

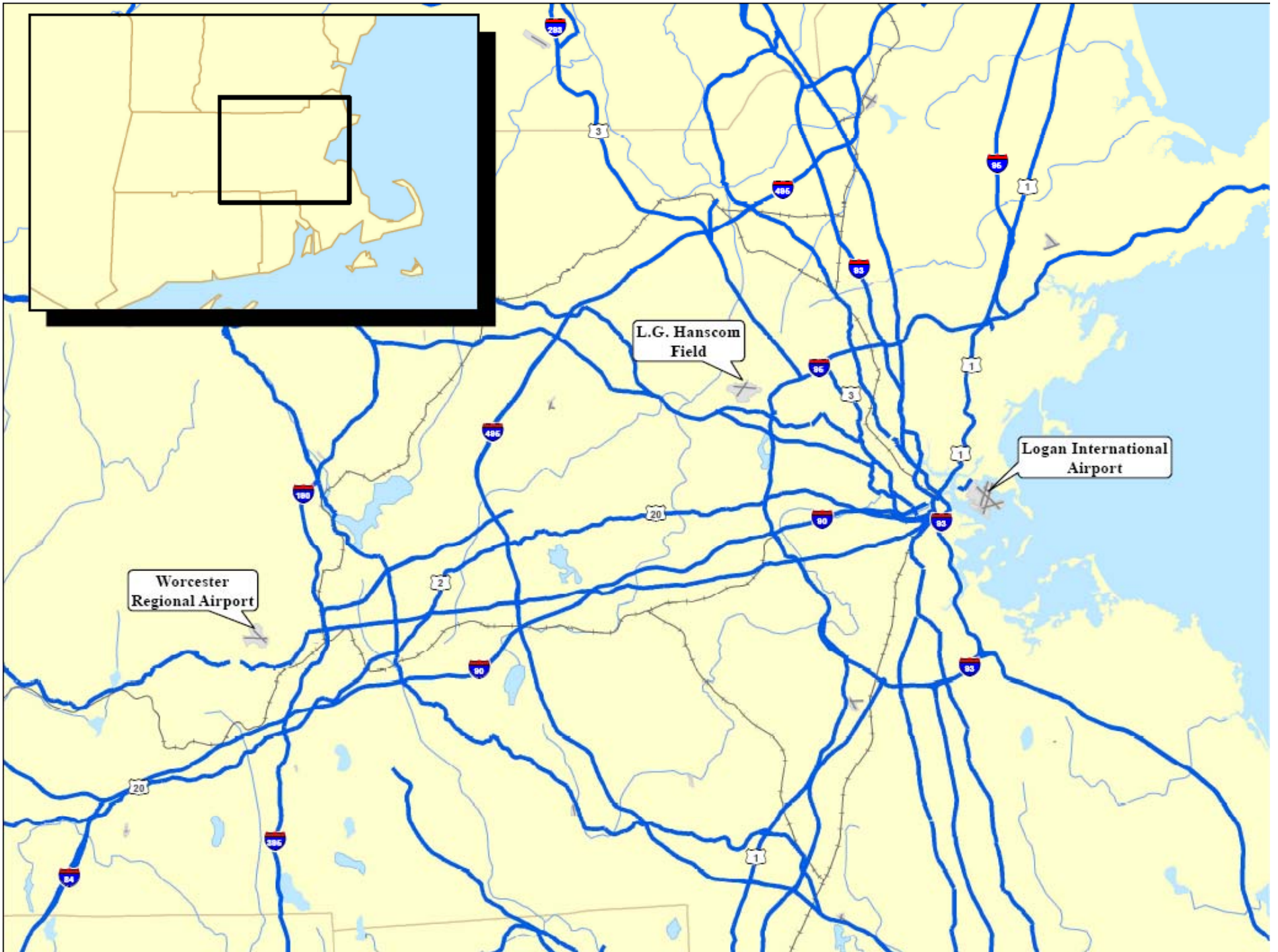
**Environmental  
Status & Planning  
Report**

# 2012 L.G. Hanscom Field Environmental Status and Planning Report (ESPR) Scope

**Massachusetts Port Authority**

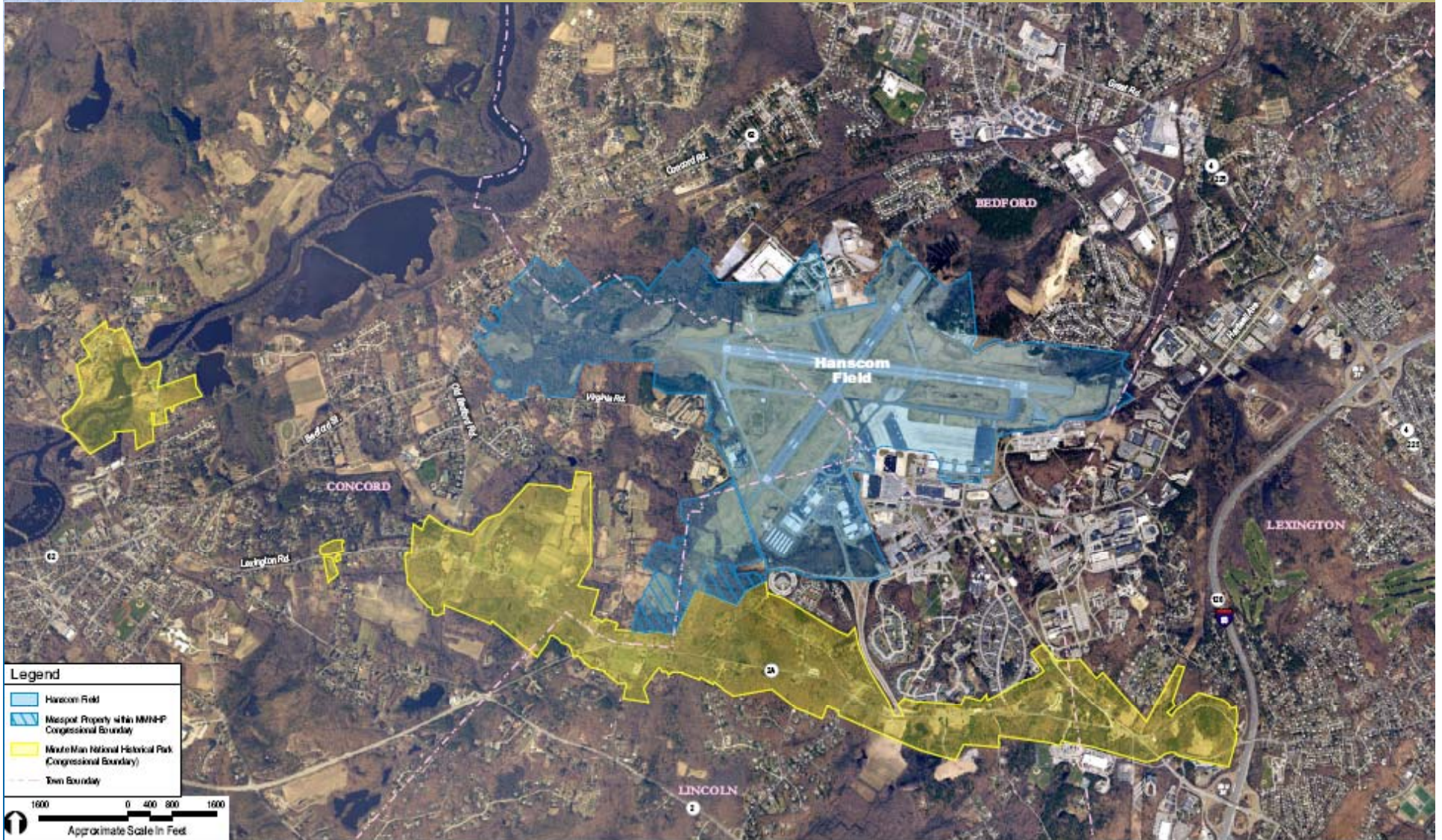
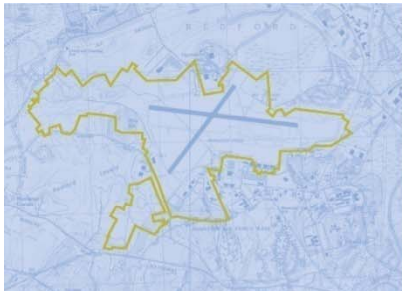
April 4, 2012 6:00pm  
MEPA Scoping Meeting  
Bedford Town Hall  
Multi-Purpose Room  
10 Mudge Way  
Bedford, MA 01730



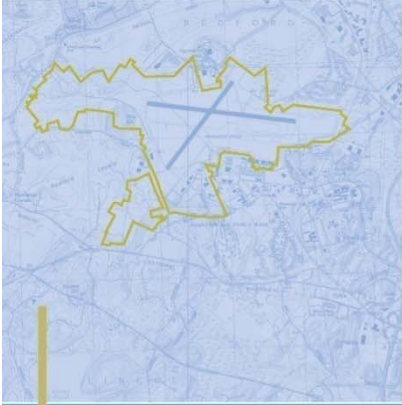




# Hanscom Field





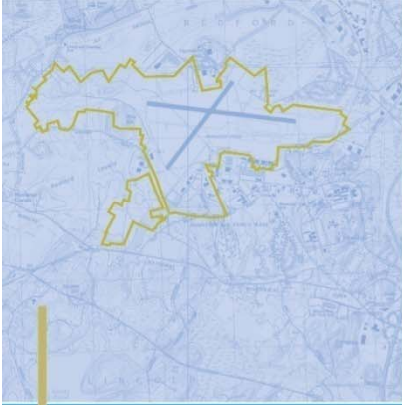


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# Hanscom: A Regional Resource

- GA reliever to Logan International Airport
- Handles over 6 times more GA operations than Logan
- Serves the businesses of Massachusetts
- Located adjacent to Route 128 corridor which serves the Route 2, 3, and 495 corridor businesses and has easy access into Boston
- L.G. Hanscom Field utilized by Hanscom Air Force Base



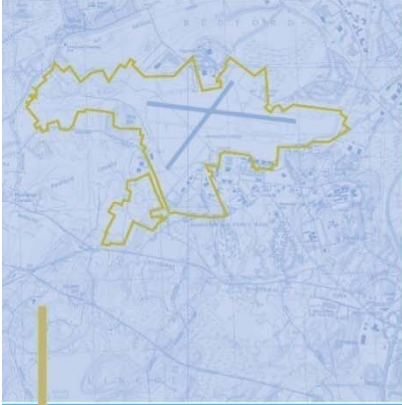


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# ESPR: What It Is & How It Is Used

- Required by MA Secretary of the Executive Office of Energy & Environmental Affairs since 1985
- To be prepared every five years to evaluate:
  - cumulative effect of growth and change at Hanscom Field
- Provides data and analyses on:
  - airport facilities / activity levels / planning
  - noise
  - ground transportation
  - air quality
  - wetlands, wildlife, water quality
  - cultural and historical resources
  - sustainability

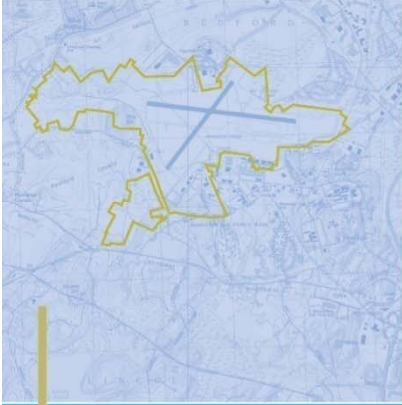


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# ESPR: What It Is & How It Is Used

- The original GEIR, the 1995 GEIR Update, the 2000 ESPR, the 2005 ESPR, and now the 2012 ESPR provide a retrospective analysis of the environmental effects of Hanscom Field while including analyses for future forecasts.
- The 2012 ESPR will present an overview of the operational environment and planning status of Hanscom Field and will provide long-range projections of environmental conditions against which the effects of future individual projects can be compared.



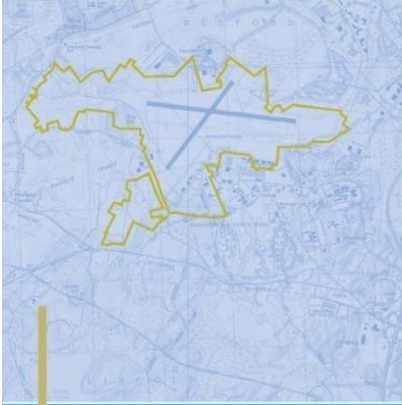


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# ESPR: What It Is & How It Is Used

- The ESPR will allow the reader to see historical environmental information, current information, and a forecast of future environmental effects at Hanscom Field.
- **ESPRs do not replace the requirement for filing an Environmental Notification Form (ENF) for a specific project if that project meets or exceeds a MEPA regulation threshold.**





# The Framework

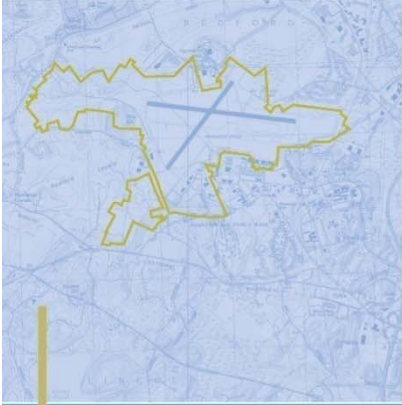


## Environmental Status & Planning Report

- Hanscom Field 1978 Master Plan and 1980 Noise Rules & Regulations
  - Commercial passenger aircraft limited to no more than 60 seats
  - Nighttime field use fee to help discourage activity between 11 pm and 7 am
- Aviation Activities at Hanscom Field include:
  - Corporate aviation
  - Recreational flying
  - Pilot training
  - Air charter
  - Cargo (does not include commercial cargo carriers)
  - Commercial service (within the Noise Rules)
  - Military flights







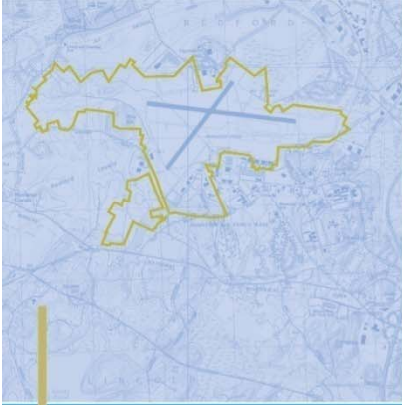
## 2012 ESPR

- A prospective analysis using 2012 as the analysis year and 2020 and 2030 as the forecast years
- Historical information for comparison & trend analysis
- An analysis of current and future operating conditions
- Overview of near-term capital planning and long-term development concepts
- Evaluation of potential environmental effects



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# 12 Chapters in a Single Document with Supporting Appendices



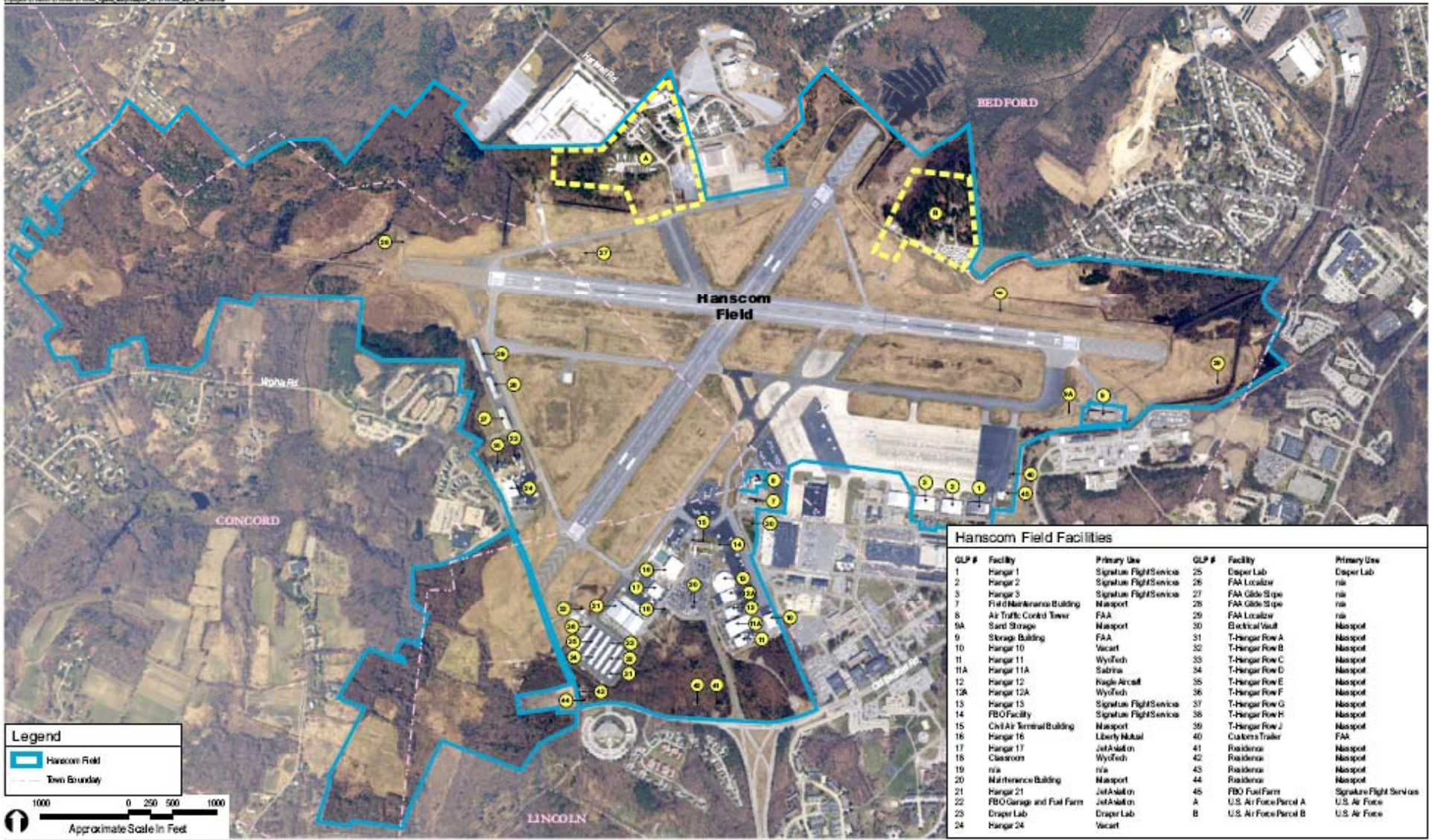
## Environmental Status & Planning Report

1. Introduction
  2. Facilities and Infrastructure
  3. Airport Activity Levels
  4. Airport Planning
  5. Regional Transportation Context
  6. Ground Transportation
  7. Noise
  8. Air Quality
  9. Wetlands/Wildlife/Water Quality
  10. Cultural and Historical Resources
  11. Sustainable Development and Environmental Management System
  12. Environmentally Beneficial Measures
- Appendices:
- MEPA Documentation
  - Response to Comments
  - MEPA Reviewers
  - Other Tech. Appendices





# Facilities and Infrastructure





# Airport Activity Levels

**Table 3-2 History of Hanscom Field Aircraft Operations (7:00 a.m. to 11:00 p.m.) from 1990 to 2005**

Year	SE Piston Local (Training)	SE Piston Itinerant	Business			Helicopter	Subtotal GA	Military	Sched. Airline	Total Airport <sup>1</sup>
			ME/Turbo-prop	Jet	Subtotal					
1990	76,732	124,756	13,240	8,630	21,870	7,262	230,620	2,058		232,678
1991	80,805	102,478	12,142	8,368	20,510	6,942	210,735	2,902		213,637
1992	83,427	92,328	10,519	8,105	18,624	6,834	201,213	2,542		203,755
1993	85,872	82,756	9,060	8,838	17,898	6,811	193,337	2,801		196,138
1994	86,287	74,294	8,804	9,345	18,149	6,819	185,549	2,001		187,550
1995	86,048	76,685	8,586	9,592	18,178	6,804	187,715	2,567		190,282
1996	76,735	74,872	8,786	10,390	19,176	6,915	177,698	1,799		179,497
1997	76,217	83,515	7,890	11,248	19,138	6,912	185,782	2,305		188,087
1998	68,506	81,976	10,321	13,583	23,904	6,878	181,264	1,921		183,185
1999	73,483	88,137	9,959	16,108	26,067	6,885	194,572	1,566	1,164	197,302
2000	75,676	90,323	11,373	20,226	31,599	6,914	204,512	1,287	6,572	212,371
2001	72,605	84,803	12,024	22,839	34,863	5,499	197,770	1,252	6,414	205,436
2002	76,849	82,282	13,290	30,788	44,078	7,012	210,221	1,424	6,603	218,248
2003	71,696	70,912	10,851	30,352	41,203	6,978	190,789	1,142	2,956	194,887
2004	60,794	63,755	10,665	33,021	43,686	7,066	175,301	1,195	4,308	180,804
2005	58,535	57,894	9,646	32,345	41,991	7,004	165,424	904	3,627	169,955
<b>Average Annual Growth</b>										
1990-2005	-1.8%	-5.0%	-2.1%	9.2%	4.4%	-0.2%	-2.2%	-5.3%	-	-2.1%
1990-2000	-0.1%	-3.2%	-1.5%	8.9%	3.7%	-0.5%	-1.2%	-4.6%	-	-0.9%
2000-2005	-5.0%	-8.5%	-3.2%	9.8%	5.8%	0.3%	-4.2%	-6.8%	-11.2%	-4.4%

**Source:** Massport and FAA Tower Counts

**Note** 1. In 1970, four years before Massport assumed operations of Hanscom Field, airport activity peaked at slightly more than 300,000 total annual aircraft operations.



**Environmental Status & Planning Report**



# Airport Planning



## Environmental Status & Planning Report



**NOTE**

Concepts are for illustrative purposes only and may need to be adjusted in response to specific requirements.

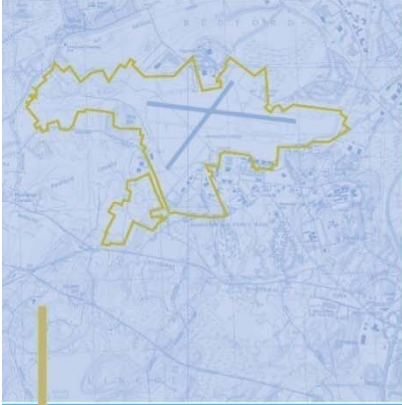


**2005 Hanscom Field ESPR**  
Bedford, Concord, Lexington and Lincoln, Massachusetts

Source: Massport

Summary of Planning Concepts in the  
2010 and 2020 Scenarios

Figure 4-3



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# Regional Transportation Context

- FAA forecasts for New England regional airports
- Examine roles and market relationship among Massport's airports -Logan, Hanscom & Worcester
- Identify significant transportation infrastructure improvements within the region
- Describe national and regional aviation context and define Hanscom's role within the region and in relationship to Massport's three airports - Logan, Hanscom & Worcester





# Ground Transportation



## Study Intersections:

1. Route 4-225 & Hartwell Avenue (signalized), Lexington
2. Massachusetts Avenue & Route 2A, Lexington
3. Old Massachusetts Avenue & Route 2A, Lexington
4. Airport Road & Route 2A, Lexington
5. Hanscom Drive & Old Bedford Road (main Hanscom Field entrance), Lincoln
6. Hanscom Drive & Route 2A, Lincoln
7. Bedford Road & Route 2A, Lincoln
8. Cambridge Turnpike Cut-Off, Brooks Road, Lexington Road & Route 2A, Lincoln/Concord
9. Old Bedford Road & Lexington Road (Route 2A), Concord
10. Old Bedford Road & Virginia Road, Concord
11. Old Bedford Road & Route 62, Concord
12. Hartwell Road & Route 62, Bedford
13. South Road & Hartwell Road, Bedford
14. Route 4/225 & Route 62, Bedford
15. Great Road (Routes 4-225), Springs Road & South Road, Bedford
16. South Road, Loomis Street & Railroad Avenue, Bedford

## Daily Count Locations:

- A. Route 2A, east of Airport Road (Lexington)
- B. Bedford Road, south of Route 2A (Lincoln)
- C. Cambridge Turnpike Cutoff, southwest of Lexington Road (Lincoln, near Concord line)
- D. Old Bedford Road, north of Virginia Road (Concord)
- E. Route 62, west of Old Bedford Road (Concord)
- F. Hanscom Drive (Main Entrance to Hanscom Field), north of Old Bedford Road (Lincoln)

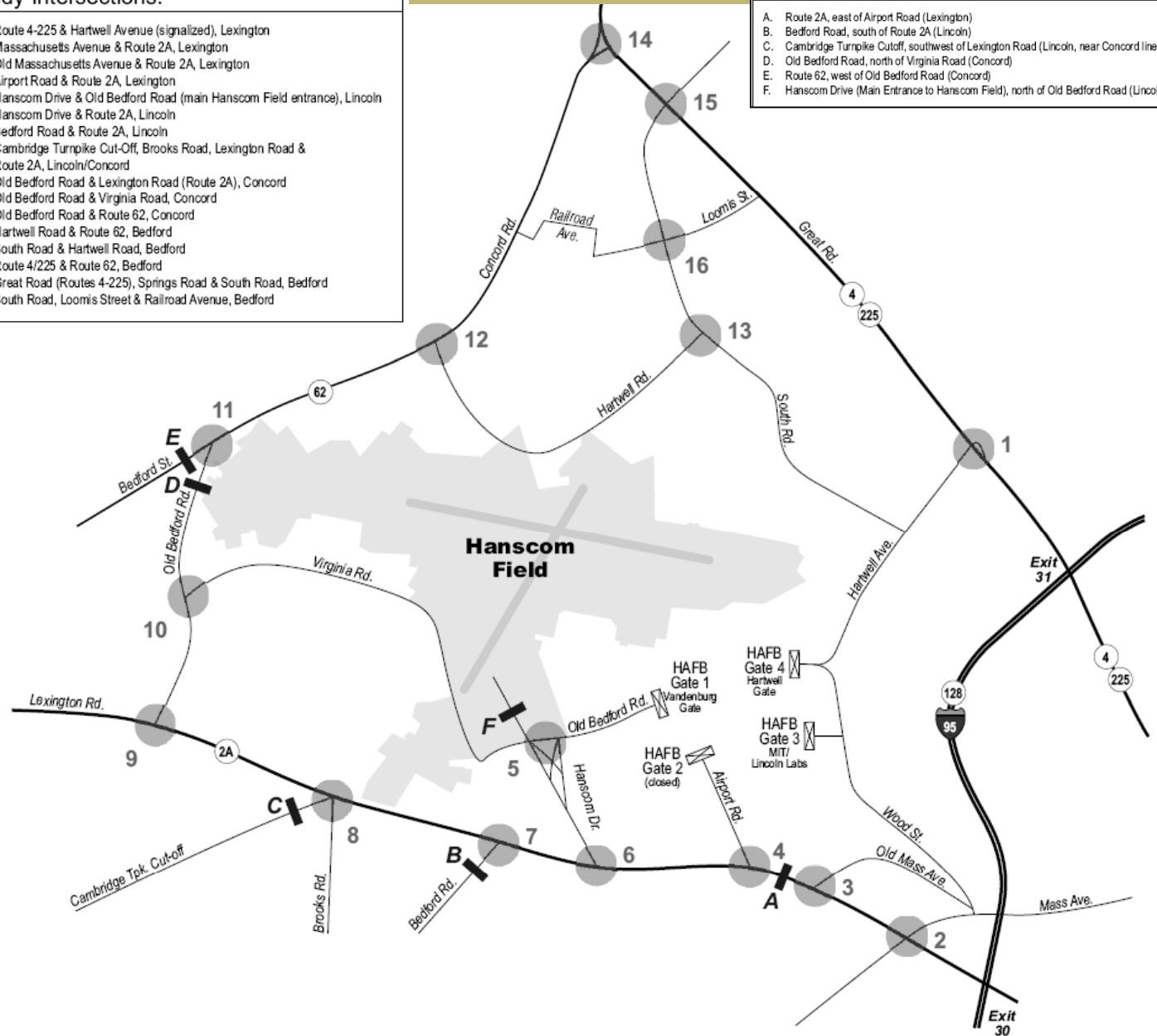


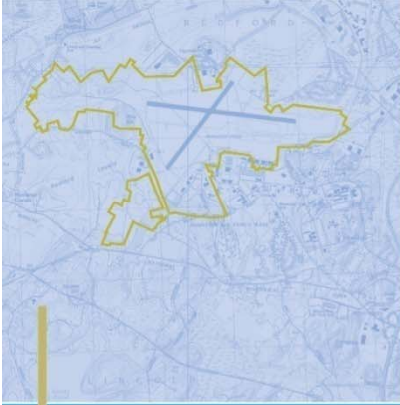
## Environmental Status & Planning Report

### Legend

- Hanscom Field
- Intersection Turning Movement Count Locations
- 24 Hour Count Locations
- Gates to Hanscom AFB

Not To Scale





# Noise

Report on current conditions for the year 2012 and projections for the forecast activity levels and use the following indicators:



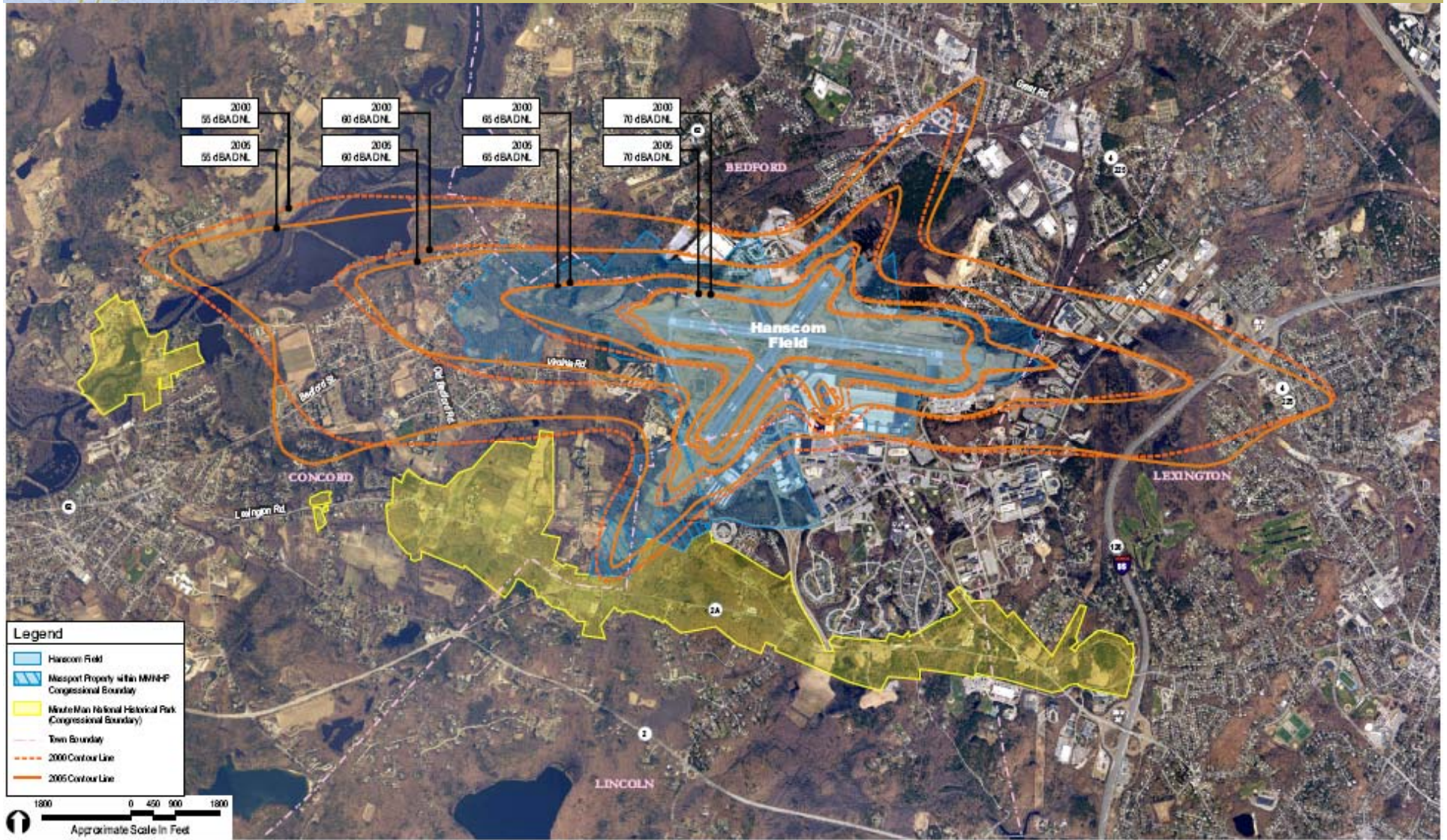
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- Day-Night Average Sound Level (DNL) contours
- Time-Above (TA) contours for a Given Threshold
- EXP as calculated in accordance with FAA prescribed standards for the Integrated Noise Model (INM) and past practice at Hanscom Field
- Run Up Procedures
- 11PM – 7AM Field Use Fee
- Noise and Operations Monitoring System
- Fly Friendly program and recommended touch and go procedures over the MMNHP
- Flight Tracks





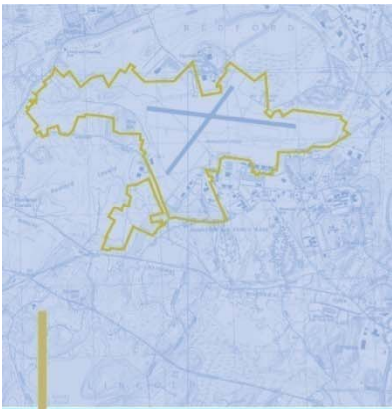
# Noise - DNL Contours 55-70



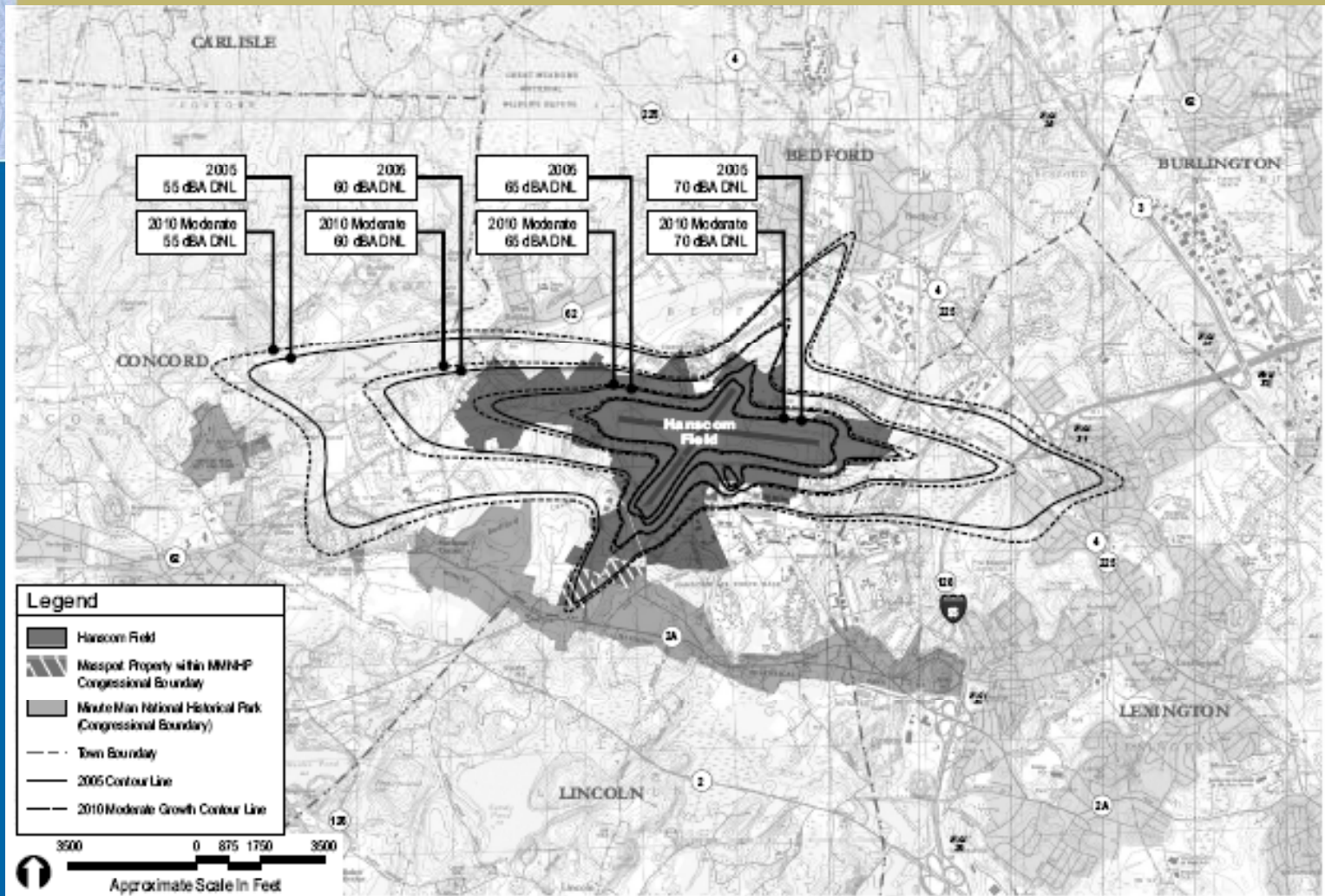


# Noise Contours - Planning Horizons

Includes associated noise impacts using DNL contours



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2005 Hanscom Field DRAFT ESPR  
Bedford, Concord, Lexington and Lincoln, Massachusetts

Base Map: MA USGS  
Topographic Maps from CD  
Source: HMMH

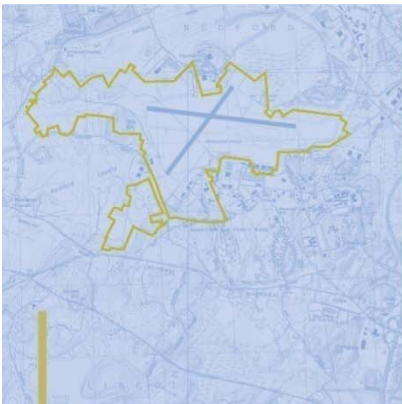
2010 Moderate Growth  
Scenario DNL Contours

Figure 7-17

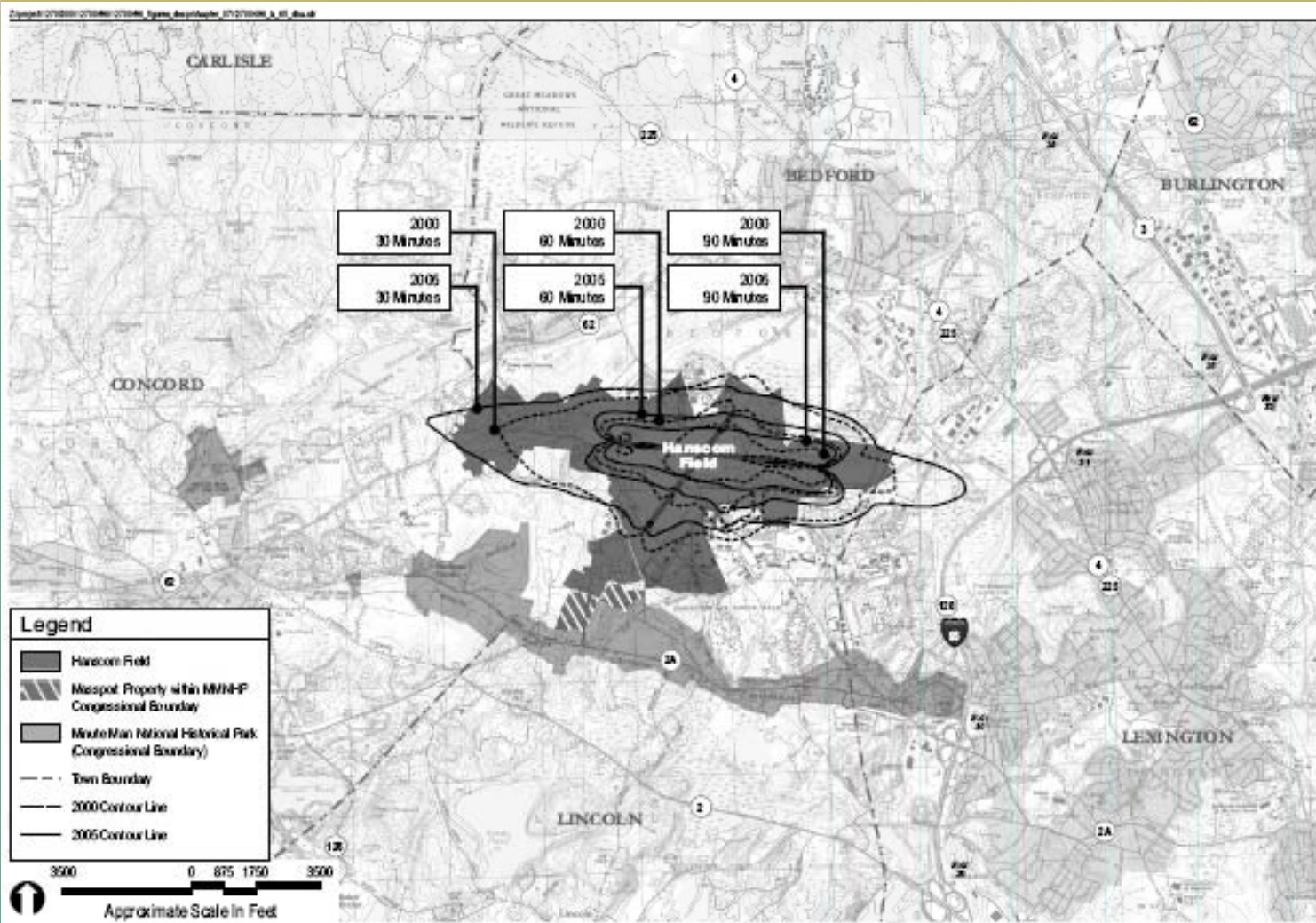


# Noise Supplemental Metrics

## Time Above Contours



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2005 Hanscom Field DRAFT ESPR  
Bedford, Concord, Lexington and Lincoln, Massachusetts

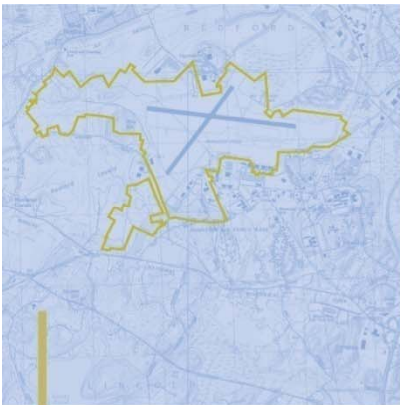
Base Map: MA USGS  
Topographic Maps from CD  
Source: HMMH

2005  
Time Above 65 dBA Contours

Figure 7-12







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# Air Quality

Report on current conditions for the year 2012, industry update on airport-related greenhouse gasses (GHG's), and projections for the forecast activity levels and years using the following indicators:

- Emissions Inventory for:
  - Carbon Monoxide (CO)
  - Oxides of Nitrogen (NO<sub>x</sub>)
  - Volatile Organic Compounds (VOCs)
  - Particulate Matter (PM<sub>10</sub>) and (PM<sub>2.5</sub>)
  - Green House Gases (GHG) (CO<sub>2</sub> N<sub>2</sub>O CH<sub>4</sub>)
- Available monitoring results for:
  - Ozone Precursors
  - Nitrogen Dioxide (NO<sub>2</sub>)

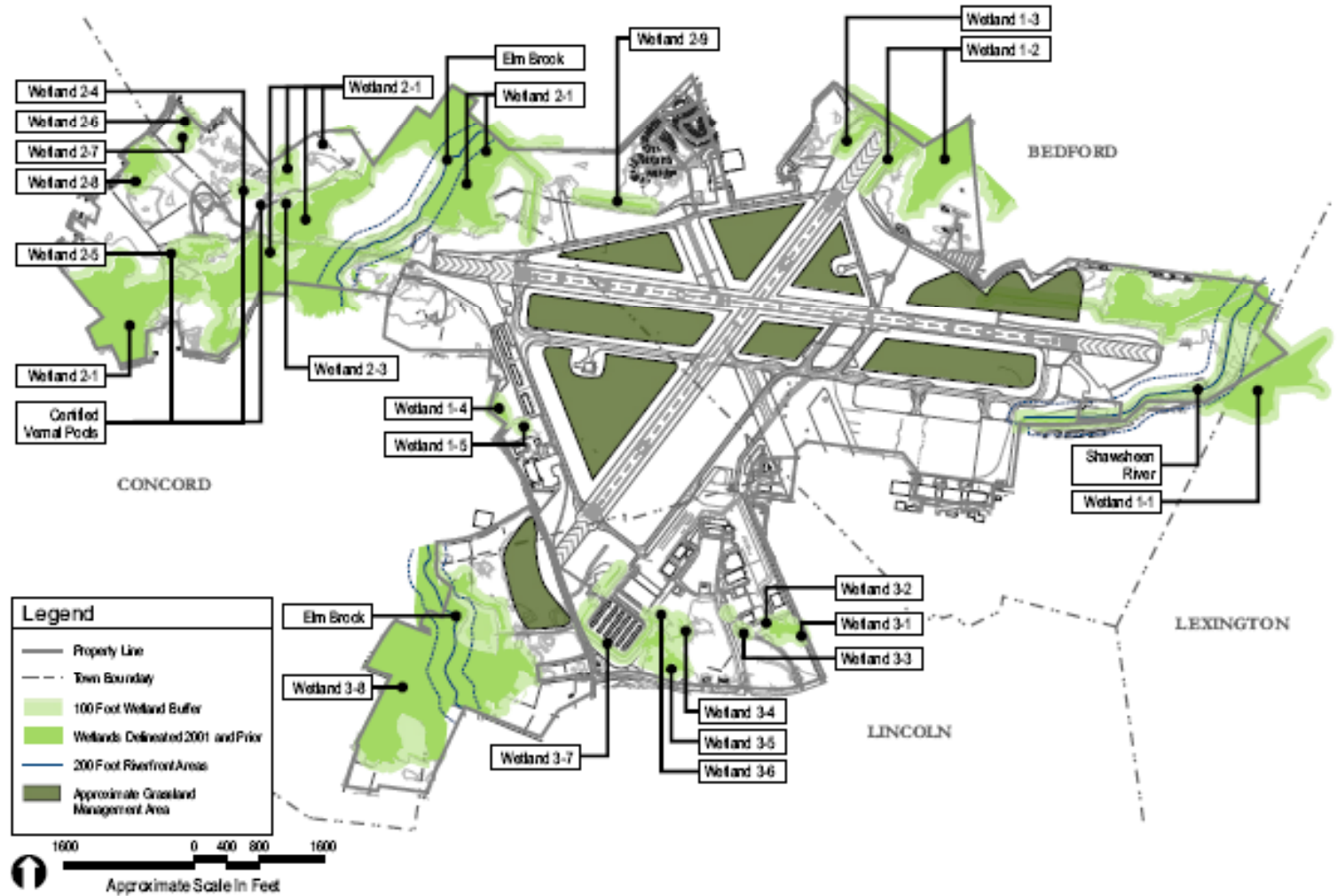


# Wetlands/Wildlife/Water Quality



## Environmental Status & Planning Report

Figure 9-1: Wetlands, Wildlife, and Water Quality



2005 Hanscom Field DRAFT ESPR  
Bedford, Concord, Lexington and Lincoln, Massachusetts

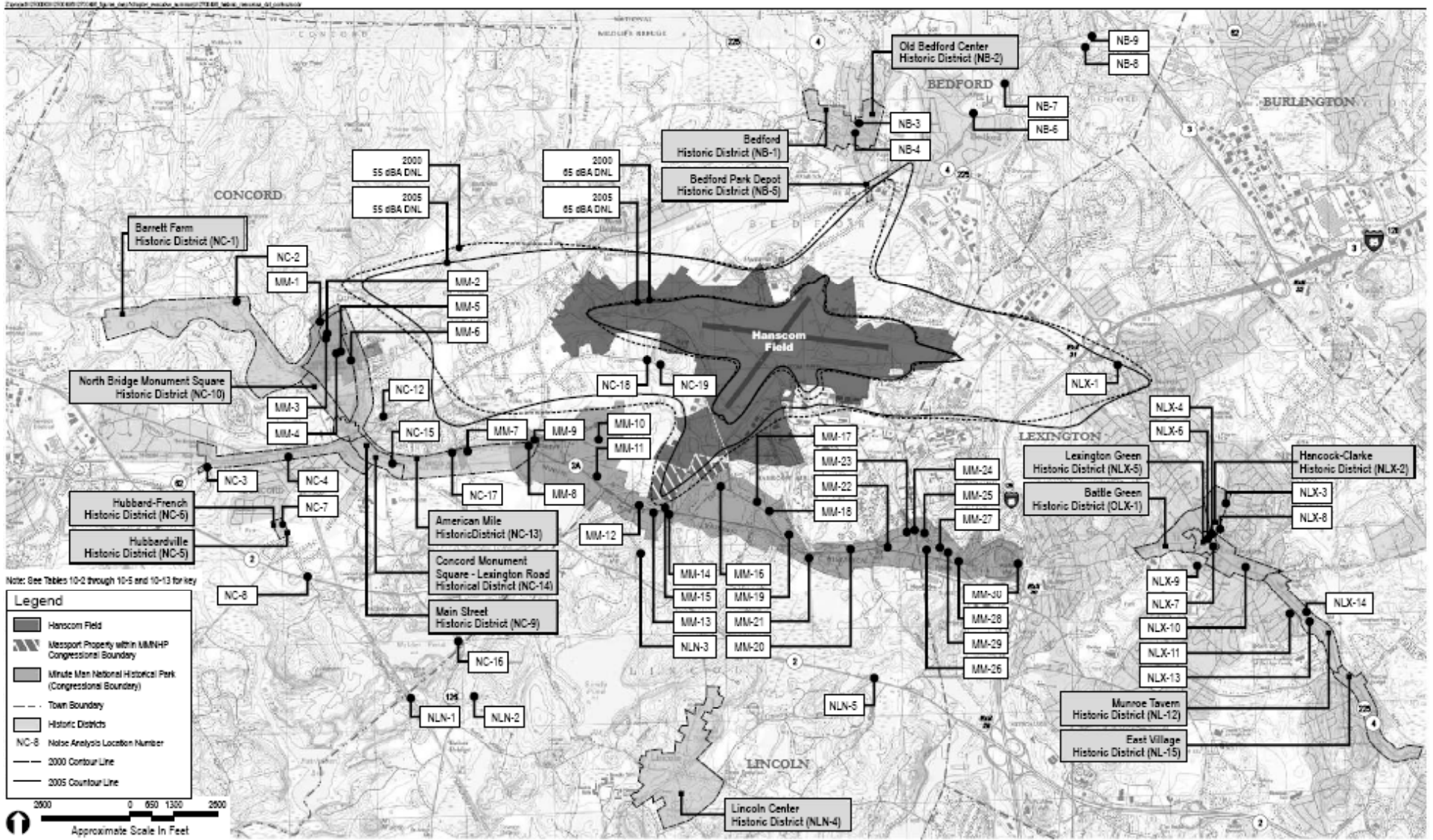
Wetlands Locations and  
Grassland Management Areas

Figure 9-1

Source: Massport

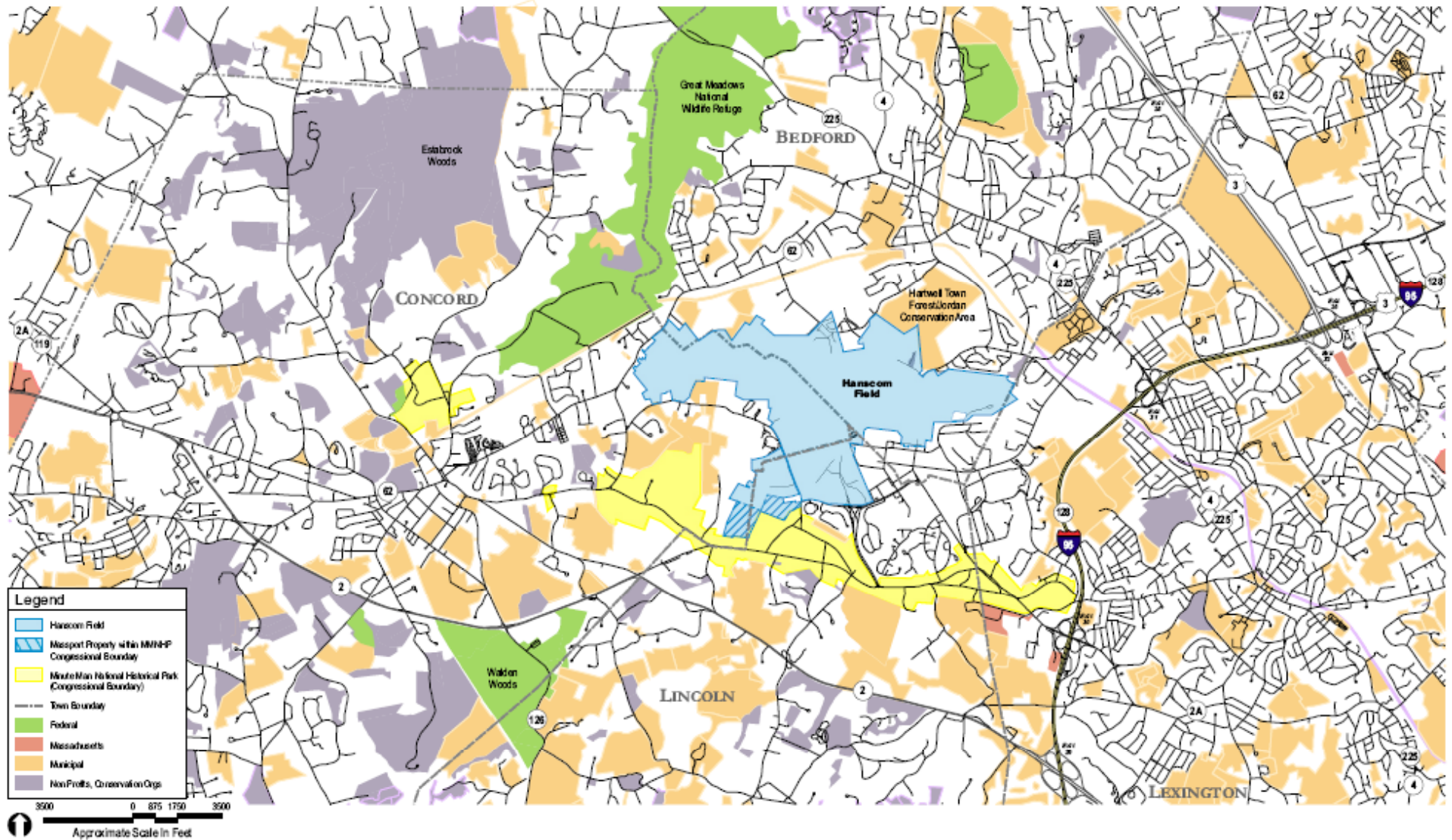


# Cultural and Historical Resources

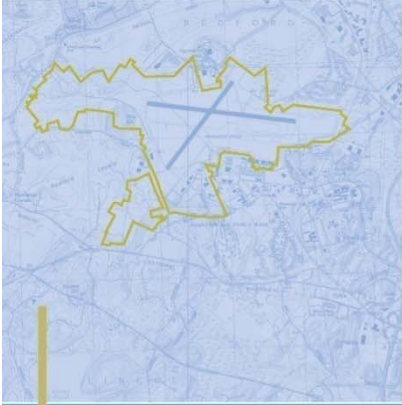




# Cultural and Historical Resources Recreation and Conservation Lands







# Environmentally Beneficial Measures

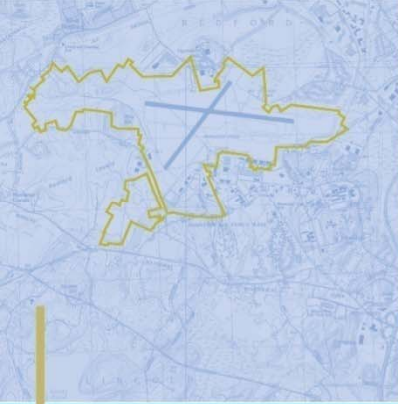


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- Ground Transportation
- Noise Monitoring
- Air Quality
- Stormwater Management
- Sustainable Development & Operations

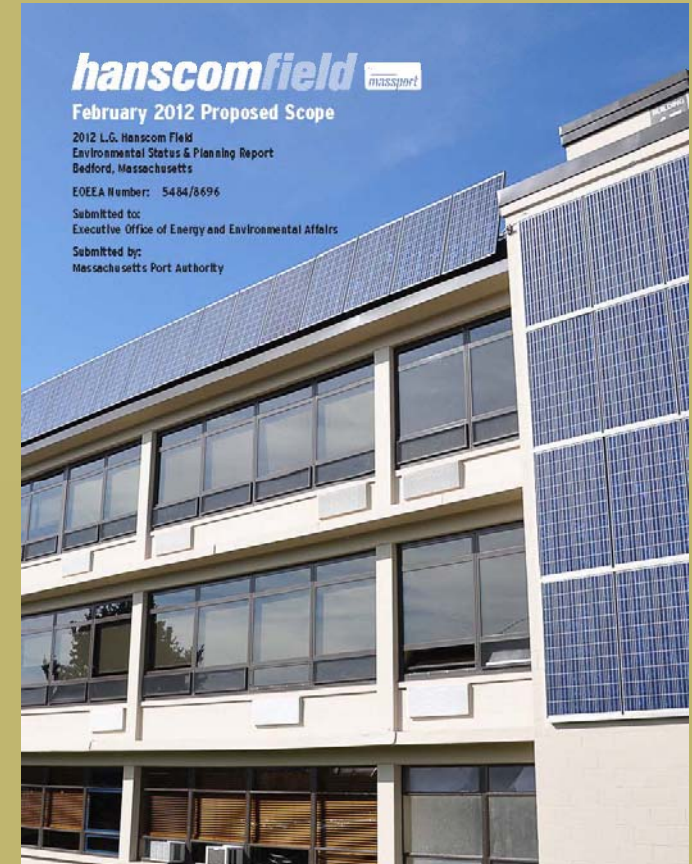


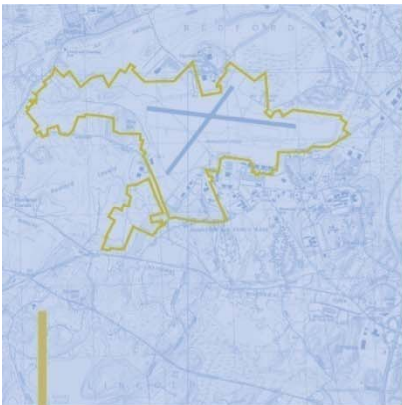
# Proposed ESPR Process and Schedule



## Environmental Status & Planning Report

- Proposed Scope
  - February 2012 Filing
  - April 20, 2012 end of public comment period
  - April 30, 2012 MEPA Scope
- ESPR
  - Fall 2013 Filing
  - 4 Technical Workshops in the Fall of 2013
  - MEPA Hearing
  - MEPA Certificate





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# Proposed Public Review Schedule

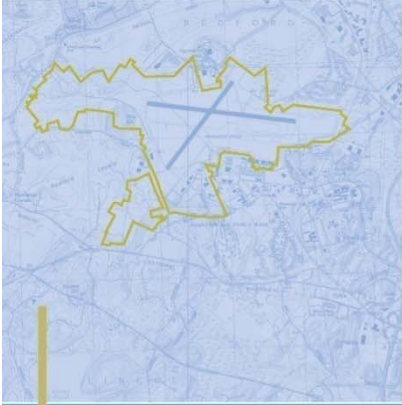
## 2012 ESPR Scoping

- Draft Scope filed with MEPA on February 29, 2012
- Extended public comment period of 45 days; began March 7<sup>th</sup>
- Public comment period ends on April 20, 2012

## 2012 ESPR Document

- 2012 ESPR proposed filing by Fall 2013
- Extended ESPR Review (60 days)
- 4 Technical Workshops and MEPA Hearing



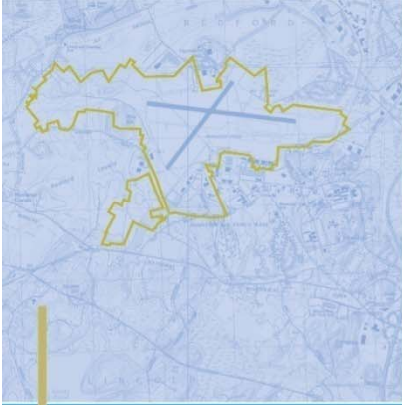


## Environmental Status & Planning Report



# Next Steps

- Receive MEPA Scope
- Undertake technical analyses (*Summer 2012 – Summer 2013*)
- File ESPR by Fall 2013
- 4 Technical Workshops during fall 2013 comment period
- MEPA Public Hearing
- End of Public Comment for ESPR TBD (extended 60 day review period)
- MEPA Certificate following public review period 2013



# Comments



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- Comments to MEPA on the Proposed ESPR Scope are due by April 20, 2012

Comments should be addressed as follows:

Maeve Vallely Bartlett, Director

Massachusetts Environmental Policy Act Office (MEPA)

Assistant Secretary for Environmental Review

Executive Office of Energy and Environment Affairs

Commonwealth of Massachusetts

100 Cambridge Street, Boston, MA 02114

