

A. INTRODUCTION

This chapter considers potential cumulative impacts of the Proposed Action with other independent actions that are planned or reasonably foreseeable by the Proposed Action's build year (2031). Notable projects within the Fjord Trail's build year (2031) include the Breakneck Connector and Bridge Project (BNCB) and planned improvements to Dutchess Manor, as discussed in the technical chapters throughout this DGEIS. These projects would include the following:

- **BNCB:** This project is located between the Fjord Trail North and Fjord Trail South sections of the Fjord Trail and will include a new half-mile shared-use trail, as well as improved and new parking areas along NYS Route 9D, two restroom buildings, upgrades to the Metro-North Railroad (MNR) Breakneck Ridge station and platforms, relocation of power lines from the western side of NYS Route 9D to the eastern side, installation of a trail steward station, and upgrades to the Upper Overlook area along the Breakneck Ridge Trail. The new shared-use trail will provide a safer pedestrian connection between the MNR Breakneck Ridge station and parking areas along NYS Route 9D to the existing Breakneck Ridge and Wilkinson-Memorial Trailheads. The BNCB also includes a new bridge over the MNR tracks to connect to the future Fjord Trail, which will also provide limited vehicle access for New York City Department of Environmental Protection (NYCDEP) personnel to the NYCDEP's existing Hudson River Drainage Chamber (HRDC). As discussed in Chapter I, "Introduction and Background," the BNCB was the subject of a prior SEQRA review for which a Negative Declaration was issued in December 2022 and construction of the project has begun.
- **Dutchess Manor Improvements:** HHFT, Inc. currently owns the Dutchess Manor property along NYS Route 9D approximately 1.25 miles north of the Town of Fishkill / Town of Philipstown border. Formerly an event space, HHFT, Inc. intends to repurpose the site to be used for offices and a small visitor center, which will include removing the 20th century additions to the building and restoring the building to emphasize the period in which it served as an estate. HHFT, Inc. also plans to include a restroom building and improve the existing parking area (which is currently closed to the public) with up to approximately 180 spaces, inclusive of a grassy overflow parking area, to serve current visitors to the existing recreational resources in the area (including the Breakneck Ridge Trail). Shuttle service will be provided to address parking shortages at existing recreational resources in the area. These Dutchess Manor improvements are the subject of land use applications to the Town of Fishkill Town Board and Planning Board, which is undertaking a SEQR review of the Dutchess Manor restoration project. The repurposing of the site is not before the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), as OPRHP does not have approval authority of the construction planned at Dutchess Manor. Upon construction of the Fjord Trail, Dutchess Manor will also offer an entry and services for future trail users.

The technical environmental analyses included in Chapters III.A through III.P (for Fjord Trail North) and Chapters IV.A through IV.P (for Fjord Trail South) account for the BNCB and

Dutchess Manor projects as part of the No Action Conditions. Accordingly, the analyses of the impacts of the Fjord Trail North and South (the Proposed Action) reflect future conditions that also include these projects. The following sections of this chapter evaluates the potential cumulative impacts of the proposed Fjord Trail (Fjord Trail North and Fjord Trail South) together with these “No Action” projects for each of the technical areas evaluated throughout this DGEIS.

B. CUMULATIVE IMPACTS

POTENTIAL CUMULATIVE IMPACTS TO LAND USE AND ZONING

The proposed Fjord Trail (Fjord Trail North and Fjord Trail South) would introduce a new recreational pedestrian and bicycle trail between the City of Beacon and the Village of Cold Spring, as well as ancillary components that include a new maintenance facility along Dennings Avenue in the City of Beacon, two new parking areas (The Notch and Wade’s Hill Lot along NYS Route 9D in the Town of Fishkill), an expanded parking area (Washburn Lot in the Town of Philipstown near the Village of Cold Spring), and restroom buildings at five locations along the Trail (Long Dock Park, Denning’s Point, The Notch, Little Stony Point, and Dockside Park). Fjord Trail North and Fjord Trail South would both connect to the BNCB, resulting in a continuous 7.5-mile trail between the City of Beacon and the Village of Cold Spring. The BNCB and the planned Dutchess Manor improvements would also include restroom buildings and improved and new parking areas along NYS Route 9D.

The Fjord Trail, in combination with the BNCB, would expand and connect the existing extensive network of recreational resources, trails, and open space throughout the Fjord Trail Corridor. Much of the proposed Fjord Trail would pass through existing parkland and incorporate existing trails, including Long Dock Park, the Klara Sauer Trail, Denning’s Point, and Madam Brett Park Little Stony Point, and Dockside Park, resulting in no changes to land use in these areas. Similarly, the BNCB would provide safety improvements and formal parking in an area already used for accessing HHSP trails and would not result in substantial land uses changes. The Fjord Trail south of Fishkill Creek, including the proposed Notch and Wade’s Hill parking areas, would be within wooded areas, much of which is within HHSP and would be consistent with the existing surrounding recreational uses and trail network. A portion of Fjord Trail North would be near the MNR right-of-way, which would be compatible with the existing linear transportation infrastructure in this area. The planned Dutchess Manor improvements would repurpose an already developed site, activating a currently vacant site, although the site would be used as offices and as a recreational resource rather than its previous use as an event space.

Neither the Fjord Trail or BNCB would result in zoning changes or adversely affect local zoning. The planned Dutchess Manor improvements propose a rezoning of a small site adjacent to the Dutchess Manor property, which is also owned by HHFT, Inc., to the Restricted Business (RB) district so that the two sites would have the same zoning designation. This zoning change is not expected to result in an adverse impact with respect to zoning and, as noted above, is the subject of SEQR review by the Town of Fishkill.

The proposed Fjord Trail and BNCB intend to enhance access to recreational opportunities in the Fjord Trail Corridor and to better manage visitation from an already popular recreational destination. This is in line with local public policies, including comprehensive plans, as described in Chapters III.A, “Land Use and Zoning – Fjord Trail North,” and Chapter IV.A, “Land Use and Zoning – Fjord Trail South.” The Dutchess Manor improvements address HHFT’s office needs and current parking shortages to accommodate existing trail users in the area. However, upon construction of the Fjord Trail, Dutchess Manor will also offer an entry and services for future

trail users and thereby enhance access to recreational opportunities in the Fjord Trail Corridor and better manage visitation consistent with local public policies and comprehensive plans, as described in Chapters III.A, “Land Use and Zoning – Fjord Trail North,” and Chapter IV.A, “Land Use and Zoning – Fjord Trail South.”

Overall, the Proposed Action, in combination with the BNCB and planned Dutchess Manor improvements, would not result in significant adverse cumulative impacts on land use and zoning.

POTENTIAL CUMULATIVE IMPACTS TO LAND OWNERSHIP, MANAGEMENT, AND MAINTENANCE

Neither the Fjord Trail, BNCB, or Dutchess Manor improvements would result in substantial changes in property ownership. Any portion of the Trail constructed within MNR right-of-way or on NYCDEP property would be proposed to operate under a future potential agreement between OPRHP and MTA/MNR or NYCDEP, respectively. It is contemplated that these portions of trail would ultimately be operated by HHFT, Inc. under a cooperative management agreement between OPRHP and HHFT, Inc. Otherwise, HHFT, Inc. would enter into agreements with the appropriate property owners to operate and maintain the Fjord Trail, including with OPRHP on HHSP land and through easements on private properties. HHFT, Inc. currently owns the Dutchess Manor property, and no changes in ownership are anticipated as part of the planned Dutchess Manor improvements. Therefore, the Proposed Action would not result in significant adverse cumulative impacts on land ownership, management, and maintenance.

POTENTIAL CUMULATIVE IMPACTS TO LAND

The Fjord Trail, BNCB, and Dutchess Manor improvements would each require earthwork and cut and fill. None of these projects is anticipated to require blasting. Fjord Trail South is anticipated to require a net increase of approximately 6,060 cubic yards of upland fill, which would be distributed along the length of Fjord Trail South for the on-grade portions. The amount of cut and fill required for Fjord Trail North would be determined as design advances. The BNCB and the Dutchess Manor improvements would both require cut and fill. Any excavated materials would be removed and disposed of in accordance with applicable regulatory requirements.

The Fjord Trail would avoid steep slopes to the extent possible, and the BNCB and Dutchess Manor improvements would not require substantial disturbance to slopes. Main Trail Option 2 south of Fishkill Creek would navigate steeper topography than Main Trail Option 1, requiring more grading and slope stabilization measures.

The Fjord Trail (Fjord Trail North and South) would result in about 22 to 23 acres (Main Trail Option 1 and Option 2, respectively) of new impervious surface, including approximately 9 to 10 acres of crushed stone path with limited permeability (Main Trail Option 1 and 2, respectively), 8.5 acres of impervious area for parking areas (the Notch, Wade’s Hill Lot, and Washburn Lot expansion), one acre of impervious surface for the proposed maintenance facility along Dennings Avenue in Beacon, and 3.5 acres of impervious areas within Trail Banks. Note that elevated sections of the Trail are not considered impervious as water would run through gaps and infiltrate below. The BNCB would result in approximately 1.7 acres of new impervious surfaces and the Dutchess Manor improvements would result in about 0.06 acres of new impervious surfaces. Total new impervious surfaces from these projects combined would be about 24 to 25 acres. These impervious surfaces would be distributed along the 7.5-mile Trail Corridor and would not result in significant adverse cumulative impacts to soil and geological conditions.

Hudson Highlands Fjord Trail

All earthwork activities would include erosion and sedimentation control measures that would be conducted in accordance with applicable permits and regulations, including a State Pollutant Discharge Elimination System (SPDES) permit and Stormwater Pollution Prevention Plan (SWPPP) prepared for review and approval in accordance with the requirements of the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities. With these measures in place, the projects would not result in adverse impacts related to soils or geology, individually or cumulatively.

As such, the Fjord Trail would not result in significant adverse cumulative impacts on land.

POTENTIAL CUMULATIVE IMPACTS TO WATER RESOURCES

The Fjord Trail, BNCB, and Dutchess Manor improvements would each include restroom buildings, which may be supplied by well water, as feasible, and if municipal water supplies are not available. The restroom buildings would be spaced across the 7.5-mile Fjord Trail Corridor, and their combined groundwater withdrawals would not be expected to substantially deplete groundwater supplies.

Portions of the Fjord Trail, as well as the BNCB would occupy the 100-year floodplain. The Dutchess Manor improvements would not be within the floodplain. In accordance with NYSDEC's Community Risk and Resiliency Act (CRRRA), the Fjord Trail would be designed with consideration of 10-year, 50-year, and 100-year storm return periods with flood resilience measures incorporated to reduce the risk of damage during flood events. The Hudson River is tidal and its floodplain along the Fjord Trail Corridor is affected by coastal flooding rather than fluvial flooding; therefore, the presence of the Fjord Trail and the BNCB in the floodplain would not be expected to result in adverse impacts with respect to flooding, individually or cumulatively.

The Fjord Trail Main Trail Option 1 would potentially traverse a NYSDEC regulated freshwater wetland and National Wetland Inventory (NWI)-mapped wetlands just south of Fishkill Creek. Main Trail Option 2 would be further upslope and reduce potential impacts to these wetlands. In areas where a wetland crossing could not be avoided, design measures such as narrowing the trail, using a boardwalk, or installing an elevated boardwalk on piles, would be considered to minimize the potential disturbance to wetlands. Formal delineations and specific impacts to these wetlands, as well as identification of any required compensatory mitigation, would be performed as design advances, in coordination with the applicable regulatory agencies, including NYSDEC and the U.S. Army Corps of Engineers (USACE). The BNCB would result in minor grading to approximately 0.095 acres of a freshwater wetland between the MNR tracks and NYS Route 9D, but the grading would improve the storage and drainage capabilities of the existing wetland and would ultimately increase the area of wetlands in the BNCB site from 0.19 acres to 0.29 acres. The Dutchess Manor improvements would not affect any wetlands. Therefore, there would not be cumulative adverse impacts with respect to wetlands.

As noted above, the Fjord Trail, the BNCB, and the Dutchess Manor improvements would result in new impervious surfaces of about 22–23 acres, 1.7 acres, and 0.3 acres, respectively, for a total of about 24–25 acres. These impervious surfaces would be distributed along the 7.5-mile Trail Corridor. In addition, a large portion of the Fjord Trail (9 to 10 acres) would be crushed stone, which has some permeability. Stormwater runoff for the Fjord Trail, the BNCB, and the Dutchess Manor improvements would be managed in accordance with a SPDES permit and SWPPP prepared for review and approval in accordance with the requirements of the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities. As such, the new impervious surfaces would not result in adverse cumulative impacts related to water quality.

Construction of Fjord Trail South and the BNCB would require barges temporarily within the Hudson River. The northern portion of Fjord Trail South (from Breakneck Ridge to the midpoint to Little Stony Point) would require a construction barge and materials barge. In-water construction activities would take place during approximately 6-month periods over the course of about five years, with in-water work restricted during the remaining six months to protect aquatic species. In-water construction activities would have the potential to result in temporary impacts to water quality in the Hudson River from sediment resuspension during pile installation and movement of construction vessels. All barges and crew vessels will always maintain at least two feet of separation from the river bottom to minimize the impacts from sediment resuspension. Turbidity would be temporarily elevated in areas close to these activities, but these effects would be localized to the immediate location of the spud pile being placed or removed and sediments would dissipate quickly with the tidal currents such that these activities would not result in long-term effects on water quality. Construction of the BNCB has begun and would be completed prior to construction of Fjord Trail South, such that in-water work would not occur simultaneously between both projects. Additionally, all upland construction activities for the Fjord Trail, BNCB, and Dutchess Manor improvements, as well as operation of these projects, would adhere to erosion and sediment control and stormwater runoff management requirements in accordance with applicable SPDES permit requirements, thereby avoiding potential impacts to surface water quality. The BNCB would not result in any permanent loss of any waters of the United States that would contribute to a cumulative operational impact on water resources.

With the measures described above, the Fjord Trail would not result in significant adverse cumulative impacts on water resources.

POTENTIAL CUMULATIVE IMPACTS TO BIOLOGICAL RESOURCES

As presented in Chapter III.E, “Biological Resources – Fjord Trail North” and Chapter IV.E “Biological Resources – Fjord Trail South,” Fjord Trail North and Fjord Trail South would result in the combined potential disturbance of about 53.9 acres of habitat within the entire Corridor. A large portion (about 38 acres) of the potential habitat disturbance would occur within wooded areas along Fjord Trail North. The ecological communities affected by both Fjord Trail North and Fjord Trail South comprise about 32.9 acres of oak-tulip tree forest, 6.0 acres of successional southern hardwoods, 6.4 acres of terrestrial cultural communities, 2.4 acres of successional shrubland, 1.5 acres of floodplain forest, 1.5 acres of riprap/artificial shore, 1.6 acres of railroad ecological community, 0.7 acres of shallow emergent marsh, 0.4 acres of floodplain grassland, 0.4 acres of tidal river, and < 0.1 acres of pitch pine-oak-heath rocky summit. In some instances, the oak-tulip tree forest, tidal river, brackish tidal marsh, and brackish intertidal mudflats ecological communities within the Fjord Trail Corridor are classified as significant natural communities by the New York Natural Heritage Program (NYNHP). The BNCB would involve the disturbance of about 1.7 acres of habitat, including trees and vegetation primarily in a narrow strip between the existing MNR tracks and NYS Route 9D. The portion of the Dutchess Manor property that would be affected by the proposed improvements at the site is largely manicured lawn. Minimal tree removal would be required and the proposed improvements at Dutchess Manor would not result in substantial habitat disturbance. The Fjord Trail and BNCB combined would result in about 55.6 acres of habitat disturbance.

Where the Fjord Trail and ancillary components (parking areas, restroom buildings) would disturb natural areas, primarily between Fishkill Creek and the BNCB, indirect impacts would be introduced adjacent to the proposed trail (referred to as a zone of influence), which would contribute to edge effects, fragmentation, and other indirect effects on ecological communities.

Hudson Highlands Fjord Trail

The BNCB and Dutchess Manor improvements would occur on or adjacent to sites that are already developed and would not result in any new zones of influence or result in a cumulative increase in zones of influence with the Fjord Trail.

Fjord Trail South would result in approximately 0.5 acres of overwater coverage along the Hudson River shoreline from the elevated structure. Fjord Trail North would result in minimal overwater coverage from the pedestrian and bicycle bridge over Fishkill Creek and the potential boardwalks over the wetlands to the south of Fishkill Creek under Option 1 of Forest Trail North. The exact amount of overwater coverage would be determined as design of these components advances. The pedestrian and bicycle bridge would be elevated enough such that no areas of Fishkill Creek beneath it would be shaded throughout an entire day. The BNCB and Dutchess Manor improvements would not result in any overwater coverage. In-water piles associated with the Fjord Trail for the proposed pedestrian and bicycle bridge over Fishkill Creek and the elevated trail along Fjord Trail South would displace documented submerged aquatic vegetation (SAV) habitat within the footprint of the piles. Temporary displacement of SAV would also occur during construction due to movement of construction barges and vessels along the shoreline, which could temporarily block sunlight from reaching SAV beds and potentially result in sediment resuspension due to movement of barges. In consultation with NYSDEC, OPRHP, and the National Marine Fisheries Service (NMFS), SAV restoration opportunities would be explored, focusing on native species. The BNCB would also employ barges for construction, but no SAV has been documented in this area, and there would be no adverse cumulative impacts to SAV. As design of the Fjord Trail progresses, SAV survey results would be finalized in coordination with OPRHP and NYSDEC and permanent versus temporary impacts to SAV would be refined.

As detailed in Chapter III.E, “Biological Resources – Fjord Trail North,” and Chapter IV.E, “Biological Resources – Fjord Trail South,” in addition to significant natural communities and SAV noted above, the Fjord Trail Corridor contains other sensitive habitats, including Essential Fish Habitat (EFH) and Significant Coastal Fish and Wildlife Habitat (SCFWH). Further, a number of rare, threatened, and endangered terrestrial and aquatic species have the potential to occur along the Fjord Trail Corridor. To minimize and avoid adverse impacts to these species, certain construction activities would have time-of-year restrictions. For example, tree clearing would be limited to the winter hibernation period between November 1 to March 31 for the Indiana, northern long-eared, and tri-colored bats, and in-water work would be restricted from January 15 to June 30 to protect aquatic species. Similar restrictions are in place for the BNCB and would be in place for the Dutchess Manor improvements, as applicable. While the Fjord Trail and BNCB have the potential to adversely impact rare, threatened, and endangered terrestrial species, each would include measures to minimize these cumulative impacts to the extent possible. The Dutchess Manor improvements would not adversely affect protected species, and therefore would not result in adverse cumulative impacts with the Fjord Trail and BNCB.

To minimize disturbance to the extent practicable, the Fjord Trail and facility design would keep limits of disturbance as narrow as possible while meeting Accessibility needs and other design requirements. To address potential adverse impacts, minimization and mitigation strategies for the Fjord Trail would be proposed and coordinated with the appropriate agencies, such as OPRHP, NYSDEC, NYNHP, NMFS, and the U.S. Fish and Wildlife Service (USFWS). In addition to the time-of-year restrictions for construction activities discussed above, minimization and mitigation strategies may include tree protection measures during construction, native tree, shrub and herbaceous replanting, control or removal of invasive species (through an Invasive Species Management Plan), development of a vegetation management plan, educational and interpretive

signage, or a combination of these methods as appropriate. The BNCB incorporates similar measures, and the Dutchess Manor improvements are not anticipated to remove critical habitat.

While the Fjord Trail, BNCB, and Dutchess Manor improvements would each result in habitat disturbance along or near the Fjord Trail Corridor, the vast majority (53.9 acres of the total 55.6 acres) of this habitat disturbance would occur as part of the Fjord Trail. The small incremental habitat disturbance associated with the BNCB and Dutchess Manor improvements would not result in substantial cumulative impacts to those evaluated in this DGEIS. As such, the Fjord Trail would not result in significant adverse cumulative impacts on biological resources. In consideration of Article 20, “New York State Park Preserve System,” Section 20.02 that indicates the OPRHP Commissioner shall protect designated park preserves, and given the number of areas along the Trail Corridor with designations related to biological resources, including the HHSPP Bird Conservation Area, HHSPP Natural Heritage Area, Hudson River Estuary Area of Biological Concern, Significant Coastal Fish and Wildlife Habitats, Essential Fish Habitat, and Winter Waterfowl Concentration Area, the Applicant acknowledges the creation of the Trail would increase human presence in some otherwise relatively undisturbed areas. The Applicant will work closely with OPRHP staff to make additional resources available towards mitigation in the form of providing personnel trained in natural sciences, establishing environmental education classes for the public, and developing a written stewardship plan for HHSPP.

POTENTIAL CUMULATIVE IMPACTS TO HISTORIC AND ARCHAEOLOGICAL RESOURCES

The Fjord Trail, BNCB, and the planned Dutchess Manor improvements would not result in adverse impacts to historic architectural resources. The Dutchess Manor improvements would restore the existing building to its pre-1948 appearance, which is expected to enhance the historic character-defining features of the resource.

The Fjord Trail would potentially result in adverse effects to archaeological resources, as discussed in Chapter III.F, “Historic and Archaeological Resources – Fjord Trail North.” Measures to further evaluate potential effects or mitigate adverse effects, as needed, on archaeological resources would be stipulated in a Letter of Resolution (LOR), implemented in consultation with the State Historic Preservation Office (SHPO) and Native Nations and/or Consulting Parties, as appropriate. The BNCB and Dutchess Manor improvements would not adversely affect archaeological resources.

As such, the Fjord Trail would not result in significant adverse cumulative impacts on historic and archaeological resources.

POTENTIAL CUMULATIVE IMPACTS TO SCENIC RESOURCES

As presented in Chapter III.G, “Scenic Resources – Fjord Trail North,” and Chapter IV.G, “Scenic Resources – Fjord Trail South,” while development of the Fjord Trail would involve new features along the Hudson River’s eastern shoreline, the Fjord Trail would not significantly change the visual character of the surrounding Trail Corridor. Much of the Corridor along Fjord Trail North would remain largely forested and natural. Fjord Trail South would be more visible, as it would be along the Hudson River shoreline, but it would be parallel to and consistent with existing linear transportation infrastructure (MNR tracks and NYS Route 9D). The Trail Corridor’s existing topography and wooded buffers would limit visibility of most of the Fjord Trail North and some of the Fjord Trail South section from surrounding areas. The Fjord Trail would be consistent with, and largely similar to, existing recreational uses within the surrounding area, and would not interfere with the public’s enjoyment of local parks and other community assets in the surrounding area.

Hudson Highlands Fjord Trail

The BNCB will link Fjord Trail North and Fjord Trail South. The BNCB Connector Trail will run between the existing MNR tracks and NYS Route 9D and will not be substantially visible from surrounding areas. Similar to Fjord Trail South, the BNCB will be parallel to and consistent with existing linear transportation infrastructure. The new pedestrian/bicycle bridge that will be part of the BNCB will be the most visible element from surrounding areas. The design of the bridge will use materials and colors that blend into the landscape and will be built with the lowest permissible clearance over the MNR tracks, reducing the potential for an adverse impact on views. The planned improvements at Dutchess Manor would change the appearance of the property, but it would not substantially change views of or from surrounding areas. While the improvements would include construction of a small restroom building and expanded parking area, which would be landscaped, the removal of the 20th century additions to the manor house would reduce the footprint of the main building. The Fjord Trail, BNCB, and Dutchess Manor improvements would have combined visual elements, but they would not adversely affect scenic views. Therefore, the Fjord Trail would not be anticipated to result in significant adverse cumulative impacts on scenic resources.

POTENTIAL CUMULATIVE IMPACTS TO NOISE AND AIR QUALITY

The Fjord Trail, BNCB, and Dutchess Manor improvements would not include components that would be substantial generators of noise or emissions. Noise and emission sources would primarily include vehicular traffic generated by each project. The traffic analysis presented in Chapter III.L, “Traffic and Transportation – Fjord Trail,” reflects the development of the BNCB and Dutchess Manor improvements as part of its background conditions. The noise and air quality analyses are based on the traffic analysis, which determined that increased vehicular traffic resulting from the Proposed Action would not have the potential to cause significant noise or air quality impacts, as discussed in Chapter III.H, “Noise and Air Quality – Fjord Trail North,” and Chapter IV.H, “Noise and Air Quality – Fjord Trail South.” The maintenance facility included with the Fjord Trail would potentially generate temporary increases in noise and emissions due to operation of maintenance vehicles and equipment, but the facility would not be in proximity to sensitive receptors and would be consistent with the surrounding Beacon transfer station and wastewater treatment facility.

The Fjord Trail, BNCB, and Dutchess Manor improvements would result in temporary increases in noise and emissions during construction. The BNCB and Dutchess Manor improvements are anticipated to be largely completed prior to construction of the Fjord Trail, with the exception of the southernmost portion of Fjord Trail North that may partially overlap with their construction periods. Overall, construction activities from each of these projects would not be conducted simultaneously or affect the same areas.

Therefore, the Fjord Trail would not result in significant adverse cumulative impacts on noise and air quality.

POTENTIAL CUMULATIVE IMPACTS TO RECREATIONAL AND OPEN SPACE RESOURCES, ACCESSIBILITY

The Fjord Trail, BNCB, and Dutchess Manor improvements would each enhance access to recreational resources in the Fjord Trail Corridor. The Fjord Trail and BNCB would provide a new, Accessible trail and amenities while also providing safer connections to and between existing trails and parks between the City of Beacon and the Village of Cold Spring. The Dutchess Manor improvements would provide parking and a visitor center for current visitors to the existing recreational resources in the area, and once the Fjord Trail is constructed, the Dutchess Manor improvements will also help distribute visitors along the Corridor and to help orient them to the

surrounding HHSPP trail network. The future Fjord Trail would provide a Connector Trail to Dutchess Manor, further interconnecting these recreational resources.

Therefore, the Fjord Trail would not result in significant adverse cumulative impacts on recreational and open space resources and accessibility.

POTENTIAL CUMULATIVE IMPACTS TO GROWTH AND COMMUNITY CHARACTER

As presented in Chapters III.J, “Growth and Community character – Fjord Trail North” and IV.J, “Growth and Community Character – Fjord Trail South,” the Fjord Trail would introduce a new recreational resource within an area that is already characterized by abundant parks and trails, including local resources and HHSPP. The Fjord Trail would provide a more cohesive connection between existing recreational resources, and it would be compatible with existing land uses, zoning, and public policies, and it would not diminish the existing historic or scenic character of the Fjord Trail Corridor. The BNCB and Dutchess Manor improvements would also complement existing recreational resources and would not be of a scale that would alter the area’s community character.

Given the numerous recreational amenities currently existing in the Fjord Trail Corridor, the addition of the Fjord Trail, as well as the BNCB and Dutchess Manor improvements, is not anticipated to result in substantial population growth or induced development. However, as presented in Chapters III.J, “Growth and Community character – Fjord Trail North,” and IV.J, “Growth and Community Character – Fjord Trail South,” development of the Fjord Trail is expected to increase visitation to the area, including to the downtowns of the City of Beacon and Village of Cold Spring. While the BNCB would link Fjord Trail North and Fjord Trail South and become a component of the larger Fjord Trail, it will not substantially increase visitation to the area on its own. Similarly, the improvements to Dutchess Manor would provide parking and visitor information to accommodate existing trail users in the area, as well as future Fjord Trail users, and it may draw some new visitors to the site who want to enjoy the grounds, but it is not anticipated to result in a substantial increase in visitation to the area on its own. See the “Potential Cumulative Impacts on Traffic and Transportation” section below for further discussion.

The visitation analysis conducted for the Fjord Trail incorporates the BNCB and Dutchess Manor improvements into its background conditions. Therefore, the visitation projections and traffic and transportation analyses account for all of these projects. Increased visitation would increase vehicular traffic on local roadways. As discussed under “Potential Cumulative Impacts on Traffic and Transportation” below, the Fjord Trail would not result in adverse traffic impacts along roadways and at intersections studied in the City of Beacon, but it would result in adverse traffic impacts at three intersections in the Village of Cold Spring. While these impacts would be a result of already congested intersections deteriorating further, the Village is currently characterized by high traffic volumes during peak visitation periods, and this feature would remain with the Proposed Action. The Village also has high pedestrian volumes along its local roadways, particularly Main Street, during peak visitation periods. While crowding would still occur with the Proposed Action, the Fjord Trail would divert pedestrians arriving by MNR away from Main Street and toward the Fjord Trail entrance at Dockside Park, reducing pedestrian activity on Main Street.

To further alleviate traffic and pedestrian congestion from the Fjord Trail, BNCB, and Dutchess Manor, demand management strategies could be deployed (see “Potential Cumulative Impacts on Traffic and Transportation” below). Additionally, a shuttle service would be implemented to

Hudson Highlands Fjord Trail

transport current trail users between parking areas and existing trailheads. The shuttle service would be integrated into the Fjord Trail project once it is completed.

Therefore, the Fjord Trail, together with the BNCB and planned Dutchess Manor improvements, would not be anticipated to result in significant adverse cumulative impacts on growth and community character that are not already considered and disclosed in this DGEIS.

POTENTIAL CUMULATIVE IMPACTS TO SOCIOECONOMICS

The Fjord Trail, BNCB, and Dutchess Manor would each create jobs and local spending during construction, resulting in local economic benefits. Once the projects are completed, they would be managed and maintained by HHFT, Inc., and would not require municipal expenditures. Increased visitation to the area from the Fjord Trail would increase spending at local businesses, also providing an economic benefit. As discussed below under “Potential Cumulative Impacts to Emergency and Public Services,” increased visitation may also increase calls to emergency response services, which could have added costs. HHFT, Inc. will continue to coordinate with emergency service providers as needed to identify and address potential needs.

As discussed above, the visitation analysis for the Fjord Trail accounts for the BNCB and Dutchess Manor, and there would not be significant adverse cumulative impacts on socioeconomics that are not already considered and disclosed in this DGEIS.

POTENTIAL CUMULATIVE IMPACTS TO TRAFFIC AND TRANSPORTATION

As presented in Chapter III.L, “Traffic and Transportation – Fjord Trail,” development of the Fjord Trail is expected to increase visitation to the area, with about 268,700 new annual visitors, or 1,710 new daily visitors for a design day. The BNCB and Dutchess Manor improvements are not expected to result in substantial increases in visitation on their own, as they would accommodate existing trail users in the area. The BNCB will address existing safety issues by providing about 105 formalized parking spaces along NYS Route 9D to replace the existing informal parallel parking along the roadway shoulder, and by providing a new off-road trail connection between the parking areas, the MNR Breakneck Ridge station, and existing HHSP trailheads to reduce pedestrians along the MNR tracks and along NYS Route 9D. The BNCB will not result in a substantial increase in visitation or the number of vehicles along NYS Route 9D on its own, and it will improve existing vehicular and pedestrian operations, resulting in safer movement of, and a reduction in conflicts between, pedestrians, cyclists, and vehicles. Similarly, the planned improvements at Dutchess Manor would provide parking and visitor information for existing trail users in the area, as well as future Fjord Trail users, to further alleviate parking constraints but these improvements are not expected to draw substantial new visitors on their own. The improvements at Dutchess Manor may draw some new visitors to the site who want to enjoy the grounds, but it is not anticipated to result in a substantial increase in visitation to the area on its own.

The visitation projections and traffic analysis for the Fjord Trail presented in Chapter III.L, “Traffic and Transportation – Fjord Trail,” incorporate the BNCB and Dutchess Manor improvements into its background conditions, and thus they are accounted for in the projected future traffic volumes. The traffic and transportation analysis shows that future visitors would arrive via various modes of transportation, including personal vehicles, transit (MNR), and walking or biking. The traffic analysis determined that the Proposed Action would not result in any adverse traffic impacts along the roadways and intersections studied in the City of Beacon, but would result in traffic impacts at three intersections in the Village of Cold Spring as a result of worsening already congested conditions. These intersections include Main Street at NYS Route 9D, Fair Street and the proposed Washburn Lot entrance at NYS Route 9D, and Main Street at

Fair Street. These impacts could be mitigated with signal retiming, lane restriping, a potential roundabout, and removal of on-street parking, in coordination with NYSDOT, the Village of Cold Spring, and Putnam County. As detailed in Chapter III.L, there are also potential management demand strategies that could be deployed to potentially reduce the peak hour visitation demand, such as:

- Dynamic Parking Prices that offer lower parking rates during off-peak times
- Parking Reservations
- Incentivize Carpooling
- Incentivize Transit Use
- Time Entries
- Off-Peak Visitation Campaigns
- Roadside Variable Message Signs to advise visitors to avoid the Main Street area in Cold Spring due to heavy congestion

Additionally, to further alleviate traffic congestions, a shuttle service would be implemented to transport current trail users between parking areas and existing trailheads. The shuttle service would be integrated into the Fjord Trail project once complete.

The traffic and transportation analysis for the Fjord Trail incorporates the BNCB and Dutchess Manor improvements into its background conditions. Therefore, the cumulative traffic and transportation impacts of all of these projects has been accounted for in the analysis.

POTENTIAL CUMULATIVE IMPACTS TO INFRASTRUCTURE

As presented in Chapters III.M, “Infrastructure – Fjord Trail North,” and IV.M, “Infrastructure – Fjord Trail South,” the Fjord Trail would require water and wastewater amenities for restroom buildings, as well as lighting at restroom buildings and parking areas. The BNCB and the Dutchess Manor improvements would also require these utilities for the planned restroom buildings and parking areas at those sites. Restroom buildings would primarily be supplied by water from wells and would have composting toilets, with the exception of Long Dock Park and potentially Dockside Park, where municipal water and wastewater utility connections may be available, pending further coordination with those municipalities. Lighting would be supplied by existing power lines along the Fjord Trail Corridor, or potentially using solar power. Sufficient water and electricity supply are expected to be available to support the restroom buildings and parking areas for the combined Fjord Trail, BNCB, and Dutchess Manor improvements, and well water demand is not anticipated to substantially deplete existing groundwater resources.

Roadway modifications associated with the Fjord Trail would include new curb cuts along NYS Route 9D for entrances to the proposed Notch parking area, Wade’s Hill Lot, and the new entrance to the Washburn Lot (across from Fair Street). A roundabout may also be considered at the intersection of the new Washburn Lot entrance with Fair Street and NYS Route 9D, in coordination with NYSDOT. The BNCB would result in formalized parallel parking along NYS Route 9D near Breakneck Ridge, curb cuts to the new parking areas, and a speed limit reduction along this section of NYS Route 9D. The Dutchess Manor improvements would include relocation of Coris Lane (a private driveway) just south of its current location. None of these improvements would adversely affect existing roadway infrastructure.

Therefore, the Proposed Action would not result in significant adverse cumulative impacts on infrastructure.

POTENTIAL CUMULATIVE IMPACTS TO EMERGENCY AND PUBLIC SERVICES

As presented in Chapter III.L, “Traffic and Transportation – Fjord Trail,” development of the Fjord Trail is expected to increase the number of visitors to the area. Increased visitation could result in increased calls to emergency service providers, as discussed in Chapter III.N, “Emergency and Public Services – Fjord Trail North,” and Chapter IV.N, “Emergency and Public Services – Fjord Trail South.” The Fjord Trail is intended to improve and provide safer pedestrian and bicycle connections between existing parks and trails throughout the Fjord Trail Corridor, and it would be designed to be Accessible to promote safe usage, which would potentially limit the increases in demand on emergency service providers. HHFT, Inc. will continue to coordinate with emergency service providers as needed to identify and address needs.

The BNCB is intended to address existing safety issues and improve vehicular, pedestrian, and bicycle safety along NYS Route 9D in the area of Breakneck Ridge. Similarly, the Dutchess Manor improvements would help alleviate existing parking constraints throughout the Fjord Trail Corridor. As discussed above, the BNCB and the planned Dutchess Manor improvements would not be expected to substantially increase visitation to the area on their own, other than some potential new visitors to Dutchess Manor who want to enjoy the grounds, but overall would accommodate existing trail users. Additionally, to further alleviate parking constraints and provide safe transport between recreational destinations, HHFT, Inc. is planning to implement a shuttle service along the Fjord Trail Corridor to provide trail users with safe access between parking areas and existing trailheads in the area. The shuttle service would be integrated into the Fjord Trail project once the trail is complete.

As the visitation analysis for the Fjord Trail incorporates the BNCB and Dutchess Manor improvements into its background conditions, the cumulative impacts of these projects are accounted for in the analyses within this DGEIS. Therefore, the Fjord Trail would not result in significant adverse cumulative impacts on emergency and public services.

POTENTIAL CUMULATIVE IMPACTS TO HAZARDOUS MATERIALS

Ground disturbance and building demolition has the potential to result in human exposure to contaminants, if contaminants are present in those materials. The Fjord Trail would require ground disturbance related to construction and grading for the Trail alignment, restroom buildings, parking areas, and maintenance facility. As presented in Chapter III.P, “Hazardous Materials Assessment – Fjord Trail North,” and Chapter IV.P, “Hazardous Materials Assessment – Fjord Trail South,” some ground disturbance would occur within or near areas with potential contaminated soils and materials related to former industrial uses and/or historic or current railroad operations. The BNCB will also be constructed in proximity to existing railroad operations. The Dutchess Manor improvements would require grading and excavation for the planned parking area, as well as demolition to remove the modern additions from the manor house. All ground disturbance and building demolition would be conducted in accordance with applicable regulations, as would transport and disposal of any contaminated materials, thereby avoiding significant adverse impacts.

Therefore, the Fjord Trail would not result in significant adverse cumulative impacts related to hazardous materials. *