A. INTRODUCTION

This chapter examines the Proposed Action's potential impacts regarding noise and air quality within the Fjord Trail South Corridor. An evaluation of the proposed Fjord Trail North is provided in Chapter III.H, "Noise and Air Resources – Fjord Trail North." This chapter describes the existing conditions along the Fjord Trail South Corridor and assesses future conditions with and without Fjord Trail South. The analyses presented in this chapter include potential impacts from noise and from emissions generated by the construction activities associated with Fjord Trail South. Potential impacts related to noise and emissions vehicle trips generated by the project are also included in this assessment.

NOISE FUNDAMENTALS

Sound is a fluctuation in air pressure. Sound pressure levels are measured in units called "decibels" ("dB"). The character of the sound that we hear is determined by the speed, or "frequency," at which the air pressure fluctuates, or "oscillates." Frequency defines the oscillation of sound pressure in terms of cycles per second. One cycle per second is known as 1 Hertz ("Hz"). People can hear over a relatively limited range of sound frequencies, generally between 20 Hz and 20,000 Hz, and the human ear does not perceive all frequencies equally well. High frequencies (e.g., a whistle) are more easily discernible and therefore more intrusive than many of the lower frequencies (e.g., a diesel truck engine).

"A"-WEIGHTED SOUND LEVEL (DBA)

To establish a uniform noise measurement that simulates people's perception of loudness and annoyance, the decibel measurement is weighted to account for those frequencies most audible to the human ear. This is known as the A-weighted sound level, or "dBA," and it is the descriptor of noise levels most often used for community noise. As shown in **Table IV.H-1**, the threshold of human hearing is defined as 0 dBA; very quiet conditions (as in a library, for example) are approximately 40 dBA; levels between 50 dBA and 70 dBA define the range of noise levels generated by normal daily activity; levels above 70 dBA would be considered noisy, and then would be more loud, intrusive, and deafening as the scale approaches 130 dBA.

Table IV.H-1
Common Noise Levels

Sound Source	dBA
Military jet, air raid siren	130
Amplified rock music	110
Jet takeoff at 500 meters	100
Freight train at 30 meters	95
Train horn at 30 meters	90
Heavy truck at 15 meters	80–90
Busy city street, loud shout	80
Busy traffic intersection	70–80
Highway traffic at 15 meters, train	70
Predominantly industrial area	60
Light car traffic at 15 meters, city or commercial areas, or residential areas close to industry	50–60
Background noise in an office	50
Suburban areas with medium-density transportation	40–50
Public library	40
Soft whisper at 5 meters	30
Threshold of hearing	0

Note: A 10 dBA increase in level appears to double the loudness, and a 10 dBA decrease halves the apparent loudness.
Sources: Cowan, James P. *Handbook of Environmental Acoustics,* Van Nostrand Reinhold, New York, 1994. Egan, M. David, Architectural Acoustics. McGraw-Hill Book Company, 1988.

In considering these values, it is important to note that the dBA scale is logarithmic, meaning that each increase of 10 dBA describes a doubling of perceived loudness. Thus, the background noise in an office, at 50 dBA, is perceived as twice as loud as a library at 40 dBA. For most people to perceive an increase in noise, the change or increase must be at least 3 dBA. At an increase of 5 dBA, the change will be readily noticeable.

EFFECTS OF DISTANCE ON NOISE

Noise varies with distance. For example, highway traffic 50 feet away from a receptor (such as a person listening to the noise) typically produces sound levels of approximately 70 dBA. Assuming soft ground, the same highway noise measures 66 dBA at a distance of 100 feet. This decrease is known as "drop-off." The outdoor drop-off rate for line sources, such as traffic travelling along a road or a train running along a track, is a decrease of approximately 4.5 dBA (for soft ground) for every doubling of distance between the noise source and receiver (for hard ground the outdoor drop-off rate is 3 dBA for line sources). Assuming soft ground, for point sources, those with a stationary source such as amplified rock music at a concert, the outdoor drop-off rate is a decrease of approximately 7.5 dBA for every doubling of distance between the noise source and receiver (for hard ground the outdoor drop-off rate is 6 dBA for point sources). Intervening terrain, vegetation and structures also reduce the propagation of sound.

NOISE DESCRIPTORS USED IN IMPACT ASSESSMENT

Because the sound pressure level unit of dBA describes a noise level at just one moment and very few noises are constant, other ways of describing noise over extended periods have been developed. One way of describing fluctuating sound is to describe the fluctuating noise heard over a specific time period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level," L_{eq}, can be computed. L_{eq} is the constant sound level that, in

a given situation and time period (e.g., 1 hour, denoted by $L_{eq(1)}$, or 24 hours, denoted as $L_{eq(24)}$), conveys the same sound energy as the actual time-varying sound.

$L_{eq(1)}$ is the noise descriptor used by most governmental agencies, including the New York State Department of Environmental Conservation (NYSDEC) for noise impact evaluation, and is used to provide an indication of highest expected sound levels.

NOISE STANDARDS AND IMPACT CRITERIA

NYSDEC sets forth guidance on addressing noise impacts, which has been followed for this analysis. To the extent local noise regulations may apply to the Fjord Trail South Corridor, the Village of Cold Spring's noise ordinance is summarized below.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NYSDEC published a policy and guidance document, *Assessing and Mitigating Noise Impacts* (DEP-00-1, February 2, 2001), which presents noise impact assessment methods, identifies thresholds for significant impacts, and discusses potential avoidance and mitigative measures to reduce or eliminate noise impacts.[1]

NYSDEC's guidance document sets forth thresholds that can be used in determining whether a noise level increase due to a project may constitute a significant adverse impact, noting that these thresholds should be viewed as guidelines subject to adjustment as appropriate for the specific circumstances. According to DEP-00-1:

- Increases in noise ranging from 0 to 3 dBA should have no appreciable effect on receptors;
- Increases of 3 to 6 dBA may have the potential for adverse impacts only in cases where the most sensitive of receptors (e.g., hospital or school) are present;
- Increases of more than 6 dBA may require a closer analysis of impact potential depending on existing noise levels and the character of surrounding land use and receptors; and
- Increases of 10 dBA or greater deserve consideration of avoidance and mitigation measures in most cases.

The NYSDEC guidance document also sets forth noise thresholds that can be used in identifying whether a noise level due to a project should be considered a significant adverse impact. According to the guidance, the addition of any noise source in a non-industrial setting should not raise the ambient noise level above a maximum of 65 dBA, and ambient noise levels in industrial or commercial areas may exceed 65 dBA with a high end of approximately 79 dBA. As set forth in the NYSDEC guidance, projects that exceed these levels should explore the feasibility of implementing mitigation measures.

VILLAGE OF COLD SPRING NOISE ORDINANCE

Section 76-2 of the Village of Cold Spring Code prohibits "the making and creating, within the Village, of an excessive or unusually loud noise, or an Unreasonable noise, which is as heard without measurement, is considered to be objectionable because it is Impulsive, continuous, rhythmic, periodic or shrill, and causing public inconvenience, annoyance or alarm, or recklessly create a risk thereof; or, Unreasonable Noise that is heard and measured in the manner prescribed in § 76-4, is hereby declared to be unlawful; except when made under and in compliance with a permit issued pursuant to § 76-4." The code outlines permissible noise levels for each zoning

[1] http://www.dec.ny.gov/docs/permits_ej_operations_pdf/noise2000.pdf.

district ranging from 40 dBA to 60 DBA during daytime hours and from 35 dBA to 55 dBA during night-time hours. However, per § 76-11(F), sound generated Power Equipment (i.e., "any machine, tool or similar device driven or operated by a motor") is exempt from these limits. Rather, § 76-11(F) limits noise emission from Power Equipment to 82 dBA at 50 feet for equipment rated more than 5 horsepower or 75 dBA at 50 feet for equipment rated less than 5 horsepower. Such equipment is prohibited from use in a residential district during night-time hours.

Section 76-9 of the code also provides that "Construction projects (including Demolition) shall be subject to the maximum permissible noise levels specified for business districts for the period within which Construction is to be completed pursuant to any applicable construction permit issued by proper authority, or if no time limitation is imposed, then for a reasonable period of time for completion of project." Relief for noise exceedances may be sought from the village code enforcement officer.

B. EXISTING CONDITIONS

NOISE

The Fjord Trail South Corridor contains a variety of land uses, including parks and recreational trails, residential development, municipal facilities (wastewater treatment facility and highway garage), and an active rail line with commuter rail (Metro-North Railroad [MNR]), intercity rail (Amtrak) and freight (CSX) activity. Existing noise can be characterized as typical for this mix of uses including noise generated by vehicles, outdoor human activities, and commuter trains. The diesel powered trains would be expected to generate the highest noise levels in the area, but operation of personal, maintenance (lawn tractors) and municipal (school buses, snowplows, park, and field maintenance) vehicles as well as those vehicles that service the existing uses (waste removal and delivery trucks) would also contribute to total noise levels. These noise sources are temporary/transient, resulting in noise levels that fluctuate over time, although average noise levels would be expected to be consistent with "Suburban areas with medium-density transportation" as noted in **Table IV.H-1**.

AIR QUALITY

The Fjord Trail South Corridor does not have any large stationary or significant mobile sources of air pollution. Existing air quality can be characterized based on pollutant concentrations measured by the NYSDEC at air quality monitoring stations in the region. Representative concentrations are presented in **Table IV.H-2**. These values presented are consistent with the format of the National Ambient Air Quality Standards (NAAQS). For example, the 8-hour ozone concentration shown is the 3-year average of the 4th highest daily maximum 8-hour average concentrations. The concentrations were obtained from the New York State Ambient Air Quality Report for 2019,[2] the most recent report available that is considered representative. As shown in **Table IV.H-2**, the recently monitored levels did not exceed the NAAQS.

[2] https://www.dec.ny.gov/docs/air_pdf/2019airqualreport.pdf

Table IV.H-2
Representative Monitored Ambient Air Quality Data

Pollutant	Location	Units	Averaging Period	Concentrations	NAAQS
CO	Botanical Gardens (Bronx, NY)	ppm	8-hour	1.3	9
			1-hour	2.0	35
SO_2	Mt. Ninham[1] (Town of Kent, NY)	ppb	1-hour	3.6	196
PM_{10}	IS 52 (Bronx, NY)	$\mu g/m^3$	24-hour	36.0	150
$PM_{2.5}$	Newburgh[2]	$\mu g/m^3$	Annual	6.1	9
			24-hour	14.9	35
NO_2	Newburgh[3]	$\mu g/m^3$	1-hour	53.4	188
			Annual	14.1	100
Lead	IS 52 (Bronx, NY)	$\mu g/m^3$	3-month	0.01	0.15
O_3	Rockland County[4] (Town of Ramapo, NY)	ppm	8-hour	0.068	0.075

Notes:
[1] The 1-hour value is based on a three-year average (2017–2019) of the 99th percentile of daily maximum 1-hour average concentrations. USEPA replaced the 24-hr and the annual standards with the 1-hour standard.
[2] The 24-hour value is based on a three-year average (2017–2019) of the 98th percentile of daily maximum 24-hour average concentrations.
[3] The 1-hour value is based on a three-year average (2017–2019) of the 98th percentile of daily maximum 1-hour average concentrations.
[4] The three-year average (2017–2019) of the annual fourth-highest daily maximum 8-hr average concentrations.
Source: Annual New York State Ambient Air Quality Reports, NYSDEC (2017–2019).

C. FUTURE WITHOUT THE PROPOSED ACTION

NOISE

In the future without construction of Fjord Trail South, noise levels would be expected to be similar to or the same as the existing conditions, as the dominant existing noise sources in the area (i.e., diesel powered trains and vehicular traffic) would continue at comparable volumes to the existing conditions.

AIR QUALITY

In the future without construction of the Fjord Trail South, air quality in the area would generally be anticipated to improve as a result of ongoing federal and state efforts at reducing emissions from all sources.

D. FUTURE WITH THE PROPOSED ACTION

CONSTRUCTION ACTIVITIES

Fjord Trail South is proposed to be constructed using three general construction methods:

1) **Waterside construction** for the on-structure (elevated) section at its northern end;
2) **On-grade construction** for the proposed Lower Overlook, a portion of the trail north of Little Stony Point, and the middle section within Little Stony Point; and
3) **Top-down construction**, where construction would occur from the trail itself as it is built, between Little Stony Point and Dockside Park at its southern end.

These are general construction means and methods proposed for Fjord Trail South. The construction means and methods will be refined based on further evaluation and coordination.

Construction activities would begin with mobilization, including deployment of a construction barge and a materials barge for waterside construction, establishing land access points at Breakneck Ridge, Little Stony Point, and Dockside Park for the on-grade construction and top-down construction sections, and establishing a temporary waterside landing point at Breakneck Ridge for the proposed Lower Overlook. Land would then be cleared and grubbed with equipment such as mowing tractors, chain saws, crawlers, hydraulic backhoes, and excavators.

For the northern section (waterside construction portion) of Fjord Trail South that would be elevated on-structure along the Hudson River shoreline, construction is proposed to include an auger drill to pre-drill at pile location and displace any boulders. Pile installation would be facilitated from a construction barge using a crane with a diesel or hydraulic hammer. The crane would then be used to place precast pile caps on top of the piles and the piles would be filled with cast-in-place concrete using a boom concrete pump truck on the barge. Pile installation is estimated to be completed in a total of about six months. Following pile installation, permanent superstructure beams would be lifted and placed onto the pile cap supports using a marine crane. A boom concrete pump truck would continue to be used from the barge for support components. As beams are installed, deck planks would be installed with a secondary crane following behind. After a sufficient number of deck panels have been installed, fencing and railing sections would be installed. All waterside construction work would occur during six-month windows (July 1 to December 31) over five years to avoid in-water work restrictions.

On-grade construction for the middle section of Fjord Trail South and the proposed Lower Overlook would occur in parallel with the waterside construction and take approximately four years to complete. A temporary floating platform would be installed near the proposed Lower Overlook (near Breakneck Ridge) for delivery of materials and equipment from the water for that section. For the on-grade section within and just to the north of Little Stony Point, truck access would be provided through Little Stony Point. A laydown area in Little Stony Point would also be established. The proposed trail alignment would be excavated and graded, stabilized, and then laid with crushed stone. Equipment associated with these tasks would include a drill rig, tampers, water cistern, forklifts, a tandem axle tractor, and dump trucks to remove vegetation and excavated soils and to deliver crushed stone. Other than the forklifts and the delivery vehicles, all equipment would be diesel powered.

Top-town construction for the elevated on-structure southern section of Fjord Trail South between Little Stony Point and Dockside Park would also occur in parallel with the waterside and on-grade construction activities. Construction would occur from the trail itself as it is constructed using a multi-tool excavator and a crane. This section would be constructed from the north and south simultaneously and meet in the middle. Temporary vehicle access would be provided through Little Stony Point and Dockside Park. The excavator would be used to clear riprap using a rock breaker and bucket to break up and clear large boulders from pile locations and an auger drill attachment to displace medium sized boulders. The excavator would use a vibratory hammer attachment to progress the first 20-foot section of steel pipe pile through fill, and an open-ended diesel hammer attachment to drive the steel pipe piles through remaining soft soils and dense glacial till. The excavator would lift a precast capping beam into place on top of piles and cast-in-place concrete, delivered from a hopper barge, would be poured into the pile. Piles would require welded splices, which would require compressors and/or generators. A crane would lift the superstructure beams into place and then the deck plants onto the beams. Installation of the

superstructure, deck panels, fencing, and handrails may require pneumatic drills, which would generate intermittent noise. This process would be repeated for each span, which would take about eight to nine days per span.

Top-down construction activities would be restricted to the in-water work window (July 1 to December 31), during which about 14 spans could be completed, depending on weather and other factors. In total, this section of Fjord Trail South would take about five years to complete, with an additional year to complete the on-grade trail connections at either end in Little Stony Point and Dockside Park. Based on the anticipated schedule and linear nature of Fjord Trail South, prolonged construction would not be expected to occur at a single location. Activities at possible staging areas would have limited operation of forklifts and incoming and outgoing delivery trucks. These material deliveries are estimated to range from between one and two truck trips per day up to 10 to 15 trucks per day, depending on the construction stage, season, and methodology, and would be made during normal working hours of 7:00 AM and 4:00 PM. It is estimated that delivery activities would be limited to a couple of hours each workday.

Potential sidewalks associated with the proposed Meander along Fair Street and NYS Route 9D would involve removal of existing pavement within the roadway shoulder, likely using jackhammers. Concrete mixers and pumps would be used to construct the new sidewalk.

NOISE

CONSTRUCTION NOISE

Construction activities associated with Fjord Trail South would produce noise at nearby noise receptors from construction equipment and construction vehicles traveling to and from construction sites. Noise levels caused by construction activities would vary widely, depending on the phase of construction, equipment in use, and the specific task being undertaken. Elevated noise levels adjacent to construction activities may reach as high as 90 dBA under worst-case conditions (i.e., during pile installation). The level of noise exposure at local receptors would depend on the construction activities involved, the noise emission of the involved equipment, the location of the equipment, the distance from the receptor, and the hours of operation.

The area around the northern portion of the proposed Fjord Trail South where waterside construction would occur is mostly undeveloped, aside from one residence over 500 feet from the nearest proposed pile driving activities. Visitors to Breakneck Ridge would also experience elevated noise levels, but most trails are over 500 feet from the proposed construction zones and noise would have limited impact on trail users. On-grade construction activities in Little Stony Point and at the proposed Lower Overlook would be in undeveloped areas and not near any residences. On-grade construction activities in Dockside Park would be mostly 300 to 500 feet from the nearest residences, with the exception of residences that are near the entrance to Dockside Park on North Street and West Street, but this area of construction would involve improvements to an existing trail and would not involve extensive noise-intensive construction activities, such as tree removal or pile driving. Temporary disturbance to park users at Little Stony Point and Dockside Park would occur, but this would be intermittent and temporary. Some areas of these parks may also be closed temporarily during construction for public safety. Visitors to nearby recreational areas, including Breakneck Ridge and Mayor's Park, would also experience elevated noise levels during construction of Fjord Trail South.

Along the southern section of the proposed Fjord Trail South where top-down construction activities would occur, the nearest residences from the most noise-intensive construction activity (i.e., pile drilling) are roughly 200 feet away and the nearest restaurant is over 300 feet away. The

nearest edge of Mayor's Park borders the MNR tracks and is about 100 feet from the proposed Fjord Trail North. Noise levels would decrease with distance from the area under construction at a rate of 6–7.5 dBA per doubling of distance, as described above. For instance, a heavy truck is shown in **Table IV.H-1** as emitting 80–90 dBA at 15 meters (approximately 50 feet). At 200 feet away (i.e., two doublings), noise levels would be reduced by 12–15 dBA. At 300 feet away (i.e., three doublings), noise levels would be reduced by 18–22.5 dBA.

Construction of potential sidewalks associated with the proposed Meander along Fair Street would occur in front of residences. Construction would likely use jackhammers, and concrete mixers and pumps, which are noise-intensive equipment. While sidewalk construction would be disruptive to local residents, construction would be short-term (estimated at about three to six months) and would progress linearly along the roadway and would not be in any one location for extended periods. Sidewalk construction within the Village of Cold Spring right-of-way would be subject to the Village's noise ordinance, which restricts constructions levels to the maximum permissible noise levels specified for business districts. These noise levels would likely be exceeded temporarily, and relief from the Village code enforcement officer would be needed.

Noise-intensive construction activities associated with pile driving would occur in six-month windows over the course of five to six years due to in-water work restrictions. Additionally, the construction barge for the waterside construction at the northern section of Fjord Trail South would not be able to operate during low tide, further limiting the duration of pile driving in this section. For the top-down construction at the southern section of Fjord Trail South, pile-driving would be conducted as an early step for each span, repeated every eight to nine days, and therefore would not be continuous. As such, construction noise adjacent to any specific residence, restaurant, park, or other noise-sensitive use would be temporary and transient. In addition, construction would not occur at night when residents would be most sensitive to noise.

All construction work that would occur within MNR right-of-way would be performed in accordance with requirements of MNR, including review/approval of contractor work plans prior to construction. Construction equipment and means and methods, including pile driving equipment, would be selected to meet MNR vibration limits. Vibration monitoring of existing MNR infrastructure would be conducted during construction. Monitoring would be installed at key locations and used during construction to ensure vibration limits do not exceed MNR allowable limits and to monitor ground movements (if any). The instrumentation and monitoring specification and plan would be developed as part of the next phase of design and would incorporate MNR limits. A vibration impact assessment would also be completed as part of the next phase of design and would be used to inform the selection of construction equipment.

Construction vehicles traveling to and from the construction work areas would generate noise, which would range from one to two truck trips per day up to 10 to 15 trucks per day, depending on the specific stage of construction. As discussed in Chapter III.L, "Traffic and Transportation – Fjord Trail," construction vehicles accessing the Fjord Trail South Corridor would primarily use NYS Route 9D, which is already a heavily trafficked roadway. Trucks would also need to use Main Street to access Dockside Park. Construction vehicles would be distributed between the Little Stony Point access and Dockside Park access, with more trucks generally directed toward Little Stony Point off NYS Route 9D. Truck traffic would vary during the construction period and would be less intense during the restricted in-water work periods. Given the limited number of truck trips, varying volumes throughout construction, and standard working hours, it is therefore, not expected that construction of Fjord Trail South would result in a substantial increase in vehicular traffic volumes exceeding the necessary threshold (i.e., quadrupling of vehicular traffic

volumes) to generate significant noise level increases over an extended period of time adjacent to any noise-sensitive land uses including schools, hospitals, and residential areas.

Based on the temporary and intermittent nature of construction noise at surrounding noise-sensitive uses, vehicle noise associated with construction of Fjord Trail South would not have the potential to create significant adverse noise impacts.

OPERATIONAL NOISE

Once construction is completed, noise sources associated with operation of Fjord Trail South would include vehicular traffic accessing the trailheads as well as human use of the trail. The human use of Fjord Trail South would not appreciably contribute to total noise levels in the area, as those noise levels are dominated by louder sources including diesel powered trains and vehicular traffic. The number of vehicle trips generated by Fjord Trail South, as presented in Chapter III.L, "Traffic and Transportation – Fjord Trail," would not generate sufficient traffic to have the potential to cause a significant noise impact according to the NYSDEC impact criteria described above (i.e., it would not result in a quadrupling of noise passenger car equivalents [Noise PCEs], which would be necessary to cause a 6 dBA or greater increase in noise levels constituting greater than a "readily noticeable" increase in noise levels). Therefore, operation of Fjord Trail South would not result in significant adverse noise impacts at nearby residential receptors according to the NYSDEC noise guidance document, and further assessment is not warranted.

For a discussion of noise related impacts to wildlife and protected species, refer to Chapter IV.E, "Biological Resources – Fjord Trail South."

AIR QUALITY

CONSTRUCTION AIR QUALITY

Air quality impacts associated with construction activities are typically the result of fugitive dust and emissions from vehicles or equipment. Fugitive dust can result from earth moving, such as site clearing, excavation, and driving construction vehicles over dry, unpaved surfaces. However, any localized increase in pollutant emissions during the process would be of relatively short duration. Where land disturbance would be required, a large proportion of fugitive dust would be of relatively large particle size that would be expected to settle within a short distance of being generated and thus not affect off-site receptors. Measures to minimize and avoid this potential impact to the extent practicable would be incorporated into a construction management plan that would be prepared for construction activities associated with Fjord Trail South. These measures would include a water tanker to spray and manage dust. There would be minimal soil exporting and where necessary, contractors would be required to implement truck tracking pad and wheel washing stations to keep debris and dust from being expelled from trucks along haul routes.

In addition, the U.S. Environmental Protection Agency (USEPA) required a major reduction in the sulfur content of diesel fuel intended for use in locomotive, marine, and nonroad engines and equipment, including construction equipment. As of 2015, the diesel fuel produced by all large refiners, small refiners, and importers must be Ultra Low Sulfur Diesel (ULSD) fuel, with sulfur levels in non-road diesel fuel limited to a maximum of 15 parts per million. Construction equipment used during the development of Fjord Trail South would use ULSD fuel where required.

Vehicle emissions from construction vehicles and equipment have the potential to result in elevated levels of nitrogen oxides ("NO_x"), particulate matter ("PM"), and carbon monoxide ("CO"). The greatest potential for impact is typically associated with heavy-duty equipment that

is used for short durations. However, measures would be implemented during construction to minimize these emissions, including the use of ULSD mentioned above, and idling time would be limited to five minutes for all on-site equipment and vehicles that are not operating a loading, unloading, or processing device (e.g., concrete mixing trucks) based on New York State requirements described in the New York Codes, Rules, and Regulations (6 NYCRR Part 248 and 6 NYCRR Subpart 217-3, respectively).

Further, best management practices would be implemented during construction to control dust emissions, and may include the following measures:

- Minimizing the area of soil that is disturbed at any one time;
- Minimizing the amount of time during which soils are exposed;
- Installing truck mats or anti-tracking pads at egress points to clean the trucks' tires prior to leaving the project site;
- Watering of exposed areas during dry periods to reduce dust;
- Using drainage diversion methods (e.g., silt fences) to avoid soil erosion during grading;
- Covering stored materials with a tarp to reduce windborne dust;
- Limiting on-Site construction vehicle speed to five mph;
- Using truck covers/tarp rollers that cover fully loaded trucks and keep debris and dust from being expelled from the truck along its haul route; and
- Properly maintaining all equipment.

Implementation of the measures listed above would avoid and minimize potential adverse impacts to air quality during construction of Fjord Trail South to the extent practicable. Since these construction activities would be temporary and intermittent, construction of Fjord Trail South would not be expected to result in a significant or extended impact on air quality along the Fjord Trail South Corridor, and no further analysis due to construction is warranted.

OPERATIONAL AIR QUALITY

As discussed in Chapter III.L, "Traffic and Transportation – Fjord Trail," the operation of the Fjord Trail would be expected to increase the number of visitors to the area. Based on project-generated vehicle trips for both the Saturday and Sunday peak hours for the Fjord Trail (Fjord Trail North and Fjord Trail South sections combined), the intersection along the Fjord Trail South Corridor with the greatest projected increase in vehicles (estimated at 104 additional vehicles in a peak hour) would be Fair Street and NYS Route 9D. Increases in traffic volumes resulting from the Fjord Trail at all other study intersections would be less (see Chapter III.L, "Traffic and Transportation – Fjord Trail").

The primary pollutant of concern with respect to emissions from passenger vehicles is CO. Based on guidance in the New York State Department of Transportation's (NYSDOT's) Transportation Environmental Manual (TEM) for evaluating CO, the projected traffic volumes for the study area would be below the volume thresholds for the potential to significantly affect air quality. The thresholds establish traffic volumes below which a violation of the NAAQS for CO is extremely unlikely. Additionally, a substantial number of heavy-duty vehicle trips are not expected to be generated by operation of the Fjord Trail, and therefore no substantial increases in PM are anticipated. Overall, the number of vehicle trips generated by the Fjord Trail is not expected to cause a significant adverse impact on air quality due to mobile source emissions, and further assessment is not warranted.

E. CONCLUSION

NOISE

Noise associated with vehicular traffic generated by the construction and operation of Fjord Trail South would not result in a quadrupling (i.e., would not exceed the noise threshold) of traffic volumes adjacent to any noise-sensitive receptor, and consequently would not have the potential to result in significant increase in noise. Operation of Fjord Trail South would not include stationary noise sources that would contribute to the total noise levels in the area. Construction of Fjord Trail South would include the use of noise-producing equipment, but due to the distance from noise receptors and the temporary nature of the construction noise in any specific location, construction noise would not rise to the level of a significant impact. All construction work that would occur within the MNR right-of-way would be performed in accordance with MNR's requirements including review/approval of contractor work plans prior to construction to minimize potential impacts to MNR infrastructure and operations including, but not limited to, vibration impacts during trail construction. Since Fjord Trail South would not result in any significant adverse noise impacts based on current assumptions, no mitigation is anticipated to be required.

AIR QUALITY

Emissions from vehicles generated by the construction and operation of Fjord Trail South would not be considered substantial, and ambient pollutant concentrations are substantially lower than NAAQS. Since Fjord Trail South would not result in any significant adverse air quality impacts based on current assumptions on duration of construction activities, the use of best management practices described above for air quality, and expected traffic generated from operation of the Fjord Trail South, no mitigation is anticipated to be required. ✷