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June 21, 2024

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME	: L.G. Hanscom Field North Airfield Development
PROJECT MUNICIPALITY	: Bedford
PROJECT WATERSHED	: Shawsheen River
EEA NUMBER	: 16654
PROJECT PROPONENTS	: Runway Realty Ventures, LLC and North Airfield Ventures, LLC
DATE NOTICED IN MONITOR	: March 22, 2024

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I have reviewed the Draft Environmental Impact Report (DEIR) and hereby determine that it **does not adequately and properly** comply with MEPA and its implementing regulations. The Proponent should prepare a Supplemental DEIR (SDEIR) with the additional analysis identified below, including a supplemental analysis of the project's potential effects on aviation activity at L.G. Hanscom Field ("Hanscom Field" or "Hanscom"), consideration of additional project alternatives and mitigation measures, and other information detailed below. The SDEIR should clearly indicate what impacts are attributable to the project, and propose appropriate measures to avoid or minimize, and if avoidance and minimization are not feasible, to mitigate those impacts to the maximum extent practicable.

As with the Environmental Notification Form (ENF), the DEIR received extensive public input as reflected in approximately 1,500 comment letters from legislators, local officials, residents and community groups and a petition signed by 13,000 people. Nearly all commenters expressed opposition to the project and identified concerns with its impacts, particularly with respect to climate change and greenhouse gas (GHG) emissions I also received third-party studies presenting competing analyses of the project's potential impacts, including a study prepared by Industrial Economics, Inc. (IEc) that

focuses on the Proponent's assertion that the project will provide a net reduction in greenhouse gas emissions (GHG) associated with flight activity.[1] This assertion is based on the potential to reduce so-called "ferry flights," which are flights from other base locations to pick up passengers at Hanscom to ferry them to flight destinations and then return them to Hanscom; the DEIR indicates that the project could reduce the number of in-and-out flights into Hanscom by incentivizing aircraft owners and operators to relocate to Hanscom as their aircraft base location. If the maximum anticipated reduction in ferry flights were achieved, the DEIR indicates that the project would result in a reduction of 578.7 short tons per year of GHG emissions (524.9 metric tons per year). To the contrary, the IEc study asserts that flight data and trends do not support the conclusion that aircraft operators are likely to relocate to Hanscom as their base location, and therefore disputes the extent of anticipated ferry flight reductions that could be achieved. The IEc study also attributes to the project the entirety of emissions associated with the number of aircraft and flights to be accommodated by the new hangars (estimated to be 66-79 aircraft, as compared to 40-55 aircraft indicated in the DEIR), thereby concluding that the project will result in an increase in GHG emissions of 133,643 to 161,348 metric tons per year.

As further described below, the DEIR's assertion of net GHG benefit is premised on the assumption that the "No Build" condition (i.e., future background condition assuming the project is not built) aligns exactly with projected growth in business aviation activity set forth in the 5-year Environmental Status and Planning Report (ESPR) prepared by the Massachusetts Port Authority (Massport) (EEA #5484/8696). The 2022 ESPR, which contains projections of flight activity through 2030 and 2040, was submitted for review in May 2024, and is currently available for public comment. Because the DEIR attributes none of the projected growth to the hangar development, any benefit (even if minimal) achieved through reductions in ferry flights is viewed as a net benefit in emissions. As noted, the IEc study, to the contrary, concluded that the 132 ferry flights potentially eliminated by the project would be offset by well over 5,000 new flights, and strongly disputes the notion that an increase in hangar capacity will have no effect on market demand. While further study of "induced demand" is needed to reconcile these views, I note, at minimum, that the proposed infrastructure expansion in the DEIR (to accommodate 40-55 aircraft, and possibly more) appears to exceed Massport's own projected demand for "based aircraft" at Hanscom (increase of 20 aircraft by 2030, and 45 aircraft by 2040, both of which is after 2027 when the project is proposed to be built); this would suggest that the project expects to see (or induce) demand beyond already projected numbers. Given the Proponent's statements about existing constraints in hangar capacity, and as stated in multiple comment letters, it is also unclear why a future "No Build" condition would reflect full absorption of projected demand, as the need for additional hangar capacity is the very reason the project is being proposed. The desire to spur and attract new business to maximize profitability is the primary incentive for any private business enterprise, and I see no reason why this project would be unique in this regard.

As discussed below, the Proponent's description of the purpose and need for the project has evolved since the ENF, which characterized the project as a critical component of Massport's long-term planning goal of relieving pressure from Logan Airport by using regional airports to satisfy the current and future demand for general aviation services. The DEIR no longer asserts that the project will have any direct effect in reducing flights to Logan Airport (since no hangar space is available at Logan), and appears to narrow the claims about absorbing demand for general aviation services. Specifically, the

[1] Commenters provided the following link for the IEc report:
https://saveourheritage.com/WP/Hanscom%20Impact%20Report%20(04.05.24).pdf

DEIR indicates that the project is not intended to address the entirety of demand for business aviation (private jet) activity, but, instead, seeks only to attract those aircraft owners and operators that wish to use Hanscom as their base location; for instance, the project would require all future users to sign long-term leasing agreements for six months or more. This business model is asserted to differ from that of the three "Fixed Based Operators" (FBOs) currently in operation at Hanscom, which act as private terminals within the airport and provide a variety of client services. While FBOs also offer leasing for hangar spaces, these arrangements could be either long-term or short-term (for instance, to accommodate overnight visits). As noted, however, even if the project's purpose were reformulated in this way, the number of "based aircraft" to be accommodated by the new hangars appears to far exceed actual projections of market demand in this sector shown in the ESPR (i.e., increase of 20 aircraft by 2030), and documentation in the ESPR shows that the FBOs are already developing hangar spaces that could (at least partially) meet projected demand. As the IEc study indicates, the number of existing operators that are conducting "ferry flights" due to an inability to relocate their base location to Hanscom appears minimal, suggesting that actual market demand for "based aircraft" may be lower than asserted. This puts into question the purpose and need for the project, and, again, raises questions about the extent of new demand the project will, or is intended to, induce to support business profitability.

For these and other reasons described below, I find that an SDEIR is required to explore fundamental issues that affect the assessment of the project's impacts and mitigation. In particular, the SDEIR should provide a comprehensive response to the IEc study's assessment of ferry flight behavior and its conclusion that the project is unlikely to incentivize a substantial relocation of based aircraft to Hanscom so as to provide the asserted benefits. The response should include a sensitivity analysis that adopts the same definition of "ferry flights" in the IEc study to calculate the resulting number of ferry flight reductions, using Massport data; at the Proponent's election, an additional third-party study could be presented. The SDEIR should also provide a study of induced demand, including a survey of academic literature and practical guidance, including guidance from the Federal Aviation Administration (FAA), and quantitative assessments to justify the assertion that the project will not induce demand for flight activity. The SDEIR should describe what level of business aviation demand can be absorbed given the current infrastructure constraints, and what additional demand would result from the proposed hangar expansion. The SDEIR should provide further description of the waitlists maintained by FBOs, including whether the individuals and entities on the waitlist reflect a customer base that is likely to use Hanscom as their base location as suggested in the DEIR.

The SDEIR should clarify what level of demand the project is actually intending to meet—all business aviation activity vs. "based aircraft" activity—and explain why the project appears to be building more infrastructure than actual projections for based aircraft as presented in the ESPR. The SDEIR should discuss what portion of projected demand for based aircraft is anticipated to be met through FBOs, and what portion would be met with the project. The SDEIR should also explain how the Proponent's business model differs from FBOs and what constraints (beyond leasing terms) would be in place to ensure that "itinerant" aircraft would not utilize the hangar spaces offered by the Proponent. As with ferry flight analysis, the Proponent may present a third-party study to justify its claims regarding induced demand. The DEIR simply assumes, without documentation or analysis, that the future "No Build" condition would reflect full absorption of business aviation demand with or without the project. Unless a full justification of this assertion is presented, the SDEIR should assume that all projects flights that will result from the new hangars are new impacts associated with the project, and propose appropriate mitigation measures. Consistent with recent guidance under the National Environmental

Policy Act (NEPA), the SDEIR should conduct a social cost of carbon (SC-C) analysis for the increase in greenhouse gas (GHG) emissions attributable to the project. At a minimum, the SDEIR should continue to study a Reduced Build Alternative that would limit growth to the projections of based aircraft presented in the ESPR, with a requirement for additional environmental reviews should future expansion be proposed.

As noted in prior MEPA Certificates, I reiterate that MEPA is not a permitting process and I do not have the authority to approve or deny a project. However, MEPA does serve to provide meaningful opportunities for public review of the potential environmental impacts of projects, and to assist the Agency taking action on the project (here, Massport) to carry out its obligation under MEPA and its promulgating regulations to take all feasible means to avoid Damage to the Environment or, to the extent Damage to the Environment cannot be avoided, to minimize and mitigate Damage to the Environment to the maximum extent practicable. In accordance with 301 CMR 11.07(4) and 11.08(8), I find that the DEIR has not completed the required study of project impacts sufficient to move to the FEIR stage of review, when project alternatives and mitigation commitments must be finalized in accordance with Section 61 of the MEPA statute.

Project Description

As described in the DEIR, the project consists of the development of 522,380 square feet (sf) of aircraft hangar and aviation support space (increased from 495,470 sf in the ENF), including construction of 17 (reduced from 26 in the ENF) aircraft hangars with a combined area of 435,700 sf and renovation of an existing approximately 87,000-sf building ("Navy Hangar") (18 total hangars).[2] A total of 395,700 sf of new or renovated hangar (aircraft) space will be provided, including 356,130 sf in the 17 proposed new hangars and 39,570 sf in the existing Navy Hangar. A fuel storage facility is also proposed in the northeast corner of the site on the Navy Parcel and will include underground fuel storage tanks with piping to an on-site fueling station where fuel will be collected and delivered to individual aircrafts via a fueling truck. An existing storage tank will be removed and replaced with four new 20,000-gallon Jet A Fuel/Sustainable Aviation Fuel (SAF) and one 5,000-gallon Aviation Gas (AVGas) underground storage tanks. The project will provide a total of 126,680 sf of aviation support space, such as office space, passenger amenities and aircraft maintenance and repair, including 39,570 sf of aviation support space in the 17 new proposed hangars, 40,000 sf in a new aviation support building, and 47,110 sf in the Navy Hangar. The new hangars will be designed with doors measuring 28 feet in height and at least 105 feet in width. Vehicular access to the site will be provided at two existing entrances off Hartwell Road; the third existing curb cut will be eliminated. A perimeter vehicular roadway will be constructed around the east, north, west and southwest portions of the site to provide access to the hangars and to a total of 240 parking spaces in several lots across the site. A new connection between the site and Hanscom's Taxiway R will be constructed by the Proponent to provide access for aircraft between the site and the airfield. As detailed below, the Proponent will lease a portion of the site and acquire two parcels from Massport to assemble the project site.

According to the DEIR, the project will be constructed in five overlapping phases to take

[2]While the DEIR shows a decrease in the number of proposed new hangars, the total square footage of proposed building space has increased. This is attributable to redesign and reconfiguration of the hangars and also addition of more support space. As noted below, the DEIR asserts that 40 to 55 aircraft can be accommodated in the new hangars, but a competing study by IEc asserts that the number could be up to 66 to 79 aircraft.

advantage of efficiencies associated with conducting site utility and grading work across the entire project site. Construction will start on the Navy Hangar parcel on the eastern portion of the site and proceed westward. Construction of all phases will commence in 2025; Phases 1, 2, and 3 will be completed in 2026 and Phases 4 and 5 will be completed in 2027. A summary of the project phasing is provided in Table 1.

Table 1. Proposed Development Program by Phase (square feet) (Table 1-3 in the DEIR)

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Total
New Hangar Building Area	75,600	66,000	78,600	96,000	79,500	395,700
Aviation Support Building	40,000	--	--	--	--	40,000
Navy Hangar Renovation	86,680	--	--	--	--	86,800
Total Area by Phase	202,280	66,000	78,600	96,000	79,500	522,380

According to the DEIR, providing aircraft parking and on-airport storage at Hanscom Field is consistent with Massport's long-term planning goal of using regional airports to satisfy the current and future demand for general aviation services (though, as noted, the DEIR does not assert any direct benefit of transferring flights away from Logan Airport). The project is asserted to meet demand for individual hangar space by existing users desiring permanent hangar space and Hanscom Field's three FBOs that are currently operating over capacity and have waiting lists for new customers seeking hangar space. As previously asserted in the ENF, the Proponent indicates that aircraft operators who currently do not have hangar space at Hanscom Field would fly to Hanscom Field from their base of operations, pick up and drop off passengers, then fly back empty to the base location to park/store the aircraft until the next customer requires service; these extra flights between Hanscom Field and an off-site base location are known as "ferry flights." According to the ENF and as reiterated in the DEIR, the project will provide an environmental benefit by reducing the number of flights to and from Hanscom Field by providing on-site hangar space for aircraft that would otherwise require the use of ferry flights to pick up and drop off passengers. The DEIR estimates the number of ferry flight reductions that could be achieved with the project to be as high as 3,523 flights per year.

As noted above, a competing study prepared by IEc sharply disputes the number of ferry flight reductions that could result from the project, asserting that the analysis must take into account factors that indicate a likelihood that an aircraft owner or operator would relocate to Hanscom Field as its base location, and thereby take advantage of the long-term hangar space offered by the Proponent. In the DEIR, the Proponent appears to realign the purpose and need of the project in a similar manner to focus on the subset of business travelers who may choose to be a long-term "tenant" of Hanscom, as opposed to engaging in "itinerant" or "transient" travel patterns (for instance, through use of airplane time share services or other short hop flights from another based location outside Massachusetts); the Proponent indicates that this itinerant market is not the target audience for the project. If the likelihood of relocating base operations to Hansom Field is taken into account, the IEc study indicates that the project would likely reduce a maximum of 132 flights per year, and therefore have minimal emissions benefit.

Changes Since the Filing of the ENF

The DEIR identified the following changes to the project since the ENF was reviewed:

- The proposed building area increased from approximately 495,470 sf to 522,380 sf to provide additional aviation support space
- The number of new hangars was reduced from 26 to 17 hangars and the layout of proposed buildings on the project site has changed
- The area of land to be altered by construction and operation of the project has been reduced by 3.1 acres, from 23.2 acres to 20.1 acres
- New impervious area has been reduced by approximately 6 acres, from approximately 39 acres to 33 acres
- The fuel storage facility has been redesigned to store fuel in underground storage tank (UST) systems and the proposed facility was relocated to a location adjacent to Hartwell Road in the eastern part of the site with two new curb cuts to provide vehicular access to the facility
- Parking areas were consolidated and internal roadways reconfigured
- The DEIR clarified that the area of the project site is approximately 47 acres, rather than 49 acres as stated in the ENF, and identified an area of Massport-owned land on which the Proponent will construct a second connection to the adjacent Hanscom Field taxiway; however, the area will not be transferred to the Proponent and will remain under Massport's ownership
- Estimates of the project's water use and wastewater generation have been updated

According to the DEIR, the Proponent will transfer land to Massport to enable the continuation of the existing Vehicle Service Road (VSR). The VSR will not be available for the construction of the project, but is expected to provide operational access to the project site in the future. The DEIR asserted that the road will be designed and permitted by Massport as part of its Taxiway Safety Improvement Project, and is outside the scope of the project described in the DEIR. As the VSR is dependent on a land transfer from the Proponent to facilitate future access to the site, it is clearly a component of the project that should be described in the SDEIR.

Environmental Status and Planning Report (ESPR)

The MEPA regulations (Section 11.08(2)) indicate that during the course of an EIR review I may review any relevant information from any other source to determine whether the EIR is adequate. To provide context for this project-specific review and because many issues raised by commenters relate to airport-wide operations and impacts, this Certificate refers to information included in 2022 Environmental Status and Planning Report (ESPR) (EEA# 5484/8696) prepared by Massport for review by MEPA and the public.

The 2022 ESPR forecasts changes in airport activity levels and associated impacts at Hanscom through 2030 and 2040, including GHG emissions, air pollutants, noise, traffic and other impacts associated with changes in activity levels. The ESPR indicates that about 99 percent of Hanscom Field's operations are "General Aviation" (GA) related (as opposed to commercial aviation) fueled by business aviation activity. Total GA-related activity is forecasted to grow, with total daytime aircraft operations projected to increase at an annual rate of 0.9 percent to approximately 134,200 operations in 2030 and 144,000 operations in 2040.[3] The ESPR indicates that business aviation is the driver of forecasted

[3] The number of daytime flight operations (including all aircraft and aviation types) is reported in Table 3.5 (Aviation Activity section of ESPR) as 134,185 in 2030 and 143,767 in 2040 but Figure 8.6 (Air Quality section) shows the projected

growth with an anticipated growth rate of 1.2 percent (for business jets only) throughout the forecast period from 2022 to 2040. Business jet activity is anticipated to increase to 41,030 operations in 2030, and 45,624 operations in 2040. These increases in flight activity for all aircraft types are shown in Table 3-5 of the ESPR:

Table 3-5. Forecast of Daytime Operations at Hanscom Field

Daytime Activity	Actual		Forecast		Compound Annual Growth Rate			
	2017	2022	2030	2040	2017-22	2022-30	2030-40	2022-40
Training SEP	46,014	36,370	39,383	41,236	-4.60%	1.00%	0.46%	0.70%
Personal SEP	33,040	25,336	27,435	28,726	-5.17%	1.00%	0.46%	0.70%
Business MEP	3,015	4,890	5,212	5,446	10.16%	0.80%	0.44%	0.60%
Business Turboprop	7,831	7,351	7,835	8,187	-1.26%	0.80%	0.44%	0.60%
Business Jet	29,862	36,808*	41,030	45,624	4.27%	1.37%	1.07%	1.20%
Helicopter	8,256	9,760	10,569	11,066	3.40%	1.00%	0.46%	0.70%
Military	759	1,701	1,701	1,701	17.51%	0.00%	0.00%	0.00%
Scheduled Commercial Airline	0	0	1,019	1,783	0.00%	N/A	5.75%	N/A
Total	**128,777**	**122,216**	**134,185**	**143,767**	**-1.04%**	**1.17%**	**0.69%**	**0.91%**

* 2022 may be an anomalous year. Annualized total 2023 business jet operations (based on January through April TFMSC data) is anticipated to be 33,876. This results in a 2023-2040 CAGR of 1.77 percent.
Sources: *2017 ESPR* for Hanscom Field, Massport NOMS data, McFarland Johnson for forecast years

Because aviation activity is projected to increase from 2022 to 2040, the ESPR indicates that GHG emissions associated with airport activities will increase to 18,637 metric tons per year (tpy) by 2030, and 20,723 metric tpy by 2040, as shown in Figure 8-10 below. These numbers do not align with the 2030 "No Build" condition as presented in the DEIR, as further discussed below. Corresponding increases in air pollutants, including NOx and VOCs (volatile organic compounds), are shown in Table 8.7 of the ESPR (replicated below). According to the ESPR, emissions of CO (carbon monoxide) are projected to decrease due to the declining prevalence of personal single-engine piston (SEP) planes, which emit more CO than jet aircraft.

total flights (daytime + Nighttime) as 137,058 in 2030 and 147,168 in 2040. Consistent with the ESPR, the DEIR appears to have calculated GHG emissions for the No Build condition based on an assumption of 137,073 aircraft operations as of 2030 (Table 8-5 of DEIR).

Figure 8-10. Forecast GHG Emissions from Aircraft Operations

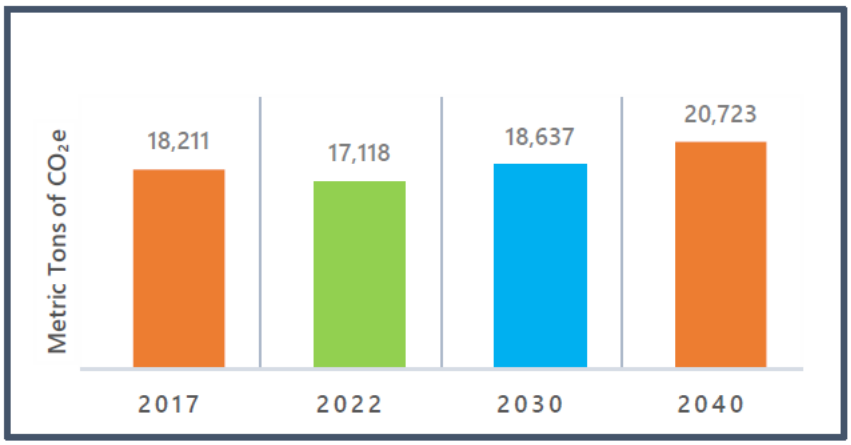


Table 8-7. Emissions from Aircraft Operations at Hanscom Field for 2017, 2022 and Forecast Scenarios

Year	CO	NO_x	VOC	PM_{10}	$PM_{2.5}$	CO_2
	Emissions in thousands of kilograms per year					
2017[1]	1,557.0	34.8	51.4	1.92	1.92	17,734
2022[2]	502.5	45.8	55.3	1.87	1.86	16,971
2030[2]	424.0	49.1	58.8	1.86	1.86	18,477
2040[2]	445.6	53.9	65.0	2.02	2.02	20,544

Notes:
Calculations for emissions were calculated below the mixing height (3,000 feet). Massport expects that, by the year 2035, 90% of the GSE fleet servicing Hanscom will be Electric. By the forecast year 2040, 100% of the GSE fleet servicing Hanscom is expected to be electric.
1. AEDT 2e was used to estimate emissions for 2017.
2. Calculations were generated using AEDT version 3e for 2022 and 2030 and 2040 forecasts.

Project Site

The approximately 47-acre project site abuts the north side of Hanscom Field, a regional airport operated by Massport in Bedford, Concord, Lexington and Lincoln.[4] The project site is located entirely within Bedford and consists of 28.1 acres of land owned by Massport that will be leased to the Proponent and 18.7 acres of land owned by the Proponent. To assemble the 47-acre parcel, Massport will convey to the Proponent a 1.4-acre parcel at the eastern end of the lease area and a 3.8-acre parcel adjacent to the eastern end of the Proponent's property. The Proponent will convey a 2.6-acre area adjacent to Taxiway R to Massport. According to the DEIR, the Proponent will construct a connection between the project site and the adjacent Hanscom Field taxiway on land that will continue to be owned by Massport.

[4] As noted above, the Proponent will construct a connection to the adjacent taxiway on a 2.4 acre parcel of land owned by Massport that will remain under Massport's ownership.

Massport-owned land at Hanscom Field is located west, south and east of the site. The project site is bordered by Hartwell Road and commercial land uses to the north. A residential neighborhood on Hartwell Road is located approximately 1,000 feet northeast of the site. The site is flat near the airfield and slopes up to Hartwell Road. The western part of the site owned by Massport was formerly used as a trailer park which was used to provide supplemental housing for the Hanscom Air Force base and is now largely undeveloped and wooded. The central portion of the site includes the Navy Hangar building and is largely paved. The eastern part of the site is vegetated and undeveloped.

Most of the project site is located within the Zone II wellhead protection area associated with water supply wells owned by the Town of Bedford; however, use of the wells was suspended in 2019 after per- and polyfluoroalkyl substances (PFAS) was detected in water drawn from the wells. According to the Federal Emergence Management Agency's (FEMA's) National Flood Hazard Layer, the site is not within the 100- or 500-year floodplain. According to data available from MassGIS, the site does not contain wetlands, vernal pools, or prime forestland and is not within any surface water protection areas. The majority of the land area of the adjacent Hanscom Field is designated by the Natural Heritage and Endangered Species Program (NHESP) as Priority Habitat for six rare species: Upland Sandpiper (*Bartramia longicauda*), designated as Endangered; Grasshopper Sparrow (*Ammodramus savannarum*), designated as Threatened; Eastern Meadowlark (*Sturnella magna*), designated as Special Concern; Blanding's Turtle (*Emydoidea blandingii*), designated as Threatened; Wood Turtle (*Glyptemys insculpta*), designated as Special Concern; and Midland Sedge (*Carex mesochorea*), designated as Endangered. The mapped Priority Habitat extends onto an approximately 13.387-sf area in the southern portion of the site where relocation of an existing fence and construction of a stormwater management infiltration basin are proposed.

According to the Massachusetts Historical Commission (MHC), the site is in an area considered to be archaeologically sensitive due to the proximity of known historic period and ancient Native American archaeological sites; in addition, it is in proximity to the Minute Man National Historical Park, which is a National Historic Landmark and listed in the National Register of Historic Places

The project site is within an Environmental Justice (EJ) population (census block group)[5] designated as Minority. There are no additional EJ populations within the one-mile Designated Geographic Area (DGA) around the site. The project site is within five miles of 35 additional EJ populations designated as Minority located in Billerica, Burlington, Lexington and Waltham.

Environmental Impacts and Mitigation

Potential environmental impacts of the project include alteration of 20.1 acres of land; the addition of 33 acres of impervious area; generation of 194 average daily (non-aircraft) vehicular trips (adt); use of 10,650 gallons per day (gpd) of water; and generation of 9,679 gpd of wastewater, an increase of 6,030 gpd compared to the historical wastewater generation of the Navy Hangar. GHG emissions and other air pollutants are associated with on-site energy use and transportation, as well as aircraft activity. Construction and operation of the project will generate noise and air emissions.

[5] "Environmental Justice Population" is defined in M.G.L. c. 30, § 62 under four categories: Minority, Income, English Isolation, and a combined category of Minority and Income.

The DEIR describes additional measures proposed to avoid, minimize and mitigate impacts of the project, including a reduction in the number of new hangars from 26 to 18 (albeit with increased square footage), addition of 60 electric vehicle (EV) charging stations and two EV charging stations for public use; construction of a new stormwater management system that meets the requirements of the Stormwater Management Standards (SMS) and has adequate capacity to accommodate future storm events; installation of rooftop solar photovoltaic (PV) generating systems with a generating capacity of up to 8.5 megawatt-hours (MWh) per year; installation of conduits and wiring to support future electrification of airplanes; construction of energy-efficient buildings; and implementation of construction-period measures to minimize noise, air quality, transportation, and water quality impacts.

As stated above, the DEIR continues to assert that the project will achieve a net reduction of GHG emissions by reducing the overall number of aircraft flights at Hanscom (up to 3,543 flights per year), though it acknowledges that this benefit could be as low as 0 flights. This should be further explored in the SDEIR. The Massport 2022 ESPR indicates that an anticipated increase in business jet activity will also increase emissions and other impacts through 2030 and 2040, and, consistent with prior ESPR reviews, Massport has indicated that the ESPR is not the appropriate forum to evaluate mitigation measures since it does not propose individual projects. As this project *does* propose specific development at Hanscom Field, the Proponent should fairly and accurately assess the level of impacts that are attributable to the proposed expansion in hangar capacity, and propose appropriate mitigation measures.

Jurisdiction and Permitting

The project is undergoing MEPA review and is subject to preparation of a mandatory EIR pursuant to Section 11.03(1)(a)(2) of the MEPA regulations because it requires an Agency Action and will create ten or more acres of impervious area. The project is also required to prepare an EIR pursuant to 301 CMR 11.06(7)(b) because it is located within a DGA (1 mile) around one or more EJ Populations. The project exceeds ENF thresholds at 301 CMR 11.03(1)(b)(1) (direct alteration of 25 or more acres of land) and 301 CMR 11.03(1)(b)(2) (creation of five or more acres of impervious area). The project is subject to the MEPA GHG Emissions Policy and Protocol.

The project requires an Order of Conditions (OOC) from the Bedford Conservation Commission pursuant to the Town's Wetlands Bylaw; a Special Permit from the Bedford Select Board for the storage of petroleum at the proposed fuel storage facility; a Special Permit from the Bedford Zoning Board of Appeals for the proposed removal of over 1,000 cy of earth; Water and Sewer Connection Permits and a Street Opening Permit from the Bedford Department of Public Works; and a Building Permit from the Bedford Building Department.[6] It requires approval by the Federal Aviation Administration (FAA) and a National Pollutant Discharge Elimination System Construction General Permit (NPDES CGP) from the Environmental Protection Agency (EPA).

The project involves Land Transfers, in the form of a lease and land disposition, from Massport to the Proponent. The Land Transfers involve a majority of the project site, and will facilitate development of a common and integrated development plan across the entire site. Therefore, MEPA

[6] Local approvals are required for the project activities on the Navy Hangar parcel only; activities on the Massport-owned parcel do not require local permits because Massport is exempt from local regulation.

jurisdiction is broad and extends to those aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment as defined in the MEPA regulations.

Review of the DEIR

The DEIR provided updated plans of the project site and proposed structures, identified changes to the design of the project since the filing of the ENF, and reviewed alternatives to the project. It included additional details on the location and construction of the proposed buildings, existing site conditions, and identified proposed measures to avoid, minimize and mitigate environmental impacts. The DEIR described state, federal and local permitting and review requirements and provided an update on the status of each of these pending actions. It included technical appendices documenting the proposed stormwater management system, the noise and air quality analyses conducted by the Proponent, and proposed energy-efficient building systems. The DEIR included responses to comments received on the ENF and included draft Section 61 Findings.

A major focus of the Scope for the DEIR was the need for additional analysis of aviation activity associated with operation of the proposed facility in order to document the project's impacts, the project's environmental impacts in general and with respect to GHG and other air emissions and noise. The DEIR included an estimate of the annual and daily flight activity of aircraft to be stored at the facility, and provided a description of the methodology used to estimate the reduction in ferry flights that could occur with an increase in based aircraft. However, as detailed below, a competing study prepared by IEc refutes the assertion that the project has the potential to achieve significant reductions in ferry flights. It also attributes the entirety of flights associated with the new hangars to the project to estimate an increased emissions impact of 133,643 to 161,348 metric tpy of CO_2e.

Activity Levels and Ferry Flights

The Scope included in the ENF Certificate required the Proponent to review projected aviation activity at Hanscom based on the data used in Massport's ESPR and confirm whether the project will facilitate and accommodate an anticipated increase in flight activity at Hanscom. The Scope also required the Proponent to provide further analysis of asserted ferry flight reductions.

Ferry Flights

According to the DEIR, Massport's 2017 Hanscom ESPR projected a 0.3% annual growth rate in overall aircraft operations by 2035.[7] The DEIR indicates that this estimate is based on Massport's standard methodology for projecting aviation activity levels, which is driven by local and economic conditions. While acknowledging that the forecast does not consider the capacity of airport infrastructure, the DEIR asserts, without support, that projections of airport activity levels as presented in the ESPR would not change whether or not the project is constructed, and that any flights associated with new aircraft that may utilize the proposed hangars are, by definition, included in the 2030 forecast. The 2030 forecast, in turn, is presented as the "No Build" condition for the project. Projected aviation activity at Hanscom Field under 2022 Existing and 2030 Forecasted conditions is shown in Table 2 below, and presents similar (though not identical) forecasts of aircraft activity as in Table 3-5 of the

[7] As noted above, the 2022 ESPR provides projected annual growth rates of 1.17% through 2030 and 0.9% through 2040.

ESPR (excerpted above). In sum, total aircraft operations (daytime + nighttime) are estimated at 137,073 operations by 2030, with business jets accounting for 42,893 operations as shown below.

Table 2. 2022 Existing and Forecasted (2030) Aviation Activity on annual and annual average day (AAD) basis (Adapted from Table 2-1 in the DEIR).

	2022 Existing Condition		2030 Forecasted (No Build) Condition	
Aircraft Category	Annual	AAD	Annual	AAD
Jet	38,425	105.3	42,893	117.5
Turboprop	7,558	20.7	9,134	25.0
Piston	66,750	182.9	73,807	202.2
Helicopter	10,433	28.6	11,239	30.8
Military	1,716	4.7	1,716	4.7
Total	**124,867**	**342.1**	**137,073**	**375.5**

The Proponent has asserted that the project will decrease the overall number of aircraft operations as compared to projected levels by reducing or eliminating ferry flights. According to the DEIR, ferry flights are a result of the shortage of aircraft storage which causes flight operators to store their aircraft at another airport and fly an empty plane to Hanscom to pick up passengers. The DEIR included an estimate of the total number of ferry flights at Hanscom using flight operations data from the FAA's System Wide Information Management (SWIM) data integrated into Massport's Noise and Operations Monitoring System (NOMS) for the 16-month period from January 2022 to June 2023. The DEIR analysis defined a ferry flight as any flight that met the following criteria:

- Commercial/business aircraft
- "Short Turn" flights with ground time at Hanscom of up to 18 hours
- Aircraft not currently based at Hanscom
- Destination/origin airport (at which the aircraft is stored) is within 350 miles of Hanscom

According to the DEIR, the NOMS data indicate that in 2022 there were 3,543 flights (approximately 17% of all charter and business flights) which met the criteria listed above and therefore could be considered to be ferry flights. The DEIR asserted that the project may reduce, or entirely eliminate, the number of ferry flights. Because the DEIR asserts that the project will not induce any more flight activity than already projected in the ESPR, the comparison of the Build 2030 condition presented in the DEIR includes the 2030 projected aviation activity as reduced to account for eliminated ferry flights (hence, a decrease in flights). A comparison of this Build 2030 condition to Existing 2022 and No Build 2030 conditions is shown in Table 3. As shown in the table, if the project results in the elimination of all ferry flights, and if, as asserted in the DEIR the project does not generate flights in excess of projected operations, aircraft operations under the Build 2030 condition will be approximately two to three percent lower than all operations under 2030 No Build conditions.

Table 3. 2022 Existing and Forecasted (2030) Aviation Activity on an annual and annual average day (AAD) basis (Table 2-1 in the DEIR).

Aircraft Category	2022 Existing Condition		2030 No-Build Condition		2030 Build Condition		2030 Difference (Ferry Flights)	
	Annual	AAD	Annual	AAD	Annual	AAD	Annual	AAD
Jet	38,425	105.3	42,893	117.5	40,471	110.9	2,422	6.6
Turboprop	7,558	20.7	9,134	25.0	8,052	22.1	1,082	3.0
Piston	66,750	182.9	73,807	202.2	73,768	202.1	39	0.1
Helicopter	10,433	28.6	11,239	30.8	11,239	30.8	0	0
Military	1,716	4.7	1,716	4.7	1,716	4.7	0	0
Total	**124,867**	**342.1**	**137,073**	**375.5**	**133,530**	**365.8**	**3,543**	**9.7**

Source: HMMH analysis (2023) based on 2022 OMS data.

As noted, the DEIR indicated that the number of ferry flights reduced by the project will be between 0 (no reduction in flights projected under No Build 2030 conditions) and 3,543 flights, consistent with the Build 2030 scenario shown in Table 3. This range appears to reflect the uncertainty that any of the aircraft to be based in the proposed hangars is currently conducting ferry flights under existing conditions, or the possibility that new ferry flights will be added in the future, for instance, if the off-site hangar previously used by an aircraft that has relocated to Hanscom could be occupied by a new plane which continues to conduct ferry flights to Hanscom for other passengers.

The IEc report objected to the methods and results of the DEIR ferry flight analysis and provided an alternative analysis. The IEc analysis used Automatic Dependent Surveillance-Broadcast (ADS-B) flight track data, rather than Massport's NOMS data, and used different criteria for defining ferry flights. The IEc analysis limited data to jet planes (aircraft tail numbers for which Turbo-Fan or Turbo-Jet is listed as the engine type). The IEc study characterized ferry flights as follows:

- Only jet aircraft which are operated more than 20 times per year
- Aircraft relocating to the proposed hangars must be based aircraft (not itinerant), which was defined with multiple factors:
    - Aircraft destination from Hanscom or origin prior to arrival at Hanscom is one of the four most frequented destinations or origins for the aircraft; and
    - The aircraft has overnighted at that destination or origin (above) more than any other airport (i.e., the aircraft is based at that airport).
- Destination/origin airport is within 120 miles of Hanscom (the IEc study indicates that the DEIR's criterion of a 350-mile radius is too large and it would be too costly in fuel and flight time to make two empty flights from that distance)
- Ferry flights to/from Hanscom must make up a large portion (50%) of the aircraft's operations; that is, the aircraft must make most of its ferry flights to/from Hanscom, rather than to/from another airport from its current home base
- The analysis also disregarded the ground time of 18 hours used in the DEIR as a criterion, stating that 18 hours is too long for a ferry flight because that is enough time for a business traveler to arrive at Hanscom, conduct business, then fly back to the aircraft's home base rather than involve empty flights; a ferry flight would be more likely to depart again within a few hours after picking up or dropping off its passengers.

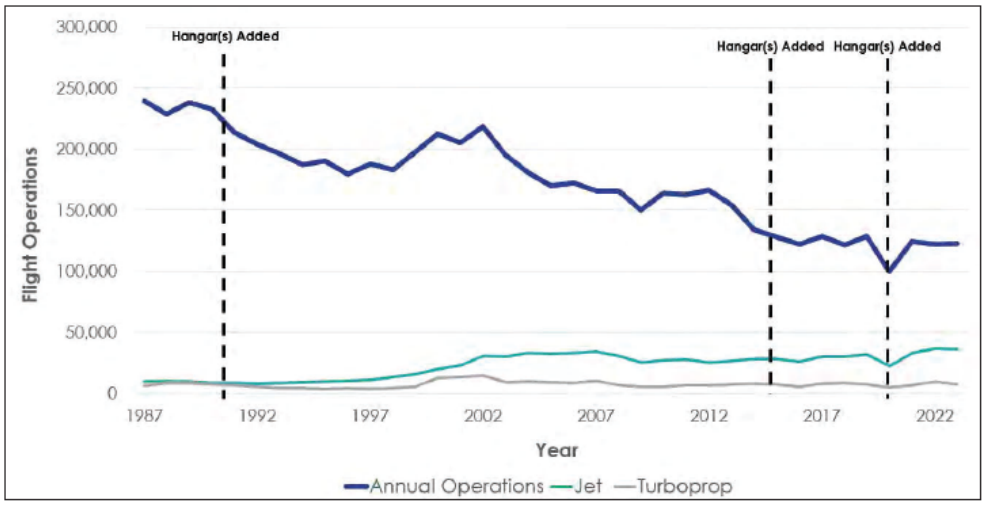
The IEc analysis differed from the DEIR analysis in that the study focused on the estimated number of ferry flights that could be avoided by aircraft owners or operators that are likely to relocate their base locations to Hanscom Field if hangar space were made available. Indeed, this aligns with what appears to be the Proponent's own recharacterization of the goals of the project to target a subset of users who may wish to become long-term "tenants" of Hanscom, as opposed to engage in itinerant travel patterns from other case locations. The IEc analysis concluded that only three individual airplanes (not aircraft types) identified in its study currently conduct ferry flights to/from Hanscom Field in a manner that indicates a likelihood of moving their base locations to Hanscom Field, and estimated that the project would only result in a maximum reduction of 132 ferry flights per year if those three aircraft were to move their base to Hanscom Field. Given that the sole basis for claiming a reduction in flights and impacts from the future No Build to Build condition is a reduction in ferry flights, the SDEIR should provide additional analysis of ferry flights in accordance with the Scope.

Induced Demand

According to the DEIR, the proposed hangars will serve existing and projected demand for hangar space by planes that already use or will use Hanscom, and therefore will not "induce" any flights beyond those already accounted for in the ESPR projections. As shown in Table 2 (above), between 2022 and 2030, the combined number of business jet and turboprop operations are projected to increase from 45,983 operations (126 flights per day) in 2022 to 52,027 operations (142.5 per day) in 2030, an increase of 6,044 operations per year or 16.6 flights per day. According to the DEIR, the proposed hangars will store 40 to 55 planes, of which approximately 20% are anticipated to operate each day; therefore, aircraft stored in the hangars would make a total of 4,380 flights per year or an average of 12 flights per day. As noted above, the DEIR asserted that these flights are included within the 2030 forecast and would occur with or without the project.

The DEIR further asserts that the construction of hangar space at Hanscom has not historically resulted in an increase in operational activity. In support of this assertion, the DEIR provided a graph, reproduced as Figure 1 below, which the Proponent asserts demonstrates that there is no correlation between hangar space and airport activity. However, the DEIR does not include any details regarding the nature or size of the hangars added at the indicated time periods, nor is it clear whether the dashed lines indicating the addition of hangars is intended to refer to a specific construction year or reflects that hangars were constructed between ESPRs. I also note that, while the overall annual operations appear to trend downwards, the lines corresponding to jet and turboprop aircraft (i.e., the "business aviation" demand) does appear to show increases around the time of the identified hangar expansions.

Figure 1. Flight operations and hangar construction at Hanscom. (Graph 2.1 in the DEIR).



The 2022 ESPR includes an inventory of existing hangars at Hanscom Field and provides data on the date of completion of each hangar, which allows a direct comparison to be made to trends in aircraft operations shown in Figure 1. The inventory of hangars is summarized in Table 3 (below) to show only hangars constructed after 1987 so as to correspond to the time period shown in the graph. The 2022 ESPR did not identify any hangars constructed 1987 and 2000; therefore, it is not possible to confirm the construction of hangars shown in Figure 1 between 1987 and 1992. The 2022 ESPR indicated that 96,800 to 181,500 sf of hangar space was constructed in 2001 and 2002; these are not shown in Figure 1 but appear to have occurred around the same time as the increase in flight activity shown in the graph.[8] The 2022 ESPR data indicate that a 37,300-sf hangar was constructed in 2005, which is not reflected in Figure 1. An 89,714-sf hangar was constructed in 2014; 45,900 to 130,600 sf of hangar space was constructed in 2017, and a total of 23,000 sf of hangar space was constructed in 2022. As noted, business aviation activity (jet and turboprop aircraft) appears to have increased in the 2015 to 2022 time frame (with declines in 2020-21, presumably due to COVID-19); however, it is not known if the flight operations data shown in the graph were collected after the hangars were completed and used for aircraft storage. The following table shows the inventory of hangar space at Hanscom Field, as presented in the 2022 ESPR.

[8] As shown in Table 3, the 2022 ESPR listed the construction date of Hangar 21 as "2001, 2017" but did not explain whether, or how much, of the building space was constructed in either of those years.

Table 4. Hangar facilities at Hanscom Field (adapted from Table 2-2 of the 2022 ESPR)

#	Facility	Primary User	Footprint (sf)	Year Built
11	Hangar 11	NorthStar	15,600	2001
11A	Hangar 11A	Steam Enterprises	26,700	2001
12	Hangar 12	Signature Flight Support	14,500	2002
13	Hangar 13	Signature Flight Support	40,000	2001
16	Hangar 16	Liberty Mutual	37,300	2005
17	Hangar 17	Jet Aviation	45,900	2017
21	Hangar 21	Jet Aviation	84,700	2001, 2017
24	Hangar 24	Atlantic Aviation	89,714	2014
47	Box Hangars	Massport	5,750	2022
48	Box Hangars	Massport	5,750	2022
49	Box Hangars	Massport	5,750	2022
50	Box Hangars	Massport	5,750	2022

Based on the inventory data in the 2022 ESPR, the graph in Figure 1 could be read to suggest a positive correlation between increased hangar space and increased flight operations, contrary to the DEIR's assertion that there is no relationship. Several commenters, as well as the IEc study, noted that such a correlation is recognized by the FAA, which acknowledges that the lack of infrastructure can limit growth and could cause projected increases in operations to not be met. Specifically, the IEc study quotes this reference from FAA guidance related to flight activity projections as an example of the role that increased infrastructure plays in impacting demand for travel:

> "As demand continues to grow and workload increases, congestion and delays could become critical limits to growth over the forecast period. FAA's forecasts of both demand and operations are unconstrained in that they assume that there will be sufficient infrastructure to handle the projected levels of activity. *Should the infrastructure be inadequate and result in even more congestion and delays, it is likely that the forecasts of both demand and operations would not be achieved*." Federal Aviation Administration, FAA Aerospace Forecast Fiscal Years 2018-2038, p.48 (emphasis added).

As stated above, the DEIR asserts that the project will meet existing and future demand for hangar space, but acknowledges that ESPR projections do not account for any changes in infrastructure capacity. In other words, it simply presumes that all market demand will automatically be absorbed at Hanscom Field, notwithstanding the fact that the very purpose of the project is to relieve the constraints in hangar capacity (for instance, as indicated by FBO waitlists) that the Proponent indicates instigated planning for this project. The SDEIR should fully account for any effects of constrained infrastructure capacity, as indicated in FAA guidance, and estimate the true impacts of the project in terms of facilitating or accommodating new aircraft activity that would not otherwise be possible under future No Build conditions. Absent a full justification, the SDEIR should assume that all additional flights associated with new hangar space are attributable to the project, and propose appropriate mitigation.

Finally, as shown in Table 5, the 2022 ESPR provides specific projections for the number of "based aircraft," which are the type of aircraft that the DEIR asserts will utilize the new hangar space to be developed by the project. As shown below, the ESPR projects that based "jet" aircraft specifically

will increase by 20 aircraft by 2030 and by an additional 25 aircraft between 2030 and 2040; except for a modest increase in the number of based helicopters, the number of based aircraft of other types will either not increase or decline.

Table 5. Existing and forecasted based aircraft at Hanscom Field (Table 4-7 in the 2022 ESPR).

Aircraft Type	Based Aircraft in 2022	Based Aircraft Forecast	
		2030	2040
Single Engine	182	169	158
Multi Engine	11	11	11
Jet	77	97	122
Helicopter	14	16	18
TOTAL	284	293	310
Sources: Massport, forecast McFarland Johnson 2023			

As noted, the DEIR appears to reformulate the purpose and need for the project as targeting a subset of business aviation users that seek to relocate their base operations to Hanscom. According to the DEIR, the project will be constructed in five phases with the full buildout completed by the fall of 2027. If all 40 to 55 aircraft to be stored in the proposed hangars are based aircraft, then the project would far exceed the projection of 20 new based aircraft by 2030. According to the 2022 ESPR, one of the FBOs at Hanscom Field (Atlantic Aviation) is constructing 60,000 sf of new hangar space that will be completed by the end of this year. The 2022 ESPR estimates that a based jet requires 7,500 sf of hangar space and a based multi-engine aircraft requires 5,500 sf of hangar space; therefore, the new Atlantic Aviation hangar could account for up to eight of the projected 20 additional based jets projected by 2030. Furthermore, the 395,700 sf of hangar space proposed to be added by the project would exceed the 2022 ESPR's forecasted need for 160,000 sf of new hangar space by 2030 and an additional 198,000 sf of hangar space between 2030 and 2040 (a total of 358,000 sf by 2040). By its own numbers, the DEIR therefore appears to indicate that the project will provide hangar space in excess of the near-term and long-term projected demand at Hanscom. It is unclear why this much capacity is being constructed, if, as the DEIR asserts, the Proponent does not seek to induce more demand than already projected. As stated in the Scope, the SDEIR should provide a comprehensive study of induced demand to more accurately describe the direct and indirect impacts of the project.

Alternatives Analysis

In the ENF, the Proponent evaluated No Build and Mixed-Use Alternatives and compared the impacts of these alternatives to those of the Preferred Alternative. As required by the Scope included in the ENF Certificate, the DEIR included an expanded analysis of the No Build Alternative and reviewed additional alternatives for minimizing ferry flights and environmental impacts, as described below.

No Build Alternative

As described in the DEIR, the No Build Alternative would involve leaving the Navy Hangar in its current unused condition with no new hangar buildings constructed. However, based on projections of airport activity levels included in the 2017 ESPR, total aircraft operations at Hanscom Field would increase by 0.4% per year from 2017 levels to131,900 operations in 2025 and 138,840 operations in 2035. Based on the 2017 ESPR data used in the analysis of the No Build Alternative, the overall growth in airport activity levels at Hanscom Field is driven by business aviation, which in the 2017 ESPR was projected to increase at an annual growth rate of 1.9% through 2035. According to the DEIR, the increased growth in business aviation activity would increase even if the project were not built, and a condition of Massport's funding from FAA is that Massport cannot prohibit the type, volume, or frequency of flights that land at Hanscom Field. The DEIR cites FAA grant funding conditions, which include a requirement that Hanscom accept all flights it can safely accommodate at the airport "without unjust discrimination to all types, kinds and classes of aeronautical activities."

The DEIR evaluated environmental impacts under the No Build Alternative. Because the project would not be constructed, there would be no impacts to land, rare species habitat, wetlands or cultural resources. The DEIR estimates increases in GHG emissions and other pollutants under No Build conditions (except for CO) due to anticipated increases in aircraft activity. Vehicular emissions of air pollutants, except for CO_2, are expected to decrease over time due to advances in fuel economy. As discussed above, the DEIR analysis assumes that a "No Build" condition coincides with the full absorption of projected demand as indicated in the ESPR, meaning that projected growth will occur without consideration of infrastructure capacity limits that may constrain future demand. This issue of induced or constrained demand must be further explored in the SDEIR. Additional discrepancies in emissions as compared to the ESPR should be reconciled.

Operational Measures for Reducing Ferry Flights

The Scope required the DEIR to include an evaluation of operational measures that could be implemented at the proposed facility to reduce ferry flights, such as disincentives or penalties for operators conducting ferry flights; restrictions on the number or types of aircraft used for ferry flights; use of ground transport, such as shuttle buses, to transport passengers between Hanscom and the location where the aircraft are stored; incentives for ferry flights that use SAF; and implementation of measures maximize the number of passengers on flights for which ferry flights were necessary, such as flight sharing and matching services.

According to the DEIR, the Proponent cannot implement operational measures, such as those listed above, to minimize ferry flights because aircraft operations are controlled by the FAA. As detailed in the Scope, the SDEIR should evaluate potential leasing arrangements the Proponent can enter into with prospective tenants to achieve these goals. As stated below, the SDEIR should explore a phasing approach that aligns with based aircraft projections; the phasing plan should also address anticipated implementation of electrification and SAF strategies.

Phased Construction Alternative

The Scope required the DEIR to review phased development alternatives in which construction

of later phases of the project would be contingent upon the widespread availability of SAF or electric planes, or only if initial phases of the project were demonstrated to have reduced ferry flights. According to the DEIR, the use of SAF/electric planes is not expected to reach 10% of aircrafts until 2030. However, the project has been phased over a three-year period and construction is expected to be completed by 2027; the DEIR asserts that it is not feasible to delay construction of later phases until 2030 or later. As detailed in the Scope, the SDEIR should review a Phased Construction Alternative that is consistent with the 2022 ESPR's projections for based aircraft.

Reduced Build Alternative (Preferred Alternative)

As noted above, the Scope required an evaluation of a Reduced Build Alternative that achieves the goals of reducing the number of ferry flights by constructing fewer hangars and thereby minimizing land alteration. According to the DEIR, the Preferred Alternative proposed in the DEIR reflects a Reduced Build Alternative because the number of hangars has been reduced from 26 to 17, and because proposed land alteration and new impervious area have been reduced by 3.1 acres and 6 acres, respectively. However, given that the proposed building area has increased from 495,470 sf as proposed in the ENF to 522,380 sf, it is questionable whether the Preferred Alternative can be considered a Reduced Build and that the reductions in land alteration and impervious area are related to a decrease in the number of hangars. As noted above, the assumption that the 18 hangars will accommodate 40 to 55 aircraft is disputed by a competing study, which asserts that up to 79 aircraft (and, therefore, additional flights) could be accommodated in the new hangar space. As detailed in the Scope, the SDEIR should include a revised analysis of a Reduced Build Alternative.

Environmental Justice

The DEIR reviewed the Proponent's public engagement efforts to EJ populations, and reviewed baseline public health data for EJ populations within one mile of the site and potential impacts of the project. As noted above, the project site is located within a census tract (Block Group 6, Census Tract 3593.03) containing an EJ population designated as Minority. The census tract is comprised only of portions of Hanscom Field and Hanscom Air Force Base. According to the DEIR, the census data indicates that the census tract has a population of 103 people with 0 households, which suggests the population is located entirely on Hanscom Air Force Base; however, according to the DEIR, there are no housing units on the Air Force Base within the census block group containing the EJ population. Within the census tract containing the above EJ population, no languages are identified as those spoken by 5% of more of residents who also identify as not speaking English very well. As noted, the project site is within five miles of 35 additional EJ populations designated as Minority located in Billerica, Burlington, Lexington and Waltham. As noted in the Scope, the 2022 ESPR provided a description of EJ populations within 1 mile of Hanscom Field, and included additional communities because the 1-mile radius was drawn from the outer boundaries of the entire airport and not just the North Airfield portion. Due to the dispersed nature of impacts due to noise, air emissions, and traffic, the SDEIR should supplement EJ analysis to include the communities identified in the 2022 ESPR.

According to the DEIR, since the review of the ENF was completed the Proponent has provided information about the project by maintaining a project website[9] with project updates and environmental review documents; distributed electronic copies of the DEIR to commenters on the ENF and to

[9] www.northairfieldbedford.com

organizations listed in an updated EJ Reference List provided by the MEPA Office; provided a hard copy of the DEIR to the Bedford Free Public Library; offered to provide translated copies of MEPA documents upon request (according to the Proponent, no translated material has been requested); requested meetings with community organizations within the five-mile radius of the site that were listed in the updated EJ Reference List (according to the Proponent, these groups did not respond to the meeting requests); presented project details at public meetings held by the Massport Community Advisory Committee (February 13, 2024) and Hanscom Field Advisory Commission (February 20, 2024); and held nine meetings with elected officials or their representatives. In addition, prior to filing the DEIR the Proponent held a hybrid in-person/remote public information meeting on the evening of March 4, 2024 at the Middlesex Community College in Bedford. Advance notice of the meeting was provided by email to commenters on the ENF and to the EJ Reference List for the five-mile radius around the site, and to local online and print publications. According to the DEIR, key issues discussed at the Proponent's meetings with stakeholders included the following:

- Potential climate change and air quality impacts associated with GHG from the project
- Minimize project emissions by discouraging use of private jets for flights with few passengers
- Need for coordination with Eversource to provide adequate electricity for the project
- Opportunities for the Proponent to work with Middlesex Community College on job training and employment opportunities
- Potential mitigation of GHG emission through the use of SAF and electric aircraft
- Noise and air impacts of the project and of operation of Hanscom Air Field
- Details of the proposed fuel farm including location, storage capacity, and GHG emissions associated with use of the fuel
- Estimates of ferry flights and aviation activity at the proposed hangars
- Potential for an overall increase in aviation activity if aircraft relocate to the proposed facility and their former hangar space is reoccupied

The Proponent requested that the comment period be extended from a standard 30 days to approximately 90 days to allow an overlap in the review periods of the DEIR and the 2022 ESPR, which was filed by Massport on May 22, 2024. During the extended comment period, the Proponent held a remote public meeting on the evening of May 30, 3024.

According to the DEIR, the Proponent will continue to conduct public outreach throughout the state and federal environmental review processes by seeking to engage with community groups and elected officials, participating in public meetings, and providing written materials, which will be translated upon request.

As previously documented in the ENF Certificate, the ENF included an assessment of baseline health data prepared in accordance with the MEPA Interim Protocol for Analysis of Project Impacts on Environmental Justice Populations ("MEPA Interim Protocol for Analysis of EJ Impacts"). The assessment reviewed public health data available in the Department of Public Health's (DPH's) EJ Tool applicable to the DGA regarding "vulnerable health EJ criteria"; this term is defined in the DPH EJ Tool to include any one of four environmentally related health indicators that are measured to be 110% above statewide rates based on a five-year rolling average. Neither the census tract containing the single identified EJ population nor the Town of Bedford exceed any of the four vulnerable health EJ criteria,

which include Childhood Lead Exposure, Childhood Asthma Emergency Department Visits, Low Birth Weight and Heart Attack Hospitalizations. Areas of Lexington and Concord are also located within the one-mile radius of the site; however, as noted, the only mapped EJ population within the DGA is located within the Hanscom Air Force in Bedford and not in any of the surrounding towns; neither Lexington nor Concord meet any vulnerable health EJ criteria.

In accordance with the ENF Scope, the DEIR reviewed potential impacts to surrounding communities relative to noise and air quality, including GHG emissions, associated with aircraft and construction-period truck trips generated by the project and stationary source emissions generated by the heating and cooling systems of the proposed buildings. This analysis is focused on activities on or immediately surrounding the project site, as the DEIR asserts that impacts will not extend to a five-mile radius. The DEIR asserted that because the project will not generate significant new vehicle and diesel truck trips during construction and operation of the facility, regional ambient pollutant concentrations will not be materially affected by the project. The proposed buildings will be constructed with high-efficiency building envelopes and heating, cooling and ventilation systems to minimize emissions associated with direct and indirect use of fossil fuels, and will include rooftop solar PV generating systems to offset building energy use. As discussed, the DEIR asserts that it will provide a net reduction in GHG emissions and other air pollutants as a result of reductions in ferry flights. The SDEIR must provide additional analysis to justify this assertion, and should revise its characterization of resulting impacts on surrounding communities including through any increase in emissions, traffic and noise that may be attributable to the project. The SDEIR should also discuss any findings from a study commissioned by surrounding towns related to Ultrafine Particle (UFP) emissions from flight activities.

According to the DEIR, other public benefits associated with the project include leveraging aviation degree programs at Bridgewater State University and Middlesex Community College to introduce minority high school students to career opportunities in these fields; ensuring that Minority and Business Enterprises and Woman Owned Business Enterprises (MBE/WBE) subcontractors are engaged during the construction and operations periods, including through the use of the FAA's Airport Solutions Group to notify Disadvantaged Business Enterprise (DBE) firms of bid opportunities; installing two EV charging stations at the site for public use; working with the Town of Bedford to offset on-site tree removal by replanting trees; and construction of a new stormwater management system that meets the Massachusetts Stormwater Management Standards (SMS) for removal of pollutants from runoff and on-site storage and retention of stormwater during extreme storm events.

Public Health

The Scope included in the ENF Certificate required that the DEIR review any known or reasonably foreseeable public health consequences that may result from the environmental impacts of the project. The DEIR included a review of pollution sources in the vicinity of the site identified in the DPH EJ Tool and the EPA's EJScreen. As previously documented in the ENF, the DPH EJ Tool listed 27 potential sources of pollution within a mile of the site, including a large quantity waste generator, MassDEP Tier Classified c. 21E sites, Tier II Facilities, MassDEP sites with Activity and Use Limitations (AULs), underground storage tanks (USTs), and EPA facilities. The EPA's EJScreen environmental indicator tool identified only one significant potential pollution source related to the site's proximity to the Superfund sites that extend onto the project site.

As discussed below, I received comments from MassDEP, EPA, and Air Force regarding the hazardous waste remediation activities involving the site. Given the extensive earth removal proposed at the site, project activities require implementation of mitigation measures to minimize potential exposure of the public to contaminated soil and ground water. As detailed below, state and federal agencies continue to investigate the extent of contaminated soil and groundwater, potentially including PFAS, that may require remediation and land use controls at the site and in adjacent areas. The SDEIR should provide a comprehensive response to EPA comments, and should propose a clear protocol, in consultation with EPA and MassDEP, that the Proponent will implement to ensure that the project will not interfere with ongoing Superfund cleanup activities and will conduct construction period activities in accordance with protocols and mitigation measures recommended by regulators.

As noted, the project proposes to remove an existing storage tank on the Navy Parcel, and replace it four new 20,000-gallon Jet A Fuel/SAF and one 5,000-gallon AVGas underground storage tanks. Comment letters reference a complaint filed before the Massachusetts Office of Attorney General, Criminal Bureau, regarding a March 26, 2024 incident at Hanscom Airfield. The complaint addresses circumstances surrounding the reporting of a jet fuel spill from an aircraft that drained into the Shawsheen River. As discussed below, the fuel storage facility appears to have been moved out of the Zone II Wellhead area to protect water quality. Given the expansion of fuel storage on site, the SDEIR should provide a full description of all safety measures that will be in place to prevent jet fuel spills and remedial actions in the event of accidental spills.

The SDEIR should provide additional information on air, noise, traffic, and climate change impacts, as stated below.

Land Alteration

The DEIR reviewed the site topography and land cover characteristics of the vegetated areas in the eastern and western portions of the site, and described the impacts of the project on these areas. The site generally slopes steeply down from Hartwell Road along its northern boundary adjacent to the road. The center of the site is relatively flat and is occupied by paved areas and the Navy Hangar. Vegetated areas at the western and eastern ends of the site are generally characterized by trees such as Oak, Red Maple, Big Toothed Aspen, Hickory, Norway Spruce, White Pine, and Red Pine, with an understory of Amur male, Black Cherry, River Birch, Autumn Olive, and Bradford Pear. Ground cover plants include Lowbush Blueberry, Buckthorne, and Witchhazel. According to the DEIR, invasive species such as Bradford Pear, Bittersweet, and Grape Vine are common throughout the site and are present in dense growths in certain areas. The western portion of the site, which is owned by Massport, was formerly the site of a trailer park. It is divided into northern and southern sections by a driveway extending from Hartwell Road to the four existing box hangars west of the site. The southern section is generally flat with an elevation ranging from approximately 128 ft NAVD 88 in the east to approximately 134 ft NAVD 88 to the west. The northern section rises from an elevation of approximately 136 ft NAVD 88 closest to the navy hangar up to elevation 142 ft NAVD 88 at the northwestern limit of the site. According to the DEIR, vegetation in this western part of the site transitions from lower vegetation in the east (adjacent to the paved parking area and Hartwell Road) to taller trees in the west. In the eastern part of the project site, which is currently or proposed to be owned by the Proponent, a dense understory is located along Hartwell Road, which transitions to a more open understory with taller trees further

away from the road. The southern edge of the east part of the site, closest to the airport, includes dense understory vegetation, including invasive vines.

According to the DEIR, the project will alter 11 acres of the project site not previously altered, remove 17.85 acres of trees, and regrade large portions of the site. Approximately seven acres of the site, including areas adjacent to Hartwell Road, in the northwest corner, and at the eastern end, will remain undisturbed. The project will regrade the site through a combination of cuts (excavation) and fills to establish a flat site grade with slopes of 2% or less, and first floor elevations ranging from 133.75 ft NAVD 88 to 137 ft NAVD 88. The DEIR included a cut and fill plan showing that a large portion of the site will be raised by up to 4 to 8 ft compared to existing conditions. Discrete areas of the site, including higher elevations along Hartwell Road and in the northwest corner of the site, and areas where stormwater basins are proposed, will be cut by up to 12 ft. The DEIR stated that the cut and fill have been balanced to minimize the export of unsuitable soil material; however, the DEIR also estimated that 4,250 truck trips will be needed to transport approximately 80,000 cy of material off-site and stated that structural material capable of supporting the weight of aircraft would have to be imported to the site. As detailed in the Scope, the SDEIR should provide total cut and fill volumes in addition to net cut and fill volumes, and clarify the amount of material, including excavated soil and structural fill, to be transported to and from the site. As noted below, state and federal agencies supervising the remediation of contaminated soil and groundwater at the site have questioned the Proponent's assumption that most of the excavated material will be suitable for excavation and reuse. The SDEIR should clarify the extent and manner by which the site will be regraded, and associated transport of materials to and from the site. The SDEIR should estimate the number of truck trips anticipated on daily basis and provide a truck routing assessment, including whether trucks will extend through residential and/or EJ neighborhoods.

Stormwater Management

The project will add approximately 33 acres of impervious area, and will therefore increase the volume and rate of stormwater runoff from the site. According to the DEIR, the site is located within the Shawsheen River Basin which is regulated as an impaired water by MassDEP due to the presence of pathogens from fecal coliform bacteria. Therefore, stormwater discharges from the site are subject to a Total Maximum Daily Load (TMDL) for pathogens. Under existing conditions, the western portion of the site drains to a drainage channel that borders the site to the south and which ultimately discharges to Elm Brook approximately 400 ft west of the site. The central and eastern portions of the site drain to the Hanscom Field closed drainage network. According to the 2022 ESPR, the Hanscom drainage system in this area discharges to a wetland located north of the airport and east of the project site.

According to the DEIR, the proposed stormwater management system will be designed to address the Shawsheen River TMDLs, and to comply with the Massachusetts Stormwater Management Standards (SMS), including the additional requirements for land uses with higher potential pollutant loadings (LUHPPL), and the Town of Bedford's Stormwater Regulations. The stormwater management system will include Best Management Practices (BMPs) such as deep sump catch basins, proprietary separators, six subsurface infiltration systems and three surface infiltration basins, and Low Impact Design (LID) elements such as porous pavement, grassed swales, and biorecharge areas. The infiltration systems will be designed to infiltrate the 1-inch water quality volume from the proposed impervious areas, as required for sites located within a Zone II Wellhead Protection Area. The combination of BMPs will reduce Total Phosphorous in stormwater by 60% as required by the general pollutant TMDL

for the Shawsheen River, remove 44% of TSS prior to infiltration as required for LUHPPLs, and remove 90% of Total Suspended Solids (TSS) as required by the Town of Bedford. In addition, the stormwater management system will meet requirements to meet or reduce pre-development peak discharge rates for the 2-, 5-, 10-, 25-, 50-, and 100-year storm events; as detailed below, the stormwater management system will be sized to with sufficient capacity for the 2070 25-year storm event.

Comments submitted by MassDEP, EPA and the Air Force note the potential for the proposed infiltration basins to mobilize contaminants in groundwater. In addition, NHESP recommends that an alternative location be sought for the proposed stormwater basin located in Priority Habitat. The SDEIR should provide additional details and consider alternative locations for proposed stormwater management structures.

Hazardous Waste

The project site overlaps with two Superfund (National Priorities List or NPL) sites regulated under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The sites are being remediated and monitored by the Air Force and Navy with oversight by the EPA and MassDEP. The Air Force is responsible for the NPL site known as the Hanscom Air Force Base (HAFB) site and the Navy is responsible for the NPL site known as the Naval Weapons Industrial Reserve Plant (NWIRP) site. In addition, a release of hazardous materials on the site has been documented and assigned Release Tracking Number (RTN) #3-0035926 by MassDEP, and two other disposal sites at the HAFB (RTN 3-0000223) and NWIRP (RTN 3-000261) are listed by MassDEP as Adequately Regulated because they are being addressed as part of the Superfund site cleanup by the Air Force and Navy. Comments provided by MassDEP, the Air Force, and EPA indicate that the agencies closely coordinate their activities related to contaminated soil and ground water at and in the vicinity of the site.

According to the DEIR, the HAFB site is itself comprised of four sites (Sites 1-4), only one of which (Site 1) falls within the boundaries of the project site. Site 1 includes a portion of the southeastern part of the project site. It was used as a fire training area where fire-fighting foam (AFFF) and other materials were used that have contaminated the soil in this area. According to the DEIR, 2,160 tons of contaminated soil was removed from the area and disposed of off-site. According to the EPA and Air Force, a portion of the project site proposed for development overlies a known contaminant plume of chlorinated volatile organic compounds (VOCs). A groundwater collection, treatment, and recharge system was installed to remediate the VOC plume, and the area is subject to Land Use Controls (LUC) that prohibit unapproved activities that may cause exposure to and use of groundwater, prevent exposure to residual contamination in subsurface soil, and prevent exposure to vapors caused by the plume that could accumulate in existing and future buildings. The DEIR suggests that remediation of PFAS is being addressed in this area; however, according to the EPA and the Air Force, the extent of PFAS contamination is currently under investigation and the extent to which groundwater and soil at the project may require remediation is not yet known. According to the Air Force, after PFAS Remedial Investigations (RI) are completed, a Feasibility Study will be undertaken to select a remedy; however, the construction of one or more hangars, aviation support facility, and parking lot on the area to be investigated will impact both the RI and remedy construction activities. The DEIR did not address how conflicts between the project and site remediation will be avoided. The Air Force recommends that construction of proposed structures in the potential PFAS remediation area should be delayed until the

RI and Feasibility Study have been completed, at which time the remediation area and remedial activities will be known, and the proposed structures relocated to a different part of the site. The phased construction alternative in the SDEIR should account for future remediation activities.

The southern portion of the NWIRP site extends south of Hartwell Road onto the Navy Hangar portion of the project site and Hanscom Field. The NWIRP site also consists of four sites. According to the DEIR, Sites 3 and 4 are located within the project site; however, comments provided by MassDEP indicate that only Site 3 is located within the project site. According to the DEIR, contamination associated with Sites 3 and 4 does not impact the project site, as the sites were expanded to include the project site only for the purpose of conducting groundwater monitoring. According to the DEIR, Site 3 is an area where chlorinated VOCs were detected in a subsurface source, including a groundwater plume. According to the DEIR, the plume primarily migrates to the northwest, away from the project site; areas south of Hartwell Road (including the project site) are included within Site 3 to allow for continued groundwater monitoring. Site 3 is subject to ongoing monitoring, bioremediation of the source area, operation of a groundwater treatment system, LUCs, and reviews every five years. Site 4 in the NWIRP includes a Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) plume in the northern part of the NWIRP. Remediation of the contamination has included excavation of the source area, on-site treatment of contaminated soil and groundwater, monitoring, an Activity and Use Limitation (AUL) which prohibits the use of site groundwater and restricts activities affecting soils below three feet where groundwater may be encountered, and five-year reviews by the Navy in conjunction with EPA and MassDEP until site conditions are suitable for unlimited use and unrestricted exposure.

The release of hazardous waste designated as RTN-#3-0035926 is located entirely on the Navy Hangar portion of the project site at the location of a former silk-screening operation. According to the DEIR, soil samples collected in 2019 have not found detected reportable concentrations of VOCs, extractable petroleum hydrocarbons (EPH) or eight metals subject to the Resource, Conservation, and Recovery Act (RCRA). Arsenic was detected in a single sample at a concentration much higher than those detected in any other samples, which the Proponent believes is an anomalous detection. According to the DEIR, site conditions represent No Significant Risk of harm to human health, public welfare, safety or the environment.

Comments provided by MassDEP, the EPA, and the Air Force identify numerous points of clarification and correction that need to be made to the DEIR's review of the status of hazardous waste investigations and remediation. In addition, these agencies indicate that the DEIR did not adequately address how the project will be constructed and operated to avoid interfering with ongoing investigations and remediation activities, and without directly disturbing potential contaminated soil or groundwater at the site. Comments indicate that on April 4, 2024, the developers indicated that existing Air Force and Navy monitoring wells would likely be damaged or destroyed as a result of planned construction efforts. As noted, the Air Force recommends that construction of proposed structures be delayed until initial PFAS investigation is complete. The Certificate on the ENF recommended that the Proponent consult with MassDEP, EPA, the Air Force and the Navy regarding the status of monitoring and remediation efforts and any constraints on land use, site design and/or construction practices that may be necessary; however, it does not appear that the appropriate coordination with these agencies has been undertaken to date. Because of the potential for changes to the project design, including the stormwater management system, to be required, the Proponent should consult with these agencies prior to preparing the SDEIR, report on the input received from the agencies, and describe any project

changes needed to address the concerns of these agencies. The SDEIR should propose a phasing plan that accounts for future PFAS investigation activity, and should propose conditions for construction and implementation sufficient to enable Section 61 Findings.

Traffic and Transportation

The DEIR indicates that the project will generate 194 adt by vehicles on area roadways, including 21 trips in the AM peak period and 20 trips in the PM peak period. Of these project-generated trips, 20 trips per day will be by trucks, including four trips associated with two fuel deliveries per day, four trips by two delivery vehicles per day, 10 trips by five food trucks, and two trips associated with one trash truck. Consistent with the methodology specified in the *Transportation Impact Assessment (TIA) Guidelines* issued in March 2014 by EEA and the Massachusetts Department of Transportation (MassDOT), the trip generation estimate is based on trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual* using Land Use Code (LUC) 022 (General Aviation Airport). The DEIR included trip generation worksheets supporting the estimate as derived from the ITE rates, which are based on the number of employees of the facility; as indicated in the Scope, the SDEIR should clarify whether the ITE rate accounts for vehicular trips associated with flight activity (for instance, passenger pick up and drop off), and whether it aligns with trips observed at other similar hangar facilities. According to the DEIR, the facility will have 13 employees, including eight line service technicians, two air control employees, and three customer service representatives. According to the DEIR, vehicular access to the site will be provided by two curb cuts (a reduction from the three existing curb cuts) which are both needed to provide access to each of the separately-owned parcels. In addition, two new curb cuts in the eastern part of the site are proposed to provide access to the proposed fuel storage tanks. The DEIR noted that vegetation adjacent to the two driveways providing access to the proposed hangars will be trimmed and maintained to provide clear lines of sight for vehicles leaving the site, but did not describe the curb cuts that will be used by trucks delivering fuels to the storage tanks; this information should be provided in the SDEIR.

The 2022 ESPR includes actual counts of vehicle trips entering and exiting Hanscom Air Field during peak periods, as well as projected peak period trips for 2030 and 2040. According to the ESPR, there were 148 trips AM peak period and 130 trips in the PM peak period (including trips entering or leaving) in 2022. For the North Airfield, the ESPR forecasts approximately 13 vehicle trips in each of the peak periods in 2030 (20% of all aviation-related vehicle trips at Hanscom) and 20 to 21 peak period trips in 2040 (25% of all aviation-related vehicle trips). The estimate of project-generated peak period trips provided in the DEIR appears to be consistent with ESPR data, which is based on actual counts (though it may not fully account for induced demand discussed above). The estimated number of vehicle trips generated by the project is well below the minimum MEPA review threshold for trip generation, which is 1,000 adt (in combination with construction of 150 or more New parking spaces). According to the DEIR, traffic studies conducted for other development projects in the area assigned a vehicle trip distribution of 55% of trips (approximately 10-12 vehicles) using Hartwell Road to and from the north and 45% (9 vehicles) using Hartwell Road to and from the south. Beyond Hartwell Road, vehicles would split between north and south directions on South Road or east and west directions on Concord Road (Route 62); as a result, the DEIR asserts that the project will generate few peak period trips affecting Minute Man Historical Park, Great Meadows National Wildlife Refuge, or other residential neighborhoods. According to the DEIR, trucks traveling to and from the site are expected to travel north on Hartwell Road to Concord Road and Great Road to access the regional highway system via I-95.As

noted by the Town of Bedford, the DEIR does not consistently describe routes to be used by construction and delivery vehicles accessing the site; the SDEIR should clarify the proposed route(s) and volumes of truck traffic.

According to the DEIR, the Proponent does not anticipate the need for roadway mitigation due to its low trip generation. The Proponent will implement a Transportation Demand Management (TDM) program to minimize single occupant trips by employees. Proposed TDM measures include designating an on-site transportation coordinator, facilitating carpooling by employees, providing on-site cafeteria/food services, promoting use of public transportation, staggering work shifts where appropriate, scheduling deliveries during off-peak hours, and constructing electric vehicle (EV) charging stations at 25% of the parking spaces (60 spaces).

I note that the 2022 ESPR included estimates of increased traffic associated with increases in flight activity from 2022 to 2030/2040. Specifically, it projected increases in Hanscom Field traffic at the access location of Hanscom Drive (as a proportion of total traffic) by 1% from 2022 to 2030 in the morning and afternoon peak periods, and by 2% and 3%, respectively, by 2040 for the morning and evening peak periods. Five intersections were identified where Hanscom Field related traffic would constitute 10% or more of traffic volumes under 2030 and 2040 scenarios, and at the intersection of Route 2A and Hanscom Drive, the analysis indicated that the southbound movements would operate with significant delay (more than 5 minutes, with "Level of Service" F condition) during the morning and afternoon peak hours, though LOS F was shown to be the condition under both "No Build" and "Build" scenarios (i.e., with and without the projected increases in flight activity). The SDEIR should provide a summary of the traffic assessment in the 2022 ESPR, and explain how the ESPR incorporates vehicular trips anticipated to result from this project. The SDEIR should indicate whether any of the intersection impacts identified in the ESPR would result from new traffic associated with the project, and account for any additional demand that the project may create or induce, as reflected in the required study of induced demand.

The project includes construction of a total of 240 parking spaces in multiple parking areas in proximity to the proposed buildings. According to the DEIR, the proposed parking supply is a reduction from the 260 existing parking spaces. The Scope included in the ENF Certificate required the DEIR to provide a justification of the proposed parking supply of 240 spaces despite a trip generation of only 194 adt. The DEIR reviewed the number and size of parking spaces that would be provided throughout the site, but did not provide an explanation of the need for the proposed parking supply; this should be provided in the SDEIR.

Rare Species

Hanscom Air Field contains mapped habitat for six rare species, including three birds, two turtles, and one plant. According to the DEIR, an approximately 13,387-sf portion of the southern section of the project site is located within mapped rare species habitat. According to NHESP, the area of mapped rare species habitat on the project site is germane to Upland Sandpiper, Eastern Meadowlark, Grasshopper Sparrow, and Midland Sedge. The work proposed in this area includes relocation of an existing fence and construction of a stormwater infiltration basin.

The project requires a filing submitted pursuant to the Massachusetts Endangered Species Act (MESA; M.G.L. c. 131A) and its implementing regulations at 321 CMR 10.00. According to NHESP, the Proponent should evaluate alternative configurations of the proposed stormwater management structure and options for stormwater management that do not result in the loss or conversion of grassland habitat. According to NHESP, it is anticipated that the project will require conditions to avoid a prohibited Take of state-listed species. Protection measures are anticipated to include but are not limited to a time of year restriction to prevent disturbance to state-listed species during the nesting period (May l 1 – July 31) as well as monitoring and management of state-listed species and habitat. As recommended by NHESP, the SDEIR should consider alternative locations for structures proposed in Priority Habitat.

Water and Wastewater

The project will use 13,500 gpd of water and will generate approximately 9,679 gpd of wastewater. Water and sewer service to the Town of Bedford are provided by the Massachusetts Water Resources Authority (MWRA). As noted above, most of the project site is located within the Zone II wellhead protection areas associated with public drinking water supply wells located north of the project which are no longer used due to detection of PFAS in water drawn from the wells; however, water supply protections requirements continue to be in effect until the wells are disconnected from the water supply system. As described above, the stormwater management system has been designed to meet pre-treatment requirements of the SMS applicable to discharges within a Zone II. The Drinking Water Regulations at 310 CMR 22.21(2) identify land uses that are prohibited within a Zone II, including petroleum stations and terminals. The fueling facility appears to have been relocated to an area in the eastern part of the site that is not within the mapped Zone II and, according to the DEIR, will be designed and operated with spill prevention and containment measures; however, the DEIR did not review whether any piping or other structures for fueling will be located within the Zone II. As detailed below, the SDEIR should review how the project will comply with the land use prohibitions within a Zone II wellhead protection area,

According to the DEIR, separate domestic and fire protection mains will be constructed to supply water to each building from the Town of Bedford's water main in Hartwell Road. A domestic water main loop through the site will be constructed by connecting to the Town's water main at each of the site's two driveways on Hartwell Road. The fire protection water main will be sized to meet the demand of the largest hangar sprinkler. According to the DEIR, the Town of Bedford determined in 2021 that the water main in Hartwell Road can supply the project's domestic water needs; however, comments from the Town of Bedford indicate that additional analysis is required. However, an on-site water tank will be constructed to provide an adequate water supply to meet fire flow requirements. According to the DEIR, the project will meet Massport's Sustainability-Net-Zero-Resiliency Design Standards (SNZRS), which require that indoor water consumption be reduced by 20%. The project will minimize water use by implementing water conservation measures such as installing metering and sub-metering equipment for water distribution and using native and drought-tolerant plants in landscaping to minimize the need for irrigation. The Proponent will evaluate the feasibility of installing rainwater harvesting and greywater recycling systems in some of the hangars.

According to the DEIR, an on-site wastewater system will be constructed consisting of gravity service laterals, manholes, oil and grease separators connected to floor drains, and sewer lines.

Wastewater will be conveyed to a proposed pump station in the southeast corner of the project site, which in turn will convey wastewater to the Town's sewer main in Hartwell Road northeast of the project site. According to the DEIR, the Proponent funded a study conducted by an engineering firm hired by the Town to assess the capacity of the Town's sewer system to accommodate an additional flow of up to 12,200 gpd, and the analysis determined that the system has capacity available to accept project wastewater flows. However, I note that comments provided by the Town of Bedford indicate that analyses of the capacities of both the water and sewer systems in the vicinity of the site are necessary; the Proponent should address this concern in the SDEIR.

Noise

The DEIR evaluated noise impacts of the project by comparing Day-Night Sound Levels (DNL) under No Build 2030 and Build 2030 conditions. The 2030 No Build condition reflects noise levels associated with projected aviation activity at Hanscom Air Field in 2030 without the reduction in ferry flights due to the project assumed by the Proponent or any ground noise generated by any of the proposed activities at the project site. The 2030 Build condition reflects noise generated by fewer flights at Hanscom due to a reduction in the number of ferry flights the Proponent asserts will occur if the project is built, but includes noise generated by ground operations (such as airplane taxiing and idling) associated with the proposed hangars.

Noise levels were modeled the FAA's Airport Environmental Design Tool (AEDT) using 2022 flight track and aircraft identification data from Massport's Noise and Operations Monitoring System (NOMS). Ground noise was modeled using SoundPLAN modelling software, which, according to the DEIR, accounts for shielding and reflection effects of buildings in addition to the effects of ground elevation and ground cover. Sound contour maps were used to determine the number of people exposed to DNL sound levels of 60, 65, 70, and >75 dB, as well as the area subject to those noise levels. According to the DEIR, no residents under No Build 2030 or Build 2030 conditions will be exposed to DNL sound levels greater than 60 dB, which is below FAA's 65 dB threshold for compatible land use. In addition, the model indicates that the area and number of residents exposed to DNL levels of 60 dB is lower under Build 2030 conditions than under No Build 2030 conditions. According to the DEIR, noise from ground operations slightly expanded the 60 dB DNL contour in the vicinity of the project site, but sound levels were within the range of ambient noise or lower, and would not be likely to be intrusive to residents. The DEIR included a sensitivity analysis which modeled noise from ground operations if the proposed facility were to generate 24 or 48 flights per day rather than 12 flights per day as expected. The results of the sensitivity analysis indicated that doubling or quadrupling the number of daily flights would not cause noise levels from ground operations that exceed the normal range of everyday community sounds. As detailed in the Scope, the SDEIR should include a revised noise analysis based on increased aviation activity generated by the project.

Air Quality

The DEIR included an analysis of air emissions from aviation activity under 2030 No Build and 2030 Build conditions and other project activities as described below. As noted above, the No Build condition assumes full absorption of demand for aviation activity at Hanscom Field, while the Build condition is defined as a decrease in such activity due to a reduction in ferry flights. The analysis estimated emissions of the following pollutants: (i) Carbon Monoxide (CO); (ii) Oxides of Nitrogen

(NO_x); (iii) Volatile Organic Compounds (VOCs); (iv) Particulate matter (PM_{10} and $PM_{2.5}$); (v) Diesel PM; and (vi) Lead (Pb).

The DEIR also included an analysis of emissions of carbon dioxide (CO_2) and other Greenhouse Gasses (GHG) from aircraft, project-related motor vehicles, and stationary sources such as building heating and cooling systems; these emissions are reviewed below. The FAA's AEDT model was used to evaluate aircraft emissions based on 2022 NOMS data. Aircraft emissions were estimated for aircraft takeoffs, landings, ascent and descent to/from 3,000 ft, and ground operations such as taxiing and idling, with No Build condition assuming an increase to 137,073 aircraft operations as of 2030 (which is similar to the value presented in the 2022 ESPR). In addition, project-generated emissions from stationary sources, such as building heating and cooling systems, and mobile-sources were added to the emissions generated by aviation activity. The results of the analysis are shown in Table 6 below.

Table 6. Criteria Pollutant Emissions (tons per year) for 2030 No Build and 2030 Build conditions (Table 8-4 in the DEIR).

Aircraft Operations Case	Aircraft Operations	Relevant Criteria Pollutant Emissions (tons per year)						
		CO	VOC[1]	NOx[2]	SO_2	PM_{10}	$PM_{2.5}$	Lead[3]
2030 NO-BUILD CONDITION AIRCRAFT EMISSIONS BY AEDT OPERATIONAL CATEGORY								
Aircraft	137,073	442.99	64.22	50.01	7.56	1.478	1.478	0.2716
GSE	N/A	17.80	0.64	1.45	0.01	0.101	0.093	0
APU	N/A	15.34	0.27	3.41	0.64	0.520	0.520	0
2030 No-Build Condition Aircraft Operations Total Emissions[2]	**137,073**	**476.13**	**65.13**	**54.87**	**8.22**	**2.10**	**2.09**	**0.2716**
2030 PROJECT AIRCRAFT EMISSIONS BY AEDT OPERATIONAL CATEGORY								
Aircraft	133,530	432.74	60.44	47.30	7.15	1.402	1.402	0.2714
GSE	N/A	16.63	0.60	1.36	0.01	0.094	0.087	0
APU	N/A	14.53	0.26	3.22	0.61	0.492	0.492	0
2030 Build Condition Aircraft Operations Total Emissions[2]	**133,530**	**463.91**	**61.30**	**51.88**	**7.77**	**1.99**	**1.98**	**0.2714**
2030 Build Condition Employee Trips/Parking[4]	N/A	0.32	0.01	0.02	0.0002	0.01	0.002	0
2030 Build Condition Heating/Cooling[5]	N/A	0.93	0.35	0.41	0.0070	0.12	0.12	0
Net Change	**-3,543**	**-10.97**	**-3.50**	**-2.56**	**-0.44**	**0.02**	**0.01**	**-0.0002**

Source: HMMH January 2024

Notes:

1 Following standard industry practice, ozone was evaluated by evaluating emissions of VOC and NOx, which are precursors in the formation of ozone.

2 Operational emissions denote emissions associated with aircraft and related operations (i.e. GSE and APU) only.

3 Lead emission associated with aircraft utilizing avgas.

4 Mobile source emissions are detailed in Section 9

5 Stationary Source emissions energy usage detailed in Section 9 along with MassDEP emission factors

According to the DEIR, the results show that compared to 2030 No Build conditions, the project (2030 Build conditions) will result in a small decrease in emissions of all pollutants except for $PM_{2.5}$ and

PM_{10}, which will increase by 0.01 to 0.02 tpy due to new vehicle trips and emissions from building energy use. The DEIR asserts that emissions from aircraft operations will be lower under 2030 Build conditions than under 2030 No Build conditions because the project will result in an overall reduction in aviation activity by reducing ferry flights. According to the DEIR, emissions of none of the pollutants between 2030 No Build to 2030 Build conditions increased above the EPA's "de minimis" thresholds of 25 tpy for lead and 100 tpy for all other pollutants; therefore, the project complies with the National Ambient Air Quality Standards (NAAQS). I note that the "de minimis" thresholds are not applicable to this project as they apply to federal agency obligations for "nonattainment" or "maintenance" areas.[10]

Several commenters, including the Town of Bedford and the Hanscom Area Towns Committee (HATS), expressed concern about other air contaminants emitted by aircraft, including ultrafine particles (UFP). UFPs are particles with diameters of less than 0.1 micrometers, which is much smaller than the 2.5 micrometer size of particles measured as $PM_{2.5}$. According to the DEIR, EPA has not adopted a standard for UFP and has retained $PM_{2.5}$ NAAQS as the indicator for UFP. According to the DEIR, Massport is supportive of a FAA-funded research study on UFPs that includes measurement of air quality in the vicinity of Logan Airport to determine variations in the contribution of aviation emissions to ground level air pollutant concentrations, including UFP, by location and over time. Massport is also working with researchers from area universities to try to identify aircraft-specific related UFPs in an urban environment with numerous non-airport related UFP sources. I note reference in comments to a study by Professor Neelakshi Hudda, Ph.D., Department of Civil and Environmental Engineering at Tufts University, who was commissioned by the four Hanscom-area towns, the Hanscom Field Advisory Committee, and Massport Community Advisory Committee. The study is described as reviewing five particles with chemical signatures specifically associated with jet aviation fuel emissions around Hanscom airport, and is anticipated to be released in October 2024. Professor Hudda submitted a comment letter through her environmental consulting firm that summarized the results of air quality measurements collected earlier this year during the months of February to April 2024.[11] The comment letter indicates that measurements of UFP concentrations exceeded both "low" and "high" thresholds recommended by the World Health Organization (WHO) at sampling sites in the vicinity of Hanscom Field and up to 1 mile away. The comment letter recommends that the SDEIR provide a baseline assessment of UFP concentrations through AEDT modeling and "contour maps" similar to other air and noise impacts. The SDEIR should address the suggestions in comments from Environmental Monitoring Partners, LLC, and discuss the results of the full study conducted by Professor Hudda if available by the time of filing.

The DEIR analysis did not directly compute missions generated by the estimated 12 flights per day that will be taken by aircraft housed in the proposed hangars. Instead, it assessed the emissions from projected levels of aviation activity at Hanscom under 2030 No Build conditions, which the Proponent asserts includes the aviation activity from aircraft to be stored at the proposed hangars, and 2030 Build conditions, which according to the DEIR includes a lower level of aviation activity due to a reduction in ferry flights caused by the project. The SDEIR should provide a straight-forward calculation of emissions and air pollutants associated with the anticipated 12 flights per day, in addition to any more flights that are projected based on a study of induced demand. As stated in the Scope, the SDEIR should clarify the extent to which business aviation activity would occur in the absence of the project.

[10] General Conformity | US EPA

[11] Comment letter submitted by Neelakshi Hudda, Environmental Monitoring Partners LLC, on June 12, 2024 via the Public Comments Portal.

I note that the IEc study, which presented a competing analysis of ferry flight behavior, utilized a "fuel consumption based" methodology that takes into account fuel consumption over the entire duration of a flight, as opposed to only the take-off and landing periods. The SDEIR should present the emissions estimates associated with the number of flights asserted to result from hangar usage using both the AEDT and fuel-consumption-based model. As indicated in the Scope, a social cost of carbon assessment should be conducted relative to the increase in GHG emissions attributable to the project.

Climate Change

Adaptation and Resiliency

As previously described in the ENF, data available from the MA Resilience Design Tool indicates that the project has a "High" exposure rating based on the project's location for urban flooding associated with extreme precipitation and extreme heat. The site is not within the 100- or 500-year FEMA floodplain. Based on the 40-year useful life identified for the hangars, the MA Resilience Design Tool recommends a planning horizon of 2070 and a return period associated with a 25-year (4% annual chance) storm event when designing for extreme precipitation and the 90th heat percentile when planning for extreme heat conditions. As noted above, the proposed stormwater management system will be sized to accommodate the projected 24-hour precipitation depth (8.4 inches) from a 2070 25-year (4% chance) storm event. The proposed buildings will be designed in accordance with Massport's Floodproofing Design Guidelines which requires buildings to be elevated at least four feet above the base flood elevation of 126.5 ft NAVD 88 established by Massport for Hanscom Field; the proposed buildings will be located a minimum of 7.25 ft above the base flood elevation.

The project includes significant tree clearing and will add approximately 33 acres of impervious area, which will contribute to urban heat island effect. The project design includes measures to minimize heat island effect, including the use of approximately 1.1 acres of high albedo concrete in airside areas and 0.75 acres of permeable pavement systems such as grass block pavers. As detailed in the Scope, the SDEIR should review alternative designs that minimize impervious area and additional Low Impact Design (LID) techniques to mitigate urban heat island effect. The SDEIR should consider tree plantings and other measures to mitigate for the carbon and heat impacts of tree clearing.

Greenhouse Gas (GHG) Emissions

The DEIR included an analysis of the project's GHG emissions from aviation activity, energy use by proposed buildings (stationary sources) and transportation-related emissions (mobile sources). The DEIR outlined and committed to mitigation measures to reduce GHG emissions.

Aviation Activity

GHG emissions from the same sources as were evaluated for criteria pollutants were also calculated using FAA's AEDT model and 2022 NOMS data, as shown in Table 7 below. As noted above, these sources include aircraft takeoffs, landings, ascent and descent to/from 3,000 ft, and ground operations such as taxiing and idling; stationary sources, such as building heating and cooling systems; and mobile-sources, such as automobile and truck trips associated with employees and deliveries to the

site. According to the DEIR, GHG emissions from aviation activity will decrease slightly due to a reduction in ferry flights. However, there will be a small increase in GHG emissions under 2030 Build conditions compared to 2030 No Build conditions due to the added vehicle trips and energy use of buildings.

Table 7. GHG Emissions (tons per year) for 2030 No Build and 2030 Build Conditions in Comparison to MassDEP's GHG Inventory (Table 8-5 in the DEIR).

Aircraft Operations Case	Aircraft Operations	Relevant GHG Pollutant Emissions (Short-tons per year) CO_2
2030 No-Build Condition Aircraft Operations[1,2]	137,073	30,686.61
2030 Build Condition Aircraft Operations[1,2]	133,530	29,009.07
2030 Build Condition Employee Trips/Parking	N/A	56.2
2030 Build Condition Heating/Cooling	N/A	2,200
Net Change	**-3,543**	**578.7**
2020 Massachusetts MADEP Annual GHG Emissions[5]		**58,137,201**
Project Net Change percentage compared to 2020 MADEP Inventory		**0.001%**

Source: HMMH January 2024
Notes:
1 GHG emissions were calculated based off AEDT fuel burn values, consistent with the latest FAA guidance.
2 JET-A fuel emission factors were utilized in the calculation of operational GHG's for all conditions.
3 Mobile source emissions are detailed in Chapter 9 – Climate Change.
4 Stationary Source emissions energy usage detailed in Chapter 9 – Climate Change.
5 Massachusetts DEP Annual Greenhouse Gas Emission Inventory 1990-2020, Appendix March 2023.

As noted above, the DEIR did not directly compute emissions generated by the estimated 12 flights per day that will be taken by aircraft housed in the proposed hangars, but rather compared emissions from the 20030 No Build and 2030 Build scenarios as described above, which accounts for a significant reduction in ferry flights. I note that the IEc report estimated GHG emissions of 2,124 metric tons per aircraft per year; based on their estimate that at least 66 aircraft will be stored at the proposed hangars, aviation activity associated with the project will generate approximately 133,000 tpy of GHG. As detailed in the Scope, the SDEIR should include an estimate of air emissions for aircraft associated with the project based on revised calculations of aviation activity and ferry flight reductions. Estimates should be presented using both the AEM and fuel-based-consumption models, and an SC-C assessment should be provided.

Stationary Sources

The stationary source GHG analysis used eQuest modeling software to evaluate CO_2 emissions from the buildings based on a prototype hangar design and designs of the Navy Hangar renovation and aviation support building. The analysis compared emissions from a Base Case scenario under which buildings were design to meet the minimum requirements of the Building Code, and a Design case which includes additional GHG mitigation measures incorporated into the building designs.

The stationary source CO_2 emissions from the proposed buildings under the Design Case were estimated at 2,200 tpy, a reduction of 25% (738 tpy) compared to the Base Case design based on the

2023 Stretch Code. According to the Department of Energy Resources (DOER), the project design as modeled in the Proposed Case includes significant measures that will minimize GHG emissions from the proposed buildings, including:

New Hangars

- Total EUI is 46 kBtu/yr-sf, of which gas accounts for 3 kBtu/yr-sf.
- Vertical envelope performance of U-0.04.
- Roof performance of U-0.03, with continuous insulation.
- Low window to wall ratio of 1.40%.
- Air leakage rate of building envelope of 0.30 cfm/sf.
- The standard hangar buildings will be heated and ventilated only. Heating will be provided by air to water heat pumps, with auxiliary gas fired condensing boilers which will only operate at very low winter design temperature.
- The office spaces within the standard hangar buildings will be space conditioned with air source heat pumps with no gas.
- Domestic hot water will be provided by heat pump water heater heaters.

Navy Hangar Renovation

- Total EUI is 42 kBtu/yr-sf, of which gas accounts for 1 kBtu/yr-sf.
- Vertical envelope performance of U-0.032.
- Roof performance of U-0.03.
- Window to wall ratio of 13.59 %.
- Air leakage rate of building envelope of 0.30 cfm/sf.
- Heating will be provided by air to water heat pumps, with auxiliary gas fired condensing boilers which will only operate at very low winter design temperature.
- The office spaces within the standard hangar buildings will be space conditioned with air source heat pumps with no gas.
- Domestic hot water will be provided by heat pump water heaters.

Aviation Support Building

- Total EUI is 36 kBtu/yr-sf, of which gas accounts for 0.36 kBtu/yr-sf.
- Vertical envelope performance of U-0.05.
- Roof performance of U-0.03, with continuous insulation.

In addition, 60 parking spaces will be equipped with electric vehicle (EV) charging stations and the remaining 180 spaces will be constructed to be EV-ready. The Proponent will provide four EV charging stations for public use and will provide electrical infrastructure to facilitate future use of the hangars by electric airplanes.

The Town Bedford has adopted the Specialized Code, which goes into effect in July 2024; therefore, the project will be subject to the Specialized Code design requirements. According to DOER, the project design should be revised to comply with either the All-Electric (CC104) or the Mixed-Fuel

(CC105 and CC106) pathways of the Specialized Code, in addition to the design commitments listed above which meet the existing Massachusetts Stretch Energy Code.[12] The Mixed-Fuel pathway requires the installation of high-efficiency equipment, pre-wiring for any buildings with fossil fueled equipment, and on-site renewable generation (photovoltaic PV solar systems); for this project 783,570 watts (1.5 watts per sf) of PV generating systems must be installed with no caveats (such as "subject to interconnection").

According to the DEIR, subject to interconnection availability determined by the electric utility, the project will install rooftop PV systems totaling 7,584.9 kiloWatts (kW), with a generating capacity of approximately 8,511,976 kW-hours (kWh), or approximately 8.5 megawatt-hours (MWh). As noted above, a minimum 783,570-watt (783.57 kW) PV system must be installed if the Proponent chooses to comply with the Mixed-Fuel pathway. The SDEIR should confirm the interconnection capacity available to the project.

Mobile Source Emissions

The DEIR analyzed the project's mobile-source emissions of CO, NOx, VOC, PM_{10}, $PM_{2.5}$ and CO_2 using the EPA's MOVES3 emissions model. The MOVES3 model calculates estimates of emissions for vehicles expressed in a volume per distance travelled (vehicle miles travelled or VMT). Because a full traffic analysis was not conducted for the project, the analysis used the project's trip generation as calculated above and trip distribution data provided in the 2017 ESPR to estimate VMT. Emissions from trucks idling on-site were also calculated. According to the DEIR, it is not possible to establish Existing, No Build, and Build conditions without the data that would be available had a full traffic analysis been conducted; therefore, the analysis provided an estimate of emissions associated with project-generated vehicle trips only. As noted above, the project's trip generation is well below levels that would typically require a full transportation analysis. According to the DEIR, the project's mobile-source emissions are low due to the low volume of peak period trips generated by the project, and may be minimally reduced further (by approximately 2%) with the implementation of the TDM program.

The project's mobile source emissions are shown in Table 8 below, which indicates an increase in CO_2 emissions of 57.4 tpy associated with the 194 new adt of vehicular traffic associated with the project. Other air pollutants are projected to increase by much lower amounts. With assumed 2% mitigation due to TDM (transportation demand management) measures, the CO_2 emissions impact is reduced to 56.2 tpy as shown in Table 9 below.

[12] Additional information on the Specialized Code can be found at: https://www.mass.gov/info-details/stretch-energy-code-development-2022.

Table 8. Emissions from project-generated vehicle trips (Table 9-11 in the DEIR)

Source	CO (tpy)	NOx (tpy)	VOC (tpy)	PM_{10} (tpy)	$PM_{2.5}$ (tpy)	CO_2 (tpy)
Moving Emissions[1]	0.33	0.02	0.01	0.01	0.002	57.0
Truck Idling[2]	0.001	0.002	0.0002	6E-05	5.7E-05	0.4
Total	0.33	0.02	0.01	0.01	0.002	57.4

1. Emissions of all project trips traveling within the ESPR study area.
2. Emissions of project-generated trucks idling on-site per the requirements of 310 CMR 7.11.

Table 9. Mitigated mobile-source air emissions (Table 9-12 in the DEIR)

Table 9-12 Mitigated Landside Mobile Source Emissions

Source	CO (tpy)	NOx (tpy)	VOC (tpy)	PM_{10} (tpy)	$PM_{2.5}$ (tpy)	CO_2 (tpy)
Project-Generated	0.33	0.02	0.01	0.01	0.002	57.4
TDM Reduction[1]	-0.01	-0.0003	-0.0001	-0.0002	-0.00004	-1.1
Mitigated Total	**0.32**	**0.02**	**0.01**	**0.01**	**0.002**	**56.2**

1. Estimated two percent reduction applied to project-generated "Moving Emissions".

As shown above, the DEIR acknowledges the 56.2 tpy of mobile source emissions as a new impact of the project. The SDEIR should clearly indicate whether the estimated adt for the project and associated emissions fully accounts for vehicular trips associated with flight activity, and present the methodology by which this number was estimated. The SDEIR should clarify the geographic area over which the VMT estimate was calculated for the project, and also present an estimate of "total" VMT for the project, taking into account the full distance of trips to and from the site, using publicly available resources.[13]

Mitigation

As discussed, the question of whether the project will increase or decrease GHG emissions associated with flight activity is a central inquiry that must be further explored in the SDEIR. The SDEIR must fully explain why an expansion in hangar capacity has no relation to increased flight activity, and, even if the project is intended to address based aircraft only, why the project proposed to build more capacity than projected in the ESPR. Based on revised analysis, the SDEIR should present a revised assessment of the project's GHG impacts. Absent full justification, the SDEIR should assume that the entirety of the 12 additional flights (or higher number based on an assessment of hangar capacity) are new impacts associated with the project, and calculate the associated GHG emissions. The SDEIR should propose mitigation commensurate with level of impacts, including by quantifying the GHG benefits associated with measures already proposed such as EV charging and solar installation. The SDEIR should not take credit for any measures for which actual implementation is not yet definitive

[13] For instance, the Federal Highway Administration maintains data on average VMT by state, and the Bureau of Transportation Statistics provides estimates of average trip distances by county. These resources could be used to estimate a project total VMT associated with the new trips associated with the project.

(such as solar installation or usage of SAF fuel). The SDEIR should present a potential phased construction approach, whereby the minimum necessary infrastructure could be built with additional phases contingent on additional environmental reviews and implementation of mitigation measures.

Cultural Resources and Open Space

The site is in an area considered to be archaeologically sensitive due to the proximity of known historic period and ancient Native American archaeological sites; in addition, it is in proximity to the Minute Man National Historical Park, the Minute Man National Historical Park Historic District (which is listed in the National Register of Historic Places), and the U.S. Fish and Wildlife Service's (USFWS) Great Meadows National Wildlife Refuge. According to the DEIR, the Navy Hangar, also known as the Raytheon Flight Test Facility (BED.555) has been determined to be eligible for listing in the National Register of Historic Places.

The DEIR included a survey and assessment of historic and archaeological resources within a study area extending 0.25 miles away from the project site. A total of 29 individual historic resources were identified within this area, including six properties in MHC's Inventory, nine un-surveyed buildings on Hanscom Field that are over 50 years old but outside the study area, and14 un-surveyed properties over 50 years old within or just outside of the study area. According to the DEIR, the Navy Hangar is the only historic resource within the study area that is eligible for listing in the National Registe. In addition, two potentially National Register-eligible resource groups that together encompass 11 historic resources are partially located within the study area, approximately 1,000 to 1,500 ft away from the project site. As noted below, MHC believes that the DEIR assessed a limited area of potential effects and did not adequately assess impacts to historical resources; this analysis should be revised in accordance with the Scope below.

The DEIR reviewed potential impacts of the project on the National Register-eligible or potentially National Register-eligible resources within the study area. The Navy Hangar will be directly impacted by the proposed renovation of the building; however, the Proponent intends to rehabilitate the building in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties under state and federal historic rehabilitation tax credit programs. According to the DEIR, the Navy Hangar will not be impacted by the project because it was originally constructed for aviation purposes and will continue to be used for that purpose. The DEIR asserts that the project will have no impacts on the potentially National Register-eligible properties because of their distance from the project site. An intensive (locational) archaeological survey was conducted at the site, but no archaeological resources were identified.

Comments submitted by MHC, the National Park Service (NPS)/Minute Man National Historic Park and the U.S. Fish & Wildlife Service (USF&W)/Great Meadows National Wildlife Refuge indicate that the assessment of potential impacts on historical and natural resources is not adequate, and expressed concern that the project will exacerbate noise and other impacts associated with Hanscom Field on important historical, cultural, and natural resources that surround the airport. As previously noted, the Proponent must prepare an SDEIR that includes a revised analysis of the project's effects on aviation activity levels at Hanscom Field and associated impacts, including noise and other impacts on cultural and natural resources. The SDEIR should provide a revised analysis in accordance with the Scope below.

Construction Period

The DEIR reviewed impacts of the project that will be generated during the construction period and identified potential mitigation measures to minimize impacts. The project will be constructed in overlapping phases over a period of approximately 30 months. The Proponent intends to complete the majority of the site grading, stormwater management system, utilities, and landscaping in the first phase to facilitate construction of later phases. Construction activities will be conducted on weekdays between the hours of 7:00 AM to 3:00 PM. According to the DEIR, high levels of construction noise will not be experienced in surrounding residential areas due to the distance between the site and most residences and natural shielding provided by trees, hills, and buildings that will reduce noise propagation. In addition, the Proponent will develop a Construction Management Plan that addresses measures to mitigate construction period impacts, including:

- Use of noise reduction systems on construction equipment;
- Dust control measures such as street sweeping, spraying water on soil at the site, limits on idling time by construction vehicles, street sweeping, covering trucks transporting excavated or aggregate material, vehicle washing, and covering piles of excavated material;
- Require contractors to adhere to limits on construction vehicle idling by turning off engines after three to five minutes of inactivity;
- Use of ultra-low sulfur diesel (ULSD) fuel in construction vehicles;
- Use of after-engine emissions controls on construction equipment such as diesel oxidation catalysts or diesel particulate filters;
- Implementation of a Stormwater Pollution Prevention Plan (SWPPP) to minimize sedimentation and erosion caused by runoff;
- Divert 95% of construction and demolition(C&D) debris from landfills and incineration facilities to reuse and recycling

As noted above, the project includes significant earth work to establish final site grades. According to the DEIR, the Proponent expects 4,250 total truck trips will be necessary to transport 80,000 cy of excavated material off-site, in addition to 2,800 trips by construction trucks during the 30-month (600 workdays) construction period for a total of 7,050 truck trips (12 trips per workday). Additionally, FAA-approved structural soil will be imported to the site for use in areas that will be subjected to aircraft loads, such as ramps and hangar slabs; however, the DEIR did not provide an estimate of the volume of structural soil that will be delivered to the site or the number of truck trips needed to deliver the material. This information, taking into account any potential requirements related to the transport of contaminated materials from the site or limits on reuse of excavated soil, should be provided in the SDEIR, as well as an analysis of any additional impacts not identified in the DEIR. According to the DEIR, construction vehicles will travel between the site and I-95 via Hartwell Road, Route 62/Concord Road and Great Road, which has previously been used as a construction route for projects at Hanscom Field.

SCOPE

General

The SDEIR should follow Section 11.07 of the MEPA regulations for outline and content and provide the information and analyses required in this Scope. It should clearly demonstrate that the Proponent will avoid, minimize and mitigate Damage to the Environment to the maximum extent practicable through project alternatives and design. As discussed above, the DEIR presents a "No Build" condition that simply assumes, without analysis, that future demand for business aviation activity will be fully absorbed without consideration of the effect of infrastructure changes such as the hangar expansion proposed here. This could have the effect of understating the full impact of the project. The SDEIR should provide revised analysis and assessment to fully and accurate describe the impacts of the project in terms of air, traffic, noise and other topic areas. Based on this assessment, appropriate mitigation measures should be provided, including consideration of additional project alternatives to avoid and minimize impacts. The No Build alternative should continue to be carried, until adequate justification is provided for a Preferred Alternative.

Project Description and Permitting

The SDEIR should identify any changes to the project since the filing of the DEIR. It should include site plans depicting existing and post-development conditions at a legible scale which identify site grades, buildings, impervious areas, stormwater and utility infrastructure, above- and below-ground structures, and resiliency and other mitigation measures. The SDEIR should identify and describe State, federal and local permitting and review requirements associated with the project, including the NEPA review of the project, specific local approvals needed, and FAA approvals, provide an update on the status of each of these pending actions, analyze applicable statutory and regulatory standards and requirements, and provide a discussion of the project's consistency with those standards. The SDEIR should confirm whether permits from the Town of Bedford will be required for activities on those portions of the site to be transferred in fee from Massport to the Proponent.

According to the DEIR, the Proponent will transfer land to Massport that will enable continuation of the existing Vehicle Service Road (VSR) to the project site. The SDEIR should identify the land to be transferred for this purpose, provide a conceptual description of the VSR and its purpose, and identify any potential impacts associated with its construction and operation.

This Scope requires significant additional information and analysis of the project and its impacts, including additional analysis documenting the level of aviation activity associated with the project. In addition, the Proponent may elect to make changes to the project design in response to issues identified in comments. Based on updated aviation activity estimates and any changes to the project design, the SDEIR should revised analyses of the project's impacts as detailed below. The SDEIR should provide a clear statement of purpose and need for the project, including whether the project seeks to meet demand for all business aviation activity, or only "based aircraft." If the latter, the SDEIR should explain how the Proponent's business model differs from FBOs and what constraints (beyond leasing terms) would be in place to ensure that "itinerant" aircraft would not utilize the hangar spaces offered by the Proponent. The SDEIR could discuss why the Proponent's business model is viewed as only potentially reducing ferry flights, and not initiating new ferry flights to other locations (for instance, by relocating a

time-share operator at Hanscom).

Activity Levels and Ferry Flights

As detailed above, the IEc study presents an alternative quantitative assessment of ferry flights, but uses different assumptions and definitions to arrive at its conclusions. The SDEIR should provide a thorough review of the criteria for ferry flights used in the IEc analysis, provide responses and justifications for any criteria the Proponent elects to dismiss, and refine the ferry flight criteria used in the DEIR analysis based on any criteria that the Proponent chooses to adopt. In particular, the SDEIR should justify the use of a 350-mile radius around Hanscom and a ground time of up to 18 hours rather than a shorter period of ground time, and should explain why itinerant aircraft (i.e., any aircraft that is not a tenant of Hanscom) was included in the DEIR analysis and not just "based aircraft" that may be likely to relocate to Hanscom as long-term tenants as asserted by the Proponent. The SDEIR should assess the likelihood that aircraft engaging in flights to/from Hanscom would benefit from relocating to the proposed hangar space, for instance, "time share" operators like the Pilatius PC-12 aircraft that currently operates predominantly from Portsmouth, NH. Because the IEc study used flight tracking data and not data from Massport's NOMS system, the SDEIR should provide a sensitivity analysis that accepts all the criteria used to define ferry flights in the IEc study and report on the number of potential reductions in ferry flights that results if using the NOMS system to generate the data. The SDEIR should review the potential for hangars already constructed at Hanscom in or after 2022 to reduce ferry flights that the DEIR assumed would be eliminated by the project. At the Proponent's election, the SDEIR may present a new ferry flight analysis performed by an independent third-party reviewer, and should take input from EEA and MEPA Office prior to selection of the reviewer.

The SDEIR should provide additional analysis in support of the assertion that the project will not increase the number of flight operations at Hanscom Field as a result of induced demand associated with available hangar space. It should review academic literature and practical guidance, including FAA and Federal Highway guidance, to describe how the potential for induced demand is described in these sources. The SDEIR should discuss the impact on aircraft operations of similar hangar expansion at comparable airports and identify a relationship between increased hangar space and aircraft operations that may be applicable to Hanscom. It should provide a more detailed assessment of past hangar expansions at Hanscom, including dates of construction, types of aircraft stored at the hangars, and trends in the operations of the types of aircraft stored (i.e., whether increased hangar space for jets results in increased operations by jets). The SDEIR should specifically describe whether past hangar expansion proposed long-term aircraft storage (as opposed to short-term storage for itinerant uses) and whether the expansion was correlated with increase in based aircraft numbers. The SDEIR should what level of business aviation demand can be absorbed given the current infrastructure constraints, and what additional demand would result as a result of the proposed hangar expansion. As with ferry flight analysis, the Proponent may present a third-party study to justify its claims regarding induced demand, and should take input from EEA and MEPA Office prior to selection of the reviewer. The DEIR simply assumes, without documentation or analysis, that the future "No Build" condition would reflect full absorption of business aviation demand with or without the project. Unless a full justification of this assertion if presented, the SDEIR should assume that all projects flights that will result from the new hangars are new impacts associated with the project, and propose appropriate mitigation measures.

The SDEIR should clarify what level of demand the project is actually intending to meet—all business aviation activity vs. "based aircraft" activity—and explain why the project appears to be

building more infrastructure than actual projections for based aircraft as presented in the ESPR. Using data from the 2022 ESPR, including the availability of hangar space not accounted for in the DEIR, the SDEIR should reassess the extent to which the flight operations associated with the proposed hangars are contained within or exceed the 2022 ESPR projections of aircraft operations. In particular, the SDEIR should report on the number of new hangars currently planned or in construction (other than through this project) that could absorb the projected 2022 ESPR demand of 20 new based aircraft by 2030 and 25 additional aircraft by 2040. The SDEIR should explain why the project is not proposing hangar space to meet only the incremental increase *beyond* already planned expansions, and whether the additional demand is intended to induce further demand beyond 2022 ESPR projections. In particular, the SDEIR should further explain how the proposal to add four new 20,000-gallon Jet A Fuel/SAF and one 5,000-gallon AVGas underground storage tanks correlates with the expected number of flights to be associated with the new hangar space. The SDEIR should also indicate the number of aircraft that would be required to sign leases with the Proponent in order to reach profitability, and how that number correlates to the number of hangar spaces planned for the project. The SDEIR should discuss whether the new hangars could accommodate up to 66 to 79 aircraft, as indicated in the IEc study, and clearly explain the reasons why this level of expansion is not possible and/or would be prohibited with leasing terms to be implemented by the project. The SDEIR could discuss whether the Proponent's business model targets aircraft operators (not just individual aircraft owners), such as time-share operators, and if so, why the relocation of such operators would not result in more ferry flights to and from Hanscom (as opposed to other base locations). As discussed below, the SDEIR should present a Reduced or Phased Build Alternative that limits growth to the actual projections for based aircraft as presented in the 2022 ESPR, with conditions for additional environmental reviews (such as the filing of Notices of Project Change (NPCs)) if additional expansion is proposed.

The SDEIR should provide more information on existing waitlists managed by FBOs at Hanscom, including the number of customers on the waitlist, the number that could be characterized as "itinerant" versus "based" aircraft clients/operators, and the number that could reasonably be anticipated to relocate to Hanscom as long-term hangar tenants should the project be completed. The SDEIR should report on the number (and percentage) of waitlist customers that could be accommodated with already planned hangar expansions, and explain the reasons why. As indicated, the SDEIR should clearly explain why the already planned hangar expansions through FBOs are viewed to be insufficient to meet the waitlist demand, and how the Proponent has determined that the waitlist includes customers seeking to base aircraft at Hanscom as indicated in the DEIR. The SDEIR should explain why the Proponent views the customers on the waitlist to be different from the ferry flight operators shown in the IEc study, which concluded that existing ferry flight behavior does not indicate a strong likelihood that operators have any incentive to relocate to Hanscom as their base of operations.

Alternatives Analysis

The Proponent has asserted that the project will not cause an increase in aviation activity above the levels projected in the 2022 ESPR. However, as detailed above, the DEIR does not support that conclusion and, in fact, proposes to construct hangar capacity that appears to exceed projections for based aircraft in the ESPR. The SDEIR should include a supplemental analysis which evaluates alternatives designed to meet the project purpose of accommodating the need for hangar space to absorb demand, in particular, in light of the stated goal of incentivizing usage of hangars by "long-term" tenants of Hanscom as opposed to "itinerant" or "transient" passengers. At a minimum, the SDEIR should

evaluate the alternatives described below; however, I encourage the Proponent to develop and evaluate additional alternatives that achieve the same goals.

The DEIR asserted that only the FAA can restrict aircraft activity and that therefore the Proponent cannot implement operational measures and incentives to minimize aviation activity by tenants of the proposed facility. The SDEIR should review operational measures that could be implemented through lease arrangements with tenants of the hangars, such as limits on the use of aircraft stored at the facility to conduct ferry flights, minimum passenger levels per aircraft, and participation in flight sharing and matching services.

The DEIR included an analysis of a Reduced Build Alternative, which has been adopted as the Preferred Alternative, with fewer hangars than proposed in the ENF and a design that reduced proposed impervious area and land alteration, but resulted in an overall increase in building square footage. The SDEIR should include an analysis of a revised Reduced Build Alternative involving a reduced building footprint and a design that minimizes tree clearing, land alteration and regrading, and impervious area. The SDEIR should also analyze a Reduced Build Alternative that avoids construction of buildings in areas that may require remediation based on ongoing investigations of PFAS contamination and/or other analyses conducted in connection with remediation of the Superfund sites. The SDEIR should assess a Reduced Build Alternative that builds no more hangar capacity than what is actually projected for based aircraft in the 2022 ESPR (minus capacity that is already planned or under implementation through FBOs).

The SDEIR should review phased buildout alternatives based on the factors described herein. Given hangar development already in progress, as described in the 2022 ESPR, the SDEIR should explain in greater detail why a delay in completing the project until after 2030 is not feasible. The SDEIR should also review an alternative that provides space for based aircraft consistent with Massport's projections in the 2022 ESPR (minus any demand to be met with already planned construction of hangars), with any additional buildout to be proposed only if warranted due to demand; this would be similar to a land banking approach for vehicular parking. A phasing plan should also address the feasibility of conditioning future development on the anticipated timing of implementation of mitigation measures such as SAF and plane electrification, and/or based on a demonstration that a projected reduction in ferry flights was achieved based on criteria such as those in the IEc study that do not include existing "itinerant" flight conduct. Finally, the SDEIR should analyze a phased buildout alternative whereby development is proposed in coordination with superfund investigations and remediation activities. A phasing plan should include a proposal for future environmental reviews, such as NPC filings through the MEPA process.

The DEIR also did not evaluate an alternative that mandates the use of sustainable aviation fuel (SAF) by a date certain, as required by the prior Scope. The SDEIR should discuss the feasibility of this alternative, in light of known developments in SAF technology and supply chains, and propose a phasing framework by which buildout could be conditions on availability of SAF fuels.

Environmental Justice

The Proponent should continue to engage the public through meetings and by providing informational materials, and should continue to utilize a 5-mile radius for purposes of EJ outreach. One

or more public meetings should be conducted while preparing the SDEIR to solicit ideas and feedback, and at least one meeting should held to present preliminary results of any new analysis prior to filing the SDEIR. The SDEIR should report on the Proponent's public outreach measures, and should report on any changes made to design in response to comments. The SDEIR should indicate how the Proponent will keep track of comments and feedback received, and reflect, in written form, any responses provided and/or design changes made in response to public feedback.

The SDEIR should provide a revised survey of baseline environmental and health indicators over a 1-mile radius, which should be measured around the outer boundaries of the entire airport as shown in the 2022 ESPR; this radius is larger than the radius surveyed in the DEIR, and includes additional residential areas. In addition to the indicators from the DPH EJ Tool and EPA EJ Screen surveyed in the DEIR, the SDEIR should also survey the six health indicators included in MassDEP's cumulative impact analysis (CIA) framework that was recently finalized.[14]

The SDEIR should provide an updated assessment of all relevant impacts around the project site, based on the revised assessment of project impacts provided in accordance with the Scope.

Public Health

As discussed below, the SDEIR should include particular analysis of the project's potential to interfere with ongoing Superfund remediation activities that could impact soil, water and groundwater quality in the area. The SDEIR should discuss a comprehensive discussion of safety protocols that will be implemented to prevent and address fuel spills, and how those protocols will apply to the new fuel storage facility and underground storage tanks. The SDEIR should present a worse case scenario that assumes accidental spills or all fuel to be stored on site, and indicate the potential impacts to surrounding soil and water resources, including to wellhead areas and surrounding wetlands and waterbodies. The SDEIR should discuss whether such worst case scenario could disproportionately impact residents based on the survey of health indicators described above.

As noted, comments from Environmental Monitoring Partners, LLC indicates that preliminary sampling of UFP emissions in the vicinity of Hanscom Field, and up to 1 mile away, showed emission levels that exceeded certain "low" and "high" thresholds recommended by the WHO. As discussed below, the SDEIR should discuss the recommendations in this comment letter and describe the findings of the UFP study commissioned by surrounding towns if available by the time of filing. The comment letter suggests the creation of "contour maps" similar to noise impacts showing the extent of dispersion of UFP emissions. To the extent such contour maps show potential UFP emissions extending beyond 1 mile around the outer boundary of Hanscom Field as described above, the SDEIR should provide updated data from the DPH EJ Tool and EPA EJ Screen surveyed in the DEIR, as well as the six health indicators included in MassDEP's CIA framework.

The SDEIR should provide additional information on air, noise, traffic, and climate change impacts, as stated below.

[14] https://www.mass.gov/doc/guidance-for-conducting-cumulative-impact-analysis-for-air-quality-comprehensive-plan-applications-march-28-2024/download

Hazardous Waste

State and federal agencies involved in the investigation and remediation of hazardous waste at the site submitted comments which questioned the how the proposed construction and operation of the facility has been designed to accommodate these ongoing efforts and to minimize exposure to contaminated soil and groundwater. In addition, the agencies identified significant omissions or erroneous statements in the DEIR regarding the status of investigations and remediation activities at or near the project site, requirements associated with LUCs imposed in the area, and the potential for ongoing investigations to further impact the site. As noted above, the project includes excavation of approximately 80,000 cy of soil on the site, including from areas which potentially may contain contaminants in the soil or groundwater, the presence of which may have implications for the location and design of proposed buildings and stormwater management facilities. Consistent with the prior Scope, I am directing the Proponent to proactively engage with regulatory agencies and consider the implications of potential subsurface contamination on the project design and construction. The SDEIR should include a comprehensive narrative which responds to comments provided by MassDEP, EPA, and the Air Force, which are incorporated herein. The SDEIR should evaluate alternative building locations and construction phasing that demonstrate that the project can be remediation of Superfund sites. Because construction period activity could potentially interfere with ongoing remediation activities, the SDEIR should propose conditions, in consultation with regulatory agencies, that would govern excavation and other construction activities and mechanisms for monitoring and enforcing those conditions. A conceptual agreement on such conditions should be reached with regulatory agencies by the conclusion of MEPA review, so as to demonstrate appropriate mitigation measures for construction period impacts.

Land Alteration

The SDEIR should clarify the volumes, locations and elevations of proposed excavations and fills, including the need for structural soil and any handling, treatment, and disposal requirements for contaminated soil. The SDEIR should provide total cut and fill volumes in addition to net cut and fill volumes, and clarify the amount of material to be transported to and from the site.

The SDEIR should identify mitigation measures commensurate with the project's impacts on the site's capacity to sequester and store carbon. The Proponent is encouraged to consult with the MEPA Office to determine options for mitigation. In addition to the tree planting program conducted in cooperation with the Town of Bedford proposed in the DEIR, the Proponent could consider permanent Conservation Restrictions (CRs) and acquisitions to protect forested lands, tree replanting in EJ neighborhoods or other areas identified as lacking tree canopy or experiencing extreme heat risks, and monetary contributions to support community wood banks or other efforts to mitigate heat and water quality burdens in surrounding neighborhoods. The SDEIR should include a commitment to reuse of cleared trees for long-lived wood products to the greatest extent practicable and should indicate how the ultimate disposition of the trees will be tracked and documented.

Stormwater

The SDEIR should provide an overlay of the proposed stormwater management system on maps of rare species habitat and areas where investigation and remediation of potential soil and groundwater

are or will be undertaken. It should provide additional analyses regarding the proposed infiltration systems and their potential to affect plumes of contaminated groundwater. I recommend that the Proponent reevaluate ethe proposed stormwater management system after meeting with agencies overseeing the investigation and remediation of contaminated sites in the area. If necessary, the SDEIR should provide revised plans and stormwater calculations for changed components. As detailed below, it should review alternative locations for structures currently proposed in rare species habitat.

Traffic and Transportation

The SDEIR should clarify proposed routes to be used by construction and delivery vehicles and estimate the volume of trucks on these streets. It should provide a summary of the traffic assessment in the 2022 ESPR, and provide a calculation of the proportion of the increase in area traffic that would be attributed to the 12 flights that the DEIR indicates would be generated from the aircraft occupying the new hangar spaces proposed by the project. The SDEIR should provide a revised estimate of the number of construction-period truck trips generated by the project, based on reasonable assumptions of the volumes of soil that: a) may be excavated due to the presence of contaminated soil and groundwater; b) may be suitable for reuse on the site based on their chemical and physical properties; and c) the volume of structural soil necessary to support proposed structures. The SDEIR should characterize the size of trucks that may be used to haul soil and other materials, and identify any roadway improvements that may be needed to safely accommodate the trucks. The SDEIR should provide a truck routing assessment that indicates the routes that trucks will take, including through residential areas or EJ populations. According to the DEIR, the VSR, should it be extended to the project site, could not be used by construction vehicles due to safety concerns related to conflicts between truck traffic and aviation activity at Hanscom Field. The SDEIR should provide a supplemental explanation of the safety concerns involved with the use of the VSR by construction trucks, including a map of the existing and proposed VSR. It should discuss the feasibility of using the VSR for fuel delivery trucks during the operation phase of the project.

It should provide a detailed analysis of the need for the proposed parking supply, including a comparison to the parking supply and usage rate of parking facilities at Hanscom Field. It should include an evaluation of land banking space for future construction of parking lots only when warranted by demand. The SDEIR should describe the circumstances under which such a large number of parking spaces may be needed, whether such circumstances would be expected on a regular basis, and whether the trip generation would be markedly higher in those circumstances.

The SDEIR should clarify whether the estimate of 194 new adt includes estimated vehicular trips associated with flight activity (such as passenger drop off and pick up), and describe how such number was derived. Given the low sample size upon which the ITE rate is based, the SDEIR should explain why the ITE rate is applicable to the type of hangar development proposed by the project, and present empirical data from other similar facilities to support the use of the ITE rate. The SDEIR should discuss how the trip generation methodology aligns with, or differs from, the methodology used in the 2022 ESPR (which does not appear to have used ITE rates) to estimate the increase in mobile source emissions under 2030 and 2040 scenarios, and how the 2022 ESPR incorporates the anticipated emissions associated with this project. The SDEIR should indicate whether any of the intersection delays identified in the ESPR would result from vehicular traffic associated with the project site. The SDEIR could clarify the geographic radius over which the corresponding VMT (vehicles miles traveled)

estimates were calculated, and provide an estimate of total VMT associated with the project's adt, based on publicly available sources.[15]

Rare Species

As noted above, Hanscom Field contains mapped habitat for six rare species, of which Upland Sandpiper, Eastern Meadowlark, Grasshopper Sparrow, and Midland Sedge are associated with the grassland habitat that extends onto the portion of the site where a stormwater basin is proposed. The SDEIR should review alternative configurations or options for stormwater management that do not result in the loss of grassland habitat or conversion of grassland habitat to non-habitat features (e.g., stormwater management system). The SDEIR should review potential measures that will be required to avoid a Take of rare species, such as time-of-year (TOY) restrictions on construction activity in Priority Habitat and monitoring and management of the relevant rare species and their habitats.

Water and Wastewater

According to the Town of Bedford, analyses of the capacities of both the water and sewer systems in the vicinity of the site are necessary to confirm that the project can be served by the municipal systems. The Proponent should consult with the Town regarding the necessary information to document capacity of the systems and provide this information in the SDEIR.

The SDEIR should confirm whether the drinking water wells associated with the Zone II wellhead protection area on the project site have been disconnected from the public water supply system, and whether the Zone II designation is still in effect. The SDEIR should describe, and show on plans, fueling systems, including pipes conveying fuel from the fuel storage facility, and identify and storage or use of other hazardous materials on the project site. The SDEIR should provide an analysis demonstrating that the project will comply with land use restrictions in the Drinking Water Regulations, as applicable.

Noise

The SDEIR should clarify the extent to which the project's noise impacts are based on actual monitoring data and modeling, and all sources (noise from aircraft in flight and on the ground, and other ground sources) used to estimate the project's noise impacts. The SDEIR should include a revised version of the noise analysis provided in the DEIR based on updated projections of aircraft operations under Build conditions. It should review 2022 ESPR noise data and compare the results of the noise analysis conducted for the project to the results of the 2022 ESPR noise analysis. The SDEIR should discuss what portion of the increase in noise in the 2022 ESPR is associated with the project (i.e., what portion of the increase in flights is associated with new hangar usage) and then prorate the increase to show this incremental increase. As noted, the ESPR indicates that business aviation activity will increase by about 16 flights per day by 2040, of which the 12 estimated flights from the project would appear to be the majority contributor. The SDEIR should also discuss what, if any, monitoring measures are in place for additional housing units that are anticipated to be within the noise contours for the 55 dB and 60 dB DNL metrics, as indicated in the DEIR.

[15] See Bureau of Transportation Statistics on average trip distances by county: Distribution of Trips by Distance: National, State, and County level | Bureau of Transportation Statistics (bts.gov).

Air Quality

The SDEIR should provide a revised analysis of project-generated emissions based on updated estimates of aircraft activity, as required above. As noted above, the DEIR did not directly compute emissions generated by the aircraft operations associated with the project and instead compared emissions under No Build and Build scenarios, based solely on numbers presented in the 2022 ESPR. The SDEIR should provide a revised analysis of ferry flight behavior, induced demand, and the effects of constrained infrastructure to present a more accurate characterization of flight activity that should be viewed as resulting from this project. The SDEIR should also clarify the extent to which business aviation and based-aircraft activity would occur in the absence of the project (the "No Build" condition), in order to demonstrate the impact of the hangar expansion. In the absence of adequate justification, the SDEIR should assume that the entirety of flights associated with usage of hangars are new impacts attributable to the project. As noted, the SDEIR should explain whether the new hangars can accommodate up to 66 to 79 aircraft as indicated in the IEc study, and if not, explain whether expansion of that level would be prohibited by any leasing terms or any other legally enforceable condition.

Based on this revised assessment of associated flight activity, the SDEIR should include an estimate of aircraft air emissions resulting from the associated increase in flight activity. The SDEIR should also provide a simple calculation of total emissions associated with the 12 flights per day (or more) that the DEIR asserts would be associated with aircraft utilizing the new hangar space proposed by the project. For any Reduced or Phased Build alternatives presented in the SDEIR, an estimate of emissions of all pollutants should be presented based on a revised estimate of flight activity associated with such reduced/phased options. The SDEIR should present all emissions estimates associated with the number of flights asserted to result from hangar usage using both the AEDT and fuel-consumption-based model, and should include values for GHG (CO_2e), CO, VOC, DPM, $PM_{2.5}$, PM_{10}, and NOx.

The SDEIR should review available data on UFPs prepared for airports in general, including the study noted above at Logan Airport, or produced specifically for Hanscom Field, and the Tufts University UFP study if available by the time of filing. It should estimate the project's potential emissions of UFPs. The SDEIR should review and respond to the suggestions in the comment letter from Environmental Monitoring Partners, LLC, which recommends the use of existing technology and modeling tools (such as AEDT for air emissions) to estimate UFP emissions and providing contour maps showing the extent of dispersion of UFP air emissions in areas surrounding Hanscom Field. The SDEIR should review potential mitigation measures, including establishment of a UFP monitoring program at Hanscom Field.

Climate Change and Resiliency

In light of the proposed creation of 33 acres of impervious area, the SDEIR should review alternative designs that minimize impervious area, consider additional Low Impact Design (LID) techniques, and assess the potential for plantings of shade trees to mitigate urban heat island effect. If the stormwater management system is redesigned, the SDEIR should assess its performance under the projected 24-hour precipitation depth (8.4 inches) from a 2070 25-year (4% chance) storm event.

The DEIR proposed rooftop PV systems covering the proposed buildings which could generate up to 8.5 MWh per year. The SDEIR should report on the availability and capacity of interconnections to the electrical grid to accommodate the proposed output of the systems, including the minimum of 783,570 watts of electricity that may be required to meet the Specialized Code. The SDEIR should identify alternative or interim mitigation measures in the event that an interconnection may not be available within the foreseeable future.

The SDEIR should report on the anticipated timeframe for utilizing wiring and conduits for airplane electrification, and indicate what, if any, upgrades would be needed to the proposed wiring to enable electrification in the future.

The SDEIR should present a mitigation section for GHG and air quality that presents a holistic accounting of all emissions associated with the project. It should include two scenarios: (i) all impacts acknowledged to be attributable to the project, based on revised assessments of ferry flights, induced demand, and hangar capacity; and (ii) impacts that, even if not acknowledged to be attributable to the project, are nonetheless directly associated with the usage of the new hangars (i.e., 12 flights per day or other number based on revised analysis). The accounting should present the GHG and other air pollutant emissions associated with flight activity, using both the AEDT and fuel-consumption methodology; all mobile sources associated with the project (including both employee and flight-related trips, and based on both total VMT and VMT around the project site); and any other sources such as ground service equipment. The SDEIR should present an accounting of the emissions benefits associated with all mitigation proposed for GHG emissions impacts, including stationary sources, land/forest preservation, and solar/EV installation together with the anticipated timelines for implementation. The SDEIR should indicate whether the total emissions benefits will fully offset impacts as measured by the two scenarios above. As noted above, the SDEIR should not take credit for any solar/EV measures until the expected time of actual installation/deployment.

In addition to this accounting, the SDEIR should present a SC-C analysis, consistent with NEPA guidance. The U.S. Council on Environmental Quality (CEQ) recently released interim guidance to assist federal agencies in analyzing GHG and climate change effects of their proposed actions under the National Environmental Policy Act (NEPA).[16] The interim guidance recommends that federal agencies provide additional context for GHG emissions, including through the use of the best available social cost of carbon (SC-C, or SC-GHG) estimates, to translate climate impacts into the more accessible metric of dollars, allow decision makers and the public to make comparisons, help evaluate the significance of an action's climate change effects, and better understand the tradeoffs associated with an action and its alternatives. The U.S. EPA initiated a November 2022 Supplemental Notice of Proposed Rulemaking, "Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review," which proposed a SC-C measure.[17] EEA has also made determinations for the MassSave program.[18] The SDEIR should include an estimate

[16] https://www.federalregister.gov/documents/2023/01/09/2023-00158/national-environmental-policy-act-guidance-on-consideration-of-greenhouse-gas-emissions-and-climate
[17] https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/epa-issues-supplemental-proposal-reduce
[18] https://ma-eeac.org/wp-content/uploads/Appendix-V-EEA-GHG-Goal-Letter-March-1-2024.pdf

of SC-C calculated for the GHG emissions associated with the project based on the two scenarios described above, using dollar estimates generated from the EEA MassSave methodology.[19]

Cultural Resources and Open Space

According to MHC, the area of potential effects on historical resources analyzed in the DEIR was limited to the project site. The SDEIR should provide a revised analysis of potential effects in the area to be impacted by the full range of audible and visual effects, including flight paths and areas adjacent to flight paths, as specified by MHC in its comment letter. Historical resources should be identified and assessed within an expanded area of effect based on the full range of audible and visual effect. The revised analysis should be based on the updated analysis of the project's effects on aviation activity levels at Hanscom Field, including any updated noise and air quality data. I refer the Proponent to the comment letter submitted by NPS, which provides guidance on the analysis that must be provided with the project's NEPA filings. I refer the Proponent to the comment letter submitted by NPS, which provides guidance on the analysis that must be provided with the project's NEPA filings. The SDEIR should clarify whether any historical resources are located within the areas of potential impact for the project, including: (i) areas of anticipated new traffic, based on the methodology indicated in the ESPR; (ii) areas of additional air emissions from take-off and landing activity; (iii) areas of potential water quality impact from potential fuel spills; and (iv) areas of increased noise impact based on 55 dB, 60 dB, and 65 dB contours.

Construction Period

As detailed above, the SDEIR should provide revised estimates of volumes of material, including structural soil, to be transported to and from the site and estimate the number of trucks and duration of hauling required to transport these materials. These volumes should take into account any updated information on the suitability of on-site soils to be excavated and reused to regrade the site. The SDEIR should provide a revised assessment of construction period impacts and mitigation measures. The SDEIR should clarify construction period truck routes and review conditions on residential streets to be used by project-generated truck traffic. As discussed, the SDEIR should provide a full assessment of the potential for construction activities to impact ongoing Superfund remediation work, and should provide a proposed framework for construction methodologies and phasing to accommodate ongoing work. The level of detail should be sufficient to warrant issuance of Section 61 Findings relative to construction period impacts.

Mitigation and Draft Section 61 Findings

The SDEIR should include a separate chapter summarizing all proposed mitigation measures including construction-period measures. This chapter should also include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations. The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments

[19] The MassSave value is adjusted for inflation and is levelized, as applied to projects today, the value is $376/metric ton.

should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, EJ, etc.) and identify the Agency Action or Permit associated with each category of impact. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project. The filing should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase.

The SDEIR should include a commitment to provide a GHG self-certification to the MEPA Office upon construction of the building signed by an appropriate professional indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve identified reductions in stationary source GHG emission and transportation-related measures, have been incorporated into the project. If equivalent measures are adopted, the project is encouraged to commit to achieving the same level of GHG emissions (i.e., "carbon footprint") identified in the Preferred Alternative expressed as a volumetric measure (tpy) in addition to a percentage GHG reduction from Base Case. The commitment to provide this self-certification in the manner outlined above should be incorporated into the draft Section 61 Findings included in the SDEIR.

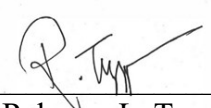
Responses to Comments

The SDEIR should contain a copy of this Certificate and a copy of each comment letter received. It should include a comprehensive response to comments on the DEIR that specifically address each issue raised in the comment letter; references to a chapter or sections of the SDEIR alone are not adequate and should only be used, with reference to specific page numbers, to support a direct response. This directive is not intended, and shall not be construed, to enlarge the scope of the SDEIR beyond what has been expressly identified in this certificate.

Circulation

In accordance with 301 CMR 11.16, the Proponent should circulate the SDEIR to each Person or Agency who commented on the ENF, each Agency from which the project will seek Permits, Land Transfers or Financial Assistance, and to any other Agency or Person identified in the Scope. Pursuant to 301 CMR 11.16(5), the Proponent may circulate copies of the SDEIR to commenters in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first come, first served basis. The Proponent should send correspondence accompanying the digital copy or identifying the web address of the online version of the SDEIR indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. A copy of the SDEIR should be made available for review in the Bedford Public Library.

June 21, 2024
Date



Rebecca L. Tepper

Comments received:

Due to the large number of comments received, only comments received from state, local and federal agencies and elected officials are attached to the Certificate below. Other comments are referenced below, and will be available on the Environmental Monitor[20] or MEPA Public Comment Portal.[21]

Comments from Agencies and Elected Officials (attached)

04/18/2024	Hanscom Field Advisory Commission
04/25/2024	Mark Sandeen, Lexington Select Board
	Emily Mitchell, Bedford Select Board
	Jim Hutchinson, Lincoln Select Board
	Linda Escobedo, Concord Select Board
04/26/2024	Lincoln Select Board
04/29/2024	Concord Select Board
04/30/2024	Department of Energy Resources (DOER)
04/30/2024	Hanscom Area Towns (HATS) Committee
04/30/2024	Town of Bedford
05/12/2024	Concord Climate Action Committee
05/30/2024	U.S. Air Force
06/03/2024	U.S. Department of Interior/Minute Man National Historical Park
06/03/2024	Bedford Energy and Sustainability Committee
06/04/2024	Concord Historical Commission
06/05/2024	Representative Carmine Gentile, 13th Middlesex District
06/10/2024	U.S. Department of Interior/Fish and Wildlife Service
06/13/2024	Bedford Board of Health
06/13/2024	U.S. Environmental Protection Agency (EPA)
06/13/2024	Senator Cindy F. Friedman, Fourth Middlesex District
06/13/2024	Town of Lexington
06/14/2024	Boards of Health from Bedford, Concord, Lexington, and Lincoln
06/14/2024	Massachusetts Department of Environmental Protection (MassDEP)
06/14/2024	Massachusetts Port Authority (Massport) Community Advisory Committee
06/14/2024	Massachusetts Historical Commission (MHC)
06/14/2024	Massachusetts Water Resources Authority (MWRA)
06/14/2024	Representative Simon Cataldo, 14th Middlesex District
	Representative Michelle Ciccolo, 15th Middlesex District
	Representative Carmine L. Gentile, 13th Middlesex District
	Representative Kenneth I. Gordon, 21st Middlesex District
	Representative Alice H. Peisch, 14th Norfolk District
06/18/2024	Natural Heritage and Endangered Species Program (NHESP)

[20] https://eeaonline.eea.state.ma.us/EEA/MEPA-eMonitor/home
[21] https://eeaonline.eea.state.ma.us/EEA/PublicComment/Landing/

Petitions and Comments Received from Organizations (available on Environmental Monitor)

04/17/2024 Citizens for Lexington Conservation
05/05/2024 Hartwell Farms Condominium Trust
05/06/2024 Newton Node of 350 Mass
05/09/2024 Lincoln Democratic Town Committee + 68 signers
05/12/2024 Bedford Embraces Diversity
05/17/2024 Groton Ayer Buzz
05/28/2024 Environmental Justice Committee of the First Parish in Bedford
05/28/2024 League of Women Voters-Salem
05/30/3034 The Green Team, St. Paul's Episcopal Church
06/05/2024 Climate Code Blue
06/05/2024 Mothers Out Front Bedford MA Chapter
06/07/2024 Berkshire Environmental Action Team/No Fracked Gas in Mass
06/07/2024 Friends of Woodlands and Waters
06/07/2024 Save Arlington Wildlife
06/10/2024 Friends of Minute Man National Park
06/10/2024 Louisa May Alcott's Orchard House
06/10/2024 Save Our Heritage
06/10/2024 The Walden Woods Project
06/11/2024 Institute for Policy Studies
06/11/2024 Mothers Out Front Massachusetts
06/11/2024 Stop Private Jet Expansion at Hanscom or Anywhere
06/12/2024 Climate Action Brookline
06/12/2024 Petition to Governor Healey with over 13,000 signers
06/13/2023 Third Act Massachusetts
06/13/2024 Annursnac Hill Association
06/13/2024 Environmental League of Massachusetts
06/13/2024 National Parks Conservation Association
06/13/2024 Sierra Club Massachusetts
06/14/2024 American Battlefield Trust
06/14/2024 Lincoln Mothers Out Front
06/14/2024 Conservation Law Foundation + 163 co-signers
06/14/2024 Creation Care Justice Network
06/14/2024 Lexington Climate Action Network
06/14/2024 National Trust for Historic Preservation
06/14/2024 OARS for the Sudbury, Assabet, and Concord Rivers
06/14/2024 Quiet Communities
06/14/2024 Sustainable Arlington

Individual Comments Received by Email (available on Environmental Monitor)

- Approximately 1,125 comments received from March 28, 2024 to June 17, 2024

Individual Comments Received by U.S. Mail (available on Environmental Monitor)

- Approximately 129 comments received from April 4, 2024 to May 1, 2024

Other Comments Received through MEPA Public Comment Portal (available via the portal)

- 152 individual and organizational comments received from March 24, 2024 to June 14, 2024, including comments from the Sudbury, Assabet and Concord Wild & Scenic River Stewardship Council and Environmental Monitoring Partners, LLC (other organizational comments were also received by email and are listed above)

RLT/AJS/ajs

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office

April 18, 2024

Alexander Strysky, MEPA Analyst for the Project
100 Cambridge Street, Suite 900
Boston MA 02114

Dear Secretary Tepper and Mr. Strysky,

Thank you for the opportunity to submit public comments on the Draft Environmental Impact Report (DEIR) for the proposed North Airfield Development at L.G. Hanscom Field in Bedford, EEA No. 16654.

Overview

HFAC has represented the residents of Hanscom Field's four adjoining towns and airport users for 43 years as provided by its charter from the Commonwealth of Massachusetts. Attendees commenting publicly at our meetings have expressed deep concerns about the proposed expansion of jet hangar infrastructure at Hanscom Field. They believe this project will increase aviation activity which in turn will cause negative health effects in their communities due to increased air pollution and noise. There is also concern about the potential to disrupt cleanup of several existing Superfund sites on or near the project area and the loss of forest land in developing the new buildings. The people we represent also believe the project will exacerbate the global climate crisis by expanding fossil fuel usage at a time when the state and our towns are working hard to decrease its use in every way possible.

The DEIR should present a comprehensive view of environmental impacts, but is incomplete and depends on a poorly substantiated prediction of how aviation activity would be affected by the project. The DEIR minimizes rather than clarifies some risks, and only addresses currently regulated risks. Risks associated with building and operating the facility are not counterbalanced with any significant services that benefit the general public. National Environmental Policy Act (NEPA) guidelines from the Council on Environmental Quality from January 2023 on the evaluation of greenhouse gas emissions (GHGs) do not appear to have been used[1]. The DEIR makes frequent references to Hanscom Field's Environmental Planning and Status Report (ESPR), but rely on the 2017 edition, while the new edition (2022) is scheduled to be released in May of this year and should be the basis for the proponent's analyses.

Level of aviation activity

The DEIR projections of reduced aviation activity are poorly substantiated. The DEIR claims that the "..project is anticipated to reduce impacts from aviation activity through a reduction in empty planes that currently fly to and from Hanscom to meet passenger demand." [DEIR 1-1] However, the methodology used to support this claim is weak. This poorly supported prediction undermines many of the claims made throughout the document about project impact (See Appendix A). The DEIR relies on proxy data about length of flight, time on the ground, and whether a plane is hangared at Hanscom to infer whether a flight is a ferry flight. While the use of a model composed of proxy data is an accepted approach to predictive modeling, the first step in determining if the model is plausible is to compare the modeled data with confirmatory, real-world data. No evidence of confirming the accuracy of the model is shown. Nor is any reference cited to support the model from research or industry best practices. As it stands, predictions of how hangar construction would affect the prevalence of ferry flights cannot be relied upon. Finally, not

[1]https://www.federalregister.gov/documents/2023/01/09/2023-00158/national-environmental-policy-act-guidance-on-consideration-of-greenhouse-gas-emissions-and-climate

considered in the DEIR is the possibility that the project will induce reverse ferry flights from customers who wish to fly from other nearby airports but can't obtain hangar space there.

We note the independent analysis undertaken by the firm Industrial Economics, Inc, prepared for The SPJE Coalition, comprising over 80 citizens, climate, and social justice groups. The IEC found that there were only three aircraft regularly ferrying to Hanscom, which was extrapolated to approximately 75 flights per year, in stark contrast to the DEIR's estimate of 3500 ferry flights per year.[2] The proponents need to redesign their model of ferry flight activity based on validated data before they can begin to predict the effects of providing increased jet storage space.

Another methodological problem concerns the prediction that providing new infrastructure will satisfy existing demand but not increase demand. An equally plausible prediction is that increased supply will induce new demand. We believe the business case for investing in the project is that it would not only satisfy existing private jet users but would itself attract new users. The expectation of increased demand for fuel is built into the proponent's plan to replace one existing fuel storage tank with four new 20,000-gallon jet fuel tanks and one 5,000-gallon AvGas underground storage tank. The DEIR uses the FAA's forecasted growth model of private jet travel as the basis for their claim that there will be no additional operations. However, residents are concerned that any new aviation activity over the status quo will exacerbate the climate crisis and do not accept the FAA projection as a valid baseline for comparison.

We want plausible predictions of the range of possible changes to aviation activity this project is likely to cause. The proponents need to provide a systematic, multipronged approach based on well-established research methods, both quantitative and qualitative. Studies need to include not only better detail about current private jet usage at Hanscom, but also the effects similar projects have had at other airports.

Increased risk associated with the project

Residents of the towns we represent believe the project will increase the likelihood of health risks due to aviation and construction activity; and will exacerbate the global climate crisis. Our concerns span a wide variety of risks that have significant scientific documentation of harm, but only some of which have been incorporated into aviation-associated regulations to date. The proponents discount the impact of regulated risks on the basis of their claim that aviation activity would not increase and generally skip discussion of those risks which are not currently regulated. MEPA needs to demand that all scientifically documented risks associated with the project, whether they are currently regulated or not, be fully enumerated. When this information is provided in combination with more realistic predictions of changes to private jet travel, the public and relevant government agencies will be better able to comprehend the magnitude of increased risk the project entails.

The Environmental Protection Agency recently finalized their findings that lead from aviation can be anticipated to endanger public welfare[3]. But, these established facts have not yet propagated to all aviation regulations. Some aircraft still use leaded AvGas and the proponents plan to store and sell it, despite this being a long-standing concern for HFAC[4] [5]. Unleaded AvGas that has been approved for all

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[2]https://saveourheritage.com/WP/Hanscom%20Impact%20Report%20(04.05.24).pdf

[3]https://www.epa.gov/newsreleases/epa-determines-lead-emissions-aircraft-engines-cause-or-contribute-air-pollution

[4] https://thebedfordcitizen.org/2021/04/hfac-focused-on-environmental-issues-in-april/

[5]https://thebedfordcitizen.org/2020/11/concerns-about-lead-in-aviation-fuel-raised-at-hanscom-field-advisory-commission

piston engine aircraft (G100UL) is now available from Vitol[6]. “Vitol-produced G100UL AvGas is available to any airport or aviation fuel distributor” and should be deployed for all new aircraft fuel facilities, including this project. Noise, which is still treated as “an annoyance” by the Federal Aviation Authority, has been found in large public health studies to be a contributor to heart disease and physical stress[7] [8]. The health risks associated with ultrafine particles[9] [10] while alluded to in the DEIR are not included in projections, and governments have not yet established safe standards. HFAC itself has commissioned a baseline study of ultrafine particles in the vicinity of Hanscom Field [11]. Perhaps most seriously, we are coming to learn that private jet travel is the largest contributor per passenger mile of any form of transportation to the global climate crisis.[12] Aviation regulations have not yet caught up, and only address greenhouse gas emissions (GHGs) associated with takeoff and landing–which is a small percentage of their impact. The NEPA guidance from January 2023 provides a framework to properly disclose these impacts.

The project site contains or is close to a number of contaminated sites including three Superfund sites. The Air Force and Navy are working to clean up these sites, but the process is complex and not complete. The DEIR should explain how this project can be completed without disturbing contaminated earth or ground-water and be compatible with all anticipated cleanup actions.

Summary

This project--which dramatically increases capacity for storing and servicing private jets at Hanscom Field–also presents the likelihood of increasing health and climate risk. These risks are not counterbalanced with any significant services that benefit the general public. The DEIR itself is inconsistent, does not support its claims, contradicts state climate policy and ignores relevant scientific research. As such, the DEIR should not be accepted by MEPA as an adequate description of the environmental impacts of the proposed Hanscom North Airfield expansion project. HFAC requests that MEPA return the DEIR to the proponents in order that they may:

1. Base analyses and projections on the 2022 edition of the ESPR;
2. Correct or remove the discussion of ferry flights frequency;
3. Provide a rigorous analysis of how this expansion could affect the absolute number of private jet flights in and out of Hanscom Field based on established, validated methods;
4. Correct the invalid inferences detailed in Appendix A and the concerns in Appendix B;
5. Expand reporting to include all potential health and climate consequences regardless of their regulatory status;
6. Fully explain how this project will avoid disrupting Superfund cleanup efforts;

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[6] https://www.vitol.com/first-unleaded-octane-avgas-now-commercially-available/

[7]https://apha.org/Policies-and-Advocacy/Public-Health-Policy-Statements/Policy-Database/2022/01/07/Noise-as-a-Public-Health-Hazard

[8] https://pubmed.ncbi.nlm.nih.gov/33245107/

[9]https://www.nationalacademies.org/our-work/health-risks-of-indoor-exposures-to-fine-particulate-matter-and-practical-mitigation-solutions

[10] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7156741/

[11]https://theconcordbridge.org/index.php/2024/01/05/concord-joins-towns-studying-hanscom-field-hangar-expansion/

[12] https://www.faa.gov/sites/faa.gov/files/2021-11/Aviation_Climate_Action_Plan.pdf

7. Reconcile any claims that the project will not increase operations with the need to dispense 15,000 gallons of jet fuel per day;
8. Incorporate use of G100UL, now produced by Vitol[13], in place of leaded AvGas or provide a satisfactory explanation why this is not feasible
9. Better explain why the project goals cannot be met by other regional airports;
10. Require GHG analysis following the January 2023 NEPA guidelines.

When this work is complete the proponents should resubmit the DEIR for reevaluation by the community and MEPA.

Sincerely,
Christopher Eliot
Christopher Eliot, Chair
Hanscom Field Advisory Commission

[13] https://www.vitol.com/first-unleaded-octane-avgas-now-commercially-available/

APPENDIX A

The disputed claims about ferry flights pervasively affect the DEIR analysis. Removing the discussion of ferry flights will not correct the DEIR; the entire text must be revised to eliminate claims dependent on the disputed claims about ferry flights. Many specific examples from the text are listed here, but this listing may not be complete. Typos in DEIR text are quoted without correction.

- DEIR 1-3 “Based upon input from existing users, aircraft owners and operators waitlisted to store their aircraft at Hanscom, there are currently numerous operators that fly empty aircraft into Hanscom to pick up passengers and fly empty aircraft out of Hanscom after dropping off passengers.”
- DEIR 1-3 “Under the 2030 Build Condition, the Project has the potential to reduce a portion of the estimated 3,543 annual ferry flights, which would result in a two to three percent reduction in overall flight operations at BED. “Here the claim softens to “a portion of the estimated 3,543” flights, not all of them. There is no analysis of what portion. Under questioning at the Feb 20, 2024 HFAC meeting Kate Larson, from HMMH agreed that this portion was something between 0% and 100%, which is an inadequate analysis to properly understand the impact of this project.
- DEIR 1-9 “By providing the facilities needed to accommodate the existing demand, the Project is expected to result in a reduction in ferry flight operations and reduced associated air emissions, including GHG emissions, and no significant change in noise (Section 1.5.2).” Here the logic changes again, and the DEIR is claiming full credit for the unverified reduction in ferry flights.
- DEIR 2-4 “A notable difference in the 2030 Build Condition forecast is the reduction in flight operations, which the analysis shows is due to the Project’s ability to reduce the necessity of ferry flights by providing aircraft storage at Hanscom.”
- DEIR 4-1 “Potential elimination of ferry flights as a result of the Project would reduce regional air emissions and noise impacting EJ populations within the vicinity of the Project Site currently.”
- DEIR 4-9 “The air quality analysis shows that the Project will result in a decrease in criteria pollutant emissions for all pollutants from aircraft operations compared to the No-Build Condition except PM10 and PM2.5, which can be attributed to the expected reduction in ferry flights.”
- DEIR 8-1 “As discussed further in Chapter 2 – Aviation Activity Levels, while the Proponent cannot control Hanscom flight activity, the analysis shows the Project is expected to reduce overall annual aircraft activity by two to three percent.”
- DEIR 8-1 "Due to the anticipated reduction in ferry flights aircraft most air emissions studied are anticipated to be lower when compared to the 2030 No-Build Condition, including GHG emissions from aircraft operations due to a reduction in ferry flights.”
- DEIR 8-6 “The 2030 Build Condition is based on the 2030 No-Build Condition, but assumes a decrease in the number of ferry flights and ground activity from the Project, as depicted in Figure 8.2.”
- DEIR 8-10 “Importantly, the Project will result in lower emissions of criteria pollutants from aircraft operations due to reduction in ferry flights compared to the No-Build Condition.”
- DEIR 8-11 “Table 8-5 shows a slight increase in overall operational GHG emissions compared to the No-Build Condition. The greatest decrease in GHG emissions are expected to be associated with the aircraft operation emissions, which are attributed to a decrease in expected ferry flights.”
- DEIR 8-12 “As Table 8-6 shows, the Project is expected to result in a net reduction in CO, VOC, NOx, SO2 and Lead emissions, and a very small net increase in PM10 and PM2.5 emissions — all of which fall well below the established maintenance area de minimis thresholds for all pollutants. Therefore, the net change in operational emissions would not result in a significant air quality impact.”

- DEIR 9-25 “The Project is not subject to a full transportation impact analysis, so a full mobile source emissions analysis consistent with the MassDEP Guidelines for Performing Mesoscale Analysis of Indirect Sources was not possible.” If the disputed ferry flight claim is removed, the project might be subject to a full transportation impact analysis.
- DEIR 11-9 “As described in Section 8.2 of Chapter 8 – Noise and Air Quality, future aircraft noise levels with the Project Site in place are expected to remain comparable to current and future No-Build operations.”
- DEIR 11-9 “As described in Section 8.3 of Chapter 8 – Noise and Air Quality, due to an anticipated reduction in ferry flights, the Project is not expected to result in an increase in aircraft air emissions; aircraft air emissions are anticipated to be lower than the 2030 No-Build Condition.”

Appendix B

There are numerous inconsistencies, unclear or questionable claims in the DEIR, listed below, which have not been included in the primary narrative of this letter.

Page	Claim	Rebuttal
1-3	All three FBOs have reported to Massport that the demand exceeds hangar capacity and have been forced to place customers seeking hangar space for their aircraft on	This indicates the project will facilitate an increase in operations.
1-3	It is important to note, based on operations projections, Massport anticipates that business air travel will continue to use Hanscom whether the Project is constructed	Which makes it seem that the airport capacity is already adequate. If true, why is the expansion required?
1-12	That existing storage tank will be removed and replaced with four new 20,000-gallon Jet A Fuel/SAF and one 5,000-gallon AvGas underground storage tanks. These fuel tanks have been sized to address the demand of existing flight operations and will have capacity to meet projected demand based on FAA forecasted growth models.	The sizing of fuel tanks is based on projected growth models, contradicting the claim that this project will not facilitate increased operations. The AvGas tank should only be used for unleaded AvGas, which is now commercially available: https://www.vitol.com/first-unleaded-octane-
1-12	Once the Project becomes operational, a significant portion of current fueling operations on the south side of the Airport will shift to the Project on the north side	There is no evidence given in support of this claim.
1-13	While the emissions from the direct burning of SAF are similar to that of existing conventional jet fuel, the impact from the production, transportation, and distribution of SAF represents a much smaller environmental footprint than conventional jet fuel. SAF can also reduce direct emissions of particulate matter (PM) and sulfur (SOX), when compared to combustion of	None of this is proven to be possible at scale.
2-7	The Proponent consulted with Massport and the FAA on the methodology to estimate the number of ferry flights. The analysis relied on data from the FAA System Wide Information Management (SWIM) data feed integrated into Massport's NOMS, which is also reported in the Hanscom Field ESPRs. Hanscom flight operations data from January 1, 2022 to June 30, 2023 were	HFAC requests access to this dataset so we can verify the computations.

2-8	Regarding GA hangar space at other locations off-site that may vacate and relocate to the Project, the Proponent is unable to predict the outcome of these facilities as it depends on the decisions of other airport managers and/or hangar owners and, therefore, is not accounted for in the environmental impact assessment for the Project.	There must be a range of likelihood. Just because the DEIR cannot precisely quantify this effect does not justify assuming it is zero.
Figure 2-4	Fractional ownership accounts for 45% of ferry flights.	Fractional ownership systems do not have a home base and do not engage in ferry flights. They are "roving" aircraft that go where they are needed. They will not put these planes in a hangar anywhere so none of these will be reduced by adding hangar space. This statement alone shows that the DEIR overstates the number of ferry flights by at least
3-2	A discussion on the feasibility of mandating that all hangars within the development house only fossil fuel-free aircraft. (Section 3.2.3)	Section 3.2.3 does not discuss this alternative in a meaningful way.
3-9	The increase in overall aircraft activity at Hanscom Field due to the Preferred Alternative (which represents the Reduced Build Alternative) is considered de minimus with or without consideration of ferry flights	The DEIR does not provide a justification for this claim.
4-4 4-5	Per the requirements stated under Section II of the Public Involvement Protocol, “Measures to Enhance Public Involvement Prior to Filing ENF,” the Proponent has made a meaningful effort to engage with the community through expanded outreach. A high-level project overview was presented at the June 22, 2021 meeting of the Hanscom Field Advisory Commission (HFAC), which serves as a liaison between Massport and the towns surrounding Hanscom Field. Project updates were provided at each subsequent monthly HFAC	There was no HFAC meeting on June 22, 2021. The June 29 HFAC (which had been rescheduled from June 15th) included two brief statements about the land swap and the potential North Apron bidding. (Minutes of the meeting were mislabeled as June 22). The full scope of the project was not disclosed at this time. Contrary to the claim that the Proponent made a meaningful effort to engage with the community, the project was presented piecemeal and the scope was kept secret until disclosure was required by the ENF filing.

4-8	No adverse impacts from noise are anticipated as a result of the Project (see Section 8.2.3 of Chapter 8 - Noise and Air Quality, for more information).	The FAA's 65 dBA DNL is not a safe noise exposure level for the American public <https://pubs.aip.org/asa/poma/article/50/1/040007/3268631/The-FAA-s-65-dBA-DNL-is-not-a-safe-noise-exposure?searchresult=1&mc_cid=d65010b251> The Federal Aviation Administration's (FAA) 65 A-weighted decibel (dBA) day-night average sound level (DNL) is not a safe noise exposure level for the American public. In response to the 1976 Aviation Noise Abatement Policy, using annoyance as the measure of aviation noise effects on the public, the FAA adopted 65 dBA as the threshold of significant noise exposure, below which residential land uses are compatible. The Environmental Protection Agency, however, calculated that the safe noise levels for the public are DNL =<55dB to prevent outdoor activity interference and annoyance and =<45 dB to prevent indoor activity interference and annoyance. Noise has both auditory and non-auditory health effects. Commercial and general aviation noise exposure have not been shown to cause auditory disorders in the public, but do have non-auditory health effects. Noise exposure is stressful and nighttime noise disrupts sleep. The associations between aviation noise exposure and its adverse health effects are well
4-11	The planned temporary construction truck route (via I-95, Exit 49B, onto Route 4/225 then turning onto Hartwell Road to access the Project Site) does not run adjacent to the EJ block groups within the DGA.	This route is impossible. Route 4/225 does not connect with Hartwell Road. It requires a leg along route 62 or Hartwell Ave. The difference between these possible routes is important.
4-14	The Town of Lincoln, which falls within the one-mile radius but does not contain any EJ block groups within the one-mile radius and does not meet the Vulnerable Health EJ criteria for heart attack, elevated blood lead, low birth weight, or pediatric asthma.	Air Force housing located within the Town of Lincoln is considered an EJ block.
7-1	The Proponent is committed to reducing outdoor water use by 50 percent, and will maximize water efficiency within buildings to reduce the burden on the municipal water supply and wastewater systems.	Reduce 50 percent from what?

9-4	The Secretary has determined that the Commonwealth's economy-wide emissions interim goal will be a 33 percent reduction from 1990 levels in 2025, and a 50 percent reduction in 2030. It is the intent of the Project to advance the Commonwealth's climate agenda through sustainable design and the implementation of enabling infrastructure to support future green	This claim seems to be inconsistent with the intention to dispense 15,000 gallons of jet fuel per day.
9-27	The Project is not expected to be a substantial source of vehicle trips and consequently is not expected to be a substantial source of landside mobile source emissions. The Project is only estimated to produce 194 vehicle trips per	There will be more than 2 trucks per day. There will be 1-2 fuel delivery trucks, one UPS truck, trash pickup, plus food vendor deliveries.
11-1	The Project Site currently does not contain any National or State Register-listed properties.	However, it is adjacent and will affect Great Meadows National Wildlife Refuge and Minuteman National Park.

April 25, 2024

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office

Alexander Strysky, MEPA Analyst for the Project
100 Cambridge Street, Suite 900
Boston MA 02114

Re: Draft Environmental Impact Report (DEIR)
EEA No. 16654, L.G. Hanscom Field North Airfield Development

Dear Secretary Tepper and Mr. Strysky:

Thank you for the opportunity to submit public comments on the Draft Environmental Impact Report (DEIR) for the proposed North Airfield Development at L.G. Hanscom Field in Bedford, EEA No. 16654. We also extend our appreciation for the bold and ambitious climate goals you have set forth for our Commonwealth.

We write to highlight a pressing environmental concern regarding the proposed North Airfield expansion at Hanscom Airport and its potential contradiction to the state's climate objectives. The Draft Environmental Impact Report does not propose to include measurement or analysis of the full impact of greenhouse gases or ultrafine particulate matter ($PM_{0.1}$) from aircraft operations departing from or arriving at Hanscom Airport.

The proponents, Runway Realty Ventures LLC and North Airfield Ventures LLC, state that the DEIR will include "an air quality analysis consistent with the analyses presented in the Massport 2017 ESPR." The proponents then state that "The 2017 ESPR analyzed six criteria pollutants that are regulated by the National Ambient Air Quality Standards (NAAQS) set by the U.S. EPA and Massachusetts Ambient Air Quality Standards (MAAQS) set by the Massachusetts Department of Environmental Protection (MassDEP). These six criteria pollutants, which include carbon monoxide (CO), lead (Pb), nitrogen oxides, ozone (O_3), particulate matter [PM_{10} and $PM_{2.5}$], and sulfur dioxide (SO_2), are generated from aircraft operations and vehicular traffic." And finally, the proponents state that "Aircraft operations emissions estimated for this analysis include emissions below the default 3,000-foot mixing height."

We respectfully request that greenhouse gas emissions (CO_2e) and ultrafine particulate matter ($PM_{0.1}$) be added to the list of criteria pollutants measured for aircraft operations. In addition, we request that a comprehensive and accurate Environmental Impact Review (EIR) include greenhouse gas emissions (CO_2e) for the entire flight of aircraft operations departing from or arriving at Hanscom Airport, not just for the portion of the flight below 3,000 feet, which is typically only 1 minute of an average 100 minute flight time.

Our towns have been diligently working hand-in-hand with the State government to achieve our greenhouse gas emission reduction targets. The Commonwealth should require that the full impact of aircraft operations resulting from the proposed North Airfield expansion be considered, as we believe those emissions directly contradict the climate goals of our towns, the Commonwealth, and the nation.

Jet engine exhaust is a significant source of ultrafine particles and aviation-related emissions can adversely impact air quality over large areas surrounding airports.[1] Studies have shown that ultrafine particulate matter ($PM_{0.1}$) can cross biological boundaries (entering the circulatory system) due to their extremely small size. Exposure to $PM_{0.1}$ is associated with inflammation biomarkers, oxidative stress and cardiovascular disease.[2] Additional research documents the adverse health effects of aviation related ultrafine particles ranging from pre-term birth[3] to toxicity assessments[4]. The EPA adopted a particle number based regulatory standard in the US for aircraft engines.[5] Preliminary measurements already show that concentrations experienced by residents near Hanscom Field exceed WHO guidelines.[6] We thus respectfully request that a comprehensive and accurate Environmental Impact Review (EIR) include a full assessment of $PM_{0.1}$ emissions for aircraft operations departing from, taxiing, or arriving at Hanscom Airport.

In addition, the Proponent's assessment of the Project's impact on the local environment is based largely on the assumptions, projections, and models featured in the 2017 Environmental Status & Planning Report (ESPR). The 2022 ESPR is due from Massport in May 2024 after the DEIR comment period deadline. Given the significant impact of the Project on airport operations and on the built and natural environments at Hanscom, it is prudent that the DEIR and any further environmental assessments be based on the most current data available.

We ask that the Proponent review all its assessments and models against the 2022 ESPR once it is published, and that the EEA's review of this DEIR pause until that publication and review take place. We would also request that HATS Towns be provided with a sixty day period of time to review the 2022 ESPR before providing final comments on the DEIR following the newly released MassDEP guidance for Conducting Cumulative Impact Analysis.

We respectfully request your support in opposing private jet hanger expansion at Hanscom or elsewhere, emphasizing the urgent need for all sectors, in all locations, to work collaboratively towards reducing CO_2 emissions and meeting our critical climate goals.

Sincerely yours,

Mark Sandeen
Town of Lexington Select Board Member

Emily Mitchell
Town of Bedford Select Board Member

Jim Hutchinson
Town of Lincoln Select Board Member

Linda Escobedo
Town of Concord Select Board Member

CC:
Edward C. Freni, Interim CEO, Massport
Melissa Hoffer, Office of Climate Innovation and Resilience
Senator Elizabeth Warren
Senator Ed Markey
Congresswoman Katherine M. Clark
Congresswoman Lori Trahan
Congressman Seth Moultan
Sen. Michael J. Barrett
Sen. Cindy F. Friedman
Rep. Michelle L. Ciccolo
Rep. Kenneth I. Gordon
Rep. Alice H. Peisch
Rep. Simon Cataldo
Rep. Carmine L. Gentile
Rep. Thomas M. Stanley

1. **Aviation-Related Impacts on Ultrafine Particle Number Concentrations Outside and Inside Residences near an Airport**
   N. Hudda, M.C. Simon, W. Zamore, and J. L. Durant
   Environmental Science & Technology **2018** *52* (4), 1765-1772
   DOI: 10.1021/acs.est.7b05593 https://www.sciencedirect.com/science/article/pii/S0360132322002347
2. Schraufnagel, D.E. **The health effects of ultrafine particles.** *Exp Mol Med* **52**, 311–317 (2020). https://doi.org/10.1038/s12276-020-0403-3
3. Wing SE, Larson TV, Hudda N, Boonyarattaphan S, Fruin S, Ritz B. **Preterm Birth among Infants Exposed to *in Utero* Ultrafine Particles from Aircraft Emissions.** Environ Health Perspect. 2020 Apr;128(4):47002. doi: 10.1289/EHP5732. Epub 2020 Apr 2. PMID: 32238012; PMCID: PMC7228090. https://pubmed.ncbi.nlm.nih.gov/32238012/
4. Hulda R. Jonsdottir, Mathilde Delaval, Zaira Leni, Alejandro Keller, Benjamin T. Brem, Frithjof Siegerist, David Schönenberger, Lukas Durdina, Miriam Elser, Heinz Burtscher, Anthi Liati, Marianne Geiser. **Non-volatile particle emissions from aircraft turbine engines at ground-idle induce oxidative stress in bronchial cells.** *Communications Biology*, 2019; 2 (1) DOI: 10.1038/s42003-019-0332-7 https://pubmed.ncbi.nlm.nih.gov/30854482/
5. https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-control-air-pollution-aircraft-engines
6. https://www.ncbi.nlm.nih.gov/books/NBK574595/box/ch4.box15/?report=objectonly

Town of Lincoln

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April 26, 2024

To: Alexander Strysky, MEPA Analyst for the Project
Delivered via email: alexander.strysky@mass.gov

Subject: EEA No. 16654 – L.G. Hanscom Field North Airfield Development, Bedford

Dear Mr. Strysky,

We would like to thank you for the opportunity to comment on the North Airfield Development Draft Environmental Impact Report (DEIR). This comment is being submitted in addition to a joint comment we have signed along with the three other Hanscom-area Towns Committee (HATS) Select Boards of Bedford, Concord, and Lexington.

We find the Proponent's DEIR deeply troubling for a number of reasons, chief among these include the Proponent's:

- incomplete treatment of **GHG emissions,**
- unsubstantiated **analysis of ferry flights** (empty flights),
- inaccurate representation of the role of **sustainable aviation fuels (SAFs**), and
- misleading characterization of commitments to **solar installations.**

Our detailed comments on these points follow.

The Proponent's Incomplete Treatment of GHG Emissions

- The Proponent's claims to Net Zero commitments are restricted to building emissions, and disregard emissions from aircraft, which overshadow them.

  > "However, when the whole project, including the aircraft, is considered, the 2,800 Tons saved by the solar panels would be dwarfed by the aircraft emissions, only saving 1.7% of the total emissions of 160,000 Tons. Therefore, the Net Zero claim is untrue and deceptive." *- 4/10/24 Analysis*

- While the Proponent claims that the Project will reduce flights and GHG emissions, their fuel farm plans indicate otherwise. The DEIR states that the Project's Fuel Storage Facility (Section 1.5.2.4) will include:
  - 4 new 20,000-gallon underground tanks of jet fuel
  - 2 fuel delivery trucks per day (10,000 gal per truck)

20,000 gallons of jet fuel delivered daily computes to **over 5.5 million gallons of jet fuel per year for just this facility.** For context, there are three existing private jet facilities at Hanscom that already sell aviation fuel, and whose collective total came to 11-12 million gallons of fuel annually in recent years, and thus the new fuel deliveries would increase total usage by roughly 50%. Furthermore, this new jet fuel usage **can be translated to 150,000-220,000 tons CO2e per year.** For context, the **Town of Lincoln**, its 7,000 residents, their homes, their cars, the Town's businesses, and schools are responsible for about **60,000 tons of CO2e annually.**

- Incredibly, the Proponent claims only 30,686 tons of GHG aircraft emissions (Table 8-5, Section 8.3.3) This is because the FAA's AEDT model used by the Proponent in the DEIR only accounts for CO2 emissions from takeoff and landing local to the airport. It does not include emissions of the aircraft during flight. Using this method, a flight to Europe has the same emissions as a flight to Nantucket, because only the takeoff/landing is modeled.

  This model was developed to examine local particulate or chemical concentrations, which are the most concentrated right around the airport. It was never developed to deal with GHGs, which have a global and not local effect. The Proponent's use of this method is misleading.

- The Proponent's Project will be required to undergo **a federal NEPA (National Environmental Policy Act) environmental review**, shortly after the DEIR, and possibly overlapping the MEPA process. NEPA released a relatively new guideline on 1/9/23, the **(NEPA) Guidance on Green House Gas Emissions and Climate Change,** which includes a number of important requirements.

  For example, the developers must consider:
  - CO2e and not just CO2 (CO2e includes many climate-change producing chemicals, beyond CO2, like methane)
  - Emissions for the entire flights from the airport, not just emissions near the airport
  - State and local GHG reduction goals and plans, and determine if the project is consistent with them.

The Proponent should include these considerations in a revised DEIR.

The Proponent's Ferry Flight Analysis

In their first report to MEPA (Environmental Notification Form, ENF, 1/17/23), the Proponent's leading rationale for building a nearly 500,000 sf private jet hangar facility on 47 acres of land was that it would reduce ferry flights, decrease overall flights, and decrease GHG emissions. **In her 2/14/23 DEIR Scope, Secretary Tepper instructed the Proponent to provide supporting data for this assertion. The Proponent has failed to do so, and should be instructed to produce a study with credible statistical integrity.**

The Proponent's treatment of ferry flights (empty flights) is flawed in these ways:

- Their four criteria for "ferry flights" are based on unvalidated proxy assumptions and must therefore be considered arbitrary.

- Their definition for "ferry flights" is overly broad and incorrectly includes flights that are not empty--as was conceded by their HMMH consultant at recorded public meetings in February [start vimeo at timestamp 3:57] and March —with the effect that the allegedly problematic number of ferry flights is improperly inflated to 3,543 per year.

- Their assertion that building more hangars will reduce flights contradicts studies on Induced Demand, as well as an FAA report which asserts that lack of infrastructure can impact the FAA's otherwise "unconstrained" forecasts for growth which can be corrected by providing sufficient infrastructure.

- A recently released detailed independent analysis by the firm Industrial Economics, Inc. refutes the Proponents' claim that the hangar Project will reduce ferry flights and GHG emissions. The analysis identified only 3 aircraft that regularly ferry through Hanscom, which correlates with 75 fewer ferry flights associated with the Project if they relocated to Hanscom – vastly less than the 3,543 claimed by the Proponents. This would not justify building a 522,380 sf hangar facility. Moreover, the IEc study found that the Project would *add* approximately 6,000 more regular flights, which would result in about 150,000 tons of new CO2e per year.

The Proponent's Sustainable Aviation Fuels (SAFs) Claims

The Proponent has inaccurately represented the role of sustainable aviation fuels (SAFs) at the proposed facility with enthusiastic references to SAFs, leading the public and policymakers to assume that aircraft based at the new facility will be engaged in innovative "green" aviation, which is not the case.

Examples of these SAF pledges include:

> "The Project will promote the use of clean aviation fuels, future conversions to electric aircraft…and other sustainable technologies and practices that are emerging in the industry." (Section 1.1.2)
>
> "The Project also aims to support sustainable aviation in the future, by providing infrastructure for aircraft (and vehicle) electrification and Sustainable Aviation Fuels (SAF) storage that does not exist today at BED, which would further mitigate air emissions, specifically GHG emissions." (Section 2.4)
>
> "The Project is designed to be the largest hangar complex with net zero GHG emissions* at Hanscom Field and will be designed to accommodate the future transition of the industry to electrification and sustainable aviation fuels." (Section 1.5.1) [Be it noted: The Net zero claim only includes emissions from buildings and excludes emissions from aircraft.]

Midway through the DEIR, the Proponent discloses that SAFs and electric-based aviation are a long way off from wide-spread availability:

> "The Preferred Alternative is proposed to be phased over approximately three years…[from late summer/early fall 2024air to winter 2027]…**whereas the aviation industry projects use of alternative/clean fuel aircraft (i.e., electric or SAF) to be approximately 10 percent of aircraft by 2030** *so that delaying later phases contingent upon the availability of SAF or electric aircraft is not feasible*." (Section 3) [bolding & italics are ours] Note: The aviation industry has a record of not meeting their SAFs benchmarks.

In other words, the Proponent's priority is not to model sustainable aviation, as claimed, but to build the facility as fast as possible, regardless of SAFs. This stated goal ignores that continued use and growth of fossil-based jet fuel prior to 2030 will exacerbate the Climate outlook in 2030, and that such action is antithetical to our Commonwealth's decarbonization goals which urge immediate meaningful reductions by all sectors.

Beyond this, the Proponent's SAF claim ignores that:

- The biofuels that SAFs are derived from (i.e., plants or oils) generate the same amount of CO2e (and sometimes more) in the atmosphere as conventional jet fuel.
- SAFs are a mix of biofuels and conventional aviation fuel.
- Growing biofuels at scale would necessitate the repurposing of arable land for food production.

- ICAO (International Civil Aviation Authority) estimated that **complete replacement with SAFs "by 2050 would require around 170 new large biorefineries to be built every year from 2020 to 2050, at the cost of $15bn to $60bn per year…"**
  Source: Aviation Could Consume a quarter of 1.5C carbon budget by 2050, Carbon Brief, 8/8/16
  (This article was a footnote in Climate Chief Melissa Hoffer's 10/25/23 Report)

- Even if SAFs were available tomorrow, they would not necessarily be used, because neither the Proponent nor any airport has the authority to require their use by aircrafts – this has been publicly confirmed by Massport and the Proponent at public meetings about the DEIR.

As for electric aircraft:

- Lufthansa Says Green Fuel Would Eat Up Half German Electricity **"Germany's biggest airline would consume half of the country's entire electricity production to switch its fleet to green fuels like e-kerosene**, according to Deutsche Lufthansa AG, underscoring the challenge in reducing emissions from air transport" - *September 25, 2023, Bloomberg*

Sources for SAF information above:

- *GREENWASHING THE SKIES: How the Private Jet Lobby Uses "Sustainable Aviation Fuels" as a Marketing Ploy, Institute for Policy Studies, Program on Inequality, Inequality.org 3/24/24*
- *Sustainable Aviation Fuel Emission Impacts, World Resources Institute, 12/20/24*

The Proponent's Solar Claims

The Proponent's commitments to solar installations are superficial and misleading:

> "….Although the developer makes detailed claims about the GHG savings of solar in the DEIR, the project **does not actually include any solar.** The DEIR is careful to say that the buildings **'may be appropriate for PV systems'** and will be made '**solar ready**.' [4] …There is no commitment to any amount of solar: 'The final sizes of the solar arrays are subject to change as the design progresses.' …**If built as described, this project could end up with little or no solar PV.**…The developer states they intend to reach net zero using an enormous solar installation. Yet, that installation is only put forward as a *possible future option* and, even if implemented in its entirety, would cancel out only 1.7% of the project's GHG emissions." *- 4/10/24 Analysis*

Question of Project Segmentation: Taxiway Romeo & North Airfield Box Hangars

in addition, there are two related matters, not discussed in the DEIR, that we request Secretary Tepper to take under consideration:

- the matter of upgrading Taxiway Romeo (directly adjacent to the Project site) to support Design Group III aircraft over 100,000 pounds and/or Design Group IV aircraft. This taxiway upgrade is explicitly discussed as a desired option by Runway Realty Ventures, LLC (RRV) in its Land Swap Agreement with Massport (p. 9-15) dated 10/20/22: "as requested by Runway Realty Ventures". It is not included in the Proponent's ENF nor DEIR and should be, because it is integral to the Project's plans to accommodate large jets.

- the matter of 8 new box hangars in North Airfield built by FBO Atlantic Aviation adjacent to and directly to the west of the Project site. Passing comments and thoughtful speculation points to the possibility that these eight box hangars will likely be connected to the Project site in the future.

Both the Taxiway Romeo and North Airfield Box Hangars bring up the question of potential Project Segmentation which should be more fully explored. **To avert Project Segmentation, the Proponent should include these matters in a revised DEIR.**

Concluding Remarks

Based on the above, we are forced to conclude that the Proponent's DEIR is not a serious assessment of the environmental impacts of the proposed Project, and that their claims are not backed by adequate analysis or fact. **We therefore urge Secretary Tepper to instruct the Proponent to revise their DEIR to produce a more comprehensive and accurate environmental impact report.**

Sincerely,

Lincoln Select Board

Kim Bodnar (Apr 30, 2024 17:08 EDT)

Kim Bodnar, Chair

Jennifer Glass (May 1, 2024 07:25 EDT)

Jennifer Glass, Member

Jim Hutchinson (Apr 30, 2024 17:02 EDT)

Jim Hutchinson, Member

CC: The Honorable Governor Maura Healy
Secretary Rebecca Tepper, Executive Office of Energy and Environmental Affairs
Senator Michael Barrett
Representative Alice Peisch
Representative Carmine Gentile

Lincoln Select Board Hanscom DEIR Comment 2024-04-29

Final Audit Report 2024-05-01

Created:	2024-04-30
By:	Jim Hutchinson (jmhutch5@hotmail.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA3T5knC_ffBsJFhPoEkAeRWBmiywCunk7

"Lincoln Select Board Hanscom DEIR Comment 2024-04-29" History

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2024-04-30 - 9:01:16 PM GMT- IP address: 173.76.102.126

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TOWN OF CONCORD
TOWN HOUSE - P.O. BOX 535
CONCORD, MASSACHUSETTS 01742

To: Mr. Alex Strysky, MEPA Analyst
Delivered via email: alexander.strysky@mass.gov

From: Town of Concord Select Board

Subject: EEA No. 16654 - L.G. Hanscom Field North Airfield Development, Bedford

April 29, 2024

Dear Mr. Strysky,

We, the Select Board of Concord, wish to comment on the Draft Environmental Impact Report for the proposed North Airfield Expansion at Hanscom Airport. We understand that once built, all resulting operations would be subject to the exclusive jurisdiction of the FAA and beyond local control. Therefore, this is the only opportunity for local jurisdictions to have input, during the planning of the overall capacity of the facility.

As you know, the Town of Concord, as well as neighboring towns, and the Commonwealth of Massachusetts, have all been diligently working, separately and together, to reduce our greenhouse gas emissions. We have been making significant progress toward our 2030 reduction targets.

The North Airfield Expansion proponents claim that their proposed project would not generate any new greenhouse gases. But their analysis only counts emissions from buildings, while disregarding emissions from aircraft. At the same time, the project's expansion of aircraft storage, fueling and maintenance capability, all point to a likely increase in the number of flights.

If these new flights are included in the analysis, the expansion project is likely to significantly increase greenhouse gas emissions. That would directly contradict the climate goals pursued by our towns, the Commonwealth, and the nation. Furthermore, this expansion stands in stark contrast to Massport's own Master Plan of 1978 and the MAPC MetroCommon 2050 plan. It undermines Massport's goal of zero greenhouse gas impacts by 2031, a commitment acknowledged in the project's Environmental Notification Form.

We are disappointed that the DEIR does not include a comprehensive public cost/benefit analysis. We ask for the proponent to revise the DEIR, to include both qualitative and

quantitative information that addresses the incremental, direct, and cumulative impacts to the Concord community, the region, and the Commonwealth of Massachusetts.

For example, the proponent asserts that the proposed development will reduce the number of 'ferry flights' and has implied that the number of overall flights will be reduced, but they have provided no substantiating evidence. Instead, the evidence seems to say that the project will INCREASE the number of flights: Section 2.2.1 states that operations will increase by an estimated 12 flights per day. To support these additional flights, the project calls for 4 new fuel tanks and an additional 15,000 gallons delivered daily.

If the proponent is serious about claiming a reduced number of flights, then guarantees of this reduction should be documented in a revised DEIR, along with well researched analysis addressing noise levels, air quality, vehicle traffic, environmental justice concerns, impacts on rare species, and effects on the local economy.

Concord residents are deeply concerned that the proposed project will increase aviation activity which in turn will cause negative health effects due to increased air pollution and noise. Yet the DEIR does not adequately describe or evaluate these risks. We ask for you to revise the DEIR to contain a full analysis of all scientifically documented health risks associated with the project. For example, the EPA has stated that lead from aviation is a significant health risk. Studies are also underway regarding ultrafine particles. Airborne noise has been found in large public health studies to be a contributor to heart disease and physical stress. None of these health risks are adequately analyzed in the DEIR.

Regarding noise levels, the DEIR claims to include a detailed assessment of the noise generated by the project's increased air traffic. However, it only assesses noise (and GHG and air quality) impacts from localized airport activity, without considering these impacts from airborne planes. Ignoring impacts from airborne planes seriously minimizes the quality of life that the public will be forced to endure if this expansion moves forward. For example, wildlife at Great Meadows is routinely disturbed by jet noise, and overhead jets disrupt important events such as the traditional Patriot's Day ceremony at the North Bridge on April 15, 2024.

Most importantly, the revised DEIR must contain comprehensive well-researched analysis of the project's expected effect on greenhouse gas emissions and the carbon footprint. In its present form, the DEIR only analyzes aircraft CO2 emissions during takeoff and landing at the airport. The revised DEIR should also include analysis of GHG emissions of aircraft in flight.

For more detail, please see Appendix A, which contains the complete list of our original comments, the proponents' response in the DEIR, and the Town's follow-up comments.

In conclusion, the Draft Environmental Impact Report has serious flaws and omissions that need to be corrected. As proposed, the North Airfield Expansion at Hanscom Airport directly undermines our Town's and State's efforts to reduce greenhouse gases. It would also increase health risk, noise and other environmental concerns, while providing little or no benefit to the general public. We strongly recommend a revised DEIR, followed by careful and complete study, before a decision is made on whether or not to approve this project.

Sincerely,

Henry J. Dane, Concord Select Board Chair

Concord Select Board
Henry Dane, Chair
Mary Hartman, Clerk
Terri Ackerman
Linda Escobedo
Mark Howell

Cc: The Honorable Governor Maura Healy
Secretary Rebecca Tepper, Executive Office of Energy and Environmental Affairs
Senator Michael Barrett
Representative Simon Cataldo, Representative Carmine Gentile
Concord Town Manager Kerry Lafleur
Concord Deputy Town Manager Megan Zammuto
Concord Director of Public Works Alan Cathcart
Concord Transportation Advisory Committee
Hanscom Field Advisory Committee
Hanscom Area Town Select Boards

Appendix A

Draft Environmental Impact Report EEA No. 16654
North Airfield Development
Town of Concord

Table 14-2 Comments and Responses April 17, 2024

#	Commenter	Comment February 14, 2023	Draft Environmental Impact Report Response March, 2024	Town Response, April 2024
12.1	Concord Select Board and Liaison to Hanscom Area Town Selectmen (HATS)	The Draft Environmental Report (DEIR) should include both qualitative and quantitative information that addresses questions of the incremental, direct, and cumulative impacts to the Concord community.	The Purpose of the DEIR is to analyze and assess potential environmental impacts of the proposed project, and provide details about the project's design, the magnitude of environmental effects, and measures proposed to mitigate these effects.	No comment
12.2	Concord Select Board and Liaison to Hanscom Area Town Selectmen (HATS)	The proponent has offered that the proposed development will reduce the number of 'ferry flights' and has implied that the number of overall flights will be reduced - guarantees of this reduction should be documented and realized.	As described in Chapter 2 - Aviation Activity Levels, the Proponent worked with Massport to analyze existing conditions for ferry flights. This understanding was vital to assess th impact of the Project. Findings revealed that there exists the potential for over 250 monthly ferry flights, a number that could be reduced once the new hanger space becomes operational. However, it's important to empasize that the ability to decrease the number of ferry flights is beyond the Project's control. Nevertheless, the goal is to design and constuct hangar facilities that align with the current demand. This commitment underscores the Proponent's dedication to creating infastructure that optimizes ferry flight operations while acknowledging the external factors influencing their frequency.	Based on the 'Aviation Activity Levels' section of the DEIR, the project proponents have not offered any guarantees of reductions in either 'ferry flights' or the number of overall flights at Hanscom. A reduction in ferry flights is a keystone argument to the environmental benefits of the project. The proponents state the possibility that the project "may likely reduce annual ferry flights" (Section 1.1.1), and an analysis offered in the report does suggest that the project may result in a reduction of up to 3,500 ferry flights annually. However, the analysis appears to be based on limited assumptions and data regarding what constitutes a ferry flight (i.e., a fairly simple assessment of aircraft that arrived from an airport within 350 miles and stayed at Hanscom for less than 18 hours), without validating the assumptions with any actual data. The proponents claim that it is impossible to get actual data to confirm the current number of ferry flights, so it is unclear how they can argue with confidence their predictions of how that number might change as a result of the project. During the public hearing on 3/4/24, the proponents indicated that the proposed reduction of 3,500 ferry flights annually may be an overestimate and could be significantly less, and they did not appear particularly confident in the ability of their analysis to provide a solid estimate. There also does not seem to be acknowledgement of the possibility that any reduction in the number of current ferry flights (as a result of the creation of new hangar space) could be replaced with new additional ferry flights, which is consistent with the proponent's projected increased demand in private jet use that is offered as a primary reason to justify the need for the project in the first place. The proponent's assumption is that building the hangars will result in fewer flights than not building them (on the uncertain assertion that all or most potential ferry flights will be eliminated), but that does not appear consistent with (or address) the documented concept of induced demand, which supports that improving and expanding infrastructure often results in an increased associated demand - i.e., if you build more hangar space it will attract additional private jets and operations. The proponents have also taken effort to highlight that the number of proposed hangars has been reduced from the original number of 26 down to 17 (a 35% reduction), but fail to make clear that this is simply the result of resizing hangars and does not reduce the potential number of jets that can be accommodated in the hangar space.
12.3	Concord Select Board and Liaison to Hanscom Area Town Selectmen (HATS)	The DEIR should include a comprehensive public cost/benefit analysis, addressing quality of life issues such as Noise and Visual Intrusions - impacts to humans and to wildlife of the air traffic numbers resulting from the proposed development (including the frequency, volume, size of aircraft, and flight paths) and the disruption of biological rhythms, peace of mind, communication, foraging, navigation, and mating.	The DEIR includes a detailed assessment of the noise generated by the increased air traffic resulting from the proposed development. Analysis considers the frequency, volume, and types of aircraft that will be using the facility See Chapter 8 - Noise and Air Quality, Section 8.2.	As described in Chapter 2 - Aviation Activity Levels, the Proponent worked with Massport to analyze existing conditions for ferry flights. This understanding was vital to assess th impact of the Project. Findings revealed that there exists the potential for over 250 monthly ferry flights, a number that could be reduced once the new hanger space becomes operational. However, it's important to empasize that the ability to decrease the number of ferry flights is beyond the Project's control. Nevertheless, the goal is to design and constuct hangar facilities that align with the current demand. This commitment underscores the Proponent's dedication to creating infastructure that optimizes ferry flight operations while acknowledging the external factors influencing their frequency.
12.4	Concord Select Board and Liaison to Hanscom Area Town Selectmen (HATS)	Vehicular Traffic - increased traffic volumes (and potentially speeds) on Route 62, which ay affect pedestrian and bicylist safety along this road, particularly since there is no sidewalk for a major length of the road corridor.	Based on the trip generation calculations, it is estimated that the intersection of Hartwell Road at Concord Road would experience an increase of 12 trips during the weekday morning peak hour and 11 trips during the weekday evening peak hour. This is not expected to have a significant impact. Refer to Chapter 6 - Traffic and Transportation.	The trip generation calculation in Chapter 6-2 includes employees, customers, vendors, and all other trips. Table 6-1 notes that the trip generation is based on ITE Land Use Code 022 (General Aviation Airport) for 13 employees. The Appendix D is the ITE trip generation worksheet which is based on a single sample of an airport with 250 employees. It is recommended to have an independent review of the methodology regarding trip generations. The analysis in Chapter 6.2 does not provide any informaiton or assumptions on the number of customers or the trup generation by customers or vendors.

12.5	Concord Select Board and Liaison to Hanscom Area Town Selectmen (HATS)	Air Quality - increased aviation uses at Hanscom may result in reduced air quality, particularly given changes in wind patterns resulting from climate changes. Also, the health impacts of lead added to the environment resulting from the use of leaded (aircraft) fuel should be quantified. What is the general direction of wind patterns in relation to sensitive receptors such as child-care facilities, affordable housing developments and similar sites?	The Project team evaluated lead emissions for aircraft using AVGAS for both the 2030 No-Build and 2030 Build Conditions by utilizing the Handsom ESPR for evaluating predominant wind directions. The air quality analysis is detailed in Chapter 8 - Noise and Air Quality, Section 8.3.	A significant assumption in the mitigation of noise and air concerns centers around the assumptions made in section 2 of the same document- that the hangers will result in a net reduction of air traffic thus making the impact on noise and air pollution minimal if not less than the current. There is no clear indication presented that indicate the current “ferry flights” will be the end users of the hangers. The assumption that the hangers will reduce flights by creating less “ferry flights” is not considering possible new users of this service. An independent peer review of the impact is recommended prior to approval. In addition, the anticipated addition of 730 fuel delivery trucks per year (2 trucks per day) contradicts the argument that there is a reduction in flights. If flights were reduced, there should be fewer fuel deliveries. The emissions and air quality calculations do not seem to include the anticipated addition of 3650 trucks per year. Table 8-6 on the net operational emission changes include only changes associated with aircraft operational emissions, heating/cooling, employee trips and parking. (page 8-12)
12.6	Concord Select Board and Liaison to Hanscom Area Town Selectmen (HATS)	Climate Change - the increase in impervious pavement and the resultant loss of the woodland and grassland areas in the area proposed for development will create a "heat-island" effect that may impact surrounding neighborhoods and businesses without mitigation measures taken. Additionally, what is the condition of the existing soils in the area and what will be the effect of recharging groundwater resources by retaining stormwater on site? How will groundwater be protected in the event of a fuel spill or similar occurrence.	Refer to Chapter 9 - Climate Change for descriptions of the proposed ways the Project reduces the heat island effect. Refer to Chapter 5 - Land and Stormwater Management for an explanation of the existing soils and proposed stormwater management system. Refer to Chapter 7 - Water and Wastewater for an explanation of the Project's spill prevention plan.	The proponents have included language and measures into the DEIR to address heat island effects associated with impervious surface and increasing air temperatures as a result of climate change, “ … by incorporating approximately 1.1 acres of high albedo concrete in airside areas and a 0.75 acres of permeable pavement systems such as grass block pavers”, and “Hangar roofs will be constructed from materials with a higher albedo (e.g., white roofs), allowing sunlight to be reflected instead of absorbed, which reduces the urban heat island effect.” (Section 9.2) Although the use of these measures can help to mitigate thermal absorption and emission of heat to the surrounding air, it is unclear what percentage of the overall impervious surface these measures represent. It should also be noted that the proposed reconfiguration of the hangars, resulting in reducing the number from 26 to 17, also resulted in a modest reduction of overall impervious surface for the project, which would also support a reduction in a heat island effect. Stormwater management is addressed in Section 5 of the DEIR, but I would defer to Public Works to assess the viability of any proposed measures, and I would defer to Natural Resources and/or Public Health and/or the Fire Department to review measures to protect groundwater in the event of a hazardous materials spill as found in Section 7.
12.7	Concord Select Board and Liaison to Hanscom Area Town Selectmen (HATS)	Rare Species Impacts - The proposed development is immediately adjacent to mapped areas of Estimated and Priority Habitats, which may negatively impact rare wildlife. In addition, the flight path crosses many other mapped rare species habitats. The DEUR sgiykd evaluate the effects of increased noise and air pollution on resident, migratory, and overwintering wildlife species that occur in Concord (rare and otherwise).	Refer to Chapter 5 - Land and Stormwater Management, Section 5.4 for a description of how the Project will not negatively impact the protected wildlife and rare species habitat. As shown in Figure 5.10, a limited section of the southern portion of the Project Site contains Priority Habitat of rare species mapped by the NHESP. No buildings or impervious areas are expected to be developed within the habitat; therefore, no direct impacts are anticipated. The work propsoed within Priority Habitat (i.e., relocation of an existing fence and installation of a stormwater management infiltration basin) is not anticipated to negatively impact the Priority Habitat. The Proponent, in coordiantion with the Massachusetts NHESP, will complete the MESA Project Review Checklist. The NHESP will review the Checklist to determine if it would cause an adverse impact to listed species and, if applicable, identify any mitigation measures that may be necessary.	The Applicant has provided a response that NHESP will review impacts to rare species within the project area (on the ground), but has failed to provide any information on other rare species in the project’s flight path. The potential increase in aircraft activity, and associated noise, air quality, and visual impacts, should also consider rare species within the flight paths, including the potential increase in airstrikes. Impacts to common wildlife (migratory, breeding, feeding, communication, overwintering, etc.) should also be assessed, including the potential increase in airstrikes.

12.8	Concord Select Board and Liaison to Hanscom Area Town Selectmen (HATS)	Carbon Footprint - The four communities encircling Hanscom are working to reduce their respective carbon footprints. The carbon footprint of the proposed use should be evaluated, including both direct impacts from new impervious surface, construction materials and heating/cooling required for the new buildings, as well as increased aircraft fuel usage.	The DEIR filing presents a GHG analysis consistent with the requirements of the MEPA GHG Policy and the requirements of the Secretary's Certificate on the ENF Filing in Section 8.3 of Chapter 8 - Noise and Air Quality and Section 9.4 of Chapter 9 - Climate Change.	The project has proposed investments in sustainable design and energy efficiency measures to reduce fossil fuel use and greenhouse gas emissions regarding the project buildings and ground operations, including the use of: •Energy efficient building designs based on Massachusetts Stretch building codes •Heat pump technologies for full or hybrid interior space heating and cooling whenever feasible •EV-ready parking plus several EV charging stations •Solar PV rooftop systems with battery storage capability for the 18 hangar buildings (Note: the amount of solar production and storage is "… subject to interconnection feasibility with the utility.", and "The final sizes of the solar arrays are subject to change as the design of the Project progresses." (Section 9.3.1.7) Although these commitments appear promising and the proponents have incorporated recommendations of the MA Dept. of Energy Resources, the potential impacts of these measures intended to reduce building and ground operations emissions will depend on the final project and building designs, which are not necessarily guaranteed. Energy, fuel, and CO2 emissions savings realized by the above actions will ultimately be insignificant in comparison to the emissions generated by current and projected private jet fuel use at the Airfield, as further noted below.The project is presented as a sustainable aviation project that will support Sustainable Aviation Fuels (SAFs), which are biofuels made from crops (e.g., corn) or agricultural waste (e.g., vegetable oil or animal fats) mixed with conventional jet fuel. While SAFs sound like a green solution by preventing the need to extract and burn fossil fuels, they still generate the same amount of carbon dioxide equivalent as regular aviation fuel and their production requires agricultural resources and energy. High costs and low availability currently limit the widespread use of biofuels in aviation – only about .01% of total aviation fuel currently consumed is bio-based, and even if significant use of these fuels is eventually realized it is anticipated to be decades away. The project makes several claims throughout Section 1 that it is designed to be, or will strive to achieve, net-zero emissions in support of Massachusetts decarbonization goals, and will "… serve as a national example of innovative and sustainable aviation practices in line with the Commonwealth's decarbonization goals." (Section 1.1.2) These claims are ultimately misleading because they are based on only accounting for greenhouse gas emissions from the proposed infrastructure (Scope 1 emissions) and the energy sources that are used by the facility (Scope 2 emissions), but does not include the emissions produced by the aircraft using the facility during their entire flight (other than during landings and take offs). The latter are considered Scope 3 emissions, which are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly affects in its value chain and can often represent the majority of an organization's total greenhouse gas (GHG) emissions. Although these emissions may not be required within the scope of the DEIR, they are relevant and should be considered when assessing the overall merits of the project. The proposed jet fuel use for the project also belies the notion of the project as one that will not generate any new greenhouse gases. The project proposes four new 20,000-gallon tanks for jet fuel, with 20,000 gallons delivered daily on average (Section 1.5.2.4). The proponents estimate 15,000 gallons of fuel dispensed per day, which adds up to over 5.5 million gallons of jet fuel use annually and can be estimated to be over 200,000 tons of new CO2 equivalent emissions per year. Ultimately, the intent of the project to support a projected increase in private jet use is antithetical to local and State efforts and goals to reduce greenhouse gas emissions and curb climate change. The project assumes that investments should be made to meet projected increases demands – which provides benefits of convenience to very few at high environmental costs to very many – rather than consider the climate-critical alternative that efforts should instead be taken to reduce the use and demand for private jet travel.

12.9	Concord Select Board and Liaison to Hanscom Area Town Selectmen (HATS)	Economic - Adverse effects of the increased air traffic diminish the very intrinsic qualities that attract tourists, impacting local economies.	As described in Chapter 8 - Noise and Air Quality, due to the anticipated reduction in ferry flights, the Project is not expected to result in an increase in aircraft emissions; aircrafft air emissions are anticipated to be lower than the 2030 No Build Condition. Air emissions are associated with the Project are not expected to result in significant impacts and will not exceed the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. Future aircraft noise levels with the Project Site in place are expected to remain comparable to current and future No-Build operations. Due to factors such as distance from the noise source, shielding provided by the proposed hangar buildings, the presence of large surrounding buildings off-site, and terrain variations between the Project Site and residential areas, aircraft ground noise assocated with the Project would be well within the normal range of everyday sounds in community, meaning the nouse is unliekly to be noticable or bothersome.	The Proponent lacks the authority to dictate or regulate operators' decision regarding ferry flights, on which this assumption is based on. If the aircraft frequency is higher than anticipated, there is no ability to control or limit ongoing ferry flights. The ¼ square mile Study Area for the impact to Cultural Resources and Open Space (Chapter 11) is artificially small, excluding impacts to the many nationally significant sites in Concord. The Concord Historical Commission recently responded to a request from the firm that was preparing a 2022 Hanscom Field Environmental Status and Planning Report that identified a 45 square mile Study Area and that took into account flight patterns over Concord's historic resources.
12.10	Concord Select Board and Liaison to Hanscom Area Town Selectmen (HATS)	Public Benefit(s) - The primary private nature of the proposed development beneftis a few users while the adverse impacts will be born by the public. Statenebts nade during the presentation indicated that these new hangers would be a benefit through the reduction in the number of "ferry flights"; guarantees of this future performance should be provided. This statement should be supported witha ccurate numbers (how many such flights per day/week/month) and requests/reservations for the proposed hanger space. Other public benefits (implied or stated) should be documented and supporting information provided.	21 percent of flights in the 2022 NOMS dataset were identified as charter/business flights. Of these charter and business flights, 17 percent (3,456 flights) or three percent, of total Airport flights were characterized as ferry flights. Trends indicate variations in ferry flight numbers over time, with peaks in May, June, and October months. Average daily ferry flights ranged from 6 to 12 flights, with an average of 9 flights per day. Average monthly ferry flights ranged from 196 to 365, with an average of 283 ferry flights per month. More detail of the ferry flight analysis can be found in Chapter 2 - Aviation Activity Levels. Currently there are no firm reservations for the hangers due to the timeline of development completion. The Proponent lacks the authority to dictate or regulate operators' decision regarding ferry flights.	See response to Comment 12.3.

]

COMMONWEALTH OF MASSACHUSETTS
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Maura Healey
Governor

Kim Driscoll
Lt. Governor

Rebecca Tepper
Secretary

Elizabeth Mahony
Commissioner

30 April 2024

Rebecca Tepper, Secretary
Executive Office of Energy & Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02114
Attn: MEPA Unit

RE: Hanscom North Airfield, Bedford MA, DEIR #16654

cc: Jo Ann Bodemer, Director of Energy Efficiency, Department of Energy Resources
Elizabeth Mahony, Commissioner, Department of Energy Resources

Dear Secretary Tepper:

We've reviewed the Draft Environmental Impact Report (DEIR) for the proposed project. The project involves building 16 new "Standard" hangar buildings (ranging from 12,000 SF to 60,000 SF), a renovation of the existing Navy Hangar building (86,680 SF), and a new Aviation Support Building (55,600 SF). This will realize a total of 522,380 SF across these 18 buildings. There will also be approximately 240 new surface parking spaces.

Executive Summary

The scope of our review is limited emissions associated with space conditioning and energy use of the buildings.

Bedford has adopted the Specialized Code, which goes into effect in July 2024, well before the completion of the MEPA process. We recommend that this project comply with the Specialized Code, which will include following either the All-Electric pathway (CC104) or the Mixed-Fuel

Pathway (CC105 and CC106), in addition to the commitments already made for the Massachusetts Stretch Energy Code. The details are available here:

https://www.mass.gov/doc/commercial-and-other-stretch-energy-code-and-specialized-opt-in-codelanguage-redline/download

Key Commitments

The following are the positive key commitments already made in the DEIR:

60 of the new parking spaces will have EV charging stations, and the remaining 180 spaces will be EV-ready. There will be 4 new additional EV charging stations available for public use.

Standard Hangars (16 total)

- Total EUI is 46 kBtu/yr-sf, of which gas accounts for 3 kBtu/yr-sf.
- Vertical envelope performance of U-0.04.
- Roof performance of U-0.03, with continuous insulation.
- Low window to wall ratio of 1.40%.
- Air leakage rate of building envelope of 0.30 cfm/sf.
- The standard hangar buildings will be heated and ventilated only. Heating will be provided by air to water heat pumps, with auxiliary gas fired condensing boilers which will only operate at very low winter design temperature.
- The office spaces within the standard hangar buildings will be space conditioned with air source heat pumps with no gas.
- Domestic hot water will be provided by heat pump water heaters.

Existing Navy Hangar

- Total EUI is 42 kBtu/yr-sf, of which gas accounts for 1 kBtu/yr-sf.
- Vertical envelope performance of U-0.032.
- Roof performance of U-0.03.
- Window to wall ratio of 13.59 %.
- Air leakage rate of building envelope of 0.30 cfm/sf.
- Heating will be provided by air to water heat pumps, with auxiliary gas fired condensing boilers which will only operate at very low winter design temperature.
- The office spaces within the standard hangar buildings will be space conditioned with air source heat pumps with no gas.
- Domestic hot water will be provided by heat pump water heaters.

Aviation Support Building

- Total EUI is 36 kBtu/yr-sf, of which gas accounts for 0.36 kBtu/yr-sf.
- Vertical envelope performance of U-0.05.
- Roof performance of U-0.03, with continuous insulation.

- Window to wall ratio of 20.9%.
- Air leakage rate of building envelope of 0.30 cfm/sf.
- Heating will be provided by air to water heat pumps, with auxiliary gas fired condensing boilers which will only operate at very low winter design temperatures.
- Conditioning of the non-hangar spaces will be 100% air source heat pumps.
- Domestic hot water will be provided by heat pump water heaters.

Recommendations for the Next Submission

We recommend that this project be revised to follow the Specialized Code, which requires compliance with Appendix CC of the Massachusetts Stretch Energy Code. In addition to following the mandates of the Stretch Energy code, the Specialized Code also requires compliance with either the All-Electric pathway (CC104) or the Mixed-Fuel Pathway (CC105 and CC106). The latter option requires the installation of on-site renewable generation (PV), high-efficiency equipment, and pre-wiring for any buildings with fossil fueled equipment.

Please note that any natural gas connection will disqualify the project from any MassSave incentives. We recommend that, regardless of which pathway is chosen, the project requests a letter or email from MassSave clearly documenting what amount of money would be received if the All-Electric pathway is followed.

If the Mixed Fuel pathway is followed, then 1.5 Watts/SF of PV is required to be installed, which equates to 783,570 watts for this Project. The current "Target Solar Array Installation Assessment" in Table 9-10 of the DEIR will need to be revised to reflect this increase in PV installation. This PV would have to be described as a commitment, with no caveats (such as "subject to interconnection").

Sincerely,

Becca Edson
Decarbonization Architect

Paul F. Ormond, P.E.
Energy Efficiency Engineer

Governor's Landing, EENF No. 16806
Upton, Massachusetts

From:	Kim Katzenback
To:	Tepper, Rebecca L (EEA); Strysky, Alexander (EEA)
Cc:	Cindy Friedman; mike.barrett@masenate.gov; Ciccolo, Michelle - Rep. (HOU); Ken.Gordon@mahouse.gov; Simon.Cataldo@mahouse.gov; carmine.gentile@mahouse.gov; thomas.stanley@mahouse.gov; James Malloy; Carol Kowalski; Abigail McCabe; Joanne Belanger; Charles Hornig (Town); Margaret Coppe; whb@bu.edu; Barbara K; Doug Lucente; Jill Hai; Joe Pato; Mark Sandeen; Suzie Barry gmail
Subject:	Hanscom Area Towns Committee Public Comment Letter regarding EEA No. 16654, L.G. Hanscom Field North Airfield Development
Date:	Tuesday, April 30, 2024 3:52:15 PM
Attachments:	HATS Committee Comments on DEIR Final 4-25-2024.pdf

Please see below/attached being sent on behalf of the Hanscom Area Towns Committee.

Secretary Tepper and Alexander Strysky,

The Hanscom Area Towns Committee (HATS) appreciates the opportunity to submit the attached public comment letter on the Draft Environmental Impact Report for the proposed North Airfield development at Hanscom Field. The Hanscom Area Towns Committee coordinates the policies and activities of the four towns (Bedford, Concord, Lexington, and Lincoln) that contain Hanscom Field and their relationship with the major organizations that operate in the Hanscom Field area. The four towns coordinate their efforts in planning, growth management, land use, traffic control, and environmental protection.

On April 25, 2024 the Hanscom Area Towns Committee voted unanimously to approve submission of the attached letter on behalf of the Hanscom Area Towns Committee.

Respectfully submitted,
Mark Sandeen
Chair, Hanscom Area Towns Committee
Town of Lexington Select Board Member

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office

April 25, 2024

Alexander Strysky, MEPA Analyst for the Project
100 Cambridge Street, Suite 900
Boston MA 02114

Re: Draft Environmental Impact Report (DEIR)
EEA No. 16654, L.G. Hanscom Field North Airfield Development

Dear Secretary Tepper and Mr. Strysky:

Thank you for the opportunity to submit public comments on the Draft Environmental Impact Report (DEIR) for the proposed North Airfield Development at L.G. Hanscom Field in Bedford, EEA No. 16654. We also extend our appreciation for the bold and ambitious climate goals you have set forth for our Commonwealth.

We write to highlight a pressing environmental concern regarding the proposed North Airfield expansion at Hanscom Airport and its potential contradiction to the state's climate objectives. The Draft Environmental Impact Report does not propose to include measurement or analysis of the full impact of greenhouse gases or ultrafine particulate matter ($PM_{0.1}$) from aircraft operations departing from or arriving at Hanscom Airport.

The proponents, Runway Realty Ventures LLC and North Airfield Ventures LLC, state that the DEIR will include "an air quality analysis consistent with the analyses presented in the Massport 2017 ESPR." The proponents then state that "The 2017 ESPR analyzed six criteria pollutants that are regulated by the National Ambient Air Quality Standards (NAAQS) set by the U.S. EPA and Massachusetts Ambient Air Quality Standards (MAAQS) set by the Massachusetts Department of Environmental Protection (MassDEP). These six criteria pollutants, which include carbon monoxide (CO), lead (Pb), nitrogen oxides, ozone (O_3), particulate matter [PM_{10} and $PM_{2.5}$], and sulfur dioxide (SO_2), are generated from aircraft operations and vehicular traffic." And finally, the proponents state that "Aircraft operations emissions estimated for this analysis include emissions below the default 3,000-foot mixing height."

We respectfully request that greenhouse gas emissions (CO_2e) and ultrafine particulate matter ($PM_{0.1}$) be added to the list of criteria pollutants measured for aircraft operations. In addition, we request that a comprehensive and accurate Environmental Impact Review (EIR) include greenhouse gas emissions (CO_2e) for the entire flight of aircraft operations departing from or arriving at Hanscom Airport, not just for the portion of the flight below 3,000 feet, which is typically only 1 minute of an average 100 minute flight time.

Our towns have been diligently working hand-in-hand with the State government to achieve our greenhouse gas emission reduction targets. The Commonwealth should require that the full impact of aircraft operations resulting from the proposed North Airfield expansion be considered, as we believe those emissions directly contradict the climate goals of our towns, the Commonwealth, and the nation.

Jet engine exhaust is a significant source of ultrafine particles and aviation-related emissions can adversely impact air quality over large areas surrounding airports.[1] Studies have shown that ultrafine particulate matter ($PM_{0.1}$) can cross biological boundaries (entering the circulatory system) due to their extremely small size. Exposure to $PM_{0.1}$ is associated with inflammation biomarkers, oxidative stress and cardiovascular disease.[2] Additional research documents the adverse health effects of aviation related ultrafine particles ranging from pre-term birth[3] to toxicity assessments[4]. The EPA adopted a particle number based regulatory standard in the US for aircraft engines.[5] Preliminary measurements already show that concentrations experienced by residents near Hanscom Field exceed WHO guidelines.[6] We thus respectfully request that a comprehensive and accurate Environmental Impact Review (EIR) include a full assessment of $PM_{0.1}$ emissions for aircraft operations departing from, taxiing, or arriving at Hanscom Airport.

In addition, the Proponent's assessment of the Project's impact on the local environment is based largely on the assumptions, projections, and models featured in the 2017 Environmental Status & Planning Report (ESPR). The 2022 ESPR is due from Massport in May 2024 after the DEIR comment period deadline. Given the significant impact of the Project on airport operations and on the built and natural environments at Hanscom, it is prudent that the DEIR and any further environmental assessments be based on the most current data available.

We ask that the Proponent review all its assessments and models against the 2022 ESPR once it is published, and that the EEA's review of this DEIR pause until that publication and review take place. We would also request that HATS Towns be provided with a sixty day period of time to review the 2022 ESPR before providing final comments on the DEIR following the newly released MassDEP guidance for Conducting Cumulative Impact Analysis.

We respectfully request your support in opposing private jet hanger expansion at Hanscom or elsewhere, emphasizing the urgent need for all sectors, in all locations, to work collaboratively towards reducing CO_2 emissions and meeting our critical climate goals.

Sincerely yours,

Mark Sandeen
Town of Lexington Select Board Member

Emily Mitchell
Town of Bedford Select Board Member

Jim Hutchinson
Town of Lincoln Select Board Member

Linda Escobedo
Town of Concord Select Board Member

CC:
Edward C. Freni, Interim CEO, Massport
Melissa Hoffer, Office of Climate Innovation and Resilience
Senator Elizabeth Warren
Senator Ed Markey
Congresswoman Katherine M. Clark
Congresswoman Lori Trahan
Congressman Seth Moultan
Sen. Michael J. Barrett
Sen. Cindy F. Friedman
Rep. Michelle L. Ciccolo
Rep. Kenneth I. Gordon
Rep. Alice H. Peisch
Rep. Simon Cataldo
Rep. Carmine L. Gentile
Rep. Thomas M. Stanley

1. **Aviation-Related Impacts on Ultrafine Particle Number Concentrations Outside and Inside Residences near an Airport**
   N. Hudda, M.C. Simon, W. Zamore, and J. L. Durant
   Environmental Science & Technology **2018** *52* (4), 1765-1772
   DOI: 10.1021/acs.est.7b05593 https://www.sciencedirect.com/science/article/pii/S0360132322002347
2. Schraufnagel, D.E. **The health effects of ultrafine particles.** *Exp Mol Med* **52**, 311–317 (2020). https://doi.org/10.1038/s12276-020-0403-3
3. Wing SE, Larson TV, Hudda N, Boonyarattaphan S, Fruin S, Ritz B. **Preterm Birth among Infants Exposed to *in Utero* Ultrafine Particles from Aircraft Emissions.** Environ Health Perspect. 2020 Apr;128(4):47002. doi: 10.1289/EHP5732. Epub 2020 Apr 2. PMID: 32238012; PMCID: PMC7228090. https://pubmed.ncbi.nlm.nih.gov/32238012/
4. Hulda R. Jonsdottir, Mathilde Delaval, Zaira Leni, Alejandro Keller, Benjamin T. Brem, Frithjof Siegerist, David Schönenberger, Lukas Durdina, Miriam Elser, Heinz Burtscher, Anthi Liati, Marianne Geiser. **Non-volatile particle emissions from aircraft turbine engines at ground-idle induce oxidative stress in bronchial cells**. *Communications Biology*, 2019; 2 (1) DOI: 10.1038/s42003-019-0332-7 https://pubmed.ncbi.nlm.nih.gov/30854482/
5. https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-control-air-pollution-aircraft-engines
6. https://www.ncbi.nlm.nih.gov/books/NBK574595/box/ch4.box15/?report=objectonly

Town of Bedford
Town Hall, 10 Mudge Way
Bedford MA 01730

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alexander Strysky, MEPA Analyst for the Project
100 Cambridge Street, Suite 900
Boston MA 02114
VIA EMAIL: Alexander.strysky@mass.gov

April 30, 2024

Re: Draft Environmental Impact Report (DEIR)
EEA No. 16654, L.G. Hanscom Field North Airfield Development

Dear Secretary Tepper and Mr. Strysky:

Thank you for the opportunity to submit public comments on the Draft Environmental Impact Report (DEIR) for the proposed North Airfield Development at L.G. Hanscom Field in Bedford, EEA No. 16654.

We appreciate the Proponent's request to extend the public comment period on this DEIR an additional two weeks, given the length of the DEIR and the significant impact of the proposed Project on the surrounding communities.

The DEIR seems comprehensive on its face, and we thank the Proponent for attempting to address many of the comments and concerns raised by EEA, the Town of Bedford, and other critical stakeholders in response to its Environmental Notification Form filed in January 2023. **Upon further review, however, the DEIR relies on repetition and surface-level inquiry more than deep analysis, which results in an incomplete, and in some cases misleading, assessment of the impact of the Project on the environment and surrounding communities.**

Our chief concerns with the DEIR relate to the Project capacity, the Proponent's methodology, and traffic.

I. CAPACITY

Central to the Proponent's justification for the Project is the notion of "ferry flights"—that they exist, that they are a problem, and that the Project is the solution. By providing additional hangars to house aircraft that currently use Hanscom as a stopover, the Proponent predicts the Project will result in approximately 3,500 fewer flights annually, or a 2–3% reduction in overall operations (page 1-3).

This assumption colors every assessment of the Project's impact. The Proponent simultaneously asserts, however, that the Project will result in 12 daily operations on average, representing 3–4% of total operations at Hanscom (page 2-2), thereby negating the promised reduction.

In Bedford we know that increased capacity does not necessarily result in decreased demand. The widening of Route 3, for example, rather than alleviating traffic or decreasing commuting times, has instead increased both, and sent more drivers off the highway and onto our local roads. The Proponent's claim that increased hangar capacity at Hanscom Field will decrease overall operations should be met with skepticism unless and until it is supported by considerable evidence—which the DEIR does not provide.

Indeed, the Proponent notes on page 1-3 that "Massport anticipates that business air travel will continue to use Hanscom whether the Project is constructed or not," and further states that it "intends the Project to meet existing demand." The Proponent's assessment of the proportion of Hanscom operations that are ferry flights is driven by its own criteria, which are applied to a limited set of data from Massport and FAA (Section 2-3). The Proponent has not, and under FAA rules cannot, confirm or document whether a recorded flight is a ferry flight, because identifying information on operators and the purpose of flights is not publicly available. Based on this limited data and the conclusions in Section 2.4, the Project's expected impact on ferry flights lies somewhere between "eliminate all" and "eliminate none."

We ask the Proponent to revise and republish its analyses of the Project's impact on overall operations and emissions <u>without</u> the assumed 2–3% reduction in ferry flights, since said reduction is not supported by sufficient evidence in the DEIR.

II. METHODOLOGY

General

The Proponent's assessment of the Project's impact on the local environment is based largely on the assumptions, projections, and models featured in the 2017 Environmental Status & Planning Report (ESPR). Data for this report was gathered in 2017—seven years ago—and shared with the public in May 2019.

The ESPR is prepared and published every five years, using data gathered two years prior to the publication date. The 2022 ESPR, therefore, is due from Massport in May 2024. Given the significant impact of the Project on airport operations and on the built and natural environments at Hanscom, it seems prudent that the DEIR and any further environmental assessments be based on the most current data available. The 2030 projections made in 2017–2019 may be very different from those made in 2022–2024, and it would behoove the Proponent to understand all the impacts of the Project in the current moment.

We ask that the Proponent review all its assessments and models against the 2022 ESPR once it is published, and that the EEA's review of this DEIR pause until that publication and review take place.

Air Quality

The Proponent's assertion that the Project will have negligible impact on overall emissions is based on its current design plans, which aim for LEED Gold certification. We appreciate the efforts the Proponent

is making to ensure its design incorporates as many sustainable and climate-friendly elements as possible, and we understand that ultimate responsibility for aircraft emissions rests with FAA, not with the Proponent. **To assert, however, that "no significant adverse air quality impacts would be expected to result from implementation of the Project" (page 8-12) is disingenuous at best.**

The Project is not an office building; it is not a biotech lab or a large apartment complex. It exists to house aircraft, and aircraft have disproportionate negative impacts on air quality. The specific aircraft that the Proponents are targeting—private and corporate jets—have a particularly egregious passenger-to-emission ratio. To fail to acknowledge the very nature of the Project in an attempt to minimize its holistic impacts on regional air quality is profoundly disappointing.

The four contiguous Hanscom towns and the Hanscom Field Advisory Commission have recently undertaken a study by Professor Neelakshi Hudda of Tufts University to determine the current baseline levels of ultrafine particles in the air around Hanscom Field. We anticipate this study will be complete within the next several weeks, and its findings should be helpful in understanding the existing conditions of ultrafine particles as well as airborne lead.

The EPA recently issued a finding that lead emissions from aircraft engines that operate on leaded fuel—which could include aircraft housed at the Proponent's new hangars, since 55% of all operations at Hanscom Field come from aircraft using leaded avgas—cause or contribute to air pollution that may reasonably be anticipate to endanger public health and welfare. The Town of Bedford submitted a public comment in support of this finding, which is attached as an appendix to this public comment.

We ask MEPA to require a deeper analysis of the Project's impacts on air quality, understanding the full context of the Project and not simply the building design, to determine whether the Project is truly capable of "advanc[ing] the Commonwealth's climate agenda" (page 9-5).

Noise

The Proponent claims that the Project will have minimal impact on noise pollution in the area, based on its assumption that overall operations will be reduced, and that its building design and infrastructure will be attractive for aircraft using more sustainable, and therefore quieter, technology.

In our comment on the ENF, we noted that Bedford residents consistently log the highest number of monthly noise complaints to Massport, and urged the Proponent to minimize or absorb ground noise from planes in the new hangars. The Proponent's response in Table 14.2, page 14-20, says only that "the Project's predicted ground noise levels . . . will not exceed the FAA's threshold for compatible land use."

We note that FAA is currently reviewing its standards and metrics for measuring noise from aircraft and airports, in recognition that the longstanding Schulz curve, on which all noise metrics are currently based, is inadequate to capture actual levels of noise and annoyance from noise. Public standards and tolerance for noise have changed over time, and our understanding of the long-term dangers of noise pollution has increased. Planes may be quieter now than they were in the 1970s, but they are not less annoying to nearby residents.

The Town of Bedford submitted public comments to FAA in response to both its initial Neighborhood Environmental Survey and its more recent noise policy review, to encourage exploration of other noise

metrics to more accurately capture and assess environmental impacts of noise. Both letters are attached as an appendix to this public comment.

We ask the Proponent to revisit its assessment of the likely impact of noise pollution from the Project, incorporating real data gathered in person from existing Hanscom operations, rather than relying solely on AEDT, SoundPlan®, and other modeling methods.

III. TRAFFIC

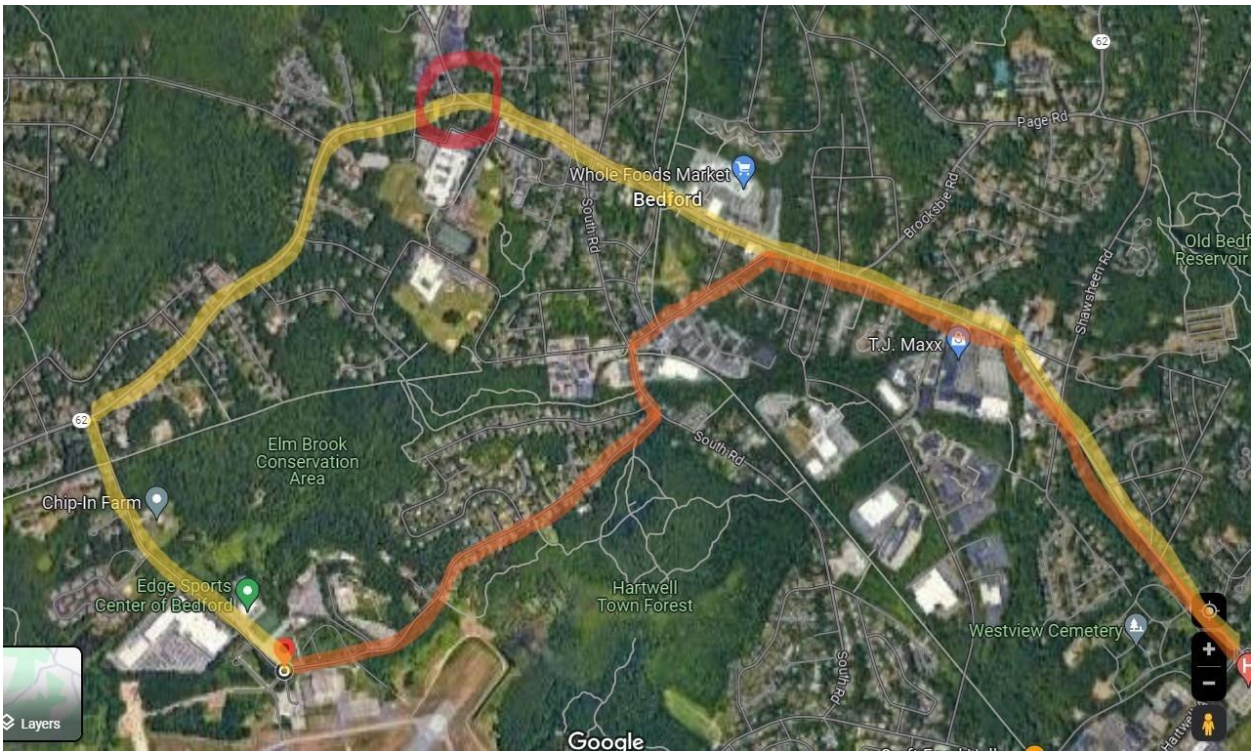
The Proponent's assessment of the Project's impacts on local roads is notably optimistic, and fails to account for local traffic patterns and infrastructure that may complicate the planned travel routes and expected daily trips.

The prospect of an internal service road off Route 2A/Hanscom Drive to take truck, construction, fuel, and other Project traffic off local Bedford roads, discussed on page 2 of our ENF comment, is dismissed by the Proponent in section 12.3.4.1 as "not feasible" after discussions with Massport (page 12-6), without delineating the reasons for this assessment. **We ask that the Proponent revisit this question with Massport,** given the clear advantages of Route 2A's wider width and less residential surroundings in the stretch between 95/128 and Hanscom Field.

Instead, the Proponent asserts that all traffic to and from the Project will follow a prescribed route shown in Figure 4.2 and in yellow below, which takes vehicles, including heavy trucks during construction and tankers carrying fuel and other hazardous materials pre- and post-construction, all the way through the center of Bedford before making a sharp left-hand turn onto Hartwell Road to head back east toward one of the four Project curb cuts.

The Proponents claim this route will "minimize neighborhood impacts," but the facts on the ground suggest the opposite. Great Road (4/225/62) is the main thoroughfare through Bedford and is regularly backed up with traffic during morning (eastbound) and evening (westbound) rush hours. The road splits at North Road and Concord Road, part of the proposed travel route. Concord Road is also a critical route for school buses serving three of Bedford's four public schools at the start (~7:00am) and end (~3:00pm) of the Proponent's proposed construction hours.

A more direct route off Route 95/128 that would avoid doubling back east, shown in orange below, would take trucks down Great Road, left on Loomis Street (a residential and commercial road), left on South Road at Depot Park, and then right on Hartwell through a long residential area. This option, while shorter, does not improve impacts to Bedford's neighborhoods and also features sharp turns and narrow streets. Students from the nearby middle school on Railroad Ave also regularly use part of this route to reach Great Road on foot and bike.



The Proponent's description of the preferred route for fuel trucks is confusing, due to the reliance on state route numbers rather than local road names. On page 1-6 the Proponent states that the fuel storage facility will be accessed "from a designated route via Route 2 to Hartwell Road." We assume this is a typo, as there is no clear or direct way to reach Hartwell Road from Route 2.

Assuming that the Proponent means Route 62, as referenced elsewhere in the DEIR, and not Route 2, this is a state road that encompasses The Great Road in Bedford from the Lexington town line until the road splits at Concord and North Roads (circled in red above), with Route 62 continuing southwest toward Concord as Concord Road, and Routes 4/225 continuing northwest as North Road.

The Proponent's statement on page 6-2 that "Fuel delivery trucks are expected to arrive . . . from Route 62, traveling westbound on Hartwell Road," therefore, is not possible. Either the trucks are taking Route 62 all the way to Hartwell and then traveling east toward the Project site, or the trucks are leaving Route 62 at Loomis St and weaving their way through the Depot Park neighborhood to Hartwell Road traveling westbound. The Proponent should know the difference.

Similarly, in Table 13-1 on page 13-9, the Proponent aims "to establish a construction vehicle route to remain on Route 4/225 until turning onto Hartwell Road," which is also not possible.

Of less import but troubling nonetheless, the Proponent's suggestion that providing MBTA schedules to employees is a suitable Transportation Demand Management measure **demonstrates a lack of awareness of MBTA service in Bedford**. The closest MBTA stop to the Project is a bus shelter at the corner of South Road and Loomis Street, 1.4 miles from the Project site. In theory, a commuting employee could take the 62 bus to this stop and then bike (10 minutes) or walk (30 minutes) to the Project, but Hartwell Road is narrow and winding, with limited visibility in many sections and sidewalks that extend only to Bagley Avenue, half a mile from the Project site.

The Proponent also **misstates the number of curb cuts** in several places within the DEIR, acknowledging the use and reconstruction of two existing curb cuts, but failing to account for the two additional new curb cuts required for the proposed fuel storage facility east of the Navy Hanger. Every curb cut counts, even if the vehicles using it are limited.

IV. ADDITIONAL CONCERNS

Fuel Storage: We are concerned by the introduction of up to 85,000 gallons of Jet A and other fuels on the border of the Project site, adjacent to local roadways and a Superfund site (see below). Section 7.4.2 also indicates that captured petroleum waste products from stormwater discharge will be "stored in a hold tank and recovered for disposal at least once per year" (page 7-13). We ask the Proponent for more details regarding the proposed location of this hold tank and strategies to avoid spills and contamination if its contents lay stagnant for months at a time.

Superfund Proximity: We appreciate that the Proponent has been in contact with the Restoration Advisory Boards of the US Navy and Air Force regarding ongoing environmental cleanup of the Superfund site adjacent to the Navy Parcel. We remain concerned, however, that disturbances to the soil and groundwater at that site, as well as installation of underground storage tanks of jet fuel, could interfere with existing and future mitigation efforts.

Project Phasing: The Proponents claim that the Project will be constructed in five phases. These phases are poorly defined, however, and seem to overlap significantly, with all phases beginning in spring 2025, three ending in 2026, and two ending in 2027.

Misidentification:

- The Proponent references the "Bedford Historical Commission (BHC)" in Section 11.1.3 (page 11-3), which does not exist. Bedford has a Historic District Commission, whose area of oversight does not encompass the Project, and a Historic Preservation Commission, which is responsible for the preservation, protection, development, and management of Bedford's historical, archaeological, and cultural assets, as well as jurisdiction of the Town's Demolition Delay by-law, which affects any structure built prior to 1943. We assume the Proponent means the HPC.
- Table 11-1 also references "300 Hartwell Road," which is not a valid address; this should be 200 Hartwell Road, as it's also part of the Chip-In Farm complex.
- Page 11-6 identifies the Instrumentation Laboratory building at 180 Hartwell Road (now Werfen), stating "it likely has associations with Hanscom Field and Hanscom AFB. Its original name and function has not been identified." This building was part of the Naval Weapons Industrial Reserve Plant complex, built in 1959 and operated by the US Navy and Raytheon as the Systems Building for decades. Its provenance is common knowledge in the region, as the complex was a significant factor in Bedford's post-war growth in the 1950s and 1960s. See https://atlantic.navfac.navy.mil/LinkClick.aspx?fileticket=xOBz2vjwCVY%3D&portalid=71 (page 3, map page 5) and https://www.bedfordma.gov/ArchiveCenter/ViewFile/Item/275 (pages 2–3).

V. CONCLUSIONS

We ask MEPA to require additional information from the Proponent before issuing any final determination regarding the environmental impact of the Project. In addition to the requests noted in the sections above, we also ask for:

- **More detailed evidence of the existence, number, type, and purpose of "ferry flights**," ideally with examples of other general aviation airports in the US that have increased hangar capacity in a similar manner as the Project and seen a subsequent reduction in aircraft operations;
- **Updated analysis of all models and projections** for aircraft operations, climate change impacts, noise, and emissions based on the 2022 ESPR, expected from Massport in the coming months, and without the assumption of operational reductions due to ferry flights;
- **Further serious exploration with Massport of an internal service road** to serve the Project, which would keep construction vehicles, tankers, and other heavy equipment off local roads.

Thank you again for the opportunity to comment on this Project.

Sincerely,

The Select Board of Bedford
Shawn Hanegan, chair; Emily Mitchell, liaison to Hanscom Field Advisory Commission and Hanscom Area Towns Committee; Daniel Brosgol; and Bopha Malone

Office of the Bedford Town Manager
Bedford Department of Public Works
Bedford Planning Department
Bedford Fire Department
Bedford Code Enforcement Department
Bedford Health and Human Services Department
Bedford Housing & Economic Development Department

Cc: State Representative Kenneth Gordon
State Senator Michael Barrett
Christopher Eliot, Chair, Hanscom Field Advisory Commission
Mark Sandeen, Chair, Hanscom Area Towns Committee
Rick Muse, Runway Realty Ventures, LLC/North Airfield Ventures, LLC: rick@charlesriverrealty.com
Michael Argiros, Runway Realty Ventures, LLC/North Airfield Ventures, LLC: michael@charlesriverrealty.com
Ken Schwartz, VHB: kschwartz@vhb.com
Sharon Williams, Massport: swilliams@massport.com

Appendices attached:

1. DPW DEIR response including 1995 Hanscom wetlands maps, April 25, 20242024
2. Town of Bedford comment on FAA NES, March 8, 2021
3. Town of Bedford comment on EPA proposed lead finding, January 10, 2023
4. Town of Bedford public comment on FAA noise policy review, June 12, 2023
5. Town of Bedford public comment on North Airfield ENF, February 13, 2023023

TOWN OF BEDFORD
DEPARTMENT OF PUBLIC WORKS

314 THE GREAT ROAD
BEDFORD, MASSACHUSETTS 01730
TEL: 781-275-7605
FAX: 781-275-9010

Date: April 25, 2024

APPENDIX 1:
DPW DEIR response including 1995 Hanscom wetlands maps, April 25, 2024

To: Matt Hanson, Town Manager

From: David Manugian, Public Works Director

Re: Preliminary Review of Draft EIR for North Airfield Development

DPW has completed a preliminary review of the DEIR for the North Airfield Development. The following list summarizes concerns or issues noted in the design that will require follow-up from the applicant:

1. In Section 5, Land & Stormwater Management, the report narrative states that previously conducted subsurface investigations were used to identify a Rawls rate, and also that this rate will be verified in the field prior to finalizing the design. The original data and test pit results including groundwater elevation were not provided. Each individual infiltration system should have soil data collected and provided in the report.
2. The Town of Bedford GIS shows an existing wetland area north of the linear wetland shown on the plans. The attached plan shows this area and should be confirmed in the field by the applicant, as it is located within the footprint of the development.
3. There is documented groundwater contamination on the brownfield site located across the street on the north side of Hartwell Road. The applicant should investigate impacts and constraints that may have an effect on the continuing clean-up efforts on that site.
4. Hartwell Road has existing drain pipes that discharge to the project site, but are not shown on the utility plans. The location and inverts should be factored into the design.
5. An Existing Conditions site survey was not included, and is needed to facilitate the review of the project.
6. With regard to water and sewer to service the development, the ENF comment still applies: Additional capacity analysis for both water and sewer demand should be performed by the Town's consultants at the applicant's expense for the full buildout of both sites. Each parcel will need to have its own water and sewer connection and associated permits as well as being subject to the Inflow & Infiltration Sewer Bylaw.
7. With regard to the location of the underground fuel storage tanks, the applicant should provide further analysis on the safety of vehicles entering and exiting at the elevated curve in Hartwell Road with known speeding complaints.
8. The Utility Plans are difficult to review with regard to potential conflicts, etc. To aid further review, a color coded plan would be useful and also separate plans for different utilities (i.e. water/sewer on one sheet).
9. There are concerns with regard to the amount of fill required for the design and the impact to local roadways and traffic.
10. Tree removal for the project is significant, but there is no local jurisdiction and the Town is not involved in review or mitigation. However it encourage the applicant to revegetate the site where possible.

A1-2

MATCH LINE, SEE SHEET 2 OF 2
MATCH LINE, SEE SHEET 2 OF 2
MERIDIAN BASED ON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM
BEDFORD
LEXINGTON
LEGEND:
TOWN LINE
PROPERTY BOUNDARY
WETLAND BOUNDARY
EXISTING STORM DRAIN
NOTES:
1. BORDERING VEGETATED WETLANDS DEMARCATED BY LEO IN THE FALL OF
AND LOCATED BY MERIDIAN ENGINEERING, INC. IN THE FALL OF
3. LOCUS PROPERTY
GRAPHIC SCALE
FEET
METERS
WETLAND DELINEATION PLAN
BEDFORD, MASSACHUSETTS
HANSCOM FIELD A.F.B.
SCALE: 1" =
REVISIONS
BEDFORD
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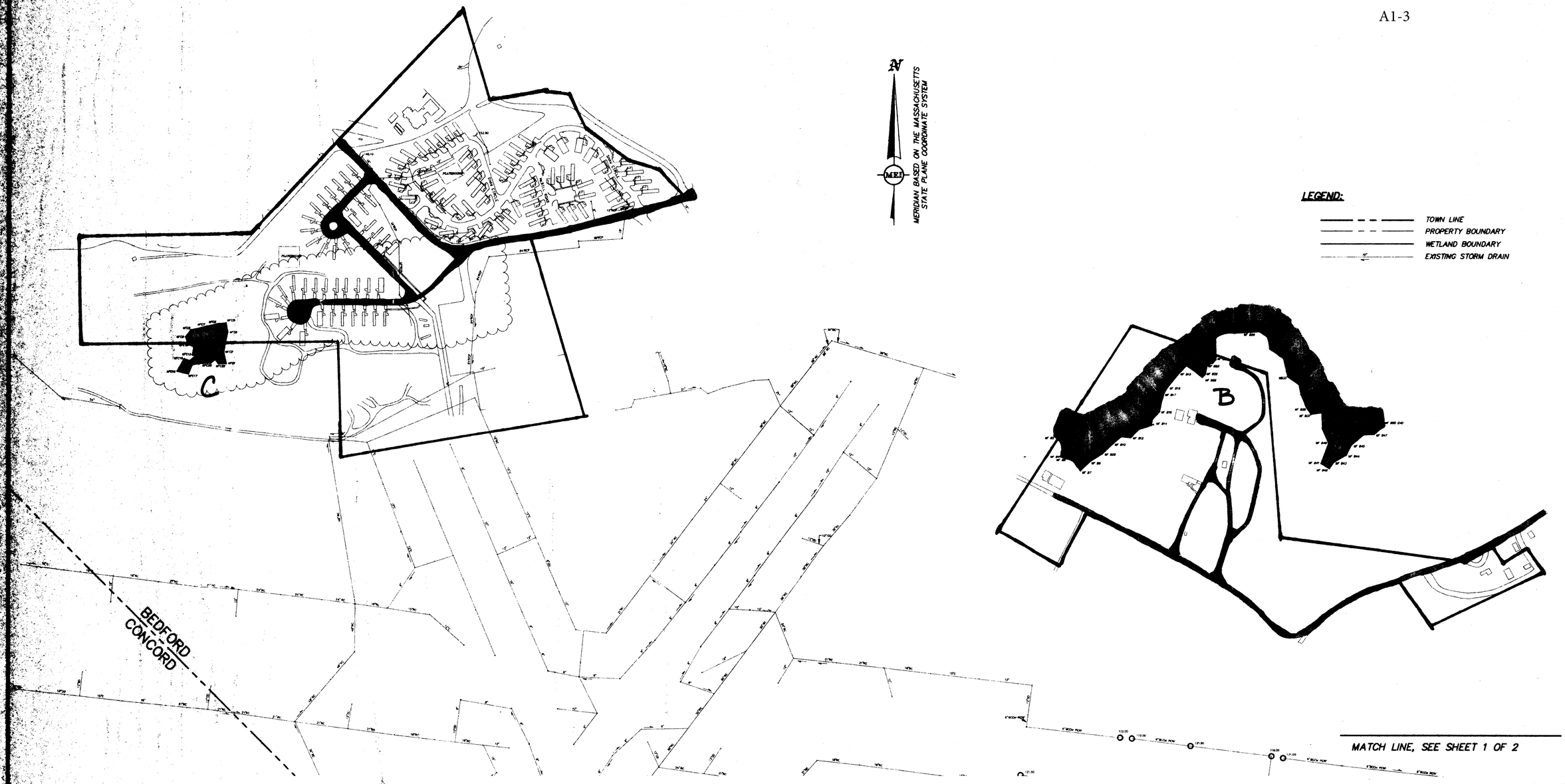

NOTES:

1. BORDERING VEGETATED WETLANDS DEMARCATED BY LEC IN THE FALL OF 1994 AND LOCATED BY MERIDIAN ENGINEERING, INC. IN THE FALL OF 1994.
2. THE SOLE PURPOSE OF THIS PLAN IS TO DEPICT THE LOCATION OF BORDERING VEGETATED WETLANDS. THE LOCATION OF ALL OTHER FEATURES, SUCH AS MUNICIPAL BOUNDARY LINES, BUILDINGS, ROADS, FENCES, ETC. IS FOR ILLUSTRATIVE PURPOSES ONLY AND HAS BEEN PROVIDED BY THE CIVIL ENGINEERING DEPARTMENT OF HANSCOM AIR FORCE BASE.
3. LOCUS PROPERTY DEPICTED ON THE TOWN OF BEDFORD ASSESSOR'S MAP PAGES 76, 77, 78, 82, 83, 86, 87, 88, AND 90.

GRAPHIC SCALE
SCALE: 1"=200'

FEET	200	0	100	200	400	800
METERS	0	50	100	200	300	

DWG. No. 2579BED2

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK'D

WETLAND DELINEATION PLAN 2
LOCATED IN
BEDFORD, MASSACHUSETTS
(MIDDLESEX COUNTY)

PREPARED FOR
HANSCOM FIELD A.F.B.

SCALE: 1" = 200' DATE: FEBRUARY 16, 1995

MERIDIAN ENGINEERING, INC.
100 CORPORATE PLACE, SUITE 102
PEABODY, MASSACHUSETTS 01960
TELEPHONE: (508) 535-7226

SHEET No. 2 OF 2 | PROJECT No. 2579

APPENDIX 2: Town of Bedford comment on FAA NES, March 8, 2021

Town of Bedford
Select Board
Town Hall, 10 Mudge Way
Bedford MA 01730

Mr. Donald Scata
Office of Environment and Energy (AEE-100)
Federal Aviation Administration
800 Independence Ave. SW
Washington, DC 20591
Submitted via https://www.regulations.gov/#!submitComment;D=FAA-2021-0037-0001

March 8, 2021

Re: Neighborhood Environmental Survey and Noise Research Portfolio, Docket No. FAA-2021-0037

Dear Mr. Scata:

Thank you for the opportunity to submit public comments regarding the Neighborhood Environmental Survey and Noise Research Portfolio, Docket No. FAA-2021-0037.

The Bedford Select Board agrees with the survey's conclusion showing a substantial increase in the percentage of people who are highly annoyed by aircraft noise, regardless of decibel level, and the insufficiency of the Schultz Curve as a model for measuring resident annoyance. Although neither our local airport, Laurence G. Hanscom Field (BED), nor the nearby Boston Logan airport (BOS) were included in the research, our community has experienced similar significant increases in actual and perceived aircraft noise over the past several years.

BED's effect on noise levels in Bedford can be measured in several ways, using the Massachusetts Port Authority's (Massport) own data compiled from flight operations, resident noise complaints, and noise measurements through BED's six localizers, two of which are located in Bedford.

From 1977 to 2018, tower counts out of BED decreased 48%, from 235,750 in 1977 to 121,664 in 2018. As the 1977 Hanscom Master Plan noted from the start, however, individual noise events are the greatest source of community concern, rather than overall noise from BED operations. Having fewer planes in the air means little if those planes are creating more, and more significant, noise events for residents in our community.

Evidence of noise events in Bedford can be seen through the following metrics:

- **Noise complaints:** In just the past two years, total noise complaints at BED have increased 263%, from 768 in 2018 to 2,019 in 2020.
- **Touch-and-gos:** BED hosts several flight schools, where pilots train on single-engine piston aircraft and perform takeoff and landing maneuvers called touch-and-gos. Touch-and-gos count as two separate operations in tower totals, doubling the number of noise events for nearby

residents from a single flight. In 2018, touch-and-gos accounted for 31.1% of all aircraft operations, at 42,280 flights.

- **db levels at BED localizers:** BED has six localizers to measure noise levels in its surrounding communities. The two localizers in Bedford, RMS ID 32 (Bedford Localizer) and RMS ID 34 (Bedford–DeAngelo Drive), consistently measure at or near 60 decibels, far above the baseline 50 db outlined in the NES.

The Town of Bedford encourages the FAA to consider the following, in response to this NES and in future research regarding aircraft and airport noise:

- **Impacts of area navigation (RNAV)** in concentrating flight paths over certain neighborhoods. While RNAV may reduce the total number of residents experiencing disruptive aircraft noise, the residents who are under these flight paths carry a disproportionate share of unwelcome and excessive noise events.
- **Periodic use of actual noise measurement** to inform and improve models. We recognize that FAA has determined that noise modeling is a more practical way of reliably determining geospatial noise events in surrounding communities. We feel, however, that these models should be regularly compared and revised according to actual noise measurements from localizers to ensure greater accuracy.
- **Revisiting approved flight paths for pilot training** to avoid saturation over certain areas. Our partners at Massport have developed guidelines for appropriate training operations that they share with flight schools and pilots, but FAA is the responsible entity for enforcing pilot behavior and noise issues in the air.
- **More frequent and accessible communication between FAA and local communities**, to address problems sooner and more effectively. Through our involvement in the Hanscom Field Advisory Commission (HFAC) and Hanscom Area Towns Committee (HATS), we communicate regularly with Massport and share concerns about aircraft noise, among other airport-related topics. Massport's responsibility for aircraft operations, however, is limited to the ground, so its ability to mitigate noise disturbances is similarly limited.

Again, we appreciate the opportunity to share our thoughts on the Neighborhood Environmental Survey and Noise Research Portfolio, Docket No. FAA-2021-0037.

Sincerely,
The Bedford Select Board
Ed Pierce, chair
Margot Fleischman, clerk
Bopha Malone
Emily Mitchell
William Moonan

cc: Gail Lattrell, Director, New England Region, FAA
Sharon Williams, Director, Hanscom Field/Massport
HFAC: Christopher Eliot, Margaret Coppe, Thomas Hirsch
HATS: Suzie Barry, Jonathan Dwyer, Linda Escobedo

APPENDIX 3:
Town of Bedford comment on EPA proposed lead finding, January 10, 2023

Town of Bedford
Select Board
Town Hall, 10 Mudge Way
Bedford MA 01730

U.S. Environmental Protection Agency
EPA Docket Center, OAR
Docket EPA-HQ-OAR-2022-0389
Mail Code 28221T
1200 Pennsylvania Avenue NW
Washington, DC 20460.
Submitted via https://www.regulations.gov/document/EPA-HQ-OAR-2022-0389-0001

January 10, 2023

Re: Proposed Finding that Lead Emissions from Aircraft Engines that Operate on Leaded Fuel Cause or Contribute to Air Pollution that May Reasonably Be Anticipated to Endanger Public Health and Welfare, Document ID EPA-HQ-OAR-2022-0389-0001

To Whom It May Concern:

Thank you for the opportunity to submit public comments regarding the EPA's proposed finding regarding lead emissions from aircraft, Document ID EPA-HQ-OAR-2022-0389-0001.

Laurence G. Hanscom Field (BED) is a general aviation facility operated by the Massachusetts Port Authority (Massport) and located partially within the Town of Bedford. The Bedford Select Board agrees with the proposed finding that lead emissions from aircraft contribute to air pollution and endanger the health of residents who live near BED and under or adjacent to flight paths.

According to the 2021 Annual Noise Report from Massport, the annual FAA tower count for operations from 7:00am to 11:00pm was 124,580. Of that total, 55% of all operations were single-engine piston (SEP) aircraft, flown by private owners and flight schools, with touch-and-gos—brief, repeated takeoffs and landings, also called "locals"—comprising 50–60% of all SEP flights. These older planes are one of the few remaining aircraft that still use leaded avgas, which means residents of Bedford and surrounding towns are particularly vulnerable to lead emissions from aviation.

We know that there is no safe level of lead exposure for humans. The United States has taken steps to reduce or eliminate lead exposure, especially in children, through regulations for manufacturing and operations in many industries. Continuing the work of reducing lead exposure by acknowledging the risks of leaded avgas emissions makes sense, and would have significant benefits to the people of Bedford and all those who live near our nation's airports.

The Bedford Select Board urges the EPA to take action as recommended in the proposed finding, to reduce the dangers to public health and welfare under the terms of section 231(a) of the Clean Air Act.

Sincerely,
The Bedford Select Board
Emily Mitchell, chair; Bopha Malone, clerk; Margot Fleischman; Shawn Hanegan; and Ed Pierce

APPENDIX 4:
Town of Bedford public comment on
FAA noise policy review, June 12, 2023

Town of Bedford
Select Board
Town Hall, 10 Mudge Way
Bedford MA 01730

Docket Operations, M–30
U.S. Department of Transportation (DOT)
1200 New Jersey Avenue SE
Room W12–140, West Building Ground Floor
Washington, DC 20590–0001

June 12, 2023

Re: Docket FAA-2023-0855

To Whom It May Concern:

The Bedford Select Board commends the FAA for undertaking a review of its current noise policy. **We believe that transitioning to an expanded system of metrics would provide a more accurate understanding of the impact of aviation noise on individuals and communities.**

Laurence G. Hanscom Field is a general aviation facility operated by the Massachusetts Port Authority (Massport) and located partially within the Town of Bedford. The current system of a single metric, DNL, to measure noise, along with the 65-decibel threshold to assess significant noise impacts, is inadequate to understand and address the impacts of aviation noise from Hanscom Field on local residents.

DNL gives additional weight to aviation noise occurring overnight, when sleep is more likely to be disrupted. Our residents, however, have also noted **significant disturbances during the day**, making it difficult to enjoy the outdoors, work from home, or carry on conversations in their backyards. These disturbances have long-term effects on the health and well-being of Bedford residents.

We encourage FAA to **discontinue use of the Schulz curve in favor of the more recent National Curve,** as a measure of annoyance from noise. The National Curve better reflects the current experiences of people living near airports and under flight paths, and its use may expand the boundaries delineating significant noise impacts around the airfield.

Of the additional metrics suggested by the FAA, we encourage use of the following:

- **Equivalent Sound Level (8 hour Leq):** This cumulative metric offers more flexibility and accuracy to determine the levels and impact of aviation noise over time, both on a daily basis and in shorter increments. The 8-hour Leq could potentially be used to identify significant noise events and attribute noise complaints to those specific events.

- **Number Above (NA) and Time Above (TA):** These single-event/operational metrics provide a more accurate picture of the actual experiences and impacts of aviation noise on residents than an averaged metric such as DNL.
- **Average Individual Exposure (AIE):** This single-event/operational metric can support an individual's assessment of significant aviation noise at their location, and could help FAA review and potentially revise its flight paths to reduce persistent noise in particular neighborhoods.

We also encourage FAA to improve its response policy for individuals who submit noise complaints. Currently, a resident can submit a complaint to the local airport authority (in our case, Massport) and/or directly to the FAA, and receive a notification that their complaint has been received. There is no easy way, however, for a complainant to receive additional information or ask further questions about the causes of the complaint, and FAA rarely reports that any action has been taken in response to a complaint. Residents have told us they do not feel their concerns about aviation noise in their neighborhoods are truly heard or addressed by Massport or FAA.

Again, we appreciate the opportunity to submit public comment, and support a change in FAA noise policy to use an expanded system of metrics to measure noise.

Sincerely,
The Bedford Select Board
Bopha Malone, chair; Shawn Hanegan, clerk; Margot Fleischman; Emily Mitchell; and Paul Mortensen

APPENDIX 5:
Town of Bedford public comment on
North Airfield ENF, February 13, 2023

Town of Bedford
Town Hall, 10 Mudge Way
Bedford MA 01730

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alexander Strysky, MEPA Analyst for the Project
100 Cambridge Street, Suite 900
Boston MA 02114
VIA EMAIL: Alexander.strysky@mass.gov

Re: EEA 16654, L.G. Hanscom Field North Airfield Development

Dear Ms. Tepper and Mr. Strysky:

Thank you for the opportunity to submit public comments regarding the proposed North Airfield Development at L.G. Hanscom Field in Bedford, EEA 16654.

The proposed North Airfield development lies within the Town of Bedford and relies on Town infrastructure to operate. Our residents will feel the greatest impact from both construction and daily operations of the new facilities. We encourage the Proponent to consider more broadly the needs and interests of the Town, particularly of the residential neighborhoods both west and east of the Project boundaries, and the youth sports facility located directly across Hartwell Road from the Project.

The following comments come from the Select Board and Town departments, including Public Works, Fire, Health and Human Services, Planning, and Code Enforcement.

I. INFRASTRUCTURE

The proposed Project creates substantial impacts to the Town of Bedford's infrastructure, including roadways and utilities. We understand that Massport is exempt from local zoning regulations, though the Project will require several regulatory permits and approvals from the Town (page 1-7, Table 1-3).

The full extent of growth and activity in the North Airfield area cannot be understood without acknowledging the ongoing construction of T-Hangars abutting the west side of the Project. These hangars should be reflected on the site plan, if only in grayscale, to allow local officials and residents to see the full picture of increased development at Hanscom Field.

Traffic

The Project will significantly impact local roads in Bedford. Hartwell Road is a narrow local road that curves along the edge of the airfield property, with limited sight distance in many key spots. Other local access points include Loomis Street, South Road, and the Hanscom AFB "Fam Camp" area near the northeast end of Runway 5-23. During the 2017 reconstruction of Runway 11-29, Massport used local

roads in Bedford (chiefly Hartwell Road and South Road) for construction vehicle access, causing persistent and significant disruptions to neighborhoods and residents. **We urge consideration of the following items related to traffic and roadway impacts from the Project.**

1. Traffic Study

A full traffic analysis should be required to determine average daily trips and peak hour impacts to the intersections of Hartwell Road at Concord Road and Hartwell Road at South Road, including an evaluation of traffic signal warrants for each intersection.

2. Internal Service Roads

We note that the Proponent is exploring the feasibility of using the airfield to accommodate construction vehicle traffic and ongoing fuel delivery (page 1-5, 1.5 Anticipated Project Schedule and Phasing) by constructing a new inner roadway. **We strongly encourage this option, which would allow construction vehicles and fuel trucks to access the Project site from Interstate 95/128 to State Route 2A and Hanscom Drive, which are designed to handle heavy equipment at high volumes, unlike Bedford's local roads.** The Proponent should confirm whether such internal circulation route used for construction will be closed following completion of the Project.

The scope of review should be expanded to include any potential changes to the existing service road that extends around the periphery of Runways 23 and 29. There are several wetlands, watercourses, and flood plains adjacent to the service road that could be impacted by any proposed improvements or construction activity. The types of vehicles and internal traffic that might use this service road should be identified (e.g., fire apparatus, fuel trucks, service vehicles, employee vehicles, etc.). **If an internal service road is not available between facilities on the south and north sides of the airfield, the resulting impact on local streets from moving people and materials around the airfield must be examined and addressed.**

The scope should also address whether there is any proposed connection of a service road from the T-hangars westerly to the existing service road around Runway 11.

3. Long-term Changes to Roadways

The Proponent proposes to use "an existing curb cut" (ENF, page 6) off Hartwell Road for staff and passengers to enter the Project area, while Figure 1.2 appears to show two curb cuts—one for the North Airfield and one for the Navy Parcel. **We encourage the Proponent to minimize the use of Hartwell Road as an access point for the Project**, especially during construction.

Among mitigation options for increased traffic impacts, **the DEIR should examine potential changes to the layout of Hartwell Road**, including possible realignment to reduce the sharp curvature of the roadway along the Project boundaries and improve sight distance and safety for all users. The project may affect the public access easement over Hartwell Road where the land is currently owned by the Federal Government; additional information is required on this point.

The Town encourages assessing the feasibility of adding sidewalks and bike lanes on Hartwell Road, for eventual connections to an ongoing effort to expand pedestrian mobility and the sidewalk and trail network throughout Bedford.

Utilities

In preparation of the DEIR, **the Proponent should confirm with Bedford DPW whether improvements are required in the water and sewer system to accommodate the Project**. The List of Anticipated Regulatory Permits and Approvals (page 1-7, Table 1-3) shows a Water Service Connection and Sanitary Sewer Service Connection for the Navy Parcel only, not for the new construction at the North Airfield. Given the anticipated 13,500 gallons per day of additional water use and 12,150 gallons per day of additional wastewater generation and treatment, as outlined in the Summary of Project Size and Environmental Impacts (ENF, page 3), we expect each parcel will need its own water and sewer connection and associated permits, and may also be subject to Inflow and Infiltration under the Town's Sewer Bylaw. Additional capacity analysis for both water and sewer demand should be performed by the Town's consultants at the Proponent's expense for the full buildout of both sites.

The applicant team should also explore potential electric supply/capacity issues, including the potential need for expanded capacity at the existing substation at the intersection of Hartwell Road and South Road; installation of new wires/poles/transformers along Hartwell Road; or installation of any on-site substation to supply the Project, given the Proponent's stated intent of increasing the use of electric-powered aircraft.

Capacity/Growth

The Proponent states that the Project will decrease operations in and out of Hanscom Field, due to reductions in so-called ferry flights by aircraft based elsewhere. The ENF repeatedly notes that current hangar capacity is oversubscribed, with existing hangar owners reporting wait lists for aircraft wishing to be housed at Hanscom. Without clear data on the number of ferry flights and existing hangar capacity, we question the assumptions underlying the Project and the expectation that the Project will meet both current and future needs. **We ask the Proponent and Massport to provide current data on the number of ferry flights and justification for the claim of fewer total flights due to the Project**.

II. ENVIRONMENTAL

The Project will have significant impacts on Bedford's natural resources, including stormwater management, air quality, noise pollution, and wetlands and wildlife protection.

Noise

Bedford is a member of the Hanscom Field Advisory Commission (HFAC), a coalition of neighboring towns that meets monthly with Massport to review noise and capital project reports, among other relevant items. Bedford residents consistently log the highest number of noise complaints each month

from aircraft operations, including takeoffs, landings, and touch-and-gos. Flights in the air are under the jurisdiction of the FAA, but Massport has jurisdiction over aircraft when they are on the ground.

Aircraft stored in the new hangars will need to taxi to and from the Project area to the runways. Adjacent residential neighborhoods will feel increased noise impacts due to the proximity of idling aircraft, maintenance, and site operations. The noise from this ground movement may not be captured in monthly noise reports, which rely on technology that matches the site of a noise complaint with available data on planes in the air (airnoise.io, Flight Tracker, etc.).

We urge Massport and the Proponent to minimize or absorb such ground noise, whether through physical barriers, restrictions on operations, or other measures, and to take proactive steps to measure actual noise in the future.

Stormwater Management

The Proponent should be aware of the Town's Stormwater Management Bylaw and Regulations, as these standards are more stringent than MassDEP's stormwater standards. Per the project description (ENF, page 6), the site will "be designed to encourage positive drainage away from the hangar buildings." Water that drains away from the hangars must go somewhere, and we are concerned that additional stormwater could end up in Bedford's neighborhoods, wetlands, or conservation lands.

We appreciate the consideration for pervious pavement in parking and other areas to reduce the potential for excessive stormwater runoffs, but **we remain concerned about impacts of new construction and use on local waterways and our water table**.

Wetlands/Aquifer Protection

The North Airfield site lies within one of the Town's aquifer protection districts, and wetland buffers cover more than half of the total airfield property. Since the 2017 ESPR, Bedford has ceased use of its Shawsheen wells due to PFAS/PFOA contamination, which we believe was caused at least partly by firefighting foam and other chemicals in use on and around Hanscom Field. The North Airfield and Navy Parcel sites are also adjacent to the former Naval Weapons Industrial Reserve Plant, which remains under EPA cleanup protocols as a Superfund site.

An initial wetland survey of the development area by a third-party consultant would be helpful. The Town GIS map shows an area of wetlands north of the long east-west running wetland feature. While isolated vegetated wetlands are not protected under the state Wetlands Protection Act, they are under the Town's Wetlands Bylaw.

In a briefing to Bedford Town officials prior to the filing of the ENF, the Proponent indicated that no new fuel storage was intended within the Project. Presenters at the virtual information session on February 6, however, indicated that on-site fuel storage was now proposed. **The DEIR should include identification and method of such storage, and the measures to be taken to ensure protection of the surface waters and groundwater**.

Air Quality/Emissions

The Air Quality section of the ENF (page 24) claims that the Project does not meet or exceed any review thresholds related to air quality. We caution the Proponent, however, that many of the pollution sources outlined by MEPA are not regularly tested at Hanscom Field, or are evaluated using modeling only and not sampling, based on the 2017 ESPR and the approved scope of the 2022 ESPR. We note in particular that the state's definition of "lead" under 301 CMR 11.03(8) only relates to lead paint, as measured by the proportion of residences built prior to 1960 (Appendix B, EJ Screen Report). In 2021, 55% of all operations at BED were single-engine piston aircraft. These older planes are one of the few remaining aircraft that still use leaded avgas, which means **residents of Bedford and surrounding towns are particularly vulnerable to lead emissions from aviation**. These emissions are not captured by MEPA's review and have not been measured in ESPRs, but are likely present in soil and groundwater at the airfield.

Additionally, given that the fueling concept is not yet defined, **modeling for air quality should include all potential fueling scenarios**: specifically, whether the trucks used to fuel aircraft onsite will be filled from offsite or onsite (on-airport) fuel farms. The filling from onsite fuel farms could represent a doubling of the opportunity for onsite HAP/VOC emissions.

More broadly, prevailing winds will transport ambient fumes from fueling operations and idling aircraft exhaust into an adjacent residential neighborhood. During construction, these winds may also transport dust and other sediments. **The DEIR needs to identify mitigation measures for airborne impacts**, both during construction and during future operations.

Wildlife

The development site abuts both Core Habitat and Critical Natural Landscape as depicted on the MA Division of Fisheries & Wildlife biomap. **Wildlife impact analysis should be undertaken to evaluate the impacts to habitat for the many species of wildlife that live on the airport grounds**.

Other Environmental Concerns

- The DEIR should address the status of any remaining contaminant mitigation affecting the former Navy Hangar site.
- New impervious surfaces created by additional pavement and rooftops, combined with the loss of existing vegetation, may yield heat island impacts. The DEIR should evaluate the microclimate created by the Project and identify possible mitigation measures.

III. ADDITIONAL CONSIDERATIONS

Emergency Response

We understand that discussions to date suggest Hanscom's internal Fire Department would respond to incidents involving aircraft and hangars, but Bedford's Fire Department would respond to incidents

involving civilians and office spaces. This is not an environmental issue for the ENF, but something that needs further negotiation, particularly with regard to local taxes and/or a PILOT agreement between the Proponent and the Town of Bedford.

Public Process and Notifications

We urge the Proponent to conduct proactive outreach to residents in Bedford and the other Hanscom area towns, rather than wait for community members to request such a meeting (Appendix B, page 3). Given the significant impacts the Project will have on our community, during both construction and later daily operations, connecting with residents, boards, and professional staff early and often to understand our concerns will be key to a productive relationship in the long term. The Town is happy to coordinate with the Proponents and Massport to arrange such meetings.

Educational Partnerships

The ENF lists as a project benefit a potential partnership with Bridgewater State University and its Aviation Management degree program. We note that Middlesex Community College (MCC), located in Bedford and Lowell, offers an associate's degree program in Aviation Maintenance Technology, in partnership with the National Aviation Academy at Hanscom Field. If the Proponent seeks local students to train and recruit for future employment opportunities, **we encourage a partnership with MCC as well**.

Again, we appreciate the opportunity to submit public comment on this project. We look forward to developing a productive relationship between the Proponent and the Town of Bedford as the permitting process continues.

Sincerely,

The Select Board of Bedford
Emily Mitchell, chair; Bopha Malone, clerk; Margot Fleischman, Shawn Hanegan, and Edward Pierce

Office of the Bedford Town Manager
Bedford Department of Public Works
Bedford Planning Department
Bedford Fire Department
Bedford Code Enforcement Department
Bedford Health and Human Services Department
Bedford Housing & Economic Development Department

Cc: State Representative Kenneth Gordon
State Senator Michael Barrett
Christopher Eliot, Chair, Hanscom Field Advisory Commission

From: Janet Miller
To: Strysky, Alexander (EEA)
Subject: EEA No. 16654 - L.G. Hanscom Field North Airfield Development, Bedford
Date: Sunday, May 12, 2024 9:24:32 PM

Dear Mr. Strysky,

We are writing on behalf of the Town of Concord Climate Action Committee regarding the DEIR for the L.G. Hanscom Field North Airfield Development, Bedford. We are greatly concerned about this project because its potential emissions will more than outweigh our work to lower greenhouse gas emissions (GHG) in towns such as ours and in the entire State of Massachusetts. Furthermore, the DEIR itself is misleading in some places and there are also several omissions.

Most concerning, however, is the blatant obfuscation of the true matter at hand, which is the direct and outsized impact this project will have with the Commonwealth's own 2050 carbon reduction goals. While the Town of Concord, like many other towns, is working hard to reduce GHG emissions in a transparent and responsible manner, this project would essentially wipe out those hard-earned gains. To us, this is a classic David and Goliath struggle, which Secretary Tepper and MEPA will ultimately need to weigh and balance. The Administration must ask itself if the true benefit of this project is worth canceling out the climate progress that municipalities have endeavored to achieve - and ultimately, what sort of message does that imply. In more direct response to issues that are highlighted in the DEIR, our comments are below:

The revised plan has decreased the number of hangars from 27 to 17 but as the hangars will be bigger and the total space will still be about 522,000 sq. ft, the number of jets stored in the hangars (50–80) will be the same. The old Navy hangar will also provide additional storage space for jets. The proponents claim that the Navy hangar, built in 1959, is a historic structure and therefore qualifies for a $4.8 million subsidy from the State. However, the Bedford Historic Preservation Commission no longer supports that designation as the building meets none of the criteria for historic preservation https://thebedfordcitizen.org/2024/04/commission-says-hangar-project-unworthy-of-historic-tax-credits/.

The DEIR points out that the proposed buildings will be net zero. While this is commendable, the vast majority of GHG emissions will be from the burning of jet fuel over the entire length of the flight, which is not considered in the DEIR. The obvious disregard of this issue must be addressed head on, as this is the true issue at hand. By focusing on only buildings, the DEIR misses the mark entirely, and is incomplete until a credible accounting of overall project GHG emissions is established.

The report describes the addition of four additional jet fuel tanks, each of which hold 10,000 gallons of fuel. If, as anticipated in the report, delivery trucks would drive every other day to refill the tanks, bringing an average of 15,000 gallons of fuel every week, that would add 220,000 tons of CO_2 per year, not the 30,686 tons claimed in the DEIR that only count the emissions from take off and landing. These emissions would have to be countered by the generation of 350 million watts of solar or wind generated power (based on the Massachusetts rate of .3kg CO_2 saved per carbon-free kWh and 15% PV capacity factor).

The proponents of the development offer the possibility of sustainable aviation fuels (SAFs) or electric planes. However, these solutions are not feasible in the foreseeable future. The necessary amount of SAFs, which are currently made from waste fat and cooking oils, would depend on far more waste than is readily available. And if it is made from other biomass, that would require taking over large tracts of agricultural land or clear cutting forests, thus decreasing food production and lowering the world's ability to take up CO2 through photosynthesis. Moreover, SAFs emit the same or more GHGs when burned as jet fuel. As for electric planes, they cannot fly far and are limited by their ability to carry the necessary batteries.

The DEIR also claims that the number of ferry flights would be reduced, which would lower GHG emissions. However, there is no analysis in the DEIR of how many ferry flights actually occur. Instead, the developers have defined ferry flights as flights that are under 350 miles or on planes that are on the ground at Hanscom for 18 hours or less. However, they never provided any data to show whether or not these flights carried passengers. To determine a more accurate quantification of the number of ferry flights, a recognized industry consultant has performed an analysis of detailed flight data for all aircraft using Hanscom over the prior year and identified the operating base for any aircraft exhibiting ferry flight activity. This analysis found only three aircraft that regularly ferry through Hanscom. It was found that those three aircraft, if they relocated to Hanscom, would save 75 flights, considerably less than the 3,500 claimed by the Proponent based on their superficial analysis. https://drive.google.com/file/d/10GDtx7tZgpk-H4PM0_5jAM1APfnRKE_c/view. Furthermore, if there were no extra flights, due to the reduction in ferry flights, there would be no need for the planned fuel tanks.

There are other serious omissions from the DEIR. First, there is no consideration given to the air pollution that will be emitted in the vicinity of Hanscom Field. There is a new ongoing Air Quality Study at Hanscom Field, conducted by Professor Neelakshi Hudda, Tufts University, who has been commissioned by the four Hanscom-area towns, HFAC (Hanscom Field Advisory Commission) and MCAC (Massport Community Advisory Committee). This study has particular relevance to the Project as it is focused on ultra fine particles whose chemical signature is specifically associated with emissions from jet aviation fuel. This Air Quality Study should be considered an important new development that is not currently included in the DEIR and should be.

Second, more information is needed on the status of the burn pits and PFAS contamination from an old fire training area at the site of the old Navy Hangar. The US EPA has spent the best part of a year investigating the PFAS contamination, and it is expected to imminently release an Action Plan for Phase 1. The information in this action plan could have implications for any soil disturbance plans or other construction activity by the Proponent. We ask that Secretary Tepper require that this information be evaluated for the potential risks it poses to public drinking water supplies in the area and downstream as well as the local ecology.

Finally, we would like to note that the developer has ignored the basic law of induced demand, especially for such a dramatically underpriced, luxury asset as a private jet. The developer claims only to be absorbing current unmet demand. But this claim ignores the induced demand from building a facility that can accommodate so many more private jets than at present. We would also like to point out that private jet traffic is a form of transportation that does not pay for even a fraction of its true cost. Private jet owners do not pay for the infrastructure that they use (runways, FBO, traffic control), they get very favorable tax treatment in terms of rapid write-offs, pay no sales tax on purchasing and outfitting the jets and, most importantly, do not compensate the public for the climate and environmental costs of their luxury travel choices.

Until private jet owners and users are forced to pay the true cost of these flights, the impact of induced demand from the project's hangar expansion will be considerable.

We hope that these comments resonate with Secretary Tepper and MEPA. Our position outlines a number of serious concerns with this project around accountability, credibility, and omission of significant facts. From the perspective of the Commonwealth's own 2050 decarbonization goals, we fail to see where and how a project of this impact and magnitude provides sufficient benefit to warrant its outsized contradiction to these goals.

Sincerely,

Janet Cochrane Miller, D.Phil., Interim Chair, Bradley Hubbard-Nelson, Cheryl Baggen, Courtney Eaton, Jerry Frenkil, Karen Gibson, Paul Kirshen, Michael McDonald, Gavin Colbert

Climate Action Committee, Town of Concord, Massachusetts

DEPARTMENT OF THE AIR FORCE
AIR FORCE CIVIL ENGINEER CENTER
HANSCOM AIR FORCE BASE, MA 01731-1905

30 May 2024

Matthew Greenberg
AFCEC/CZO
72 Dow Street
Hanscom AFB, MA 01731-1905

Mr. Alex Strysky
Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: Massachusetts Environmental Policy Act Office
Mr. Alex Strysky, EEA No. 16654
100 Cambridge Street, Suite 900
Boston, MA 02114

Subject: Comments on Draft Environmental Impact Report, L.G. Hanscom Field, North Airfield Development, Bedford, Massachusetts

Dear Mr. Strysky:

Attached please find Air Force comments on the Draft Environmental Impact Report, L.G. Hanscom Field, North Airfield Development, Bedford, Massachusetts.

A hardcopy can be provided upon request.

If you have any questions or require additional information, please contact me at 781-225-6148.

Sincerely

MATTHEW GREENBERG,
AFCEC/CZO
Remedial Project Manager

cc (electronic):
Curt Frye (AFCEC/CZO)
Thomas Rudolph (AFCEC/JAOE)
Shawn Lowry (USEPA)
Randi Augustine (MassDEP)

1. Table 14-2, Response to Comment 2.1: Will the Licensed Site Professional (LSP) be familiar with the Comprehensive Environmental Response, Compensation, Liability Act (CERCLA) land use control (LUC) requirements?
2. Section 1.4.1: The portion of property to be transferred to the Proponent on the eastern end of the development includes the Air Force Installation Restoration Program Operable Unit 1 (OU-1) Site 1 (Former Fire Training Area) source area. An OU-1 Record of Decision (ROD) details the remedial actions and LUCs that will need to be maintained. Will the Proponent continue to adhere to the necessary requirements that the Air Force must comply with after the property transfer?
3. Section 1.5.2.6 and 5: The stormwater design needs to ensure that groundwater from OU-1 Site 1 that may be impacted by PFAS is not being redirected to the areas mentioned (wetland southwest of project site or existing 24" drain line) or any other offsite or onsite areas.
4. Section 4.3.2: In the second paragraph, a statement is made that the "higher percentile is due to the proximity to two Superfund sites." The site is not in proximity to the referenced sites but congruent with a portion of each. The text should be corrected to state this. A recommended edit is as follows: “The higher percentile is due to the colocation of two Superfund sites.”
5. Section 5.2.2.1: The description of the eastern portion of the Project Site should include that the wooded and grassy area was a former Air Force fire training area.
6. Section 5.2.2.2: The text states that existing excavated and reclaimed material will be used for fill. What will the project do to prevent the excavation and respreading of soil that may be impacted by OU-1 contaminants of concern and/or per- and polyfluoroalkyl substances (PFAS)? Note that the Air Force has not yet delineated the extents of PFAS-impacted soil and may not have this completed by the time construction activities commence. Characterization and disposal of impacted materials offsite should be considered.
7. Section 5.2.2.2: Please indicate how the Proponent will protect and/or reinstall any existing Air Force infrastructure, which may include monitoring wells, extraction wells, extraction system electrical and conveyance lines. Please clarify that replacements will be completed at no additional cost to the Air Force.
8. Section 5.3.4: There is no mention of how the proposed stormwater system will avoid adverse migration of existing media impacted by the presence of contaminants associated with OU-1 Site 1. The pollution prevention discussion in this section appears to address only total suspended solids.
9. Section 7.1.1: The reference to Section 10.2 should include a mention of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601.
10. Section 7.4: Similar to comment on Section 5.3.4, there is no mention of how the project site will mitigate disturbances of existing OU-1 impacts and resulting potential adverse effects to the groundwater aquifer.
11. Section 10, second bullet and Section 12.3.5: The specific site is OU-1 Site 1.
12. Section 10, eighth bullet: The text does not mention excavations of soil in the area of OU-1 Site 1, but drawings show construction occurring on and adjacent to the site. There does not appear to be appropriate consideration for managing soil that may be impacted with site-related compounds. How will construction activities ensure that impacted material is not reused in other areas of the site?
13. Section 10.1: The LUCs in the 2007 OU-1 ROD are not referenced but should be included.

14. Section 10.1: Can you specify exactly what future notifications will be made? What items will the Air Force be included on? Please provide a list of documents, events, and means of how communication will be made.
15. Section 10.2.2: Clarification should be made that OU-1 includes four sites, but one of these sites, Site 1, is associated with chlorinated volatile organic compounds and currently being investigated for PFAS nature and extent. This site is discussed later in Section 10.2.2 as FT001P-SUB.
16. Section 10.2.2, second paragraph: PFAS are not yet a contaminant of concern. PFAS are being investigated during the CERCLA Remedial Investigation phase. Please add clarification.
17. Section 10.2.2, second paragraph: Please clarify that the health advisory limit exceedance was current as of the time of groundwater treatment system shutdown.
18. Section 10.2.2, second paragraph: The discussion of 1,4-dioxane is misleading. Concentrations in excess of EPA's risk-based screening level (RBSL) have been observed within and downgradient of the OU-1 boundary but covered within an Interim LUC area established in 2017.
19. Section 10.2.2, second paragraph: The evaluations being conducted by Air Force do include one related to whether reactivation is needed, as written. However, the second evaluation is specifically targeted at possible upgrades to the groundwater treatment system for PFAS removal from effluent, not "options for PFAS treatment".
20. Section 10.2.2: The discussion of LUCs state that excavation LUCs exist, unless a dig permit process is followed. This is incorrect. All excavation activities will need to be reviewed by the Air Force prior to digging occurring. See the OU-1 ROD discussion of LUCs.
21. Section 10.2.2: In the discussion of LUCs, it should be noted that PFAS may be present in any of the existing aquifer zones at OU-1; it has not yet been characterized.
22. Section 10.3 and 12.3.5: Note that Massachusetts Contingency Plan requirements have no bearing on CERCLA LUCs. Please indicate how the services of a Licensed Site Professional (LSP) will ensure compliance with enforceable CERLCA LUCs.
23. Section 10.3: Please indicate that any Groundwater Dewatering Plan, Soil Management Plan, design documents, or other required project documents will be provided to the agencies with sufficient review time.
24. Section 10.4: The discussion of groundwater impacts as reported in its 02 May 2023 report do not account for any possibility of the presence of PFAS in groundwater. There needs to be acknowledgement that encountering PFAS-impacted groundwater is a possibility. Precautions to manage that groundwater need to be made.
25. Section 10.4: The plan to relocate soil will need to ensure that material impacted with PFAS or other OU-1 contaminants of concern does not get moved to another area of the project site. Please indicate how the Proponent will ensure that OU-1- or PFAS-impacted soil does not get relocated to another area of the site.
26. Section 10.4, fourth paragraph: Please clarify that monitoring wells will be replaced at the developer's cost.
27. Section 12.3: Will the Construction Management Plan include provisions for management of impacted soil and groundwater and mitigation of adverse impacts to LUCs? If not, what document will cover these requirements?

28. Section 12.3.5, first paragraph: Please clarify that the Activity and Use Limitation (AUL) applies only to the Navy site and that there are LUCs in place for the Air Force site.
29. Table 13-1, Phase 1 - Hazardous Materials, first row: In addition to the provisions of the AUL, the Groundwater Dewatering Plan should also take into account LUCs documented in the OU-1 ROD.
30. Table 13-1, Phase 1 - Hazardous Materials, fourth row: In addition to ensuring compliance with the AUL, there needs to be assurance that excavation activities will not violate the requirements of the Air Force LUCs.
31. Table 13-1, Phase 1 - Hazardous Materials, seventh row: For what will a Permanent or Temporary Solution Statement be required? Please expand upon this text.
32. General and Table 14-2, Response to Comment 2.2 and resulting text in Chapter 10: As noted, the PFAS RI has yet to be completed. This will be followed by a Feasibility Study (FS) and remedy selection. The remedy is yet to-be-determined. Construction of a hangar, aviation support facility, and parking lot on top of the proposed investigation area is likely to have an impact on both RI and remedy construction activities. The text does not specifically address how conflicts will be avoided. Please consider the following mitigation options, if feasible:
    a. Recognize the footprint of potential PFAS impacts to soil/shallow groundwater from Air Force site FT001P-SUB. PFAS impacts are to-be-determined during the RI, so a delay on construction in that footprint until following RI/FS/ROD activities, intended to delineate PFAS impacts and select a remedial action, would be helpful.
    b. Relocate proposed construction of the aforementioned hangar, aviation support facility, and parking lot currently planned on the footprint of potential PFAS impacted areas associated with FT001P-SUB.
33. General: Will the development similarly be able to accommodate any expanded groundwater monitoring activities associated with OU-1, including soil boring completion, monitoring well installation, and groundwater sample collection?

United States Department of the Interior
NATIONAL PARK SERVICE
Minute Man National Historical Park
174 Liberty Street
Concord, Massachusetts 01742

1.A.1 (MIMA)

June 3, 2024

Alexander Strysky, Environmental Analyst
Massachusetts Environmental Policy Act Office
100 Cambridge Street
Suite 900
Boston, MA 02114

Re: L.G. Hanscom Field North Airfield Development Draft Environmental Impact Report (March 2024)-EEA #16654

Dear Mr. Strysky,

The National Park Service (NPS) has reviewed the Draft Environmental Impact Report (DEIR) submitted to your office by Runway Realty and North Airfield Ventures, LLCs via VHB for the L.G. Hanscom Field North Airfield Development proposal to the Massachusetts Environmental Policy Act Office (MEPA Office).

Minute Man National Historical Park (NHP), an adjacent landowner to Hanscom Field, previously commented on the Environmental Notification Form (ENF) and submits the following comments on both the DEIR and the project proponent's response from our February 2023 comments on the ENF.

Minute Man NHP was authorized in 1959 by P.L. 86-321 "to preserve for the benefit of the American people certain historic structures and properties of outstanding national significance associated with the opening of The War of the American Revolution." In 1992, P.L. 102-488 reaffirmed the congressional intent of Minute Man NHP to preserve and interpret "the historic landscape along the road between Lexington and Concord." Located within the Towns of Concord, Lincoln, and Lexington, Minute Man NHP and the Historic District are comprised of numerous historic buildings, archeological sites, and cultural landscapes that are nationally significant. Route 2A, which provides access to Hanscom Field via Hanscom Drive, is designated as the Battle Road Scenic Byway and is an All-American Road and Scenic Byway. On April 19, 1775, the Battle of Lexington and Concord was waged within this landscape and lands within Hanscom Field and Hanscom Air Force Base were part of the battlefield. Segments of the approximately three miles of Route 2A through Minute Man NHP incorporate the original alignment of

the road that the British Regulars used as they retreated to Boston after the opening shots at North Bridge in Concord, MA. The Park attracts over one million visitors a year and contributes to the economic vitality of the region.

As noted in our previous comments, the park is currently impacted by the constant sound of aircraft flying over the park during interpretative events, especially in some of our most sensitive areas for the visitor experience including the North Bridge unit, the Hartwell Tavern area, and along the Battle Road Trail. Any project which could further exacerbate these current noise issues will result in a cumulative degradation to the park. The NPS appreciates the additional information provided by the project proponent through the DEIR, but several areas of concern remain, and additional questions raised.

Utilizing the DEIR to Meet the Requirements of Section 106 of the National Historic Preservation Act (36 CFR 800) and Federal Rehabilitation Tax Credit

In Chapter 11 of the DEIR, the project proponent notes that the cultural resources documentation is "in compliance with Section 106 of the National Historic Preservation Act (NHPA)". The NPS disagrees with the claim of this analysis meeting the requirements and the findings on historic properties as presented in the DEIR.

In our February 13, 2023, letter, we formally requested to be a consulting party under Section 106. If the project proponent has formally initiated the Section 106 process, Minute Man NHP has not been consulted with in such a manner that is appropriate to the scale of the project per 800.2(a)(4) and 800.2(c)(5). This request was not acknowledged in Table 14-2 *Responses to Comments* in the DEIR. We reiterate our earlier request to be a consulting party and look forward to consulting with the project proponent in this manner.

The DEIR does not identify an Area of Potential Effect (APE) as is required under Section 106 (800.4(a)(1)). If the project proponent is claiming that the Project Area identified "within ¼ mile of the Project Site" is the equivalent, the NPS strongly objects to this serving as an APE nor does it meet the requirements for Section 106. An APE, as defined under 800.16(d), is to include a geographic area or areas "within which an undertaking may directly or indirectly" affect historic properties. An area within ¼ of a mile is not an appropriate APE for an airport project, and the small scale of the Project Area as presented in the DEIR does not allow for full consideration of potential affects by this proposal on, for example, the feeling and setting of the Minute Man National Historical Park Historic District. Merely mentioning Minute Man NHP briefly as being in close vicinity but "not within the Study Area" is insufficient.

The analysis of adverse effects (800.5(a)(1)) may "include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative." The exclusion of Minute Man NHP, an abutter to Massport's Hanscom Airfield and its runways, is grossly inappropriate when discussing the construction of additional hangar space to accommodate jet traffic. Visual (Chapter 11.3.2) and Noise (11.3.3) are identified as potential affects, but without a truly defined APE that is appropriately sized to include Minute Man NHP, the analysis that has been conducted is flawed. Although the project proponent is noting this project will result in a reduction of flights, which is countered by the April 4, 2024, report by Industrial Economics, Inc., it is reasonable to foresee an increase in jet traffic as

the result of additional hangar capacity. The Noise and Air Quality analysis is only focusing on aircraft *ground* noise which is "expected to remain comparable to current and future No-Build operations" (Chapter 11.3.3 pg. 11-9). However, this is limiting and does not take into consideration the effects of potential increased jet traffic as part of the analysis per 800.5(a)(1). We recommend an APE of a 5-mile radius around the airport to adequately capture adverse effects of airport traffic on the surrounding cultural landscape.

Please note, Minute Man National Historical Park is not listed as a National Historic Landmark; however, within the boundaries of the park is an individually listed National Historic Landmark, The Wayside-Home of Authors. The Minute Man National Historical Park Historic District is listed in the National Register of Historic Places.

Utilization of the Federal Rehabilitation Tax Credit, which is administered by the Internal Revenue Service and the NPS, requires review through the Technical Preservation Service office (Historic Preservation Tax Incentives (U.S. National Park Service) (nps.gov)). This should be noted in Table 1-4. The DEIR notes that the Raytheon Flight Test Facility has been determined eligible for listing in the National Register of Historic Places. This documentation and concurrence finding by the State Historic Preservation Office is not included in the DEIR. For the purposes of utilizing the Federal Historic Preservation Tax Credit, the historic building must be "listed in the National Register of Historic Places or be certified as contributing to the significance of a "registered historic district" (Eligibility Requirements - Historic Preservation Tax Incentives (U.S. National Park Service) (nps.gov)). It is unclear if the project proponent has successfully completed the certification process, including the submission to the NPS, and the project has been determined eligible for the Federal Historic Preservation Tax Credit program. The DEIR notes that the project will have "no adverse impacts [effect]" on the structure. However, this finding is premature absent any initial consultation with the NPS on whether the project is eligible for the program and, if so, the proposed rehabilitation effort resulting in a finding of *no adverse effect*.

Ferry Flights and Activity Levels Impacting Minute Man NHP

One of the project proponent's key goals is that the project will be targeting those aircraft operators/owners who are waitlisted for hangar space or currently utilize a "ferry flight" system for use in and out of Hanscom Airfield. As a result, the project will "reduce impacts from aviation activity" with the elimination of "250 extra flights per month" or "3,543 flights annually". This reduction, if accurate, would be a welcome change. However, in reviewing both the DEIR along with Industrial Economics, Inc.'s April 4, 2024, "Analysis of Greenhouse Gas Emissions Impact of Proposed Expansion of Hangar Capacity at Hanscom Field", the NPS has several concerns about the accuracy of the data presented in the DEIR and what the true level of impacts could be on Minute Man NHP.

In Chapter 2, the project proponent notes that this project is intended to "absorb existing demand" while acknowledging that Massport does not have the authority to prohibit "the type, volume, or frequency of flights" that land at the airfield. This would suggest that the proponent's project, which they state could result in a "two to three percent reduction in aviation activity" would not actually be able to do that as it

is technically increasing capacity to support more aircraft. Per the analysis of ferry flights provided by Industrial Economics, Inc., the study indicates that the capacity being created by the hangars could result in an increase of between 5,487-6,568 flights per year (Industrial Economics, Inc. 2024). The drastically different analysis of the foundational element of aviation activity is extremely concerning. If meeting the current and projected demand for hangar space will essentially open opportunities for additional flights in and out of Hanscom, this would result in a cumulative effect by the project on the surrounding historic properties including the Minute Man NHP Historic District.

We request that project proponent, in consultation with Massport, provide additional background information on how this proposal fits in with their future strategic plan, and what measures will be implemented by Massport to limit future growth in daily flights and overall use of the airport. For the purposes of the DEIR, the project proponent should be utilizing the latest data from Massport including the recently released Environment Status & Planning Report (Hanscom Field Project Environmental Filings | Massport).

Noise impacts on Minute Man NHP and Section 4(f)

Minute Man NHP currently experiences noise impacts from aviation activity to and from Hanscom Airfield. This is well documented from acoustical monitoring formally conducted by the park (Formichella 2013) to informal data submission during the 2023 season initiated by park staff directly to Massport's noise complaint line (Noise Complaints - Hanscom | Massport). The opportunity to have any reduction of aviation activity over the park is welcome to limit impacts to our visiting public and the feeling and setting of the Minute Man NHP Historic District.

However, conflicting information about this proposed development from the project proponent and independent authors suggests that the hangar construction will result in an *increase* of jet traffic (Industrial Economics, Inc. 2024) rather than the decrease presented in the DEIR.

In the park's acoustical monitoring study (Formichella 2013), the study looked at how often sound pressure levels exceed certain thresholds in key locations of the Battle Road Unit at Minute Man NHP. Two key thresholds that are directly related to the visitor experience and the battlefield setting are identified in this study. The first is the threshold of time above 52 decibels (dBA), which is based on the EPA's speech interference threshold for speaking in a raised voice to an audience at 10 meters. This threshold addresses the effects of sound on interpretive programs in parks. The other threshold, 60 dBA, provides a basis for estimating impacts on normal voice communications at 1 meter. Hikers and visitors viewing the battlefield scenic vistas in the park would likely be conducting such conversations. More than 30% of the time areas of the park exceeded 52 dBA. Additional data from that study demonstrated that whether in winter or summer, the mean percentage time audible of aircraft sounds at these locations in the Battle Road Unit exceeded 30% (Formichella 2013).

The NPS would like to use this opportunity to initiate further coordination with Massport on how to avoid, minimize, and mitigate current noise issues in the park as a result of flight activity over Minute Man NHP. Especially considering the project proponent's proposal that could increase aviation traffic, we

recommend that as part of the analysis, Massport and the project proponent complete a noise study for the park with an emphasis on the dates between April 1 – November 1, when we receive most of our visitors. We recommend that noise sensors be installed around the park to quantify the daily frequency and duration of noise levels that exceed Time Above 52 dBA, and the percent time aircraft noise is audible as alternative metrics to Day-Night Sounds Level (DNL).

Once we have the appropriate and current noise data related to airplane activities on the park, we can discuss potential strategies to avoid, minimize, and mitigate those effects. Some potential discussions could include operations at the airport and the timing of operations and arrival/departure routes. For example, in the airfield noise analysis presented in Appendix E, the flight paths in Figure 4 and Figure 5 are very different. The park likely experiences less noise from the Ferry Flight tracks (Figure 5). There may be other ways to route air traffic differently to provide the park with noise relief.

The NPS also request further information on the compliance associated with Section 4(f) of the National Transportation Act of 1966 (23 CFR part 774). Based on the information provided, noise impacts associated with flights that effect Section 4(f) properties (i.e., Minute Man NHP) would require a Section 4(f) evaluation. Noise impacts could be considered a constructive use under Section 4(f) per 23 CFR part 774.15 and would require that there is no feasible and prudent alternative to the use of the Section 4(f) property. The Section 4(f) regulations also state that transportation projects with noise impacts on parks would be considered a constructive use if the projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a property protected by Section 4(f), such as:

(i) Hearing the performances at an outdoor amphitheater;

(ii) Sleeping in the sleeping area of a campground;

(iii) Enjoyment of a historic site where a quiet setting is a generally recognized feature or attribute of the site's significance;

(iv) Enjoyment of an urban park where serenity and quiet are significant attributes; or

(v) Viewing wildlife in an area of a wildlife and waterfowl refuge intended for such viewing.

We look forward to further information and discussion on this topic.

Long-term Traffic Impacts and Route 2A

Minute Man NHP appreciates clarification that construction related traffic will be focused on Hartwell Road rather than Route 2A through Minute Man NHP via Hanscom Drive. However, it is the longer-term passenger or service traffic use that is not clearly articulated in the analysis.

As noted in the DEIR, Route 2A is the primary access route to Hanscom Airfield. While the Fuel Storage Facility will be primarily served by traffic via Route 62 to Hartwell Road, the DEIR notes the transfer of land from the project proponent to Massport for the "continuation of the existing Vehicle Service Road (VSR) to the North Airfield" (Chapter 1.5.4.2). While the NPS appreciates the project proponent stating this is outside of the scope of the project as a future improvement, as noted above, the analysis for adverse effects allows for the inclusion of activities that may occur later in time. The undertaking of the land transfer is part of this current proposal and therefor has direct bearing on the viability of the expansion of the service road.

The NPS would like to have a better understanding of the implications of the service road and if it will increase traffic utilizing Route 2A in accessing the airfield. In the current analysis, the DEIR states that trip generation would average less than 10 vehicles during peak hours through Minute Man NHP via Route 2A and that "it is likely" for service vehicles to utilize Hartwell Road access. However, with the continuation of the VSR it is unclear if that would continue to be the most advantageous route for delivery, fuel, and service trucks. This in turn could increase the use by these heavier vehicles, in particular the fuel delivery trucks, on Route 2A through Minute Man NHP.

The long-term potential for an increase of vehicular traffic accessing Hanscom Drive via Route 2A would further exacerbate effects to the park's setting and visitor experience. The NPS has been working collaboratively with MassDOT on making this historic corridor more pedestrian and bicycle-friendly through their Route 2A project development and any increase in truck traffic would diminish the repaving project's safety goals. The VSR road continuation is contingent on the land transfer to Massport identified in this project so analysis should be included as part of this DEIR since this is a foreseeable and connected action. Please provide additional information in the revised DEIR document on the expected future use of Route 2A by users and operation required vehicles for Hanscom Airfield.

Environmental Impacts to Minute Man NHP

The proposed land use changes outlined in the DEIR will impact the adjoining conditions between Hanscom Airfield and Minute Man NHP. The removal of 17.85 acres of trees is significant (Chapter 5.2.1.4) and while the NPS appreciates the project proponent's goal of retaining as much tree cover as feasible, the ecological loss is considerable. Commitments by the project proponent and Massport beyond working with the Town of Bedford "to develop a tree planting program" are warranted to include multi-year invasive plant management implementation within the retained vegetated areas at the project site to improve the ecological function of the forested areas to remain. This will also align with the park's own invasive plant management efforts within the Battle Road Unit adjacent to Hanscom Airfield. In addition, tree removals should be replaced at a minimum of 1:1 although preferably at a scale that would adequately replace the cumulative loss of the forested areas based on dBh. This would allow for a more realistic replenishment of the ecological loss of the many mature trees that would be removed from the site. This tree replanting effort should focus not only on the Town of Bedford, but others including Minute Man NHP to find appropriate locations that would be most beneficial for the ecological landscape around Hanscom Airfield.

The amount of cut and fill proposed within the project site is substantial (Tables 5-1 and 5-2) and that, along with the extensive loss of woods on the western side of the project site is concerning with Elm Brook adjacent to the project area. Elm Brook is an important water feature not just for its natural benefits, but also because it is Minute Man NHP's cultural landscape and the battle itself as the British Regulars retreated along the Battle Road from Concord through Lincoln. Although the DEIR indicates that all stormwater will be addressed on-site, it is unclear of the long term impacts to the change in land use so close to Elm Brook. Please clarify how stormwater will be addressed on site and maintained throughout the future. The dramatic change in elevation along the west side and the overall increase of development here brings into question the existing 54-inch outlet on the western side which conveys overflow ultimately to Elm Brook (Chapter 5.3.1). Clarification on whether this outlet will be abandoned considering stormwater management improvements being proposed and confirming that overflow will no longer be reaching Elm Brook is important. If that overflow will no longer be reaching Elm Brook, an analysis of what that could mean for Elm Brook is warranted. The NPS does not want to inherit stormwater management issues or ecological damage to Elm Brook because of this project.

We are asking the project proponent and Massport to recognize the national significance of this battlefield landscape, especially as we approach the 250th Anniversary of the opening battle of the American Revolution in 2025. The park is extremely concerned that the project proponent's North Development project could further impact the park. If you have any questions on our comments, please do not hesitate to reach out to me by email at simone_monteleone@nps.gov or by phone at (978) 318-7811.

Sincerely,

Simone Monteleone

Simone Monteleone
Superintendent

CC: Margie Coffin Brown, NPS-MIMA
Mark Eberle, NPS-NERO
Brona Simon, Massachusetts Historical Commission
Elizabeth Sherva, Massachusetts Historical Commission
Bill Marzella, Advisory Council on Historic Preservation
Kerry Lafleur, Town of Concord
Tim Higgins, Town of Lincoln
Kim Bodnar, Lincoln Select Board
Jim Malloy, Town of Lexington
Mark Sandeen, HATS Chair and Town of Lexington
Matt Hanson, Town of Bedford
Grace Bottita, Great Meadows Wildlife Refuge-US Fish and Wildlife
Anna West Winter, Save Our Heritage
Nancy Nelson, Battle Road Scenic Byway Committee
Betsy Merritt, National Trust for Historic Preservation

Bibliography

Formichella, C. 2013. Minute Man National Historical Park: Acoustical monitoring 2008-2009. Natural Resource Technical Report NPS/NRSS/NRTR—2013/791. National Park Service, Fort Collins, Colorado.

Industrial Economics, Inc. and SC&A Inc. and Automation Science 2024. Analysis of Greenhouse Gas Emissions Impact of Proposed Expansion of Hangar Capacity at Hanscom Field. Cambridge, Massachusetts.

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alexander Strysky, MEPA Analyst for the Project
100 Cambridge Street, Suite 900
Boston MA 02114
VIA EMAIL: Alexander.strysky@mass.gov

June 3, 2024

Re: Draft Environmental Impact Report EEA No. 16654, L.G. Hanscom Field North Airfield Development

Dear Secretary Tepper and Mr. Strysky:

Thank you for the opportunity to submit public comments on the Draft Environmental Impact Report (DEIR) for the proposed North Airfield Development at L.G. Hanscom Field in Bedford, EEA No. 16654.

As advisory body to the Bedford Select Board in matters related to sustainability and greenhouse gas (GHG) emissions in town, Bedford's Energy and Sustainability Committee is writing to express our concern over the negative environmental impacts of the proposed Hanscom Field North Airfield Development Project.

1. **This project will increase flight activity at Hanscom Field, including ferry flights.** Section 2.3 of the DEIR claims that the project is " unlikely to impact the current and future levels of aircraft activity at Hanscom" primarily through the reduction in so-called "ferry flights". Although this term is defined by the report and many comments and questions are raised on the topic the answers are consistent in noting an expectation of capturing significant reductions in this type of flight operation with a credit applied to this "build condition". However, many caveats such as "may occur" and that Massport and the proponent do not have any ability to control ferry flights are used in the course of explaining the topic. The proponent repeatedly uses the language "the ability to decrease the number of ferry flights is beyond the Project's control" to answer a wide variety of questions attempting to better understand how the conclusions as to the reduction in ferry flights are determined. Given the dubious nature of fully understanding these types of flights or the ability to control ferry flights, such supposed future reductions should not be used in the analysis. Ferry flights are defined as flights that pick up or drop off passengers that operate empty to the pick up or after the drop off passengers from an "off-site" plane storage location to or from Hanscom. An entire category of ferry flights are not included in this definition or the proponent's subsequent analysis. Given the project's acknowledged dramatic increase in plane storage capacity at Hanscom their project impact analysis should include flights that operate empty in or out of Hanscom where Hanscom is the "off-site" airport. For example, it is easy to envision a significant increase in ferry flights to and from Logan where Hanscom is the "off-site" location given the increased plane storage capacity at Hanscom in the context of the very tight plane storage space at Logan. Included in many sections of this report is the phrase that Hanscom is a general aviation "reliever to Logan". Given this fact it seems only natural to analyze the scenario where Hanscom is a reliever to Logan in the context of providing added general aviation storage capacity for Logan.

2. **The main impact of the increased flights is an increase in air pollution and GHG emissions**. Private jets emit 5-14 times more carbon emissions per seat compared to commercial planes[1], typically carry only 1 to 5 passengers[2], and are considered one of the most polluting and carbon emitting forms of transportation existing today. As stated in the DEIR sections 4.2.4.2 and 8.3.3, concentrations of particulate matter of different sizes (PM2.5, PM10) are expected to increase, both linked to respiratory and cardiovascular health outcomes like asthma and stroke. Although not modeled in the DEIR report, ultrafine particles (UFP) and polycyclic aromatic hydrocarbons (PAHs) would also be expected to increase. UFP are particles more toxic than PM2.5 and PM10 because of their small size, and PAHs are well-known carcinogens. These increased emissions will impact local and regional populations. Hanscom Field is currently the busiest private jet airport in New England, reporting 36,808 civilian jet operations in 2022[3], and generating over 600,000 tons of CO2 each year[4]. The proposed expansion of 17 new hangars which can each house 8-9 jet planes will triple the current capacity.
3. **The impacts of this expansion on local and regional public health will be significant.** At a local level, the air pollution generated from burning fossil fuels during lift off and landing operations would negatively impact the health of local Bedford residents the most. Air pollution is linked to negative health impacts such as high blood pressure, heart disease, and asthma, particularly for vulnerable populations such as older adults and children. Section 4.2.4.2 of the DEIR admits to an increase in the amount of smaller particulate pollution even under the dubious assumption that this project will reduce the number of flights. The negative health impacts of particulates smaller than 10 micrometers is well established[5]. In addition, recent research shows that airports are a source of ultrafine particulate air pollution[6] and the presence of ultrafine particulate air pollution has negative impacts on human health[7].
4. **Supporting the airport expansion would be a direct opposition to the town goals and Massachusetts state law of reducing emissions to NetZero by 2050.** At a state level, Bedford and all towns and cities are working to reduce their carbon emissions in response to the Massachusetts state law requiring NetZero emissions by 2050. Bedford and surrounding towns have made great strides by electrifying town buildings, increasing electric charging stations for vehicles, and promoting clean energy sources through its community choice aggregation program. The proposer's stance that they are responsible only for the GHG emissions from the buildings to be constructed may be technically correct, but the GHG emissions from the resulting increase in flight activity cannot be ignored when considering the environmental impacts of the proposal.

Bedford's Energy and Sustainability Committee urges you to consider the negative environmental and health impacts of the proposed North Airfield Development at Hanscom Field. We urge you to require the proposer to accurately assess and describe the effects that the project will have on the residents in the immediate surrounding area of Hanscom Field as well as the Commonwealth's climate goals. This project will be harmful to both.

Sincerely,

Daniel Bostwick

Chair, Bedford's Energy and Sustainability Committee

References

1. Transport & Environment (2021). Private jets: can the super rich supercharge zero-emission aviation? https://www.transportenvironment.org/wp-content/uploads/2021/05/202209_private_jets_FINAL_with_addendum.pdf
2. Salas EB (2022) "Number of passengers per private jet flights 2016-2019," *Statista*, https://www.statista.com/statistics/1171518/private-jet-per-flight/
3. Mass Port Authority (2023) The State of Hanscom 2022 https://www.massport.com/media/bmxfopij/2022-state-of-hanscom.pdf
4. Save our Heritage (2023). Calculations of climate effects from private luxury jets at Hanscom Field https://saveourheritage.com/calculations.htm
5. https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm
6. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8318113/
7. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7156741/

TOWN OF CONCORD
HISTORICAL COMMISSION
141 KEYES ROAD, CONCORD, MA 01742
TEL. (978) 318-3290 FAX (978) 318-3291

4 June 2024

Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alex Strysky, MEPA Analyst, EEA No. 16654
100 Cambridge St., Suite 900
Boston, MA 02114

Re: EEA No. 16654 – L.G. Hanscom Field North Airfield Development, Bedford –
Draft Environmental Impact Report

To whom it may concern:

Having reviewed the L.G. Hanscom Field North Airfield Development Draft Environmental Impact Report (March 2024), the Concord Historical Commission has the following comments.

Summary

First and foremost, it is the view of the Commission that the proposed project will have an adverse effect on the integrity of many significant historic resources in Concord, detailed below. Second, in light of the direct flyover route as well as vehicular access to the Hanscom Field North Airfield, we ask that the Concord Historical Commission and Minuteman National Historical Park be named as consulting parties in the Section 106 process.

Comments

For decades, the Concord Historical Commission has expressed its concerns about the growth of civil aviation at Hanscom Field and its potential impact to nationally significant resources unified through interconnected cultural landscapes and a National Historical Park. The Commission was part of a successful effort to prevent Hanscom expansion in 2003 and remains steadfast in its long-term commitment to this preservation effort. It is the view of Concord Historical Commission that the proposed private jet expansion at Hanscom will have an **adverse effect on nationally significant historic structures, landscapes and cultural features in Concord**, including the National Park Service Minute Man National Historical Park.

Due to the anticipated adverse effect of Hanscom expansion, the National Trust for Historic Preservation recognized the national resources of Concord and neighboring communities among America's 11 Most Endangered Historic Properties on May 1, 2024. Of these resources which have been on the national watch list since 2003, the National Trust recently wrote:

> Minute Man National Historical Park and nearby areas of Concord, Lexington, Lincoln and Bedford are home to places of great significance in American history, including [battlegrounds of the outbreak of the American Revolutionary War], Walden Pond and Woods, and the preserved homesteads of authors and environmentalists: *Little Women*'s Louisa May Alcott, Nathaniel Hawthorne, Ralph Waldo Emerson, and Henry David Thoreau.

Visitors from around the world draw inspiration from these unique and irreplaceable places of memory, symbolic of our nation, where Americans expressed their political and literary independence from Europe.

The cultural landscapes for some of the nation's most important and beloved historic resources lie in the direct path of low flying aircraft departing and approaching Hanscom field. Noise and airborne pollutants from these aircraft significantly impact the outdoor experience for visitors and stewards of Concord's historic properties. **Further expansion of flights over Concord will have a cumulative effect by further diminishing the qualities of setting and feeling which are essential to the integrity of these resources and which substantially contribute to their significance. It will also irreparably harm the visitor experience in these places of our collective national memory.**

The vast number of historic properties affected is also significant, summarized below. Many individually significant cultural resources are also included in National Register and Local Historic Districts, and Concord. The Concord Historical Commission is deeply concerned about the increase in low overhead flights, noise pollution, air pollution, and the proposed increase in fuel truck deliveries within Concord's historic districts and the Battle Road Scenic Byway as well as the individually significant buildings, structures, sites (landscapes) and objects in Concord, including several National Historic Landmarks.

In light of these anticipated adverse effects, we are concerned about the potential of diminished integrity to:

- Minute Man National Historical Park: in Concord, includes multiple individually significant historic objects, sites, buildings and structures
- Great Meadows National Wildlife Refuge (see MHC MACRIS inventory form CON.927) important for its past indigenous use and existing pre-historic artifacts and for its role in early settlement of the area
- 4 National Register Districts encompassing 611 square miles; they include
  - Concord Monument Square – Lexington Road Historic District
  - Minute Man National Historical Park
  - Hubbard – French Historic District
  - Isaac Davis Trail
- 7 National Historic Landmarks
  - Minute Man National Historical Park, Orchard House, The Old Manse, the Ralph Waldo Emerson House, Walden Pond, The Wright Tavern, and The Wayside
- Freedom's Way National Heritage Area
- 6 Local Historic Districts encompassing 863 square miles; they include
  - American Mile Local Historic District

  - Barrett Farm Local Historic District
  - Church Street Local Historic District
  - Hubbardville Local Historic District
  - Main Street Local Historic District
  - North Bridge/Monument Square Local Historic District
- The Battle Road Scenic Byway, a National Scenic Byway and an All-American Road
- 9 locally designated Scenic Roads
  - Balls Hill Road
  - Barrett's Mill Road
  - Garfield Road
  - Liberty Street
  - Monument Street
  - Old Road to Nine Acre Corner
  - Strawberry Hill Road
  - Sudbury Road
  - Westford Road
- Numerous other individual properties on or determined eligible for listing on the National Register of Historic Places (such as Sleepy Hollow Cemetery, Thoreau Birthplace [Deacon John Wheeler – Captain Jonas Minot Farmhouse], Deacon Thomas Hubbard/Henry French House, Damon Mill, and Robbins House)

In its periodic Hanscom Field Environmental Status and Planning Reports (ESPR), Massport lists the above-mentioned historic resources and many others in its 45-square mile study area impacted by flights and traffic associated with Hanscom Field. The Commission strongly recommends that **the EIR expand the small study area of just ¼ mile of the project site to be consistent with the 45-square-mile study area of ESPR and to more accurately assess the true impact of the proposed project.**

The Concord Historical Commission remains profoundly concerned that any expansion of civil aviation at Hanscom field will compromise the integrity and experience of the historic resources, cultural landscapes and enduring symbols of our nation. **We also request that the Concord Historical Commission and the National Park Service Minute Man National Historical Park be designated as consulting parties to the Section 106 process.** We look forward to continuing the conversation.

Sincerely,

Alan Bogosian
Chair

Exhibit: Noise map L.G. Hanscome Field ESPR
Cc: Brona Simon, Massachusetts Historical Commission; Members of the Concord Select Board; Simone Monteleone, Superintendent, Minute Man National Historical Park; Lexington Historical Commission; Lincoln Historical Commission; Bedford Preservation Commission

The Commonwealth of Massachusetts
House of Representatives
State House, Boston 02133-1054

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Vice Chair
Joint Committee on Higher Education

Committees:
Environment and Natural Resources
State Administration
and Regulatory Oversight
Elder Affairs

June 5, 2024

Secretary Rebecca Tepper
Secretary, Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston MA 02114

Alexander Strysky, Analyst
Massachusetts Environmental Policy Act Office
100 Cambridge Street, Suite 900
Boston MA 02114

RE: Public Comment on North Airfield Development DEIR (EEA No. 16654)

Dear Secretary Tepper and Mr. Strysky,

I write today to offer my comments on the Draft Environmental Impact Report (DEIR) for the proposed North Airfield Development at L.G. Hanscom Field in Bedford.

Our planet is hurtling towards catastrophe as carbon emissions continue to increase and the climate continues to warm at an unprecedented rate. If left unchecked, the Commonwealth will face rising sea levels, worse natural disasters, and severe heat emergencies among other consequences. These externalities will fall most heavily on the state's poorest residents, while the responsibility for climate change sits primarily with the wealthy. The richest 1 percent of the world's population produced as much carbon pollution in 2019 than the five billion people who made up the poorest two-thirds of humanity. In this context, I believe that we must strongly weigh the climate crisis and consider who benefits from carbon emitting projects in decisions about which types of development we greenlight in the Commonwealth.

I have serious concerns that Massport and the developers have proposed a plan which is in opposition to the climate goals of our towns, cities, and the Commonwealth. They are proposing to build additional hangars on nearly 50 acres exclusively for private luxury travel, which would result in hundreds of thousands of tons of additional greenhouse gas emissions. Private jet

emissions from Hanscom already cancel 50% of the climate benefits from all solar PV ever installed in Massachusetts. Private jets are the most polluting form of travel.

Once built, the expansion would be subject to the exclusive jurisdiction of the Federal Aviation Administration (FAA). Thus, the planning process provides the only substantial opportunity for state and local leaders to provide input. I am disappointed that the DEIR for the North Airfield Development does not provide MEPA with a comprehensive picture of the total environmental impacts from the project. I would ask that the DEIR be revised to include both quantitative and qualitative data that speaks to all the impacts to the region, the Commonwealth and the planet.

Instead, the DEIR largely downplays serious risks and relies on a dubious prediction of how the project would impact aviation activity to rationalize the project's existence. Expansion of Hanscom Field private jet infrastructure (17 new hangars) would only serve the ultra-wealthy who form the private jet travel market. Expanding private jet travel to the Cape, Martha's Vinyard and locations out of state for the wealthy is not a compelling public interest, so the developers have sought to find other rationale for the expansion.

The primary environmental argument provided in the DEIR is that the North Airfield Development would actually reduce emissions through a reduction in "ferry flights." These are flights that are made to Hanscom from other airfields, while planes are empty, to meet high demand for private jet travel from Hanscom.

There are several holes in this argument. First, the DEIR estimates a much larger number of ferry flights than independent analysis conducted by Industrial Economics, Inc. shows occur. The IEC found that there were around 75 ferry flights to Hanscom per year, in contrast to the DEIR's estimate of 3500 ferry flights per year. Additional hangar space at Hanscom would also enable ferry flights from Hanscom to other airports, a consequence which was not explored in the DEIR.

The most fundamental problem with the analysis in the DEIR, however, is the document's basic assumption that new infrastructure will not increase demand for private jet travel. I find it more plausible that if we build the infrastructure for private jet travel, we will ultimately increase demand. Like adding extra lanes to a highway to try to solve for traffic, continuing to add infrastructure that makes private jet use more efficient and accessible will only cause more private jet use in future. In fact, when legislators asked the developers in meetings whether Hanscom expansion would negatively impact other airports in Massachusetts, the developers have admitted that they expect that these airports will have no trouble filling any empty hangar space with new private jets. In essence, they concede that the North Airfield Development will enable greater private jet usage in Massachusetts.

There is a litany of other potential negative environmental impacts. Residents in the neighboring towns have cited increased air pollution and noise as a major concern, for example. More than a nuisance, chronic noise pollution can cause substantial physical stress, which is linked to many illnesses including heart disease. The project is also proximate to 3 separate Superfund sites and

could disrupt contaminated earth and groundwater. It would also require the destruction of existing woods on the property.

I request that the DEIR be rejected by MEPA as an adequate description of the environmental impacts of the proposed Hanscom North Airfield expansion project unless and until it is edited to incorporate an accurate assessment of carbon emissions from the project and addresses all the various credible environmental concerns that have been raised.

Thank you for your consideration.

Sincerely,

Carmine Gentile
State Representative
13th Middlesex District

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Eastern Massachusetts National Wildlife Refuge
Complex 73 Weir Hill Road
Sudbury, MA 01776-1420

June 10, 2024

Alexander Strysky, Environmental
Analyst Massachusetts Environmental
Policy Act Office 100 Cambridge Street
Suite 900
Boston, MA 02114

Re: L.G. Hanscom Field North Airfield Development Draft Environmental Impact Report (March 2024)-EEA #16654

Dear Mr. Strysky,
The US Fish and Wildlife Service (FWS) has reviewed the Draft Environmental Impact Report (DEIR) for the L.G. Hanscom Field North Airfield Development proposal. VHB submitted the proposal to the Massachusetts Environmental Policy Act Office on behalf of Runway Realty and North Airfield Ventures, LLCs. The FWS, as an adjacent landowner to Hanscom Field, previously commented (February 14, 2023) on the project's Environmental Notification Form and submits the following comments on the DEIR:

Great Meadows National Wildlife Refuge (Refuge) is one of eight refuges of the Eastern Massachusetts National Wildlife Refuge Complex headquartered in Sudbury, Massachusetts. The Refuge is a 3,874-acre collection of parcels of land located approximately 20 miles west of Boston, in the historic towns of Concord, Sudbury, Bedford, Billerica, Lincoln, Carlisle, and Wayland. Great Meadows NWR stretches 12 miles from State Route 4 in Billerica to the Framingham/Wayland town line along the Concord and Sudbury Rivers.

The FWS has remaining concerns about the proposed project's impacts to wildlife through the probable increase of traffic, noise, and air pollution.

The Refuge was established May 3,1944, under the authority of the Migratory Bird Conservation Act (16 U.S.C. § 715d) and Refuge Recreation Act (16 U.S.C. § 460k-1) for use as an inviolate sanctuary, or for any other management purpose, for migratory birds. (16 U.S.C. § 715d). We manage the Refuge for the protection of natural resources, (16 U.S.C. § 460k-1), the conservation of threatened or endangered species (16 U.S.C. § 460k-1) and allow for incidental fish and wildlife-

oriented recreational development. (16 U.S.C. § 460k-1).

The Concord Unit of the Refuge off Monsen Road in Concord is located less than two miles away from the proposed project location.

The Refuge provides habitat for a variety of species, including migrating waterfowl, shorebirds, wading and marsh birds. The upland areas support woodcock, songbirds, and many raptors. The marsh habitats are utilized by amphibians and reptiles that are sensitive to environmental changes.

In particular, the Concord Unit of the Refuge, attracts over a half million visitors a year, and is a birding mecca that is routinely used by the neighboring communities for solitude and connecting to the beauty and stillness of nature. Currently, the Refuge is impacted by the sounds of aircraft flying over and its disturbance to wildlife and visitors.

Any project which could further exacerbate current traffic, noise, and air pollution issues is a considerable concern for Refuge Management. Our concerns relayed in this document have focused solely on the *increase* of jet traffic (Industrial Economics, Inc. 2024) rather than the decrease presented in the DEIR.

The FWS is also concerned with impacts to wildlife populations from the substantial habitat destruction and probable stormwater issues that will come with the proposed land changes.

The independent research documented by Industrial Economics, Inc.'s April 4, 2024 "Analysis of Greenhouse Gas Emissions Impact of Proposed Expansion of Hangar Capacity at Hanscom Field", raises concerns on what the project's true level of impacts could be on Federal Trust Species. In a cursory review of the project area in the FWS' Information for Planning and Consultation Tool (IPAC), the project overlapped species ranges for Northern Long-eared Bat, Monarch Butterflies, and 14 migratory birds.

As the Federal permitting for the overall project through the Federal Aviation Administration and the Environmental Protection Agency triggers both the National Environmental Policy Act (NEPA) and Section 106, we reiterate to please add the Refuge and FWS' New England Field Office in Concord, NH to the distribution list for future notifications and investigations related to this project.

Sincerely,

Grace Bottitta-Williamson
Refuge Complex Manager
Eastern Massachusetts National Wildlife Refuge Complex
grace_bottitta@fws.gov
Mobile: 508-848-8619

Cc:
David Simmons, USFWS New England Field Office
Cheryl Quaine, Federal Aviation Administration
Simone Monteleone, National Park Service -Minute Man National Historical Park
Emma Lord, NPS SUASCO Wild and Scenic Rivers Program
Mark Sandeen, HATS Chair
Anna West Winter, Save Our Heritage
Kerry Lafleur, Town of Concord, Massachusetts

TOWN OF BEDFORD

HEALTH AND HUMAN SERVICES

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Heidi Porter, MPH, REHS/RS, Health and Human Services Director

Board of Health

Maureen Richichi, Chair
Beatrice Brunkhorst, Vice Chair
Ann Kiessling
Anita Raj
Susan Schwartz

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alexander Strysky, MEPA Analyst for the Project
100 Cambridge Street, Suite 900
Boston MA 02114
VIA EMAIL: Alexander.strysky@mass.gov

June 13, 2024

Re: Draft Environmental Impact Report (DEIR)
EEA No. 16654, L.G. Hanscom Field North Airfield Development

Dear Secretary Tepper and Mr. Strysky:

Thank you for the opportunity to submit public comments on the Draft Environmental Impact Report (DEIR) for the proposed North Airfield Development at L.G. Hanscom Field in Bedford, EEA No. 16654.

The Bedford Board of Health is in agreement with the Bedford Select Board's comprehensive response to the Proponent's DEIR which outlines their concerns on behalf of Bedford's residents. We write to highlight a significant impact the DEIR does not adequately address, namely, important information about potential health implications for area residents related to air quality including aviation particulate matter as a result of the 37% increase in Hanscom passenger miles noted in the recent Massport 2022 Boston Logan ESPR.

The Bedford Board of Health is concerned that the increase in jet fuel emissions from the proposed increased jet flights and operations already noted and those resulting from the proposed hangar expansion pose new significant negative health risks to residents residing near the airfield and to students in nearby schools. Jet engine emissions, especially those using leaded fuel, produce significant quantities of hazardous air pollutants which are harmful to human health. **The Proponent's DEIR fails to provide an assessment of the potential negative health impacts to residents of the communities and to those who work geographically near the jet field as a result of existing and expanded jet operations.**

Of particular concern is the potential increase in ultrafine particulate matter exposure which is a known factor in the development, exacerbation and progression of respiratory diseases, such as asthma and chronic obstructive pulmonary disease (COPD) and is also implicated in acute and chronic cardiovascular diseases. To determine the baseline levels of ultrafine particles in the air around Hanscom Field, the four contiguous towns around this field and the Hanscom Field Advisory Commission have launched an Air Quality Study led by Tufts University Assistant Professor, Dr. Neelakshi Hudda. The study is expected to be completed this summer, with a report expected in October, and will provide vital information that needs to be considered in addressing the full impact of the proposed expansion of jet operations. The DEIR must also include an assessment of the implications of Dr. Hudda's findings and other current research on jet emissions.

We urge the Proponents to include a substantial accounting of all of the health impacts related to current and potential expansion of jet operations at Hanscom Field as they are essential to a comprehensive evaluation of this proposal.

Thank you for your consideration of our concern.

Sincerely,

The Bedford Board of Health
Maureen Richichi, Chair, Bea Brunkhorst, Ann Kiessling, Anita Raj, and Susan Schwartz

CC: Heidi Porter
The Bedford Select Board
Representative Ken Gordon
Senator Mike Barrett

From:	Lowry, Shawn (he/him/his)
To:	Strysky, Alexander (EEA)
Cc:	Peterson, David; Daly, Michael; Timmermann, Timothy; Augustine, Randi (DEP); Matt Greenberg; FRYE, CURTIS A GS-14 USAF AFCEC CZOE; Ross, Eric G CIV USN NAVFAC MIDLANT NOR (USA); Soule, Madeline; Quaine, Cheryl J (FAA); rick@charlesriverrealty.com; Loughlin, Anni (she/her/hers)
Subject:	L.G. Hanscom Field North Airfield Development Project – EEA Number 16654
Date:	Thursday, June 13, 2024 9:19:37 AM
Attachments:	image001.png 2024-06-13.Hanscom-NWIRP-DEIR-EPA-comments-Signed.pdf

Mr. Strysky,

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Report for the subject site. On behalf of my manager, Anni Loughlin, please find attached to this email EPA's comment letter on this report.

Please feel free to contact her at Loughlin.Anni@epa.gov or 617-918-1273 with any questions. Thanks for your attention!

EPA United States Environmental Protection Agency

Shawn Lowry (he/him/his)
Remedial Project Manager

Federal Facilities & Housatonic River Section
Superfund & Emergency Management Division
U.S. EPA Region 1 (07-3)
5 Post Office Square, Suite 100
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REGION 1
BOSTON, MA 02109

Date: See signature stamp below

Alexander Strysky
Massachusetts Environmental Policy Act (MEPA) Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Via e-mail to alexander.strysky@mass.gov

RE: L.G. Hanscom Field North Airfield Development Project – EEA Number 16654
Bedford, MA

Dear Mr. Strysky:

The U.S. Environmental Protection Agency (EPA) is aware of the L.G. Hanscom Field North Airfield Development Project in Bedford, MA and has reviewed the *Draft Environmental Impact Report* (DEIR), dated March 2024, as submitted to the MEPA Executive Office of Energy and Environmental Affairs by Runway Realty Ventures and North Airfield Ventures.

EPA does not believe that the DEIR is responsive to comments provided in EPA's previous correspondence sent on February 13, 2023. To reiterate, the proposed development may be adjacent to and/or overlie two sites regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (commonly referred to as "Superfund") known as Hanscom Field/Hanscom Air Force Base (https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0100967) and the Naval Weapons Industrial Reserve Plant (https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0102032). In accordance with CERCLA, these sites are currently being investigated and remediated by the U.S. Air Force and U.S. Navy, respectively, with oversight by EPA and the Massachusetts Department of Environmental Protection (MassDEP) under Federal Facility Agreements (FFA) for each Base. This proposed project is likely to overlap with areas subject to the Air Force/Navy's investigative and remedial efforts associated with the Superfund sites, including ongoing cleanup and monitoring of contamination in groundwater, land use controls, and upcoming additional investigations of contamination in soil, sediment, and groundwater.

There is known contamination in the vicinity of the proposed development associated with the Hanscom Field/Hanscom Air Force Base site. While this is acknowledged in Section 10 of the DEIR, the text does not explain that the area proposed for development overlies a known contaminant plume of volatile organic compounds (VOCs) in groundwater being addressed by the Air Force under CERCLA pursuant to the remedy outlined in the September 2007 Record of Decision for Operable Unit 1 (https://semspub.epa.gov/work/01/279247.pdf). The remedy for Operable Unit 1 (OU1) includes

operation of a groundwater collection, treatment and recharge system, long term monitoring via a monitoring well network throughout the area, and Land Use Controls (LUCs) to prevent exposure to and use of contaminated groundwater, prevent exposure to residual contamination in subsurface soil, and prevent exposure to vapors that could accumulate in buildings (existing and future) due to the contaminated groundwater plume.

Another portion of the proposed project area is known as the former Southern Flight Test Area (SFTA), which is part of the Naval Weapons Industrial Reserve Plant Superfund Site. The SFTA remedy currently being implemented by the Navy includes the monitored natural attenuation of residual chlorinated solvent groundwater contamination and LUCs to prevent uncontrolled human exposure to Navy contamination above levels that prevent unlimited use and unlimited exposure (please see https://semspub.epa.gov/work/01/557956.pdf). SFTA land use restrictions to ensure long-term remedy protectiveness are included in the April 2019 quitclaim deed (please see Middlesex Registry of Deeds, Book 72479, Page 255) as well as the September 2018 Notice of Activity and Use Limitation (please see Middlesex Registry of Deeds, Book 71678, Page 327), pursuant to 310 CMR 40.0111. Among the LUCs included on the SFTA property, the property owner is required to develop a groundwater dewatering plan should subsurface alterations result or likely result in the exposure of or contact with groundwater. Such a plan requires the approval of the Navy, EPA, and MassDEP. The CERCLA SFTA remedy along with the associated land use restrictions and controls are necessary to ensure protection of human health and the environment and should be clearly documented within the DEIR.

The developer should provide more information about the proposed stormwater infiltration system, Fuel Storage Facility, and additional runoff due to the increase in impervious surfaces to ensure these items do not interfere with Air Force's remedial efforts concerning the VOC plume, damage Air Force or Navy monitoring wells and any other remedial infrastructure within the development area, introduce new contamination or act as new source areas, or exacerbate existing contamination at the site. For example, while the DEIR explains that the wastewater generated from aircraft washing inside the hangars would be managed via public sewer, Section 7.4 notes, "Some aircraft washing may be conducted outside on the Ramp. If so, wash water would flow to an infiltration basin with pretreatment and would not be discharged offsite". Please provide additional explanation of what is included in this "pretreatment" and how it would be allowed to infiltrate on-site.

Additionally, while the DEIR also acknowledges Air Force's ongoing Remedial Investigation concerning per- and polyfluoroalkyl substances (PFAS) at Hanscom Air Force Base, it does not mention that this investigation includes both soil and groundwater as media of concern.

EPA recently finalized maximum contaminant levels (MCLs) under the Safe Drinking Water Act for several PFAS in groundwater and developed updated risk screening levels for assessing PFAS contamination in soil. Additionally, two PFAS compounds, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS), have been designated as hazardous substances under CERCLA with an effective date of July 8, 2024. As explained in section 5.2.2.2 of the DEIR, site soils are planned to be excavated and used on-site for regrading purposes. At this time, the extent of PFAS contamination in soil is not known for either the Hanscom or Naval Weapons sites, and PFAS contamination in soil may also exist underneath existing or planned building footprints. Due to the hazardous substance designation, should any intrusive earthwork, including but not limited to excavation and construction dewatering, disturb soils containing PFOS or PFOA or other CERCLA

hazardous substances, or further spread or exacerbate existing contamination, any party causing a release or potential release of CERCLA hazardous substances may lose liability protections under CERCLA, including any covenants provided by the United States as part of property transfers. Any work done impacting CERCLA contamination on either property needs to be conducted under an approved CERCLA work plan approved by either the Air Force or the Navy and EPA (in consultation with the State) under each Base's FFA.

To reiterate, EPA is concerned that this development may result in interference with ongoing Superfund activities. Despite correspondence from EPA, MassDEP, and Air Force urging the developers to regularly meet with the Superfund project teams, to date, the developers have only met with these parties twice. During a meeting between EPA, MassDEP, Air Force, Navy, and the developers on April 4, 2024, the developers indicated that existing Air Force and Navy monitoring wells would likely be damaged or destroyed as a result of planned construction efforts. This would have negative implications on several Superfund activities, including but not limited to Air Force's PFAS Remedial Investigation, a plume stability study of the known VOC plume, and ongoing long-term monitoring for both Superfund sites. It is concerning that the developers assume that damage or destruction of vital components of Superfund investigations and remedies is acceptable without previously gaining approval from the Air Force or Navy or reviewing and complying with CERCLA Land Use Controls in the proposed development area. Unrestricted use of the land is not allowed, nor are actions that may impact the integrity of Superfund cleanup remedies.

As indicated in previous correspondence, EPA strongly encourages the developers to schedule regular meetings with EPA, MassDEP, Air Force, and Navy to ensure construction activities associated with this proposed project occur in a manner that remains protective of human health and the environment and does not interfere with ongoing cleanup remedies or future investigations. The developers must obtain government approval for any activities that impact the ongoing CERCLA investigations and cleanups.

Please feel free to contact me at Loughlin.Anni@epa.gov or 617-918-1273 with any questions.

Sincerely,

Anni Loughlin, Supervisor
Federal Facilities & Housatonic River Section

cc: Dave Peterson, EPA
Mike Daly, EPA
Timothy Timmermann, EPA
Randi Augustine, MassDEP
Matt Greenberg, U.S. Air Force
Curt Frye, U.S. Air Force
Eric Ross, U.S. Navy
Madeline Soule, MassPort
Cheryl Quaine, FAA
Rick Muse, Charles River Realty

The Commonwealth of Massachusetts
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Chair
JOINT COMMITTEE ON HEALTH CARE FINANCING

Vice Chair
SENATE COMMITTEE ON WAYS AND MEANS

June 13, 2024

Secretary Rebecca Tepper
Executive Office of Energy and Environmental Affairs (EEA)
100 Cambridge Street, Suite 900
Boston, MA 02114

Alex Strysky, Analyst
Massachusetts Environmental Policy Act Office
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: Public comment on North Airfield Development at Hanscom Field (EEA No. 16654)

Dear Secretary Tepper and Mr. Strysky,

I write today to offer my comments on the Draft Environmental Impact Report (DEIR) for the proposed North Airfield Development at Hanscom Field in Bedford.

As a legislator living and representing communities surrounding Hanscom Field, I am extremely concerned about the proposed Hanscom Field expansion for private jets. This proposed expansion will serve a small number of people at the expense of the communities surrounding the Field. Furthermore, it will not benefit our environment or help us reach our climate goals.

The Draft Environmental Impact Report (DEIR) for the North Airfield Development is deeply flawed, especially when claiming that the project aligns with net-zero objectives while overlooking substantial emissions from increased travel by private jet aircraft – emissions that will severely impact the health of surrounding communities. It is misleading to claim that the proposed expansion is a solution that will further promote Sustainable Aviation Fuels (SAFs) thus reducing aviation's carbon footprint. SAFs are neither sustainable nor can they be produced at a scale large enough to meet Massachusetts' 2050 climate goals. Furthermore, the DEIR's claim that this project will eliminate 3,543 ferry flights has not been sufficiently proven.

Importantly, the DEIR report failed to include critical data, such as:

- The Environmental Status and Planning Report for 2022. The inclusion of this updated report is essential for a comprehensive environmental assessment.
- GHG emission figures for flights (above 3,000 ft).
- New ongoing Air Quality Study about ultra fine particles. Including this data will establish the baseline of current air quality.
- Detailed plans to coordinate with the US Air Force and EPA about remediation of PFAS superfund contamination areas at the Project site.
- Detailed maps that superimpose Air Force maps identifying contaminated areas onto developers' maps that will accurately reflect where facilities will be located.

I am aware that MEPA does not have the authority to approve or deny this proposal. However, given Governor Healey's and her administration's deep commitment to alleviating climate issues, I am asking you to take whatever creative and collaborative steps that are at your disposal to stop this project that is counter to our efforts to combat climate change.

Thank you for your consideration of my comments on this critical issue and my strong objection to this proposed development.

Sincerely,

Cindy F. Friedman

Town of Lexington
Town Manager's Office

James Malloy, Town Manager
Kelly Axtell, Deputy Town Manager

Tel: (781) 698-4540
Fax: (781) 861-2921

June 13, 2024

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office

Alexander Strysky, MEPA Analyst for the Project
100 Cambridge Street, Suite 900
Boston MA 02114
Re: Draft Environmental Impact Report (DEIR)
EEA No. 16654, L.G. Hanscom Field North Airfield Development

Dear Secretary Tepper and Mr. Strysky:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed North Airfield Development at L.G. Hanscom Field in Bedford, EEA No. 16654.

Our comments to the Draft EIS should be, in no way, construed as supporting this proposed project. **The Town of Lexington does not support this project.** However, in the spirit of the Draft EIS purpose, we offer the following comments:

- The proposed site appears to be in a DEP approved Wellhead Projection Zone II. Four 20,000 gallon and one 5,000 tanks are proposed to be installed and the existing tank removed. The Proponent does not address the repercussions of a catastrophic failure of one of the tanks or service lines, nor is an explanation provided of underground spill prevention. The Proponent should provide further information of how they will be protecting the groundwater and provide underground spill mitigation/prevention in their design. Unfortunately, Hanscom Air Force Base and Airfield have had many spills. We suggest a Licensed Site Professional (LSP) certified by the Massachusetts Board of Hazardous Waste Site Cleanup Professionals be present during all site construction work. The proponent should be required to remediate <u>any and all</u> contaminated soil found on site to the highest standard such as required for a residential use.

- The Draft EIS acknowledges that the project site is within the federally endangered Northern Long Eared Bat habitat. An investigation should be done now, during the EIS process, to determine if the bat is present. If evidence is found, proper mitigation can be implemented or the project adjusted to protect the endangered bat. In addition, the site is immediately adjacent to priority habitat for four species listed in the Massachusetts Endanger Species Act. Because of the close proximity, the proponent should investigate the species' presence so the proponent can act to

protect the habitat. To help maintain a healthy habitat, we suggest that all new plantings be native to Middlesex County and be maintained following Sustainable Site Initiative's SITES protocol.

- The Draft EIR ,in several places, states that the aviation industry is strong and that the proposed project will meet current demand and accommodate future forecasted demand. Yet, the number of flights in the build scenario is projected to be less than the no build. This theory does not seem to prove out given the size and number of fuel tanks being installed and given the industry's expected growth as a whole. In addition, the report states that the proposed project has the "potential" to reduce ferry flights. We do not believe this to be true. If more aircraft are accommodated, more aircraft will come. Why are we enabling an industry that we know is accelerating climate change?

- The Draft EIS suggests that the Project has the "potential" to reduce impacts from aviation activity through a reduction in empty planes known as ferry flights that currently fly to and from Hanscom to meet passenger demand. Frankly, the "potential" to reduce the number of ferry flights is not good enough. Ferry flights must be reduced. We understand that the airfield "cannot lawfully refuse a flight from landing, or limit the type, volume, or frequency of flights that land at Hanscom." However, the 2022 ESPR states that a night time landing fee reduced nighttime flights. We suggest a similar approach to reducing ferry flights: implement fees on ferry flights.

- The Draft EIS states that the project aims to "serve as a national example of innovative and sustainable aviation practices, in line with the Commonwealth's decarbonization goals." If that is truly the case, the project should be incentivizing the development of a fossil fuel free aviation industry. To that end, it is suggested that new hangars be only used by electric and fossil-free fuel aviation. In addition, two of the five new fuel tanks should be reserved for SAF fuels. Consider limiting the use-life of the fuel tanks and requiring their removal in a certain time period. In addition, this project should be built to anticipate future needs such as ample room for future battery storage. This Project should be a model in reducing the aviation's impact on climate change and incentivizing a change to fossil-fuel free aviation.

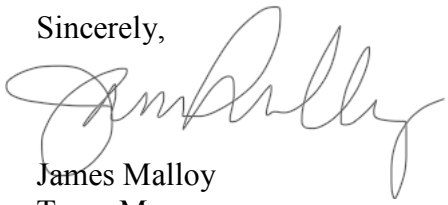
- While the projected vehicular traffic impact is expected to be minimal during peak hours, 250 new parking spaces encourages driving in a region hampered by congestion. We suggest that the Proponent provide indoor bicycle parking for employees and invest in Transportation Demand Management strategies to reduce single occupancy vehicle trips to the site by both employees and patrons. The site is one mile from the Minuteman Bikeway and a half mile from the Reformatory Branch Trail and the main terminal is served by MBTA bus route 62/76.

- It is not clear how the proponent is reducing heat island effect. Infiltration facilities can be installed under the ramps, if rated for the aircraft weight. This would provide more room for natural vegetation.

- And finally, we want to reiterate the Lexington's Select Board letter dated the June 3, 2024 to Secretary Tepper and Analyst Strysky requesting that greenhouse gas emissions (CO2e) and ultrafine particulate matter (PM0.1) be added to the list of criteria pollutants measured for aircraft operations. In addition, we request that a comprehensive and accurate Environmental Impact Review (EIR) include greenhouse gas emissions (CO2e) for the entire flight of aircraft operations departing from or arriving at Hanscom Airport, not just for the portion of the flight below 3,000 feet, which is typically only 1 minute of an average 100-minute flight time.

We respectfully request that the impact of this project be full examined as the benefits are not clear. We all need to work collaboratively towards reducing CO2 emissions and meeting our critical climate goals.

Sincerely,



James Malloy
Town Manager

12 Mudge Way
Bedford, MA 01730
June 14, 2024

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office

Alexander Strysky, MEPA Analyst for the Project
100 Cambridge Street, Suite 900
Boston MA 02114
VIA EMAIL: Alexander.strysky@mass.gov

Re: Draft Environmental Impact Report (DEIR)
EEA No. 16654, L.G. Hanscom Field North Airfield Development

Dear Secretary Tepper and Mr. Strysky:

Thank you for the opportunity to provide comments on the Draft Environmental Impact Report (DEIR).

Please accept this letter from the Chairs of the local Boards of Health in Bedford, Concord, Lexington and Lincoln. We, as Chairs, are in agreement with comments that have been submitted by the Hanscom Area Towns (HAT)s and by multiple organizations and individuals in our respective communities, expressing concern that the Hanscom Field North Airfield Development project, in addition to the 37% increase in air traffic, will result in a significant increase in greenhouse gas emissions (CO_2) and ultrafine particulate matter (PM1.0).

Our obligation is to protect the health of the people who live, work and play in our communities - the "public." As drafted, the DEIR lacks rigorous recognition of key climate impacts including air pollution and carbon dioxide. The DEIR omits mention of the unremediated toxic chemical contamination (including, but not limited to, chlorinated solvents, perchlorate, 1,4 dioxane and PFAS) at portions of the Base that require EPA/MassDEP oversight and permitting. These issues directly impact the public's health and wellbeing and therefore, we respectfully seek a revised DEIR that encompasses the full picture at Hanscom including the risks to the health of the "public."

Respectfully,

Maureen Richichi, Chair, Bedford, MA Board of Health
Randy Kring, Chair, Concord, MA Board of Health
Wendy Heiger-Bernays, Chair, Lexington, MA Board of Health
Fred Mansfield, Chair, Lincoln, MA Board of Health

cc: Select Boards in Bedford, Concord, Lexington and Lincoln

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Bonnie Heiple
Commissioner

June 14, 2024

Alexander Strysky
Massachusetts Environmental Policy Act (MEPA) Office
Office of Site Remediation and Restoration (HBS)
100 Cambridge Street, Suite 900
Boston, MA 02114-2023

Via e-mail to alexander.strysky@mass.gov

RE: L.G. Hanscom Field North Airfield Development Project
Bedford, MA-EEA#16654

Dear Mr. Strysky:

The purpose of this letter is to comment on the Draft Environmental Impact Report, L.G. Hanscom Field, North Airfield Development, Bedford, Massachusetts dated March, 2024.

The Draft Environmental Impact Report (DEIR) is a Massachusetts Environmental Policy Act ("MEPA") Filing prepared by the Proponent to address potential environmental impacts of the proposed development of a 47-acre site at Hanscom Airfield. MEPA applies to projects that exceed identified thresholds (301 CMR 11.03) and require a State Agency Action.

Proposed plans include the creation of 17 corporate jet hangars at the North Airfield, renovation of the existing hangar on a former U.S. Department of the Navy (Navy) parcel, the creation of 10 or more acres of impervious surface, construction of a jet fuel tank farm, and installation of a new stormwater drainage system. The project will

also include approximately 126,680 SF of aviation support space and approximately 240 surface parking spaces.

Development of the North Airfield is proposed for an area that is adjacent to and/or on two federal Superfund sites which are currently undergoing investigation and cleanup of hazardous substances and the emerging contaminants per-and polyfluoroalkyl substances, (also known as PFAS) under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Certain PFAS substances will become hazardous substances under CERCLA on July 8, 2024. See 40 CFR Part 302, Federal Register/Vol.89, No.90/page 39124)

In accordance with CERCLA, the Hanscom Airfield/Air Force Base Superfund Site ("Hanscom AFB") is currently being investigated, remediated, and monitored by the U.S. Airforce. The former Naval Weapons Industrial Reserve Plant Superfund Site ("NWIRP") is currently being investigated, remediated, and monitored by the Navy. U.S. Air Force (Air Force) and Navy remedial work at both sites is overseen by U.S. Environmental Protection Agency (EPA), with Massachusetts Department of Environmental Protection (MassDEP) reviewing and providing comment on remedial documents and otherwise providing support for the cleanup per CERCLA.

The proposed development area overlies areas subject to the Air Force and Navy's investigative and remedial efforts under CERCLA, including ongoing remediation and monitoring of contamination in groundwater; land use controls; and planned additional investigations and potential future remediation of PFAS in soil, sediment, and groundwater.

The proposed development area also includes, or overlaps with, disposal sites regulated under Massachusetts law at M.G.L. c. 21E ("Chapter 21E") and 310 CMR 40.0000 (the "Massachusetts Contingency Plan" or "MCP"). One MCP disposal site (identified by Release Tracking Number [RTN] 3-0035926) is associated with the planned development area on the NWIRP southernmost parcel, referred to as the former Southern Flight Test Area ("SFTA"). This release reached a Permanent Solution in December, 2020. Other MCP disposal sites at both Hanscom AFB (RTN 3-0000223) and NWIRP (RTN 3-0002611) are listed as Adequately Regulated under the MCP because they are being addressed under CERCLA as part of the cleanup of the two above-referenced Superfund sites. The Proponent

is advised to be aware of potential contamination at sites (both closed and open) within and adjacent to the development area.

Land Use Controls (LUCs) have been implemented at both CERCLA sites as part of the Superfund cleanup process. The controls include two LUCs on the Hanscom and NWIRP sites and a Notice of Activity and Use Limitation (NAUL) on the SFTA parcel, part of the NWIRP Site. These controls place limits on land use and development activities on much of the land slated for development. Future land use is mostly limited to commercial or industrial redevelopment.

Through these various land use controls, the Navy and Air Force retain the right to continue investigation and cleanup activities. These land use controls are necessary and particularly pertinent for areas where investigations are on-going and cleanup has not yet commenced. Of note, the full extent of PFAS contamination has not yet been defined and is still undergoing investigation and may extend outside of the currently defined area.

Groundwater use restrictions, including those that prohibit groundwater use for human consumption are in place for much of the area undergoing redevelopment. Limitations on certain development activities are also in place for much of the area to ensure that there is no mobilization of groundwater contaminants that could contribute to contaminant migration that could impact surrounding sensitive receptors. These restrictions include controls on construction dewatering, which prohibit dewatering without EPA, MassDEP, and Navy or Air Force oversight, concurrence, and/or approval.

The Proponent is advised that existing NAULs, LUCs, and other deed restrictions are legal documents that identify activities and uses at the property that may and may not occur, as well as the property owner's obligation and maintenance conditions that must be followed to ensure the safe use of the property that does not pose an unacceptable risk to human health and the environment or interfere with the Superfund remedies or ongoing investigations.

Equally important, the Proponent should be aware that PFAS investigation continues, and that no interim or final land use controls have yet been recorded on the development area that relate specifically to PFAS. This means that the Proponent must continue to coordinate and work closely with the Navy, Air Force, EPA, and MassDEP to ensure that the proposed development activities and completed development do not interfere with ongoing Superfund site

contamination, investigations, or remedies. Failure to engage in adequate coordination could result in mobilization of contaminants that may environmentally impact areas downgradient/downstream and/or otherwise interfere with future investigation and remedial activities.

The DEIR lacks sufficient detail on the proposed project design and construction plans to determine whether adverse environmental impacts to the surrounding environment from disturbance of the Superfund sites may occur as result of development of the proposed project. The Proponent asserts that Section 10 of the DEIR summarizes the following, however these topics are not adequately addressed in Section 10 of the DEIR:

- A review of the history and remediation status of releases affecting the Project Site (Section 10.2).
- A description of how the project will be designed to maintain the land use controls and minimize interference with potential monitoring and remediation activities in the future (Section 10.3)
- A description of consultation with MassDEP, EPA, Air Force and the Navy regarding the status of monitoring and remediation efforts and any constraints on land use, site design and/or construction practices that may be necessary (Sections 10.1 and 10.2).
- Project-related impacts (Section 10.4)

Section 7 addresses the protection of groundwater supplies as part of the project plan (Section 7.1 and 7.4). MassDEP Bureau of Waste Site Cleanup has the following comments specific to Section 7 and Section 10 of the DEIR:

DEIR Section 7.1.2.3: Summarizes how the Project Site will be designed to protect groundwater drinking water supplies on/in the vicinity of the Project Site.

- The proposed Project site and vicinity is located within a Potentially Productive Aquifer. Two of the Town of Bedford's wellfields, the Shawsheen Road and Hartwell Road wellfield, are located downstream and downgradient of the Hanscom AFB site, along Elm Brook, a tributary of the Shawsheen River that lies adjacent to the Hanscom Airfield. Both wellfields were taken off-line due to contamination impacting the wells,

but the wellfields have not been permanently abandoned; the Town of Bedford retains the right to use these wells in the future. Further downstream from the Hanscom AFB site is an intake point along the Shawsheen River for the Town of Burlington's Mill Pond Reservoir, a surface water drinking supply for the Town of Burlington. Any disturbance or planned construction of the proposed development areas has the potential to impact investigations and cleanup currently underway at both Superfund sites and mobilize contaminants to leach into the groundwater and off property, namely toward Elm Brook, affecting drinking water source areas located downgradient/downstream. A discussion regarding potential impacts associated with redevelopment of the Project site should take this into account and added to this section.

DEIR Section 10.2: Summarizes the history and status of releases affecting the Project.

- NWIRP Site 4 is listed as a site affecting the Project Site. NWIRP Site 4 is not located within the proposed Project Site development area, nor is it adjacent to that area. It is located on the Northern NWIRP Parcel, atop Hartwell Hill.
- The Southern NWIRP Parcel (or SFTA) which is Site 3, should be included in Section 10.2, as development is intended to directly occur on this parcel. For reference, the Northern Portion of NWIRP (atop Hartwell Hill) is separated from the Southern Portion (SFTA) by Hartwell Road.

DEIR Section 10.3: Describes how the project will be designed to maintain the land use controls and minimize interference with potential monitoring and remediation activities in the future.

- Section 10.3 indicates that the Project will comply with the provisions of the RODs including institutional controls. The two existing LUCs for the Hanscom AFB site and the NWIRP site are not included in this section. These should be included.
- The proponent is advised that any activities or uses inconsistent with the LUCs or NAUL must be approved by the Navy/Air Force, EPA and MassDEP. MassDEP strongly suggests that the Proponent consult with Navy/Air Force, EPA, and MassDEP about the requirements outlined in the Land Use Controls for both Superfund sites.

- A copy of the LUCs for both Hanscom AFB site and NWIRP and the NAUL for the NWIRP SFTA parcel should be included in the Final DEIR for reference.
- Section 10.3 makes reference to a Permanent or Temporary Solution Statement which is not relevant as both Hanscom AFB and NWIRP are federal Superfund sites subject to cleanup under CERCLA rather than the MCP.

DEIR Sections 10.1 and 10.2 provide a summary and description of the proponent's consultation with MassDEP, EPA, USAF, and the Navy regarding the status of monitoring and remediation efforts and any constraints on land use, site design and/or construction. To date there have been two meetings between the Proponent and MassDEP, EPA, the USAF and the Navy. At the last meeting MassDEP requested that regular status meetings be setup by the Proponent so that the Navy, Air Force, USEPA, and MassDEP could provide appropriate input on proposed project design and construction as well as status updates on investigation and cleanup efforts progressing at the two Superfund sites. To date additional meetings have not taken place.

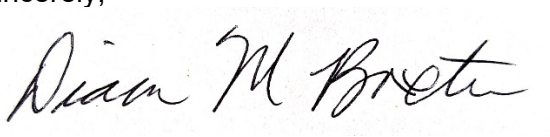
DEIR Section 10.4: Project-related Impacts:

- Section 10.4 does not sufficiently describe how implementation of the current project design will not adversely impact the underlying aquifer and adjacent surface water bodies (Elm Brook). That the final project will be connected to municipal water and sewer does not negate any impacts that might occur throughout project redevelopment and construction.
- Evaluation of adverse impacts to groundwater conditions cannot be based on current analytical results of three monitoring wells-RAPS-IT, RAP3-IT and B-103.
- It is not clear how the project intends to avoid interference with on-going monitoring and treatment plans when the proposed project will be conducted on and in the vicinity of the two Superfund Sites.
- Consultation with the agencies and approval by the agencies should occur well before monitoring wells are destroyed through construction activities. Notification is not sufficient.
- Is soil excavation intended only for the area of the "north slope" adjacent to Hartwell Road. There does not appear to be appropriate consideration for managing soil that may be impacted with PFAS and other Superfund site-related

compounds. How will construction activities ensure that impacted material is not reused on other areas of the site?

Please feel free to contact me at randi.augustine@mass.gov or 617-634-9612 with any questions.

Sincerely,



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Anni Loughlin, EPA
Mike Daly, EPA
Shawn Lowry, EPA
Curt Frye, U.S. Air Force
Matt Greenberg, U.S. Air Force
Eric Ross, U.S. Navy

MCAC
Massport Community Advisory Committee

Massachusetts Port Authority Community Advisory Committee

June 14, 2024

The Honorable Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
Attn: Alex Strysky, MEPA Analyst, EEA #16654
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: L.G. Hanscom Field North Airfield Development – EEA #16654

Dear Secretary Tepper,

Please accept this comment letter from the Massachusetts Port Authority Community Advisory Committee (MCAC) on the Draft Environmental Impact Report (DEIR) submitted on March 15, 2024 by Runway Realty Ventures, LLC and North Airfield Ventures, LLC proposing the construction of 17 hangars and to renovate the existing Navy Hangar building at Hanscom Airfield. The MCAC is a legislatively created (See 2013 Mass. Acts Ch. 46, §§ 55, 82, as amended) committee comprised of representatives from thirty-five communities impacted by Massport's operations. Our statutory purpose is to provide oversight to Massport to minimize and mitigate the impacts that Massport has on our member communities. We submit these comments based on the information presented in the DEIR as well as information gathered at the public meeting on the project on May 30, 2024.

The proponent intends to build, operate, and maintain a master development of corporate hangars at Hanscom Field which will, according to the DEIR, support current aviation activity and accommodate future demand. In addition to the 17 hangars, the project will add 395,700 SF of new building area. This is a large development that anticipates creating an additional 26 acres of impervious area. The DEIR suggests that the project will result in environmental benefits associated with reduced air emissions by reducing overall aircraft trips from what is already projected based on predicted growth using FAA models. There is, however, very little evidence to support the claim that building these additional hangars will result in fewer "ferry flights" as they are called in the DEIR. Indeed, in the public meeting and the DEIR, proponent's consultants were unable to provide anything more than a guess as to how many flights would be considered "ferry flights" and whether these flights would be reduced by the project. Therefore, any projections as to the project's impacts thereon are simply conjecture. The MCAC, given our mandate to consider Massport's impacts on all our communities, is particularly interested in the project's impact on general aviation activity at Logan Airport as well as Hanscom where the project will be built. The DEIR states that "Hanscom Field serves a critical role, as it relieves congestion at Logan Airport by using the regional airport system more efficiently, and reducing the number of GA operations and non-scheduled charters at Logan Airport." (Section 1.1 of DEIR – Project Purpose and Need). These assertions are made without providing any supporting evidence. Without a rational definition of, and protocol for counting, these flights, it is impossible to ascertain the environmental impacts of the project on either facility. We would therefore ask that

further definition be undertaken, in consultation with the interested public, on what constitutes a ferry flight, and more information be provided on the interplay and impact of the project on both Massport facilities (Logan and Hanscom). Only then will the environmental impacts of this project be sufficiently understood to provide meaningful impact mitigation.

The DEIR further asserts that the project "will result lower (sic) emissions of criteria pollutants from aircraft operations due to reduction in ferry flights compared to the No-Build Condition." (DEIR, p. 8-10). Here, too, the DEIR relies on a suspect definition of "ferry flights" and provides little to no support for this conclusion. Further, criteria pollutants are not the only pollutants of concern around this, or any, airport. There is a growing body of research which suggests that ultrafine particulate matter (UFP) is harmful to human health. The current concentrations of UFP's in communities surrounding Hanscom Field (and Logan Airport) already often exceed World Health Organization guidelines due to emissions from the airfield. The project proponent indicates in the DEIR that due in part to the "limited availability" of monitoring data, there has not been an air quality standard set for UFP's. Here, the proponent has an opportunity to support the collection of such data to measure the impact of this project on an ongoing, and real-time basis. The MCAC, in collaboration with the towns surrounding Hanscom Field, are supporting the collection and analysis of such data by Dr. Neelakshi Hudda and her team. Further UFP monitoring will occur around Logan Airport over the next year and a half. Massport (via the project proponent) should join with the Massachusetts Department of Environmental Protection, the MCAC, and several Massachusetts municipalities in gathering data that will advance our understanding of the exposure levels and impacts of ultrafine particles on human health.

Thank you for considering these comments. If you have any questions or concerns, please feel free to contact Aaron Toffler at atoffler@massportcac.org, or at (617) 906-8853.

Thank you.

Aaron Toffler
Executive Director, Massport Community Advisory Committee

cc: Brad Washburn
Thomas Butler

The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

June 14, 2024

Secretary Rebecca Tepper
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

ATTN: Alex Strysky, MEPA Office

RE: L.G. Hanscom Field North Airfield Development, 154 Hartwell Road, Bedford, MA; MHC# RC.72722, **EEA# 16654**

Dear Secretary Tepper:

Staff of the Massachusetts Historical Commission (MHC) have received the Draft Environmental Impact Report (DEIR) submitted for the project referenced above. Staff of the MHC have the following comments.

The proposed project has been modified since the Environmental Notification Form (ENF) was submitted. The proposed project now consists of the construction of up to 17 new hangars plus the renovation of the existing Navy Hangar building, as well as site upgrades and site access improvements (both for vehicles and aircrafts). The proposed project area is located within the northern area of Hanscom Field, referred to as the "North Airfield."

The project will require approvals from the Federal Aviation Administration (FAA) for the Land Transfer and modification of the Airport Layout Plan and is therefore subject to Section 106 of the National Historic Preservation Act (36 CFR 800). The FAA will make a determination of effect and submit it to the MHC and consulting parties for comment.

The project area is located to the north of the Minute Man National Historical Park, which is a National Historic Landmark and listed in the National Register of Historic Places.

The FAA is also responsible for the identification of interested parties. The DEIR listed the Town of Bedford as a consulting party. It should be noted that the National Park Service Minute Man National Historic Park and the Concord Local Historical Commission have requested to be a consulting party. Additionally, the National Trust for Historic Preservation should be noticed as a consulting party. The MHC looks forward to reviewing a list of the interested parties provided by the FAA.

The MHC finds the DEIR to be inadequate. The DEIR limits the area of potential effects to the project site. The area of potential effects should include the area to be impacted by the full range of audible and visual effects. It should include the flight paths and area adjacent to the flight paths. Once an area of effect is defined based on audible and visual effects, historic resources within that area need to be identified.

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The rehabilitation of the Raytheon Flight Test Facility (Navy Hangar) is also a part of the proposed project. The Navy found the Navy Hangar meets the criteria for eligibility for listing on the National Register of Historic Places on July 29, 2016. The MHC concurred with the Navy's finding on August 18, 2016. Since the building is historically significant and the proposed rehabilitation meets the Secretary of the Interior's Standards for Rehabilitation, the project is eligible to receive Massachusetts Historic Rehabilitation Tax Credits. The Massachusetts Historic Rehabilitation Tax Credit is administered as a separate program under Massachusetts Regulations 830 CMR 63.38R.1: Massachusetts Historic Rehabilitation Tax Credit Corporate Excise.

Staff of the MHC have reviewed the results of the archaeological survey that was conducted for the proposed project. A total of thirty shovel test pits were excavated in the project's direct impact areas. No pre-Contact or post-Contact archaeological resources were discovered. No further archaeological investigation is required.

Please note that these comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act (36 CFR 800), M.G.L. Chapter 9, sections 26-27C, (950 CMR 71.00) and MEPA (301 CMR 11), and do not serve as comments or approval regarding submissions for State or Federal Historic Rehabilitation Tax Credits. MHC's comments regarding the historic rehabilitation tax credit applications are submitted separately under those program regulations. Please do not hesitate to contact Elizabeth Sherva of my staff if you have any questions.

Sincerely,

Brona Simon

Brona Simon
State Historic Preservation Officer
Executive Director
State Archaeologist
Massachusetts Historical Commission

xc: Michael Argiros, Runway Ventures, LLC/North Airfield Ventures, LLC
Massport
Richard Doucette, FAA
Simone Monteleone, Minute Man National Historical Park
Jamie Loichinger, ACHP
Mark Eberle, NPS – Philadelphia
Betsy Merritt, National Trust for Historic Preservation
Bedford Historical Commission
Concord Historical Commission
Lincoln Historical Commission
Lexington Historical Commission

MASSACHUSETTS WATER RESOURCES AUTHORITY
Deer Island
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June 14, 2024

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge St, Suite 900
MEPA Office, Alexander Strysky
Boston, MA 02114

Subject: EOEEA #16654 – Draft Environmental Impact Report
L.G. Hanscom Field North Airfield Development, Bedford, MA

Dear Secretary Tepper,

The Massachusetts Water Resources Authority (MWRA) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR) submitted by Runway Realty Ventures, LLC and North Airfield Ventures, LLC (together the "Proponent") for L.G. Hanscom Field North Airfield Development (the "Project") in Bedford, Massachusetts. The Proponent intends to build, operate, and maintain a master development of corporate hangars at Hanscom Field ("Hanscom," or the "Airport"), located on 154 Hartwell Road, Bedford, MA, which will support current aviation activity and accommodate future forecasted demand. The Project involves a ground lease with Massport for a portion of the site and transfer of land between the Proponent and Massport. The proposed development on the 47-acre Site and its potential impacts will provide approximately 395,700 square feet (sf) of hangar space in the form of 17 new purpose-built hangars for aircraft parking and storage, and renovation of the existing Navy Hangar building for a total of 18 hangar buildings. The Project will also consist of approximately 126,680 sf of aviation support space and approximately 240 surface parking spaces.

MWRA previously commented on the Project Environmental Notification Form (ENF) on February 15, 2023. MWRA's comments on this DEIR continue to relate to wastewater issues and the need for Infiltration/Inflow (I/I) Removal as well as Toxic Reduction and Control (TRAC) discharge permitting.

Wastewater

The ENF reported that the Project will generate approximately 12,150 gallons per day of new wastewater flow. The Town of Bedford sewer system ties into the Town of Lexington sewer system that conveys flows to MWRA's Millbrook Valley Relief Sewer, which in turn transports the flows to

MWRA's North Metropolitan Sewer, Chelsea Creek Headworks, and ultimately the Deer Island Wastewater Treatment Plant. Sections of the MWRA system can surcharge and overflow in large storms, due to high levels of infiltration and inflow that enter tributary community systems, as well as stormwater contributions from combined sewer communities. To ensure that the Project's new wastewater flow does not increase surcharging or overflows in large storms, the Proponent should fully offset new flows to the sewer system with infiltration/inflow (I/I) removal from a hydraulically related sewer system(s) on the property or owned by the Town of Bedford. The DEIR acknowledges this, further stating that the Project will comply with the Town of Bedford's sewer connection requirements.

TRAC Discharge Permitting

MWRA prohibits the discharge of groundwater and stormwater into the sanitary sewer system, pursuant to 360 C.M.R. 10.023(1) except in a combined sewer area when permitted by the Authority and the local community. The Project site has access to separate sewer and storm drain systems. Therefore, the discharge of groundwater or stormwater to the sanitary sewer system associated with this Project is prohibited.

The Proponent currently holds a Sewer Use Discharge Permit and should continue to adhere to this permit. If the Project will change current operations and/or discharge(s) such as adding and/or increasing its daily wastewater discharge flow, the Proponent must provide at least 30 days advance written notification to Keary Simmerman, Industrial Coordinator, in the TRAC Department at (617) 305-5638 or Keary.Simmerman@mwra.com. This notification is required prior to any action which may substantially change the volume or nature of discharge, including an addition and/or increase of daily discharge flow or character of pollutants in discharge, from any compliance measurement location or any sewer connection. The Proponent should also contact Keary Simmerman if a new MWRA Sewer Use Discharge Permit is required for the Project.

Any gas/oil separators in parking garages associated with the project must comply with 360 C.M.R. 10.016 and State Plumbing Code. The installation of the proposed gas/oil separators may not be back filled until inspected and approved by the MWRA and the Local Plumbing Inspector. For assistance in obtaining an inspection the Proponent should contact Michael J. Quercio, Source Coordinator, at (617) 305-5645 or Michael.Quercio@mwra.com.

On behalf of the MWRA, thank you for the opportunity to provide comments on this Project. Please do not hesitate to contact Hillary Monahan of my staff at (857) 324-0554 or Hillary.Monahan@mwra.com with any questions or concerns.

Sincerely,

Colleen C. Rizzi

Colleen Rizzi, P.E.
Director
Environmental and Regulatory Affairs

cc: John Viola, MassDEP

The Commonwealth of Massachusetts
HOUSE OF REPRESENTATIVES
STATE HOUSE, BOSTON, MA 02133-1054

Mr. Alex Strysky, MEPA Analyst
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Subject: EEA No. 16654 – L.G. Hanscom Field North Airfield Development, Bedford

June 14, 2024

Dear Mr. Strysky,

We, as members of the Massachusetts House of Representatives who represent the towns adjacent to Hanscom Field, those being Bedford, Concord, Lexington, and Lincoln, write to submit our comments on the Draft Environmental Impact Report (DEIR) for the proposed North Airfield Expansion at Hanscom Airport (Hanscom).

In preparation for drafting this comment letter, we reviewed the 273-page DEIR and its numerous appendices that Runway Realty Ventures, LLC, and North Airfield Ventures, LLC, (the proponents) submitted to Secretary Rebecca Tepper in support of their proposal. At the outset, the DEIR makes the sanguine claim that this expansion of private jet hangars will cause Hanscom to "serve as a national example of innovative and sustainable aviation practices in line with the Commonwealth's decarbonization goals." DEIR § 1.1.2. One might fairly assume that tucked within this lengthy report full of text and charts would be a modicum of pressure-tested support for that assertion. Instead, the DEIR is strikingly cavalier in its omissions and bold unsupported statements on matters material to the MEPA process and the Commonwealth's stated environmental goals. These omissions and dubious assertions lie at the heart of concerns that have been raised exhaustively and squarely by the Secretary's ENF Certificate,[1] residents, municipalities in and around our districts, legislators, and advocacy groups since long before the proponents submitted the DEIR.

[1] *See, e.g.*, Secretary's ENF at 4 ("According to the ENF, the project will reduce the overall number of aircraft flights and result in an environmental benefit associated with reduced air emissions; as detailed below, the DEIR should provide documentation in support of this benefit."); *id* ("The DEIR should contain a comprehensive discussion of measures to be taken by the project to avoid, minimize and mitigate environmental impacts.").

Whereas the DEIR claims that the proponents revised their proposal based on the public's comments in response to the Environmental Notification Form and the Secretary's Certificate on the ENF,[2] no cogent argument could be made that the DEIR adequately incorporates or addresses these concerns and questions raised by citizens and the Secretary. Below, we describe several of the problematic issues with the DEIR. Our list of issues that we believe must be addressed in a revised DEIR is intended to complement the many objections levied in this process by other individuals and groups.

1. Supply-Demand Economics Applies Here

The proponents assert that "[t]he Project will facilitate progress toward a net zero GHG aviation industry over the coming decades." DEIR § 2.1. On this point, there are two foundational realities lying at the heart of the proposal that cannot be meaningfully contested.

First, the aviation industry is subject to the typical constraints of supply-demand economics. The proponents concede as much multiple times throughout the DEIR in reference to the purported economic desirability of the project. *See, e.g.*, DEIR § 2.1 ("[General Aviation] demand is primarily driven by national and local economic conditions"); *id.* § 2.2 ("Because long term GA demand is primarily driven by local and national economic conditions, the Project is intended to absorb the existing demand, which is evidenced by the volume of ferry flights, inquiries from operators, etc., and address future demand for hangar space."). Accordingly, when the supply of infrastructure and accessibility of a certain type of travel increases, that travel type will become more affordable and more utilized absent other changes in economic conditions. Indeed, the whole reason that the proponents wish to increase the number of hangars is that they recognize there is *already* latent demand for hangar space in our region outpacing supply; by increasing the number of hangars at Hanscom, the proponents will increase the supply of an essential element of private jet infrastructure, reduce the overall price of private jet travel, and create the conditions for a rise in demand barring a serious recession or some other economic calamity. *It should give the Secretary great pause in accepting this DEIR that nowhere in the report is this patently obvious point even tacitly acknowledged.*

2. The Net Effect on Flight Volume Is Extremely Material to the MEPA Inquiry and the Commonwealth's Overall Climate Objectives

Second, private jet travel is an extreme contributor to greenhouse gas emissions on a per-use basis. Each additional private jet at Hanscom could be responsible for up to 12,878,160

[2] DEIR § 1.3. (The proponents declined to use page numbers in the 273-page DEIR, making precise citation difficult.)

kg of CO2e or 14,195 tons annually. For reference, a typical car emits about 5 tons annually.[3] [4] Consequently, even a minor increase in private jet flight volume resulting from this project would completely subsume the efforts of the Hanscom-area towns to reduce GHG emissions. For example, the Town of Concord has committed to reducing its GHG emissions by 80 percent by 2050.[5] In working towards this goal, the Town and private property owners have installed 11.2 MW of solar.[6] These solar installations offset just 4,400 tons of CO2e per year. A single private jet at Hanscom in an average year completely cancels these efforts three times over.

At the state level, Governor Healey's *Clean Energy and Climate Plan for 2050* and the Global Warming Solutions Act of 2021 require Massachusetts to "achieve gross emissions reductions of 85% below 1990 levels . . . and . . . ensure that the total statewide GHG emissions released into the atmosphere are less than or equal to the amount removed from the atmosphere." Nothing could be more antagonistic to the Commonwealth's climate goals than accepting without proper diligence a proposal that threatens to set us back immeasurably from our pursuit of greenhouse gas reduction objectives. The MEPA review process's integrity relies on

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[3] EPA, *Tailpipe Greenhouse Gas Emissions from a Typical Passenger Vehicle*, 2023, 2, *available at* https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1017FP5.pdf.

[4] The global warming effect of jet emissions is expressed in carbon dioxide equivalent (CO2e), which includes both the CO2 contribution and the heat trapping effects of the radiative forcing of the ozone, methane, and water vapor released in flight. The IPCC estimates that the total radiative forcing multiplier is between 2 and 4 times that of the CO2 alone. IPCC, *Aviation and the Global Atmosphere*, 1999, 9, *available at* https://archive.ipcc.ch/pdf/special-reports/spm/av-en.pdf. The combustion of 1 kg of jet fuel in an aircraft engine produces 3.16 kg of CO2. IATA, *Carbon Offset Program*, April 19, 2022, 8, *available at* https://www.iata.org/contentassets/922ebc4cbcd24c4d9fd55933e7070947/icop_faq_general-for-airline-participants.pdf. Using a conservative estimate of the radiative forcing multiplier of 2, the combustion of 1 kg of jet fuel equates to 6.3 kg of CO2e. Based on the proponent's own assertions, the type of aircraft that will use this proposed facility will consume 350 to 450 gallons per hour, which equates to 1,324 kg to 1,703 kg per hour. DEIR 2.2.1. Conklin & de Decker, *Aircraft Operating Cost and Performance Guide*, 2024, *available at* https://privatejetcardcomparisons.com/the-basics/private-jet-fuel-cost-per-hour-in-gallons/. By this calculation, these flights would contribute, on average, a staggering 8,347 kg to 10,731 kg of CO2e per an hour of flight time. Private jets average 250 to 1,200 hours of flight time per year. Based on the proponent's own assertions, the type of aircraft that will use this proposed facility will consume 350 to 450 gallons per hour, which equates to 1,324 kg to 1,703 kg per hour. DEIR 2.2.1. By this calculation, these flights would contribute, on average, a staggering 8,347 kg to 10,731 kg of CO2e per an hour of flight time. Private jets average 250 to 1,200 hours of flight time per year. ARGUS, *Part 135 Annual Operations*, July 12, 2017, *available at* https://privatejetcardcomparisons.com/2017/07/11/how-many-hours-a-year-do-private-jets-fly/.

[5] Sustainable Concord, *Climate Action and Resilience Plan*, 2020, 8, *available at* https://concordma.gov/DocumentCenter/View/25318/Sustainable-Concord-Climate-Action-and-Resilience-Plan-2020?bidId=.

[6] *Id.* at 22.

contextualizing a new project's environmental impact within the broader context of relevant statewide mandates and objectives. The DEIR supplies inadequate empirical support or specificity to make meaningful assessments of the project's environmental impact.

3. The Proponent's Ferry Flight Theory Is Illogical and Uses Questionable Methodology

Instead of directly addressing the two foregoing concerns, the DEIR toggles between them vis-a-vis an almost dizzying explanation of ferry flights. The proponents' basic theory is that, since some Hanscom private jet clients currently use hangars in other locations, such as Portsmouth and Teterboro, and must fly from there to get to Hanscom, these planes would take less flights – specifically, 3,500 less per year – and fly fewer miles if they could use hangars at Hanscom. DEIR § 2.3. Fair enough. But zooming out even a little bit reveals the fanciful nature of the proponents' "ferry flight theory."

Secretary Tepper, recognizing this as a point of contention and an issue material to the MEPA process, set a clear expectation in the ENF Certificate for the level of detail that was expected in order to support the ferry flight theory:

> A key rationale for the Preferred Alternative is that it will provide an environmental benefit by reducing the overall number of flights and associated air emissions; the ENF asserted that this would result because the project provides hangar spaces for planes that would otherwise generate ferry flights. . . . The DEIR should describe in greater detail how the project will meet the objective of meeting the demand for hangar spaces while also reducing impacts. Specifically, the DEIR should describe the number and type of aircraft to be stored in the hangers and provide a comprehensive explanation of ferry flights, estimate the number of ferry flights that are anticipated under existing and future conditions with explanation of how the estimates were generated, explain how the project concludes that ferry flights would necessarily occur in the absence of hangar spaces (e.g., as opposed to aircrafts departing to serve additional customers instead of seeking parking spaces at another base location), and **discuss why expanding hangar capacity to meet potential future increases in customer demand would not result in a net increase in flights as compared to existing conditions**, even when accounting for a reduction in ferry flights. ENF Certificate at 7.

The ENF Certificate goes on to spell out eight specific factors to be included in the ferry flight analysis. *Id.* at 7.

For two basic reasons, the DEIR falls well short of meeting the expectation set in the ENF Certificate. First, the theory omits any explanation of what will happen to the newly

vacated hangars after private jet clients relocate to Hanscom's new hangars. The basic principles of supply-demand economics dictate that, over time, these non-Hanscom hangars at nearby airports will become occupied by other private jets as part of an increasingly accessible and affordable private jet industry, thanks in significant part to the proliferation of hangars. One could logically infer that these newly hangared jets will take off from Hanscom, just as their predecessors in Portsmouth, Teterboro, and elsewhere did. Indeed, the DEIR acknowledges that irrespective of whether this project is ever completed, Hanscom is able to absorb the "moderate growth rate" expected in overall aircraft. DEIR § 2.1. The DEIR lacks any assessment of how much additional runway capacity exists at Hanscom. That issue is clearly relevant to the impact analysis. A revised DEIR should include existing runway capacity to give a complete picture of the project's impacts.

Second, the very ferry flight theory upon which the proponents rely as a keystone of their environmental assertions uses questionable methodology. It is noted that the proponents' confidence in their own theory seems to have wavered. A year ago, Massport reassured the public that the project will result in a reduction of ferry flights.[7] Now, the DEIR states that the project "may likely reduce annual ferry flights." DEIR § 1.1.1. The use of the phrase "may likely" may be an implicit acknowledgment of a methodology problem. At its core, the ferry flight calculation relies on an assumption that flights landing at Hanscom for 18 hours or less are ferry flights. DEIR § 2.3.2. But there is no validation for this 18 hour-ferry flight connection. Moreover, the 350-mile radius used as a factor in determining ferry flights would include airports as far away as Montreal and Philadelphia. The proponents' ferry flight estimates appear to be based on determinants that are both temporally and geographically overbroad. Given the centrality of the ferry flight theory in assessing the environmental impact of the project, the apparent infirmities of the proponents' ferry flight analysis are alone sufficient cause to send the proponents back for a second try at the DEIR.[8]

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[7] Abel, David, Boston Globe, *Plan to expand hangar space for private jets at Hanscom sparks concerns about a surge in climate pollution*, May 20, 2023 ("'Due to the fact that the development will largely house existing users and, in some cases, reduce ferry flights, it is not assumed that there will be a resulting increase in carbon emissions,' said Sharon Williams, Massport's director of Hanscom.").

[8] It is noted that a consultant hired by project opponents concluded that *only three planes ferried out of Hanscom last year*. The consultant determined that the proponents used an overly broad definition as to what constitutes a ferry flight, that the proponent failed to analyze flight itinerary data to determine whether the aircraft making the 3,543 flights actually follow a ferry pattern, and that the three aircraft meeting a ferry flight criteria only took 132 flights. Industrial Economics, Inc., *Analysis of the Greenhouse Gas Emissions Impact of Proposed Expansion of Hangar Capacity at Hanscom Field*. April 4, 2024, 2, *available at* https://drive.google.com/file/d/1IL0RXoGToGxm4DQRZU4G7XJ0TJAZhbPy/view?usp=sharing.

4. Proponents' Energy-Conserving Infrastructure Measures Are Nearly Immaterial in Comparison to the Net Flight Impact

The DEIR extols the project's sustainability and energy conservation measures to target net-zero GHG emissions through all-electric energy management systems and rooftop solar arrays. DEIR § 1.3. The proponent acknowledges that the installation of a solar array merely targets stationary source GHG emissions. The solar arrays as proposed would offset 2,800 tons of GHG emissions annually, which amounts to less than 20 percent of the total GHG emissions produced by an average jet housed at Hanscom.

5. Preparing for Alternative-Use Fuels Is a Highly Speculative Benefit

The DEIR also outlines lofty aspirations for clean aviation fuels, conversions to electric aircraft and electric service vehicles, and "other sustainable technologies and practices that are emerging in the industry." DEIR § 8.3.4.1. But the FAA's forecasts belie any hope that the proposed development will welcome planes using these technologies anytime soon. According to the FAA's 2021 Climate Action Plan, electrical aircraft are not expected to be introduced in time to meet the U.S. aviation industry's net-zero GHG emissions goal of 2050.[9] This report also outlines a gradual uptake in Sustainable Aviation Fuels (SAFs), which the DEIR relies on, through 2050.[10] The FAA's Climate Action Plan notes that "there is a great deal of interest in using SAF." However, the FAA throws cold water on these aspirations, explaining, "high conversion costs and limited feedstock and production infrastructure have inhibited SAF expansion."[11] Moreover, the GHG impact of these alternative fuel types is unclear and producing purported zero carbon alternatives at a reasonable cost and sufficient scale is theoretical.[12] A revised DEIR should acknowledge the current lack of carbon-free alternatives to jet fuel and provide an explanation for how this proposal aligns with the aviation industry's and the Commonwealth's GHG reduction goals without using these alternatives.

6. Proponents' Carbon Sequestration Narrative Is Incomplete and Misleading

The DEIR states that "the Project will maintain existing areas of healthy trees and woodlands on-site to the extent feasible, which will reduce temperatures of the Project Site by providing shade and continue to provide carbon sequestration." 4.2.4.3. Further on, the DEIR states that to the "extent feasible" results in there being virtually no treed areas remaining on the site if the project is to proceed as outlined in the "Reduced Build Alternative." A comparison of

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[9] FAA, *United States 2021 Aviation Climate Action Plan*, November 2021, 18, *available at* https://www.faa.gov/sites/faa.gov/files/2021-11/Aviation_Climate_Action_Plan.pdf.
[10] *Id.* at 6.
[11] *Id.* at 19.
[12] Pavlenko, Nikita and Stephanie Searle, *Assessing the sustainability implications of alternative aviation fuels*, International Council on Clean Transportation, March 2021, 14, *available at* https://theicct.org/wp-content/uploads/2021/06/Alt-aviation-fuel-sustainability-mar2021.pdf.

the DEIR's Figure 1.2 (existing conditions) to Figure 1.4 demonstrates the extent of the vegetation loss that the proponents' expect will occur.

According to the DEIR, the project will cause 20 acres of land alteration, and a total of 17.85 acres of mature trees to be removed. DEIR § 3.1.2. While we appreciate that an effort was made to characterize the types of species and approximate heights of trees being displaced, the DEIR lacks a detailed accounting with measured caliper and carbon sequestration loss. This shortcoming is problematic in part because the proponents pledge in Section 4.2.5 and elsewhere in the DEIR to work with the Town of Bedford to develop a mitigation plan for the region and claims this as a "Project Benefit" without providing any real commitments and without the benefit of any framework for accountability. The proponents should be required to comprehensively analyze the lost trees and collaborate with all the affected Hanscom communities (Concord, Lexington, Lincoln, and Bedford) to develop a mitigation plan that adheres to and does not retreat from the Commonwealth's climate objectives.

7. Conclusion

The DEIR and the public's comments share an undercurrent of two questions, one empirical and one value-based: Are private jets really necessary to "lengthen our lead" in the Massachusetts economy? And if so, is it worthwhile to mortgage our children's future in order to obtain the economic benefits that expanded private jet hangars purport to deliver? We cannot even have a principled debate, or crystallize the issues, when we lack a cogent analysis of whether these hangars will lead to more or less private jet flights, and by how much.

We respectfully and strongly urge the Secretary to send this profoundly flawed DEIR back to the proponents and require pressure-tested answers to the questions she posed in the ENF Certificate. If this process is going to have any integrity, the proponent must do better.

Sincerely,

Simon Cataldo
State Representative
14th Middlesex District

Michelle Ciccolo
State Representative
15th Middlesex District

Carmine L. Gentile
State Representative
13th Middlesex District

Kenneth I. Gordon
State Representative
21st Middlesex District

Alice H. Peisch
State Representative
14th Norfolk District

From: Hoenig, Amy (FWE)
To: Strysky, Alexander (EEA)
Subject: EEA No. 16554, North Airfield (Hanscom) - Bedford
Date: Tuesday, June 18, 2024 10:44:27 AM

Project Name: *L.G. Hanscom Field, North Airfield Development*
Proponent: *Runway Realty Ventures, LLC; North Airfield Ventures, LLC*
Location: *154 Hartwell Road, Bedford, MA*
Project Description: *Development of Airport Hangars, Aircraft Parking, associated infrastructure*

Document Reviewed: *Environmental Notification Form*
EEA File Number: *16554*
NHESP Tracking No.: *24-18550*

Dear Secretary Tepper:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the Division) reviewed the *Environmental Notification Form* (ENF) for the North Airfield Development at L.G. Hanscom Field in Bedford, MA and would like to offer the following comments.

Hanscom Field is delineated as *Priority Habitat* for state-listed species according to the current Massachusetts Natural Heritage Atlas. The state-listed species associated with Hanscom Field include Upland Sandpiper (E), Eastern Meadowlark (SC), Grasshopper Sparrow (T), Blanding's Turtle (T), Wood Turtle (SC), and Midland Sedge (E). These species and their habitats are protected pursuant to the Massachusetts Endangered Species Act (M.G.L c. 131A) and its implementing regulations (MESA, 321 CMR 10.00). Based on the information currently available, the species most germane to North Airfield Development are Upland Sandpiper, Eastern Meadowlark, Grasshopper Sparrow and Midland Sedge.

According to the information available in the ENF, the current proposed alteration to areas within Priority Habitat for state-listed species appears to be approximately ±13,500 square feet. As portion of the project will occur within Priority Habitat, the Proponent is required to file with the Division pursuant to the Massachusetts Endangered Species Act (M.G.L c. 131A) and its implementing regulations (MESA, 321 CMR 10.00). The Division recommends the Proponent also consider alternative configurations or options for stormwater management that do not result in the loss of grassland habitat or conversion of grassland habitat to non-habitat features (e.g., stormwater management system). In advance of a formal filing and based on the information contained within the NPC, the Division anticipates this project will require conditions to avoid a prohibited Take of state-listed species. Protection measures are anticipated to include but are not limited to a time of year restriction to prevent disturbance to state-listed species during the nesting period (Mayl 1 – July 31) as well as monitoring and management of state-listed species and their habitats. The Division anticipates that any state-listed species concerns can be addressed during the MESA review process.

As our MESA review is not complete, no alteration to the soil, surface, or vegetation and no work associated with the proposed project shall occur on the property until the Division has made a final

determination.

If you have any questions, please contact Amy Hoenig, Senior Endangered Species Review Biologist, at (508) 389-6364 or Amy.Hoenig@mass.gov. We appreciate the opportunity to comment on this project.

Sincerely,

Amy Hoenig
Senior Endangered Species Review Biologist
Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries & Wildlife
1 Rabbit Hill Road, Westborough, MA 01581
Temporary phone #: (508) 506-1926
office: (508) 389-6364 | e: Amy.Hoenig@mass.gov
mass.gov/masswildlife | facebook.com/masswildlife

**Please note that within 30 days of receipt, all MESA & WPA regulatory filings will be reviewed by Regulatory Review staff and a response to the application will be provided. Due to volume and staffing, regulatory filings are anticipated to take the full 30-day period allotted by the regulations. Pending review deadlines and recent decisions can be found on our website here: https://www.mass.gov/service-details/recent-mesa-decisions-permits-and-applications (updated weekly). Thank you.*