A. INTRODUCTION

This chapter examines the Proposed Action's potential impacts regarding noise and air quality within the Fjord Trail North Corridor. An evaluation of the proposed Fjord Trail South is provided in Chapter IV.H, "Noise and Air Resources – Fjord Trail South." This chapter describes the existing conditions along the Fjord Trail North Corridor and assesses future conditions with and without Fjord Trail North. The analyses presented in this chapter also include potential impacts related to noise and emissions generated by construction activities associated with Fjord Trail North. Potential impacts related to noise and emissions from 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 III.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 III.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 traveling 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 North corridor, the noise ordinances for the City of Beacon and Town of Fishkill are summarized below.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NYSDEC published a noise 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.

CITY OF BEACON NOISE ORDINANCE

Section 149-5 of the Beacon City Code states it is "unlawful for any person to make, continue, cause or allow, orally or mechanically, any noise disturbance affecting persons in the City of Beacon." The applicable maximum permissible sound level limits for sound are outlined in **Table III.H-2**.

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

Table III.H-2
City of Beacon Maximum Permissible Outdoor Continuous Sound Level Limits By Receiving Land Use

Residential daytime (7 AM–9 PM)	Residential nighttime (9 PM–7 AM)	Commercial 24 hours	Industrial 24 hours
60 dBA	50 dBA	65 dBA	70 dBA

Notes:
[1] Residential Property is defined in section 149-4 as "property used for human habitation, including, but not limited to (a) private property used for human habitation, (b) commercial living accommodations and commercial property used for human habitation, (c) recreational and entertainment property used for human habitation, (d) community service property used for human habitation, or (e) hospitals, long-term medical or residential care facilities."
[2] Construction noise is limited to these values only during nighttime hours (9:00 PM to 7:00 AM).
Source: Beacon City Code, Chapter 149, Section 149-6 (https://ecode360.com/7064326).

Further, the City of Beacon noise ordinance limits impulsive sound emissions, stating that "no person shall make, cause, allow or permit the operation of any impulsive source of sound that has a maximum sound level in excess of 80 dBA when measured at or within the real property line of an affected person" (Beacon City Code § 149-6[A][2][a]). It should be noted that construction noise is only limited to the values shown in **Table III.H-2** during nighttime hours (9:00 PM to 7:00 AM).

TOWN OF FISHKILL NOISE ORDINANCE

Section 108-2 of the Fishkill Town Code prohibits "the creation of unreasonable noise." Unreasonable noise is defined by the Town Code as "any excessive or unusually loud sound which injures or endangers the repose, health, peace or safety of a reasonable person or which causes injury to animal life or damage to a person's property or business" (Fishkill Town Code § 108-1[A]). Some of the factors considered in determining whether noise is unreasonable are whether the noise occurs at night between 8:00 PM and 8:00 AM, if the source of the noise is permanent rather than temporary, whether the noise is of a periodic or impulsive character rather than continued and steady, and whether the noise is prolonged rather than short (Fishkill Town Code § 108-1[A][1]-[7]).

B. EXISTING CONDITIONS

NOISE

The Fjord Trail North Corridor contains a variety of land uses, including parks and recreational trails, limited residential development, municipal facilities (recycling and transfer station), cultural destinations (Dia Beacon, Long Dock Park art installation), 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 III.H-1**.

AIR QUALITY

There are no large stationary or significant mobile sources of air pollution along the Fjord Trail North Corridor. Existing air quality can be characterized based on pollutant concentrations measured by NYSDEC at air quality monitoring stations in the region. Representative concentrations are presented in **Table III.H-3**. These values presented are consistent with the format of the National Ambient Air Quality Standards (NAAQS). For example, the eight-hour ozone concentration shown in **Table III.H-3** is the three-year average of the fourth 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 III.H-3**, the levels at the monitoring stations did not exceed the NAAQS.

Table III.H-3
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 North, 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.

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

AIR QUALITY

In the future without construction of Fjord Trail North, 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

Construction activities for Fjord Trail North would begin with surveying, followed by clearing and removal of trees and shrubs, with an anticipated duration of approximately three months. Equipment expected for this task would include mowing tractors, chain saws, crawlers, and hydraulic backhoes. Clearing would be followed by trail installation, including paving, hardscape improvements, and landscaping. In addition to the concrete mixers and dump trucks, equipment associated with these tasks would include vibratory compactors, water cisterns, forklifts, and tandem axle tractors. The use of air compressors would also be expected. Other than the forklifts and delivery vehicles, all equipment would be diesel powered. Since Fjord Trail North would generally follow natural contours, blasting is not anticipated.

Fjord Trail North is planned to be constructed in two phases, beginning with the southern section (referred to as the Forest Trail Reach) over an anticipated timeframe of about 24 to 36 months and then the northern section (referred to as the Marsh Reach) over an anticipated timeframe of about 36 months. Activities at possible staging areas would have limited operation of forklifts and incoming and outgoing delivery trucks. Several potential access points are available along the Fjord Trail North Corridor to provide worker parking, access, and material staging (see Chapter II, "Project Description"), but both staging areas and access points would be confirmed as design of Fjord Trail North progresses. Since the construction areas would be linear in nature, it is anticipated that contractors would access the sites through limited access points to control traffic, material, and worker safety. All activity at a staging area would entail limited operation of forklifts and/or incoming and outgoing delivery trucks. It is estimated that such activity would be limited to a couple of hours each workday.

NOISE

CONSTRUCTION NOISE

Construction of Fjord Trail North would generate noise from the construction activities noted above, the use of 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.

Construction activities associated with Fjord Trail North would produce noise at nearby noise receptors through the use of construction equipment. Elevated noise levels typically occur adjacent to the construction activities and may reach as high as 90 A-weighted decibels (dBA) under worst-case conditions. The level of noise 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 nearest residential uses would be roughly 100 feet or more away from the areas of the most noise-intensive construction activity (i.e., ground clearing and tree removal), and noise levels would decrease with distance from the area under construction at a rate of 6 to 7.5 dBA per doubling of distance as described above. For instance, a heavy truck is shown in **Table III.H-1** as emitting 80-90 dBA at 15 meters (approximately 50

feet). At 100 feet away (i.e., one doubling), noise levels would be reduced 6 to 7.5 dBA. At 200 feet away (i.e., two doublings), noise levels would be reduced 12-15 dBA. Construction would not occur during night-time hours when residents would be more sensitive to construction noise.

Construction activities would take place in existing recreational areas, including a small area in Long Dock Park, the Klara Sauer Trail, Denning's Point, and Madam Brett Park as well as other areas in HHSPP. During these activities, increases in noise levels would be experienced by visitors to the parks; however, some areas may be temporarily closed in part or entirely during periods of construction for safety reasons and protection of the public.

Each of the noise-producing activities during construction of Fjord Trail North (i.e., ground clearing, tree removal, and trail installation) would generally progress at approximately 50 to 150 feet per day, with a period of approximately two weeks to four months in between each task at a given location. For the alignment south of Fishkill Creek, Main Trail Option 1 would likely progress more quickly than Main Trail Option 2, as it would be on more level ground whereas Main Trail Option 2 would be on steeper topography and require more grading and ground stabilization. With either option, construction noise close to any specific residence or other noise-sensitive use would be temporary and transient. Further, construction activities occurring on privately owned properties would be subject to the City of Beacon and the Town of Fishkill noise codes. With compliance to these existing requirements, short-term noise impacts would be reduced to the extent practicable.

Construction vehicles traveling to and from the construction work areas and access points would also generate noise. As discussed in Chapter III.L, "Traffic and Transportation – Fjord Trail," construction vehicles accessing Fjord Trail North construction sites would primarily use NYS Route 9D, which is already a heavily trafficked roadway. Potential access points along the Fjord Trail North Corridor could include points directly accessed from NYS Route 9D (the northern end of the BNCB, Dutchess Manor, and the Notch site) and points accessed from NYS Route 9D via local streets (Long Dock Park via Beekman Street and Long Dock Road, and Denning's Point via Dennings Avenue). Construction vehicle trips would not contribute significantly to the existing trips already on these roads between NYS Route 9D and these access points. It is possible that a construction access point would be established at Madam Brett Park whereby vehicles would travel along South Avenue between NYS Route 9D and the park entrance. Access at this location is restricted by the width and height of a railroad underpass that crosses the access drive, limiting the number and size of the vehicles that could be used to move equipment, material, and personnel to and from this location.

Construction activities are anticipated to be at least 50 feet from the active MNR Hudson Line tracks, except where the Trail is proposed to travel along MNR's railbanked (inactive) Beacon Line, which travels on a bridge over the MNR Hudson Line tracks. 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.

Weekday construction hours are anticipated to generally be between 7:00 AM and 4:00 PM. The daily on-site worker count is anticipated to peak at approximately 25 to 30 workers with workers expected to arrive on site at 6:45 AM and depart around 4:15 PM. The daily number of trucks/construction vehicles for any given stage of Fjord Trail North construction is anticipated to be less than ten vehicles. Based on the projected number of construction-related vehicles, the additional traffic added to the surrounding roadway system is not anticipated to result in significant

impacts during the construction phases. Therefore, it is not expected that construction of Fjord Trail North would result in a substantial increase in vehicular traffic volumes adjacent to any noise-sensitive land uses including schools, hospitals, and residential areas that would exceed the necessary threshold (i.e., quadrupling of vehicular traffic volumes) to result in potentially significant adverse noise impacts from mobile sources.

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

OPERATIONAL NOISE

Once construction is completed, noise sources associated with operation of Fjord Trail North would include vehicular traffic accessing the trailheads and human use of the trail. The human use of Fjord Trail North 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 the Fjord Trail, 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). In addition, the planned maintenance facility to be located at the site of the Beacon Transfer Station (90 Dennings Avenue) would include storage, office, maintenance uses, and would be consistent with the existing surrounding land uses that include the transfer station and a wastewater treatment facility. Therefore, operation of Fjord Trail North would not be anticipated to result in significant adverse impacts at nearby residential receptors according to NYSDEC noise guidance, and further assessment is not warranted.

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

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 as clearing for and construction of Fjord Trail North would be expected to progress 50 to 150 feet per day. For the alignment south of Fishkill Creek, Main Trail Option 1 would likely progress more quickly than Main Trail Option 2, as it would be on more level ground whereas Main Trail Option 2 would be on steeper topography and require more grading and ground stabilization. A large proportion of construction generated fugitive dust would be expected to be of relatively large particle size that would be expected to settle within a short distance of the construction site and therefore not affect off-site receptors. Main Trail Option 2 would require more earthwork than Option 1, which could result in more fugitive dust. Measures to minimize and avoid potential impacts from fugitive dust to the extent practicable would be incorporated into a construction management plan that would be prepared for the construction activities associated with Fjord Trail North. 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 non-road 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 North 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. To minimize these emissions, measures would be implemented during construction, including the use of ULSD mentioned above, and limiting idling time 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 North. Since the construction activities would be temporary and intermittent, construction of Fjord Trail North would not be expected to result in a significant or extended impact on air quality along the Fjord Trail North 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 within the Fjord Trail North Corridor with the greatest projected increase in vehicles (estimated at 54 additional vehicles in a

peak hour) would be South Avenue and NYS Route 9D. Increases in traffic volumes resulting from the Fjord Trail at all other study intersections in the City of Beacon 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.

Fjord Trail North would also include a 4,000-6,000-square-foot maintenance facility at the site of the Beacon Transfer Station (90 Dennings Avenue) to store materials and house maintenance offices for the Fjord Trail. The facility is expected to initially have about 10 staff parking spaces, with potential increase to 20 staff in the future. This facility would not generate substantial traffic volumes or generate substantial stationary source emissions. Overall, the number of vehicle trips generated by the Fjord Trail and the proposed maintenance facility are not expected to cause a significant adverse impact on air quality due to mobile source and stationary 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 North 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 a significant increase in noise. Operation of Fjord Trail North would not include stationary noise sources, other than the planned maintenance facility, but that would not contribute a substantial increase in total noise levels in the area. Construction of Fjord Trail North 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. Since Fjord Trail North would not result in any significant adverse noise impacts based on current assumptions (i.e., that there would be no night-time construction, construction activities would be conducted in accordance with best management practices, each of the noise-producing construction tasks would generally progress at approximately 50 to 150 feet per day), and construction on privately owned properties would be subject to, and would be in compliance with, the City of Beacon and the Town of Fishkill's noise codes, no mitigation is anticipated to be required.

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.

For a discussion of noise related measures considered to offset potential impacts to wildlife and protected species, refer to Chapter III.E, "Biological Resources – Fjord Trail North."

AIR QUALITY

Emissions from vehicles generated by the construction and operation of Fjord Trail North would not be considered substantial, and ambient pollutant concentrations are substantially lower than NAAQS. Since Fjord Trail North 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 Fjord Trail North, no mitigation is anticipated to be required. ✷