standard is to be applied flexibly and may be departed from depending on the acoustical context of the project area. See In re Lathrop Ltd. P'ship, 2015 VT 49, ¶¶ 81–82, 199 Vt. 19.

120. Mr. Reuter used "Lmax" and "LASmax" designations interchangeably to describe his measurements and modeling for maximum sound levels. LASmax stands for the Level, A-Weighted, Slow-Weighted, Maximum. There are two time-weightings to account for how quickly a meter responds to changes in sound levels: "slow" or "fast." In this case, because the maximum levels come from events like engines and equipment interacting with material rather than "impulsive" events like gunshots, a "slow" meter response time is appropriate.

121. It is the Court's understanding that the LASmax designation used by Mr. Reuter is equivalent to and interchangeable with the "Lmax" designation used to evaluate maximum instantaneous sound levels in prior Act 250 cases. See NE Materials Grp., LLC, No. 75-6-17

Vtec, slip op. at 21 (Vt. Super. Ct. Envtl. Div. June 20, 2018) (Walsh, J.) (accepting maximum sound levels described as Lmax with a “slow” meter response and noting that the meters used in the Barre Granite decision were set to slow response). Therefore, the Court’s findings as to maximum sound levels are designated Lmax.

122. Adding sound energy from multiple sources does not increase the overall Lmax.

123. Mr. Reuter visited the site in July 2020, where he observed the pit and surrounding area including West Griggs Road and neighboring properties. While visiting the pit, he measured sound levels from Applicants’ equipment from 25 feet away, running each machine through a variety of common operations to determine the loudest typical event.

124. He identified the following Lmax measurements for Applicants’ equipment. Loader: 87.3 dBA, Screen (side): 88.6 dBA, Screen (rear): 91.2 dBA, Materials dropped into Dump Body: 89.4 dBA, Dump Truck (Peterbilt): 80 dBA, Excavator: 91.4 dBA.

125. These Lmax measurements, along with topographic information, were used as inputs to calculate sound propagation and model the maximum sound levels from on-site operations experienced at nearby properties. Topographic information for the site and surrounding area came from the Vermont Center for Geographic Information LIDAR database and Applicants’ application materials. All modeling was done using an industry-standard modeling software package called SoundPlan. SoundPlan results are regularly relied upon by acoustics experts and have been verified through post-construction monitoring data. The software uses the international ISO 9613-2 standard to calculate sound propagation based on user inputs.

126. Mr. Reuter’s modeling results include maximum sound levels in two categories: equipment operating at the pit, and trucks driving along West Griggs Road and Route 14. The sound levels are depicted graphically as contour rings propagating outward from the source. This represents the predicted levels at various locations in the area.

127. To model on-site equipment sound levels, Mr. Reuter set the sound source for each piece of equipment at the worst-case location within the pit in terms of impacts to neighboring properties. Some equipment is expected to move over time as the pit is

excavated, but the movement will be parallel to or away from neighboring property lines. Movement is accounted for in the models.

128. *Screen*: Sound levels at or above 70 dBA Lmax will extend into the Adams property approximately 100 feet and into the West Griggs Road right-of-way. Levels at residences and most areas of frequent human use will be below 40 dBA Lmax, and the levels will not exceed 55 dBA Lmax at any areas of frequent use.

129. *Loader*: Sound levels at or above 70 dBA Lmax will extend into the Adams property approximately 100 feet and into the West Griggs Road right-of-way. At residences and most areas of frequent human use, sound levels will be lower than 40 dBA Lmax, and the levels will not exceed 55 dBA Lmax at any areas of frequent use.

130. *Excavator*: Sound levels at or above 70 dBA Lmax will extend into the Adams property approximately 125 feet, and into the West Griggs Road right-of-way. At residences and most areas of frequent human use, levels will be lower than 40 dBA Lmax, and the levels will not exceed 55 dBA Lmax at any areas of frequent use.

131. *Gravel Dumped into Empty Truck*: Sound levels at or above 70 dBA Lmax will extend into the Adams property approximately 100 feet and into the West Griggs Road right-of-way. At residences and most areas of frequent human use, levels will be below 35 dBA Lmax, and the levels will not exceed 55 dBA Lmax at any areas of frequent use.

132. *Dump Truck Operating On-Site*: Sound levels at or above 70 dBA Lmax will extend into the West Griggs Road right-of-way but will not cross neighboring property lines. At residences and most areas of frequent human use, levels will be below 40 dBA Lmax, and the levels will not exceed 55 dBA Lmax at any areas of frequent use.

133. Mr. Reuter also modeled the instantaneous sound levels from trucks driving along West Griggs Road and Route 14. He used the Lmax measurement from Applicants' Peterbilt dump truck as the input.

134. *West Griggs Road*: As trucks pass by, the Lmax at Neighbors' residence and the Valley residence across the road will be approximately 75 dBA. Most areas of frequent human use on Neighbors' property will experience levels above 55 dBA Lmax.

135. *Route 14*: Lmax during a truck pass will be approximately 66 dBA at Neighbors' residence and the Valley residence. Several areas of frequent human use on Neighbors' property will experience levels from 55–70dBA Lmax. Other residences will experience levels ranging from approximately 60–65 dBA. Heavy trucks similar to those used by Applicants already travel on Route 14 regularly.

136. While maximum sound levels are important, they are not the only metric used to assess noise impacts. Lmax only accounts for a particular event or action during one very short interval of time. It is not particularly useful in gauging impacts over longer time periods or the cumulative impact of multiple sources. The equivalent sound level, or Leq, represents an average of sound energy over a specified time interval, often 1 hour or 1 day. Thus, Leq 1-hr looks at changing sound energy levels over the period of an hour and converts them to a constant level representing the same amount of sound energy spread evenly over that hour. Leq 1-hr is often used to assess traffic noise impacts and it correlates well with human levels of annoyance. The Court finds Leq to be helpful in considering the full scope of noise impacts from the Project.

137. Mr. Reuter modeled 3 scenarios using the Leq-1hr metric to capture noise impacts from existing traffic on Route 14 and Project truck traffic on West Griggs Road. During his testimony on January 13, the Court and Neighbors inquired about impacts associated with trucks turning onto and off of Route 14. Mr. Reuter then worked to supplement his modeling and include those impacts. In the process he noticed an error in the two models looking at Project truck traffic. He corrected the error, which related to a truck speed value, and he presented a revised exhibit. The Court is satisfied with the correction and we find that the error was isolated to Leq-1hr modeling for Project trucks.

138. For the Leq-1hr scenarios, Mr. Reuter again used SoundPlan. Instead of the actual sound measured from Applicants' truck, he used the Federal Highway Administration Traffic Noise Model (TNM) as an input. The TNM provides noise data based on the type of vehicle, and accounts for factors like vehicle speed and traffic control devices such as stop signs.

139. The "Existing Traffic" scenario focuses on Route 14 and assumes 148 cars, 10 light trucks, and 10 heavy trucks over the course of an hour. Traffic counts were based on data

from the closest VTRANS monitoring station, about a half-mile away from the intersection of Route 14 and West Griggs Road. The Leq-1hr is predicted to be approximately 50 dBA at Neighbors' residence, and between 35–55 dBA at most areas of frequent use.

140. The "Maximum Hourly Volume" scenario represents Mr. Reuters' assessment of the worst-case hourly impact from the Project, with 10 truck passes or 5 round trips along both West Griggs Road and Route 14. Noise from turning movements, acceleration, and deceleration is included. The predicted Leq-1hr is approximately 58 dBA at Neighbors' residence, and between 40–60 dBA at most areas of frequent use.

141. The "Minimum Hourly Volume" accounts for the same truck movements but represents the lowest hourly impact of 4 truck passes, or 2 round trips, resulting in an Leq-1hr of 56 dBA at Neighbors' residence and between 35–60 dBA at most areas of frequent use.

142. Based on his modeling and experience, Mr. Reuter stated that he did not expect the noise to have a significant impact overall. He also estimated that existing traffic on Route 14 includes approximately 100 trucks per day, and he opined that 40 additional truck passes would not be significant. He also concluded that the increased traffic from trucks on West Griggs Road would have some impact, considering the proximity of residences to the road.

143. Trucks heading downhill from the pit need to engage their brakes to maintain safe speeds. Mechanical drum brakes will be used most often, but there are occasions when "jake brakes" or engine braking have been used.

144. Jake brakes create a loud and distinct sound. Many communities prohibit jake braking in town centers or residential communities. Applicants have stipulated to a condition prohibiting jake brakes except in emergency situations.

145. Mr. Ellis stated that Neighbors can hear noise from the pit operations almost everywhere, except in their home. He asserted that the pit has significantly increased noise levels at the southeastern corner of their property, an area which was previously quiet. It is not clear how frequently Neighbors used that area prior to the Project, but they now avoid it except to harvest firewood. Project trucks passing on West Griggs Road and Route 14 are audible practically everywhere on Neighbors' property, and they perceive the noise to be loudest near the roadways and inside their home. Mr. Ellis indicated that he can also feel

vibrations as trucks pass. The noise has caused Neighbors to stop using parts of their property, especially along West Griggs Road, and they feel it has severely impacted the use and enjoyment of their land.

146. Neighbors also demonstrated that the operating hours of larger sand and gravel businesses across the state, including those in the Northeast Kingdom, begin later and end earlier than Applicants' proposed hours of operation.

Dust

147. The Court's findings as to dust are described at ¶¶ 36–53.

Exhaust Emissions and Fumes

148. The Court's findings as to exhaust and diesel fumes are described at ¶¶ 54–60.

Conclusions of Law

The central questions in this appeal are whether the Project complies with Act 250 Criteria 1, 1(D), 1(E), 4, 5, and 8. Before reaching those questions, we address two preliminary issues raised by Neighbors: whether the application should be denied because Applicants did not submit an affidavit pursuant to 10 V.S.A § 6087(c), and whether the District Commission's Finding 10, incorporated through Condition 2 of the Dash 1 Permit, is invalid. See Amended Statement of Questions, filed Oct. 14, 2019.

I. Compliance with 10 V.S.A § 6087(c)

Pursuant to 10 V.S.A. § 6087(c), an applicant whose permit has been denied may apply for reconsideration within six months. The application "shall include an affidavit to the District Commission and all parties of record that the deficiencies have been corrected." 10 V.S.A. § 6087(c); see also In re Times and Seasons, LLC, 2011 VT 76, ¶ 5, 190 Vt. 163 (noting that applicants must "certif[y] that the deficiencies causing the denial have been corrected."). In this case, Applicants received their first permit for the Project, LUP 7R1374, from the District Commission in 2017. On appeal in 2019, this Court denied the application because Applicants had failed to meet the initial burden of production for each of the criteria at issue. Katzenbach Act 250 Permit, No. 124-9-17 Vtec, slip op. at 7 (Vt. Super. Ct. Envtl. Div. Jan. 2, 2019) (Walsh, J.). We expressly

noted that pursuant to 10 V.S.A. § 6087(c), Applicants could apply for reconsideration within six months of the January 2019 decision after supplementing the application with evidence of compliance with the relevant criteria. See *id.*; In re Times & Seasons, LLC, No. 45-3-09 Vtec, slip op. at 7–8 (Vt. Envtl. Ct. Mar. 29, 2010) (Durkin, J.).

Applicants did file application #7R1374-1 (Dash 1 Application) with the District Commission within six months, and Commission indicated that it was considering the Dash 1 Application as an application for reconsideration under § 6087(c). See Dash 1 Decision, Applicants’ Exhibit K43 (stating that the District Commission would review only the criteria at issue in the Court’s 2019 denial and that the Commission’s prior findings and conclusions as to other criteria remained in effect); see also Times and Seasons, 2011 VT 76, ¶ 10 (“The reconsideration application . . . offers . . . the opportunity to revisit only those aspects of the application that led to denial of the permit. That is, the . . . process allows an applicant to maintain . . . affirmative findings made on the original application and to receive additional review only in those areas found deficient.”). Thus, this appeal of the Dash 1 Permit is part of a reconsideration of the 2019 denial and “a continuation of the original Act 250 permit application,” with our review confined to Neighbors’ Amended Statement of Questions. See Times and Seasons, 2011 VT 76, ¶ 10. Neighbors’ Question 1 asks whether the application should be denied “because [A]pplicants did not submit an affidavit as required by 10 V.S.A. § 6087(c).”

It is not clear whether Question 1 is directed at proceedings before the District Commission, or this Court on appeal. We do not address the former, because our *de novo* review means that we do not consider the proceedings below; “rather, we review the application anew.” In re Whiteyville Props. LLC, No. 179-12-11 Vtec, slip op. at 1 (Vt. Super. Ct. Envtl. Div. Dec. 13, 2012) (Durkin, J.); see also 10 V.S.A. § 8504(h); Chioffi v. Winooski Zoning Bd., 151 Vt. 9, 11 (1989) (quoting In re Poole, 136 Vt. 242, 245 (1978)) (“A *de novo* trial ‘is one where the case is heard as though no action whatever had been held prior thereto.’”). As to the current proceedings before this Court, Applicants did not submit an affidavit.² In Mr. Katzenbach’s sworn testimony, however, he indicated that he understood the reasons for the prior denial and that he took steps,

² We note that Neighbors did not raise this issue at trial, or in their post-trial filing.

including hiring experts, to supplement the application with additional evidence to meet the burden of production. To the extent that the affidavit requirement of § 6087(c) applies in the context of an appeal, its clear purpose is to require applicants to “certif[y] that the deficiencies causing the denial have been corrected.” See Times and Seasons, 2011 VT 76, ¶ 5; 10 V.S.A. § 6087(c). The Court concludes that Mr. Katzenbach’s sworn testimony is sufficient in lieu of an affidavit. For that reason, we answer Question 1 in the negative. See Amended Statement of Questions.

II. Condition 2 of the Dash 1 Permit

Neighbor’s Question 3 asks “[w]hether Finding 10, incorporated through Permit Condition 2, is invalid because it relies on the action of a third party (the Town of Albany).” Amended Statement of Questions. Condition 2 of the Dash 1 Permit requires the Project to be “completed, operated, and maintained in accordance with” the District Commission’s Findings of Fact and Conclusions of Law. See Dash 1 Permit, Applicants’ Exhibit K42. Finding 10 of the Commission’s decision states: “The Town of Albany will ensure application of dust control (e.g. calcium chloride) on its town highway (West Griggs Road).” Dash 1 Decision, Applicants’ Exhibit K43. In the context of this *de novo* appeal, we do not assess the merits of the District Commission’s decision; “rather, we review the application anew” as to the issues before us and determine what conditions, if any, are appropriate. See Whiteyville, No. 179-12-11 Vtec at 1 (Dec. 13, 2012); see also 10 V.S.A. § 8504(h) (requiring a *de novo* hearing).

We are mindful that Neighbors have raised the issue of dust impacts under Act 250 Criterion 1 and Criterion 8. See Amended Statement of Questions. The Court’s authority on appeal is the same as that of the Commission below, therefore we may impose “such requirements and conditions as are [an] allowable proper exercise of the police power and which are appropriate [with respect to the Act 250 criteria under review].” 10 V.S.A. § 6086(c); see also V.R.E.C.P. 5(g); In re Killington Village Master Plan, No. 147-10-13 Vtec, slip op. at 6 (Vt. Super. Ct. Envtl. Div. Aug. 6, 2014) (Durkin J.) (“[W]e have the same jurisdictional limits as those the District Commission enjoyed when considering the application”) (quotation omitted). We address the Project’s dust impacts and proposed dust control measures elsewhere in this

decision, as part of the Criterion 1 and Criterion 8 analyses, and we consider what conditions may be appropriate going forward based on the evidence and the proposal presented to the Court. As explained below, we replace Finding 10 of the Commission’s decision which states: “The Town of Albany will ensure application of dust control (e.g. calcium chloride) on its town highway (West Griggs Road),” with a condition requiring that Applicants shall be wholly responsible for dust control on West Griggs Road, including road stabilization and application of calcium chloride or water as needed.

III. Act 250 Criteria

Neighbors’ Amended Statement of Questions challenges the Project’s compliance with Criterion 1 (air pollution), 1(D) (floodways), 1(E) (streams), 4 (erosion), 5 (traffic), and 8 (aesthetics). We address each in turn.

a. Criterion 1

Act 250 Criterion 1 requires applicants to show that their project “[w]ill not result in undue water or air pollution.” 10 V.S.A. § 6086(a)(1). Here, the question is whether dust, exhaust emissions, or noise from Project operations will result in undue air pollution.³ While Criterion 1 does not specify what amounts to “undue” pollution, the longstanding definition is “that which is more than necessary—exceeding what is appropriate or normal.” See In re N. E. Materials Grp., LLC, 2019 VT 55, ¶ 28, 210 Vt. 525 (quoting Re: John A. Russell Corp., No. 1R0849-EB, Findings of Fact, Conclusions of Law, and Order, slip op. at 43–44 (Vt. Env’tl. Bd. Jul. 10, 2001)). “[W]hether ‘undue’ pollution will result from a proposed project is a highly fact-specific inquiry that depends on a wide variety of factors.” In re Diverging Diamond Interchange SW Permit, 2019 VT 57, ¶ 44, 210 Vt. 577 (citing N. E. Materials Grp., 2019 VT 55, ¶ 28).

Important factors include “the nature and amount of the pollution, the character of the surrounding area, whether the pollutant complies with certain standards or recommended levels, and whether effective measures will be taken to reduce the pollution.” N.E. Materials

³ Neighbors’ Question 4 asks: “Whether the operation of the proposed gravel pit, including but not limited to on-site crushing, on- and off- site truck traffic, and excavation will result in undue air pollution due to dust, noise, and exhaust, in violation of Act 250 Criterion 1.” Amended Statement of Questions.

Grp., 2019 VT 55, ¶ 28 (quoting Re: Mclean Enters. Corp., No. 2S1147-1-EB, Findings of Fact, Conclusions of Law, and Order, at 41 (Vt. Envtl. Bd. Nov. 24, 2004)). Compliance with applicable air quality standards is “an important, but nondispositive, factor in this inquiry,” and we may consider “any factors relevant to a determination of whether a proposed project will cause undue pollution.” N. E. Materials Grp., 2019 VT 55, ¶ 28 (citation omitted); Diverging Diamond, 2019 VT 57, ¶ 45 (citation omitted).

Applicants bear the initial burden to produce “evidence sufficient to enable [the district commission or this Court] to make the requisite positive findings” on Criterion 1, and they bear the burden of persuasion as well. Katzenbach Act 250 Permit, No. 124-9-17 Vtec at 4 (Jan. 2, 2019) (quoting In re Rinkers, Inc., No. 302-12-08 Vtec, slip op. at 11 (Vt. Envtl. Ct. May 17, 2010) (Wright, J.)) (modification in original); see also 10 V.S.A. § 6088(a); In re Eastview at Middlebury, Inc., No. 256-11-06 Vtec, slip op. at 4 (Vt. Envtl. Ct. Feb. 15, 2008) (Durkin, J.). We begin by evaluating potential dust impacts from the Project along with Applicants’ proposed control measures.

1. Dust

Neighbors ask whether the Project’s operations, including crushing, excavation, and trucking, will result in undue dust pollution. In support of the Project’s compliance, Applicants offered the report and testimony of their engineer, Mr. Sicard, along with various exhibits and the testimony of Mr. Katzenbach. Mr. Sicard credibly addressed potential dust impacts from the pit and from haul trucks on West Griggs Road.

Though operations at the pit will generate dust, Mr. Sicard opined that the Project’s scale, design, and operational constraints would limit the amount of dust and largely contain it within the site. Sources of dust will include excavation, screening, loading, and trucking of material, and the amount of dust depends on the intensity of the activity and the weather conditions.⁴ Applicants propose to carry forward requirements imposed under the Dash-1 permit issued by the District Commission, including extraction limits of 30,000 cubic yards per year and trucking

⁴ We note that crushing can be a significant source of dust, and was contemplated in Applicants’ prior proposals, however they no longer seek approval for any on-site or off-site crushing operations.

limit of 20 loads (20 round trips to and from the pit) per day, which represents a comparatively small operation. These limits on activity will in turn limit the amount of dust generated. Mr. Sicard also explained that the small size of the pit, along with its shape, will limit dust because it does not allow for a large, upright extraction face which can catch the wind.

The Project will also generate dust from haul trucks traveling on West Griggs Road and entering or exiting the pit. As with excavation and other processing, we credit Mr. Sicard's assessment that certain constraints will limit the amount of dust produced. West Griggs Road is narrow and quite steep in places, which will keep truck speeds low and thereby limit the dust thrown into the air. The road is also protected by tall embankments and tree cover for much of its length, which will contain the dust produced as trucks pass. The residential segment of the road is less protected, and as a result there will be comparatively more dust, though speeds will remain low as trucks will be entering and exiting the Route 14 intersection.

Applicants propose to further control dust by applying calcium chloride or water to the pit area and West Griggs Road as necessary during dry conditions, and stabilizing the road as needed to reduce dust associated with fine sand and silt. Mr. Sicard's testimony indicated that calcium chloride is preferable to water in extreme heat, though both are effective for controlling dust. The Dash 1 Permit issued by the District Commission also requires covering haul trucks that are loaded with materials that may generate dust. As Applicants propose to operate as conditioned by the Dash 1 Permit unless otherwise specified, we consider this as part of their proposal. Overall, Mr. Sicard concluded that Applicants' proposed dust control measures will be adequate.

Neighbors expressed concern about dust impacts on their property, particularly near the southeastern corner which is across the road from the pit. Mr. Ellis testified that he and Ms. Beidler avoid that area of their property, in part because of dust from trucks exiting the pit. It is apparent that there will be some impacts, and Neighbors' evidence is relevant to the Project's impact on the character of the area. See N. E. Materials Grp., 2019 VT 55, ¶ 28 (noting that the character of the area is one factor among several to be considered under Criterion 1). Even so, they presented no evidence to suggest that Applicants' dust control measures will be inadequate or that the Project will generate an excessive amount of dust from an air pollution perspective.

While Mr. Ellis’s testimony is relevant to our Criterion 1 analysis, it relates more closely to the type of aesthetic concern best addressed under Criterion 8.

As to air quality standards, the Vermont Air Pollution Control Regulations (APCR) state:

A person shall not cause, suffer, allow, or permit any process operation to operate; any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Public roads will not be subject to this section unless a public nuisance is created.

APCR § 5-231(4). Based on the evidence before the Court, we conclude that Applicants’ proposal includes reasonable precautions to prevent airborne particulate matter. Thus, the Project complies with applicable air quality standards as they relate to dust. See id.

Applicants have shown that the dust generated by the Project will be limited and proportionate to its small scale. They have also established that the proposed dust control measures will be effective, and that the Project complies with applicable regulations. See N. E. Materials Grp., 2019 VT 55, ¶ 28 (listing key factors in the Criterion 1 analysis). Though Neighbors raise a legitimate concern with respect to impacts on the neighborhood, they did not show a significant effect on the character of the area as it relates to air quality or pollution. Considering the relevant factors, we are persuaded that dust will not be “more than necessary—exceeding what is appropriate or normal” and therefore the Project will not create undue air pollution related to dust. See id.; 10 V.S.A. § 6086(a)(1).

Our conclusion is based in part on Applicants taking full responsibility for dust control measures including maintenance and calcium chloride application on West Griggs Road. Condition 2 of the Dash 1 Permit issued by the District Commission incorporates a finding that the Town of Albany will be responsible for dust control on the road. To avoid confusion and ensure compliance with Criterion 1, we impose the following condition: Applicants shall be wholly responsible for dust control on West Griggs Road, including road stabilization and application of calcium chloride or water as needed. We now turn to exhaust emissions.

2. Exhaust

Vehicles and equipment associated with the Project will generate exhaust emissions. At the pit, emissions will come from Applicants' excavator, bucket loader, and the portable generator which powers the screen, along with Applicants' haul trucks and those of customers. Haul trucks traveling the roads to and from the pit will also create emissions. On behalf of Applicants' Mr. Sicard opined that there will be no adverse air quality impacts from the processing equipment at the pit: emissions will be limited by proposed restrictions on extraction rates, trucking, and hours of operation, and the distance between the pit and nearby residences will allow fumes to dissipate before affecting adjoining landowners.

As to haul trucks specifically, all trucks associated with the Project are subject to Vermont's Vehicle Emissions Inspection and Maintenance Program. Pursuant to 23 V.S.A. § 1222(a), the trucks must undergo inspections including an annual safety and emissions check. Vehicles 16 years old or newer must undergo an additional emissions or OBD systems check. Id. Mr. Katzenbach testified that Applicants' trucks have valid inspections. Applicants' proposal also incorporates a condition imposed by the Dash 1 Permit which requires non-modified exhausts for their trucks and factory original equipment or its equivalent for all trucks allowed at the Project. This requirement will limit potential emissions from haul trucks. Applicants will place a sign at the pit entrance informing drivers of the requirement and take action when there is reason to believe that non-factory equipment is in use. Apart from the inspection requirements under 23 V.S.A. § 1222(a), the Court did not receive evidence of applicable air quality standards with respect to vehicle or equipment exhaust.

Neighbors described smelling diesel fumes from the Project, particularly from haul trucks as they pass on West Griggs Road. They can smell the fumes at various places on their property, especially in wooded areas, and they estimate that the smell can linger for as long as 10 minutes. Though their property also abuts Route 14, where heavy trucks routinely pass by, they observed that the fumes from Route 14 are not noticeable. We do not doubt that exhaust fumes from the Project represent an annoyance or irritation for Neighbors, and we consider these aesthetic impacts below in our discussion of Criterion 8. As relevant to undue air pollution under Criterion 1, Neighbors presented no evidence that Project emissions will be excessive or otherwise impact

air quality. Nor did they show that the emissions will be out of place in the area, especially considering the proximity of Route 14. Based on the evidence before the Court, we conclude that emissions from the Project will not be “more than necessary—exceeding what is appropriate or normal.” N. E. Materials Grp., 2019 VT 55, ¶ 28. Thus, the Project will not create undue air pollution related to exhaust emissions. 10 V.S.A. § 6086(a)(1).

3. Noise

The noise a proposed project may generate can be of such an adverse level as to constitute air pollution. See Re: Bull's-Eye Sporting Center, No. 5W0743-EB, Findings of Fact, Concl. of Law, and Order, at 14 (Vt. Env'tl. Bd. Feb. 27, 1997) (“The test for undue air pollution caused by noise is whether the noise has impacts rising above annoyance and aggravation to cause adverse health effects such as hearing damage.”) (quotation omitted). “Noise analysis under Criterion 1 focuses primarily on the health and safety impacts of noise, rather than on its welfare and aesthetic impacts, which are considered under Criterion 8.” Goddard Coll. Conditional Use, Nos. 175-12-11 Vtec and 173-12-12 Vtec, slip op. at 10 (Vt. Super. Ct. Env'tl. Div. Jan. 6, 2014) (Walsh, J.) (citation omitted).

The former Environmental Board reviewed many Act 250 applications for land use permits where noise from a proposed project was at issue. The prior decisions of the Environmental Board established thresholds or limits of noise levels evidencing compliance or non-compliance with Criterion 1. Pursuant to 10 V.S.A. § 8504(m), we give these prior decisions of the Environmental Board the same weight and consideration as prior decisions of this Court. When evaluating noise impacts under Criterion 1, the Environmental Board relied on the United States Environmental Protection Agency (EPA) Report, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, EPA document No. 5 50/9-74-0004, dated March 1974, for guidance. See Re: Paul and Dale Percy, No. 5L0799-EB, Findings of Fact, Conclusions of Law, and Order, at 7–8, 17 (Vt. Env'tl. Bd. Mar. 20, 1986). Specifically, the Environmental Board adopted EPA's standard based on the risk of hearing loss or other adverse health effects caused by nearly continuous exposure to noise. Bull's Eye Sporting Center, No. 5W0743-2-EB, at 14. Under this standard, noise is considered air pollution

under Criterion 1 if it exceeds a maximum Leq of 70 dBA for 24 hours a day, 365 days a year over a lifetime. Re: Pike Indus., Inc. and Inez M. Lemieux, No. 5R1415-EB, Findings of Fact, Conclusions of Law, and Order, at 32 (Vt. Env'tl. Bd. June 7, 2005); Re: Casella Waste Mgmt. and E.C. Crosby & Sons, Inc., No. 8B0301-7-WFP, Findings of Fact, Conclusions of Law, and Order, at 29-30 (Vt. Env'tl. Bd. May 16, 2000). Furthermore, the Environmental Board determined that maximum noise levels consistently lower than 90 decibels did not constitute air pollution under Criterion 1. Casella Waste Mgmt., No. 8B0301-7-WFP, at 30; Re: Wildcat Constr. Co., No. 6F0283-1-EB, Findings of Fact, Conclusions of Law, and Order (Vt. Env'tl. Bd. Oct. 4, 1991), *aff'd*, In re Wildcat Constr. Co., 160 Vt. 631 (1993).

Based upon the totality of evidence before the Court, we find that Applicants have produced evidence sufficient to enable the Court to make positive findings. We conclude that while noise from the Project operations might be apparent to Neighbors and other area property owners, the noise will be less than the EPA-established adverse health impact standard of an Leq exceeding 70 dBA for 24 hours each day, 365 days a year. Thus, the proposed project noise will not cause adverse health effects and is not air pollution in violation of Criterion 1.

For the forgoing reasons, we conclude that the Project, as conditioned, complies with Criterion 1 as to dust, exhaust emissions, and noise. We therefore answer Neighbors' Question 4 in the negative.

b. Criterion 1(D)

Criterion 1(D) requires applicants to demonstrate that any development "within a floodway" or a "floodway fringe" will not endanger the public by "restrict[ing] or divert[ing] the flow of flood waters" or "significantly increas[ing] the peak discharge" of the river or stream in question.⁵ See 10 V.S.A. § 6086(a)(1)(D)(i), (ii); In re Zaremba Grp., 2015 VT 88, ¶ 7, 199 Vt. 538. The threshold question "is whether the [P]roject is in the floodway or floodway fringe of a nearby waterway. In re Korrow Real Estate, LLC, 2018 VT 39, ¶ 5, 207 Vt. 274 (quotations omitted). Under Act 250, "floodway" and "floodway fringe" are defined as follows:

⁵ Neighbors' Question 5 asks "[w]hether the application complies with floodways requirements in conformity with Act 250 Criterion 1(D)." Amended Statement of Questions.

6) “Floodway” means the channel of a watercourse that is expected to flood on an average of at least once every 100 years and the adjacent land areas that are required to carry and discharge the flood of the watercourse, as determined by the Secretary of Natural Resources with full consideration given to upstream impoundments and flood control projects.

(7) “Floodway fringe” means an area that is outside a floodway and is flooded with an average frequency of once or more in each 100 years, as determined by the Secretary of Natural Resources with full consideration given to upstream impoundments and flood control projects.

10 V.S.A. § 6001(6), (7).

On behalf of Applicants, Mr. Sicard presented maps obtained from the ANR Natural Resources Atlas and FEMA, along with a topographic map he prepared with data from the Vermont Center for Geographic Information. The ANR map shows that the Project is not located within a designated river corridor, while the FEMA Flood Rate Insurance Map (FIRM) shows that the Project is not located within the Special Flood Hazard Area for the Black River as designated by the National Flood Insurance Program. Based on the ANR and FEMA maps and the topography of the area, we conclude that the Project is not located within a floodway or floodway fringe for purposes of Criterion 1(D). Therefore, no further review is necessary. See Korow, 2018 VT 39, ¶ 5, (noting that the threshold question for further review is “whether the project is in the floodway or floodway fringe”) (quotations omitted). The Project complies with Criterion 1(D), and we answer Neighbor’s Question 5 in the affirmative.

c. Criterion 1(E)

Criterion 1(E) requires that “the development or subdivision of lands on or adjacent to the banks of a stream [must], whenever feasible, maintain the natural condition of the stream, and will not endanger the health, safety, or welfare of the public or adjoining landowners.”⁶ 10 V.S.A. § 6086(a)(1)(E). Applicants bear the burden of proof. 10 V.S.A. § 6088(a). While the sand and gravel pit is not near any perennial stream or river, there is a ravine containing an ephemeral or intermittent stream on the north side of West Griggs Road, across the road and over 100 feet

⁶ Neighbors’ Question 6 asks “[w]hether the project will have a negative impact on a nearby stream or endanger the health, safety, and welfare of nearby landowners in violation of Act 250 Criterion 1(E).

from the Project's nearest area of disturbance. Mr. Sicard's testimony indicated that the stream is ephemeral, in that water would flow through the ravine during times of heavy precipitation, however Applicants' evidence did not rule out the possibility that the stream flows on an intermittent or seasonal basis. Regardless, the question is whether the Project is "adjacent" to the stream and, if so, whether the requirements of Criterion 1(E) are met. See 10 V.S.A. § 6086(a)(1)(E).

Given the distance of over 100 feet from the stream to the nearest area of disturbance, Mr. Sicard concluded that the Project will not be adjacent to the banks of a stream. See id. Though we do not disagree, "[p]rior cases have not required that development actually abut streams for Criterion 1(E) to apply." Killington Resort Parking Project Act 250 Amendment Application, No. 173-12-13 Vtec, slip op. at 18 (Vt. Super. Ct. Env'tl. Div. Mar. 7, 2016) (Durkin, J.) (citing Re: Barre Granite Quarries, LLC, No. 7C1079, at 72 (Vt. Env'tl. Bd. Dec. 8, 2000)). Thus, we turn to the potential impacts on the stream and nearby landowners.

Applicants have demonstrated that the Project will not disrupt the natural condition of the stream nor present a danger to nearby landowners as relevant to Criterion 1(E). Mr. Sicard opined that the topographic features surrounding the pit and the design of the Project itself effectively control runoff such that the site will be "99 percent self-contained" in terms of surface discharge. He explained that the topography of the area will divert water from uphill, off-site sources away from the pit, thereby reducing the amount of water entering the Project area and the amount of potential runoff. To the extent that water does enter the site through precipitation or other sources, the work area will be maintained to slope toward the extraction face where the water will pool and infiltrate the soil. Mr. Sicard did not discount the possibility that a small amount of water could flow from the pit entrance onto West Griggs Road, but he does not expect any runoff to cross the road and reach the stream. Based on the topography of the area, he does not expect any water which may leave the pit entrance to flow onto Neighbor's property.

Neighbors presented several photos to the Court, including photos of the pit entrance as it connects to West Griggs Road, taken in November 2019. The photos show a small amount of sediment transportation onto West Griggs Road, and Mr. Sicard noted the sediment appeared to

be coming from embankments along the edge of the pit entrance which were not properly stabilized. He described the sediment issue as very minor. Applicants submitted a plan for improvements at that location which include stabilizing the overburden embankments along the southern side of the pit entrance and creating a 3% slope to the south on West Griggs Road to further prevent water from crossing the road. Mr. Katzenbach testified that he has completed the improvements according to the plan since the 2019 photos were taken. Additional photos from 2010–2016 and testimony from Neighbors established that areas of their property have experienced increasing erosion over the years, particularly following major storm events like Hurricane Irene. The intermittent or ephemeral stream discussed above contributes to surface discharge onto their property. Neighbors are concerned that any additional disturbance of the land above their property, which includes the pit, will lead to further runoff and erosion. Nonetheless, the photos showing erosion problems on their property predate any of Applicants' permits for the Project under review, and Neighbors did not offer evidence to refute Mr. Sicard's conclusion that the Project will not impact the stream or their property.

In sum, we find Mr. Sicard's opinion to be credible and uncontradicted. His conclusions are supported by topographic mapping and the Project's design characteristics, as well as Applicants' improvements to West Griggs Road in the vicinity of the pit entrance. While Neighbors' concerns are understandable, we have no evidence that discharge from the Project will enter the stream or Neighbors' property. For the foregoing reasons, we conclude that the Project will "maintain the natural condition of the stream, and will not endanger the health, safety, or welfare of the public or adjoining landowners." 10 V.S.A. § 6086(a)(1)(E). Thus, the Project complies with Criterion 1(E) and Neighbors' Question 6 is answered in the negative. See *id.*; Amended Statement of Questions.

d. Criterion 4

Under Criterion 4, Applicants must demonstrate that the Project "will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a

dangerous or unhealthy condition may result.”⁷ 10 V.S.A. § 6086(a)(4). 10 V.S.A. § 6086(d) and Act 250 Rule 19 provide that certain ANR permits create presumptions of compliance with certain Act 250 Criteria. Pursuant to Act 250 Rule 19(E)(6), an approval from ANR for coverage by a general permit for stormwater runoff creates a presumption that the stormwater runoff will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water. Act 250 Rules, Rule 19(E)(6). The issuance of such an approval creates a presumption that the application is not detrimental to the public health and welfare with respect to the specific requirement for which it is accepted. Id., Rule 19(F). This presumption is rebuttable. In re Hawk Mountain Corp., 149 Vt. 179, 186 (1988); see also Act 250 Rules, Rule 19(F). Here, Applicants received an Authorization to Discharge Stormwater (Permit No. 7744-9003) from ANR which represents approval for coverage under Multi-Sector General Permit (MSGP) 3-9003. Thus, Applicants are entitled to a presumption of compliance with Criterion 4 as to stormwater runoff from the pit. See Act 250 Rules, Rule 19(E)(6).

To rebut the presumption, Neighbors must introduce admissible evidence that allows a “rational inference to be drawn” that stormwater runoff from the pit will likely cause unreasonable soil erosion or reduction in the capacity of the land to hold water. See Hawk Mountain, 149 Vt. at 186. Neighbors provided testimony and photographic evidence which, as noted above in our discussion of Criterion 1(E), shows preexisting erosion and runoff issues on their property. Though we recognize Neighbors’ erosion concerns, they provided no evidence linking present or future runoff from the pit to present or future impacts on their property or other lands. We conclude that Neighbors have not provided the Court with sufficient information to draw a “rational inference” of noncompliance, therefore the presumption stands. See id.

In addition to the Authorization to Discharge from ANR, which includes required BMPs for erosion prevention and sediment control, Applicants presented erosion prevention measures for the end of the pit’s operating life and the maintenance of West Griggs Road. Mr. Sicard explained that once extraction is complete, the pit will be graded, capped with topsoil, and seeded for

⁷ Neighbors’ Question 7 asks: “Whether the proposed gravel pit will cause unreasonable soil erosion or reduction in the capacity of the land to hold water such that a dangerous or unhealthy condition will occur, including but not limited to causing or exacerbating erosion on Neighbors’ property, in violation of Act 250 Criterion 4.” Amended Statement of Questions.

revegetation in accordance with Applicants' reclamation plan. Revegetation will prevent the erosion that would occur due to rainfall and other exposure if the pit were left open to the elements.

As to West Griggs Road, Mr. Sicard observed areas where Applicants had built up and stabilized the road with gravel and crushed rock. He opined that the truck traffic will not create an erosion concern, especially given the work Applicants have done to improve and stabilize the road. In the absence of stabilization, fine-grain soils become susceptible to erosion and can be transported with the flow of water. Mr. Katzenbach confirmed that he has applied Staymat, a type of gravel used in stabilizing dirt road surfaces, to eroded areas on the upper and lower sections of West Griggs Road. He will continue to improve and maintain the full length of West Griggs Road using Staymat and other materials, in accordance with the Vermont Better Backroads Manual. Mr. Katzenbach also presented a site plan showing several road improvements, including an existing water bar and plans for three stone-lined water turn outs. One of the three turn outs is complete, and the others will be added if the Project is approved. Testimony from Mr. Katzenbach and Mr. Goodridge established that Applicants will take full responsibility for the maintenance of West Griggs Road.

Neighbors offered several photos and videos purporting to show erosion issues on West Griggs Road. These include photos from the residential section of the road, and videos showing various portions of the road from the intersection with Route 14 to the section just before the pit entrance. Mr. Sicard identified an area where the road lacked a well-defined crown, which led to some water flowing over the top of the road and some tracking of sediment. He opined that this is typical of gravel town highways and could be fixed through stabilization with gravel and rock. In other areas Mr. Sicard noted that the road was in excellent condition, and that improvements had been made. In all cases, he affirmed that the conditions shown did not represent unreasonable or dangerous erosion and that his opinion as to the impacts of truck traffic was unchanged.

We credit Mr. Sicard's opinion as to the adequacy of Applicants' pit reclamation plan and maintenance measures on West Griggs Road. Mr. Sicard's testimony and report, together with Applicants' Authorization to Discharge, proposed prevention measures, and demonstrated

commitment to road maintenance, persuades us that pit operations, the eventual pit decommissioning and Project truck traffic will not cause unreasonable erosion or reduce the capacity of the land to hold water. See 10 V.S.A. § 6086(a)(4). With that said, we require that Applicants be wholly responsible for maintaining West Griggs Road for the life of the Project. Though they have affirmed that this is their intent, the responsibility for road maintenance has been somewhat ambiguous before now. To ensure compliance with Criterion 4 and avoid any confusion moving forward, we conclude that it is appropriate to impose the following condition: Applicants will be wholly responsible for maintaining West Griggs Road from the pit entrance to the Route 14 intersection for the life of the Project. The road shall be stabilized and improved as needed to minimize erosion and sediment transportation, in accordance with the Vermont Better Backroads Manual.

For the reasons above, we conclude that the Project as conditioned complies with Criterion 4: it “will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result.” 10 V.S.A. § 6086(a)(4). Neighbors’ Question 7 is answered in the negative.

e. Criterion 5

Pursuant to Criterion 5, a project must not “cause unreasonable congestion or unsafe conditions with respect to the use of the highways.”⁸ 10 V.S.A. § 6086(a)(5)(A). Though applicants always bear the burden of production, opposing parties bear the burden of persuasion for Criterion 5. See In re Eastview at Middlebury, Inc., No. 256-11-06 Vtec, slip op. at 4 (Vt. Envtl. Ct. Feb. 15, 2008) (Durkin, J.) (noting that “the burden of persuasion refers to the obligation of persuading the fact finder that certain facts are more likely true than not”) (citation omitted); 10 V.S.A. § 6088(b) (under Criteria 5–8, opposing parties have the burden “to show an unreasonable or adverse effect”). A project may not be denied solely based on a lack of positive findings under Criterion 5; rather, the Court may impose “reasonable conditions and requirements” to alleviate any impacts. 10 V.S.A. §§ 6087(b), 6086(c).

⁸ Neighbors’ Question 8 asks “[w]hether the proposed heavy truck traffic will cause unreasonable congestion or unsafe traffic conditions in violation of Act 250 Criterion 5.

Applicants acknowledge that the Project will create additional truck traffic on West Griggs Road and Route 14, as haul trucks travel to and from the pit. As proposed, the additional traffic will be no more than 40 one-way trips or 20 round trips per day. Trucks will arrive and depart from the north and south on Route 14, with approximately half of the trucks departing to the north and half to the south. Existing traffic on Route 14 is fairly constant and includes heavy truck traffic. Existing traffic on West Griggs Road is minimal, with most uses attributable to the residential area near Route 14. The upper section of the road is rarely used by vehicles other than haul trucks associated with the Project.

Mr Sicard opined that the overall traffic impacts will be minor, in keeping with the small scale of the Project relative to other earth extraction operations in the region. He noted that Route 14 is designed to accommodate heavy traffic, and that Applicants have improved the intersection with West Griggs Road by adding an asphalt apron. The new apron bolsters the transition between Route 14 and West Griggs Road, where the roadway is more susceptible to wear from truck acceleration and deceleration. Applicants have also installed signage in accordance with the Town's recommendations: they placed a "stop ahead" sign on West Griggs Road, 300 feet from the intersection, and a stop sign at the intersection itself.

As to conditions and congestion on West Griggs Road, Mr. Sicard did not have any concerns. The Project will generate a comparatively small amount of truck traffic in his opinion, and he explained that trucks will be moving slowly along the entire 1300-foot section from Route 14 to the pit. Truck speed will be slow through the residential area thanks to the stop sign and turning movements associated with entering or exiting Route 14. Beyond the residences, steep grades and the narrowing roadway will limit speeds to approximately 10 miles per hour. On the residential segment of the road including the intersection with Route 14, there is sufficient space for trucks to pass each other safely in opposite directions, and for other vehicles to pass the trucks. Further uphill, the road narrows to 14 feet and it is not possible for two vehicles to pass each other unless they utilize the vehicle pull-off located about 200 feet from the pit entrance. If two trucks were to meet on West Griggs Road between the residential segment and the pull-off, one truck would be required to back down the road until it widens enough to allow passing.

Mr. Katzenbach testified that the pit cannot accommodate more than two trucks at the same time for loading. He schedules truck pick-ups at the pit; customers are not allowed to arrive whenever they choose. These aspects of the Project's operations will help limit the amount of truck traffic and congestion on West Griggs Road at any one time. Mr. Katzenbach also has the ability to communicate with drivers via CB radio. The road will be maintained and stabilized by Applicants, as described in the Court's discussion of Criterion 4 above. Mr. Sicard is comfortable with the proposed traffic and road conditions; he described them as similar to those found in logging operations throughout the Northeast Kingdom.

In addition to considering congestion and safety issues, Criterion 5 requires that projects "as appropriate, will incorporate transportation demand management strategies." 10 V.S.A. § 6086(a)(5)(B). Considering the scale of the Project, the amount of additional traffic, and the existing capacity of Route 14 and West Griggs Road, Mr. Sicard concluded that a formal transportation demand management (TDM) strategy was not warranted. We credit Mr. Sicard's report and testimony as it relates to Criterion 5. Based on his opinion and testimony, the testimony of Mr. Katzenbach, existing and planned road improvements and maintenance, and the details of the Project proposal, we conclude that Applicants have provided the Court with sufficient information to find that the Project "will not cause unreasonable congestion or unsafe conditions" and will be adequately managed without a formal TDM strategy. Thus, Applicants have satisfied their burden of production. 10 V.S.A. § 6086(a)(5); see In re Champlain Parkway, 2015 VT 105, ¶ 15, 200 Vt. 158 (indicating that the burden is satisfied when an applicant establishes "prima facie compliance with Criterion 5").

It is Neighbors' burden "to show an unreasonable or adverse effect" from the Project under Criterion 5. 10 V.S.A. § 6088(b). Through Mr. Ellis's testimony and Neighbors' cross-examination of Mr. Sicard and Mr. Katzenbach, they have identified three areas of concern regarding the Project's traffic impacts. First, Mr. Ellis recounted seeing a truck backing down West Griggs Road on multiple occasions to allow another truck to pass. This necessarily involves backing down to the residential segment of the road, where the width is sufficient for passing. While the Court did not receive evidence that this practice is inherently unsafe, we share Neighbors' concern. The road is narrow and steep above the residential area, and at least one

residence is very close to the road. Furthermore, it is apparent that Applicants have the means to minimize the problem through appropriate scheduling and radio communication. Second, Mr. Ellis expressed concern at seeing a truck back out into Route 14 at the intersection with West Griggs Road. Mr. Katzenbach confirmed that this has occurred, and Mr. Sicard stated that a truck backing into Route 14 represents a traffic safety hazard. Therefore, Neighbors have shown the potential for a dangerous condition caused by trucks associated with the Project.

Third, Mr. Ellis described Neighbors' historic use of West Griggs Road for recreation, primarily to walk their dog and enjoy a stroll. He explained that haul trucks on the road take up almost all the available width, to the point where he no longer feels safe as a pedestrian. As a result, Neighbors have stopped taking their regular walks. A video submitted by Neighbors shows one of Applicants' trucks driving up West Griggs Road and persuasively illustrates the potential impact on pedestrians. The truck occupies most of the road width, and tall banks can be seen on either side of the road for a significant portion of its length. As Mr. Ellis explained, these banks would make it difficult for a pedestrian to get out of the path of an oncoming truck.

Though we cannot deny the Project based solely on the requirements of Criterion 5, we may impose conditions to protect against unsafe conditions. See 10 V.S.A. §§ 6087(b), 6086(c). Based on the evidence before the Court, we determine that the following conditions are appropriate: Applicants shall schedule the arrivals and departures of haul trucks and communicate with drivers via radio to minimize the occurrence of trucks reversing down West Griggs Road. Haul Trucks shall be prohibited from reversing into Route 14 for any reason. To allow for safe recreation opportunities during business hours, haul trucks shall not travel West Griggs Road between 12:00PM and 1:00PM on any day.⁹ As conditioned, we conclude that the Project complies with Criterion 5. See 10 V.S.A. §§ 6086(a)(5), 6086(c). Neighbors' Question 8 is therefore answered in the negative.

⁹ The Court has also imposed other restrictions on operating hours pursuant to Criterion 8, discussed below. These will further reduce potential conflicts with pedestrians on West Griggs Road.

f. Criterion 8

Pursuant to Criterion 8, an applicant must provide evidence sufficient to enable the Court to find that the proposed project will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, or rare and irreplaceable natural areas. 10 V.S.A. § 6086(a)(8). In this case, our review is limited to aesthetic impacts from noise, dust, and diesel fumes or exhaust emissions.¹⁰ If Applicants satisfy the initial burden of production, the ultimate burden of proving that the Project does not conform to Criterion 8 rests upon Neighbors. See 10 V.S.A. § 6088(b); In re Route 103 Quarry, No. 205-10-05 Vtec, slip op. at 8 (Vt. Env'tl. Ct. Nov. 22, 2006) (Durkin, J.), *aff'd*, 2008 VT 88, 184 Vt. 283. The cornerstone of our analysis under Criterion 8 is whether “the proposed project [will] be in harmony with its surroundings—will it ‘fit’ the context within which it will be located?” Re: Quechee Lakes Corp., Nos. 3W0411-EB and 3W0439-EB, Findings of Fact, Conclusions of Law, and Order, at 18 (Vt. Env'tl. Bd. Nov. 4, 1985), *aff'd*, In re Quechee Lakes Corp., 154 Vt. 543 (1990).

To evaluate a project under Criterion 8, we follow the two-part test known as the “Quechee test” established by the former Environmental Board. See Quechee Lakes Corp., Nos. 3W0411-EB and 3W0439-EB, at 19–20; In re Rinkers, Inc., 2011 VT 78, ¶ 9, 190 Vt. 567 (approving use of the Quechee test). First, we examine whether the project may cause an adverse impact on the character of the area. Quechee Lakes Corp., Nos. 3W0411-EB and 3W0439-EB, at 19. If so, we must then determine whether that impact will be “undue.” *Id.*

“The word ‘adverse’ means unfavorable, opposed, hostile” to the character of the area. See *id.* at 17 (quoting Re: Brattleboro Chalet Motor Lodge, Inc., No. 4C0581-EB, Findings of Fact, Conclusions of Law, and Order (Vt. Env'tl. Bd. Oct. 17, 1984)). To determine whether a project will have an “adverse” aesthetic impact, the Court is charged to look at how the project fits within the context of its area in terms of size, scale, nature of use and various off-site impacts, here with specific regard to noise, dust, and exhaust emissions. See Quechee Lakes Corp., Nos. 3W0411-EB and 3W0439-EB, at at 18–19; see also In re Free Heel, Inc., No. 217-9-06 Vtec, slip op. at 5 (Vt.

¹⁰ Neighbors’ Question 9 asks “[w]hether the operation of the proposed gravel pit, including but not limited to on-site crushing, on- and off- site truck traffic, and excavation will cause an undue adverse aesthetic impact as a result of noise, dust, diesel fumes, and exhaust in violation of Act 250 Criterion 8.”

Envtl. Ct. Mar. 21, 2007). If a project fits within its aesthetic context, it will not have an “adverse” aesthetic impact and will comply with Criterion 8.

Even if the Court finds that a project does not fit within its context, and therefore has an “adverse” aesthetic impact on the area, a project will still be found to comply with Criterion 8 unless the adverse aesthetic impact is found to be “undue.” An impact is undue if:

(1) it violates a clear, written community standards intended to preserve aesthetics or scenic, natural beauty of the area; (2) it offends the sensibilities of the average person; or (3) the applicant has failed to take generally available mitigating steps that a reasonable person would take to improve the harmony of the proposed project with its surroundings.

In re Lathrop Ltd. P’ship, 2015 VT 49, ¶ 74, 199 Vt. 19 (quotation omitted).

1. Noise

In evaluating noise impacts under the Quechee test, we are guided by a benchmark known as the Barre Granite standard, where instantaneous noise levels are adverse for purposes of Criterion 8 if they exceed 70 dBA Lmax at the property line and 55 dBA Lmax outside surrounding residences or areas of frequent human use. Lathrop, 2015 VT 49, ¶ 80 (citing Re: Barre Granite Quarries, LLC, No. 7C1079 (Revised)-EB, Findings of Fact, Conclusions of Law, and Order, at 80 (Vt. Env’tl. Bd. Dec. 8, 2000)). The Barre Granite standard is not set in stone: it “is applied flexibly to accommodate existing background noise and the project context.” See Lathrop, 2015 VT 49, ¶ 85; see also Re: McLean Enters. Corp., No. 2S1147–1–EB, Findings of Fact, Conclusions of Law, and Order, at 64 (Vt. Env’tl. Bd. Nov. 24, 2004) (noting “the need to consider a relative approach that would adjust the standard upward in areas with loud existing background noise”). If noise impacts are found to be adverse, we continue to the second step of the Quechee test and consider whether they are unduly adverse.

In this case, the area surrounding the Project is rural: the existing soundscape is defined by natural noises and steady traffic on Route 14. Route 14 traffic often includes heavy trucks, however, West Griggs Road is a small, Class IV dirt road which had only minimal, residential traffic before Applicants began operating. Broadly speaking, the potential noise impacts from the Project come from two sources: equipment operating at the pit, and haul trucks traveling West

Griggs Road and Route 14. Applicants' sound expert, Mr. Reuter, presented the results of his sound measuring and modeling and his conclusions as to the impacts on the area.

i. Adverse Impact

We begin with the noise impacts from excavation and processing activities at the pit. Mr. Reuter visited the pit to measure the sound levels generated by Applicants' equipment, identifying the maximum instantaneous noise level (Lmax) for the excavator, screen, bucket loader, and Peterbilt dump truck. He then used those levels as inputs to model sound propagation from the pit and predict Lmax at various locations. The results show that noise from each piece of equipment working onsite will exceed 70 dBA Lmax at the Project's property line. This exceeds the Barre Granite limit. See NE Materials Grp., LLC, No. 75-6-17 Vtec, slip op. at 35 (Vt. Super. Ct. Envtl. Div. June 20, 2018) (Walsh, J.) (stating that the limit is 70 dBA Lmax "at the property line of a project"). Though the Barre Granite standard is flexible, and totality of the evidence presents a close question, we conclude that the noise impacts from the pit will be adverse.

Turning to the noise impacts from haul trucks traveling the roads, we reach the same conclusion. To predict the relevant instantaneous noise levels, Mr. Reuter used the Lmax measurement he obtained from Applicants' Peterbilt dump truck as an input to model sound propagation along West Griggs Road and Route 14. The results show that a truck traveling on Route 14 will produce a noise level of approximately 66 dBA Lmax at Neighbors' residence and the Valley residence. The noise from a truck on West Griggs Road will be approximately 75 dBA Lmax at the same residences. Thus, the Project is predicted to exceed the Barre Granite standard of 55 dBA Lmax by up to 20 dBA. See id.

Though this is a large exceedance, it is tempered by fact that Route 14 traffic is already a source of significant background noise. Mr. Reuter provided additional modeling to help put the Lmax results in context: he showed that the worst-case hourly traffic of 10 trucks, or 5 round trips on West Griggs Road, would produce noise levels of approximately 58 dBA Leq 1-hr while existing traffic would generate approximately 50 dBA Leq 1-hr assuming the same number of heavy trucks. The Leq 1-hr metric identifies the average of sound energy levels over the course

of an hour and is typically used for gauging noise impacts because it correlates well with levels of annoyance. Nonetheless, the Project as proposed will add up to 40 one-way truck trips, or 20 roundtrips per day and will produce higher noise levels than existing traffic. We therefore conclude that noise impacts from haul trucks will be adverse. The next question is whether the noise impacts from pit operations and haul trucks will be undue.

ii. Undue Adverse Impact

Under the Quechee test, adverse aesthetic impacts will still comply with Criterion 8 unless it is shown that they (1) will violate a clear, written community standard intended to preserve aesthetics, (2) will offend the sensibilities of the average person; or (3) the applicant has failed to take generally available mitigating steps that a reasonable person would take to improve the harmony of the proposed project with its surroundings. See Lathrop, 2015 VT 49, ¶ 74. Neither party provided evidence of the existence of community standards that were intended to preserve the aesthetics of the area, therefore we consider whether the Project's noise "will be so out of character with its surroundings or so significantly diminish the scenic qualities of the area as to be offensive or shocking to the average person." Goddard, Nos. 175-12-11 Vtec and 173-12-12 Vtec at 16 (Jan. 6, 2014) (citing Re: Pike Indus., Inc., No. 1R0807-EB, Findings of Fact, Conclusions of Law, and Order, at 18–19 (Vt. Env'tl. Bd. June 25, 1998)).

Mr. Ellis described the noise from Neighbors' perspective, with particular attention to impacts on the use and enjoyment of their property. Neighbors can hear noise from the pit operations almost everywhere, except in their home. They assert that the pit has significantly increased noise levels at the southeastern corner of their property, an area which was previously quiet. Though Mr. Ellis did not indicate that Neighbors use of that area was particularly frequent in the past, they now avoid it except to harvest firewood. From Mr. Ellis's testimony, we gather that the impacts from haul trucks are of greater concern. Project trucks passing on West Griggs Road and Route 14 are audible practically everywhere on Neighbors' property, and they perceive the noise to be loudest near the roadways and inside their home. Mr. Ellis indicated that he can also feel vibrations as trucks pass. The noise has caused Neighbors to stop using parts of their property, especially along West Griggs Road, and they feel it has drastically impacted the nature

of their surroundings. We find Mr. Ellis's testimony to be credible and persuasive as to Neighbors' experiences.

With respect to noise from the pit, we conclude that the impacts will not be shocking or offensive. First, though the noise levels are predicted to be over the Barre Granite limit at the property line, the exceedance is slight. Considering all equipment, the 70 dBA Lmax extends into the West Griggs Road right-of-way no further than approximately 100 feet. The 70 dBA level also extends into the abutting property of Janice and Kenneth Adams no further than approximately 125 feet. We also note that operating multiple pieces of equipment simultaneously does not increase the overall Lmax. Second, the noise levels at the property line do not provide the full context for impacts on neighboring properties. At trial, Ms. Adams testified that she has no objection to noise from the Project. Nearby residences are at least 1000 feet away, where predicted noise levels are less than 40 dBA Lmax. All areas of frequent human use known to the Court are below the 55dBA, with most areas predicted to experience less than 40 dBA Lmax. Perhaps most importantly, Mr. Reuter's modeling shows that the existing steady traffic on Route 14 produces noise levels ranging from 35–60 dBA Leq-1hr at residences and most areas of frequent human use. The Leq-1hr metric represents the average of sound energy over a given time period, thus we can infer that existing noise levels also reach an Lmax of least 35–60 dBA in the same areas. In short, the Lmax at residences and areas of frequent use will be comparable to or lower than existing background levels. While Neighbors noted that some equipment noises differ in character to that of the existing traffic, they did not demonstrate that the noise “will be so out of character with its surroundings or so significantly diminish the scenic qualities of the area as to be offensive or shocking to the average person.” Goddard, Nos. 175-12-11 Vtec and 173-12-12 Vtec at 16 (Jan. 6, 2014).

The impacts from trucks traveling to and from the Project will be more significant. With the Project operating as proposed, instantaneous noise from haul trucks on West Griggs Road is predicted to reach 75 dBA Lmax at residences up to 40 times over an 11.5-hour operating day. The Court has no difficulty understanding Neighbors' concern with this arrangement, but we must evaluate the effect on an average person given the existing noise context. See id. Beyond West Griggs Road, a Project truck on Route 14 yields a predicted Lmax of approximately 66 dBA

at Neighbors' residence, and 55–70 dBA at several areas of frequent use. At some other nearby residences, the Lmax will be between 60 and 65 dBA. Considering that the existing traffic on Route 14 includes similar heavy trucks, we would expect existing traffic to create similar impacts. In fact, Mr. Reuter indicated that existing trucks could be louder because they will be traveling faster. The predicted Leq, or equivalent sound levels in the area are also helpful in contextualizing potential noise impacts to residents.

Mr. Reuter modeled 3 scenarios with the Leq metric to compare existing traffic and Project trucks. Instead of the actual sound measured from Applicants' truck, he used the Federal Highway Administration Traffic Noise Model (TNM) as an input.¹¹ The first scenario represents existing traffic on Route 14 and assumes 148 cars, 10 light trucks, and 10 heavy trucks over the course of an hour, based on VTRANS traffic count data. There, the Leq-1hr is predicted to be approximately 50 dBA at Neighbors' residence, and between 35–55 dBA at most areas of frequent use. The second scenario represents the worst-case hourly impact from the Project, with 10 truck passes or 5 round trips along both West Griggs Road and Route 14. Noise from turning movements, acceleration, and deceleration is included. The predicted Leq-1hr is approximately 58 dBA at Neighbors' residence, and between 40–60 dBA at most areas of frequent use. The third scenario has the same parameters except it reflects the lowest hourly impact of 4 truck passes, or 2 round trips, resulting in an Leq-1hr of 56 dBA at Neighbors' residence and similar levels to the worst-case scenario on their property overall.

All of this suggests that Project trucks will increase the instantaneous and hourly noise levels experienced at key areas on neighboring properties, though not to a shocking degree as compared to existing levels. Considering the Project's hours of operation, existing traffic and the overall character of the area, Mr. Reuter stated that he did not expect the noise to have a significant impact. He did, however, conclude that the increased traffic from trucks on West

¹¹ Although Mr. Reuter modeled various scenarios using actual measurements or the TNM to predict Lmax and Leq1-hr, we note that Applicants did not conduct any noise monitoring of traffic on Route 14 or West Griggs Road. Mr. Reuter opined that Lmax values are best assessed with modeling, because it is impractical to isolate background noise from monitoring results. Nonetheless, the Project is operational, and where possible we would prefer evidence of the actual noise levels and noise events at nearby residences to compare Project trucks on the roads with existing traffic on Route 14. See, e.g., Hovey A250 Permit, No. 130-9-13 Vtec, slip op. at 4–5 (Vt. Super. Ct. Envtl. Div. Mar. 31, 2015) (Walsh, J.) (discussing the results of noise monitoring).

Griggs Road would have some impact, especially considering the proximity of residences to the road.

While the Court finds Mr. Reuters' opinion to be credible, Applicants' evidence did not fully account for the additional frequency of noise events, particularly on West Griggs Road. See N. E. Materials Grp., 2019 VT 55, ¶ 23, (endorsing consideration of "the impact of each additional truck on residents in the area" as part of a multifactored analysis). If the Project operates at its proposed limits, residences will experience intermittent truck passes from 6:30am to 6:00pm on weekdays and a total of 40 truck passes per day at up to 75 dBA Lmax. If we consider that trucks will pass by residences on West Griggs Road, navigate the intersection, and pass some residences again on Route 14 during a one-way "trip," it could be argued that the actual number of additional noise events experienced will be more than the 40. The passes on West Griggs Road will last longer than those on Route 14, because trucks will be moving slowly. The houses in the residential area are generally closer to West Griggs Road than Route 14. Mr. Reuter estimated that existing traffic on Route 14 includes 100 trucks per day, and he opined that 40 additional truck passes would not create a significant impact. In the Court's view, however, Applicants did not substantively address the impact of 11.5 hours of operation and 40 passes on the much smaller West Griggs Road, which had only minimal residential traffic prior to the Project. We recognize that the Project might not operate at its limits, but we must evaluate the implications of the full proposal. The above factors, in combination with Neighbors' experiences with the Project thus far, lead us to conclude that truck noise impacts in the early morning and late afternoon or evening have the potential to be shocking or offensive to the average person unless further limits are imposed on trucking.

To ensure compliance with Criterion 8, we conclude that it is appropriate to impose the following condition on Project truck traffic: Operating hours for haul trucks on West Griggs Road shall be limited to 10:00AM to 12:00PM and 1:00PM to 3:00PM on weekdays, 10:00AM to 12:00PM on Saturdays, with no operation on national holidays. Given Applicants' estimated maximum of 5 round trips or 10 one-way trips per hour, this will allow the Project to reach its proposed daily limit on hauling during the week while greatly reducing impacts on the

surrounding community. With this further condition, the Project will not offend the sensibilities of the average person.¹²

The final question in determining whether an adverse impact is undue is whether the applicant has failed to take reasonable and generally available mitigating steps. See N. E. Materials Grp., 2019 VT 55, ¶ 11. Neighbors assert that trucking should be limited in various ways. They have shown that the operating hours of larger sand and gravel businesses across the state, including those in the Northeast Kingdom, begin later and end earlier than Applicants' proposed hours of operation. We have already imposed appropriate limits on the hours for trucking, which will enable the Project to operate up to its proposed hauling capacity and will improve the harmony of the Project with its surroundings. See id. Neighbors request additional limits on the number of truck trips, but they have not shown that such limits would be reasonable or even viable. See id. They also suggest limiting extraction to 20,000 cubic yards per year rather than 30,000, yet they offer no way to quantify the effect of the annual reduction as it relates to truck noise. We conclude that the Project, as conditioned, accounts for all reasonable and generally available noise mitigation.

Considering the evidence before the Court in its entirety, including both the type and frequency of noise that the Project will generate, the existing noise characteristics, and neighboring land uses, we conclude that the Project, as conditioned by the Court, will not have an undue adverse effect on aesthetics with respect to noise. See 10 V.S.A. § 6086(a)(8); Lathrop, 2015 VT 49, ¶ 74 (discussing the Quechee test).

2. Dust

i. Adverse Impact

Any earth extraction operation can be expected to generate some dust, and this Project is no exception. In this case the potential sources of dust include operations at the pit and the haul trucks traveling the roads. The area surrounding the Project is rural, with many dirt roads

¹² Neighbors also raised the issue of engine braking, or the use of "jake brakes," which generates a loud and distinct sound. Applicants have stipulated to a condition limiting engine braking to emergency situations, and we impose such a condition in the Conclusion of this decision.

serving the Town's population. There are other gravel pits and similar operations in the area, including a pit owned by the Town. As discussed above in the context of Criterion 1, Applicants have shown that the Project's dust impacts will be limited by, and proportionate to, its comparatively small scale. Their proposal also incorporates effective dust control measures which will further mitigate potential impacts.

Neighbors spoke to their concern about dust in general, but provided limited evidence as to adverse impacts, if any, on the character of the area. Mr. Ellis stated at trial that Neighbors have avoided using the southeastern corner of their property since the Project began operating, in part because of dust issues from trucks entering and exiting the pit area via West Griggs Road. Though this type of impact is a concern, it is Neighbors' burden to demonstrate an adverse effect within the context of the area. See 10 V.S.A. § 6088(b). Based on the evidence before the Court, we conclude that the Project "fits" with its surroundings and will not have an adverse effect on the aesthetics of the area due to dust. Nonetheless, we err on the side of caution and proceed to the second prong of the Quechee analysis to consider whether any impacts are "undue."

ii. Undue Adverse Impact

The parties provided no evidence of a clear, written community standard intended to preserve the aesthetics of the area. See In re Rinkers, Inc., 2011 VT 78, ¶¶ 9–10 (describing the three factors to be considered under the second prong of the Quechee test). Therefore, the next question is whether the Projects' dust impacts would offend the sensibilities of the average person. Id. We recognize that Applicants are proposing a considerable increase in truck traffic on West Griggs Road, and therefore an increased potential for dust, during most hours of the day. Based on Mr. Ellis's testimony, it is likely that Neighbors will see some impact to a portion of their property. Yet, we have already imposed conditions limiting the hours of operation for Project trucks, and Neighbors have not provided evidence to suggest that the dust will be shocking or offensive to the average person. See id.

As to mitigation, Applicants' proposal includes effective dust control measures. Neighbors also suggest limits on hours of operation, truck trips, and extraction, along with a requirement that Applicants take responsibility for maintenance and dust control on West Griggs

Road. We have imposed conditions on operating hours, road maintenance, and dust control, and Neighbors have not established that their remaining suggestions are reasonable or generally available to Applicants as a practical matter. For the reasons above, we conclude that the Project, as conditioned, will not create unduly adverse dust impacts. See id.

3. Exhaust and Diesel Fumes

i. Adverse Impact

The Project will produce diesel fumes and exhaust emissions consistent with the processing equipment and heavy trucks involved in its operations. As discussed above in the context of Criterion 1, Applicants' engineer provided credible testimony that emissions from equipment at the pit will be limited by several aspects of the proposal and will dissipate before impacting neighboring properties. Applicants have also established that truck emissions are subject to state inspection requirements and further limited by a proposed requirement for non-modified and factory original equipment. We have already discussed several relevant characteristics of the surrounding area, the most notable of which in this context is the existing traffic on Route 14.

Neighbors' evidence largely focuses on the impacts of truck emissions on West Griggs Road. Mr. Ellis described smelling diesel fumes from haul trucks at numerous places on their property, especially in wooded areas and on the portion of their property that runs along the road. He noted experiencing some throat irritation and estimated that the smell can linger for as long as 10 minutes. Though Neighbors' property also abuts Route 14, they assert that the fumes from trucks on that road are not noticeable. The impacts from Project trucks have reduced Neighbors' desire to work outside at the affected areas on their property: understandably, they prefer not to breathe diesel fumes while working.

Considering the proximity of Route 14 and the prevalence of existing truck traffic, we cannot say the Project's emissions or fumes are overly "hostile" to the broad character of the area. Neighbors' evidence, however, suggests that the residences in the area may be negatively affected by the additional emissions associated with haul trucks. We therefore conclude that exhaust and diesel fumes from the trucks will have an adverse effect.

ii. Undue Adverse Impact

Because neither party provided evidence of an applicable community standard, we move on to evaluate whether the emissions and fumes will be shocking or offensive. The testimony of Mr. Ellis demonstrated that the fumes are offensive to Neighbors, yet the Court received little information with which to evaluate the perspective of the *average* person. The evidence does allow us to conclude that exhaust and diesel fumes from trucks on West Griggs Road will be noticeable, and likely unpleasant.

Under Applicants' proposal, which calls for operations from 6:30 AM to 6:00 PM on weekdays and 7:00 AM to 1:00 PM on Saturdays, there is the potential for fumes to become a considerable nuisance. The Court has imposed further limits on trucking hours, which will greatly reduce the hours of possible exposure. Considering the Project as conditioned, the presence of existing heavy truck traffic and the lack of other evidence leads us to conclude that Project exhaust emissions or fumes will not be "so out of character with [their] surroundings or so significantly diminish the qualities of the area as to be offensive or shocking to the average person." Goddard, No. 173-12-12 Vtec at 16 (Jan. 6, 2014); see also In re Goddard Coll. Conditional Use, 2014 VT 124, ¶ 12, 198 Vt. 85 ("[I]n the absence of evidence on the issue, or where the evidence is indecisive, the issue must be decided in the applicant's favor.") (quotation omitted).

Beyond the mitigation already proposed by Applicants and further mitigation imposed by the Court, Neighbors point to reductions in the number of truck trips and the yearly extraction volume. Neighbors have not demonstrated that these measures represent reasonable modifications to the Project proposal. We conclude that the exhaust and diesel fumes from the Project, as conditioned, will not have an undue adverse effect on aesthetics.

Based on the evidence before the Court with respect to noise, dust, and exhaust or diesel fumes, we further conclude that the Project, as conditioned, complies with Criterion 8. Neighbors' Question 9 is answered in the negative.

Conclusion

For the foregoing reasons, we conclude that the Applicants' sand and gravel Project complies with Act 250 Criteria 1, 1(D), 1(E), 4, 5, and 8, subject to the following conditions¹³:

1. Applicants shall be wholly responsible for dust control on West Griggs Road for the life of the Project, including road stabilization and application of calcium chloride as needed.
2. Applicants shall be wholly responsible for maintaining West Griggs Road from the pit entrance to the Route 14 intersection for the life of the Project. The road shall be stabilized and improved as needed to minimize erosion and sediment transportation, in accordance with the Vermont Better Backroads Manual.
3. Applicants shall schedule the arrivals and departures of haul trucks and communicate with drivers via radio to minimize the occurrence of trucks reversing down West Griggs Road.
4. Haul Trucks shall be prohibited from reversing into Route 14 for any reason.
5. To allow for safe recreation opportunities during business hours, haul trucks shall not travel West Griggs Road between 12:00PM and 1:00PM on any day. As additional mitigation of project impacts, haul trucks use of West Griggs Road shall be limited to 10:00 AM to 12:00 PM and 1:00 PM to 3:00 PM on weekdays, 10:00 AM to 12:00 PM on Saturdays, with no operation on national holidays. These time restrictions do not apply to pit operations.
6. Engine braking, or the use of "jake brakes," shall be prohibited on West Griggs Road except in case of emergency.
7. Crushing of material is not authorized at any location.

We further conclude that Applicants have satisfied the certification requirement under 10 V.S.A. § 6087(c). The District Commission's Finding 10, incorporated through Condition 2 of the Dash 1 Permit, is replaced by the condition that Applicants shall be wholly responsible for dust control on West Griggs Road, including road stabilization and application of calcium chloride or water as needed. The District Commission previously approved up to 15 days of crushing operations per calendar year, and that approval is voided.

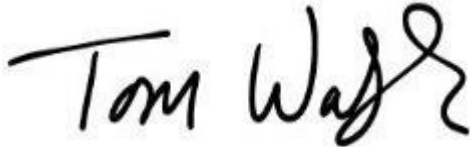
We therefore conclude that the application for an Act 250 Land Use Permit, as conditioned, complies with the Act 250 criteria before the Court and we **REMAND** the matter to

¹³ Neighbors' Question 10 asks whether "reasonable conditions must be placed on the operation and construction of the proposed project," and lists several potential restrictions. See Amended Statement of Questions. The conditions imposed by the Court here reflect our consideration of Question 10, the parties' post trial filings, the Act 250 criteria, and the full scope of evidence presented. Our answer to Question 10 is therefore affirmative in part, as reflected by the conditions imposed.

the District 7 Environmental Commission for the ministerial act of issuing a permit consistent with the Commission's June 13, 2019 decision as modified by this decision.

A Judgment Order is issued concurrently with this decision. This concludes the matter before the Court.

Electronically Signed: 4/16/2021 1:46 PM pursuant to V.R.E.F. 9(d).

A handwritten signature in black ink that reads "Tom Walsh". The signature is written in a cursive, flowing style with a large, stylized "W" and a long, sweeping underline.

Thomas G. Walsh, Judge
Superior Court, Environmental Division