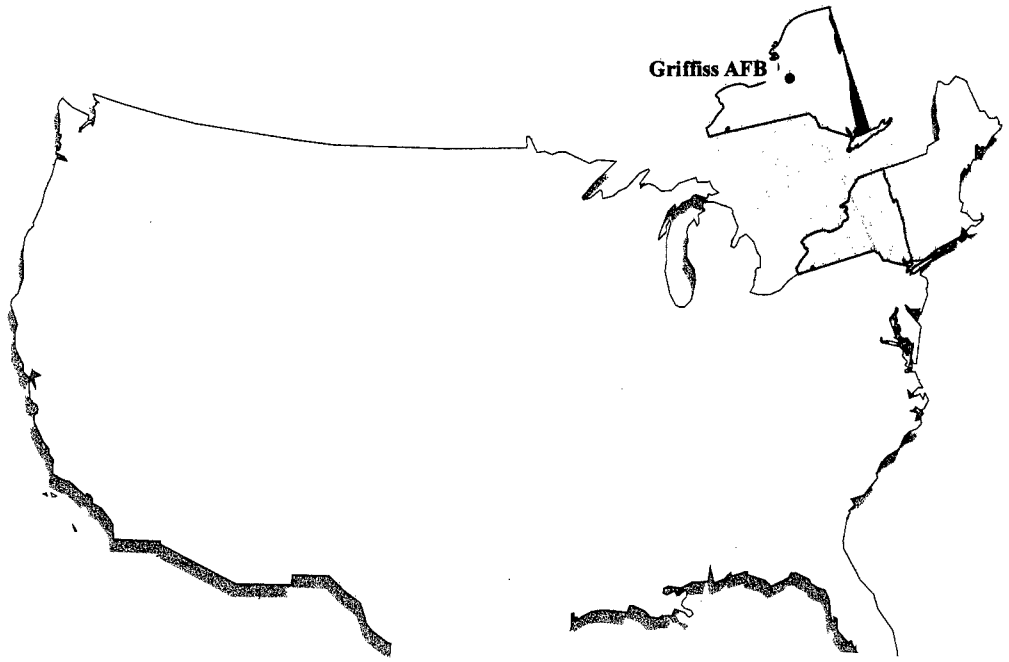
# FINAL
# SUPPLEMENTAL
# ENVIRONMENTAL IMPACT STATEMENT

## SEPTEMBER 1999




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## DISPOSAL AND REUSE OF AIRFIELD AT GRIFFISS AIR FORCE BASE, NEW YORK

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# FINAL
# SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

## DISPOSAL AND REUSE OF AIRFIELD PROPERTY AT GRIFFISS AFB, NEW YORK

## SEPTEMBER 1999

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# COVER SHEET
# GRIFFISS AFB AIRFIELD PROPERTY DISPOSAL AND REUSE
# FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

a. Lead Agency: U.S. Air Force

b. Cooperating Agency: Federal Aviation Administration

c. Proposed Action: Disposal and Reuse of the Airfield Property at Griffiss AFB, Oneida County, New York.

d. Inquiries on this document should be directed to: Mr. Jonathan D. Farthing, Chief, Environmental Analysis Division, HQ AFCEE/ECA, 3207 North Road, Brooks Air Force Base, Texas, 78235-5363, (210) 536-2787.

e. Designation: Final Supplemental Environmental Impact Statement (FSEIS)

f. Abstract: Pursuant to the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510, Title XXIX), the airfield property at Griffiss AFB was recommended for closure and realignment by the 1995 Defense Base Realignment and Closure (BRAC) Commission. This FSEIS has been prepared in accordance with the National Environmental Policy Act to analyze the potential environmental consequences of disposal of the airfield property in compliance with the 1995 BRAC decisions. This document supplements the *Final Environmental Impact Statement, Disposal and Reuse of Griffiss Air Force Base, New York*, which was prepared by the Air Force when the remainder of Griffiss AFB was closed in 1995. At that time, the airfield property was retained by the U.S. Government and realigned as a minimum essential airfield to support the deployment of U.S. Army troops from Fort Drum, New York. This document includes an analysis of a range of reasonably foreseeable alternative reuses of the airfield property on community setting, land use and aesthetics, transportation, utilities, hazardous substances, soils and geology, water resources, air quality, noise, biological resources, and cultural and paleontological resources. The Proposed Action considered in this FSEIS focuses on the transfer of air operations from Oneida County Airport to the airfield property. The remainder of the airfield property would be used as aviation support, industrial, public/recreation/open space, and agricultural uses. A second aviation-related reuse scenario, which did not include the transfer of air operations from Oneida County Airport, was also examined (the Private Airfield Alternative). A third alternative analyzed the reuse of the property for nonaviation-related land uses (Nonaviation Alternative). Impacts of the No-Action Alternative were also considered. Potential environmental impacts associated with the Proposed Action include increased traffic in the vicinity of the airfield property, traffic-related noise, small increases in air pollutant emissions, increased soil erosion, and potential disturbance of six cultural resources that are eligible for the National Register of Historic Places. Overall, impacts of the alternatives would be similar, with the Nonaviation Alternative having the greatest impacts and the Private Aviation Alternative having the least impacts. Suggested mitigation measures would reduce impacts to a level that is not significant.

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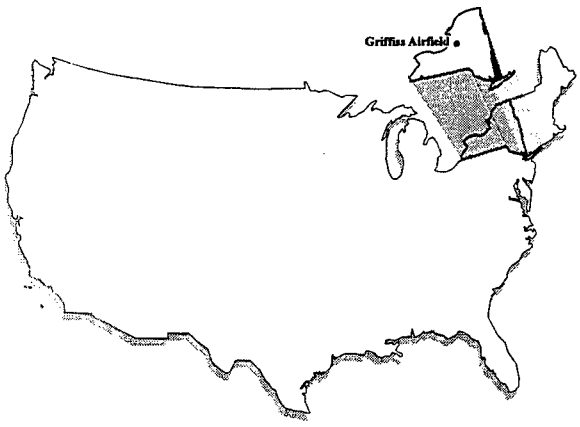
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# SUMMARY

# SUMMARY

## PURPOSE AND NEED

Griffiss Air Force Base (AFB), New York, was on the list of bases recommended for closure and realignment by the 1993 Defense Base Realignment and Closure (BRAC) Commission. Disposal of a majority of Griffiss AFB occurred on September 30, 1995. At the time of the disposal, the airfield property at Griffiss AFB was realigned as a minimum essential airfield maintained by the New York Air National Guard (NYANG). Subsequently, the 1995 BRAC Commission recommended that the airfield be closed and that airfield equipment and functions be transferred to the newly expanded Wheeler-Sack Airfield at Fort Drum, New York.

The U.S. Air Force is required to comply with the National Environmental Policy Act (NEPA) in the implementation of base disposal and reuse. Based on the substantial body of work accomplished for the 1993 disposal and reuse Final Environmental Impact Statement (FEIS), a Supplemental EIS (SEIS) has been prepared to address the salient environmental issues associated with the disposal and reuse of the 1,680-acre airfield property. The 1995 FEIS has been incorporated by reference on issues and resources that do not have substantial changes. After completion of the SEIS, the Air Force will issue a Record of Decision (ROD), which will identify the methods of disposal available to the Air Force, and the terms and conditions of reuse.

## ALTERNATIVES INCLUDING THE PROPOSED ACTION

For the purpose of evaluating potential environmental impacts resulting from the reuse of the airfield property, the Air Force has based its Proposed Action on conceptual plans developed by the local redevelopment authority, the Griffiss Local Development Corporation (GLDC). The Proposed Action is also the Air Force's preferred alternative. The Proposed Action would involve the development of an international air cargo hub, an aircraft maintenance facility, and a commercial airport. All commercial, air cargo, and general aviation operations currently based at Oneida County Airport would be relocated to the Griffiss AFB airfield property. Areas adjacent to the airfield would be used for aviation support uses, including air cargo hub and aircraft maintenance facilities and construction of a passenger terminal complex. Industrial land uses are proposed for the area west of the southern end of the runway and for the Bulk Fuel Storage Area. Public/recreational/open space uses would be designated at the ends of each runway, all of which would be maintained as open space. Two offsite communications parcels, totaling approximately 12 acres, are designated for agricultural uses. Facility development would include 56,385 square feet of demolition, 565,166 square feet of existing facility retention, and 222,000 square feet of new facility construction.

The following alternatives to the Proposed Action are considered:

- The Private Airfield Alternative was developed to provide an analysis of airfield uses if the Oneida County Airport were not moved. With this alternative, the Griffiss AFB airfield property would be marketed for air cargo operations, aircraft maintenance operations, and some general aviation. Nonaviation-related land uses would be the same as described for the Proposed Action. Facility development would include 57,385 square feet of demolition, 565,166 square feet of existing facility retention, and 160,000 square feet of new facility construction.

- The Nonaviation Alternative was developed to provide an analysis of nonaviation uses of the airfield property. The Nonaviation Alternative would convert the airfield to commercial, industrial, manufacturing, recreational, and agricultural uses. Some of the property would also be left as open space. Facility development would include 88,672 square feet of demolition, 533,879 square feet of existing facility retention, and 1,542,400 square feet of new facility construction.

- The No-Action Alternative would result in the U.S. Government retaining ownership of the airfield property. No portions of the property would be declared excess and available for disposal. Caretaker activities would consist of base resource protection, grounds maintenance, existing utilities maintenance and operations as necessary, and building care. No improvements would be made to the existing facilities or infrastructure, beyond those necessary to ensure public safety.

## SCOPE OF STUDY

The Notice of Intent to prepare an SEIS for the disposal and reuse of the Griffiss AFB airfield property was published in the *Federal Register* on July 9, 1997. Issues related to the disposal and reuse of the Griffiss AFB airfield property were identified during a scoping period from July 9, 1997, to August 22, 1997. A public scoping meeting was held on July 29, 1997, in the Plumley Complex Auditorium at Mohawk Valley Community College in Rome, New York. The comments and concerns expressed at this meeting and in written correspondence received by the Air Force, as well as information from other sources, were used to determine the scope and direction of studies and analyses required to accomplish this SEIS. The Draft SEIS was made available in November 1998, and a public hearing was held on December 9, 1998 at the same location as the Public Scoping Meeting. Comments made at the meeting and received in writing during the public comment period have been addressed in this Final SEIS.

The SEIS discusses the potential environmental impacts associated with the Proposed Action and reasonable alternatives. To establish the context in which these environmental impacts may occur, potential changes in population and employment, land use and aesthetics, transportation, and community and public services are discussed as reuse-related influencing

factors. Issues related to the current and future management of hazardous materials and waste are also discussed. Potential impacts to the physical and natural environment are evaluated for soils and geology, water resources, air quality, noise, biological resources, and cultural and paleontological resources. The impacts may occur as a direct result of disposal and reuse actions or as an indirect result of changes in the surrounding region.

The baseline against which the Proposed Action and alternatives are analyzed consists of the conditions projected at base realignment in 1999, the first full year after closure on September 30, 1998. Although the baseline assumes closure of the airfield, a reference to pre-closure conditions is provided in several sections (e.g., air quality and noise) to allow a comparative analysis over time. This will assist the Air Force decision-maker and other agencies that may be required to make decisions relating to the reuse of the Griffiss AFB airfield property in understanding the potential long-term trends compared to historic conditions when the airfield was active.

## SUMMARY OF ENVIRONMENTAL IMPACTS

This SEIS considers environmental impacts of the Air Force's disposal of the Griffiss AFB airfield property and presents a variety of potential land uses to cover reasonably foreseeable future uses of the property. Several alternative scenarios, including the local community's proposed plan, were used to group reasonable land uses and to examine the environmental effects of likely reuse of the airfield property at Griffiss AFB.

Environmental impacts of the Proposed Action and alternatives are briefly described in the following sections. Influencing factors, which include projections of reuse activities that would likely influence the biophysical environment, include ground disturbance, socioeconomic factors, and infrastructure demands, are summarized in Table S-1. Impacts related to the Proposed Action and alternatives through 2016 are summarized in Table S-2 and are described in the following sections.

### Mitigations

Options of mitigating potential environmental impacts that may result from the closure of the airfield property or from the Proposed Action or alternatives are presented and discussed. Because most potential environmental impacts would result directly from reuse by others, the Air Force would not typically be responsible for implementing such mitigations. Full responsibility for these suggested mitigations, therefore, would be borne primarily by future property recipients or local government agencies. Mitigation suggestions are summarized along with the environmental impacts of the Proposed Action and alternatives in Table S-2.

**Table S-1**

**Summary of Reuse-Related Influencing Factors on Airfield Property at Griffiss AFB**

| | Factors | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Employment | | | | | | | | | | |
| | Ground Disturbance (acres by phase) | Aircraft Operations (annual) | Construction/ Demolition | Operations | Total Direct | Secondary | Regional Population Increase | Traffic (average daily/one-way trips) | Water Demand (MGD)[1] | Wastewater Generation (MGD)[1] | Solid Waste Generation[2] (tons/day) | Electricity Demand (MWh/day)[3] | Natural Gas Demand (thousand therms/day) |
| **Proposed Action** | | | | | | | | | | | | | |
| 1999 | 0 | 0 | 14 | 172 | 185 | 90 | 86 | 1,490 | 0.020 | 0.017 | 0.784 | 6.763 | 0.209 |
| 2001 | 16 | 36,601 | 18 | 286 | 304 | 141 | 159 | 2,720 | 0.033 | 0.029 | 1.061 | 11.475 | 0.351 |
| 2006 | 6 | 74,327 | 11 | 772 | 783 | 346 | 703 | 5,860 | 0.108 | 0.102 | 1.629 | 33.074 | 0.995 |
| 2016 | 4 | 78,548 | 0 | 1,144 | 1,144 | 480 | 1,654 | 6,510 | 0.237 | 0.229 | 2.964 | 68.093 | 2.041 |
| **Private Airfield Alternative** | | | | | | | | | | | | | |
| 1999 | 0 | 0 | 11 | 160 | 171 | 83 | 79 | 880 | 0.020 | 0.017 | 0.760 | 6.229 | 0.193 |
| 2001 | 15 | 8,016 | 13 | 267 | 280 | 130 | 147 | 1,480 | 0.032 | 0.028 | 1.025 | 10.600 | 0.324 |
| 2006 | 5 | 15,710 | 7 | 716 | 723 | 319 | 649 | 3,320 | 0.100 | 0.094 | 1.531 | 30.499 | 0.916 |
| 2016 | 3 | 16,933 | 0 | 1,069 | 1,069 | 449 | 1,545 | 3,790 | 0.221 | 0.213 | 2.789 | 63.278 | 1.895 |
| **Nonaviation Alternative** | | | | | | | | | | | | | |
| 1999 | 0 | NA | 49 | 1,056 | 1,105 | 766 | 513 | 3,550 | 0.138 | 0.097 | 6.245 | 31.579 | 0.821 |
| 2001 | 15 | NA | 61 | 1,761 | 1,822 | 1,254 | 957 | 5,840 | 0.245 | 0.175 | 8.878 | 53.737 | 1.428 |
| 2006 | 15 | NA | 59 | 3,522 | 3,580 | 2,419 | 3,213 | 11,450 | 0.268 | 0.479 | 13.390 | 128.867 | 3.576 |
| 2016 | 30 | NA | 0 | 7,043 | 7,043 | 4,639 | 10,182 | 22,480 | 1.484 | 1.362 | 21.647 | 332.105 | 9.506 |

Notes: [1]MGD = million gallons per day.
[2]Solid waste generation includes building demolition during the early years of redevelopment.
[3]MWh = megawatt-hour = million watt-hour.

Table S-2

Summary of Environmental Impacts and Mitigation Measures for the Proposed Action and Alternatives

| Closure Baseline | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | No-Action Alternative |
|---|---|---|---|---|
| **Land Use and Aesthetics** | | | | |
| **Conditions:** | **Impacts:** | **Impacts:** | **Impacts:** | **Impacts:** |
| • Continued inconsistencies with outdated master plans and zoning ordinances. | • Continued inconsistencies with outdated master plans and zoning ordinances. | • Same as Proposed Action. | • Same as Proposed Action. | • Same as Proposed Action. |
| • Continued land use incompatibilities with AICUZ program. | • Replacement of the AICUZ program with FAA regulations. | • Same as Proposed Action. | • AICUZ program would not be replaced because no aircraft operations would occur. | • Same as Nonaviation Alternative. |
| | **Potential Mitigation Measures:** | **Potential Mitigation Measures:** | **Potential Mitigation Measures:** | **Potential Mitigation Measures:** |
| | • Continue rezoning efforts with the City of Rome. | • Same as Proposed Action. | • Same as Proposed Action. | • Same as Proposed Action. |
| | • Amend the GLDC Master Plan to reflect non-military uses of the airfield. | • Same as Proposed Action. | • Same as Proposed Action. | • Same as Proposed Action. |
| **Transportation** | | | | |
| **Conditions:** | **Impacts:** | **Impacts:** | **Impacts:** | **Impacts:** |
| • All key roadway segments would operate at LOS E or better. | • Increase of 6,500 average daily vehicular trips by 2016. Reuse-generated traffic would cause some road segments to operate at LOS F by 2004. | • Increase of 3,800 average daily vehicular trips by 2016. Reuse-generated traffic would cause some road segments to operate at LOS F by 2005. | • Increase of 22,500 average daily vehicular trips by 2016. Reuse-generated traffic would cause some road segments to operate at LOS F by 2007. | • Four key roads would reach LOS F by 2016. |
| • Annual aircraft operations associated with the New York Air National Guard would be discontinued. A total of 1,116 NYANG operations occurred in 1996. | • Oneida County Airport operations would transfer to the airfield property at Griffiss AFB. Approximately 78,548 air operations would occur by 2016. | • Oneida County Airport operations would not transfer to the airfield property at Griffiss AFB. Approximately 16,933 air operations would occur by 2016. | • The airfield property would be redeveloped for nonaviation-related uses. The Oneida County Airport operations would not transfer to the airfield property at Griffiss AFB. | • No airfield operations would occur. |
| • No airspace conflicts or air transportation impacts. | • No airspace conflicts or air transportation impacts. | • Same as Proposed Action. | • Same as Proposed Action. | • Same as Proposed Action. |

Table S-2, Page 2 of 9

| Closure Baseline | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | No-Action Alternative |
|---|---|---|---|---|
| **Transportation (cont.)** | | | | |
| | **Potential Mitigation Measures:**<br>• Create an efficient onsite circulation plan.<br>• Widen Floyd Avenue and Chestnut Street east of Black River Boulevard, and Hill Road, Wright Drive, Brooks Road, and Ellsworth Road to four lanes.<br>• Widen the connection of SH-49 interchange and the onsite parkway.<br>• Widen East Dominick Street, Floyd Avenue, and Chestnut Street to four lanes near the site.<br>• Implement a Transportation Demand Management Program. | **Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Potential Mitigation Measures:**<br>• Widen to 4 lanes East Dominick Street near the site. |
| **Utilities** | | | | |
| **Conditions:**<br>**In the ROI (1997)**<br>Water: 8.29 MGD<br>Wastewater: 8.29 MGD<br>Solid Waste: 50 tons/day<br>Electricity: 1,805 MWh/day<br>Natural Gas: 53.44 thousand therms/day | **Impacts:**<br>• Slight increase in ROI utility demands. ROI utility capacity is sufficient to accommodate projected demands.<br>• Additional utility corridors may be required and new, metered, service may be required for new users. Pretreatment of industrial wastewater may be required. | **Impacts:**<br>• Slight increase in ROI utility demands. Current systems have capacity to accommodate the projected demands.<br>• Same as Proposed Action. | **Impacts:**<br>• Slight increase in some ROI utility demands. Current systems have capacity to accommodate the projected demands.<br>• Same as Proposed Action. | **Impacts:**<br>• Substantial reduction in base-related utility use.<br>• Distribution/collection systems would need reconfiguration for minimal usage. |

Table S-2, Page 3 of 9

| Closure Baseline | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | No-Action Alternative |
|---|---|---|---|---|
| **Utilities (cont.)** | | | | |
| | **Potential Mitigation Measures:**<br>• Seek Federal funding for additional or improved water and wastewater treatment and distribution systems.<br>• Develop water conservation strategies to reduce water use and the need for additional infrastructure.<br>• Institute waste source separation to reduce solid waste.<br>• Develop energy conservation strategies to reduce energy consumption and the need for additional infrastructure.<br>• Provide temporary operations and maintenance procedures and modification of utility systems to increase efficiency during low demand in initial phases of reuse. | **Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Potential Mitigation Measures:**<br>• Same as Proposed Action except for wastewater treatment system funding. |
| **HAZARDOUS SUBSTANCES MANAGEMENT - Hazardous Materials Management** | | | | |
| **Conditions:**<br>• Materials used by caretaker personnel will be managed in compliance with applicable regulations. | **Impacts:**<br>• An increase in quantities of materials from those used by the NYANG.<br><br>**Potential Mitigation Measures:**<br>• Reduce cost of environmental compliance, health and safety, and waste management through cooperative planning among reuse organizations.<br>• Increase recycling, minimize waste generation, and assist in mutual spill responses through cooperative planning.<br>• Implement pollution prevention and waste minimization strategies recommended by the EPA through cooperative planning. | **Impacts:**<br>• An increase in quantities of materials from those used by the NYANG.<br><br>**Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Impacts:**<br>• An increase in quantities of materials from those used by the NYANG.<br><br>**Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Impacts:**<br>• Minimal hazardous substances would be used for caretaker activities.<br><br>**Potential Mitigation Measures:**<br>• Same as Proposed Action. |

Table S-2, Page 4 of 9

| Closure Baseline | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | No-Action Alternative |
|---|---|---|---|---|
| **HAZARDOUS SUBSTANCES MANAGEMENT - Hazardous Materials Management (cont.)** | | | | |
| • Wastes generated by retained organizations and caretaker personnel would be managed in accordance with applicable regulations. | **Impacts:**<br>• Increase in quantities of wastes generated compared to NYANG operations.<br>**Potential Mitigation Measures:**<br>• Implementation of education and awareness programs on recycling, waste minimization, and waste disposal. | **Impacts:**<br>• Increase in quantities of wastes generated compared to NYANG operations.<br>**Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Impacts:**<br>• Increase in quantities of wastes generated compared to NYANG operations.<br>**Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Impacts:**<br>• No change in quantities generated.<br>**Potential Mitigation Measures:**<br>• Same as Proposed Action. |
| **Installation Restoration Program** | | | | |
| **Conditions:**<br>• IRP activities would continue after airfield property closure and reuse. IRP remediation activities would continue in accordance with applicable regulations. | **Impacts:**<br>• Possible redevelopment delays and land use restrictions due to remediation activities.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• IRP remediation activities completed or continued as needed.<br>**Potential Mitigation Measures:**<br>• None identified. |
| **Storage Tanks and Oil/Water Separators** | | | | |
| **Conditions:**<br>• Storage tanks and oil/water separators used by retained government organizations are managed in accordance with applicable regulations. Systems not required for reuse will be removed or maintained in place in accordance with applicable regulations and Air Force policy. | **Impacts:**<br>• No impact would occur because potential new or retained tanks and oil/water separators to support redevelopment activities would be subject to existing regulations.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Storage tanks and oil/water separators would be removed or maintained in place according to regulations.<br>**Potential Mitigation Measures:**<br>• None identified. |

**Table S-2, Page 5 of 9**

| Closure Baseline | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | No-Action Alternative |
|---|---|---|---|---|
| **HAZARDOUS SUBSTANCES MANAGEMENT - Asbestos (cont.)** | | | | |
| **Conditions:**<br>• Asbestos posing a health risk will be abated. Remaining asbestos will be managed in accordance with applicable regulations and Air Force policy. | **Impacts:**<br>• No impact would occur because maintenance, renovation, and/or demolition of structures with ACM would be subject to existing regulations.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Continued management of asbestos in accordance with Air Force policy.<br>**Potential Mitigation Measures:**<br>• None identified. |
| **Pesticides** | | | | |
| **Conditions:**<br>• Pesticides used by retained government organizations and caretaker personnel will be managed in compliance with applicable regulations. | **Impacts:**<br>• Increased use of pesticides over realignment baseline would be subject to existing regulations and no significant impact would occur.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• No change in use or management practices.<br>**Potential Mitigation Measures:**<br>• None identified. |
| **Polychlorinated Biphenyls** | | | | |
| **Conditions:**<br>• All Federally regulated PCB-containing equipment will be removed and properly disposed of prior to realignment. | **Impacts:**<br>• No impacts.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• No Impacts.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• No impacts.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• No impacts.<br>**Potential Mitigation Measures:**<br>• None identified. |
| **Radon** | | | | |
| **Conditions:**<br>• No existing or proposed residential structures are within the airfield property. | **Impacts:**<br>• No impact would occur because there are no residential structures on the airfield property.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. |

Table S-2, Page 6 of 9

| Closure Baseline | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | No-Action Alternative |
|---|---|---|---|---|
| **HAZARDOUS SUBSTANCES MANAGEMENT - Medical/Biohazardous Waste (cont.)** | | | | |
| **Conditions:**<br>• No medical/biohazardous waste is known to occur on the airfield property. | **Impacts:**<br>• No impact would occur because any medical/biohazardous materials potentially moved by air cargo would be subject to existing regulations.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• No Impact.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• No Impact.<br>**Potential Mitigation Measures:**<br>• None identified. |
| **Ordnance** | | | | |
| **Conditions:**<br>• All known ordnance has been removed from the airfield property. | **Impacts:**<br>• Unknown ordnance may be discovered during redevelopment. Removal would be in accordance with existing regulations.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as the Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as the Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as the Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. |
| **Lead** | | | | |
| **Conditions:**<br>• Base facilities will be maintained to prevent potential exposure to LBP. | **Impacts:**<br>• No impact would occur because renovation and/or demolition of facilities with LBP would be subject to existing regulations.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Base facilities would be maintained to prevent exposure to LBP.<br>**Potential Mitigation Measures:**<br>• None identified. |
| **NATURAL ENVIRONMENT - Soils and Geology** | | | | |
| **Conditions:**<br>• No ground disturbance. | **Impacts:**<br>• Minor erosion effects from 26 acres of ground disturbance.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Minor erosion effects from 23 acres of ground disturbance.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Minor erosion effects from 60 acres of ground disturbance.<br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• No ground disturbance.<br>**Potential Mitigation Measures:**<br>• None identified. |

Table S-2, Page 7 of 9

| Closure Baseline | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | No-Action Alternative |
|---|---|---|---|---|
| **NATURAL ENVIRONMENT - Water Resources (cont.)** | | | | |
| **Conditions:**<br>• No ground disturbance.<br>• Adequate water supply for limited onbase demand. | **Impacts:**<br>• Disturbance of 26 acres could affect surface water flow and water quality.<br><br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Disturbance of 23 acres could affect surface water flow and water quality.<br><br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Disturbance of 60 acres could affect surface water flow and water quality.<br><br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• No change in water demand.<br>• No effect on water quality.<br><br>**Potential Mitigation Measures:**<br>• None identified. |
| **Air Quality** | | | | |
| **Conditions:**<br>• Limited air pollutant emissions generated from caretaker activities. | **Impacts:**<br>• Increased air pollutant emissions during construction and operations would not affect the region's attainment designation for all criteria pollutants.<br><br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br><br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br><br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Limited air pollutant emissions generated from caretaker activities.<br><br>**Potential Mitigation Measures:**<br>• None identified. |
| **Noise** | | | | |
| **Conditions:**<br>• All noise contours for NYANG operations of DNL 65 dB or greater are confined to the airfield property. Within the airfield property, 393 acres are within the DNL 65 dB or greater noise contour. | **Impacts:**<br>• Noise contours of DNL 65 dB or greater do not extend beyond the airfield property boundary.<br><br>• DNL distances from roadway centerlines would be between 10 and 100 percent of those of pre-realignment baseline due to increased surface traffic by 2016. | **Impacts:**<br>• Noise contours of DNL 65 dB or greater do not extend beyond the airfield boundary and are less than those anticipated for the Proposed Action.<br><br>• DNL distances from roadway centerlines would be less than those anticipated for the Proposed Action. | **Impacts:**<br>• No aviation-related noise impacts would occur.<br><br>• DNL distances from the roadway centerlines would be greatest of any alternative due to increased surface traffic by 2016. | **Impacts:**<br>• No aviation-related noise impacts would occur.<br><br>• Reduced surface traffic noise impacts. |

Table S-2, Page 8 of 9

| Closure Baseline | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | No-Action Alternative |
|---|---|---|---|---|
| **NATURAL ENVIRONMENT - Noise (cont.)** | | | | |
| | **Potential Mitigation Measures:**<br>• A sound insulation program to reduce interior noise levels for sensitive receptors exposed to DNL 65 dB or greater as a result of increased traffic could be developed.<br>• County and township land use planning could incorporate noise compatibility measures when establishing residential zoning. | **Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Potential Mitigation Measures:**<br>• Same as Proposed Action. |
| **Biological Resources** | | | | |
| **Conditions:**<br>• No ground disturbance. | **Impacts:**<br>• Disturbance of 26 acres of grassy, landscaped areas. | **Impacts:**<br>• Disturbance of 23 acres of grassy, landscaped areas. | **Impacts:**<br>• Disturbance of 60 acres of grassy, landscaped areas. | **Impacts:**<br>• No ground disturbance.<br>• Reduction in base-related activities. |
| • No threatened or endangered species on the base. | • No impacts to threatened and endangered species. | • Same as Proposed Action. | • Same as Proposed Action. | |
| • 5 acres of jurisdictional wetlands and 112 acres of NYSDEC-determined wetlands present. | • Disturbance activities would occur outside of wetlands boundaries. | • Same as Proposed Action. | • Potential disturbance of wetlands east of the airfield due to agricultural activities. | • Potential increase in habitat value due to long-term decrease in human activity. |
| | **Potential Mitigation Measures:**<br>• Minimize direct/indirect disturbances by planning and design.<br>• Conservation easements or deed restrictions.<br>• Develop replacement/ additional habitats.<br>• Monitor mitigated habitats. | **Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Potential Mitigation Measures:**<br>• Same as Proposed Action. | **Potential Mitigation Measures:**<br>• Same as Proposed Action. |

**Table S-2, Page 9 of 9**

| Closure Baseline | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | No-Action Alternative |
|---|---|---|---|---|
| **NATURAL ENVIRONMENT - Cultural Resources (cont.)** | | | | |
| **Conditions:**<br>• Six NRHP-eligible sites are located on the airfield property. Compliance with existing regulations would reduce impacts to a level that is not significant. | **Impacts:**<br>• Potential adverse effects to six properties potentially NRHP-eligible historic sites by ground disturbance/ building demolition related to the Proposed Action.<br><br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br><br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• Same as Proposed Action.<br><br>**Potential Mitigation Measures:**<br>• None identified. | **Impacts:**<br>• No effect on cultural resources because property would remain under Federal jurisdiction.<br><br>**Potential Mitigation Measures:**<br>• None identified. |

Notes:
ACM = Asbestos-containing material
AICUZ = Air Installation Compatible Use Zone
CO = Carbon monoxide
dB = Decibel
DNL = Day-night average noise level
E.O. = Executive Order
EPA = U.S. Environmental Protection Agency
IRP = Installation Restoration Program
LBP = Lead-based paint
LOS = Level of service
$NO_x$ = Nitrogen oxide
NRHP = National Register of Historic Places
NYSDEC = New York State Department of Environmental Conservation
PCBs = Polychlorinated biphenyls
pCi/l = Pico curies per liter
$PM_{10}$ = Particulate matter
ROI = Region of Influence
SH = State Highway
SHPO = State Historic Preservation Office
$SO_2$ = Sulfur dioxide
SPDES = State Pollutant Discharge Elimination System
SR = State Route
VA = U.S. Department of Veterans Affairs
VOC = Volatile organic compound

## PROPOSED ACTION

### Local Community

The Proposed Action would result in increases in employment and population in Oneida County. A total of 1,624 jobs (1,144 direct and 480 secondary) would be generated by 2016. If the Proposed Action were implemented, the population of Oneida County is expected to increase by 1,654, or 0.7 percent above the baseline. Most of these people are expected to reside in the City of Rome.

The Proposed Action would include the reuse of the base for airfield, aviation support, industrial, public/recreational/open space, and agricultural land uses, and would result in the eastward expansion of the City of Rome Inside District by 1,680 acres. The GLDC has applied to the City of Rome to rezone all of Griffiss AFB to comply with the GLDC's Master Plan. This Master Plan would have to be revised to reflect the new, non-military airfield land uses. Average daily traffic on local roads providing access to the airfield property at Griffiss AFB would increase by 6,500 vehicle trips by 2016. The reuse of the airfield property would have a beneficial effect on air traffic and airspace use by eliminating a contributing source of potential congestion on the overlapping airspace used by the NYANG and the Oneida County Airport. Utility consumption associated with the Proposed Action would be a relatively small increase in the total demand. All utility providers currently have excess capacity.

### Hazardous Substances Management

The types of hazardous materials and waste generated as a result of the Proposed Action are expected to be similar to those used by the airfield prior to closure, although the quantity of hazardous materials used would increase due to the increase in aircraft-related activities. The responsibility for managing hazardous materials and waste would shift from a single military user to multiple, independent private or public users. Mutual aid agreements with surrounding jurisdictions may need to be revised and additional training of emergency response personnel may be required. It was assumed that adequate management procedures would be imposed as required by applicable laws and regulations to ensure proper use and handling of hazardous materials and waste.

Reuse activities are not expected to affect the remediation and/or closure of Installation Restoration Program (IRP) sites. However, the IRP remediation schedule could result in delays in the redevelopment of some portions of the airfield property at Griffiss AFB. Existing underground storage tanks not required for reuse activities will be removed by the Air Force. Demolition and renovation of structures with asbestos-containing materials was assumed to be performed by the new owners in compliance with applicable regulations and National Emissions Standards for Hazardous Air Pollutants. The airfield

property will not contain any federally-regulated polychlorinated biphenyl (PCB)-contaminated equipment at the time of property transfer. No residential structures or schools, which would require remediation for lead-based paint and radon, are located within the airfield property. The Air Force has removed all known ordnance from the airfield property. No impacts are anticipated from pesticide use or potential transport of medical/biohazardous materials by a future air cargo operation are anticipated.

**Natural Environment**

A total of 26 acres would be disturbed by the Proposed Action. Effects on regional soils and geology would be minimal because the majority of the airfield property has been disturbed by past activities. Construction activities would change some surface drainage flows and would increase the amount of impervious surface. Groundwater supplies would not be affected. Increased air pollutant emissions during construction and operations of the Proposed Action would not affect the region's attainment designation for all criteria pollutants. Noise contours of DNL 65 dB or greater would not extend beyond the airfield property boundary. Traffic noise would increase.

The Proposed Action would disturb mostly grassy, landscaped habitat. Some wetland property exists on the airfield property, and a permit from the State of New York may be required for redevelopment activities near the wetland boundary. No reuse activities would occur inside any existing wetland boundary. Six sites that are eligible for the National Register of Historic Places (NRHP) would be affected by the Proposed Action. All impacts can be mitigated.

## PRIVATE AIRFIELD ALTERNATIVE

**Local Community**

This alternative would generate 1,518 total jobs (1,069 direct and 449 secondary) by 2016. If the Private Airfield Alternative were implemented, the population in Oneida County is projected to increase by 1,545, with most people residing in the City of Rome. Impacts on master plans and zoning would be similar to the Proposed Action. Average daily traffic on local roads with this alternative would increase by approximately 3,800 vehicle trips by 2016. Utility consumption related to this alternative would represent a relatively small increase in the total demand. All utility carriers have excess capacity.

**Hazardous Substances Management**

Impacts related to hazardous substances management would be similar to those described for the Proposed Action. However, the amounts of hazardous substances used for this alternative would be less than for the Proposed Action, because Oneida County Airport operations would not be

moved to the airfield property. Remediation and/or closure of IRP sites could delay the redevelopment of some portions of the airfield property.

**Natural Environment**

A total of 23 acres would be disturbed with this alternative. Impacts associated with this alterative on soils and geology, water resources, biological resources, air quality and noise would be similar to and less than those described for the Proposed Action. Impacts to cultural resources would be the same for those described for the Proposed Action.

## NONAVIATION ALTERNATIVE

**Local Community**

This alternative would generate 11,682 jobs (7,043 direct and 4,639 secondary) by 2016, the most of any alternative. If the Nonaviation Alternative were implemented, the population of Oneida County is expected to increase by 10,182. The majority of these new residents would live in the City of Rome.

With this alternative, the airfield property would be redeveloped for nonaviation-related uses. The GLDC Master Plan would have to be revised to reflect these new land uses. Average daily trips would total 22,500 by 2016, the most of any alternative. All traffic impacts can be mitigated to a level that is not significant. Utility consumption would be the largest with this alternative. However, all utility providers have sufficient capacity.

**Hazardous Substances Management**

The amount of hazardous materials and hazardous waste generated with this alternative would be more than expected with the Proposed Action because aviation-related activities would be replaced with industrial and manufacturing land uses. However, no significant impacts are anticipated. Remediation and/or closure of IRP sites could delay the redevelopment of some portions of the airfield property.

**Natural Environment**

A total of 60 acres would be disturbed with this alternative. Impacts associated with this alternative on soils and geology, water resources, air quality, and biological resources would be more than described for the Proposed Action. The same six NRHP-eligible cultural resources sites would be affected by this alternative. Noise impacts would be less than the Proposed Action, because no aviation uses are proposed. No impacts would be significant after mitigation.

## NO-ACTION ALTERNATIVE

### Local Community

With the No-Action Alternative, no redevelopment would occur at the airfield property. Caretaker activities would be conducted by the existing caretaker force, and no new employment or population would be generated. Minimal effects on utilities and transportation systems are anticipated.

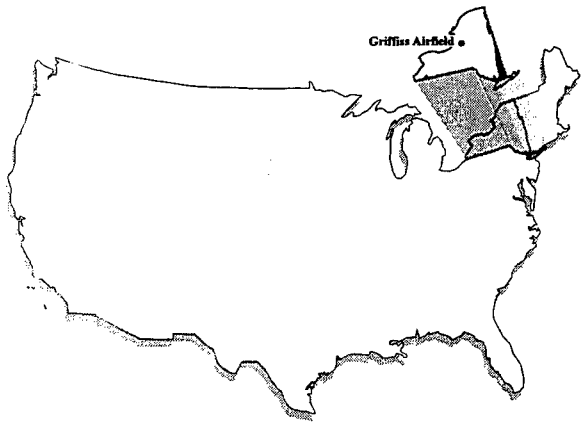
### Hazardous Substances Management

Small quantities of various types of hazardous materials, such as pesticides, would be used for caretaker activities. All hazardous materials and waste would be managed and controlled by the Air Force Base Conversion Agency Operating Location caretaker team in accordance with applicable regulations. Ongoing sampling and remediation activities for the IRP would continue.

### Natural Environment

The No-Action Alternative would not affect soils and geology, water resources, biological resources, or cultural resources. This alternative would result in negligible impacts to air quality and noise

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# CHAPTER 1.0
# PURPOSE OF AND NEED FOR ACTION

# 1.0 PURPOSE OF AND NEED FOR ACTION

This Supplemental Environmental Impact Statement (SEIS) examines the potential impacts to the environment that may result from the disposal and reuse of the airfield property on Griffiss Air Force Base (AFB), New York, as well as from foreseeable interim reuse activities (e.g., interim leases), which may be allowed by the Air Force before final disposal of the airfield property. This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508).

This document is prepared as a supplement to the Final Environmental Impact Statement (FEIS) for the Disposal and Reuse of Griffiss AFB, New York, completed in November 1995, because the actions considered in this supplement are closely tied to the base closure decision made in 1993 by the Third Base Realignment and Closure (BRAC) Commission (BRAC III) and because much of the information provided in the 1995 FEIS is valid for this SEIS. Consideration of the airfield property at Griffiss AFB began during BRAC III, when it was decided to dispose of a majority of Griffiss AFB. At that time, the airfield property was realigned as a minimum essential airfield for the exclusive support of the 10th Infantry Division at Fort Drum, New York. The FEIS (U.S. Air Force 1995a) addressed the potential environmental impacts of converting the airfield at Griffiss AFB to a minimum essential airfield to be operated and maintained by the New York Air National Guard (NYANG). Subsequently, the 1995 BRAC Commission (BRAC IV) recommended that the airfield be closed and essential airfield equipment and functions be transferred to the newly expanded Wheeler-Sack Airfield at Fort Drum. The Commission's recommendations were known before the finalization of the 1995 EIS. Therefore, the potential effects of the BRAC IV actions on the 1993 realignment decisions were also discussed in the 1995 FEIS with the understanding that when more detailed planning became available based on the final BRAC IV actions, additional environmental study and documentation would be prepared.

NEPA allows the preparation of an SEIS that addresses the salient environmental issues focused on the changes related to the airfield property and allows incorporation of the 1995 FEIS by reference on issues/resources that do not result in substantial changes. As a result, some of the environmental issues/resources have been discussed in this document only in a summary form with reference made to the 1995 EIS for details, while those directly affected by the newly-developed reuse alternatives for the airfield property are discussed in detail in this SEIS.

The airfield property at Griffiss AFB consists of approximately 1,680 acres (Figure 1.1-1), including a 1,656-acre parcel consisting of the airfield portion of Griffiss AFB, and five small non-contiguous parcels totaling 24 acres. These areas and associated buildings and facilities have been used by the

NYANG for maintaining a Minimum Essential Airfield since the realignment of Griffiss AFB in 1995.

## 1.1 PURPOSE AND NEED

As a result of the changing international political scene and the accompanying shift toward a reduction in defense spending, the Department of Defense (DOD) has been realigning and reducing its military forces pursuant to the Defense Base Closure and Realignment Act (DBCRA) of 1990 (Public Law [PL] 101-510, Title XXIX). DBCRA established new procedures for closing or realigning military installations in the United States.

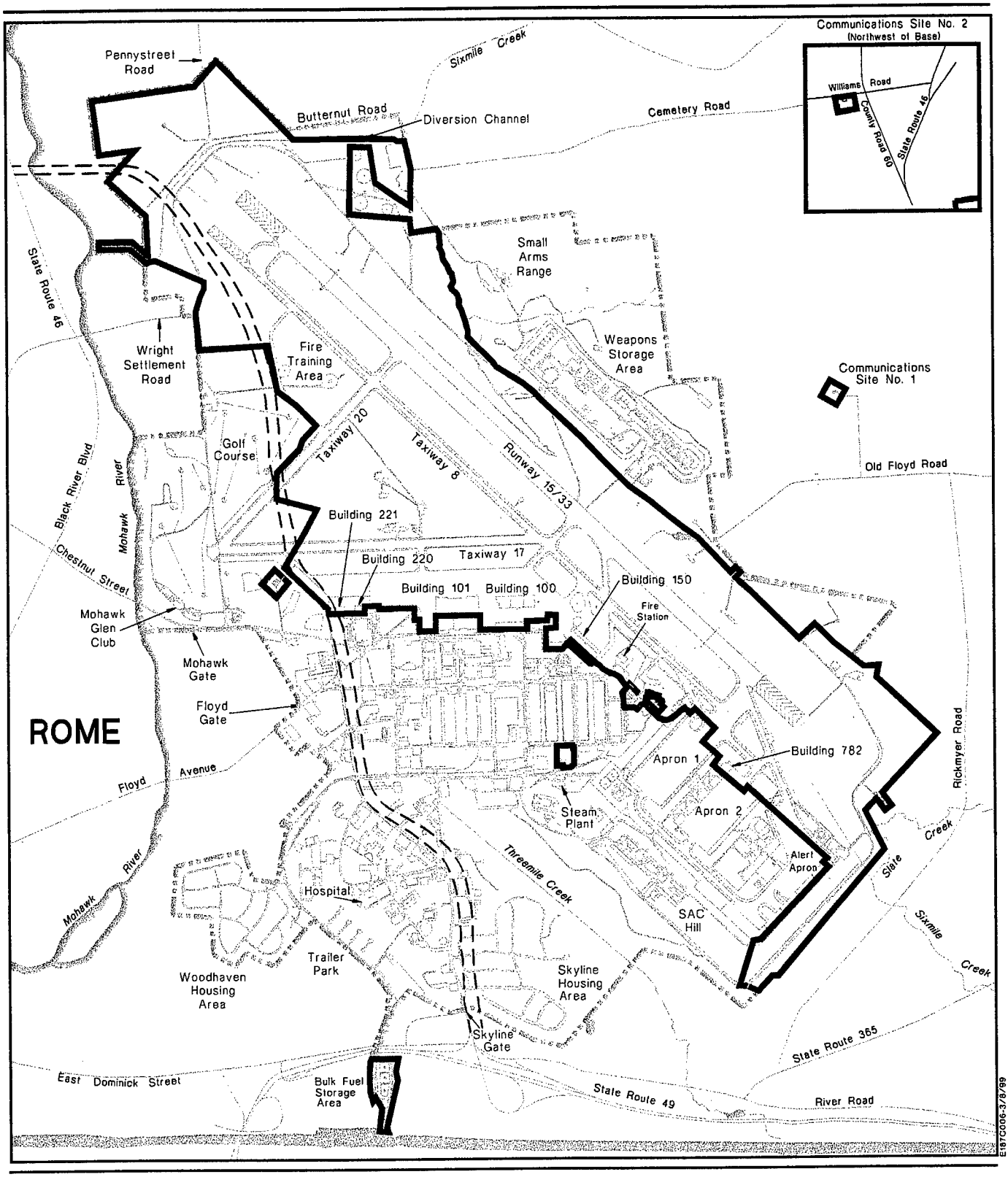
DBCRA established an independent Defense BRAC Commission to review recommendations made by the Secretary of Defense regarding base realignments and closures. In March 1995, the Secretary of Defense recommended that, among other proposed closure and realignment actions nationwide, the airfield at Griffiss AFB be closed and essential equipment and functions be transferred to the newly expanded airfield at Fort Drum.

After reviewing the Secretary's recommendations, BRAC IV forwarded its recommended list of base realignment and closure actions to the President, who accepted the recommendations and submitted them to Congress in July 1995. Closure of the airfield at Griffiss AFB, in accordance with the Commission's recommendations, would occur on September 30, 1998.

To fulfill the requirement of reducing defense expenditures, the Air Force plans to dispose of excess and surplus real property associated with the airfield at Griffiss AFB following closure. DBCRA requirements related to disposal of excess and surplus property include:

- Environmental restoration of the property as soon as possible with funds made available for such restoration;
- Consideration of the local community's reuse plan, if available, prior to Air Force disposal of the property; and
- Compliance with specific Federal property disposal laws and regulations.

The Air Force action, therefore, is to dispose of the airfield property at Griffiss AFB within its decision-making authority that is considered excess and surplus. Usually, this action would be performed by the Administrator of General Services. However, DBCRA required the Administrator to delegate to the Secretary of Defense the authorities to utilize excess property, dispose of surplus property, convey airport and airport-related property, and determine the availability of excess or surplus real property for wildlife conservation purposes. The Secretary of Defense redelegated these authorities to the respective Service Secretaries, which in this case is the Secretary of the Air Force.




**LEGEND**

- Airfield Property Boundary
- Former Griffiss AFB Boundary
- Proposed Parkway Corridor

SCALE IN FEET
0 1000 2000

# Airfield Property at Griffiss AFB Reference Map

**Figure 1.1-1**

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## 1.2 DECISIONS TO BE MADE

The purpose of this SEIS is to provide information for Air Force decision-makers concerning the disposition of excess and surplus airfield property at Griffiss AFB. The SEIS provides the decision-maker and the public the information needed to understand the potential environmental consequences of disposal and proposed reuse options for the excess and surplus airfield property at Griffiss AFB.

A variety of potential land uses covering reasonably foreseeable future reuses of the property and facilities were analyzed in this document. Two alternative scenarios were used to group these land uses and examine the environmental effects of redevelopment of airfield property at Griffiss AFB. These reasonable redevelopment scenarios are analyzed in this SEIS to determine the potential direct and indirect environmental effects of Air Force decisions. In addition, the No-Action Alternative is analyzed, as required by NEPA.

## 1.3 DISPOSAL PROCESS AND REUSE PLANNING

The Air Force's goal is to dispose of the property through transfer and/or conveyance to other government agencies, State or local government bodies, or private parties. The Proposed Action considered in this SEIS reflects the community's goal for Griffiss AFB airfield property reuse. The community's goal is to develop an international air freight hub, aircraft maintenance facilities, and commercial airport around which other industrial, recreational, and agricultural uses could also be developed. The Proposed Action is based on conceptual plans developed by the local redevelopment organization, the Griffiss Local Development Corporation (GLDC).

Two additional reasonable alternatives were also developed to ensure that reasonably foreseeable impacts resulting from potential reuses have been identified and the decision-maker has multiple options regarding ultimate property disposition. Subject to the terms of transfer or conveyance, the recipients of the property and the local zoning authorities and elected officials will ultimately determine the reuse of the property. One of the reasonable reuse alternatives is a Private Airfield Alternative, which would have the same air freight and aircraft maintenance activities, but would leave the commercial airport at its existing location at Oneida County Airport. The other reasonable reuse alternative (the Nonaviation Alternative) consists of commercial, industrial, manufacturing, public/recreational, agricultural, and open space uses. The No-Action Alternative would not involve disposal, but would include Air Force caretaker functions at the airfield property at Griffiss AFB.

### 1.3.1 Property Transfers

The methods of disposal granted by the Federal Property and Administrative Services Act of 1949 and the Surplus Property Act of 1944 and implemented in the Federal Property Management Regulations (FPMR) are:

- Transfer to another Federal agency;
- Public benefit conveyance to an eligible entity;
- Negotiated sale to a public body for a public purpose; and
- Competitive sale by sealed bid or auction.

Property transfers are usually made by deed when the property is legally suitable for conveyance. However, for some parcels, near-term deed conveyance is not permitted under the requirements of Section 120(h)(3) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) because they may contain hazardous wastes for which necessary levels of remedial action have not yet been taken. The Air Force will attempt to support the community's redevelopment of the airfield property at Griffiss AFB by transferring parts of such property by leases in furtherance of eventual deed conveyance. Such leases are accompanied by a contractual commitment between the parties for the Air Force to convey deed title to the property as soon as it can legally do so.

Reuse of such land, whether by lease or by deed, and the resulting environmental impacts, are generally not affected by the form of the conveyance. The Secretary of the Air Force has discretion in determining how the Air Force will dispose of the government-owned property. The Air Force must adhere to applicable laws, including General Services Administration (GSA) regulations (41 CFR 101-47) in accordance with DBCRA. The Services were authorized to issue additional regulations, if required, to implement their delegated authorities, and the Air Force has issued such regulations (41 CFR 132). Another provision of DBCRA requires each of the Services to consult with the Governor, heads of local governments, or equivalent political organizations to consider any plan for the use of such property by the local community concerned. Accordingly, the Air Force has worked with State authorities and the GLDC to meet this requirement.

### 1.3.2 Airfield Land Use Considerations

The Proposed Action considered in this SEIS would relocate the Oneida County Airport to Griffiss AFB. Certain activities inherent in the development or expansion of an airport to include commercial and private carriers constitute Federal actions, which fall under the statutory and regulatory authority of the Federal Aviation Administration (FAA). The FAA generally reviews these activities through the processing and approval of an Airport Layout Plan (ALP). Goals of the ALP review system are to: (1) determine its effectiveness in achieving safe and efficient utilization of airspace; (2) assess

factors affecting the movement of air traffic; and (3) establish conformance with FAA design criteria. The FAA approval action may also include other specific elements, such as preparation of the *Airport Certification Manual* (Part 139); the *Airport Security Plan* (Part 107); the location, construction, or modification of an air traffic control tower, terminal radar approach control facility, other navigational and visual aids, and facilities; and establishment of instrument approach procedures.

If surplus property is conveyed to a local agency for airport purposes, the FAA would be the Federal agency that would enforce deed covenants requiring the property to be used for airport purposes. Additionally, the FAA may later provide Airport Improvement Program grants to the airport sponsor (i.e., local agency taking title). The FAA also has special expertise and the legal responsibility to make recommendations to the Air Force for the disposal of surplus property for airport purposes. The Surplus Property Act of 1944 (50 United States Code [USC] Appendix 1622(g)) authorizes disposal of surplus real and related personal property for airport purposes and requires the FAA to certify the property is necessary, suitable, and desirable for an airport.

In accordance with NEPA and FAA Orders 1050.1D, *Policies and Procedures for Considering Environmental Impacts* (U.S. Department of Transportation, Federal Aviation Administration 1988d), and 5050.4A, *Airport Environmental Handbook* . (U.S. Department of Transportation, Federal Aviation Administration 1985a), the potential environmental impacts of commercial airport development must be assessed prior to commitment of Federal funding. Therefore, the FAA is a cooperating agency for this SEIS. The FAA's objective is to enhance environmental quality and avoid or minimize adverse environmental impacts, which might result from a proposed Federal action, in a manner consistent with the FAA's principal mission to provide for the safety of aircraft operations.

The FAA requires the preparation of an airport master plan, approval of an ALP, and a positive environmental finding prior to the commitment of any funding. If the reuse proponent has prepared only conceptual plans for the airport area, then only the conceptual plans can be assessed for potential environmental impacts. Once specific conceptual reuse plans are developed and approved, the FAA may use this document to assist in completing its NEPA requirements, supplementing it as necessary. The reuse proponent may then be eligible for substantial Federal funding under the Airport Improvement Program.

One alternative examines the use of the airfield property as a private airfield. This alternative does not assume any FAA funding.

## 1.4 ENVIRONMENTAL IMPACT ANALYSIS PROCESS

NEPA established a national policy to protect the environment and ensure that Federal agencies consider the environmental effects of their decisions. The CEQ was authorized to oversee and recommend national policies to improve the quality of the environment. Subsequently, CEQ published regulations that describe how NEPA should be implemented. The CEQ regulations required Federal agencies to develop and implement procedures that address the NEPA process to avoid or minimize adverse effects on the environment. Air Force Instruction (AFI) 32-7061 (32 CFR 989), formerly Air Force Regulation (AFR) 19-2, *Environmental Impact Analysis Process*, outlines procedures for implementing NEPA as part of the Air Force planning and decision-making process.

### 1.4.1 Scoping Process

The scoping process identifies the significant environmental issues relevant to disposal and reuse and provides an opportunity for public involvement in the development of the SEIS. The NOI to prepare an SEIS for disposal and reuse of the airfield property at Griffiss AFB was published in the *Federal Register* on July 9, 1997. Notification of public scoping was also made through local media as well as letters sent to Federal, State, and local agencies and officials, and interested groups and individuals.

The scoping period for the disposal and reuse of the airfield property at Griffiss AFB was from July 9, 1997, to August 22, 1997. A public scoping meeting was held on July 29, 1997, in the Plumley Complex Auditorium at Mohawk Valley Community College, in Rome, New York, to solicit comments and concerns from the general public on disposal and reuse of the airfield property at Griffiss AFB. Approximately 45 people attended the meeting. Representatives of the Air Force presented an overview of the meeting's objectives, agenda, and procedures, and described the process and purpose for the development of a disposal and reuse SEIS. In addition to verbal comments, written comments were received during the scoping process. These comments, as well as information from meetings with local officials and agencies, experience with similar programs, and NEPA requirements, were used to determine the scope and direction of studies/analyses in this SEIS.

### 1.4.2 Preparation of the Environmental Document

NEPA, the CEQ regulations, and AFI 32-7061 provide guidance on the types of actions for which an EIS or a supplemental EIS (SEIS) must be prepared. In this case, it was determined that an SEIS would be prepared for the disposal and reuse of the airfield property at Griffiss AFB. Once it has been determined that an SEIS must be prepared, the proponent must publish a Notice of Intent (NOI) to prepare an SEIS (Appendix B). This formal announcement signifies the beginning of the scoping period, during which

the major environmental issues to be addressed in the SEIS are identified. Following data collection and analysis, a Draft SEIS (DSEIS) is prepared, which includes the following:

- A statement of the purpose of and need for the action;
- A description of the Proposed Action and alternatives, including the No Action Alternative;
- A description of the environment that would be affected by the Proposed Action and alternatives; and
- A description of the potential environmental consequences resulting from implementation of the Proposed Action and alternatives, plus potential mitigation measures.

These items also satisfy the requirements of FAA Order 5050.4A for environmental impact documentation.

The DSEIS is filed with the U.S. Environmental Protection Agency (EPA), and is circulated to government agencies and the interested public for at least 45 days for review and comment. Appendix C presents a list of agencies, organizations, and individuals who were sent a copy of the DSEIS. During the 45-day period, a public hearing is held so that the proponent can summarize the findings of the analysis and receive input from the affected public. At the end of the review period, all comments received must be addressed. A Final SEIS (FSEIS) is then prepared that contains responses to comments as well as changes to the document, if necessary.

The FSEIS is filed with the EPA and distributed in the same manner as the DSEIS. Once the FSEIS has been available for at least 30 days, the Air Force may publish its Record of Decision (ROD) for the action.

### 1.4.3 Record of Decision

Following completion of this SEIS, the Air Force will issue a Record of Decision (ROD) on the disposal of airfield property at Griffiss AFB within its decision-making authority. The ROD will identify the following:

- The methods of disposal available to the Air Force; and
- The terms and conditions of reuse.

## 1.5 CHANGES FROM THE DSEIS TO THE FSEIS

The text of this SEIS has been revised, where appropriate, to incorporate concerns expressed in public or agency comments or to make typographical corrections and minor editorial changes. The following sections of the SEIS have been revised:

- The SEIS Summary Scope of Study section was revised to add information concerning the release date of the DSEIS and the date of the public hearing.

- Section 1.5, Changes from the DSEIS to the FSEIS, was added.

- Section 2.3.2, Nonaviation Alternative, has been revised to change the area north of the airfield from agricultural to open space. This land use designation was changed to avoid potential adverse impacts to wetlands and as a result of comments from the U.S. Department of Interior. The Air Force has determined that this substantial change that requires recirculation of the Draft SEIS, because significant impacts would be avoided with this change.

- Section 4.4.5, Biological Resources, Subsection 4.4.5.3, Nonaviation Alternative, has been revised to reflect the changes in Chapter 2.0.

- Section 3.4.6 Cultural and Paleontological Resources Affected Environment, and 4.4.6, Cultural and Paleontological Resources Environmental Consequences, have been revised to reflect information from the New York State Department of Parks, Recreation, and Historic Preservation.

- Chapter 9.0, Public Comments and Responses, has been added to the SEIS. This chapter presents reproductions of all written comments received and the transcript of the public hearing. These comments are numbered and responses to each are presented.

- The SEIS mailing list was updated.

## 1.6 ORGANIZATION OF THIS ENVIRONMENTAL IMPACT STATEMENT

This SEIS is organized into a number of chapters and appendices. Chapter 2.0 includes a description of the Proposed Action and alternatives to the Proposed Action identified for reuse of the airfield property at Griffiss AFB. Chapter 2.0 also includes a review of alternatives eliminated from further consideration and identifies other, unrelated actions anticipated to occur in the region during the same time as the reuse activities, to be considered in the analysis of cumulative impacts.

Chapter 3.0 includes a description of the affected environment under the baseline conditions of base realignment, which provides a basis for analyzing the potential impacts of the Proposed Action and alternatives. The results of the environmental analysis are presented in Chapter 4.0. Chapter 5.0 includes a list of individuals and organizations consulted during the preparation of the SEIS; Chapter 6.0 provides a list of the document's preparers; Chapter 7.0 contains references; and Chapter 8.0 contains an index.

The following appendices are included in this document:

- Appendix A - a glossary of terms, acronyms, units of measurement, and chemical abbreviations used in this document;
- Appendix B - the NOI to prepare this SEIS;
- Appendix C - a list of individuals and organizations who were sent a copy of the Draft and Final SEIS;
- Appendix D - Installation Restoration Program (IRP) site profiles;
- Appendix E - a description of the methods used to evaluate the impacts of property reuse on resources of the local community and the environment;
- Appendix F - a list of current permits held by the Air Force and New York Air National Guard for the airfield property at Griffiss AFB;
- Appendix G - the Air Force's policy for management of asbestos-containing material (ACM) and Lead-Based Paint at closing bases;
- Appendix H - a detailed description of issues and assumptions related to noise impacts;
- Appendix I - an air emissions inventory; and
- Appendix J - influencing factors and environmental impacts by land use category;

## 1.7 FEDERAL PERMITS, LICENSES, AND CERTIFICATES

Federal permits, licenses, and certificates that may be required by recipients of airfield property at Griffiss AFB for purposes of redevelopment are presented in Table 1.7-1.

Table 1.7-1

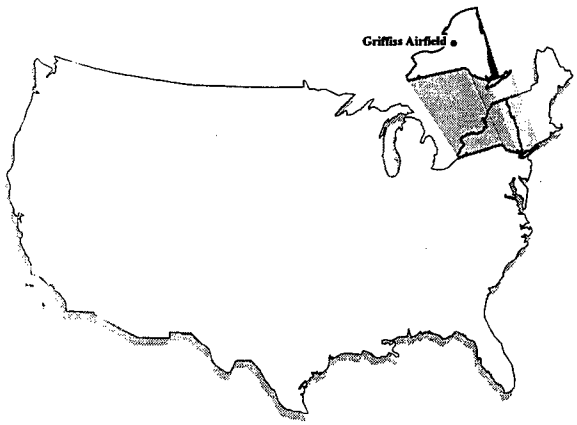
Federal Permits, Licenses, and Certificates Potentially Required for Reusers or Developers of Disposed Airfield Property at Griffiss AFB

| Federal Permit, License, or Certificate | Typical Activity, Facility, or Category of Persons Required to Obtain the Federal Permit, License, or Certificate | Authority | Regulatory Agency |
|---|---|---|---|
| Title V Permit under the Clean Air Act, as amended by the 1990 Clean Air Act Amendments | Any major source (source that emits more than 100 tons per year of criteria pollutants in a nonattainment area for that pollutant or is otherwise defined in Title I of the Clean Air Act as a major source); affected sources as defined in Title IV of the Clean Air Act; sources subject to Section 111 regarding New Source Performance Standards; sources of air toxics regulated under Section 112 of the Clean Air Act; sources required to have new source or modification permits under Parts C or D of Title I of the Clean Air Act; and any other source designated by EPA regulations. | Title V of the Clean Air Act as amended by the 1990 Clean Air Act Amendments | EPA; New York State Department of Environmental Conservation |
| National Pollutant Discharge Elimination System (NPDES) Permit | Discharge of pollutant from any point source into waters of the United States.<br><br>Stormwater discharges associated with specified industrial activities or from medium and large municipal separate storm sewer systems. | Section 402 of Clean Water Act (added by Section 405 of the Water Quality Act of 1987); 33 USC § 1342; 40 CFR 122.2b | EPA; New York State Department of Environmental Conservation |
| Section 404 (Dredge and Fill) Permit | Any project activities resulting in the discharge of dredged or fill material into bodies of water, including wetlands, within the United States. | Section 404 of the Clean Water Act, 33 USC § 1344 | U.S. Army Corps of Engineers in consultation with EPA; New York State Department of Environmental Conservation |
| Industrial Waste Discharge Permit | Discharge of industrial wastewater into a publicly owned treatment works. | Section 54 of the Clean Water Act 33 USC § 1251; 40 CFR 403 | EPA; City of Rome |
| Underground Injection Control Permit | Owners or operators of certain types of underground injection wells. | Section 1424 of the Safe Drinking Water Act, 42 USC § 300h-3; 40 CFR 144 | EPA; New York State Department of Environmental Conservation |

**Table 1.7-1, Page 2 of 2**

| Federal Permit, License, or Certificate | Typical Activity, Facility, or Category of Persons Required to Obtain the Federal Permit, License, or Certificate | Authority | Regulatory Agency |
|---|---|---|---|
| Hazardous Waste Treatment, Storage, or Disposal (TSD) Facility Permit | Owners or operators of a new or existing hazardous waste TSD facility. | Section 3005 of the Resource Conservation and Recovery Act as amended, 42 USC § 6925; 40 CFR 270 | EPA; New York State Department of Environmental Conservation |
| Antiquities Permit | Excavation and/or removal of archaeological resources from public lands or Indian lands and carrying out activities associated with such excavation and/or removal. | Archaeological Resource Protection Act of 1979, 16 USC § 470cc | U.S. Department of the Interior, National Park Service |
| Endangered Species Act Section 10 Permit | Taking endangered or threatened wildlife species; engaging in certain commercial trade of endangered or threatened plant species or removing such species from property subject to federal jurisdiction. | Section 10 of Endangered Species Act, 16 USC § 1539; 50 CFR 17, Subparts C,D,F, and G | U.S. Department of the Interior, Fish and Wildlife Service |
| Airport Operating Certificate | Operating an airport serving any scheduled or unscheduled passenger operation of air carrier aircraft designed for more than 30 passengers. | Federal Aviation Act of 1958, 49 USC App. § 1432 | U.S. Department of Transportation, Federal Aviation Administration |

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# CHAPTER 2.0
# ALTERNATIVES INCLUDING THE PROPOSED ACTION

# 2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

## 2.1 INTRODUCTION

This chapter includes a description of the Proposed Action, two reasonable alternatives to the Proposed Action, and the No-Action Alternative. Other future actions in the region that could contribute to cumulative impacts, in combination with reuse of the airfield property at Griffiss Air Force Base (AFB), are briefly described.

An Air Force Base Conversion Agency (AFBCA) Operating Location, OL-X, was established at Griffiss AFB prior to realignment of the base in September 1995. The responsibilities of the OL-X include managing post-realignment activities including managing a caretaker force to maintain Air Force-controlled properties, and serving as the Air Force local liaison to the Griffiss Local Development Corporation (GLDC) until transfer of the Air Force-controlled property has been completed. For the purpose of environmental analysis, it was assumed that the OL-X and caretaker force consists of approximately 100 people, comprised of 10 Air Force employees and 90 non-Federal supporting personnel. The OL-X, as used in this document, may refer to either the AFBCA or non-Federal personnel working for them.

The airfield property as identified under the 1995 Base Realignment and Closure Commission (BRAC IV) and used for analysis in this Supplemental Environmental Impact Statement (SEIS), totaling approximately 1,680 acres, consists of a large contiguous land parcel and several smaller non-contiguous parcels (Figure 1.1-1). These parcels include the following:

- A 1,656-acre parcel consisting of the airfield portion of Griffiss AFB that includes Runway 15/33 and most of the associated taxiways, various airfield navigation instruments and support structures, all or portions of several large buildings (e.g., Buildings 100, 101, 150, 220, 221, and 782), and several smaller buildings and structures. An area that includes a small support building and several large antennas adjacent to the northwest portion of this parcel will be retained for continued use by the Northeast Air Defense Sector (NEADS);

- Building 15, a 4,415-square-foot aircraft refueling vehicle maintenance shop, and surrounding parking areas located in the central portion of the base west of Apron 1;

- Facility N801, a 1-acre Federal Aviation Administration (FAA) Radar Approach Control (RAPCON) facility located south of the west end of Taxiway 17. The facility includes a 1,500-square-foot building and a large sweep antenna mounted on a metal support structure;

- The 10-acre Bulk Fuel Storage Area located south of State Route 49 and north of the New York State Barge Canal. This area includes three large aboveground storage tanks (630,000 gallons each), a liquid fuel pumping station (Building 654), and several truck fill stands;

- Communications Site No. 1, a 2.5-acre receiver site located approximately 0.5 mile east of the Weapons Storage Area and the eastern base boundary. The site includes a 1,025-square-foot building (Building 805), an antenna structure; and surrounding open space area; and

- Communications Site No. 2, a 9.6-acre transmitter site located approximately 2.5 miles northwest of the north end of Runway 15/33. The site includes a 2,800-square-foot building (Building 800), six antenna structures, and surrounding open space area.

These areas and associated buildings and facilities have been used by New York Air National Guard (NYANG) for maintaining a Minimum Essential Airfield since the realignment of the base in September 1995. Activities performed by the NYANG have included airfield management, air traffic control, servicing of aircraft, grounds and pavement maintenance, and fuel and deicing fluid storage and distribution.

The Proposed Action for reuse of the airfield property considered in this SEIS would include development of an international air freight hub, an aircraft maintenance facility, and a commercial airport. Development of a commercial airport would involve relocation of commercial, air cargo, and general aviation operations from Oneida County Airport.

As used in this SEIS, these operations are defined as follows:

**Commercial aircraft operations** - Aircraft activity licensed by a State or Federal authority to transport passengers and/or cargo for hire on a scheduled or nonscheduled basis;

**Air cargo operations** - The movement of mail, packages, freight, etc. exclusively (i.e., does not involve scheduled or ticketed passenger service); and

**General aviation** - All other civilian operations, such as business (e.g. Lear jets), commercial (e.g. crop dusting), instructional, and personal/pleasure flying.

The Proposed Action would also include aviation support, industrial, recreational, and agricultural uses. Some of the airfield property would be left as open space.

A second aviation alternative considered in this SEIS is that of a private airfield operation in case the Oneida County government does not agree to relocate the County airport to Griffiss Airfield. With this alternative, Griffiss Airfield would be marketed for air cargo operations, aircraft maintenance operations, and some general aviation. Other land uses, such as industrial, recreational, and agricultural uses, would be similar to those identified for the Proposed Action.

Another reasonable alternative to the Proposed Action (i.e., the Nonaviation Alternative) was developed to provide an analysis of a range of potential reuses of the airfield property. This alternative contains elements similar to the Proposed Action, but does not include reuse of any of the airfield property for aviation purposes. The Nonaviation Alternative would include commercial (office/research and development [R&D]), industrial, manufacturing, recreational, and agricultural uses. Some of the property would also be left as open space.

The Proposed Action and other alternatives for the reuse and disposal of the airfield property were developed based on a Master Reuse Strategy prepared by the Griffiss Redevelopment Planning Council (GRPC) in 1995 for reuse of Griffiss AFB (Hamilton, Rabinovitz & Altschuler *et al.* 1995) and the proposals for reuse of the airfield made by GLDC in 1997 and 1998 (Syracuse University 1997, 1998). That master planning effort considered the entire base property with regard to developing various reuse scenarios, but the focus of the effort was on areas of the base property that would not be retained by the U.S. Government and areas where specific government-retained uses (e.g., the Rome Laboratory facilities and the airfield) could be used as a foundation for developing reuse scenarios.

*The Master Reuse Strategy for Griffiss Air Force Base* identifies seven distinct development districts, collectively known as Griffiss Business and Technology Park, as shown in Figure 2.1-1. The remaining areas of the base property not retained by the U.S. Government were designated to be left as open space. The development districts include:

- Rome Lab/R&D Campus - for development of professional office and R&D activities in conjunction with the government-retained Rome Laboratory and Defense Finance and Accounting Services Center facilities;

- Industrial Development - for development of large-scale manufacturing and processing operations;

- Manufacturing Complex - for development of aviation-related operations such as air cargo and aircraft maintenance, and a variety of manufacturing operations;

- Corporate Development - for development of a corporate office park or similar high-profile business complex;

- Business Complex - a complex of existing buildings for small business use;

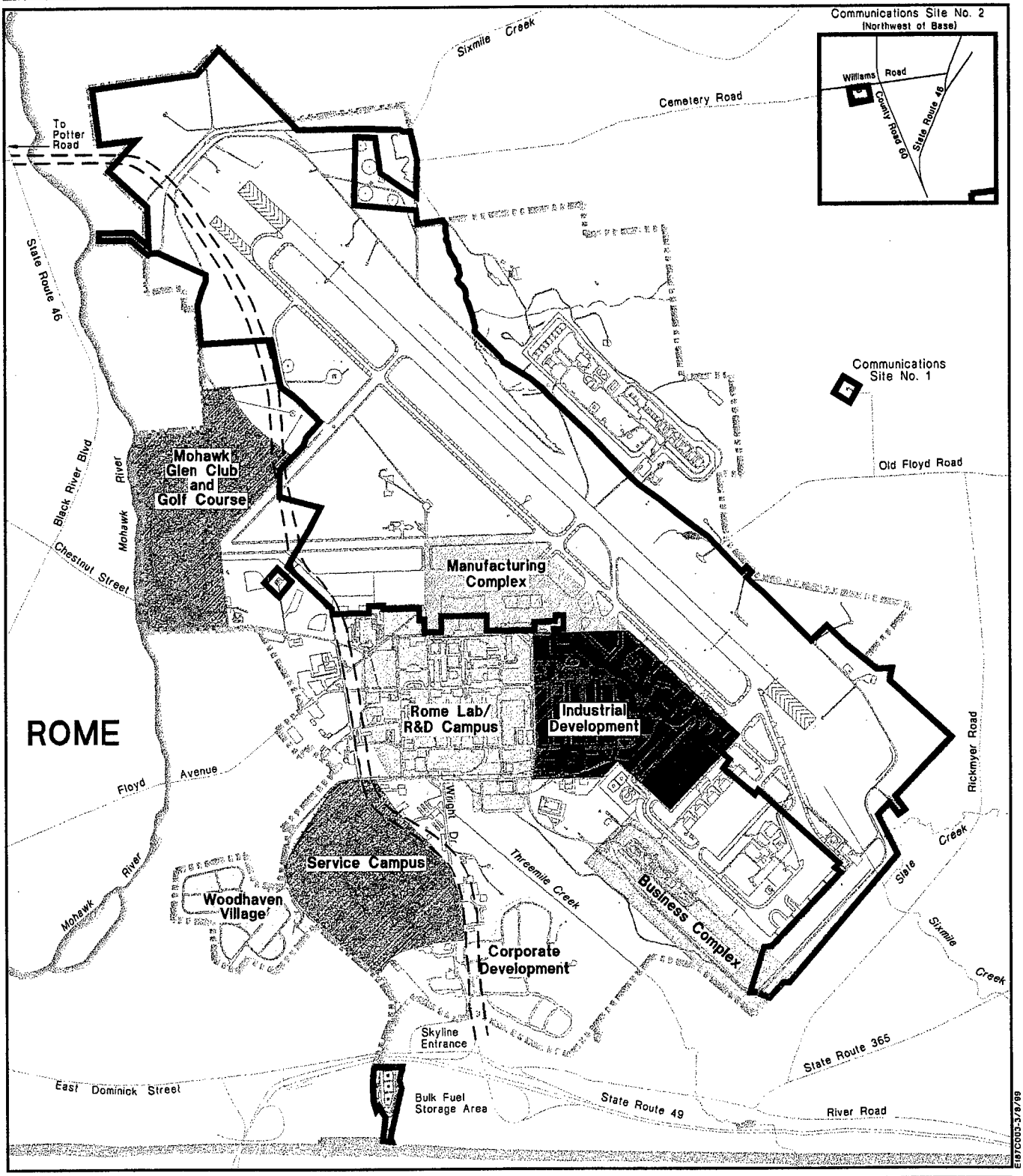
- Service Campus - for education, training, and conference activities. An extension of this district includes the Mohawk Glen Club and surrounding 9-hole golf course; and

- Woodhaven Village - a complex of single-family homes.

These development districts differ from the Air Force land use categories in Section 2.2 and Section 2.3 to describe future land uses on the airfield property. The GLDC land use categories are provided in the text and in the figures for illustration purposes only. It should be noted that in Figure 2.1-1 portions of some of the development districts overlap with the airfield property that is considered in this SEIS because the master plan was developed prior to final decisions being made on the exact land and buildings to be retained by the U.S. Government following realignment of Griffiss AFB in September 1995. In addition, the master plan is conceptual in nature and reflects the long-term goals for redevelopment of the Griffiss AFB property by the local community.

Although use of the airfield and flightline portions of the base were not specifically considered in developing the master reuse strategy in 1995 because the airfield was to be retained by the Department of Defense (DOD), the master planning effort did include an assessment of the physical characteristics of the airfield and the potential aviation markets associated with air cargo, aircraft maintenance, and scheduled passenger service. This assessment, and a subsequent feasibility study addressing development of an international air freight hub at the Griffiss Business and Technology Park prepared by the Syracuse University School of Management (Syracuse University 1997, 1998), were considered in developing the aviation-related components of the Proposed Action and the Private Airfield Alternative, and the Air Force land use categories have been assigned to be compatible with the GLDC development districts.

A number of other factors were also considered in the development of the Proposed Action and alternatives. Real estate market conditions in the Rome area, as described in the Master Reuse Strategy, were evaluated to assess the feasibility of future reuse options. Special consideration was given to the adaptation of existing facilities available for reuse. The layout of existing facilities within the airfield property, and their current and potential use, were also considered. Demolition or removal of some facilities would occur with the Proposed Action and both alternatives. Various environmental factors were considered in designating specific land use types and potential reuses, particularly surface water features and wetlands on and near the airfield




**LEGEND**

- Base Boundary
- Airfield Property
- Proposed Parkway Corridor

SCALE IN FEET
0 1000 2000

# Griffiss Business and Technology Park Development Districts

**Figure 2.1-1**

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property, and an old landfill east of the runway and west of Perimeter Road. In addition, constraints and opportunities provided by the infrastructure (particularly the airfield facilities) on and surrounding the airfield property were also considered.

The status of the Installation Restoration Program (IRP) (the Air Force program to identify, characterize, and clean up environmental contamination on its installations) at Griffiss AFB was considered in developing the land use plans for the Proposed Action and other alternatives; specifically, the effect that pending IRP remedial action decisions may have on the viability of reuses. IRP remedial actions within the airfield property may result in identifying possible lease and/or deed restrictions, or limiting reuse options and the timing of development to some degree (e.g., a temporary lease to allow access to specific sites such as monitoring wells may be required while the remainder of the site is developed for reuse). A recent amendment to the Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) Section 120(h) provides that federal property may be transferred by deed without a covenant warranting that all necessary remedial action has been taken if the EPA Administrator, with the concurrence of the Governor of the State, defers that requirement, finds the property to be suitable for transfer, and determines that appropriate provisions are in place to ensure the necessary remedial action will be completed after the deed transfer. In this case, a covenant is provided to property recipients at a later stage. Reuses in areas with IRP sites need to be compatible with selected remedial actions; therefore, compatible land uses for areas containing IRP sites were considered in the development of the land use plan for each alternative. Each reuse alternative is conceptual in nature, and represents generalized designations of potential future land uses based on development opportunities provided by the existing facilities and current and projected market conditions. To analyze potential environmental impacts, various assumptions were made for each reuse alternative for the purpose of analysis in this SEIS, including:

- Total acreage and layout for the proposed land uses;
- Extent of construction and/or demolition activities required;
- Acreage of ground disturbance resulting from construction and/or demolition activities;
- Employment and population projections through 2016 for the Rome area and Oneida County;
- Traffic generation and daily trip projections through 2016;
- Proposed transportation improvements;
- Utility requirement projections through 2016; and

- Phasing plans for the reuse of the remainder of the Griffiss AFB property through 2016.

Details regarding the development of these assumptions and impact/modeling methodologies used are presented in Appendix E, Methods of Analysis. Specific assumptions developed for individual alternatives are identified in the discussion of each reuse proposal in Sections 2.2 and 2.3.

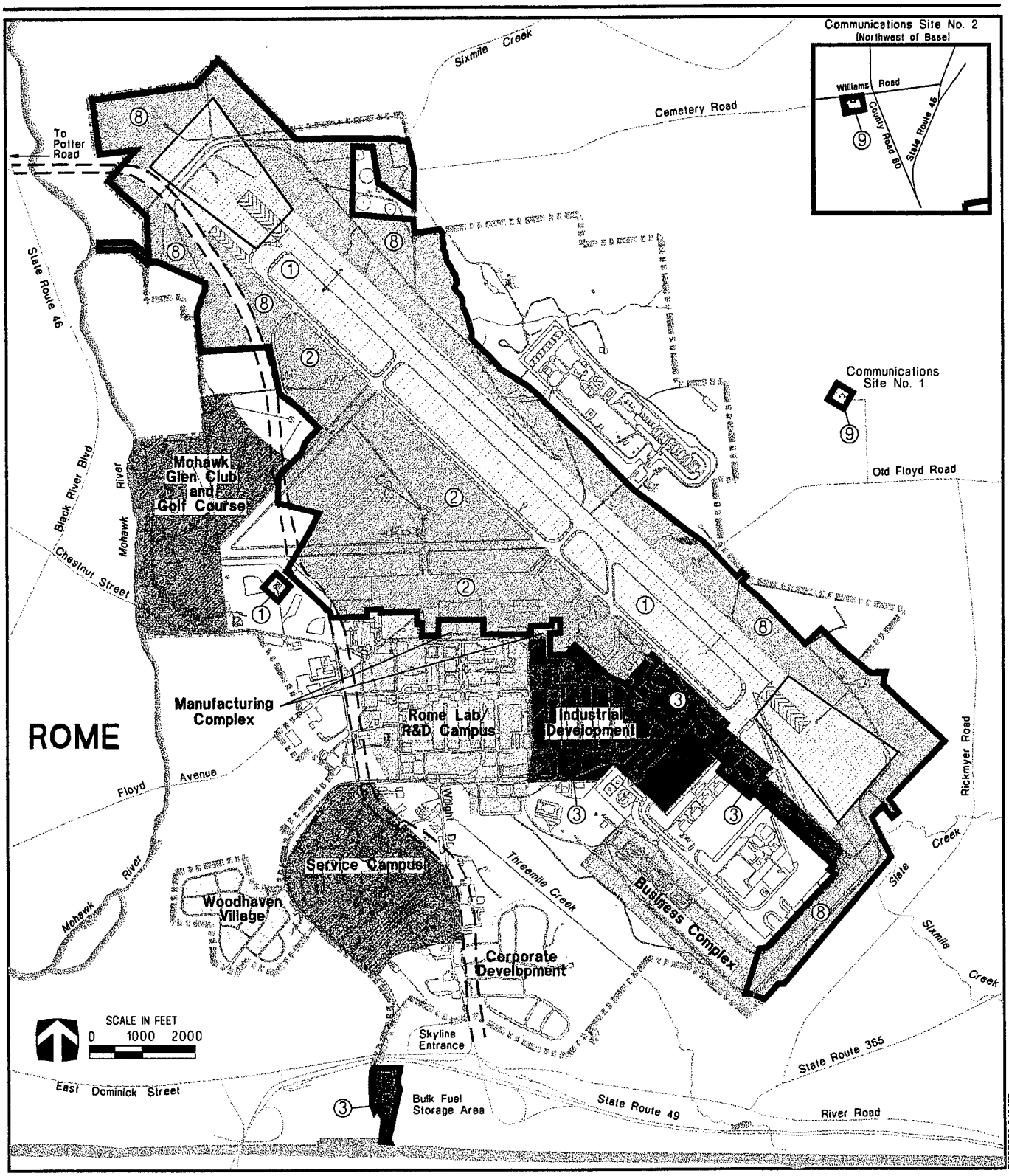
In general, the results of the environmental analyses are presented in this SEIS for the years 2001, 2006, and 2016, reflecting the years considered in the environmental analyses presented in the 1995 Final EIS for the disposal and reuse of Griffiss AFB (U.S. Air Force 1995a). This allows a comparative analysis between the previously proposed and currently proposed reuse alternatives and the potential environmental impacts.

## 2.2 DESCRIPTION OF THE PROPOSED ACTION

Section 2905(b)(2)(E) of the Defense Base Closure and Realignment Act (DBCRA) requires the Secretary of Defense, as part of the disposal process, to consult with the applicable governor, heads of local governments, and equivalent political organizations to consider any plan for the use of base property by the concerned local community. DOD policy is to encourage timely community reuse planning by offering to use the community's plan for reuse or development of land and facilities as the Proposed Action in the EIS.

The Proposed Action would involve development of an international air freight hub, an aircraft maintenance facility, and a commercial airport (Figure 2.2-1). All commercial, air cargo, and general aviation operations currently based at Oneida County Airport are assumed to be relocated to the Griffiss AFB property. Areas adjacent to the airfield would be used for aviation support uses, including air cargo hub and aircraft maintenance facilities and construction of a passenger terminal complex. Industrial land uses are proposed for the area west of the southern end of the runway and the Bulk Fuel Storage Area. The remainder of the airfield property would be used as either open space or for agricultural uses. The total acreage of each land use category is summarized in Table 2.2-1. The acreage values used in this SEIS are approximate and rounded to the nearest whole number.

The amount of development within each land use category assumed to occur with the Proposed Action, including existing facility demolition and retention and new facility construction, is summarized in Table 2.2-2. With the Proposed Action, approximately 57,400 square feet of existing buildings would be demolished and 565,200 square feet would be retained for reuse. The total square footage of floor space retained for reuse includes only portions of the two largest buildings (Buildings 100 and 101). Portions of these buildings are being used by Rome Labs. The reuse of the portions of Buildings 100 and 101 not being used by Rome Labs was analyzed in the




**LEGEND**

- ① Airfield
- ② Aviation Support
- ③ Industrial
- ④ Manufacturing*
- ⑤ Institutional* (Education & Medical)
- ⑥ Commercial* (Office/R&D)
- ⑦ Residential*
- ⑧ Public/Recreational/ Open Space
- ⑨ Agricultural
- Base Boundary
- Airfield Property
- Proposed Parkway Corridor
- Runway Protection Zone

The land uses outside of the airfield property are shown for illustration purposes only. The colors do not correspond to the airfield property land uses.
*Land uses not included in this alternative

## Proposed Action

**Figure 2.2-1**

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Table 2.2-1

Land Use Acreage - Proposed Action

| Land Use | Acres |
|---|---|
| Airfield | 605 |
| Aviation Support | 425 |
| Industrial | 77 |
| Public/Recreational/ Open Space | 561 |
| Agricultural | 12 |
| **Total:** | **1,680** |

Table 2.2-2

Facility Development - Proposed Action
(square feet)

| Land Use | Existing Facility Demolition[1] | Existing Facility Retention | New Facility Construction |
|---|---|---|---|
| Airfield | 533 | 9,093[2] | 0 |
| Aviation Support | 790 | 528,034[3] | 112,000 |
| Industrial | 6,232 | 28,039 | 110,000 |
| Public/Recreational/Open Space | 46,000 | 0 | 0 |
| Agricultural | 3,830 | 0 | 0 |
| **Total:** | **57,385** | **565,166** | **222,000** |

Notes: [1]Estimates based on projected demolition requirements in the Master Reuse Strategy for Griffiss Air Force Base.
[2]Includes FAA RAPCON Facility (Bldg. N801).
[3]Assumes 50 percent of the square footage for Building 101 (470,532 sq ft) is included within the airfield property and available for reuse.

1995 EIS as part of the base closure. All other demolition and retention for reuse would occur in buildings wholly within the airfield property. In addition, approximately 222,000 square feet of new floor space would be constructed by 2016.

It was assumed that full facility development, as outlined in Table 2.2-2, would occur within each land use category by 2016 so that worst-case environmental effects could be analyzed. In addition, it was assumed that all demolition and 21 percent of new construction would occur by 2001; an additional 50 percent by 2006; and the remaining 29 percent by 2016. The acreage by land use category anticipated to be disturbed by demolition or construction of facilities, infrastructure improvements, or other operational activities is presented in Table 2.2-3 for the three phases of development analyzed in this SEIS.

Table 2.2-3

Acres Disturbed by the Proposed Action

| Land Use | Acres Disturbed by Phase | | | Total |
|---|---|---|---|---|
| | 1999-2001 | 2001-2006 | 2006-2016 | |
| Airfield | 0 | 0 | 0 | 0 |
| Aviation Support | 1 | 1 | 1 | 3 |
| Industrial | 2 | 5 | 3 | 10 |
| Public/Recreational/Open Space | 12 | 0 | 0 | 12 |
| Agricultural | 1 | 0 | 0 | 1 |
| **Total:** | **16** | **6** | **4** | **26** |

### 2.2.1 Airfield

The airfield land use category consists of approximately 605 acres and includes Runway 15/33, the main taxiway parallel to the runway (Taxiway 8) and the cross taxiways, the Runway Protection Zones at the ends of the runway, the various navigation aids located adjacent to the runway, the RAPCON facility (Facility N801), and the control tower (Building 504) at the east end of Building 100. The airfield would be converted to a civil airport and be used only by commercial, air cargo, and general aviation aircraft. All military use of the airfield would cease. Several small facilities not required for civilian air operations would be removed or demolished.

With the Proposed Action, all aircraft operations and other activities at Oneida County Airport would be relocated to Griffiss AFB. It was assumed that the airport would be operational by 2001 for some international air freight and aircraft maintenance operations and a portion of the general aviation operations from Oneida County Airport. By 2006, the airport would be fully operational for commercial, air cargo, aircraft maintenance, and general aviation operations. The projected flight operations for the relocated Oneida County Airport, the international air freight hub, and aircraft maintenance are presented in Table 2.2-4. This forecast assumes a baseline forecast in terms of airport operations with slight growth of 0.5 percent annually through 2016. Based on these assumptions, total airport operations at Griffiss AFB would be approximately 36,600 in 2001, 74,330 in 2006, and 78,550 in 2016.

A conceptual plan for the civilian use of aviation facilities at the Griffiss AFB airfield will be developed and provided in an Airport Layout Plan (ALP), to be submitted by the GLDC and Oneida County to the FAA in accordance with Federal Aviation Administration (FAA) Advisory Circular YI 150/5300-13, *Airport Design* (U.S. Department of Transportation, Federal Aviation Administration 1989). The plan will include a layout of the elements (e.g., dimensions, separations, and clearances) of the airfield to allow operation of

all commercial aircraft. The airfield, as designed and in its current condition, is capable of handling wide-body, heavy-lift aircraft, such as the Boeing 747. With the Proposed Action, Air Force Installation Compatible Use Zone (AICUZ) guidelines would be replaced by FAA land use compatibility criteria outlined in FAA Advisory Circulars. Changing from military to civil aircraft operations would result in a modification of the current AICUZ clear zones and accident potential zones (APZs) for the Runway 15/33 (see Section 3.2.2.1, Land Use). A civil airport would require the application of FAA airport design and safety criteria, which differ from DOD criteria and guidelines.

**Table 2.2-4**

**Projected Flight Operations - Proposed Action[1]**

| Year | Operations | Function | Fleet Mix | Annual Operations[2] |
|---|---|---|---|---|
| 2001[3] | Air Passenger | Air Carrier | Jet aircraft | 1,059 |
| | | Air Taxi | Twin-engine aircraft | 7,411 |
| | General Aviation | Business/Private | Single-engine aircraft | 18,775 |
| | | | Twin-engine aircraft | 8,046 |
| | Air Freight | | Jet aircraft (heavy) | 520 |
| | | | Jet aircraft | 520 |
| | Aircraft Maintenance | | Jet aircraft (heavy) | 270 |
| | | | **Total:** | **36,601** |
| 2006 | Air Passenger | Air Carrier | Jet aircraft | 2,171 |
| | | Air Taxi | Twin-engine aircraft | 15,197 |
| | General Aviation | Business/Private | Single-engine aircraft | 38,499 |
| | | | Twin-engine aircraft | 16,500 |
| | Air Freight | | Jet aircraft (heavy) | 520 |
| | | | Jet aircraft | 1,040 |
| | Aircraft Maintenance | | Jet aircraft (heavy) | 400 |
| | | | **Total:** | **74,327** |
| 2016 | Air Passenger | Air Carrier | Jet aircraft | 2,282 |
| | | Air Taxi | Twin-engine aircraft | 15,975 |
| | General Aviation | Business/Private | Single-engine aircraft | 40,468 |
| | | | Twin-engine aircraft | 17,343 |
| | Air Freight | | Jet aircraft (heavy) | 1,040 |
| | | | Jet aircraft | 1,040 |
| | Aircraft Maintenance | | Jet aircraft (heavy) | 400 |
| | | | **Total:** | **78,548** |

Notes: [1]Half of all aircraft operations are assumed to be landings and the other half, takeoffs.
[2]Growth rate for airport operations through the year 2016 are based on a 0.5 percent average annual growth rate provided as the baseline conservative forecast in the *Commercial Air Service Potential at Griffiss AFB* (SH&E 1994).
[3]Assumes total regional aviation operations at Griffiss AFB in 2001 would be 50 percent of the projected 2001 Oneida County Airport operations.

The FAA Runway Protection Zone (RPZ) at each end of the runway would be a fan-shaped area beginning 200 feet from the runway threshold (Figure 2.2-1). The dimensions of the RPZ are based on functions of the aircraft that would use the runway, the type of operations, and visibility minimums. For a precision instrument approach runway, the RPZ extends 2,500 feet from a point 200 feet beyond the end of the runway (i.e., the runway threshold), and has an inner width (near the runway) of 1,000 feet and an outer width of 1,750 feet. The FAA RPZ would be approximately 125 acres smaller than the current AICUZ clear zone (i.e., a 3,000-foot by 3,000-foot area extending from the end of the runway).

### 2.2.2 Aviation Support

The Proposed Action includes approximately 425 acres designated for aviation support uses. Typical civilian aviation support land uses include passenger terminals, commercial aviation facilities, general aviation facilities, air cargo facilities, and aviation training facilities. The area along the runway would be used for construction of a new passenger terminal complex, which would include a terminal building, associated aircraft parking areas, automobile parking areas, rental car facilities and parking, and access roads. This area will also be used for the development of the international air freight hub.

Buildings south of Taxiway 17 and the surrounding aprons areas could be used to support air freight and aircraft maintenance activities as well as for general aviation Fixed-Based Operator (FBO) and flight school operations (e.g., aircraft parking aprons, hangars, maintenance facilities, and offices). Additional aviation support area may be necessary and would be dependent on the Airport Master Plan which will be prepared by Oneida County.

### 2.2.3 Industrial

Industrial uses are proposed for approximately 77 acres in three separate areas of the airfield property. Typical civilian industrial uses include industrial parks and warehousing. The Building 15 parcel would be incorporated into the existing master plan Industrial Development District. This building could be reused for automotive-related uses or other industrial activities requiring a maintenance facility, or continue as a refueling vehicle maintenance facility in support of the airfield. The Bulk Fuel Storage Area could be reused as a petroleum storage and distribution facility or converted to another heavy industrial use to take advantage of its proximity to the New York State Barge Canal, the Buckeye Pipeline, and State Route 49.

The area west of the southern end of Runway 15/33 is also designated for industrial uses. This area would be incorporated into the existing Industrial Development District identified as part of the Griffiss Business and Technology Park and used for development of large-scale manufacturing and

processing operations. Several small recreation structures and a refueling station in this area would be demolished or removed.

### 2.2.4 Manufacturing

There would be no manufacturing land uses with the Proposed Action.

### 2.2.5 Institutional

There would be no institutional land uses with the Proposed Action.

### 2.2.6 Commercial

There would be no commercial land uses with the Proposed Action. While air cargo facilities and associated warehouses can be viewed as commercial uses, these uses have been addressed as aviation support use because of the connection with the airfield.

### 2.2.7 Residential

There would be no residential land uses with the Proposed Action.

### 2.2.8 Public/Recreational/Open Space

Approximately 561 acres are proposed for public/recreational/open space uses. All of the areas designated with this land use would be maintained as open space. Some buildings in this area may be used in the interim for FBO and general aviation uses.

### 2.2.9 Agricultural

The two communications sites, which would no longer be necessary for airfield operations under FAA rules, are designated for agricultural uses (approximately 12 acres). Communications Site No. 1 and the access road to it are located in the middle of a large agricultural field. Communications Site No. 2 is bordered on the south and east by agricultural fields. The existing buildings, structures (e.g., antennas), and fencing at each site would be removed.

### 2.2.10 Vacant Land

None of the land is designated vacant for the Proposed Action.

### 2.2.11 Employment and Population

Approximately 1,140 direct jobs and 480 secondary jobs would be generated by 2016 with the Proposed Action. Ninety percent of this work force would be expected to live in Oneida County. A peak of approximately 18 direct,

short-term, construction-related jobs would be generated in 2001. Estimated employment following closure of the airfield, and in 2001, 2006, and 2016 with reuse of the airfield property, is presented in Table 2.2-5. If the Proposed Action is implemented, the forecasted employment related to reuse is expected to result in the inmigration of approximately 1,650 persons into the region by 2016.

**Table 2.2-5**

**Reuse-Related Employment and Population**
**Proposed Action**

| | Year | | | |
|---|---|---|---|---|
| | **1999** | **2001** | **2006** | **2016** |
| Direct Employment | | | | |
| Construction/Demolition | 14 | 18 | 11 | 0 |
| Operations | 172 | 286 | 772 | 1,144 |
| **Total:** | **186** | **304** | **783** | **1,144** |
| Secondary Employment | 90 | 141 | 346 | 480 |
| Population Change | 86 | 159 | 703 | 1,654 |

### 2.2.12 Transportation

Based on land use and employment projections, average daily traffic would increase by approximately 2,720 vehicle trips in 2001 to about 6,510 vehicle trips by 2016 if the Proposed Action is implemented. The Proposed Action assumes construction of a new parkway to link State Route 49 to the south to Floyd Avenue, Mohawk Drive, and areas north of Rome via State Route 46 and Potter Road to facilitate overall traffic flow in the area. This parkway is described more fully in Section 2.6, Other Future Actions in the Region. Construction of the parkway is a component of the Griffiss Business and Technology Park, and segments of the road would cross through the western portion of the airfield property (Figure 2.2-1).

### 2.2.13 Utilities

By 2016, the projected reuse of the airfield property at Griffiss AFB with the Proposed Action would generate the following onsite utility demand:

- Water - 0.037 million gallons per day (MGD);
- Wastewater - 0.029 MGD;
- Solid Waste - 2.12 tons per day;
- Electricity - 24.77 megawatt-hours (MWh) per day; and
- Natural Gas - 0.76 thousand therms per day.

By 2016 the following utility demand would be generated in Oneida County with the Proposed Action and associated population increases:

- Water - 0.237 million gallons per day (MGD);
- Wastewater - 0.229 MGD;
- Solid Waste - 2.96 tons per day;
- Electricity - 68.09 megawatt-hours (MWh) per day; and
- Natural Gas - 2.04 thousand therms per day.

No major utility system improvements have been identified for the Proposed Action.

## 2.3 DESCRIPTION OF ALTERNATIVES

Two reuse alternatives, a Private Airfield Alternative and a Nonaviation Alternative, have been identified for analysis and are described in this section. The No Action Alternative is also described. With the Private Airfield Alternative, the airfield property at Griffiss AFB would be operated as a private entity with no support from the FAA. Air freight operations and aircraft maintenance operations would be the principal activities at the airfield, although some general aviation would also be allowed. With the Nonaviation Alternative, use of the airfield for flying operations would be terminated and the airfield would be converted to nonaviation uses. For the No-Action Alternative, the airfield property would be retained by the U.S. Government and kept in a caretaker status.

### 2.3.1 Private Airfield Alternative

The Proposed Action is based on the assumption that the Oneida County Airport would be relocated to the Griffiss airfield property. It is possible that the Oneida County government may not agree to relocate the County airport to the Griffiss airfield property. For this reason, it was considered prudent to explore another aviation alternative, that of a private airfield operation, with the Oneida County Airport remaining in place (Figure 2.3-1). No funds from the Federal Airport Improvement Program (AIP) would be used. With this alternative, the airfield property would be marketed for international air cargo operations, aircraft maintenance operations, and general aviation. Non-aviation land uses, such as industrial and public/recreational/open space, would be similar to those identified for the Proposed Action. The total acreage of each land use category is summarized in Table 2.3-1.

The amount of development within each land use category assumed to occur with this alternative, including existing facility demolition and retention and new facility construction, is summarized in Table 2.3-2. With this alternative, approximately 57,400 square feet of existing buildings would be demolished and 565,200 square feet would be retained for reuse. Approximately 160,000 square feet of new floor space would be constructed by 2016.

It was assumed that full facility development, as outlined in Table 2.3-2, would occur within each land use category by 2016. In addition, it was assumed that all demolition and 22 percent of new construction would

occur by 2001; an additional 43 percent by 2006; and the remaining 35 percent by 2016. The acreage by land use category anticipated to be disturbed by demolition or construction of facilities, infrastructure improvements, or other operational activities is presented in Table 2.3-3 for the three phases of development analyzed in this SEIS.

#### 2.3.1.1 Airfield

The airfield land use category consists of approximately 605 acres and includes Runway 15/33, the main taxiway parallel to the runway (Taxiway 8) and the cross taxiways, and the Runway Protection Zones at the ends of the runway. The various navigation aids located adjacent to the runway, the RAPCON facility (Facility N801), and the control tower (Building 504) at the east end of Building 100 may not be operated by the FAA, but could be contracted out to a private party as a Non-Federal Tower. The airfield would be converted to a private airport and be used only for the air cargo and aircraft maintenance operations and some general aviation activity.

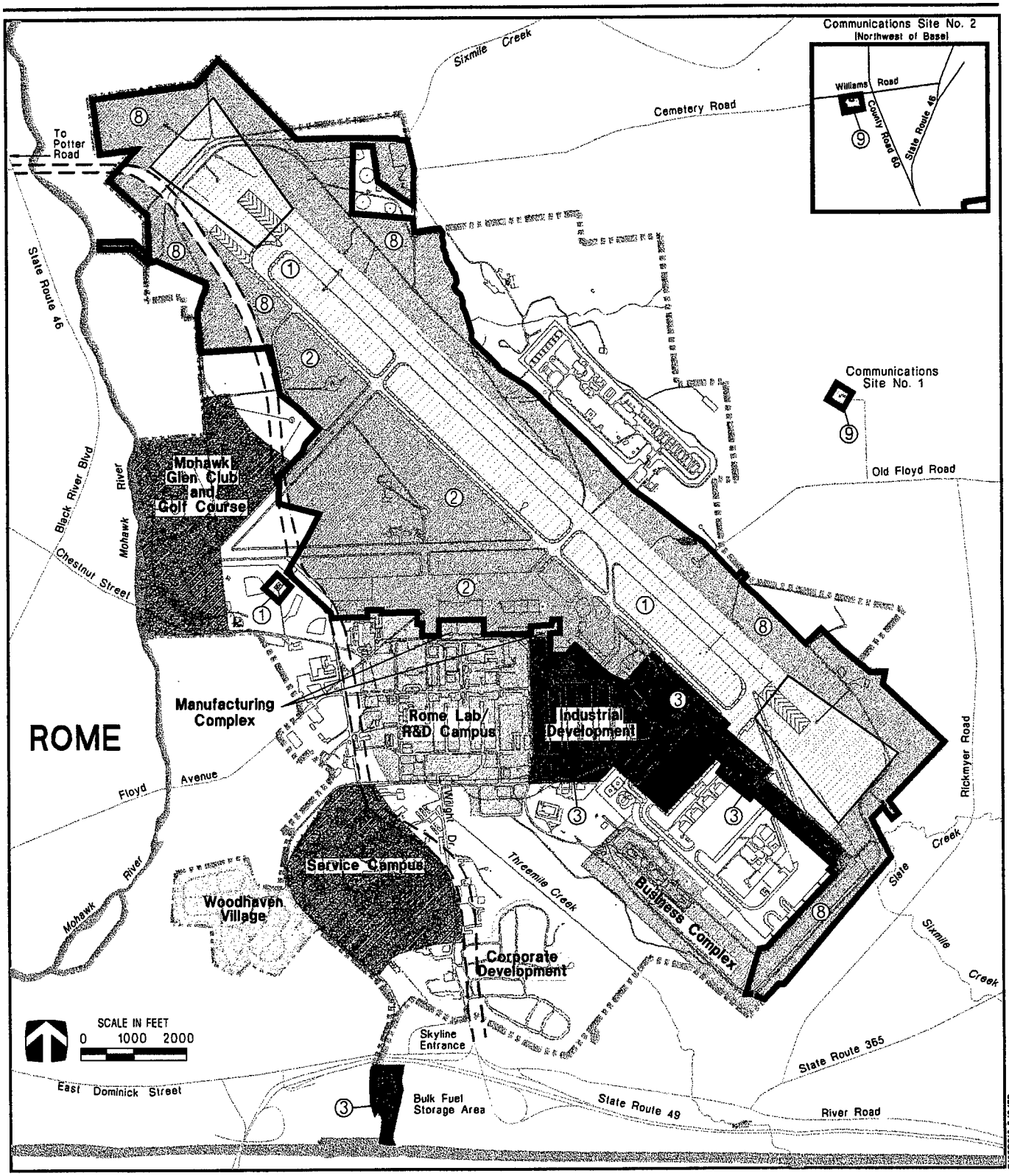
With the Private Airfield Alternative, it was assumed that the airport would be operational by 2001 for some international air cargo and aircraft maintenance operations and general aviation. By 2006, the airport would be fully operational for air cargo, aircraft maintenance, and general aviation operations. The projected flight operations for this alternative are presented in Table 2.3-4. This forecast assumes a baseline forecast with a slight growth of 0.5 percent annually through 2016.

#### 2.3.1.2 Airfield Support

The Private Airfield Alternative includes approximately 425 acres designated for aviation support uses. The area along the runway will be used for the development of the international air cargo hub. Buildings south of Taxiway 17 and the surrounding aprons areas could be used to support air cargo and aircraft maintenance activities as well as for general aviation. Additional aviation support area may be necessary and would be dependent on the Airport Master Plan which will be prepared by Oneida County.

#### 2.3.1.3 Industrial

Industrial uses would be similar to those identified for the Proposed Action. Industrial uses are proposed for approximately 77 acres in three separate areas of the airfield property. The Building 15 parcel would be incorporated into the existing master plan Industrial Development District. This building could be reused for automotive-related uses or other industrial activities requiring a maintenance facility, or continue to be used as a refueling vehicle maintenance facility in support of the airfield. The Bulk Fuel Storage Area could be reused as a petroleum storage and distribution facility or converted to another heavy industrial use to take advantage of its proximity to the New York State Barge Canal, the Buckeye Pipeline, and State Route 49.




**LEGEND**

- ① Airfield
- ② Aviation Support
- ③ Industrial
- ④ Manufacturing *
- ⑤ Institutional * (Education & Medical)
- ⑥ Commercial * (Office/R&D)
- ⑦ Residential *
- ⑧ Public/Recreational/ Open Space
- ⑨ Agricultural

Base Boundary

Airfield Property

Proposed Parkway Corridor

Runway Protection Zone

The land uses outside of the airfield property are shown for illustration purposes only. The colors do not correspond to the airfield property land uses.

*Land uses not included in this alternative

# Private Airfield Alternative

**Figure 2.3-1**

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**Table 2.3-1**

**Land Use Acreage - Private Airfield Alternative**

| Land Use | Acres |
|---|---|
| Airfield | 605 |
| Aviation Support | 425 |
| Industrial | 77 |
| Public/Recreational/Open Space | 561 |
| Agricultural | 12 |
| **Total:** | **1,680** |

**Table 2.3-2**

**Facility Development - Private Airfield Alternative**
**(square feet)**

| Land Use | Existing Facility Demolition[1] | Existing Facility Retention | New Facility Construction |
|---|---|---|---|
| Airfield | 533 | 9,093[2] | 0 |
| Aviation Support | 790 | 528,034[3] | 50,000 |
| Industrial | 6,232 | 28,039 | 110,000 |
| Public/Recreational/Open Space | 46,000 | 0 | 0 |
| Agricultural | 3,830 | 0 | 0 |
| **Total:** | **57,385** | **565,166** | **160,000** |

Notes: [1]Estimates based on projected demolition requirements in the Master Reuse Strategy for Griffiss Air Force Base (Hamilton, Rabinovitz, and Auschler *et al.* 1995).
[2]Include FAA RAPCON facility (Bldg. N801).
[3]Assumes 50 percent of the square footage for Building 101 (470,532 sq ft) is included within the airfield property and available for reuse.

**Table 2.3-3**

**Acres Disturbed by the Private Airfield Alternative**

| | Acres Disturbed by Phase | | | |
|---|---|---|---|---|
| Land Use | 1998-2001 | 2001-2006 | 2006-2016 | Total |
| Airfield | 0 | 0 | 0 | 0 |
| Aviation Support | 0 | 1 | 0 | 1 |
| Industrial | 2 | 4 | 3 | 9 |
| Public/Recreational/Open Space | 12 | 0 | 0 | 12 |
| Agricultural | 1 | 0 | 0 | 1 |
| **Total:** | **15** | **5** | **3** | **23** |

**Table 2.3-4**

**Projected Flight Operations - Private Airfield Alternative***

| Year | Operations | Function | Fleet Mix | Annual Operations |
|---|---|---|---|---|
| 2001 | Air Freight | | Jet aircraft (heavy) | 520 |
| | | | Jet aircraft | 520 |
| | Aircraft Maintenance | | Jet aircraft (heavy) | 270 |
| | General Aviation | Business/Private | Single-engine aircraft | 4,694 |
| | | | Twin-engine aircraft | 2,012 |
| | | | **Total:** | **8,016** |
| 2006 | Air Freight | | Jet aircraft (heavy) | 520 |
| | | | Jet aircraft | 1,040 |
| | Aircraft Maintenance | | Jet aircraft (heavy) | 400 |
| | General Aviation | Business/Private | Single-engine aircraft | 9,625 |
| | | | Twin-engine aircraft | 4,125 |
| | | | **Total:** | **15,710** |
| 2016 | Air Freight | | Jet aircraft (heavy) | 1,040 |
| | | | Jet aircraft | 1,040 |
| | Aircraft Maintenance | | Jet aircraft (heavy) | 400 |
| | General Aviation | Business/Private | Single-engine aircraft | 10,117 |
| | | | Twin-engine aircraft | 4,336 |
| | | | **Total:** | **16,933** |

Note: *Half of all aircraft operations are assumed to be landings and the other half takeoffs.

The area west of the southern end of Runway 15/33 is also designated for industrial uses. This area would be incorporated into the existing Industrial Development District identified as part of the Griffiss Business and Technology Park and used for development of large-scale manufacturing and processing operations. Several small recreation structures and a refueling station in this area would be demolished or removed.

### 2.3.1.4 Manufacturing

There would be no manufacturing land use with this alternative.

#### 2.3.1.5 Institutional

There would be no institutional land uses with this alternative.

#### 2.3.1.6 Commercial

There would be no commercial land uses with the Proposed Action.

#### 2.3.1.7 Residential

There would be no residential land uses with this alternative.

#### 2.3.1.8 Public/Recreational/Open Space

Approximately 561 acres are proposed for public/recreational/open space uses. All of the areas designated with this land use would be maintained as open space. Some buildings in this area may be used in the interim for FBO and general aviation uses.

#### 2.3.1.9 Agricultural

The two communications sites, which would no longer be necessary for airfield operations under FAA rules, are designated for agricultural uses (approximately 12 acres). Communications Site No. 1 and the access road to it are located in the middle of a large agricultural field. Communications Site No. 2 is bordered on the south and east by agricultural fields. The existing buildings, structures (e.g., antennas), and fencing at each site would be removed.

#### 2.3.1.10 Vacant Land

None of the land is designated vacant for this alternative.

#### 2.3.1.11 Employment and Population

Approximately 1,070 direct jobs and 450 secondary jobs would be generated by 2016 with the Private Airfield Alternative. Ninety percent of this work force would be expected to live in Oneida County. A peak of approximately 13 direct, short-term, construction-related jobs would be generated in 2001. Estimated employment following closure of the airfield, and in 2001, 2006, and 2016 with reuse of the airfield property, is presented in Table 2.3-5. If the Private Airfield Alternative is implemented, the forecasted employment related to reuse is expected to result in the inmigration of approximately 1,545 persons into the region by 2016.

Table 2.3-5

**Reuse-Related Employment and Population**
**Private Airfield Alternative**

| | Year | | | |
|---|---|---|---|---|
| | **1999** | **2001** | **2006** | **2016** |
| Direct Employment | | | | |
| Construction/Demolition | 11 | 13 | 7 | 0 |
| Operations | 160 | 267 | 716 | 1,069 |
| **Total:** | **171** | **280** | **723** | **1,069** |
| Secondary Employment | 83 | 130 | 319 | 449 |
| Population Change | 79 | 147 | 649 | 1,545 |

### 2.3.1.12 Transportation

Based on land use and employment projections, average daily traffic would increase by approximately 1,480 vehicle trips in 2001 to about 3,790 vehicle trips by 2016 if the Private Airfield Alternative is implemented. The Private Airport Alternative also assumes construction of a new parkway to link State Route 49 to the south to Floyd Avenue, Mohawk Drive, and areas north of Rome via State Route 46 and Potter Road to facilitate overall traffic flow in the area. Construction of the parkway is a component of the Griffiss Business and Technology Park, and segments of the road would cross through the western portion of the airfield property (Figure 2.3-1).

### 2.3.1.13 Utilities

By 2016, the projected reuse of the airfield property at Griffiss AFB with the Private Airfield Alternative would generate the following onsite utility demand:

- Water - 0.035 MGD;
- Wastewater - 0.027 MGD;
- Solid Waste - 2.00 tons per day;
- Electricity - 22.81 MWh per day; and
- Natural Gas - 0.70 thousand therms per day.

By 2016, the following utility demand would be generated in Oneida County with the Private Airfield Alternative and associated population increases:

- Water - 0.221 MGD;
- Wastewater - 0.213 MGD;
- Solid Waste - 2.79 tons per day;
- Electricity - 63.28 MWh per day; and
- Natural Gas - 1.89 thousand therms per day.

No major utility system improvements have been identified for this alternative.

### 2.3.2 Nonaviation Alternative

The Nonaviation Alternative focuses on reusing the airfield property for nonaviation-related uses (Figure 2.3-2). Operation of the airfield for all types of aircraft would be discontinued. With this alternative, three of the development districts designated in the *Master Reuse Strategy for Griffiss Air Force Base* (Figure 2.1-1) would be expanded. The Rome Lab/R&D Campus would be extended to the north. Reuse of this area would continue to emphasize development of high technology office/R&D activities centered around Rome Laboratory. The Manufacturing Complex area would also be expanded to the north to include the middle portion of the airfield and the large hangars and Buildings 100 and 101. In the southern portion of the airfield, the Industrial Development area would be expanded to include the land occupied by the southern portion of the runway and the associated taxiways and parking aprons. Retention of areas of public/recreational/open space land is also a component of this alternative.

Like the Proposed Action, demolition of some existing buildings and structures would occur. The total acreage for each land use category proposed for the Nonaviation Alternative is summarized in Table 2.3-6.

Existing buildings and facilities within the airfield property were evaluated in terms of potential demolition, retention for future use, and for construction sites for new facilities. With this alternative, approximately 88,700 square feet of existing buildings would be demolished and about 533,900 square feet would be retained for reuse (Table 2.3-7). Approximately 1,542,400 square feet of new floor space would also be constructed by 2016.

Potential land disturbance associated with demolition and new construction plans is summarized in Table 2.3-8. It was assumed that full facility development, as defined in Table 2.3-7, would occur by 2016. In addition, it was assumed that all facility demolition and 25 percent of new construction would occur by 2001; another 25 percent by 2006; and the remaining 50 percent by 2016.

#### 2.3.2.1 Airfield

There would be no airfield uses with the Nonaviation Alternative, except for the FAA RAPCON facility, which would remain operational to provide air traffic control support for aircraft using Oneida County Airport and several private airfields in the region.

#### 2.3.2.2 Aviation Support

There would be no aviation support uses with the Nonaviation Alternative.

#### 2.3.2.3 Industrial

Industrial uses are proposed for approximately 150 acres in three separate areas of the airfield property. The Building 15 parcel would be incorporated into the existing Industrial Development District. This building could be reused for automotive-related uses or other industrial activities requiring a maintenance facility. The Bulk Fuel Storage Area could be reused as a petroleum storage and distribution facility or converted to another heavy industrial use to take advantage of its proximity to the New York State Barge Canal, the Buckeye Pipeline, and State Route 49. The southern end of Runway 15/33 and the area to the west is also designated for industrial uses. This area would be incorporated into the existing Industrial Development District of the Griffiss Business and Technology Park and used for development of large-scale industrial and processing operations. Several small structures and a refueling station in this area would be demolished or removed.

#### 2.3.2.4 Manufacturing

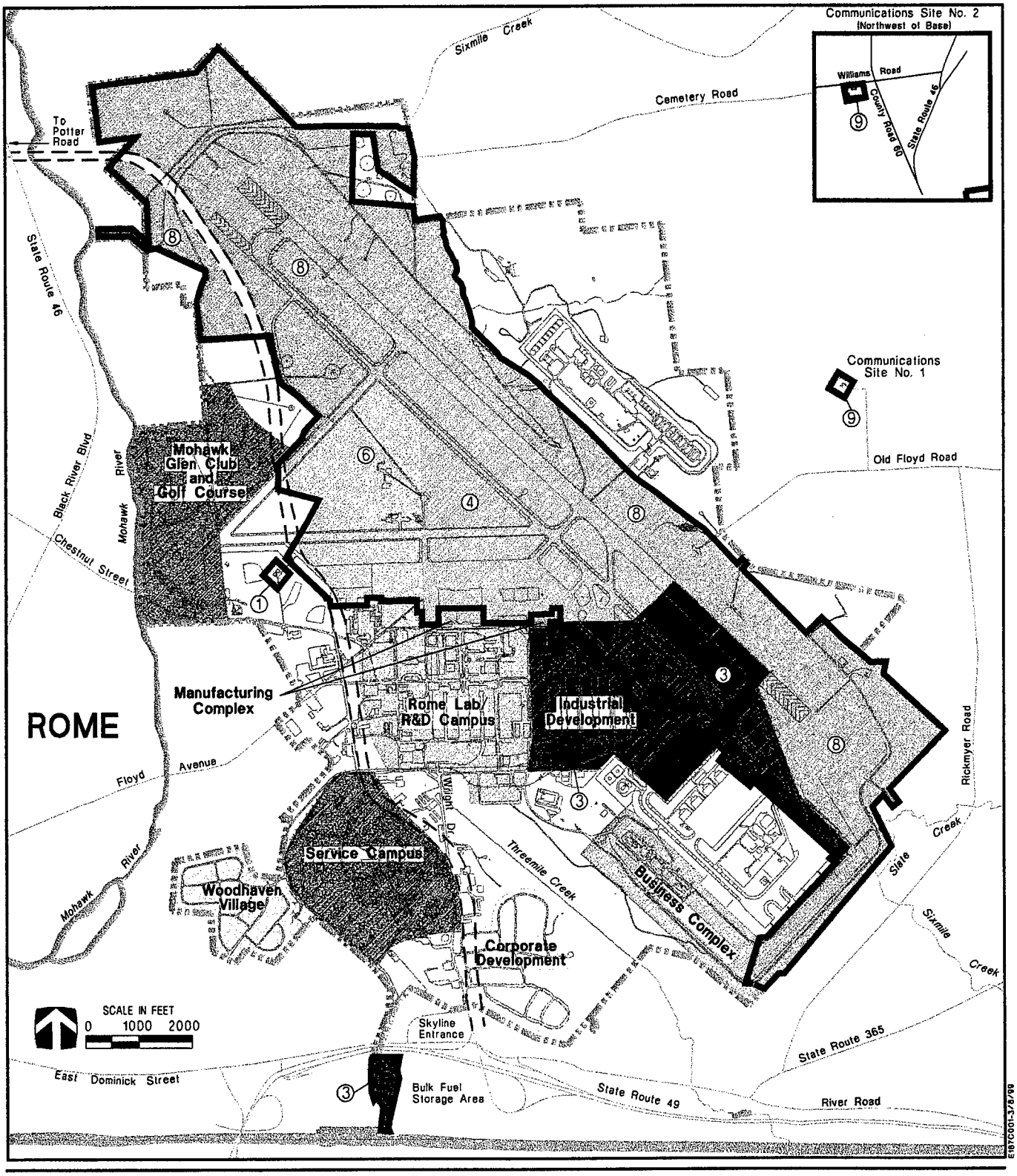
Manufacturing uses are proposed for 370 acres of the airfield property, including the middle portion of the airfield and Building 100 and the northern half of Building 101. The southern half of this area is currently designated as a Manufacturing Complex of the Griffiss Business and Technology Park. The buildings could be reused to support a variety of manufacturing processes and the large open areas in the middle of the airfield would allow the construction of new manufacturing facilities on large lots. Some existing small buildings within the designated manufacturing area would be demolished or removed.

#### 2.3.2.5 Institutional

There would be no institutional land uses with the Nonaviation Alternative.

#### 2.3.2.6 Commercial

Commercial uses are proposed for approximately 180 acres of the airfield property. Typical civilian commercial uses include retail establishments, shopping centers, and office buildings. With the Nonaviation Alternative, the Rome Lab/R&D Campus development district of the Griffiss Business and Technology Park would be extended to the north along the east side of the proposed parkway. This area would be used for development of additional professional office/R&D activities. Various structures associated with former aircraft engine test facilities north of Taxiway 17 would be demolished or removed.




**LEGEND**

- ① Airfield*
- ② Aviation Support*
- ③ Industrial
- ④ Manufacturing
- ⑤ Institutional* (Education & Medical)
- ⑥ Commercial (Office/R&D)
- ⑦ Residential*
- ⑧ Public/Recreational/ Open Space
- ⑨ Agricultural
- Base Boundary
- Airfield Property
- Proposed Parkway Corridor

The land uses outside of the airfield property are shown for illustration purposes only. The colors do not correspond to the airfield property land uses.
* Land uses not included in this alternative

# Nonaviation Alternative

**Figure 2.3-2**

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**Table 2.3-6**

**Land Use Acreage - Nonaviation Alternative**

| Land Use | Acres |
|---|---|
| Airfield* | 1 |
| Industrial | 150 |
| Manufacturing | 370 |
| Commercial (Office/R&D) | 183 |
| Public/Recreational/Open Space | 964 |
| Agricultural | 12 |
| **Total:** | **1,680** |

Note: *Includes the FAA RAPCON facility.

**Table 2.3-7**

**Facility Development - Nonaviation Alternative (square feet)**

| Land Use | Existing Facility Demolition[1] | Existing Facility Retention | New Facility Construction |
|---|---|---|---|
| Airfield | 0 | 0 | 0 |
| Industrial | 30,415 | 119,824 | 404,400 |
| Manufacturing | 6,687 | 412,555[2] | 627,000 |
| Commercial (Office/R&D) | 44,100 | 0 | 511,000 |
| Public/Recreational/Open Space | 3,640 | 1,500 | 0 |
| Agricultural | 3,830 | 0 | 0 |
| **Total:** | **88,672** | **533,879** | **1,542,400** |

Notes: [1]Estimates based on demolition requirements in the Master Reuse Strategy for Griffiss Air Force Base (Hamilton, Rabinovitz and Auschler *et al.* 1995).
[2]Assumes 50 percent of the square footage for Building 101 (470,532 sq ft total) is included within the airfield property and available for reuse.

**Table 2.3-8**

**Acres Disturbed by the Nonaviation Alternative**

| | Acres Disturbed by Phase | | | |
|---|---|---|---|---|
| Land Use | 1999-2001 | 2001-2006 | 2006-2016 | Total |
| Industrial | 7 | 7 | 15 | 29 |
| Manufacturing | 4 | 4 | 8 | 16 |
| Commercial (Office/R&D) | 4 | 4 | 7 | 13 |
| Public/Recreational/Open Space | 0 | 0 | 0 | 0 |
| Agricultural | 0 | 0 | 0 | 0 |
| **Total:** | **15** | **15** | **30** | **60** |

#### 2.3.2.7 Residential

There would be no residential land uses with the Nonaviation Alternative.

#### 2.3.2.8 Public/Recreational/Open Space

Approximately 964 acres are proposed for public/recreational/open space uses. The majority of this area would be left as open space. The area west of the northern portion of Taxiway 8 and east of the existing golf course could be used for expansion of the golf course to 18 holes. In addition, the area southeast of the golf course could be used for expansion of the golf course. This area could also be used for development of other public recreation facilities. If these areas are not used for development of additional recreation facilities, they could be left as open space to enhance development of a greenbelt concept along the proposed parkway. The area north, east and south of the airfield would be maintained as open space.

Within the designated public/recreational/open space areas, two small aircraft hangars west of Building 101 (Buildings 220 and 221) would be demolished. In addition, various structures associated with the former fire-fighter training area (e.g., an airplane mock-up and smokehouse) and small facilities and structures (e.g., airfield navigational aids) associated with the airfield would likely be demolished or removed. Portions of some of the designated public/recreational/open space areas may also be reforested in accordance with the greenbelt/open space concepts identified for the Griffiss Business and Technology Park.

#### 2.3.2.9 Agricultural

The two communications sites are designated for agricultural uses (approximately 12 acres). Communications Site No. 1 and the access road to it are located in the middle of a large agricultural field. Communications Site No. 2 is bordered on the south and east by agricultural fields. The existing buildings, structures (e.g., antennas), and fencing would be removed.

#### 2.3.2.10 Vacant Land

None of the land is designated vacant for this alternative.

#### 2.3.2.11 Employment and Population

Approximately 7,000 direct jobs and 4,600 secondary jobs would be generated by 2016 with the Nonaviation Alternative. Ninety percent of this work force would be expected to live in Oneida County. A peak of approximately 60 direct, short-term, construction-related jobs would be generated by 2001. Estimated employment following realignment, and in 2001, 2006, and 2016 with reuse of the airfield property, is presented in

Table 2.3-9. If the Nonaviation Alternative is implemented, the forecasted employment related to reuse is expected to result in the inmigration of approximately 10,200 persons into the region by 2016.

**Table 2.3-9**

**Reuse-Related Employment and Population**
**Nonaviation Alternative**

| | Year | | | |
|---|---|---|---|---|
| | **1999** | **2001** | **2006** | **2016** |
| Direct Employment | | | | |
| Construction/Demolition | 49 | 61 | 59 | 0 |
| Operations | 1,056 | 1,761 | 3,522 | 7,043 |
| **Total:** | **1,105** | **1,822** | **3,581** | **7,043** |
| Secondary Employment | 766 | 1,254 | 2,419 | 4,639 |
| Population Change | 513 | 957 | 3,213 | 10,182 |

### 2.3.2.12 Transportation

Based on land use and employment projections, average daily traffic would increase by approximately 5,840 vehicle trips in 2001 to about 22,500 vehicle trips by 2016 if the Nonaviation Alternative is implemented. As described for the Proposed Action, the Nonaviation Alternative also assumes construction of a new parkway to link State Route 49 to the south to Floyd Avenue, Mohawk Drive, and areas north of Rome via State Route 46 and Potter Road. Construction of the parkway is a component of the Griffiss Business and Technology Park and segments of the road would cross through the western portion of the airfield property (Figure 2.3-2).

Other than construction of the parkway through the western portion of the airfield property, no major improvements to the road system are proposed with this alternative. However, development of the areas that now comprise portions of the airfield would require construction of some roadways and/or reuse of some of the existing paved surfaces (e.g., taxiways) for roads.

### 2.3.2.13 Utilities

By 2016, the projected reuse of the airfield property at Griffiss AFB with the Nonaviation Alternative would generate the following onsite utility demand:

- Water - 0.26 MGD;
- Wastewater - 0.13 MGD;
- Solid Waste - 16.45 tons per day;
- Electricity - 65.41 MWh per day; and
- Natural Gas - 1.61 thousand therms per day.

By 2016, the Nonaviation Alternative and associated population increases would generate the following utility demand in Oneida County:

- Water - 1.48 MGD;
- Wastewater - 1.36 MGD;
- Solid Waste - 21.65 tons per day;
- Electricity - 332.10 MWh per day; and
- Natural Gas - 9.51 thousand therms per day.

No major utility system improvements have been identified for the Nonaviation Alternative. However, extension of some utility systems (e.g., wastewater) into the areas designated for commercial (office/R&D) and industrial uses would be required.

### 2.3.3 No-Action Alternative

The No-Action Alternative would result in the U.S. Government retaining ownership of the airfield property after realignment. No portions of the property would be declared excess and available for disposal. The parcels comprising the airfield property would not be put to further use, but would be preserved; that is, placed in a condition intended to limit deterioration and ensure public safety. Caretaker activities would consist of base resource protection, grounds maintenance, existing utilities operations as necessary for the continuing activities, and building care. No additional military activities ormissions are anticipated.

The future land uses and levels of maintenance would be as follows:

- Maintain structures to limit deterioration;
- Isolate or deactivate unused utility distribution lines;
- Provide limited maintenance of roads in the airfield property to ensure access; and
- Provide limited grounds maintenance of open areas to eliminate fire, health, and safety hazards.

Utility use and average daily traffic associated with caretaker activities for the airfield property would be minimal. No improvements would be made to the existing facilities or infrastructure.

### 2.3.4 Other Land Use Concepts

In compliance with the Federal Property and Administrative Services Act of 1949, the Air Force has solicited proposals from other federal agencies regarding their interest in acquiring any lands or facilities identified for disposal within the airfield property. The only request received to date is a proposal by the National Park Service (NPS) to acquire facilities and associated parking areas either on the former Griffiss AFB or the airfield property. Specifically, either Building 44 or Building 131 has been requested

by NPS for the purpose of storing cultural artifacts and providing administrative office space for Fort Stanwix National Monument located in Rome (National Park Service 1996). Building 44 is in an area designated as industrial by all three alternatives. Building 131 is in an area designated as aviation support by the Proposed Action and Private Airfield Alternative and as manufacturing by the Nonaviation Alternative. Warehousing would be an allowable use in these land use categories. No other proposals for federal conveyance have been received.

## 2.4 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

There were no alternatives eliminated from further consideration.

## 2.5 INTERIM USES

Predisposal interim uses of the base facilities and property would be conducted under lease agreements with the U.S. Government. The terms and conditions of such leases would be arranged to ensure that predisposal interim uses do not prejudice realignment, future disposal, and conceptual reuse plans of the airfield property. The continuation of interim uses beyond disposal would be arranged through agreements with the new property owner(s). If an interim use becomes viable for the airfield property, a use substantially similar to those analyzed in this SEIS after public review would be authorized without further environmental analysis. However, in some instances, separate environmental analysis of the action may be required.

A baseline representing conditions at the time of realignment and disposal was used for the environmental analysis. The interim uses that could occur prior to property disposal are not considered within this baseline. However, certain post-disposal interim-use scenarios have been incorporated into the reuse alternatives. Where appropriate, impacts of these operations are reflected in the environmental analyses of pertinent resource areas.

## 2.6 OTHER FUTURE ACTIONS IN THE REGION

Other future actions within the region were evaluated to determine whether cumulative environmental impacts could result due to implementation of disposal and reuse of the airfield property in conjunction with other past, present, and reasonably foreseeable future actions. Based on development records and planning documents from the GLDC, a total of 6.1 million square feet of new commercial and industrial space are recently completed or planned as part of the Griffiss Business and Technology Park. The GLDC development projects, if fully implemented, would increase employment by 8,629 full- and part-time employees by 2016.

Development of the Proposed Action and other alternatives also considered the proposed construction of a transportation corridor through the base property to connect State Route 49, south of the base, more directly with

State Route 46, northwest of the base. This parkway concept is a component of the Griffiss Business and Technology Park (Figure 2.1-1) and has been proposed in various forms by the City of Rome for several decades to relieve congestion on State Route 46 (Black River Boulevard), East Dominick Street, and streets in downtown Rome. The corridor would involve construction of a parkway beginning near the intersection of Potter Road and State Route 46 (on the west side of the Mohawk River) across the Mohawk River and through the base property to the Wright Drive/State Route 49 interchange south of the Skyline Entrance. The analysis assumed that the southern portion of the parkway between Chestnut Street and Skyline Entrance would be constructed by 2001 and that the remainder of the parkway would be constructed by 2016. The construction of the parkway was included as part of the cumulative impacts analysis in this SEIS.

## 2.7 COMPARISON OF ENVIRONMENTAL IMPACTS

A summary comparison of the influencing factors and development activities is presented in Table 2.7-1. Influencing factors and development activities are nonbiophysical elements, such as demolition/construction of facilities, population and employment, land use, aesthetics, public utility systems, and transportation networks, which directly affect the environment.

These activities have been analyzed to determine their effects on the environment. Impacts to the environment are described briefly in the Summary text, in Table S-2 of the Summary, and discussed in detail in Chapter 4.0 of this SEIS.

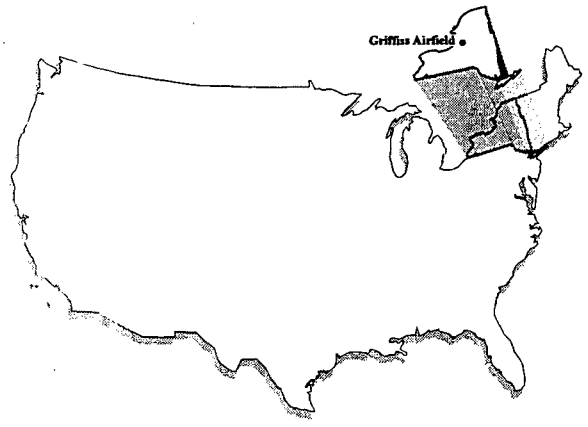
## Table 2.7-1

### Summary of Reuse-Related Influencing Factors on Airfield Property at Griffiss AFB

| | Factors | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ground Disturbance (acres by phase) | Aircraft Operations (annual) | Employment | | | | Regional Population Increase | Traffic (average daily/one-way trips) | Water Demand (MGD)[1] | Wastewater Generation (MGD)[1] | Solid Waste Generation[2] (tons/day) | Electricity Demand (MWh/day)[3] | Natural Gas Demand (thousand therms/day) |
| | | | Construction/ Demolition | Operations | Total Direct | Secondary | | | | | | | |
| **Proposed Action** | | | | | | | | | | | | | |
| 1999 | 0 | 0 | 14 | 172 | 185 | 90 | 86 | 1,490 | 0.020 | 0.017 | 0.784 | 6.763 | 0.209 |
| 2001 | 16 | 36,601 | 18 | 286 | 304 | 141 | 159 | 2,720 | 0.033 | 0.029 | 1.061 | 11.475 | 0.351 |
| 2006 | 6 | 74,327 | 11 | 772 | 783 | 346 | 703 | 5,860 | 0.108 | 0.102 | 1.629 | 33.074 | 0.995 |
| 2016 | 4 | 78,548 | 0 | 1,144 | 1,144 | 480 | 1,654 | 6,510 | 0.237 | 0.229 | 2.964 | 68.093 | 2.041 |
| **Private Airfield Alternative** | | | | | | | | | | | | | |
| 1999 | 0 | 0 | 11 | 160 | 171 | 83 | 79 | 880 | 0.020 | 0.017 | 0.760 | 6.229 | 0.193 |
| 2001 | 15 | 8,016 | 13 | 267 | 280 | 130 | 147 | 1,480 | 0.032 | 0.028 | 1.025 | 10.600 | 0.324 |
| 2006 | 5 | 15,710 | 7 | 716 | 723 | 319 | 649 | 3,320 | 0.100 | 0.094 | 1.531 | 30.499 | 0.916 |
| 2016 | 3 | 16,933 | 0 | 1,069 | 1,069 | 449 | 1,545 | 3,790 | 0.221 | 0.213 | 2.789 | 63.278 | 1.895 |
| **Nonaviation Alternative** | | | | | | | | | | | | | |
| 1999 | 0 | NA | 49 | 1,056 | 1,105 | 766 | 513 | 3,550 | 0.138 | 0.097 | 6.245 | 31.579 | 0.821 |
| 2001 | 15 | NA | 61 | 1,761 | 1,822 | 1,254 | 957 | 5,840 | 0.245 | 0.175 | 8.878 | 53.737 | 1.428 |
| 2006 | 15 | NA | 59 | 3,522 | 3,580 | 2,419 | 3,213 | 11,450 | 0.268 | 0.479 | 13.390 | 128.867 | 3.576 |
| 2016 | 30 | NA | 0 | 7,043 | 7,043 | 4,639 | 10,182 | 22,480 | 1.484 | 1.362 | 21.647 | 332.105 | 9.506 |

Notes: [1]MGD = million gallons per day.
[2]Solid waste generation includes building demolition during the early years of redevelopment.
[3]MWh = megawatt-hour = million watt-hour.

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# CHAPTER 3.0
# AFFECTED ENVIRONMENT

# 3.0 AFFECTED ENVIRONMENT

## 3.1 INTRODUCTION

This chapter includes a description of the existing environmental conditions of the airfield property at Griffiss Air Force Base (AFB), New York, and its Region of Influence (ROI) as it is expected to exist at the time of closure of the airfield activities by the New York Air National Guard (NYANG) on September 30, 1998. It provides the baseline information that was used to identify and evaluate potential environmental changes resulting from disposal and reuse of the airfield property. Although this Supplemental Environmental Impact Statement (SEIS) focuses on the biophysical environment, some nonbiophysical elements (influencing factors) are addressed to the extent that they directly affect the environment. The nonbiophysical elements are addressed in Section 3.2, Local Community, and include community setting (population and employment), land use and aesthetics, transportation networks, and public utility systems in the region and local communities.

This chapter also includes a description of the storage, use, and management of hazardous materials and waste at the airfield property, including storage tanks, asbestos, pesticides, polychlorinated biphenyls, radon, medical/biohazardous waste, ordnance, and lead. The current status of the Installation Restoration Program (IRP) relevant to the airfield property at Griffiss AFB is described. The chapter also includes a description of the pertinent natural resources of soils and geology, water resources, air quality, noise, biological resources, and cultural and paleontological resources. For some of the resource categories, the baseline information provided in the *Final Environmental Impact Statement (FEIS), for the Disposal and Reuse of Griffiss AFB*, completed in 1995, is still valid. Such information is provided here only briefly with emphasis on the airfield property. More recent information is also provided, when applicable. The 1995 FEIS is incorporated here by reference, if further details are desired. Finally, a demographic analysis is provided to address the requirements of Executive Order 12898, Environmental Justice.

An ROI was defined for each resource potentially affected by the Proposed Action and alternatives, constituting the geographic area addressed as the affected environment. Although the airfield property boundary may constitute the ROI limit for many resources, potential impacts associated with certain resources (e.g., air quality, utility systems, and water resources) may occur outside of the airfield property boundary.

The baseline conditions assumed for the purpose of analysis are the conditions that were projected for the time immediately following the closure of the airfield at Griffiss AFB on September 30, 1998. Therefore, the most descriptive year for the closure baseline is 1999. Impacts associated with disposal and/or reuse activities were evaluated by comparing projected conditions under various reuses to realignment closure conditions. Baseline

data for years preceding realignment conditions are included, where appropriate, to provide a basis for comparison over time. Data used to describe the preclosure reference point are those that depict conditions as close as possible to the closure announcement date. This provides the decision-maker and resource agencies a more comprehensive understanding of the potential long-term impacts of various reuses compared to conditions when the airfield property was in full use by the NYANG.

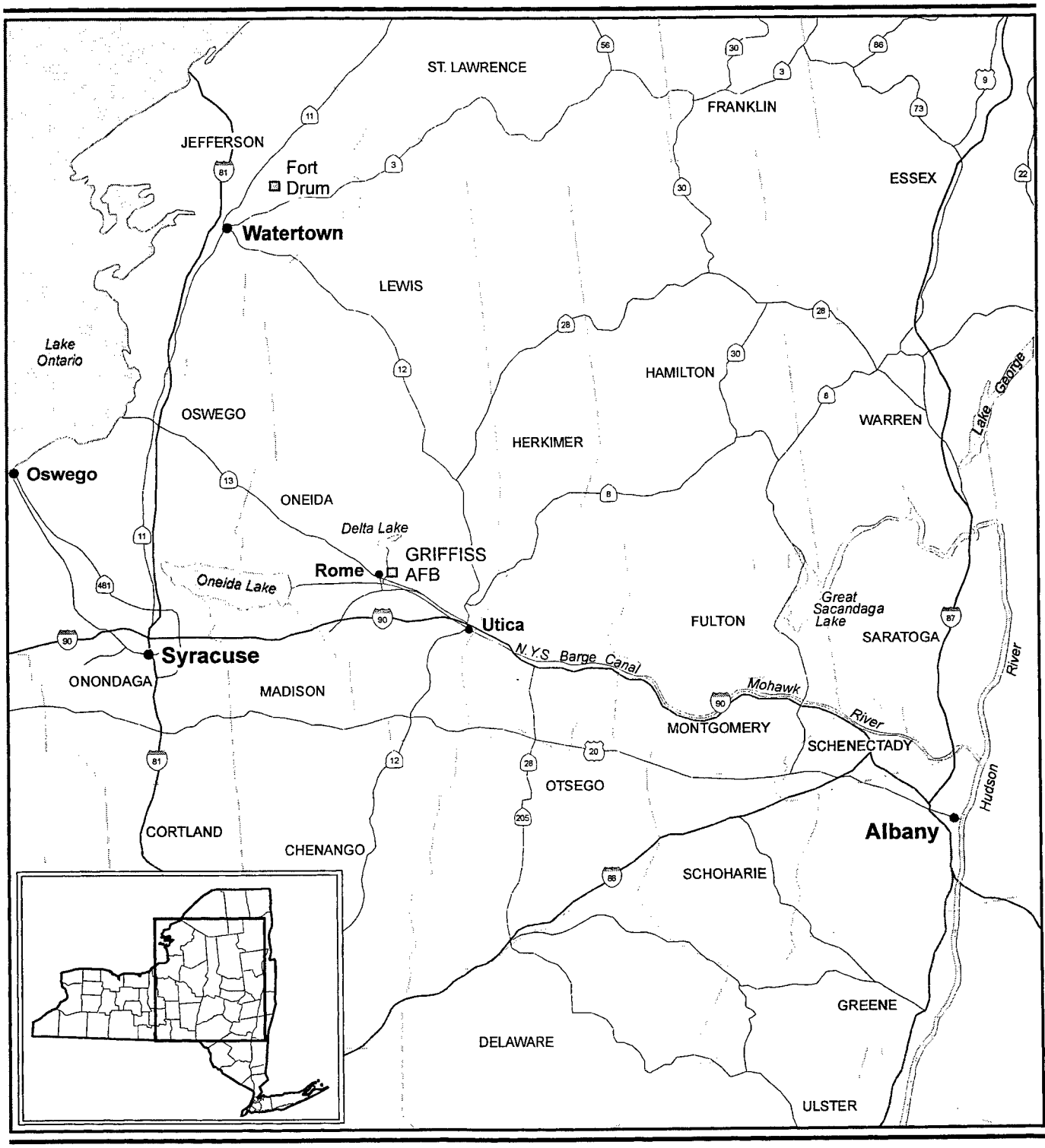
## 3.2 LOCAL COMMUNITY

The airfield property at Griffiss AFB is situated adjacent to the City of Rome, which is located 12 miles northwest of the City of Utica, the seat for Oneida County. Rome is located approximately 40 miles east of Syracuse and 130 miles northwest of Albany, the State capital (Figure 3.2-1). The airfield property at Griffiss AFB consists of a large, contiguous land parcel and several smaller, non-contiguous land parcels totaling 1,680 acres. The airfield property is generally located in the northeast portion of the former Griffiss AFB. The majority of the airfield property is in the City of Rome (outside District), immediately east of the incorporated City of Rome (inside District). Only 60 acres of the eastern portion of the airfield are located in the Township of Floyd (Figure 3.2-2).

The climate of the Rome region is eastern continental, with cold winters and mild, but sometimes humid, summers. Precipitation is distributed throughout the year, with the heaviest amounts occurring in the winter. Prevailing winds are light and from the northwest throughout the year. The region experiences below freezing conditions over 200 days per year. These conditions are often exacerbated by the "lake effect" with dry, cold winds accompanying cold air masses from the northwest, bringing extended periods of snow from November to March. The average annual temperature is 46 degrees Fahrenheit (°F), with an average high of 55°F and an average low of 36°F. Precipitation averages 45 inches of rainfall and 107 inches of snow each year (Rome Area Chamber of Commerce 1994).

Prior to construction of Griffiss AFB, the land was primarily pasture and cropland with scattered farmsteads. The original airfield consisted of three runways in a triangular layout (now taxiways 8, 17, and 20) (Chapter 1.0, Figure 1.1-1). During World War II, activities at the base centered on aircraft engine maintenance and repair, and the training of air depot groups in engine repair. These activities were curtailed in the latter part of 1945. However, a number of the original buildings constructed in the central portion of the base for these activities still remain, including Building 101, a large aircraft maintenance hangar.

The original northwest-southeast trending runway (a portion of existing Taxiway 8) was upgraded and extended in the early 1950s to accommodate jet fighter aircraft that were stationed at Griffiss AFB.



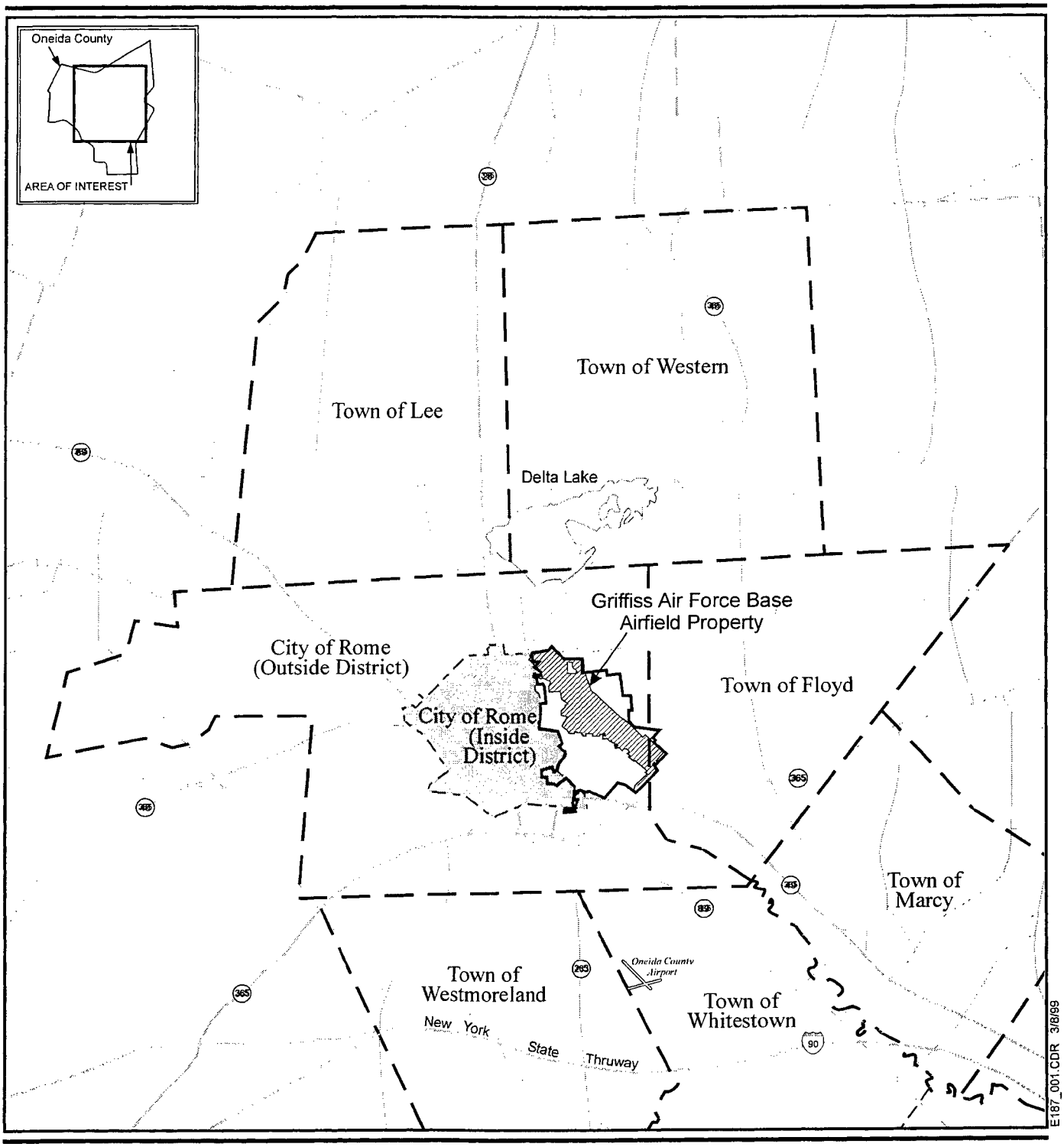

**LEGEND**

- Interstate Highway
- U.S. Highway
- State Highway
- County Boundary

0 10 20 Miles

# Regional Map of Central New York

**Figure 3.2-1**




LEGEND

- Interstate Highway
- State Highway
- Town Boundaries
- Rome (Inside District)
- Former Griffiss AFB Boundary
- Airfield Property

0 5 10 Miles

**Municipal Boundaries in the Vicinity of Airfield Property at Griffiss AFB**

**Figure 3.2-2**

In 1956, a major expansion of the airfield was initiated, including the construction of a new 11,820-foot-long runway (Runway 15/33), associated taxiways, Aprons 1 and 2, and an Alert Apron. Facilities for KC-135 tanker and B-52 bomber aircraft were also constructed adjacent to Aprons 1 and 2 and the Alert Apron (Chapter 1.0, Figure 1.1-1). These facilities included a series of aircraft maintenance hangars (or nosedocks) adjacent to Apron 2 and various industrial shops and administrative buildings on a hill (known as SAC Hill) overlooking the three aprons. A bulk fuel storage area adjacent to the New York State Barge Canal and associated hydrant fueling systems at Aprons 1 and 2 were also completed in the late 1950s.

Griffiss AFB was realigned in September 1995. Continued operation of the airfield at a minimum level was authorized. Operation and maintenance of the Minimum Essential Airfield has been performed by NYANG.

### 3.2.1 Community Setting

The ROI for the community setting analysis includes Oneida County and the City of Rome.

Oneida County has experienced a population decline since 1970. The population in Oneida County decreased from 273,070 to 253,466 between 1970 and 1980, a decline of 7.2 percent or 19,604. From 1980 to 1990, the decrease slowed to just 1 percent, resulting in a population of 250,836. The estimated population of Oneida County in 1996 was 241,678.

The City of Rome's population changes have been similar to the county trends. From 1970 to 1980, the city's population declined from 50,148 to 43,826, a decrease of 6,322 or 12.6 percent. The city's population increased slightly to 44,350 or 1.2 percent from 1980 to 1990. However, most of this resulted from an increase in the inmate population (Orly, personal communication, 1994). Overall, the city's 1990 population was 11.6 percent lower than 1970 levels. In 1980, the City of Rome accounted for 17.3 percent of Oneida County's population. By 1990, this proportion had increased to 17.7 percent. The estimated population of the City of Rome in 1996 was 40,076.

Between 1980 and 1990, the housing stock in Oneida County increased from 95,834 to 101,251 units, representing an overall increase of 5.7 percent or 5,417 units. In 1990, approximately 56.4 percent of the total units in Oneida County were single family, 35.9 percent were multifamily, and 7.7 percent were mobile homes, trailers, or other types of units. The 1990 housing vacancy rate in Oneida County averaged 5.7 percent. The year-round housing stock in Oneida County in 1996 has been estimated to be 101,525 units.

The housing stock in the City of Rome increased from 15,806 to 16,661 units between 1980 and 1990, representing an overall increase of

5.4 percent or 855 units. Rome accounted for 16.5 percent of all housing units in Oneida County in 1990. Approximately 50.1 percent of the total units in Rome were single family, 44.0 percent were multifamily, and 5.9 percent were mobile homes or trailers in 1990. The 1990 vacancy rate in the City of Rome was 5.4 percent. The year-round housing stock in the City of Rome in 1996 has been estimated to be 16,706 units.

The economy of the Rome region is diverse and includes State and local government, education, health professions, and the manufacture and sale of durable goods. All contribute significantly to the region's economy. However, the local economy has suffered in recent years as a result of widespread recessionary conditions and the realignment of Griffiss AFB in September 1995.

From 1980 to 1990, most industrial sectors in the county experienced increases in employment. However, sharp declines in manufacturing and professional positions kept overall job growth to 2.7 percent for the decade (Economics Research Associates 1993). In 1990, total employment in Oneida County was 132,357, which was 14.2 percent above county employment levels in 1980 (115,852). The largest employment sectors were services (24.9%), government (19.4%), retail trade (16.9%), and manufacturing (14.2%). In 1990, 3.8 percent of the workforce (5,036 workers) was employed by the military, while other government workers (Federal, State, and local) accounted for 19.4 percent of the workforce. During the 1980s, annual unemployment rates for Oneida County ranged from 4.3 to 8.7 percent, which was slightly lower than statewide and national rates for the same period. Employment in Oneida County was estimated to be 92,409 in 1996. The estimated unemployment rate in 1996 was 10.3 percent.

In 1990, total employment in the City of Rome was 24,602, including military and government. Of these, 15,900 were employed in the private sector, compared to 14,684 in similar jobs in 1980 (Economics Research Associates 1993). This represents an 8.4 percent increase over the 10-year period. Similar to the county figures, the city's largest employment sectors in 1990 were services (35.5%), retail trade (18.0%), government (13.8%), and manufacturing (13.4%). Also similar to the county trends, local increases in employment during the 1980s were largely offset by job losses in durable goods manufacturing.

**Closure Conditions.** The population of Oneida County is projected to decrease slightly from 241,678 in 1996 to 241,420 in 1999 (0.1 %), after the relocation of NYANG personnel with the closure of the airfield. Oneida County population is expected to increase to 250,701 by 2016. The population of the City of Rome is expected to decrease from 40,076 in 1996 to 39,861 in 1999 (0.5%). The population of the City of Rome is expected to increase to 49,271 by 2016.

The year-round housing stock in Oneida County is estimated to be 101,799 in 1999, an increase of 275 units or 0.3 percent over 1996 levels (101,524). This increase is slightly less than what would have occurred if the airfield were not closed.

The year-round housing stock in the City of Rome is estimated to be 16,751 in 1999, an increase of 0.3 percent over 1996 levels (16,706). There would be no reduction in demand for permanent housing following closure of the airfield because the population of the City of Rome would continue to increase. The vacancy rate in the City of Rome is expected to decrease from 14.14 percent in 1996 to 13.23 percent in 1999. This vacancy rate is slightly higher than what would have occurred without closure of the airfield.

Following closure of the airfield, the existing caretaker force at Griffiss AFB would maintain structures and grounds to limit deterioration until the airfield is transferred for reuse. Total employment in Oneida County is expected to be 93,114 in 1999 and would increase to 101,206 by 2016. The unemployment rate is estimated to be 9.3 percent in 1999 and would decrease to 5.5 percent by 2016.

### 3.2.2 Land Use and Aesthetics

The ROI for land use and aesthetics includes the airfield property at Griffiss AFB, potentially affected adjacent lands within the former Griffiss AFB (now commonly known as Griffiss Business and Technology Park), the City of Rome, and the Town of Floyd. The airfield property on the former Griffiss AFB is located in the management jurisdictional boundaries of the City of Rome (1,620 acres) and Town of Floyd (60 acres). The ROI also includes Oneida County Airport and vicinity. The airport, consisting of a 2,169-acre site owned by the county, is located approximately 5 miles south of the former Griffiss AFB (Figure 3.2-2).

Land uses in the immediate vicinity of the airfield property are changing in accordance with the 1995 Master Plan for the reuse of Griffiss AFB prepared by the Griffiss Local Development Corporation (GLDC). Land uses outside the former Griffiss AFB airfield are less likely to change because no specific development plans are proposed in this portion of Oneida County.

#### 3.2.2.1 Land Use

The airfield property at Griffiss AFB consists of a large contiguous land parcel and several smaller non-contiguous parcels. The largest parcel is 1,656 acres and encompasses the runway and most of the associated taxiways, various airfield navigation instruments and support structures, all or portions of several large buildings, and several smaller buildings and structures. The smaller parcels include Building 15, a 4,415-square-foot aircraft refueling vehicle maintenance shop and surrounding parking area located west of Apron 1; Facility N801, a 1-acre Federal Aviation Administration (FAA) Radar

Approach Control (RAPCON) facility located south of the west end of Taxiway 17; the 10-acre Bulk Fuel Storage Area south of State Route 49 and north of the New York State Barge Canal; Communications Site No. 1, a 2.5-acre receiver site located approximately 0.5 mile east of the base boundary; and Communications Site No. 2, a 9.6-acre transmitter site located approximately 2.5 miles northwest of Runway 15/33. These areas are referred to as the airfield property in this SEIS.

The airfield property and associated buildings and facilities have been used by the NYANG for maintaining a Minimum Essential Airfield since the realignment of Griffiss AFB in September 1995. Activities performed by the NYANG include airfield management, air traffic control, aircraft servicing, grounds and pavement maintenance, and fuel and deicing fluid storage and distribution.

For the purpose of this analysis, standard Air Force land use categories have been merged and/or adapted into a classification system to permit better coordination with and analysis of civilian land use. These land uses are listed in Table 3.2-1. The land use categories used in this analysis include airfield, aviation support, industrial, and agricultural/forest.

**Table 3.2-1**

**Existing Land Use Acreage**

| Land Use | Acres |
|---|---|
| Airfield | 1,319 |
| Aviation Support | 14 |
| Industrial | 10 |
| Agricultural/Forest | 337 |
| **Total:** | **1,680** |

Airfield land uses, consisting of 1,319 acres, include Runway 15/33, associated taxiways, several aircraft parking aprons, and various navigational aids and weather instrumentation surrounding the airfield and Communications Sites No. 1 and No. 2. Runway 15/33 has a northwest to southeast orientation and is 11,820 feet long by 300 feet wide with 1,000-foot overruns. Airfield land uses also include the north and south clear zone areas, which extend 3,000 feet beyond each end of the runway and 1,500 feet on each side of the centerline of the runway. A primary surface zone measuring 1,000 feet on each side of the centerline of the runway is present for the entire length of the runway. The navigational aides include components of the Instrument Landing System (ILS) (e.g., localizer and glide slope) and their associated emergency power buildings.

Aviation support land uses, consisting of approximately 14 acres, include aircraft maintenance hangars and a nosedock, various aircraft equipment

(e.g., avionics) maintenance facilities, the control tower, and facilities for airfield support functions such as fire protection and security.

Industrial land uses consist of approximately 10 acres of the Bulk Fuel Storage Area located south of State Route 40 and north of New York State Barge Canal.

Agricultural/forest land use includes 311 acres of forested lands and a 26-acre agricultural outlease in the northern corner of the north runway clear zone. This area also contains some prime farmland.

**Adjacent Land Use.** The property adjacent to the airfield to the south and southwest consists of the remainder of the former Griffiss AFB. Griffiss AFB is being redeveloped based on a master reuse strategy prepared by the GLDC in 1995 for the reuse of Griffiss AFB (Hamilton, Rabinovitz, & Alschuler *et al.* 1995). The *Griffiss Business and Technology Park Master Plan* identifies seven distinct development districts as shown in Figure 2.1-1. The remaining areas of the base property not retained by the U.S. Government were not specifically identified in the master plan or were designated as open space. The development districts include:

- Rome Lab/Research and Development (R&D) Campus - for development of professional office and R&D activities in conjunction with the government-retained Rome Laboratory and Defense Finance and Accounting Services Center Facilities;

- Industrial Development - for development of large-scale manufacturing and processing operations;

- Manufacturing Complex - for development of aviation-related operations such as air cargo and aircraft maintenance, and a variety of manufacturing operations;

- Corporate Development - for development of a corporate office park or similar high-profile business complex;

- Business Complex - a complex of existing buildings for small business use;

- Service Campus - for education, training, and conference activities. An extension of this district includes the Mohawk Glen Club and surrounding 9-hole golf course; and

- Woodhaven Village - a complex of single-family homes.

The City of Rome is the principal urban center in the vicinity of the airfield property at Griffiss AFB. The city is divided into inside and outside districts, which generally correspond to the urban and rural areas of the city (Figure 3.2-2).

The Rome urban area begins south of the intersection of State Route 46 and Wright Settlement Road. Residential densities are typically urban, with densities of 2 to 11 single family dwelling units per acre and 12 to 24 multifamily dwelling units per acre. A large number of residences, including multifamily and mobile home parks, abut the former Griffiss AFB boundary. Some high density (25-50 dwelling units per acre) multifamily housing areas are next to the Mohawk Acres Shopping Center, a shopping center at the intersection of State Route 46 and Chestnut Street (1,800 feet west of the base).

Floyd Avenue contains a mixture of residential and highway commercial land uses as well as the Mohawk Valley Community College and Clough Elementary School. The urban area to the southwest is characterized by a mixture of commercial, industrial, and residential land use. Stanley Junior High School is located west of the Woodhaven housing area, and Bellamy Elementary School is located southwest of the former base mobile home park.

The land east of the Skyline Entrance is rural, containing a mixture of industrial, commercial, residential, and agricultural land uses. Residential densities are rural at one dwelling unit per 0.5 acre.

The adjacent land use east of the airfield property of Griffiss AFB within the Town of Floyd is rural with a mixture of residential, agricultural, vacant, and some commercial and public/recreational uses. The agricultural land is within Agricultural District-10 of Oneida County, within the Town of Floyd. Two of the district farms abut the airfield boundary and three more farms are within a 0.25-mile radius (Oneida County 1991). The residential densities are the same as for the rural areas of Rome; however, there is a high density mobile home park south of Old Floyd Road. The land use east of the airfield property, within the outside district of the City of Rome, is also rural with a mixture of agricultural, vacant, industrial, and rural residential land use. Three residences abut the airfield property boundary.

The adjacent land north of the airfield property at Griffiss AFB is within the outside district of Rome. The land is typically rural with a mix of agricultural, vacant, industrial (sand pits), and rural residential. The agricultural land is within Agricultural District-15 of Oneida County.

**Land Use Plans and Regulations.** A master plan is a long-term policy document for the orderly development of a jurisdiction. It serves to organize and coordinate the relationship between the land, people, resources, and facilities to protect the health, safety, and general welfare of the jurisdiction.

The affected land use management jurisdictions within the vicinity of the airfield property at Griffiss AFB are the inside and outside districts of Rome, and the Town of Floyd in Oneida County, New York.

The City of Rome has adopted a master plan to effectively control land use and development in the city and provide the basis for future amendments to the city's land use regulations and ordinances, and guidance to the Planning Board and Zoning Board of Appeals for future actions.

The master plan recognizes the need to plan for compatible land uses in the airport approach zones (approach-departure clearance surfaces) of the two airport facilities (Griffiss Airfield and Oneida County Airport) because of noise and safety factors created by flight patterns. Residential land use designations within the airport approach zone are planned for densities of two dwelling units per acre. Residential uses are discouraged in noise zone day-night average sound level (DNL) 65 decibel (dB) to 70 dB (mobile home park designations are considered incompatible in these zones), and strongly discouraged in noise zone DNL 70 dB to 75 dB. Other residential designations plan for densities of 2 to 11 dwelling units per acre, and 12 to 24 dwelling units per acre.

The master plan defines the area of urban patterns consisting of residential, commercial, industrial, public institutional (education and hospitals), and parks within the city boundaries of Rome.

The Town of Floyd has an adopted master plan that encourages some business growth, while preserving the rural character of the town with low density housing and preservation of open space. New mobile home courts require a minimum of one-half acre per unit. Multi-family dwellings are allowed under a special use permit with a maximum of four dwellings allowed on a minimum 3-acre parcel (Town of Floyd 1994).

The Oneida County Airport is located within the towns of Whitestown and Westmoreland. The county recently adopted a new Airport Master Plan. The City of Rome Master Plan identifies both Griffiss Airfield and the Oneida County Airport as two centers having direct influence on the city's future development. The county airport generates air traffic and contains supporting land use. The adjacent 400-acre County Airport Industrial Park is planned to be oriented to industries that utilize air transportation (City of Rome 1970). The Airport Master Plan addresses the needs of the airport in the short term (1994-1995), intermediate term (2001-2005), and long term (2005-2015). All the land within the 65 dB DNL noise contour is located within the county-owned airport site (C&S Engineers, Inc. 1994).

**Zoning.** Zoning refers to an ordinance regulating and restricting the location, construction, and use of buildings and structures. Zoning also refers to the use of the land within a jurisdiction and provides for the division of the jurisdiction into districts. Overlay zones that can extend over many districts

are also addressed in a zoning ordinance. Most of Oneida County, including Griffiss AFB, has been apportioned into various city and town zoning districts. Local zoning ordinances do not have enforcement powers on federal property.

The Rome Zoning Ordinance consists of 23 zoning districts that cover both the Inside and Outside Districts of Rome, including six residential zones (R-A, R-5, R-7, R-10, R-20, and R-G); four commercial zones (C-1, C-2, C-3, C-4) and a commercial-residential transition zone (C-R); two industrial zones (M-1 and M-2); two agricultural/open spaces zones (F-1 and F-2); a scrap and salvage zone (S-S); a planned development district consisting of four types of planned zones (commercial [C-P], manufacturing [M-P], recreational [R-P], and development [D-P]); an airport zone (A); and an airport approach zone (A-A).

The Rome Zoning Ordinance has placed most of the former Griffiss AFB into the airport zone (A). The north clear zone northwest of Pennystreet Road and Butternut Road is zoned airport approach (A-A) within the Air Force Approach-Departure Clearance Surface, agricultural zone (F-1) at the northern corner, and agricultural and open space zone at the southern corner of the clear zone. All the property within the clear zone is owned by the Air Force. The A-A zone extends northwest to the Rome/Lee boundary. R-20, F-1, and F-2 zones are adjacent to the A-A zone. The F-1 and F-2 zones continue east to the Rome/Floyd boundary. West of the base, the F-1 and F-2 zones define the Black River Canal/Mohawk River Corridor. Various residential zones are designated for land west of this corridor. Skyline Entrance defines the transition between urban zones of the Inside District from the rural zones of the Outside District. The urban zones are a mixture of residential, commercial, and industrial, while the rural area is generally F-1 with some commercial uses north of State Route 49 and industrial uses to the south.

The Town of Floyd zoning ordinance had placed the former Griffiss AFB within the air base zone (A) to provide for its continuation in a manner compatible with air base operations and needs. The private land located within the south Accident Potential Zones (APZs) I and II, defined by the 1978 Air Installation Compatible Use Zone (AICUZ) report, has been placed within the air base approach district (A-A). Permitted uses include a single or double residence, with the density placed at a 5-acre minimum lot size. The remaining zone districts consist of R-1 residential with a 1-acre density minimum; R-A residential-agricultural, allowing single residences or duplexes with a 2-acre minimum density; and commercial. The zoning ordinance also has an air base-environs overlay (A-E), which includes all areas within Compatible Use District 7 based on a 1978 AICUZ report for Griffiss AFB (Town of Floyd 1993).

### 3.2.2.2 Aesthetics

Visual resources include natural and man-made features that give a particular environment its aesthetic qualities. Criteria used in the analysis of these resources include visual sensitivity, which is the degree of public interest in a visual resource, and concern over adverse changes in visual quality. Visual sensitivity is categorized as high, medium, or low.

High visual sensitivity exists in areas where views are rare, unique, or in other ways special, such as in remote or pristine environments. High sensitivity views would include landscapes that consist of landform, vegetative patterns, water bodies, or rock formations of unusual or outstanding quality. High visual sensitivity localities would also include the designated highway trails of the New York State Trail System; local canal, stream, and river corridors; the City of Rome's designated historic districts; and designated scenic vistas.

Medium visual sensitivity areas are more developed than those areas of high sensitivity. Human influence is more apparent in these areas, and the presence of motorized vehicles and other evidence of modern civilization is common. These landscapes generally have features containing varieties in form, line, color, and texture, but tend to be more common than high visual sensitivity areas.

Low visual sensitivity areas tend to have minimal landscape features, with little change in form, line, color, and texture. Low sensitivity areas would be typical urban or suburban areas, agricultural and farming areas, industrial or commercial development, and other areas that do not contain resources described as medium or high sensitivity areas.

Views of the airfield property were rated as low sensitivity because most of the area falls within the typical industrial, agricultural, and rural residential land uses with no unique features on the landscape. Views outward from the base property, while limited, are rated high sensitivity. The Chestnut Street Bridge is the only viewing area of the base within the public domain. The base golf course also contains views of the corridor. The base is not visible from the remaining alignment of the corridors.

The base is adjacent to three designated scenic roads of the Adirondack North Country Auto Trail System. State Route 46 is designated as the Black River Trail. The base is not visible from any part of this highway. State Route 49 is designated as the Revolutionary Trail, and views of the base from this highway are limited to the bulk fuel storage facilities north of New York State Barge Canal and the Skyline Gate area, seen from the junction with Wright Drive. Both viewpoints are rated low sensitivity due to the high level of urban land use. State Route 365 is designated as the Central Adirondack Trail. The base can be seen at the intersection of this road and Rickmyer Road. The view is limited to introduced pine wood lots adjacent to the Oneida County

Energy Recovery Facility. With a reclaimed sand pit in the foreground, the resulting sensitivity rating is low (Adirondack North Country Association 1992).

Two views of the Floyd Gate area seen from Floyd Avenue in the City of Rome, have medium sensitivities. A view of the alert apron seen from the intersection of Rickmyer Road and Middle Road in the Town of Floyd is seasonally rated low sensitivity during the winter months, and not rated during the summer months when views of the base are blocked by deciduous trees.

### 3.2.3 Transportation

The ROI for the transportation analysis includes the principal road, air, and rail networks in the Rome area, with emphasis on the immediate area surrounding the airfield property at Griffiss AFB. The analysis focuses on the segments of the transportation networks in the region that serve as direct or necessary indirect links to the airfield property and those that are commonly used by personnel employed at Griffiss Business and Technology Park.

#### 3.2.3.1 Roadways

Evaluation of existing roadway conditions focuses on capacity, which measures the ability of the network to serve the traffic demand and volume. The capacity of a roadway depends on its width, number of lanes, intersection control, and other factors. Traffic volumes typically are reported, depending on the project and data base available, as the daily number of vehicles traveling in both directions on a segment of roadway, averaged over a full calendar year (average annual daily traffic [AADT]) and/or the number of vehicular movements on a road segment during the average peak hour. For this analysis, an average peak hour volume of 12 percent of the AADT is used, supported by local traffic characteristics and research findings (Transportation Research Board 1985). These values are useful indicators in determining the extent to which a roadway segment is used, and in assessing the potential for congestion and other problems.

The performance criteria of a roadway segment is generally expressed in terms of level of service (LOS). The LOS scale ranges from A to F, with each level defined by a range of volume-to-capacity ratios. LOSs A, B, and C are considered good operating conditions where minor or tolerable delays are experienced by motorists. LOS D represents below average conditions. LOS E corresponds to the maximum capacity of the roadway. LOS F represents a situation where volume-to-capacity is overloaded and delays are considered intolerable by LOS criteria. The LOS designations and their associated volume-to-capacity ratios are presented in Table 3.2-2. These levels are based primarily on estimates from the *Highway Capacity Manual Special Report 209, Third Edition* (Transportation Research Board 1994), which have been adapted for local conditions.

The region surrounding the airfield property at Griffiss AFB is served by a network of interstate and State highways, county roads, and city streets (Figures 3.2-1 and 3.2-2 [Section 3.2.1]). Major roads in the immediate vicinity of the airfield property include New York State Highways 49, 365, 69, 26, 46, and 233; County Roads 47 and 88; Black River Boulevard; Chestnut Street; Floyd Avenue; Park Drive; Wright Settlement Road; and East Dominick Street. Figure 3.2-3 shows the existing local road network in the ROI. Interstate 90 (New York State Thruway) (Figures 3.2-1 and 3.2-2) is a major east-west highway providing indirect regional access to the airfield property at Griffiss AFB. It is located approximately 6 miles south of Rome and connects Buffalo and Boston via Albany. It is a four-lane, divided road with full control of access and freeway standards. In the ROI, State Highways 365, 233, 69, and 49 provide access to Interstate 90.

**Table 3.2-2**

**Road Transportation Levels of Service (LOS) Criteria**

| LOS | Description | Criteria (Volume-to-Capacity Ratio) | | |
|---|---|---|---|---|
| | | Freeway[1] | 4-Lane Arterial[2] | 2-Lane Highway[3] |
| A | Free flow with users unaffected by presence of other roadway users. | 0-0.32 | 0-0.30 | 0-0.15 |
| B | Stable flow, but presence of users in traffic stream becomes noticeable. | 0.33-0.51 | 0.31-0.50 | 0.16-0.27 |
| C | Stable flow, but operation of single users becomes affected by interactions with others in traffic stream. | 0.52-0.75 | 0.51-0.70 | 0.28-0.43 |
| D | High density but stable flow; speed and freedom of movement are severely restricted; poor level of comfort and convenience. | 0.76-0.92 | 0.71-0.84 | 0.44-0.64 |
| E | Unstable flow; operating conditions at capacity with reduced speeds, maneuvering difficulty, and extremely poor levels of comfort and convenience. | 0.93-1.00 | 0.85-1.00 | 0.65-1.00 |
| F | Forced or breakdown flow with traffic demand exceeding capacity; unstable stop-and-go traffic. | >1.00 | >1.00 | >1.00 |

Notes: [1]LOS for basic freeway sections, 70 miles per hour.
[2]LOS for 50 miles per hour design speed, multi-lane highway. Applicable to four or six-lane arterial.
[3]Level terrain, 20 percent no passing zones, design speed 60 miles per hour or greater. Applicable to two-lane streets.

Source: Transportation Research Board 1994.

State Highway 49 is an east-west highway providing direct regional access to the airfield property at Griffiss AFB via the Skyline entrance. In the vicinity of the airfield property, it is a six-lane, divided roadway east of Wright Drive and a four-lane, divided roadway west of Wright Drive.

State Highway 365 is a major southwest-northeast highway providing direct access to the airfield property and connecting Rome to Floyd, east of the airfield property, and Oneida, and Interstate 90, west of the airfield property. In the vicinity of the airfield property, it is a two-lane, undivided roadway. South of the airfield, State Highway 365 overlaps a portion of River Road and west of the airfield, it overlaps State Highway 49.

State Highway 69 is another east-west highway providing regional access to the airfield property at Griffiss AFB. Near Rome, State Highway 69 overlaps with State Highways 26, 49, and 46. It links Rome to Camden, west of the airfield property, and to Utica, southeast of the airfield property. State Highway 69 is a two-lane, undivided roadway which becomes a four-lane, divided roadway within the City of Rome.

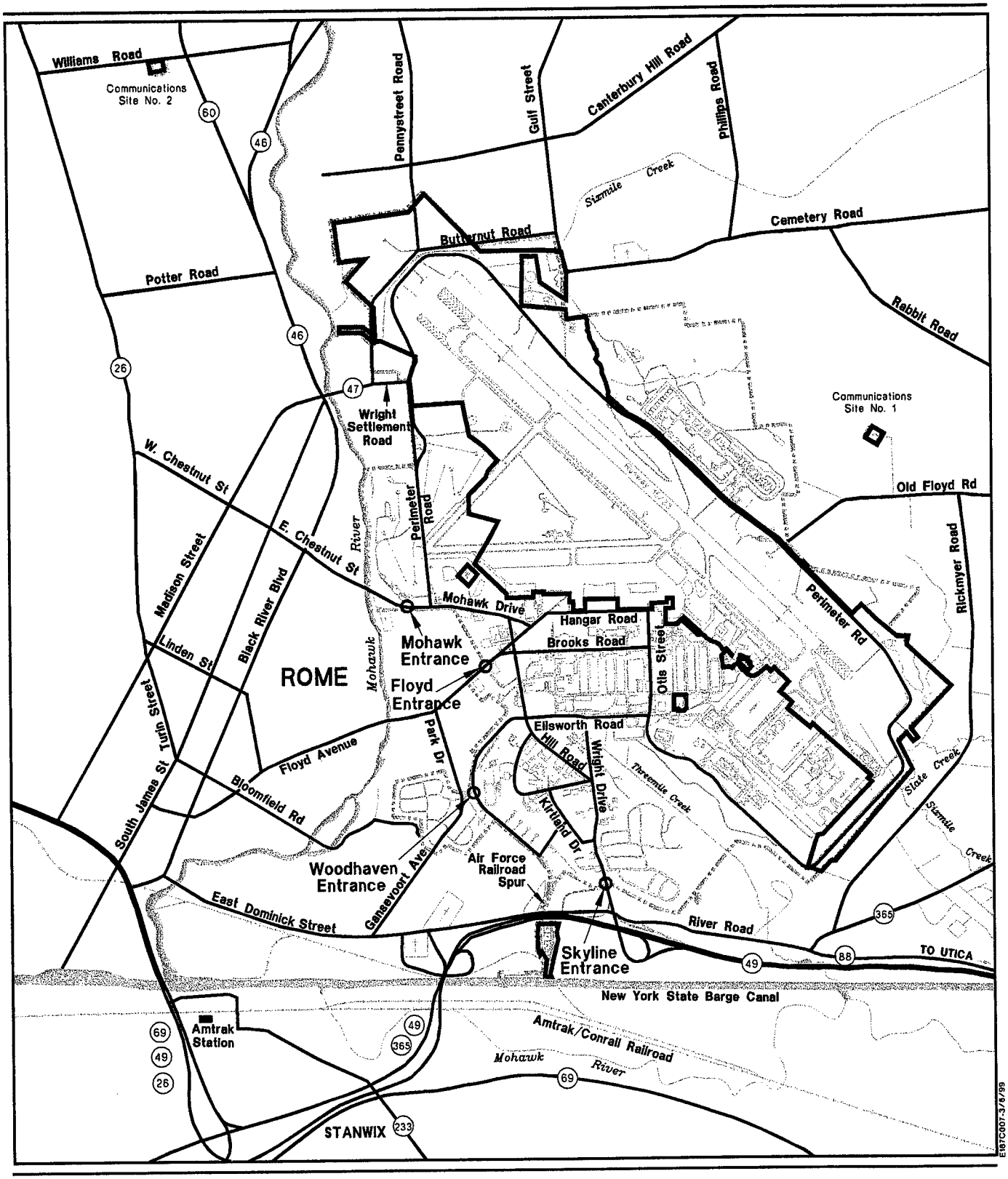
State Highway 26 (Turin Street) is a north-south arterial located west of the airfield property which serves the airfield property by routing traffic via city streets, mainly through Chestnut Street and Floyd Avenue. An arterial is a signalized street that primarily conveys through traffic. State Highway 26 is congested along its entire route through downtown Rome (overlaps with a portion of South James Street) during peak periods. It is generally a two-lane, undivided roadway. It becomes a four- and six-lane, divided roadway in downtown Rome.

State Highway 46, or Black River Boulevard in Rome, is a major north-south arterial located west of the airfield property at Griffiss AFB. It provides indirect regional and local access to the airfield property via Chestnut Street and Floyd Avenue. Black River Boulevard is a four-lane, divided roadway and becomes a six-lane, divided roadway at South Bloomfield Street. It is congested along its entire route through the downtown area during peak periods, mainly due to the lack of capacity at major intersections.

State Highway 233 is a north-south highway located south of Rome which provides additional indirect access to the airfield property from State Highway 69. State Highway 233 is a two-lane, undivided roadway which connects Rome and Utica.

County Road 47 (Pennystreet Road) is a north-south, two-lane highway providing direct access to the northern corner of the airfield property via Wright Settlement Road. County Road 88, also known as River Road near the airfield property, is a two-lane highway connecting the airfield property to State Highway 365. It runs parallel to State Highway 49 in the vicinity of the airfield property.

Other important local roads serving the airfield property at Griffiss AFB include East Dominick Street, Floyd Avenue, Chestnut Street, Wright Settlement Road, and Park Drive. East Dominick Street is an east-west, two-lane road south of the airfield property, which provides access to the Skyline entrance via an unnamed connector road to Wright Drive, southwest of the entrance. Floyd Avenue, a two-lane, undivided arterial linking the Floyd entrance with Black River Boulevard, is congested along its entire route through Rome during peak periods. Chestnut Street is a two-lane, undivided roadway linking Turin Street to the airfield property via the Mohawk entrance. This road provides the primary access to the airfield property at Griffiss AFB from the west. Wright Settlement Road, a two-lane, undivided




**LEGEND**

- Airfield Property Boundary
- Former Griffiss AFB Boundary
- (88) State and County Highway
- Other Road
- Railroad

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# Key Local Roads, 1996

**Figure 3.2-3**

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road located west of the airfield property, provides access to areas north of the airfield property at Griffiss AFB via Pennystreet and Butternut roads. Park Drive is a two-lane, undivided road connecting Woodhaven Village with Floyd Avenue and becomes Gansevoort Avenue south of the housing area to East Dominick Street.

Griffiss AFB had four traffic gates which stopped functioning as controlled entries with the realignment of the base on 30 September 1995. Griffiss AFB is now open to the public through these four entrances (Figure 3.2-3).

The main roadways within the former Griffiss AFB boundary, which would provide access to future developments on the airfield property, are Mohawk Drive, Brooks Road, Ellsworth Road, Perimeter Road, Floyd Road, Otis Street, Hill Road, and Wright Drive. All of these roads are two-lane, two-way, undivided roads.

With realignment of Griffiss AFB in September 1995, traffic volumes on key roads decreased as a result of reduced base employment. Table 3.2-3 presents the peak hour traffic on key roads as of March 1996.

**Table 3.2-3**

**Average PM Peak Hour Traffic Volumes on Key Roads**

| | | 1996 | |
|---|---|---|---|
| **Roadway Segment** | **Two-Way Capacity (Vehicles/hour)** | **Two-Way Vehicles Per Hour** | **Level of Service** |
| State Highway 49, East of Wright Drive Crossing | 7,440 | 1,510 | A |
| State Highway 49, West of Wright Drive Crossing | 10,480 | 800 | A |
| State Highway 49 eastbound on-ramp at Wright Drive | 1,500 | 135 | A |
| State Highway 49 eastbound off-ramp (loop) at Wright Drive | 1,350 | 25 | A |
| State Highway 49 westbound on-ramp at Wright Drive | 1,500 | 195 | A |
| State Highway 49 westbound off-ramp at Wright Drive | 1,500 | 125 | A |
| Connector Road between Wright Drive/East Dominick Street | 1,460 | 125 | A |
| East Dominick Street, West of Wright Drive Crossing | 1,460 | 1,040 | E |
| River Road (State Highway 365) at County Road 88 Junction | 1,760 | 465 | B |
| Floyd Avenue West of Floyd Entrance | 1,460 | 335 | B |
| Chestnut Street East of Black River Boulevard | 1,460 | 685 | D |
| Wright Settlement Road West of Base Boundary | 1,460 | 270 | B |
| Black River Boulevard North of Floyd Avenue | 5,020 | 1,295 | A |
| Black River Boulevard South of Floyd Avenue | 8,520 | 1,840 | A |
| Black River Boulevard South of Chestnut Street | 6,120 | 1,560 | A |
| Black River Boulevard North of Chestnut Street | 6,120 | 1,585 | A |

Notes: All traffic figures are rounded to the nearest 5.

Source: Harza Northeast 1996.

In 1995, the GLDC adopted a Master Plan for the redevelopment of Griffiss AFB (Hamilton, Rabinovitz & Alschuler, Inc. 1995). The circulation element of that plan recommended the following improvements to the road system on Griffiss AFB (Figure 3.2-4):

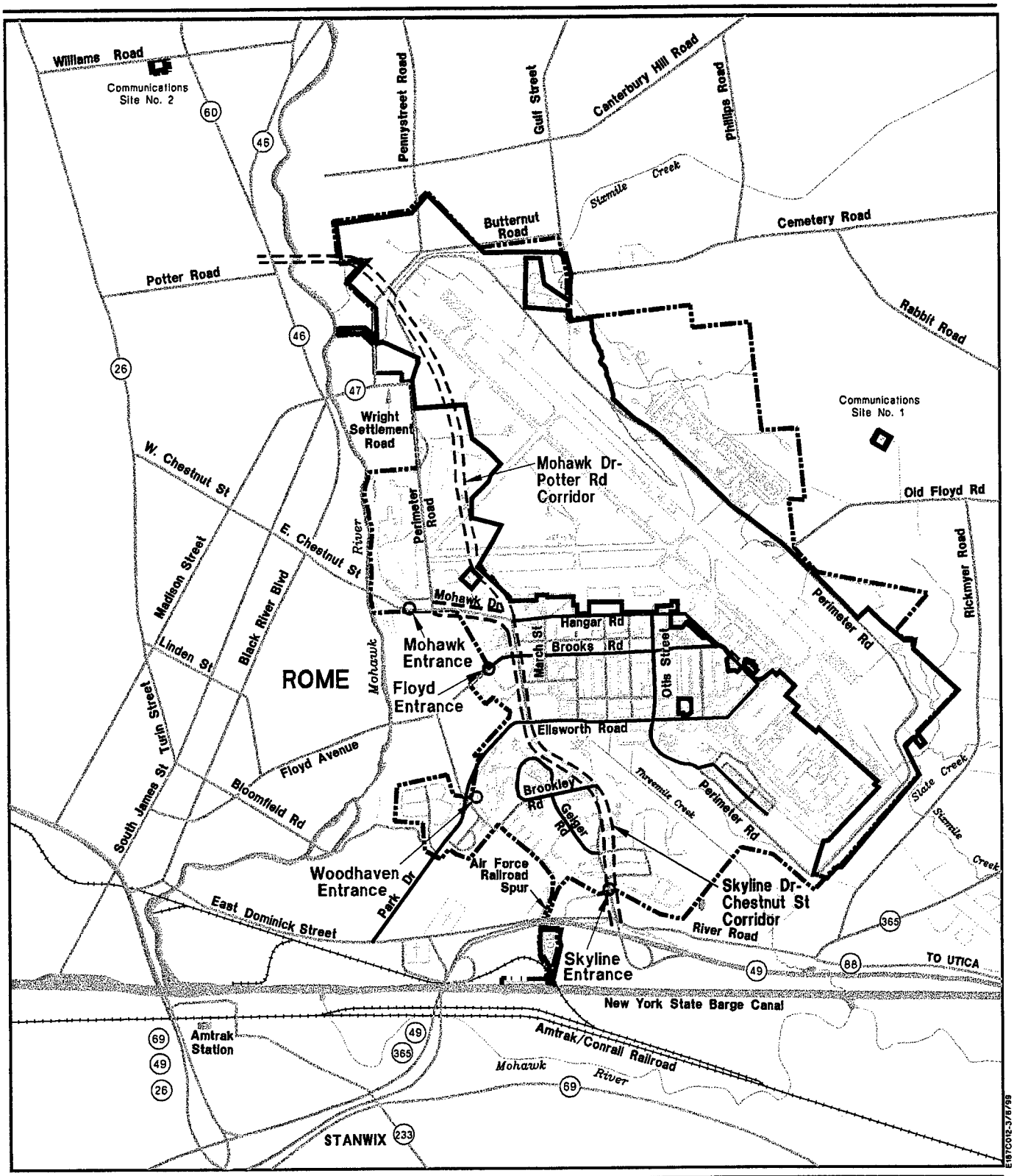
- A parkway providing a direct north-south connection between Route 49/365 and Black River Boulevard/Route 46 at Potter Road, with east-west connections to the City of Rome at Ellsworth Road, Floyd Avenue, and Mohawk Drive/Chestnut Street;
- Maintenance of unrestricted gateways (entrances) at Mohawk Drive/Chestnut Street and Floyd Avenue as key entrances from the City of Rome to Griffiss Business and Technology Park;
- Creation of an industrial service loop road within the Business and Technology Park;
- Improvement of access to SAC Hill;
- Realignment of Ellsworth to improve access to East Dominick Street via Park Drive and Gansevoort Avenue; and
- Construction of a new road through the Service Campus.

In December 1996, Harza Northeast completed a *Traffic Circulation Plan for the Redevelopment of Griffiss Air Force Base* (Harza Northeast 1996). This report examined the current and future traffic circulation at the Griffiss Business and Technology Park and surrounding areas in the City of Rome. The study recommended construction of the parkway through the Griffiss Business and Technology Park in two phases: (1) improvement of Wright Drive and Hill Road between the Skyline entrance at Wright Drive and Mohawk entrance at Mohawk Drive/Chestnut Street as a four-lane, divided parkway with improved connections through exclusive turn lanes for Hangar Drive, Floyd Avenue, and Brooks Road, and (2) new construction of the parkway between Mohawk Drive and Potter Road, as needed. For purpose of analysis of traffic impacts resulting from the Proposed Action and alternatives in this SEIS, it is assumed that at least the first phase of the Parkway would be completed before 2016.

#### 3.2.3.2 Airspace/Air Traffic

Airspace is a finite resource that can be defined vertically and horizontally, as well as temporally, when describing its use for aviation purposes. As such, it must be managed and utilized in a manner that best serves the competing needs of commercial, general, and military aviation interests.

The FAA is responsible for the overall management of airspace and has established different airspace designations to protect aircraft while operating to or from an airport, and traveling between airports within "special use" areas identified for defense-related purposes. The FAA has established rules of flight, and air traffic control procedures have been established to govern how aircraft must operate within each type of designated airspace. All




**LEGEND**

- Airfield Property Boundary
- Former Griffiss AFB Boundary
- (88) State and County Highway
- Parkway Phase 1
- Parkway Phase 2
- Planned Road Improvements

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Source: Griffiss Business and Technology Park Master Plan

# Planned Road Improvements at Griffiss Business and Technology Park

**Figure 3.2-4**

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aircraft operate under either instrument flight rules (IFR) or visual flight rules (VFR).

The type and dimension of individual airspace areas established within a given region and their spatial and procedural relationship to each other are contingent on the different aviation activities conducted in that region. When any significant change is planned for a region, such as an airport expansion or a new military flight mission, the FAA reassesses the airspace configuration to determine if such changes will adversely affect (1) air traffic control systems and/or facilities; (2) movement of other air traffic in the area; or (3) airspace already designated and used for other purposes. Therefore, considering the limited availability of airspace for air traffic purposes, a given region may or may not be able to accommodate airport or airspace area expansion plans.

The ROI for this analysis is the area within a 20-nautical-mile radius of the airfield property at Griffiss AFB and extends from the ground surface to 10,000 feet above mean sea level. This represents a three-dimensional volume of airspace normally reserved to support IFR air traffic operations at a typical military or civilian regional airport (Figure 3.2-5). Airspace in the Rome area is complicated by the proximity of the airfield property to Oneida County Airport, located 5 miles southeast of Rome in Whitestown. The orientation of the runways at these two facilities creates overlapping air traffic control zones.

The use of airspace in the Griffiss Airfield area is not constrained by the encroachment of heavily populated areas, towers, and/or prominent topographic features. The rectangular overhead traffic pattern for large aircraft is located east of the base to avoid overflight of the City of Rome. Through a letter of agreement with the county, flight tracks for military aircraft had been established to reduce conflicts with civilian aircraft operations at Oneida County Airport and to minimize community disturbance. With the closure of the Air National Guard activities at the Griffiss Airfield in September 1998, potential airspace conflicts would be eliminated.

Air traffic control for military and civil aircraft operating in the vicinity of the airfield property at Griffiss AFB is provided by FAA Radar Approach Control (RAPCON) and Boston Air Route Traffic Control Center (ARTCC). The FAA RAPCON at the airfield property provides radar coverage for all local aircraft from the ground surface to 10,000 feet above. Air traffic above 10,000 feet is controlled by Boston ARTCC. The airfield property tower controls the air traffic area within a 5-nautical-mile radius of the base and up to 3,000 feet in altitude.

In addition to the airfield property and Oneida County Airport, there are five civilian public use airports in the FAA RAPCON area. These include Becks Grove, Kamp, Luther, Elisha Payne, and Riverside. All have published instrument approach procedures, and the airfield property and Oneida County Airport each have at least one precision landing aid (Instrument Landing System or Precision Approach Radar). The remaining airports have nonprecision navigation aids and operate primarily under VFR, although arrivals and departures may be made during inclement weather and emergencies.

A total of 1,116 Air National Guard operations occurred at the airfield property at Griffiss AFB in 1996 (Table 3.2-4). All of these operations were conducted by transient aircraft.

### 3.2.3.3 Air Transportation

Air transportation includes passenger travel by commercial airline and charter flights; business and recreational travel by private, general aviation, and priority package; and freight delivery by commercial and air carriers.

Oneida County Airport, a publicly owned, public-use facility located approximately 5 miles southeast of the airfield property at Griffiss AFB, is the closest commercial airport to the airfield property.

In 1995, the airport was served by Jetstream International, Commutair, and Liberty Express airlines. Jetstream offered two daily nonstops to the Pittsburgh Airport. Commutair linked Oneida County Airport to Philadelphia, Pennsylvania, and New York City through the Newark International Airport in New Jersey. By 1996, only the Commutair was providing service to Oneida County Airport.

Oneida County Airport accommodates aircraft from Airplane Design Groups I, II, and III, and Aircraft Approach Categories A, B, and C. That is, the facility accommodates aircraft having approach speeds of up to 140 knots. The airport has two paved runways (5,400 and 6,000 feet long, and 150 feet wide). Aircraft operations (landings and takeoffs) are reported by the FAA for four categories: air carrier, air taxi and commuter, general aviation, and military. Oneida County Airport operations for 1993 and 1996 are presented in Table 3.2-5.

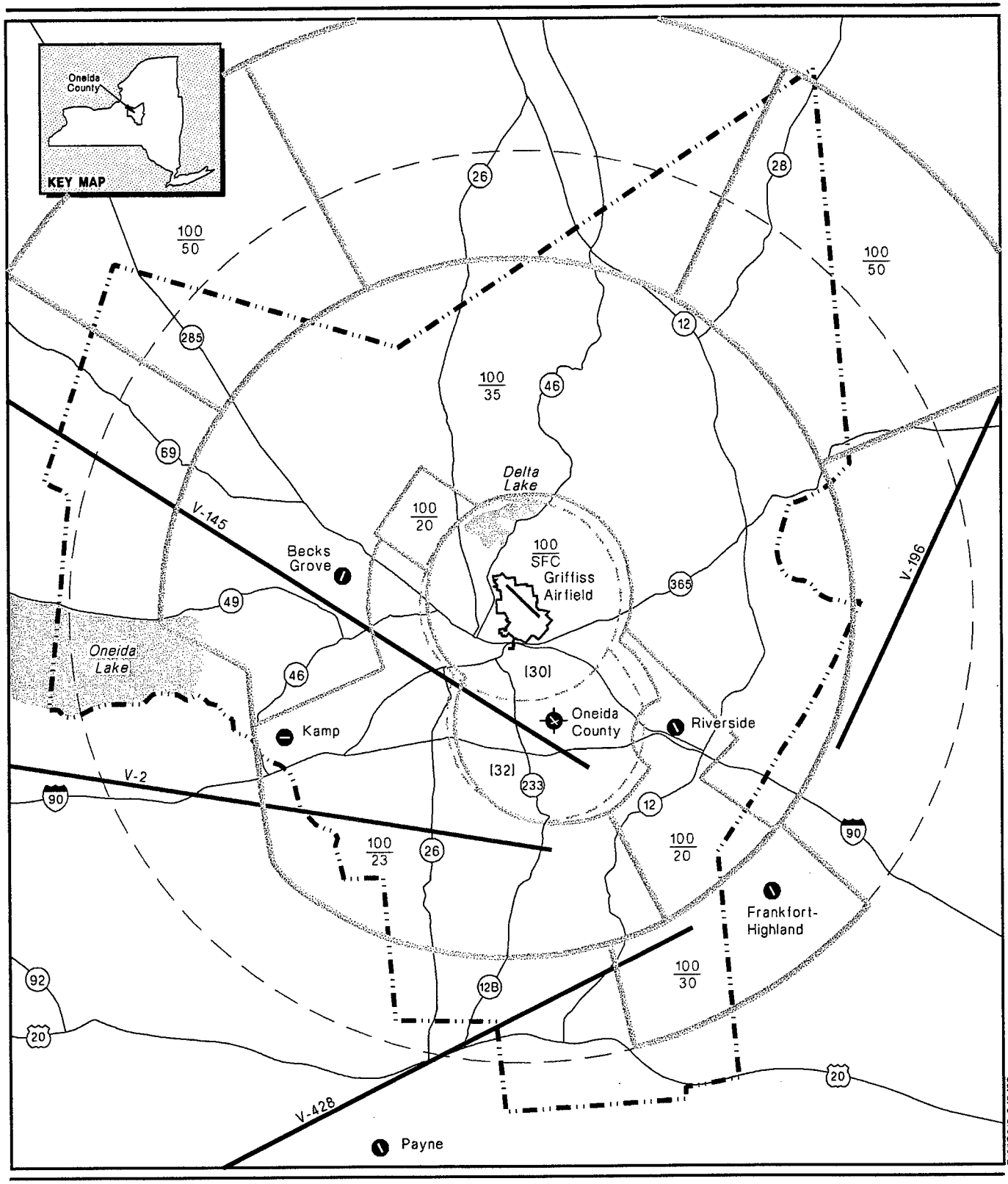
In 1996, Oneida County Airport accommodated 30,985 passengers and 45,520 operations, of which 1,381 were general military operations, 15,255 were general aviation operations, and 15,559 were air taxi and commuter operations. In 1996, the number of passengers decreased by 48.1 percent compared to the 1993 volume.

Oneida County Airport has no scheduled all-cargo service, and freight is generally transported by passenger aircraft. Little cargo activity is reported at this airport.

The second closest commercial airport is Syracuse Hancock International Airport in Syracuse, about 45 miles southwest of the airfield property at Griffiss AFB. Ten major airlines provide service to the airport, including both domestic and Canadian. The airport served 1,087,453 passengers in 1993, and is projected to serve 1,998,000 passengers in 1998 (City of Syracuse Department of Aviation 1996).

### 3.2.3.4 Railroads

Railroad freight service in the ROI is provided by the Conrail Railroad Company. A Conrail line runs east-west south of Rome. This line connects




**LEGEND**

- County Boundary
- Utica Terminal Radar Service Area (TRSA)
- Control Zone of Airport With Control Tower
- Low Altitude Federal Airway
- 20 Nautical Mile ROI
- [32] Ceiling of Control Zone in Hundreds of Feet MSL
- 100/35 Ceiling of Terminal Control Area in Hundreds of Feet MSL / Floor in Hundreds of Feet MSL
- Civil Airport
- Private Airport

Source: New York Sectional Aeronautical Chart, March 1994- U.S. Department of Commerce

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# Griffiss Airfield Airspace Region of Influence

**Figure 3.2-5**

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Table 3.2-4

Griffiss Airfield Aircraft Operations (1996)

| Aircraft Type | In | Out | Total |
|---|---|---|---|
| A10 | 2 | 2 | 4 |
| A300 | 3 | 3 | 6 |
| AH1 | 13 | 0 | 13 |
| B727 | 5 | 5 | 10 |
| B737 | 3 | 3 | 6 |
| B747 | 9 | 9 | 18 |
| B757 | 5 | 5 | 10 |
| BE19 | 1 | 1 | 2 |
| BE300 | 12 | 12 | 24 |
| BJR | 2 | 2 | 4 |
| C5 | 53 | 53 | 106 |
| C9 | 1 | 1 | 2 |
| C12 | 3 | 3 | 6 |
| C17 | 39 | 39 | 78 |
| C26 | 14 | 14 | 28 |
| C130 | 71 | 71 | 142 |
| C141 | 63 | 63 | 126 |
| C172 | 1 | 1 | 2 |
| C402 | 2 | 2 | 4 |
| DC10 | 12 | 12 | 24 |
| E6 | 1 | 1 | 2 |
| F16 | 80 | 80 | 160 |
| KC10 | 9 | 9 | 18 |
| KR35 | 21 | 21 | 42 |
| L1011 | 3 | 3 | 6 |
| LR25 | 1 | 1 | 2 |
| MD11 | 1 | 1 | 2 |
| MD80 | 1 | 1 | 2 |
| OH58 | 16 | 41 | 57 |
| OV1 | 18 | 18 | 36 |
| P3 | 6 | 6 | 12 |
| PA28 | 2 | 2 | 4 |
| PA32 | 1 | 1 | 2 |
| UH1 | 5 | 5 | 10 |
| UH60 | 73 | 73 | 146 |
| **Total** | **552** | **564** | **1,116** |

Source: New York Air National Guard 1997.

Table 3.2-5

Oneida County Airport Operations

| Type of Operations | 1993 | 1996 | Change 1993-1996 |
|---|---|---|---|
| **Itinerant** | | | |
| Air Carrier | 77 | 60 | -17 |
| Air Taxi | 15,065 | 15,499 | +435 |
| General Aviation | 27,391 | 15,255 | -12,136 |
| Military | 3,249 | 990 | -2,259 |
| **Subtotal:** | **45,782** | **31,804** | **-13,978** |
| Change (%) | | | -30.5% |
| **Local** | | | |
| Civilian | 20,406 | 10,325 | -10,081 |
| Military | 1,636 | 391 | -1,245 |
| Subtotal: | 22,042 | 10,716 | -11,326 |
| Change (%) | | | -51.4% |
| **Total Operations:** | **67,824** | **42,520** | **-25,304** |
| Change (%) | | | -37.3% |
| **Passengers** | | | |
| Enplanements | 29,283 | 15,542 | -13,741 |
| Deplanements | 30,388 | 15,443 | -14,945 |
| **Total:** | **59,671** | 30,985 | **-28,686** |
| Change (%) | | | -48.1% |

Note: NA = Not applicable

Sources: J. Benner and B. Cossette, personal communications, 1994; Oneida County Department of Public Works, Division of Aviation 1997.

Rome to Utica, Albany, Syracuse, and Buffalo. A double spur comes off the Conrail main line south of the former Griffiss AFB. One leg goes north, passing Woodhaven entrance parallel to Ellsworth Road. This leg provides service to the central portion of the base property but is currently inactive. The other leg follows East Dominick Street and West Erie Boulevard and is operated by PENN Railroad.

Rail passenger service in the ROI is provided by Amtrak, linking Buffalo to Albany with stops at major towns. Connections can be made in Albany to New York City, Boston, and Montreal. The closest Amtrak station to the base is located at Martin Street, south of Rome, approximately 3 miles southwest of the Skyline entrance. Amtrak trains make three stops daily each way at the Rome station. Between 1980 and 1993, Amtrak ridership at Rome station decreased appreciably. For example, ridership in 1980 totaled 20,479 compared to 11,091 passengers in 1993 (S. Taub, personal communication, 1994).

#### 3.2.3.5 Other Transportation Modes

**Waterways.** The New York State Barge Canal, recently deepened to accommodate Great Lakes vessels (C&S Engineers, Inc. 1994), has a terminal in Rome where facilities for the handling of freight shipments have been installed by the State. At the confluence of the New York State Barge Canal and Mohawk River, the City of Rome has prepared a master plan for a canal port redevelopment called Rome Harbor, which would provide fishing and boat servicing (Hamilton, Rabinovitz and Alschuler, Inc. 1994).

### 3.2.4 Utilities

Utility systems addressed in this analysis include the facilities and infrastructure used for:

- Potable water pumping, treatment, storage, and distribution;
- Wastewater collection and treatment;
- Solid waste collection and disposal; and
- Energy generation and distribution, including the provision of electricity and natural gas.

The ROI for utilities consists of the service area of each utility provider servicing the City of Rome, including the former Griffiss AFB and the airfield property. The major attributes of utility systems in the ROI are processing and distribution capacities, storage capacities, average daily consumption, peak demand, and related factors required to determine whether such systems are adequate to provide services in the future.

#### 3.2.4.1 Regional or Local Systems

**Water.** The City of Rome Department of Public Works supplies water to the Inner and Outer Districts of the City of Rome, the former Griffiss AFB (including the airfield property), and parts of the Town of Floyd, and the Town of Lee. The service area encompasses an area of about 30 square miles, with about 25 miles of water lines in the Town of Floyd and about 170 miles of water lines in the City of Rome. The city supplies water to 9,085 residential customers and 785 commercial establishments in the service area.

The source of water is the Fish Creek water system, with diversion dams impounding about 1.4 billion gallons of water in Lake Tegasoke. The water from Fish Creek is transported to Stokes Filtration Treatment Plant, located 5 miles north of Rome on State Highway 26 in the City of Lee. This filtration plant was constructed in 1990 next to Rome Reservoir.

The capacity of the Stokes reservoir is 65 million gallons. The maximum capacity of the water filtration plant is 18.9 million gallons per day (MGD). The average amount of water supplied by this plant was 8.60 MGD in 1995, 8.34 MGD in 1996, and 8.29 MGD in 1997 (Table 3.2-6).

**Table 3.2.6**

**Utility Demands in the Region of Influence (1996-1999)**

| Utility | 1996 | 1997 | 1998 | 1999 |
|---|---|---|---|---|
| Water (MGD) | 8.31 | 8.33 | 8.31 | 8.31 |
| Wastewater (MGD) | 8.34 | 8.31 | 8.33 | 8.31 |
| Solid Waste (tons/day) | 35.18 | 35.23 | 35.17 | 35.08 |
| Electricity (MWh/day) | 1,810 | 1,805 | 1,808 | 1,805 |
| Natural Gas (Thousand Therms/day) | 53.58 | 53.44 | 53.52 | 53.44 |

Note: [1]All are estimates based on population.

Sources: W. Stickles, T. Higgins, R. Conover, S. Devan personal communication, 1994.

**Wastewater.** Wastewater in the ROI is treated at the City of Rome Wastewater Treatment Plant located at East Dominick Street. The capacity of the treatment plant is 9 MGD and is being expanded to 12 MGD. The existing sanitary collection system is now mostly separated from the stormwater system. The treated water is discharged to the combined New York State Barge Canal and Mohawk River subject to the limitations of the facility's State Pollutant Discharge Elimination System (SPDES) permit. Currently, the treatment plant exceeds its 9 MGD treatment capacity. The Rome Wastewater Treatment Plant treated 8.60 MGD of wastewater in 1995, 8.34 in 1996, and 8.29 in 1997 (Table 3.2-6).

**Solid Waste.** The Oneida-Herkimer Solid Waste Management Authority (SWMA) is responsible for managing solid waste generated in Oneida and Herkimer counties. The authority is a public benefit corporation formed by both counties and created by New York State legislative mandate. The authority is responsible for the operation of a 200-ton-per-day recycling center, a 480-ton-per-day transfer station, and a 7-acre green waste compost site.

Prior to March 1995, municipal waste from the City of Rome, Griffiss AFB, and the western portion of Oneida County was processed at the Oneida County Energy Recovery Facility (ERF), a 200-ton-per-day waste-to-energy facility. Solids that could not be burned were transported to the Oneida County Ash Landfill, located on Tannery Road in Rome. The ERF was shut down in March 1995; however, the ERF property is being used as a temporary transfer station. Solid waste generated in the region is currently being transferred to Empire Sanitary Landfill in Taylor, Pennsylvania.

Municipal wastes from the City of Rome are disposed of in a landfill site near Ava, approximately 7 miles north of Rome. The site has a lifespan of 42 to 59 years with a disposal rate of about 50 tons per day.

**Electricity.** Niagara-Mohawk Power Corporation provides electricity to the Rome area. Niagara-Mohawk's total service area includes Buffalo to the west, Albany to the east, and Watertown to the north. It operates two nuclear power plants, several coal- and gas-fired power plants, and a number of small hydroelectric power generation domes. There are four, 115 kilovolt (kV) transmission lines at the Rome substation. Niagara-Mohawk supplied 1,790 megawatt-hours (MWh) per day in 1995, 1,810 MWh per day in 1996, and 1,805 MWh per day in 1997 in the Rome service area (Table 3.2-6).

**Natural Gas.** Niagara-Mohawk Power Corporation provides natural gas to approximately a half million residential, commercial, industrial, and transportation customers in a 4,500-square-mile service territory which includes the City of Rome, the former Griffiss AFB, and the towns of Floyd and Lee. Natural gas supplied by Niagara-Mohawk Power Corporation is obtained from a supplier. In 1995, 1996, and 1997, 53.04, 53.58, and 53.44 thousand therms per day, respectively, of natural gas were supplied by Niagara-Mohawk in the Rome service area (Table 3.2-6).

### 3.2.4.2 Airfield Systems

The airfield property does not maintain utility production (except for emergency electric power generation) or processing facilities. Instead, all utilities are supplied from outside sources. Average utility consumption for water, electricity, and natural gas and wastewater and solid waste generation for the airfield property since base realignment are summarized in Table 3.2-7.

**Table 3.2-7**

**Airfield Property Utility Use Since Base Realignment**

| Utility | 1996 |
|---|---|
| Water (MGD) | 0.012 |
| Wastewater (MGD) | 0.009 |
| Solid Waste (tons/day) | 1.5 |
| Electricity (MWh/day) | 0.082 |

Source: NYANG 1997.

**Water.** Potable drinking water is supplied to the former Griffiss AFB and the airfield property by the City of Rome. There are four points at which city water enters the base for distribution to the airfield property. The largest major connection is a 20-inch pipe which enters along Chestnut Street. In addition, there are three, 6-inch connections, located at the Barge Canal Bulk Fuel Storage Area, north of Building 880 on Bell Road, and in the Woodhaven Village on Gansevoort Avenue. There are three elevated water

storage tanks on the base with capacities of 500,500, 300,000, and 250,000 gallons.

**Wastewater.** Wastewater generated from the airfield property is treated at the City of Rome Wastewater Treatment Plant. The treated water is discharged to the New York State Barge Canal and Mohawk River. Since base realignment, approximately 0.009 MGD of wastewater from the airfield property is treated at the plant. There are also several septic tank systems on the airfield property which serve buildings that are in remote areas not connected to the sanitary sewer system.

**Solid Waste.** Solid waste generated on the airfield property is collected by private contractors. Since March 1995, solid waste generated at the airfield property has been taken to Empire Sanitary Landfill in Taylor, Pennsylvania for disposal.

**Electricity.** Electricity is provided to the airfield property by Niagara-Mohawk Power Corporation. The Rome substation serves the ROI including the airfield property. The Rome-Boonville Number 4 line feeds Griffiss AFB. There are two substations located in the Griffiss Business and Technology Park. The main substation is southeast of the intersection of Ellsworth Drive and Wright Drive. The second substation is southwest of Building 112 and supports Rome Laboratory activities. There are a number of emergency electric power generators located on the airfield property.

**Natural Gas.** Heating for the airfield property is provided by a steam plant located in the Griffiss Business and Technology Park. The capacity of the steam plant is 376.2 million British thermal units (Btu) per hour. Coal was formerly used to generate steam, but natural gas (with No. 2 fuel oil as a backup) is now used as a fuel at the heating plant.

Utility demands in the ROI have remained relatively stable with no significant yearly changes. With the closure of the airfield property in 1998, utility use at the airfield would be reduced. However, this decrease in utility demand would be offset by projected growth in the region and ongoing development at the Griffiss Business and Technology Park.

## 3.3 HAZARDOUS MATERIALS AND HAZARDOUS WASTE MANAGEMENT

Hazardous materials and hazardous waste management activities within the airfield property are governed by specific environmental regulations. For the purpose of this analysis, the terms hazardous materials and hazardous waste mean those substances defined as hazardous by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 United States Code (USC) 9601-9675, as amended, and the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), 42 USC 6901-6992, as amended. In general, this includes substances that, because of their quantity, concentration, or physical,

chemical, or infectious characteristics, may present substantial danger to public health or welfare or the environment when released into the environment.

The U.S. Environmental Protection Agency (EPA) has granted the State of New York the authority to promulgate and enforce environmental regulations under RCRA. The State regulations, which must be at least as stringent as the Federal regulations, are outlined in New York Codes, Rules, and Regulations (NYCRR) Title 6, Parts 370-374 (1992), and are administered by the New York State Department of Environmental Conservation (NYSDEC).

Transportation of hazardous materials is regulated by the U.S. Department of Transportation in accordance with regulations implementing the Hazardous Materials Transportation Act (HMTA), as amended (as implemented by 49 Code of Federal Regulations (CFR) 171-179 and 190-197). State regulations regarding the transportation of hazardous waste are outlined in NYCRR Title 6, Part 372, and are also administered by the NYSDEC.

The ROI encompasses all geographic areas that are exposed to the possibility of a release of hazardous materials or hazardous waste from Griffiss AFB. The ROI for known contaminated sites is within the boundaries of the airfield property at Griffiss AFB. The surface water receiving areas include Sixmile Creek, a diversion channel around the north end of the runway, the New York State Barge Canal, and the Mohawk River (Chapter 1.0, Figure 1.1-1). Specific areas of the airfield property affected by past and current hazardous materials and waste operations, including remediation activities, are discussed in the following sections.

The *Basewide Environmental Baseline Survey, Griffiss Air Force Base, New York* (U.S. Air Force 1994a) was prepared to document the environmental condition of real property at Griffiss AFB (including the present airfield property) resulting from the storage, use, and disposal of hazardous substances and petroleum products and their derivatives over the installation's history. In 1997, following realignment, environmental conditions at the former Griffiss AFB were updated in the *Basewide Environmental Baseline Survey Supplement (Update 2), Griffiss Air Force Base, Rome, New York* (U.S. Air Force 1997a). These two documents have been used for this analysis and are referenced as appropriate.

### 3.3.1 Hazardous Materials and Petroleum Products Management

Hazardous materials are stored and used within the airfield property in connection with flightline, mission support, and various industrial operations, including aerospace ground equipment (AGE) repair and maintenance, vehicle maintenance, corrosion control, painting, and insect and weed control. The most commonly used hazardous materials include fuels (JP-4 and JP-8 jet fuel, diesel, unleaded gasoline, and heating fuel oil), other petroleum products (such as lubricating oils, engine lubricating oils, hydraulic fluids,

automatic transmission fluids), potassium acetate (for runway deicing), deicing-defrosting/anti-icing fluid, adhesives, cleaners and detergents, polishes and polish removers, lead-acid batteries, pesticides, hydraulic fluids, and halogenated and nonhalogenated solvents. A summary of hazardous material storage locations is presented in Table 3.3-1.

Management and use of hazardous materials are undertaken in accordance with applicable laws and regulations. Hazardous materials distributed to various locations around the airfield property are generally stored in small quantities. Flammable materials at most workplaces are stored in small storage lockers or similar facilities.

Petroleum products (e.g., JP-4, JP-8, diesel fuel, and gasoline) are delivered directly to storage facilities, such as two large aboveground storage tanks used for bulk fuel storage and other vehicle refueling stations. Jet fuel is supplied to the bulk fuel storage tanks via tanker trucks.

*The New York Air National Guard Spill Prevention, Control, and Countermeasures Plan* identifies procedures and resources for preventing or remediating hazardous material and waste spills, outlines spill prevention practices and site-specific contingency plans in case of a spill, and contains the Material Safety Data Sheets (MSDSs) for common hazardous materials stored on the airfield property.

Following closure, hazardous materials would cease to be used by the NYANG within the airfield property. Subsequent to closure, any usage of hazardous materials on this property by future owners must be in accordance with applicable Federal, State, and local regulations to protect employees from occupational exposure to hazardous materials and to protect the public health of the surrounding community. Hazardous materials use must also be in compliance with CERCLA as amended by SARA, RCRA facilities storage design criteria, and NYCRR Title 6, Parts 370-374.

### 3.3.2 Hazardous Waste and Waste Petroleum Management

Normal operations within the airfield property generate waste defined as hazardous by the RCRA (40 CFR 261-265) and the State of New York (NYCRR Title 6, Part 371). NYSDEC enforces RCRA regulations as modified by the State's regulations. Prior to the passage of RCRA and the adoption of regulations for the management of hazardous waste, some hazardous waste and waste petroleum products generated on the former Griffiss AFB base were disposed of in accordance with accepted practices at the time, including disposal with other solid waste in landfills, disposal in the sanitary sewer system, or through burning at five training areas.

In 1996, the airfield property generated over 4,140 pounds of hazardous wastes, as shown in Table 3.3-2. The primary wastes included used cold cleaning solvents, used fuel filters, used JP-8 fuel filters, used absorbent and

Table 3.3-1

Hazardous Materials Storage Area, Airfield Property

| Building Number | Organization | Hazardous Material |
|---|---|---|
| 15 | Fire Department | Aqueous Film-Forming Foam |
| 42 | Fuels Management Branch | Cleaning Detergent |
| 42 | Fuels Management Branch | Dishwashing Compound, Hand Type |
| 42 | Fuels Management Branch | Floor Wax |
| 42 | Fuels Management Branch | Isopropyl Alcohol |
| 42 | Fuels Management Branch | Lubricating Oil |
| 42 | Fuels Management Branch | Petroleum Ether |
| 42 | Fuels Management Branch | Polish, Furniture |
| 42 | Fuels Management Branch | Polishing Compound, Automotive |
| 42 | Fuels Management Branch | Propane |
| 42 | Fuels Management Branch | Remover, Floor Polish |
| 42 | Fuels Management Branch | Silica Gel Indicator |
| 43 | Fuels Management Branch | Deicing-Defrosting/Anti-Icing Fluid |
| 43 | Fuels Management Branch | Fuel Oil, Diesel #1, Low Sulfur (Gas Station) |
| 43 | Fuels Management Branch | General Purpose Cleaner |
| 43 | Fuels Management Branch | Lubricating Oil |
| 43 | Fuels Management Branch | MUR (Unleaded Gasoline) |
| 43 | Fuels Management Branch | Pine Oil Detergent |
| 43 | Fuels Management Branch | Water-Indicating Paste |
| 45 | Fire Department | Aqueous Film-Forming Foam |
| 45 | Fuels Management Branch | Fuel Oil, Diesel #1, Generator |
| 45 | Fuels Management Branch | Fuel Oil, Diesel #1, Heating |
| 45 | Snow and Grounds | Potassium Acetate |
| 47 | Fire Department | Aqueous Film-Forming Foam |
| 47 | Fuels Management Branch | Cleaning Solvent, Windshield |
| 47 | Fuels Management Branch | Full Force Antifreeze and Coolant |
| 47 | Fuels Management Branch | Lubricating Oil, Engine (10W30) |
| 97 | Fuels Management Branch | Fuel Oil, Diesel #1, Generator |
| 100 | Fire Department | Aqueous Film-Forming Foam |
| 100 | Fuels Management Branch | Fuel Oil, Diesel #1, Generator |
| 101 | Vehicle Maintenance Branch | Antifreeze |
| 101 | Fire Department | Aqueous Film-Forming Foam |
| 101 | Vehicle Maintenance Branch | Automatic Transmission Fluid |
| 101 | Vehicle Maintenance Branch | Hydraulic Fluid, Fire Resistant |
| 101 | Vehicle Maintenance Branch | Hydraulic Fluid, Petroleum Base |
| 101 | Vehicle Maintenance Branch | Lubricating Oil, Engine (10W30) |
| 101 | Vehicle Maintenance Branch | Lubricating Oil, Engine (15W40) |
| 101 | Vehicle Maintenance Branch | Lubricating Oil, Engine (80W90) |
| 150 | Fire Department | Aqueous Film-Forming Foam |

Table 3.3-1, Page 2 of 2

| Building Number | Organization | Hazardous Material |
|---|---|---|
| 654 | Fuels Management Branch | Floor Wax |
| 654 | Fuels Management Branch | General Purpose Cleaner |
| 654 | Fuels Management Branch | Pine Oil Detergent |
| 654 | Fuels Management Branch | Thermometer, Self-Indicating |
| 654 | Fuels Management Branch | Turbine Flue, Aviation JP-8 |
| 654 | Fuels Management Branch | Water-Indicating Paste |
| 764 | Fuels Management Branch | Fuel Oil, Diesel #1, Heating |
| 793 | Fuels Management Branch | Fuel Oil, Diesel #1, Heating |
| 800 | Fuels Management Branch | Fuel Oil, Diesel #1, Generator |
| 800 | Fuels Management Branch | Kerosene, Heating |
| 802 | Fuels Management Branch | Fuel Oil, Diesel #1, Generator |
| 805 | Fuels Management Branch | Fuel Oil, Diesel #1, Generator |
| 805 | Fuels Management Branch | Kerosene, Heating |
| 859 | Fuels Management Branch | Fuel Oil, Diesel #1, Generator |
| 879 | Fuels Management Branch | Fuel Oil, Diesel #1, Generator |

Table 3.3-2

Hazardous Waste Generated Within the Airfield Property in 1996

| Waste Description | Quantity (pounds) | Percent |
|---|---|---|
| Used Cold Cleaning Solvent | 2,000 | 48.31 |
| Used Fuel (JP-8) Filters | 800 | 19.32 |
| Used Fuel Filters | 620 | 14.98 |
| Used Absorbent and Rags | 200 | 4.83 |
| Used Absorbent | 200 | 4.83 |
| Used Airfield Lighting Bulbs | 200 | 4.83 |
| Used Fluorescent Bulbs | 100 | 2.42 |
| Used Batteries (Li, Ni-Cd) | 20 | 0.48 |

Source: New York Air National Guard 1997

rags, used airfield lighting bulbs, used fluorescent lamps, and used batteries (lithium and nickel-cadmium). A variety of waste petroleum products are generated within the airfield property which are not regulated under RCRA, but are under New York State regulations. These include jet fuel, lubricating oil, and hydraulic fluid.

Waste minimization projects have been established by the NYANG to reduce and minimize quantities of hazardous waste generated. Waste minimization is accomplished through recycling of spent materials, substituting biodegradable products for hazardous materials, implementing technological

changes, segregating hazardous waste from petroleum, oil, and lubricants (POL) waste, and using good operating practices.

Beginning in the early 1980s, hazardous waste generated on the former Griffiss AFB was managed in accordance with applicable Federal and State regulations implementing RCRA. Subsequent to base realignment, such practices have continued within the airfield property by the NYANG. In general, hazardous waste is placed in containers at various satellite accumulation points, near the points of generation, where up to 55 gallons of waste can be accumulated. The waste is transferred to designated accumulation points until removed for offsite recycling or disposal by permitted contractors (Table 3.3-3).

**Table 3.3-3**

**Hazardous Waste Storage Areas by Generator Activity**

| Building | Organization | General Waste Types |
|---|---|---|
| 101 | Vehicles and AGE | Used Cold Cleaning Solvent, Used Fuel Filters |
| 15 | Vehicles and AGE | Used Fuel Filters, Used Absorbent and Rags |
| Barge Canal Facility | Fuels and Deicing | Used Fuel (JP-8) Filters |
| 47 | Fuels and Deicing | Used Absorbent |
| 100 | Facility Maintenance | Used Fluorescent Bulbs, Used Batteries (Li, Ni-Cd) |
| 100 | ATCALS | Used Airfield Lighting Bulbs |

Storage at the accumulation points is temporary (i.e., not to exceed 90 days from the time the waste begins to accumulate). These storage facilities are operated in accordance with 40 CFR Part 265, Subparts I and J, and are inspected to ensure compliance with all RCRA and State regulations. Waste petroleum products are also stored at many of the accumulation points and hazardous waste storage generation points. An inventory of sites where hazardous waste and waste petroleum products are known to have been collected and stored in the past is provided in the Griffiss AFB Environmental Baseline Survey (U.S. Air Force 1994a).

### 3.3.3 Installation Restoration Program Sites

The Installation Restoration Program (IRP) is an Air Force program designed to identify, characterize, and remediate environmental contamination on Air Force installations. Although widely accepted at the time, procedures followed prior to the mid-1970s for managing and disposing of many wastes often resulted in contamination of the environment. The IRP program has established a process to evaluate past disposal sites, control the migration of contaminants, and control potential hazards to human health and the environment. Section 211 of SARA, the Defense Environmental Restoration

Program (DERP), 10 USC 2701-2708, of which the Air Force IRP is a subset, ensures that the Department of Defense (DOD) has the authority to conduct its own environmental restoration programs. The DOD coordinates IRP activities with the EPA and appropriate State agencies.

Prior to passage of SARA in 1986 and the establishment of the National Contingency Plan (NCP) for hazardous waste sites, Air Force IRP procedures followed DOD policy guidelines mirroring the EPA Superfund program. Since SARA was passed, many Federal facilities have been placed on a Federal docket and the EPA has been evaluating the facilities' waste sites for possible inclusion on the National Priorities List (NPL). Based on a site evaluation conducted under the EPA quantitative Hazard Ranking System, Griffiss AFB, including the airfield property was determined to be eligible for listing on the NPL, and therefore warranted further action under CERCLA.

The former Griffiss AFB was placed on the NPL on July 22, 1987, and in August 1990, the Air Force entered into a Federal Facility Agreement (FFA) with EPA Region II and the State of New York. NYSDEC was designated as the single State agency responsible for the Federal programs carried out under this agreement. The FFA established a procedural framework and schedule of deadlines for developing, implementing, and monitoring appropriate response actions at Griffiss AFB in accordance with CERCLA and applicable State regulations. The agreement stipulates that any corrective actions under RCRA shall be considered and managed pursuant to CERCLA. Objectives, responsibilities, procedures, and schedules for remediation were established in the FFA. The deadlines are binding on the Air Force subject to compliance by the other FFA parties to the agreed review periods. The parties to the FFA may request extensions for good cause; for example, identification of significant new site conditions. Table 3.3-4 contains a schedule of activities under the FFA for Griffiss AFB including the airfield property. There are no revisions pending. A representation of the IRP management process under CERCLA is shown in Figure 3.3-1, while Figure 3.3-2 shows the location of IRP sites within and adjacent to the airfield property.

The IRP currently has three action stages:

- Preliminary Assessment/Site Investigation (PA/SI);
- Remedial Investigation/Feasibility Study (RI/FS); and
- Remedial Design/Remedial Action (RD/RA).

The PA portion of the first stage consists of a records search and interviews to determine whether potential problems exist. A brief SI, which may include soil and water sampling, is performed to give an initial characterization or to confirm the presence of contamination at a potential site.

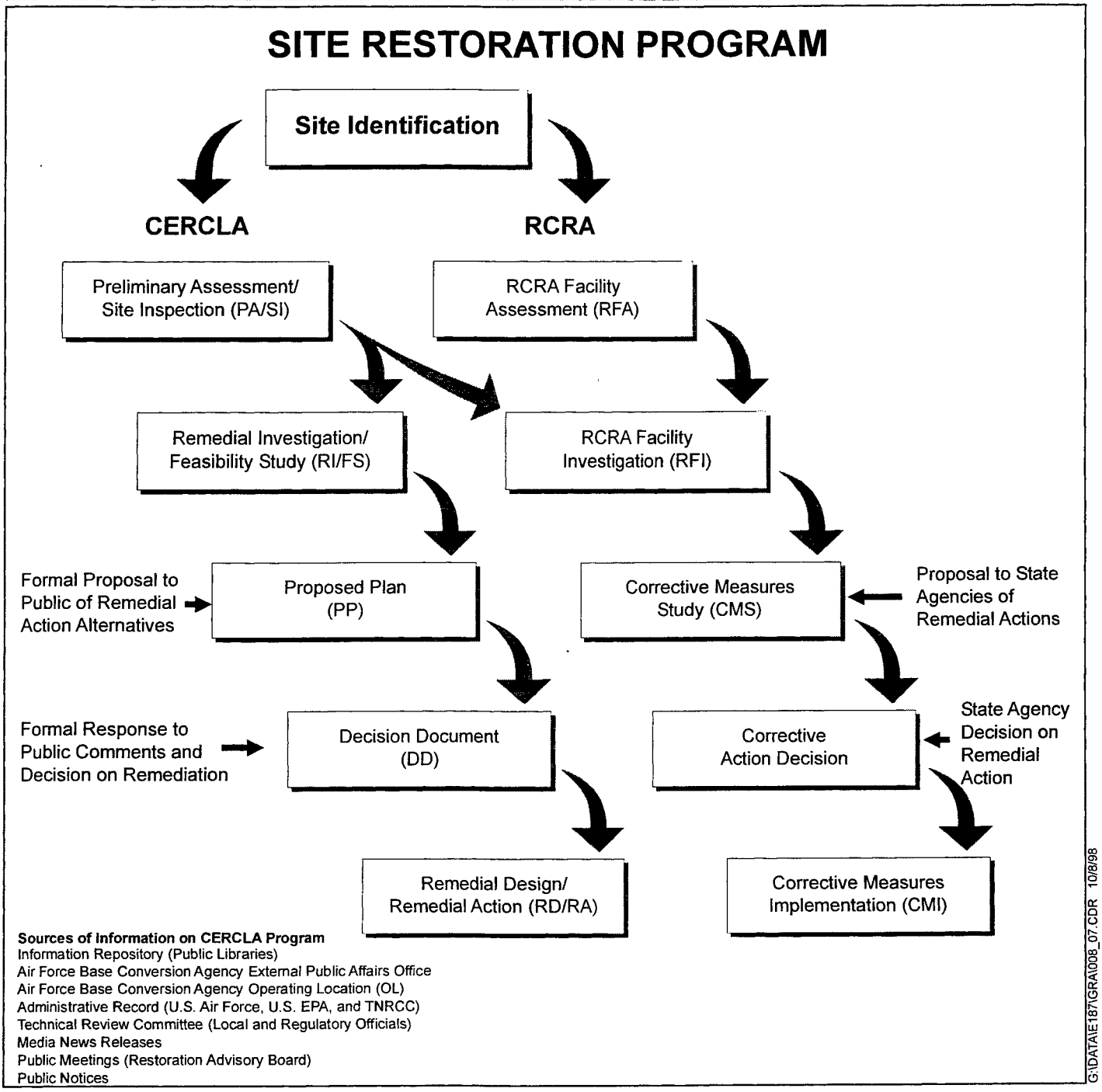
Table 3.3-4

Griffiss AFB Federal Facility Agreement[1]

| Document Name | Final Deliverable Date to FFA Members |
|---|---|
| **Operable Units 1, 2, 3, 4, 5, 6, 7, and IRP Sites 43, 46** | |
| Remedial Investigation Report | August 1997 (completed) |
| Feasibility Study Report | June 2000 |
| Proposed Plan | August 2001 |
| Record of Decision | July 2002 |
| **IRP Site 40** | |
| Site Investigation Work Plan | May 1992 (completed) |
| Site Investigation Report | December 1993 (completed) |
| **IRP Sites 45 and 49** | |
| Site Investigation Report | June 1992 (completed) |
| **IRP Site 52** | |
| Remedial Investigation/Feasibility Study Work Plan | January 1997 (completed) |
| Remedial Investigation Report | August 1998 (completed) |
| Feasibility Study Report | January 2001 |
| Proposed Plan | January 2003 |
| Record of Decision | November 2002 |
| **AOC[2] SD31** | |
| Remedial Investigation Report | December 1996 (completed) |
| **AOC SD32** | |
| Remedial Investigation Report | December 1996 (completed) |
| **AOC SS24, AOC FT48, AOC LF1, AOC LF2, AOC LF7, AOC LF9, AOC LF3, AOC SD31, AOC FT30, AOC SD52** | |
| Supplemental Investigations to the Remedial Investigation Report | July 1998 (completed) |
| **Exterior Electrical Equipment** | |
| Final PCB Equipment Closure Evaluation | September 1997 (completed) |

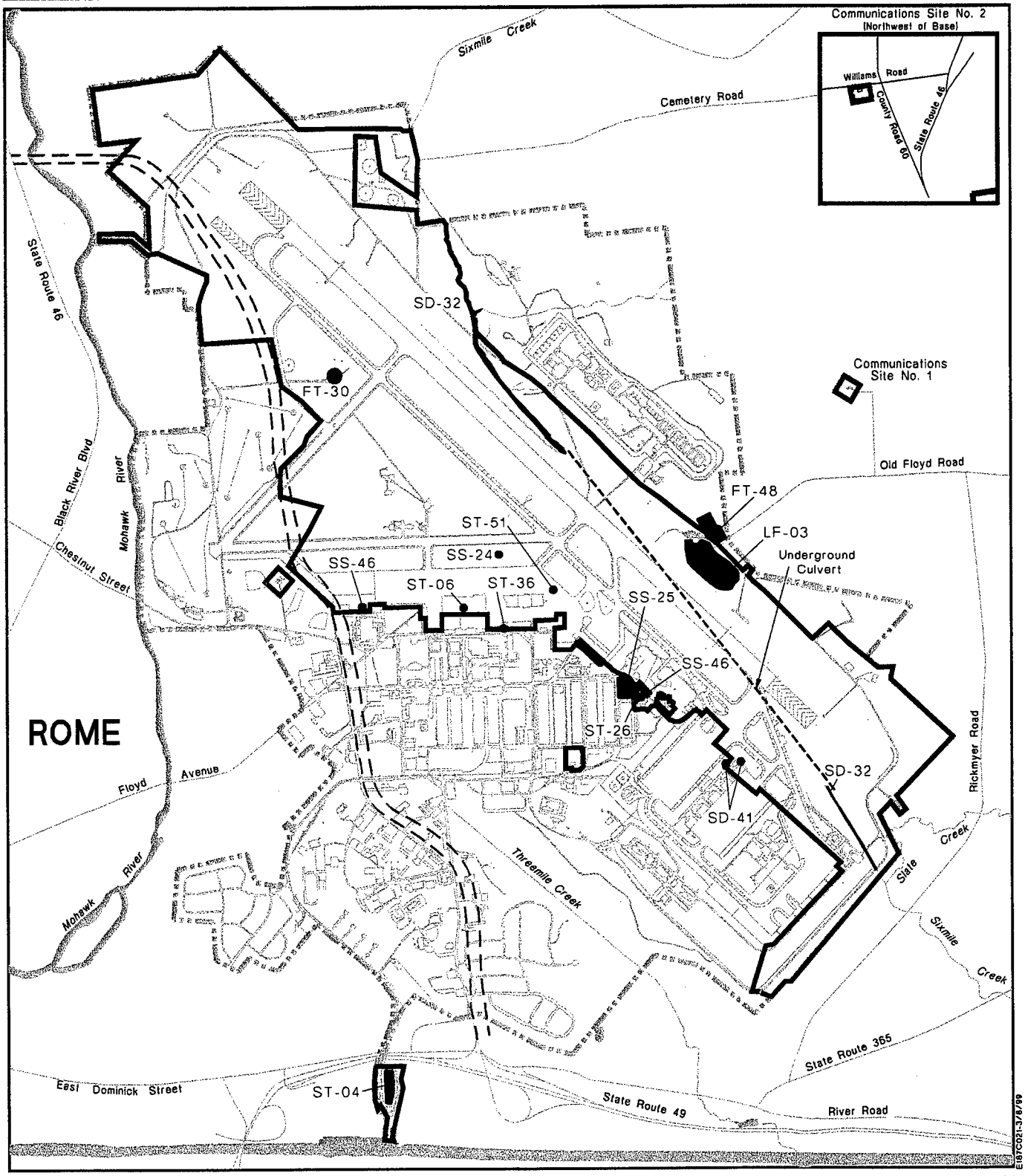
Note: [1]Comprehensive RI/FS Document Delivery, Review, and Approval Schedule.
[2]Area of Concern

Source: U.S. Air Force 1994a.




**Pictorial Presentation of the Site Restoration Program Process**

**Figure 3.3-1**




**LEGEND**

- Airfield Property Boundary
- Former Griffiss AFB Boundary
- Proposed Parkway Corridor
- IRP Site

SCALE IN FEET
0 1000 2000

# IRP Site Locations Within Property Boundaries

**Figure 3.3-2**

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The RI portion of the second stage consists of additional fieldwork and evaluations to assess the nature and extent of contamination. It includes a risk assessment and a determination of the need for site remediation.

The development, evaluation, and selection of alternatives to remediate the site are documented in the FS. The selected alternative is then designed (RD) and implemented (RA). Long-term monitoring is often performed, if necessary, in association with site remediation to ensure future compliance with contaminant standards or achievement of remediation goals.

The closure of the airfield property would not affect the ongoing IRP activity. These IRP activities, managed by the Air Force Base Conversion Agency (AFBCA), will continue in accordance with Federal, State, and local regulations to protect human health and the environment, regardless of the disposal decision. The FFA among the U.S. Air Force, EPA, and the State of New York formalizes the joint involvement in IRP. The Air Force would retain any necessary interests (e.g., easements) in order to perform operations and maintenance on all remediation systems.

In addition to the mandates of the IRP, the Air Force must also comply with the provisions of CERCLA Section 120 before transferring any of the airfield property. CERCLA Section 120(h) requires that, before property can be transferred from Federal ownership, the United States must provide notice of specific hazardous waste activities on the property and include in the deed a covenant warranting that "all remedial action necessary to protect human health and the environment with respect to any [hazardous] substance remaining on the property has been taken before the date of such transfer."

Furthermore, the covenant must warrant that "any additional remedial action found to be necessary after the date of such transfer shall be conducted by the United States." However, to assist with the deed covenant and determination of the need for additional remedial action, Congress amended CERCLA Section 120(h) in October 1992 to add the provisions of the Community Environmental Response Facilitation Act (CERFA) (PL 102-425). CERFA included a provision that if an EPA-approved remedial action is operating properly and successfully, then "all remedial action necessary to protect human health and the environment" has been taken. A recent amendment to CERCLA Section 120(h) further provides that federal property may be transferred by deed without a covenant warranting that all necessary remedial action has been taken if the EPA Administrator, with the concurrence of the Governor of the State, defers that requirement, finds the property to be suitable for transfer, and determines that appropriate provisions are in place to ensure the necessary remedial action will be completed after the deed transfer. In this case, a covenant is provided to property recipients at a later stage.

CERFA established a process for identifying property prior to termination of Federal activities that does not contain contamination from the storage, release, or disposal of hazardous substances or petroleum products or their derivatives. The expeditious identification of property that will not require environmental remediation is intended to facilitate the ultimate transfer by deed of such property for economic redevelopment or other purposes. Uncontaminated property at Griffiss AFB is identified as Category 1 property in the EBS (U.S. Air Force 1994a). The Air Force must provide a covenant in the deed for the uncontaminated property that warrants the Air Force's continuing responsibility to undertake any cleanup action found to be necessary after the date of sale or transfer by the U.S. Government or any other party.

Since the initiation of IRP activities in 1981, 54 sites (52 onbase and 2 offbase) have been investigated on the former Griffiss AFB. Of the 54 sites, a remedial investigation is currently being conducted on 31 sites identified as areas of concern (AOCs) and 9 sites are being investigated for source-removal actions. Confirmatory sampling at three sites, site investigations at two sites, and a preliminary assessment at one site have been completed. No further action is required at three sites, three sites have been combined with adjacent or nearby AOCs, and one site is no longer considered under the IRP. A total of 13 IRP sites are located in the airfield property: LF-03 (Landfill No. 7), ST-04 (Bulk Fuel Storage Area - Barge Canal), ST-06 (Building 101 - Yellow Submarine and Disposal Pit), SS-24 (Fire Demonstration Area), SS-25 (T-9 Storage Area), ST-26 (Building 43 - Refueling Station), FT-30 (Fire Protection Training Area), SD-32 (Sixmile Creek and WSA Lagoon), ST-36 (Building 110 - Aqua Refueling System), SD-41 (Building 782 - Nose Docks #1 and #2), SS-46 (Glycol Storage/Use Areas), Fire Training Site (FT-48 [portion of site]), and ST-51 (Building 100 - Fuel Hydrant System). These are summarized in Table 3.3-5 and their locations are shown on Figure 3.3-2. More detailed descriptions of the sites are provided in the EBS (U.S. Air Force 1994a) and the EBS Supplement (U.S. Air Force 1997). Appendix D provides a brief overview of the IRP site profiles.

Formal dispute resolution was invoked regarding the initial designation of several AOCs in 1990. This dispute was resolved in March 1992, resulting in a final listing of 30 AOCs to be addressed under an RI/FS. An additional site was added to the list in December 1992, bringing the total number of AOCs to be considered in the RI/FS to 31. In addition to investigating the 31 AOCs, the following requirements were outlined in the Resolution of Disputes.

According to Article II (Sections A-F) of the Resolution of Disputes, four of the 13 IRP sites in the airfield property (ST-04, ST-26, ST-36, and ST-51) were specifically designated as source removal AOCs and, therefore, would not be included in the RI/FS process to be conducted under the FFA. These sites have petroleum as the major contaminant of concern. The Air Force agreed to undertake, seek funding for, and report on site-specific removal

actions to remove the sources of contamination. At each of these sites, the Air Force was to conduct source removal actions pursuant to Section 300.5 of the NCP and Section 101(23) of CERCLA. The Air Force is required to conduct sampling pursuant to an approved sampling plan at the source removal site to confirm that the cleanup levels established for the source removal action have been attained. Groundwater investigations or remediation not encompassed within the source removal actions that may be required at the source AOCs will be addressed under the Onbase Groundwater Contamination AOC. The AOCs are listed in Table 3.3-5. A schedule of activities under the FFA for Griffiss AFB is presented in Table 3.3-4. There are no revisions pending.

**Table 3.3-5**

**Summary of Airfield Property IRP Sites**

| Site ID | Site Name | Status |
|---|---|---|
| LF-03 | Landfill No. 7 | Presumptive Remedy to Cap |
| ST-04 | Bulk Fuel Storage Area - Barge Canal | Source Removal Site - Proposed Plan, No Further Action |
| ST-06 | Building 101 - Yellow Submarine and Disposal Pit | Area of Concern - Interim removal actions have been completed at this site. |
| SS-24 | Fire Demonstration Area | Area of Concern - Proposed Plan, No Further Action |
| SS-25 | T-9 Storage Area | Area of Concern - Proposed Plan, No Further Action |
| ST-26 | Building 43 - Refueling Station | Source Removal Site - Interim Remedial Action |
| FT-30 | Fire Protection Training Area | Area of Concern Proposed No Further Action under review |
| SD-32 | Sixmile Creek and WSA Lagoon | Area of Concern - Feasibility Study |
| ST-36 | Building 110 - Aqua Refueling System | Source Removal Site - Groundwater contamination remaining after source removal - interim removal actions have been completed at this site. |
| SD-41 | Building 782 - Nose Docks #1 and #2 | Area of Concern -Interim Removal Action |
| SS-46 | Glycol Storage/Use Areas (3 locations) (former Site OT-46) | Area of Concern -Proposed No Further Action under review |
| FT-48 | Fire Training Area | Area of Concern - Remedial Investigation - Operable Unit 8 |
| ST-51 | Building 100 - Fuel Hydrant System | Source Removal Site - Interim Remedial Action completed, additional remediation to be proposed |

Between 1980 and 1990, prior to the development of the FFA, various studies and investigations were conducted under the IRP which now serve as baseline information regarding many of the sites which are being considered under the IRP. The following provides a summary of some of the key studies and investigations.

A Phase I - Records Search, published in 1981, was conducted by the Air Force to identify sites of potential contamination (Engineering Science, Inc. 1981). The study involved a review of past and current activities conducted at the base which could have resulted in releases of contamination to the environment. The study included a review of available site records, interviews with base personnel, a field inspection, an inventory of wastes produced, and an evaluation of disposal practices. Applicable Federal, State, and local agencies were also contacted for pertinent base-related environmental information. The collected information was used to determine past management regarding the use, storage, treatment, and disposal of materials and wastes from base operations and to identify all known past disposal sites and other possible contamination sources.

In 1981, the Air Force conducted a study of the sediments and adjacent soils along Threemile Creek and Sixmile Creek (SD-32) to determine levels of inorganic metals above background concentrations. The limited study found aluminum, barium, beryllium, cadmium, calcium, copper, iron, manganese, magnesium, mercury, and zinc in all samples. Inorganics detected in one or more samples included arsenic, antimony, boron, cobalt, lead, nickel, selenium, silver, sodium, thallium, tin, and vanadium.

A Phase II, Stage 2 - Confirmation/Quantification Study was conducted in 1985 (Roy F. Weston 1985). This study considered Landfill 7 (LF-03), which was one of the original 19 sites identified in the Phase I study, and a battery acid disposal pit at Building 222 (DP-22), a new site. Additional monitoring or remedial action for each site was recommended.

In 1986, monitoring wells were installed and soil and groundwater analyses were conducted on samples from the following airfield property IRP sites: the fire demonstration area (SS-24), the T-9 storage area (SS-25), and Building 43 (refueling station) (ST-26) (Hydro-Environmental Technologies 1986). Only the T-9 storage area was one of the original 19 Phase I sites. The results indicated various levels of contamination by both organic and inorganic analytes of interest at all the sites. Further analyses were recommended in the letter report issued.

The closure of the airfield property would not affect ongoing IRP activities. These activities will continue in accordance with Federal and State regulations to protect human health and the environment, regardless of the alternative selected for reuse. IRP remediation activities may continue past the September 1998 closure date for the airfield property.

### 3.3.4 Storage Tanks and Oil/Water Separators

Underground storage tanks (USTs) are subject to RCRA regulations (40 CFR 280) as mandated by the Hazardous and Solid Waste Amendments of 1984. The State of New York has adopted the Federal UST regulations under NYCRR Title 6, Parts 612-614, which are administered by the

NYSDEC. As of July 1998, the airfield property had 19 USTs in the ground (Figure 3.3-3, Table 3.3-6). Seventeen of the 19 tanks were in service, and two were temporarily out of service. Five of the active tanks contain various petroleum products, such as JP-4 and JP-8 jet fuel, diesel fuel, fuel oil, and gasoline. Aqueous Film-Forming Foam (AFFF), Waste AFFF, waste oil, deicing fluid, and water may be found in the remainder of the active tanks. They range in size from 550 to 30,000 gallons in capacity.

The *Underground Storage Tank Management Plan* documents maintenance procedures to ensure environmentally safe and responsible management of USTs. The plan addresses current and anticipated regulatory requirements, tank performance standards, operating requirements, monitoring, inventory procedures, physical testing for leaks, and release reporting. Appropriate corrective action in the event of a leaking UST, and effective maintenance and management to reduce the potential of leaking USTs, are also addressed in the plan.

As of March 1997, the airfield property had 36 aboveground storage tanks, ranging in size from 20 to 630,000 gallons (Figure 3.3-3, Table 3.3-7). Of the 36 tanks, 35 were in service and one was either deactivated or temporarily out of service. These tanks are used to store various petroleum products, including fuel oil, diesel fuel, JP-4 and JP-8 jet fuel, aviation gas, and gasoline, as well as waste oil, waste antifreeze, detergent solution, AFFF, and deicing fluid. Some aboveground storage tanks are surrounded by secondary containment systems. The largest tanks store jet fuel. Many of the smaller tanks store diesel fuel or gasoline used for emergency electric power generation. Some of these smaller tanks are day tanks which are connected to larger aboveground or underground storage tanks. Other tanks are used to store waste products such as engine oil, antifreeze, and hydraulic fluid.

The airfield property has 15 oil/water separators (Figure 3.3-3). Of the 15 oil/water separators, 14 are currently in service, while one has been temporarily closed. Most of the oil/water separators are connected to the sanitary sewer system, but some discharge into storm drainage ditches. One separator is associated with vehicle washracks, one is associated with an aircraft washrack, and one with a former aircraft washrack. Fourteen of the oil/water separators have storage tanks associated with them that collect the waste petroleum products that have been separated. All of the units are below ground, except for one small, under-sink aboveground unit at one building. There are four open-top separators that collect surface runoff from paved surfaces along the flightline area. The oil/water separators are cleaned on a regular basis. Waste oil is recycled or disposed of in accordance with applicable regulations.

All USTs will be tested for leaks as part of the base disposal process. USTs that meet NYSDEC regulations may be left in place to support reuse activities. USTs that meet NYSDEC regulations but do not support reuse activities and all USTs that do not meet current regulations will be

deactivated and removed. All aboveground storage tanks and oil/water separators in areas not retained by the Air Force, will be deactivated and removed prior to property transfer. Oil/water separators associated with either an above ground or below ground storage tank will be deactivated and removed in accordance with regulations that govern the specific storage tank. Any sludge and/or sediments found in the oil/water separator during the deactivation and removal activity will be disposed of in accordance with RCRA. Those oil/water separators not associated with above or below ground tanks will be deactivated and removed using best engineering practices.

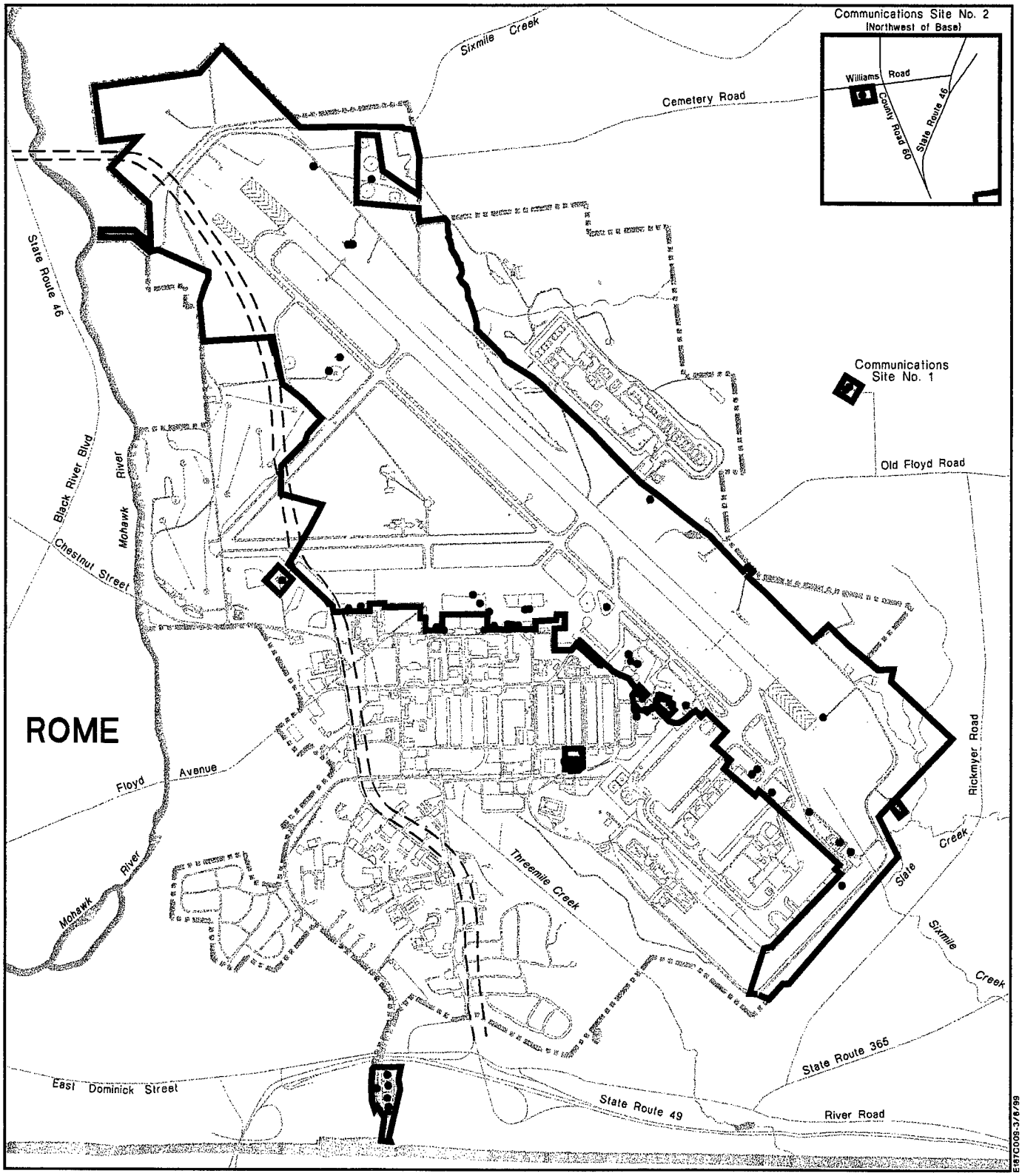
### 3.3.5 Asbestos

Asbestos-containing material (ACM) remediation is regulated by the EPA, the Occupational Safety and Health Administration (OSHA), and the State of New York. Asbestos fiber emissions into the ambient air are regulated in accordance with Section 112 of the Clean Air Act, which established the National Emissions Standards for Hazardous Air Pollutants (NESHAP). The NESHAP regulations address the demolition or renovation of buildings with ACM. The Asbestos Hazard Emergency Response Act (AHERA) provides the regulatory basis for handling ACM in kindergarten through 12th grade school buildings. AHERA and OSHA regulations cover worker protection for employees who work around or remediate ACM.

Renovation or demolition of buildings with ACM has the potential to release asbestos fibers into the air. Asbestos fibers could be released due to disturbance or damage of various building materials, such as pipe and boiler insulation, acoustical ceilings, fire-proofing, and other materials used for sound-proofing or insulation.

Currently, the Air Force manages or removes ACM in active facilities and removes ACM, according to regulatory requirements, prior to facility demolition. Removal of ACM occurs when there is the potential for asbestos fiber release that would affect the environment or human health. The Air Force policy concerning the management of asbestos at closing bases is presented in Appendix G.

Based on information contained in the Griffiss EBS Supplement (U.S. Air Force 1997), eight buildings within the airfield property have been surveyed and sampled for asbestos containing materials (ACM). These were Buildings 100, 101, 150, 220, 221, 782, 789, and 793. Asbestos was detected in some building components in all eight buildings. Components which tested positive for asbestos included steam fittings and piping, hot water piping, cold water piping, roof drain fittings, unspecified wall coatings, ceiling mastic, mechanical equipment tanks, insulation in fire doors, heat exchangers, heating, ventilation, and air conditioning (HVAC) ducts, and some ceiling tiles. Not tested, but assumed positive for asbestos, were




**LEGEND**

- Airfield Property Boundary
- Former Griffiss AFB Boundary
- Proposed Parkway Corridor
- Aboveground Storage Tanks
- Underground Storage Tanks
- Oil/Water Separators

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# Storage Tanks and Oil/Water Separators

**Figure 3.3-3**

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Table 3.3-6

Summary of Underground Storage Tanks

| Status/Activity | No. | Installation Date | Capacity (gallons) | Contents |
|---|---|---|---|---|
| **Active Tanks:** | **17** | | | |
| Aircraft Refueling and Maintenance | 1 | 1985-1993 | 4,000-6,000 | Jet Fuel |
| Power Generation | 1 | Unknown | 1,000 | Diesel Fuel |
| Vehicle Refueling and Maintenance | 3 | 1964 | 550 | Unleaded Gasoline, Waste Oils |
| Other | 12 | 1980-1992 | 1,000-30,000 | Deicing Fluid, AFFF, Waste AFFF, Water, Heating Oil, No Contents |
| **Tanks Temporarily Out-of-Service:** | **2** | | | |
| **Tanks Closed in Place:** | **0** | | | |
| **Total Tanks:** | **19** | | | |

Table 3.3-7

Summary of Aboveground Storage Tanks

| Status/Activity | No. | Installation Date | Capacity (gallons) | Contents |
|---|---|---|---|---|
| **Active Tanks:** | **35** | | | |
| Aircraft Refueling and Maintenance | 3 | 1982-1992 | 630,000 | Jet Fuel |
| Heating | 2 | 1961-1993 | 275-1,000 | Fuel Oils No. 1, 2, or 4 |
| Power Generation | 15 | 1984-1990 | 20-1,000 | Diesel Fuel, Unleaded Gasoline |
| Waste Liquids | 5 | Unk-1982 | 1,500-2,000 | Waste Oil, Antifreeze |
| Other | 10 | 1975-1986 | 2,000-7,000 | Detergents, AFFF |
| **Tanks Deactivated or Temporarily Out-of-Service** | **1** | | | |
| **Tanks Closed in Place:** | **0** | | | |
| **Total Tanks:** | **36** | | | |

some types of vinyl floor tiles, certain ceiling tiles, roof asphalt and gravel, wall transite, and some types of gaskets.

Although asbestos does not currently present a health hazard within the airfield property, demolition or structural modification of these facilities by the property recipients may create a hazardous environment. Some facilities on the airfield property will require extensive sampling to fully characterize ACM, and based on sampling results, may require abatement in accordance with Federal regulations prior to modification or demolition.

Asbestos will be removed by the property recipient as necessary to protect human health. Any required management of ACM, including analysis of the cost-effectiveness of the removal, would be the responsibility of the property recipient. Asbestos that is in an unsafe condition will be removed according to applicable health laws, regulations, and standards, if it is determined that a health hazard exists.

### 3.3.6 Pesticides

The registration and use of pesticides are regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of 1972, as amended (7 USC 136 et seq.). Pesticide management activities are subject to Federal regulations contained in 40 CFR 162, 165, 166, 170, and 171, and New York regulations contained in Environmental Conservation Law, Section 33-0701.

Pest management within the airfield property is performed by an independent contractor. Pest management activities include insect pest control in buildings (e.g., for ants, roaches, wasps, and mosquitos) and vertebrate pest control (e.g., for rats, mice, and snakes). The pest management program within the airfield property is conducted in accordance with DOD guidelines and Air Force Instruction (AFI) 32-1053 (formerly Air Force Regulation (AFR) 19-21).

### 3.3.7 Polychlorinated Biphenyls

Commercial polychlorinated biphenyls (PCBs) are industrial compounds produced by chlorination of biphenyls. PCBs persist in the environment, accumulate in organisms, and concentrate in the food chain. PCBs are used in electrical equipment, primarily in capacitors and transformers, because they are electrically nonconductive and stable at high temperatures.

The disposal of these compounds is regulated under the Toxic Substances Control Act (TSCA), which banned the manufacture and distribution of PCBs except when used in enclosed systems. By definition, PCB equipment contains PCB concentrations of 500 parts per million (ppm) or more, whereas PCB-contaminated equipment contains PCB concentrations of 50 ppm or greater, but less than 500 ppm. The EPA, under TSCA, regulates the removal and disposal of all sources of PCBs containing 50 ppm or more.

The regulations are more stringent for PCB equipment than for PCB-contaminated equipment.

A basewide remedial program was initiated in 1987 to remove and replace PCB equipment, PCB-contaminated equipment, and PCB capacitors. Between 1987 and 1993, Griffiss AFB had several projects initiated to replace equipment (e.g., transformers, oil switches, and capacitors) containing PCBs. As of September 1997, 13 electrical units located at Building 805 on the airfield property had been identified as PCB contaminated.

Two PCB spills have occurred on the airfield property. A leaking transformer on Wright Drive was reported in September 1987. This spill was closed in September 1987. Another spill occurred from a transformer in Building 112 in December 1992. This spill was closed in February 1995.

No federally regulated PCB or PCB-contaminated equipment under control of the Air Force will be left in the airfield property at the time of closure.

### 3.3.8 Radon

Radon is a naturally occurring, colorless, and odorless radioactive gas that is produced by radioactive decay of naturally occurring uranium. Uranium decays to radium, with radon gas as a byproduct. Radon is found in high concentrations in rocks containing uranium, such as granite, shale, phosphate, and pitchblende. Atmospheric radon is diluted to insignificant concentrations. However, radon that is present in soil can enter a building through small openings and accumulate in enclosed areas, such as basements. The cancer risk caused by exposure, through the inhalation of radon, is a topic of concern.

Radon is a concern with regard to residential structures, i.e., family housing units, schools, and child care facilities. There are no residential structures within the airfield property.

### 3.3.9 Medical/Biohazardous Waste

Medical services are not provided within the airfield property; no medical/biohazardous wastes are generated.

### 3.3.10 Ordnance

Located within the airfield property are the sites of two former firing in-butts used to align the guns on fighter aircraft during World War II. Also within the airfield property are the former site of an ammunition storage igloo and the current location of a small building used for the storage of aircraft engine starter cartridges.

The Air Force will conduct investigations of all locations to assess potential surface and subsurface trace metal contamination, particularly lead contamination, as part of the base disposal process.

### 3.3.11 Lead

Lead is a heavy, ductile metal that is commonly found in association with organic compounds, as well as oxides, salts, or as metallic lead. Human exposure to lead has been determined to be an adverse health risk by agencies such as OSHA and the EPA. Sources of exposures to lead are through paint, dust, and soil. Blood lead levels in excess of 30 micrograms per deciliter are of concern in adults and can cause various ailments according to the U.S. Center for Disease Control.

Waste-containing levels of lead exceeding the total threshold limit concentration of 1,300 milligrams per kilogram or the soluble threshold limit concentration of 5.0 milligrams per liter are defined as hazardous under 40 CFR 261 and applicable State regulations. If a waste is classified as hazardous, disposal must take place in accordance with the EPA and State hazardous waste rules. The Federal OSHA has established a general and construction industry permissible exposure limit (PEL) standard of 50 micrograms per cubic meter ($\mu g/m^3$) for workers (29 CFR 1910.1025 and 1926.62, respectively).

In 1973, the Consumer Product Safety Commission (CPSC) established a maximum lead content in paint of 0.5 percent by weight in a dry film of paint newly applied. In 1978, the CPSC lowered the allowable lead level in paint to 0.06 percent.

No comprehensive survey of facilities on airfield property has been conducted to determine which facilities contain lead-based paint. Most facilities that were constructed prior to the implementation of the 1978 ban on the use of lead-based paint are likely to contain lead-based paint. In addition, some facilities that were constructed immediately following the ban may also contain lead-based paint because supplies of lead-based paints that were in the supply network were likely used for painting these facilities. All buildings and facilities with a construction date of 1980 or earlier may contain some lead-based paint.

In accordance with Air Force policy, a lead-based paint survey of high priority facilities and housing units was conducted at Griffiss AFB between December 1993 and January 1994. None of the high priority facilities or housing units is located with the airfield property. At the time of disposal, the Air Force will acknowledge that it may be present in all facilities built prior to 1978. Air Force policy requires that action be taken to prevent any lead-based paint health hazards associated with leased facilities (Appendix G). However, preventive action for lead-based paint hazards may be negotiated under the terms of transfer.

## 3.4 NATURAL ENVIRONMENT

This section describes the affected environment for the following natural resources: soils and geology, water resources, air quality, noise, biological resources, and cultural and paleontological resources.

### 3.4.1 Soils and Geology

The ROI for soils includes the airfield property and a surrounding buffer extending several hundred feet beyond the airfield property boundary. The ROI for geologic resources includes the airfield property and the surrounding area, extending approximately 5 miles beyond the airfield boundary.

#### 3.4.1.1 Soils

The Rome area, including the airfield property, lies at the convergence of four major land resource areas. Because of the mixture of soils, a larger number of soil units are present than those noted in surveys of adjacent areas (U.S. Department of Agriculture 1993). Properties of the major soils are shown in Table 3.4-1 and the distribution of the units is shown in Figure 3.4-1.

Nearly all soils within and surrounding the airfield property are loams and sands derived from underlying glaciofluvial and glaciolacustrine deposits. Silts and gravels are abundant. There is relatively little clay. Soils are developed on outwash plains, terraces, and sandy plains. Much of the airfield property has been developed, and ground surfaces have been disturbed by excavation, grading, and infilling.

Local soils are typically very deep except on the steepest slopes. They exhibit moderate to rapid permeability, especially in the surface layer, and low available water capacity. Surface runoff is slow. The soils are generally acidic, especially in the surface layer, resulting in a high corrosivity. Shrink-swell potential is low due to low clay content. Plasticity generally increases with depth, corresponding to a decrease in grain size of the lacustrine/marine sediments.

Many soils in the vicinity of the airfield property have limitations for dwellings because of the seasonally high level of the groundwater table and steep slopes. Depth to bedrock is generally greater than 60 inches. Excavations are subject to caving if unsupported and to sloughing because of the high groundwater table. Most limitations for local roads are due to frost action and the groundwater table.

Most local soils have limitations for septic tank fields because of poor filtering ability and the seasonally high groundwater table. Nearly all soils in the airfield property have rapid permeability. Because of these soil characteristics, there is potential for groundwater contamination.

#### 3.4.1.2 Physiography and Geology

The Rome area, including the airfield property, lies in the Mohawk Valley Lowland, just north of the Allegheny Plateau. The land surface of the airfield

**Table 3.4-1**

**Properties of Major Soil Units at Griffiss Airfield Property**

| Soil Series | Alton | Alton-Urban Land Complex | Canandaigua | Castile | Covert | Fredon |
|---|---|---|---|---|---|---|
| **Soil Properties** | | | | | | |
| Composition | Gravelly loam | Gravelly/sandy loam | Silt loam | Gravelly loam | Loamy sand | Gravelly silt loam |
| Depth | Very deep | Very deep | Very deep | Very deep | Very deep | Very deep |
| Drainage | Well drained | Well drained | Poorly to very poorly drained | Moderately well drained | Moderately well drained | Somewhat poorly to poorly drained |
| **Permeability** | | | | | | |
| Surface | Moderately rapid | Moderately rapid | Moderate | Moderate to moderately rapid | Rapid | Moderate |
| Subsurface | Rapid | Rapid | Moderate to moderately slow | Moderate rapid to very rapid | Rapid | Rapid |
| Surface Runoff | Slow to medium | Slow | Very slow to ponded | Slow | Slow | Slow to very slow |
| Available Water Capacity | Moderate | Moderate | High | Low | Low | Moderate |
| **Soil Reaction** | | | | | | |
| Surface | Very strongly to strongly acid | Very strongly to strongly acid | Moderately acid to mildly alkaline | Very strongly to moderately acid | Very strongly acid to neutral | Moderately acid |
| Subsurface | Neutral to mildly alkaline | Strongly acid to mildly alkaline | Neutral to moderately alkaline | Strongly acid to neutral | Strongly acid to neutral | Slightly acid to moderately alkaline |
| **Seasonal High Water Table** | | | | | | |
| Inches below surface | >72 | >72 | 12 | 18 - 24 | 24 - 42 | 18 |
| Depth to Bedrock (inches) | >60 | >60 | >60 | >60 | >60 | >60 |
| Percent Slopes | 3 - 15 | 0 - 3 | 0 - 3 | 0 - 3 | 0 - 3 | 0 - 3 |
| **Limitations for:** | | | | | | |
| Dwellings | Few or none except on steeper slopes | None | High water table, ponding, frost action | Wetness | Wetness | Wetness |
| Local Roads | Frost action | Site dependent | Wetness, frost action, ponding | Frost action | Caving, wetness | Wetness, frost action |
| Excavations | Caving, slopes where Steep | Site dependent | Wetness, ponding | Wetness | Caving, wetness | Wetness, caving |
| Septic Tank Fields | None; moderate on steeper slopes | Site dependent | Wetness and slow permeability | Wetness and poor filtration | Wetness and poor filtration | Wetness and poor filtration |
| Possible Groundwater Contamination | Yes | Yes | Yes | Yes | Yes | Yes |

**Table 3.4-1, Page 2 of 2**

| Soil Series | Niagara | Udorthents | Wakeville | Wareham | Wayland | Windsor |
|---|---|---|---|---|---|---|
| **Soil Properties** | | | | | | |
| Composition | Silt loam | Sand to silt loam | Silt loam | Loamy fine sand | Silt loam | Loamy fine sand |
| Depth | Very deep | Very deep | Very deep | Deep | Very deep | Very deep |
| Drainage | Somewhat poorly drained | Excessively to moderately well drained | Somewhat poorly drained | Somewhat poorly to poorly drained | Poorly to very poorly drained | Well to excessively well drained |
| **Permeability** | | | | | | |
| Surface | Moderate | Variable | Moderate | Rapid | Moderately slow to moderate | Rapid to very rapid |
| Subsurface | Moderately slow | Variable | Moderate | Rapid | Slow | Rapid to very rapid |
| Surface Runoff | Slow to very slow | Variable | Slow | Slow | Slow or ponded | Slow to medium |
| Available Water Capacity | High | Variable | High | Low | High | Very low |
| **Soil Reaction** | | | | | | |
| Surface | Slightly acid to neutral | Variable | Moderately acid to neutral | Extremely to slightly acid | Alkaline | Acid |
| Subsurface | Moderately acid to moderately alkaline | Variable | Slightly acid to moderately alkaline | Extremely to moderately acid | Strongly acid to moderately alkaline | Very strongly to slightly acid |
| **Seasonal High Water Table** | | | | | | |
| Inches below surface | 6 - 18 | Variable | 6 - 18 | 18 | 12 | >72 |
| Depth to Bedrock (inches) | >60 | Variable | >60 | >60 | >60 | >60 |
| Percent Slopes | 0 - 3 | 3 - 15 | 0 - 3 | 0 - 3 | 0 - 3 | 0 - 8 |
| **Limitations for:** | | | | | | |
| Dwellings | Wetness, low bearing strength, frost action | Variable | Flooding and wetness | Wetness | Flooding and ponding | Few or none |
| Local Roads | Wetness, frost action | Variable | Wetness, flooding, frost action | Wetness | Low strength, ponding, flooding | Slight |
| Excavations | Slumping and caving | Variable | Wetness | Wetness, caving | Ponding | Caving |
| Septic Tank Fields | Wetness and slow permeability | Variable | Flooding and wetness | Wetness and poor filtration | Flooding, ponding, slow permeability | Rapid permeability and poor filtration |
| Possible Groundwater Contamination | Yes | Variable | Yes | Yes | Yes | Yes |

Source: U.S. Department of Agriculture 1993

property generally slopes toward the south with the highest elevations in the northeastern and northern areas of the airfield. Elevations range from approximately 430 feet above mean sea level (MSL) at the south extremity of the airfield to 600 feet above MSL at one point near the northeast perimeter. The overall land surface rises steadily to elevations well over 1,000 feet above MSL northeast of the airfield. The New York State Barge Canal route and the Mohawk River Valley south of the airfield property lie below 430 feet above MSL (U.S. Department of the Interior 1955).

Landforms in the area include glacial forms, the valley and floodplain of the Mohawk River, and the prominent upland edge of the Allegheny Plateau south of the Mohawk River (Halberg *et al.* 1962). Glacial outwash terraces flank the floodplain of the river and are particularly conspicuous along the northeastern boundary of the airfield property. Moraines include a sheet-like ground moraine, composed of till deposited beneath the ice sheet, and a somewhat ill-defined end moraine, known as the Stanwix moraine.

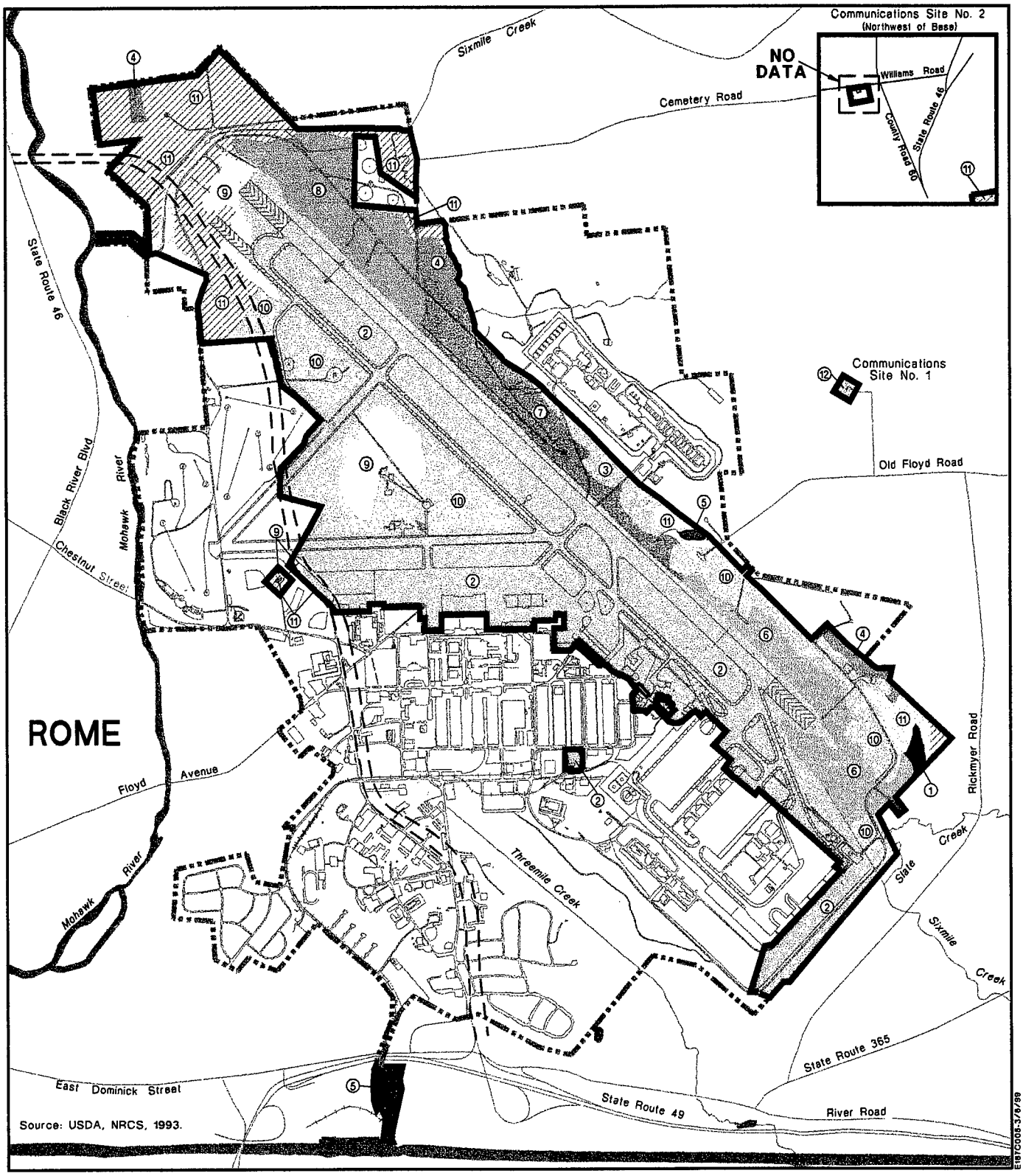
Geologic formations present at the surface in Oneida County include shale, sandstone, and limestone rocks of Cambrian to Devonian age and glacial deposits of Pleistocene age. Rocks of Devonian and Silurian age are limited to outcrops in the Allegheny Plateau located south of the Mohawk River (Fisher *et al.* 1979).

The Utica Shale of Ordovician age forms the bedrock underlying the airfield property and the surrounding area. The Utica Shale is a black and gray, carbonaceous, slightly fissile to massive shale with lenses of massive calcareous claystone. It is highly fossiliferous, with a large variety of invertebrate fossils.

The surface of the Utica Shale bedrock slopes to the southwest in the northeastern portion of the airfield property, and then toward the Mohawk River in the southern and northwestern parts, with a nearly level divide separating the latter two areas. The bedrock surface lies at about 550 feet in the northeastern corner of the airfield property and 350 feet at the southern edge near the Mohawk river (Geotech 1991).

Outcrops of the Utica Shale are found primarily north of the Mohawk River where they exhibit limited aerial exposures (Dale 1953). The depth to the Utica Shale ranges from zero feet at the outcrop in the north-northeastern part of the airfield property to 130 feet in the southern part. Under the flightline areas, on the airfield property, the depth to bedrock is approximately 30 feet (Casey and Reynolds 1989).

The Frankfort Shale overlies the Utica Shale in the hills north and west of the Town of Floyd. It is present under the terraces northeast of Sixmile Creek, where it is largely covered by glacial deposits.




**LEGEND**

- 1 Wakeville and Wayland silt loams
- 2 Urban land, sand and gravel pits, and Alton-Urban land complex
- 3 Udorthents, smoothed
- 4 Fredon gravelly silt loam
- 5 Castile gravelly loam
- 6 Wareham loamy fine sand
- 7 Canandaigua silt loam
- 8 Niagara silt loam
- 9 Covert loamy sand
- 10 Windsor loamy fine sand
- 11 Alton gravelly loam
- 12 Manlius channery silt loam
- Prime Farmland
- Airfield Property Boundary
- Former Griffiss AFB Boundary

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# Soil Distribution

**Figure 3.4-1**

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Deposits overlying the Utica Shale consist of clay, silt, sand, and gravel sediments laid down by glacial, fluvial, and lacustrine processes. A sheet of glacial till, known as the Rome till, extends over most of the airfield property. The till, where present, immediately overlies the Utica Shale. The till was deposited as a ground moraine during the most recent advance of the Pleistocene ice sheet. It is well consolidated, reddish in color, and consists of poorly sorted sand and coarse gravel, with pebbles of sandstone or crystalline rock. It was directly deposited by glacial ice, with little reworking by fluvial action. The till underlies more permeable glaciofluvial and glaciolacustrine sediments. In wells in the northern portion of the airfield property, the till consists of clay and silt with some sand and gravel, and maintains a compact nature (Geotech 1991).

Other tills are present in the region between Quaker Hill, northwest of Rome, and Marcy Hill, southeast of Rome. These range from dark gray to dark yellow brown depending on the constituent bedrock particles and weathering. Fresh exposures of the till resting on the Utica Shale are dark in color with abundant subrounded shale fragments (Wright 1972). The till generally dominates in the uplands above 600 feet (Dale 1953).

Deposits that are the result of fluvial deposition in front of or along the margins of the ice sheet (glaciofluvial deposits), as well as deposits that were laid down as sediments in glacial lakes of Pleistocene time (glaciolacustrine deposits), lie above the till. Both types are greatly intermixed in many areas on and near the airfield property.

Glaciofluvial deposits are the result of deposition from glacial meltwater streams in front of and under the glacier and deposition at ice-contact, lake shoreline, and deltaic environments. Glaciofluvial deposits, commonly referred to as outwash, consist of stratified sand and/or sand and gravel. These sediments were deposited in a high-energy fluvial system and tend to be moderately to well sorted and occur in individual beds. Ice-contact deposits are usually less stratified and less sorted than stream deposits because of their original proximity to the ice (Lint 1988). Otherwise, they are similar to stream deposits (Wright 1972).

Glaciofluvial deposits west of Rome make up the broad, flat, featureless area called the Rome Sand Plain (Casey and Reynolds 1989). These deposits exhibit stratification, scour and fill features, cross-bedding, and variable bedding thicknesses (Dale 1953). Terrace-like features consisting entirely of sand and gravel deposits extend east to the Town of Floyd. These deposits were probably formed by marginal subglacial streams, and the deposits up to the 500-foot contour were formed in a composite of processes in subglacial streams, river deltas, and glacial lakes (Dale 1953). The outwash and lacustrine deposits are intermixed, and stratigraphic relationships are extremely complex. The deposits were mapped collectively as outwash (Wright 1972). The outwash deposits make up the highland area on the east-northeast side of the base (Casey and Reynolds 1989). Although the

outwash deposits may attain thicknesses of more than 150 feet in Oneida County, the thickness of outwash under the airfield property is generally less than 50 feet (Lint 1988).

Lacustrine deposits underlie a large portion of the Rome area, including the airfield property. These are composed of sediment laid down in Pleistocene lakes formed by the damming of glacial meltwater behind the Stanwix moraine (Lint 1988; Dale 1953). Some of these deposits are mixed with outwash deposits (Casey and Reynolds 1989). In Oneida County, the glaciolacustrine deposits are sandy silt with some clay to silty clay interbedded with discontinuous sand and gravel lenses. Thicknesses range up to 200 feet (Lint 1988). The lacustrine sediment underlying the airfield property is mapped as well-sorted, stratified sand. Its maximum thickness is only a few feet.

Post-glacial deposits of alluvium are confined to floodplains and channels of modern rivers and streams. Little if any alluvium is present within the boundaries of the airfield property. The alluvium consists of poorly sorted silt, sand, and some gravel. The thickness is variable, but is generally less than 30 feet (Dale 1953; Casey and Reynolds 1989). The alluvium is fine-grained and less permeable than the glacial outwash sediment that it mantles in some areas (Casey and Reynolds 1989).

The pre-Pleistocene rocks of the region are not strongly deformed but have a general dip to the south-southwest. Slopes range from a fraction of a degree to a few degrees. No faults or major folds have been mapped on the airfield property or in the vicinity. Structures in the general region are ancient. There is no evidence to suggest that there has been any active deformation for many millions of years (Dale 1953).

The Utica Shale contains well-defined joints, most of which are vertical. Where the shale is at the surface, the directions are generally the ones that control the courses of the streams, as observed on the brinks of waterfalls (Dale 1953). The joints are likely to aid the movement of groundwater through the Utica Shale.

The airfield property lies in Seismic Zone 1 (International Conference of Building Officials 1994), meaning that there is only slight danger from damaging earthquakes. The zone includes New York west of the Adirondack Mountains. A few small earthquakes have been recorded in the general area; there have been no major earthquakes of Richter magnitude 5 or greater (Nottis 1983).

### 3.4.2 Water Resources

The ROI for water resources includes the Airfield Property at Griffiss AFB and the surrounding area extending north to Delta Lakes approximately 4 miles north of the airfield property, east about 1 mile beyond the airfield property,

west to the Mohawk River, and south and southeast to the New York State Barge Canal. Surface waters in the ROI include the Mohawk River, the New York State Barge Canal, Threemile Creek, Sixmile Creek, Slate Creek, Delta Reservoir, and numerous wetlands and ponds. There are no wild and scenic rivers in the vicinity of the airfield property.

### 3.4.2.1 Surface Water

The major surface waters are Delta Lake, Mohawk River, and the New York State Barge Canal. A number of smaller streams flow into the Mohawk River or the canal. Delta Lake is a reservoir formed as an impoundment of the Mohawk River. Wetlands are widespread over the region.

The Mohawk River floodplain from Delta Dam to the New York State Barge Canal is relatively narrow, ranging in width from 0.2 to 0.3 mile, with an average width of slightly over 0.2 mile. Eastward, from Rome to Utica, the floodplain averages 0.7 mile in width. A bluff about 20 feet high lies along the edge of the floodplain where it is adjacent to the base. None of the airfield property is within either the 100- or 500-year floodplain (Federal Emergency Management Agency 1985). The floodplain along the river segment south of the airfield is bounded on the north by the south embankment of the New York State Barge Canal. This embankment precludes flood waters from inundating the land to the north (Oneida County 1974). Because the discharge of the Mohawk River is regulated at Delta Reservoir north of Rome, flooding occurs less frequently than it otherwise would along the reach past the airfield property.

**Surface Water Quality.** The State of New York has classified surface water bodies according to the quality required for certain general use categories (Table 3.4-2).

**Table 3.4-2**

**State of New York**
**Surface Water Bodies Classification**

| Class | Description |
|---|---|
| AA | Most suitable for drinking |
| A | Suitable for drinking after treatment |
| B | Suitable for contact recreation (e.g., swimming) |
| C | Suitable to support fish |
| D | Suitable for agriculture and drainage |

Source: New York State Department of Environmental Conservation 1991b.

Delta Lake is a Class B body of water; the Mohawk River through Rome is Class C (William F. Cosulich Associates 1989). Sixmile and Threemile creeks, classified as C, are best used for fishing, and these streams offer suitable habitat for trout (Herkimer-Oneida Counties 1992).

Water quality sampling in streams indicates the extent to which contaminants are introduced into the stormwater and ultimately enter streams, such as Threemile Creek, Sixmile Creek, the New York State Barge Canal, and the Mohawk River. Much of the stormwater from the runway and taxiway area discharges into Sixmile Creek, which flows off the property to the southeast through a portion of the Town of Floyd and into the Barge Canal. The stormwater from the southern portion of the airfield property flows into Threemile Creek, which also exits the south side of the airfield property and flows into the Barge Canal.

Water quality is monitored in accordance with requirements of the State Pollutant Discharge Elimination System (SPDES) permit at various locations on and around the airfield property, including along Sixmile Creek, and a diversion channel of Sixmile Creek in the north part of the airfield; at four oil/water separators on the airfield; and at three points in the bulk fuel storage area near the New York State Barge Canal (Figure 3.4-2). No surface water quality problems in these water bodies have been identified, although elevated levels of some of the parameters that are monitored have occurred occasionally. Although not required by the SPDES permit, the Air Force also monitors water quality where Sixmile Creek enters the northern portion of the airfield property. No surface water quality problems have been identified at this monitoring point.

#### 3.4.2.2 Surface Drainage

The Airfield Property at Griffiss AFB lies in the upper Mohawk River Basin, which forms part of the upper Hudson River Basin. The major stream in the area is the Mohawk River, which forms about 9 miles north of Delta Reservoir. The river flows south through Rome, then empties directly into the New York State Barge Canal.

The Mohawk River flows south past the west side of the airfield property. No water from the Mohawk River is diverted for use by the airfield property.

Sixmile Creek originates northeast of the airfield property. Prior to construction of the airfield at Griffiss AFB, it flowed southwest, then southeast along the line of the present runway to the Barge Canal. When the existing runway was constructed in the late 1950s, a diversion channel from Sixmile Creek was constructed to direct some water from Sixmile Creek around the north end of the runway to the Mohawk River. On the airfield property, Sixmile Creek flows south for about a mile, and then is channeled underground under the runway. The creek reappears south of the south end of the runway and then flows along its original course to the New York State Barge Canal. Slate Creek joins it from the east at the airfield property boundary.

Drainage from the higher elevations northeast of the airfield property and east of the airfield property south of Old Floyd Road is into Slate Creek, so that

no surface water from this area enters the airfield property. Drainage from wetlands and small tributaries adjacent to the airfield property and northwest of Old Floyd Road enters the airfield property into the portion of Sixmile Creek that lies parallel to the runway (Figure 3.4-2).

Three to four ponds exist on the east side of the airfield property and are the result of beaver activity in the forested and wetland areas.

#### 3.4.2.3 Groundwater

**Aquifers.** Bedrock and overlying unconsolidated deposits comprise the aquifer present under the airfield property. The unconsolidated deposits consist of glacially derived sands, silts, and gravels that form an unconfined, near-surface aquifer. These sediments cover the bedrock with varying thickness and comprise the most important water table aquifer in the region. The bedrock aquifer, Utica Shale, is separated from the overlying unconsolidated aquifer by a layer of low permeability till. The bedrock permeability is through joints, fractures, and bedding planes. The Utica Shale does not contain large amounts of water, but it has been penetrated by some wells and reportedly yields usable amounts of water in some areas.

The till, or ground moraine, ranges in thickness from 1 to 40 feet in the Utica-Rome area (Halberg *et al.* 1962). It generally has very low hydraulic conductivity because of its poor sorting and subglacial compaction, and therefore acts as an aquitard, retarding water movement both vertically and horizontally (Table 3.4-3). In some areas, however, the till may contain a fair amount of sand, which tends to increase the hydraulic conductivity (Lint 1988). Many tills also have hairline fractures, which produce hydraulic conductivities two to three times of those in unfractured tills.

Glaciofluvial deposits in the area can be separated into two categories, including (1) medium to coarse-grained glaciofluvial and deltaic deposits, and (2) fine-grained glaciofluvial lacustrine deposits (Halberg *et al.* 1962). The coarser-grained sand and gravel deposits normally associated with outwash occur in the valley plain between Delta Lake and Rome and in the terraces bordering the Mohawk River plain extending from Frankfort to an area just west of Rome.

These deposits are also interbedded with clay and silt of the Mohawk River plain. The thickness of these sand and gravel deposits ranges from 10 to 140 feet. These deposits constitute the most productive portion of the upper aquifer in the area, especially where recharged by streams. The average depth of the wells in this unit is 67 feet, and the water quality is good (Halberg *et al.* 1962). The outwash deposits are more nearly continuous than any other form of glaciofluvial deposit and may be up to 150 feet thick in parts of Oneida County (Lint 1988).

Lacustrine deposits vary widely in grain size, with the result that well yields also vary. Sand beds may yield moderate amounts of water, especially where recharged by streams. The thickness of the deposits ranges from 70 to 150 feet, and the average well depth is 68 feet (Halberg *et al.* 1962).

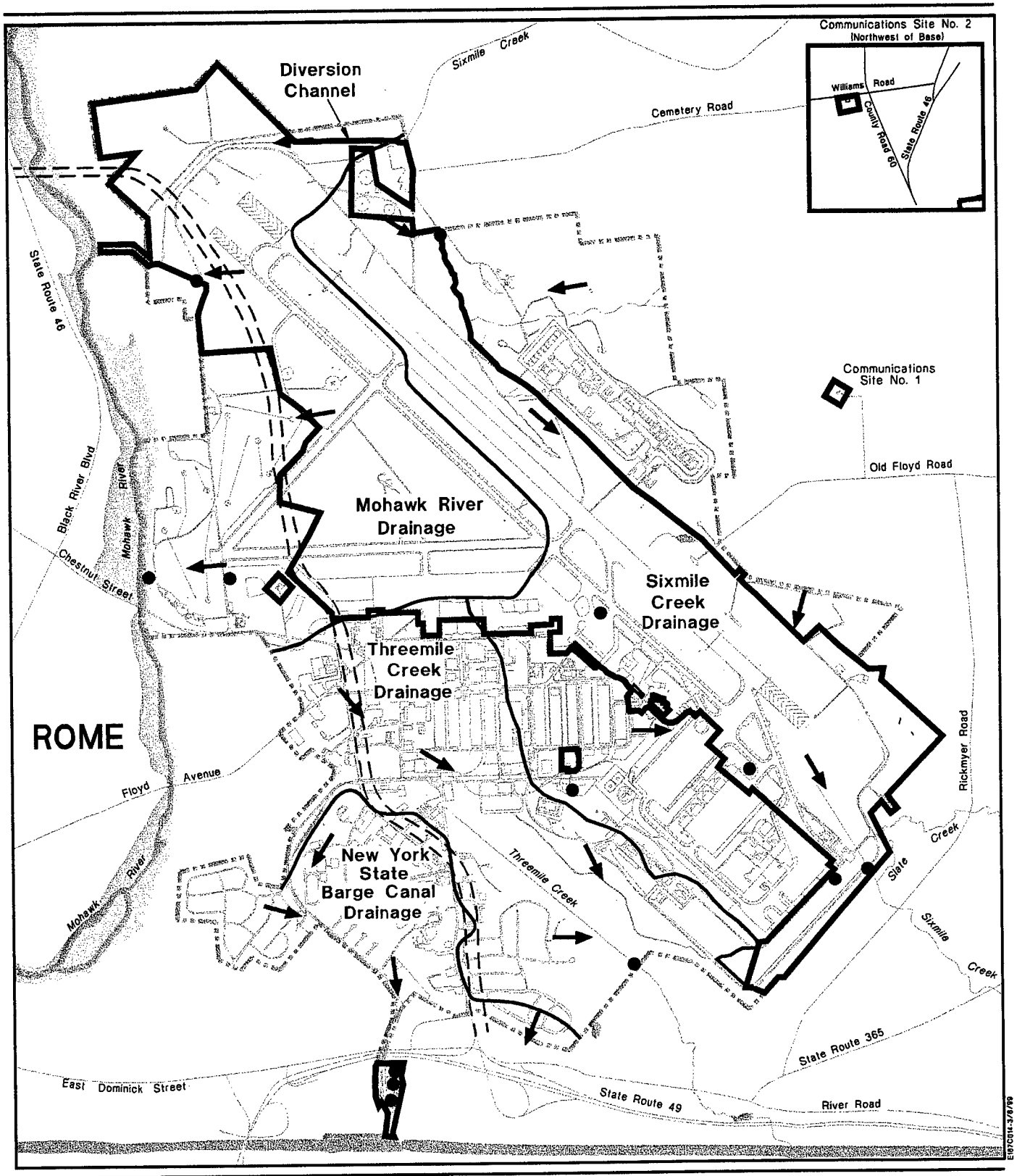
Alluvial deposits make up the floodplain of the Mohawk River and may also exist to a limited extent in the smaller drainages, such as the lower portion of Sixmile Creek. This material is included with the fine-grained glaciofluvial, lacustrine, and alluvial deposits described by Halberg. The alluvium is likely to be reworked glacial materials that are stratified and moderately sorted and have similar properties to those of glacial outwash. The alluvium consists of silt, fine sand, and some gravel with a relatively moderate permeability.

Groundwater at the airfield property flows southwest from the higher elevations northeast of the airfield property, then west toward the Mohawk River and south toward the Barge Canal. A groundwater divide where the flow directions diverge is present west of the airfield property. Groundwater moves from the divide to the south and to the west (Figure 3.4-3).

**Recharge.** Groundwater recharge at the airfield property is mainly through streamflow (Sixmile Creek) and deep percolation of precipitation. Groundwater flow is toward the Mohawk River and the Barge Canal, which are generally places of discharge rather than recharge. Sixmile creek probably recharges the groundwater during high flows and during or immediately after a major storm event. This recharge is likely to be only temporary, acting as bank storage and flowing back into the stream shortly after the storm. Deep infiltration of precipitation mainly occurs from November to April when there is a surplus of water above the storage capacity of the soil. It is estimated that, over the region, 24 percent of the annual precipitation reaches the groundwater as recharge, with the remainder consumed by evapotranspiration or moving out as runoff (Kantrowitz 1970).

On the airfield property, the former landfill (IRP site LF-03 on Figure 3.3-2) located between Perimeter Road and the runway appears to be a recharge area. This is indicated by groundwater flow paths, which diverge somewhat from this locality. Groundwater elevation data suggest that recharge may also be occurring in the southeast portion of the airfield property.

**Groundwater Supply and Usage.** Public and private water supply in the area is provided through the tapping of both surface water supplies and groundwater supplies, such as wells or springs. Outside of the major population centers, most residences draw water either from wells or small water districts (William F. Cosulich Associates 1989). In 1980, the State of New York reported that as many as 60,000 people in Oneida County were dependent on groundwater for domestic use (Geotech 1991). This population apparently represents those that obtain water from small wells for private supply.




Source: U.S. Dept. of Interior, 1955

**LEGEND**

- Airfield Property Boundary
- Former Griffiss AFB Boundary
- Surface Water Flow Direction
- Water Quality Monitoring Point
- Flood Hazard Areas (Includes 100- and 500-year Flood Areas) (FEMA 1985)
- Drainage Divide

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0 1000 2000

# Surface Hydrology

**Figure 3.4-2**

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Table 3.4-3

Hydraulic Characteristics (Approximate) of the Upper Aquifer
The Airfield Property and Vicinity

| Material | Hydraulic Conductivity (feet/day) | Specific Yield | Surface Soil Permeability (inches/hour) | Well Yield Normal Range (gallons/minute) |
|---|---|---|---|---|
| Lodgment Till | $3x10^{-3}$ to $3x10^{-1}$ | 0.08 to 0.25 | 0.06 to 0.2 | 3/0.5 to 10 |
| Ablation Till | $3x10^{-2}$ to 3 | 0.1 to 0.27 | 0.06 to 0.2 | 3/0.5 to 10 |
| Outwash | 3 to $3x10^{2}$ | 0.20 to 0.30 | 6-20 | 80/10 to 200 |
| Lacustrine sandy silt | $3x10^{-2}$ to 3 | 0.20 | <6 | <11 |
| Lacustrine silty clay | $3x10^{-3}$ to $3x10^{-1}$ | 0.10 | >6 | <11 |
| Lacustrine sand and gravel | up to 300 | >0.2 | 6 to 20 | 11/2 to 40 |
| Deltaic deposits | $3x10^{-2}$ to 3 | 0.15 to 0.25 | 0.2 to 6 | 11/2 to 40 |
| Alluvial deposits | 3 to $3x10^{2}$ | 0.15 to 0.25 | 0.2 to 6 | See Outwash ±80 |

Sources: Lint 1988; Casey and Reynolds 1989; Halberg *et al.* 1962.

**Groundwater Quality.** Groundwater aquifers used for drinking water are protected by the State of New York by an amendment to Article 15 "Water Resources" of the Environmental Conservation Law. New York State groundwater Class GA applies to potable supplies. Chapter X, Part 703 of the New York State Water Laws has specific water quality standards for 83 substances. The Final Upstate New York Groundwater Management Program deals with the protection of unconsolidated water table aquifers because of their vulnerability to contamination. Two categories of aquifers identified in this program as requiring protection are Primary Water Supply Aquifers and Principal Aquifers. Primary Water Supply Aquifers are "highly productive aquifers presently being utilized as sources of water supply by major municipal water supply systems." Principal aquifers are "formations known to be highly productive or deposits whose geology suggest abundant potential water supply, but which are not intensively used as sources of water supply by major municipal water systems at the present time." No Primary Water Supply Aquifers have been identified in Oneida County. There is, however, a potential for the existence of one or more Principal Aquifers in the area (William F. Cosulich Associates 1989).

Wells west of the Mohawk River through Rome and south of the Barge Canal do not receive contamination from any source on the airfield property, because these bodies of water serve as discharge points for groundwater flowing away from the airfield property. Wells located between the airfield property and the Mohawk River and New York State Barge Canal, however, may be at risk because groundwater flows toward them.

A well monitoring survey of 55 domestic wells was conducted in an area extending east from Pennystreet Road then south through the Town of Floyd to just south of Highway 365 for the purpose of determining the presence of glycol in groundwater. The presence of glycol was not confirmed by

sampling conducted by the New York State Department of Health. In the survey, 306 samples were analyzed for glycol and 58 for volatile organic chemicals. Of the 306, 1 was positive for a trace level of glycols, but repeated resamples did not duplicate that finding. Of the 58 samples analyzed for volatile organics, none showed evidence of water quality problems in the survey area (New York State Department of Environmental Conservation 1993c).

Groundwater monitoring results for 1993 indicate the presence of glycols in six monitoring wells east of Sixmile Creek, south of Slate Creek, and just north of Slate Creek. Readings for total glycols ranged from 0.08 to 0.53 micrograms per liter ($\mu$g/l) (U.S. Air Force 1993m).

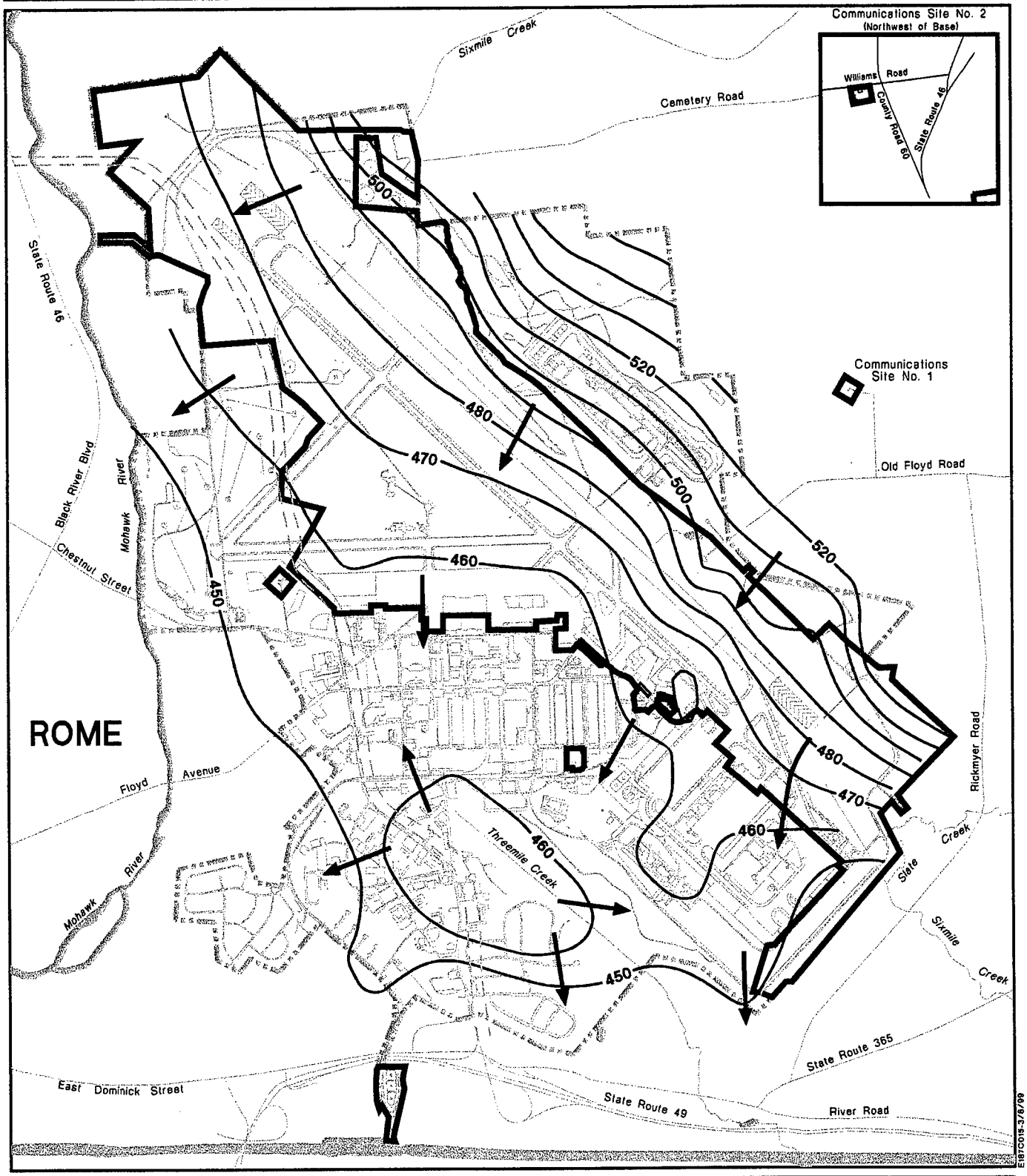
Because the hydraulic gradient northeast of the airfield property is toward the southwest into the airfield property from the adjoining hills, groundwater contamination, if present, would not move northeast from the airfield property. Instead, contaminants from potential sources northeast of the airfield property would move southwest toward the airfield property, possibly discharging into the extensive wetlands northeast of the runway.

### 3.4.3 Air Quality

Air quality in a given location is described as the concentration of various pollutants in the atmosphere, generally expressed in units of parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. The significance of a pollutant concentration is determined by comparing it to Federal and/or State ambient air quality standards. These standards represent the maximum allowable atmospheric concentrations that may occur and still protect public health and welfare, with a reasonable margin of safety.

As required by the Clean Air Act, the EPA has set National Ambient Air Quality Standards (NAAQS) for certain pollutants to protect public health. These pollutants are known as criteria pollutants. Primary standards are set to protect human health, and secondary standards are set to protect crops, buildings, and water supplies. The NAAQS and the New York standards are presented in Table 3.4-4.

The main pollutants considered in this SEIS are the six criteria pollutants: ozone ($O_3$), carbon monoxide (CO), nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), lead (Pb), and particulate matter less than or equal to 10 micrometers in diameter ($PM_{10}$).




Source: USGS 1989, GeoTech 1991.

**LEGEND**

- Airfield Property Boundary
- Former Griffiss AFB Boundary
- 450 — Contour of Potentiometric Surface Elevation Feet Above Mean Sea Level
- General Direction of Groundwater Flow

SCALE IN FEET
0 1000 2000

# Groundwater Hydrology

**Figure 3.4-3**

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Table 3.4-4

New York State and National Ambient Air Quality Standards

| Pollutant | Averaging Time | Level | New York State Standards[1] Concentrations[2] | National Standards[1] Concentrations[2] | |
|---|---|---|---|---|---|
| | | | | Primary | Secondary |
| Ozone | 1 hour | All | 0.08 ppm[3] | 0.12 ppm (235 $\mu g/m^3$) | Same as primary standard |
| Carbon Monoxide | 8 hours | All | 9 ppm (10 $mg/m^3$) | 9 ppm (10 $mg/m^3$) | NS[4] |
| | 1 hour | All | 35 ppm (40 $mg/m^3$) | 35 ppm (40 $mg/m^3$) | NS |
| Nitrogen Dioxide | Annual | All | 0.05 ppm (100 $\mu g/m^3$) | 0.053 ppm (100 $\mu g/m^3$) | Same as primary standard |
| Sulfur Dioxide | Annual | All | 0.03 ppm (80 $mg/m^3$) | 80 $\mu g/m^3$ (0.03 ppm) | |
| | 24 hours | All | 0.14 ppm[5] (365 $\mu g/m^3$) | 365 $\mu g/m^3$ (0.14 ppm) | |
| | 3 hours | All | 0.50 ppm[6] (1300 $\mu g/m^3$) | NS | 1300 $\mu g/m^3$ (0.5 ppm) |
| Lead | Calendar Quarter | All[7] | NS | 1.5 $\mu g/m^3$ | Same as primary standard |
| Inhalable Particulates ($PM_{10}$) | Annual Arithmetic Mean | All[8] | NS | 50 $\mu g/m^3$ | Same as primary standard |
| | 24 hours | All[8] | NS | 150 $\mu g/m^3$ | Same as primary standard |
| Total Suspended Particulates (TSP)[9] | Annual Geometric Mean | IV | 75 $\mu g/m^3$ | NS | NS |
| | | III | 65 $\mu g/m^3$ | NS | NS |
| | | II | 55 $\mu g/m^3$ | NS | NS |
| | | I | 45 $\mu g/m^3$ | NS | NS |
| | 24 hours | All | 250 $\mu g/m^3$ | NS | NS |

Notes: [1]National and New York State standards, other than ozone and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.
[2]Concentrations expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 millimeters of mercury. All measurements of ambient concentrations are to be corrected to a reference temperature of 25°C and a reference pressure of 760 millimeters of mercury; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
[3]Existing New York State standard for ozone of 0.08 ppm not yet officially revised via regulatory process to coincide with the National standard of 0.12 ppm, which is currently being applied to determine compliance status.
[4]NS = No standards, not regulated.
[5]Also during any 12 consecutive months, 99 percent of the values shall not exceed 0.10 ppm.
[6]Also during any 12 consecutive months, 99 percent of the values shall not exceed 0.25 ppm.
[7]Federal standard for lead not yet officially adopted by New York State, but is currently being applied to determine compliance status.
[8]National standard for $PM_{10}$ not yet officially adopted by New York State, but is currently being applied to determine compliance status.
[9]New York State also has 30-, 60-, and 90-day standards in Part 257 of New York Codes, Rules, and Regulations.
Sources: New York State Department of Environmental Conservation 1991a, 1992, and 1993a. 40 CFR 50.

The Clean Air Act Amendments of 1990 require the EPA to adopt area designations for all pollutants with NAAQS. These criteria pollutants include $O_3$, CO, $NO_2$, $SO_2$, lead (Pb), and $PM_{10}$. An area is designated as:

- Nonattainment - any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for that pollutant;
- Attainment - any area that meets the national primary or secondary ambient air quality standard for that pollutant; or
- Unclassifiable - any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for that pollutant. Unclassified areas are treated as attainment for regulatory purposes.

The EPA has granted the NYSDEC the authority to implement regulations to prevent the significant deterioration of air quality in areas that are classified as attainment or unclassifiable. The Prevention of Significant Deterioration (PSD) program is implemented in a large part through the use of "increments" and area classifications that effectively define "significant deterioration" for individual pollutants. The Clean Air Act's area classification scheme for PSD establishes three classes of geographic areas and applies increments of different stringency to each class. Air quality impacts, in combination with other PSD sources in the area, must not exceed the maximum allowable incremental increases presented in Table 3.4-5.

**Table 3.4-5**

**Maximum Allowable Pollutant Concentration Increases Under Prevention of Significant Deterioration Regulations**

| | | Maximum Allowable Increment ($\mu g/m^3$) | | |
|---|---|---|---|---|
| **Pollutant** | **Averaging Time** | **Class I** | **Class II** | **Class III** |
| $PM_{10}$ | Annual | 4 | 17 | 34 |
| | 24 hours | 8 | 30 | 60 |
| $SO_2$ | Annual | 2 | 20 | 40 |
| | 24 hours | 5 | 91 | 182 |
| | 3 hours | 25 | 512 | 700 |
| $NO_2$ | Annual | 2.5 | 25 | 50 |

Source: 40 CFR 52.21

Class I areas are those of special national concern where any appreciable deterioration in air quality is considered significant. Consequently, the most restrictive increments apply in Class I areas. Mandatory Class I areas are all international parks; national parks that exceed 6,000 acres, national wilderness areas, and national memorial parks which exceed 5,000 acres and

were in existence on August 7, 1977. States may redesignate certain areas within the State as Class I (or Class II), such as national preserves, lakeshores, seashores, and national parks and wilderness areas created after August 7, 1977, if they exceed 10,000 acres. Less restrictive increments apply in areas designated as Class II or Class III. Class II areas are all PSD areas that are designated as attainment or unclassifiable with respect to the NAAQS and are not classified in the Clean Air Act as Class I areas. Individual states have the authority to redesignate Class II areas to Class III areas, to allow for higher levels of industrial development and emissions growth. There are, as yet, no designated Class III areas.

No PSD Class I areas are located within 50 miles of Griffiss Airfield Property. Oneida County is designated by the EPA as a Class II area. Major new or modified stationary sources in the region are subject to PSD review to ensure that these sources are constructed without significant adverse deterioration of the clean air in the area. Emissions from any major new or modified source must be controlled using Best Available Control Technology.

Existing air quality in the region is defined by air quality data and emissions information. Air quality data were obtained for air quality monitoring stations maintained by the NYSDEC. Information on pollutant concentrations measured for short-term (24 hours or less) and long-term (annual) averaging periods was extracted from the monitoring stations data to characterize the existing air quality background of the area. Emission inventory information for the region was obtained from the EPA. Inventory data are separated by pollutant and reported in tons per day to describe the baseline conditions of pollutant emissions in the area.

Identifying the ROI for an air quality assessment requires knowledge of the pollutant types, source emission rates and release parameters, the proximity relationships of project emission sources to other emission sources, and local and regional meteorological conditions. For inert pollutants (all pollutants other than $O_3$ and its precursors), the ROI is generally limited to an area extending a few miles downwind from the source. The ROI for $O_3$ may extend much farther downwind than the ROI for inert pollutants. For the purpose of this air quality analysis, the ROI is defined as Oneida County.

The Federal Clean Air Act, as amended in August 1977 and November 1990, dictates that project emission sources must comply with the air quality standards and regulations that have been established by Federal, State, and county regulatory agencies. These standards and regulations focus on (1) the maximum allowable ambient pollutant concentrations resulting from project emissions, both separately and combined with other surrounding sources, and (2) the maximum allowable emissions from the project.

Under the Clean Air Act Amendments (CAAA) of 1990, an ozone transport region (OTR) was established. The OTR is comprised of the States of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire,

New Jersey, New York, Pennsylvania, Rhode Island, Vermont, the District of Columbia, and the portion of Virginia that is within the Consolidated Metropolitan statistical area that includes the District of Columbia. The OTR was established in recognition of the fact that the transport of ozone and ozone precursors throughout the region may render the northeast States' attainment strategies interdependent. The CAAA also specifies that volatile organic compound (VOC) sources located anywhere in the OTR are required to achieve reasonably available control technology (RACT) if they have the potential to emit more than 50 tons per year of VOCs or are covered by an EPA Control Techniques Guideline. Regardless of the attainment status or nonattainment classification States must amend their State Implementation Plans (SIPs) to require RACT for major VOC sources no later than May 31, 1995. As a result many sources will be subject to RACT for the first time.

Prior to the 1990 CAAA, Federal regulation of hazardous air emissions was very limited. Section 112, as amended in 1990, requires the EPA to regulate a greatly expanded list of hazardous air pollutants (HAPs). Additionally, the EPA must publish a list of all categories and subcategories of emission sources of HAPs. After identifying and listing sources of HAPs, the EPA must promulgate emission standards that are equivalent to maximum achievable control technology (MACT). By the year 2000, most medium- and large-sized sources of HAPs can expect the final EPA regulations that will control HAP emissions and require adoption of costly control measures.

#### 3.4.3.1 Regional Air Quality

**Air Pollution Potential.** The air quality in a region on a given day depends on both pollutant emission strengths and atmosphere dispersion rates. The dispersive capability (or lack thereof) is called the air pollution potential, a quantity independent of source distributions or strengths. In nonindustrialized regions, whenever vertical and horizontal dispersion rates are unusually low, for example, pollution potential is high, although air quality may be excellent. The factors, stability, mixing height, and wind speed are of prime importance in determining air pollution potential in an area.

The atmosphere surface stability controls the vertical dispersion of pollutants in the vicinity of a source. This factor is especially important to the assessment of primary pollutant impacts. Surface stability is governed by the atmospheric lapse rate close to the ground which, in turn, is controlled by insolation nocturnal radiation loss, and wind speed. A formal method of stability classification which is frequently used in air quality models was developed by F. Pasquill. This method of classification uses wind speed and incoming solar radiation during the day and wind speed and cloud cover at night. The stability categories are found in Table 3.4-6.

The mixing height is the height above the surface in the atmosphere at which rising warm air from the surface will mix by convection. The mixed layer

dilutes pollutants released in it; the degree is determined by local atmosphere conditions, terrain configuration, and source location.

**Table 3.4-6**

**Pasquill Method of Stability Classification**

| Stability Category | Level of Stability |
|---|---|
| A | Very Unstable |
| B | Moderately Unstable |
| C | Slightly Unstable |
| D | Neutral |
| E | Slightly Stable |
| F | Moderately to Extremely Stable |

Source: U.S. Atomic Energy Commission 1968.

Wind speed has an important effect on regional ventilation and the dilution of pollutant concentration from individual source areas. Light winds occurring in conjunction with large source emissions may lead to an accumulation of pollutants that can move to downwind areas. Persistent wind directions define likely corridors for ventilation and transport processes.

The seasonal and annual distributions of combined Pasquill stability categories in Oneida County are presented in Table 3.4-7. Good dispersion of pollutants occurs almost 70 percent of the time (unstable and neutral stability).

**Table 3.4-7**

**Relative Seasonal and Annual Percent Frequency of Combined Pasquill Stability Categories in Oneida County, New York**

| Season | Unstable[1] | Neutral[2] | Stable[3] |
|---|---|---|---|
| Winter | 7.66 | 67.60 | 24.74 |
| Spring | 18.53 | 53.24 | 28.23 |
| Summer | 33.43 | 29.57 | 37.00 |
| Autumn | 15.27 | 51.24 | 33.49 |
| Annual | 18.92 | 50.13 | 30.95 |

Notes: [1]Pasquill A, B, and C categories: Vertical mixing is uninhibited through the layer and is at a maximum.
[2]Pasquill D category: Vertical mixing takes place if parcels of air in layer are moved by an external force (mechanical turbulence).
[3]Pasquill E and F categories: Practically no vertical mixing and pollutant dispersion occur.

Source: National Climatic Data Center 1974.

Annual average mixing heights range from about 2,200 feet in the morning to 4,600 feet in the afternoon. These heights combined with an average annual wind speed of 7 miles per hour (mph) provide Oneida County with good ventilation. Thus, dispersion conditions over Oneida County are good, and the air pollution potential is relatively low. This statement should also be true for the other counties in the ROI because of similar meteorological conditions over the ROI.

Although there are 12 major sources (emission greater than 100 tons per year for one pollutant) in Oneida County, the air quality is relatively good. This condition is due to the low air pollution potential over the region.

The ROI for the airfield property at Griffiss AFB is located within the Central New York Intrastate Air Quality Control Region (AQCR No. 158) (40 CFR 81.127). The ROI is designated by the EPA as attainment for $SO_2$ and $PM_{10}$ and as unclassifiable/attainment for CO, $O_3$, and $NO_2$ (40 CFR 81.333). The ROI has not been designated for Pb. The airfield property at Griffiss AFB is in a Class II PSD area.

The NYSDEC operates two air quality monitoring stations in Oneida County. A $PM_{10}$ monitoring station is operated in Utica, located approximately 15 miles southeast of the airfield property. An $O_3$ monitoring station is located in Camden, approximately 18 miles northwest of the base. A summary of $PM_{10}$ and $O_3$ maximum concentrations recorded at these stations from 1993 through 1995 is presented in Table 3.4-8.

**Table 3.4-8**

**Maximum $O_3$ and $PM_{10}$ Concentrations Measured in Oneida County, New York**

| Location | Pollutant | Averaging Time | Concentrations | | |
|---|---|---|---|---|---|
| | | | 1993 | 1994 | 1995 |
| Camden | $O_3$ | 1 hour | 0.095 ppm | 0.088 ppm | 0.100 ppm |
| Utica | $PM_{10}$ | 24 hours | 57 $\mu g/m^3$ | 49 $\mu g/m^3$ | 45 $\mu g/m^3$ |
| | $PM_{10}$ | Annual | 21 $mg/m^3$ | 21 $\mu g/m^3$ | 19 $\mu g/m^3$ |

Sources: New York State Department of Environmental Conservation 1994, 1995, 1996.

The other gaseous pollutants, CO, $NO_2$ and $SO_2$, are not monitored in Oneida County. To obtain an approximate estimate of the maximum concentration of CO and $SO_2$ currently existing in Oneida County, maximum concentrations recorded in surrounding counties for 1993, 1994, and 1995 were plotted on maps and a spatial analysis was performed. CO and $SO_2$ concentrations for each of the three years were obtained for Oneida County and averaged. The results are presented in Table 3.4-9. $NO_2$ was not monitored in surrounding counties.

**Table 3.4-9**

**Estimated Existing Maximum Concentrations of CO and $SO_2$ in Oneida County, New York**

| Pollutant | Averaging Time | Maximum Concentration (ppm) |
|---|---|---|
| CO | 1 hour | 10.1 |
| | 8 hours | 6.5 |
| $SO_2$ | 3 hours | 0.036 |
| | 24 hours | 0.017 |
| | Annual | 0.004 |

The maximum pollutant concentrations shown in Tables 3.4-8 and 3.4-9 are below the ambient standards and confirm that Oneida County and the Airfield property at Griffiss AFB have relatively good air quality.

Of the 12 major stationary sources in Oneida County, the Mohawk Valley Psychiatric Center northwest of Utica and the Oneida Correction Facility in Rome are the two sources with the highest emission rates. Both facilities emit CO, volatile organic compounds (VOCs), nitrogen oxide ($NO_x$), sulfur oxide ($SO_x$), and $PM_{10}$. When active, Griffiss AFB was the second largest stationary source in Oneida County. However, since realignment, the airfield property contributes less than 1 percent of the pollutant burden in Oneida County.

### 3.4.3.2 Air Pollutant Emission Sources

The current activity on the airfield property at Griffiss AFB consists only of maintaining a Minimum Essential Airfield by the NYANG. About 130 personnel take part in this activity. The primary emission sources at the airfield are aircraft and motor vehicles.

Annual aircraft emissions in 1996 are presented in Table 3.4-10. Motor vehicle emissions and Oneida County emissions are also presented in the table. The preclosure emissions are less than one percent of the pollutant burden in Oneida County.

**Table 3.4-10**

**Preclosure Emissions Inventory for the Airfield Property at Griffiss AFB (Tons per Day)**

| Source | Particulate | $SO_x$ | CO | VOC | $NO_x$ |
|---|---|---|---|---|---|
| Aircraft Operations | 0 | 0.001 | 0.024 | 0.012 | 0.012 |
| Aerospace Ground Equipment | 0 | 0 | 0.027 | 0.002 | 0.001 |
| Motor Vehicles | NC | NC | 0.041 | 0.013 | 0.007 |
| Total | 0 | 0.001 | 0.308 | 0.027 | 0.02 |
| Oneida County (1990)[2] | 35.8[1] | 9.8[1] | 163.3 | 37 | 26.6 |

Notes: NC - Not calculated, emission factor not available.
[1] - 1988 Emission Inventory.
[2] - Source Personal Communication 1997, M.P. Sheehan, New York State Department of Environmental Conservation, Division of Air Resources.

### 3.4.4 Noise

The ROI for noise sources at the airfield property at Griffiss AFB was defined using FAA-developed land use compatibility guidelines. The area most

affected by the airfield closure and reuse is the airfield property itself, and a region of influence approximately 4 miles wide which includes the land 3.5 miles southeast to 3 miles northwest of the airfield.

The characteristics of sound include parameters such as amplitude, frequency, and duration. The decibel (dB), a logarithmic unit that accounts for the large variations in amplitude, is the accepted standard-unit measurement of sound. Different sounds may have different frequency content.

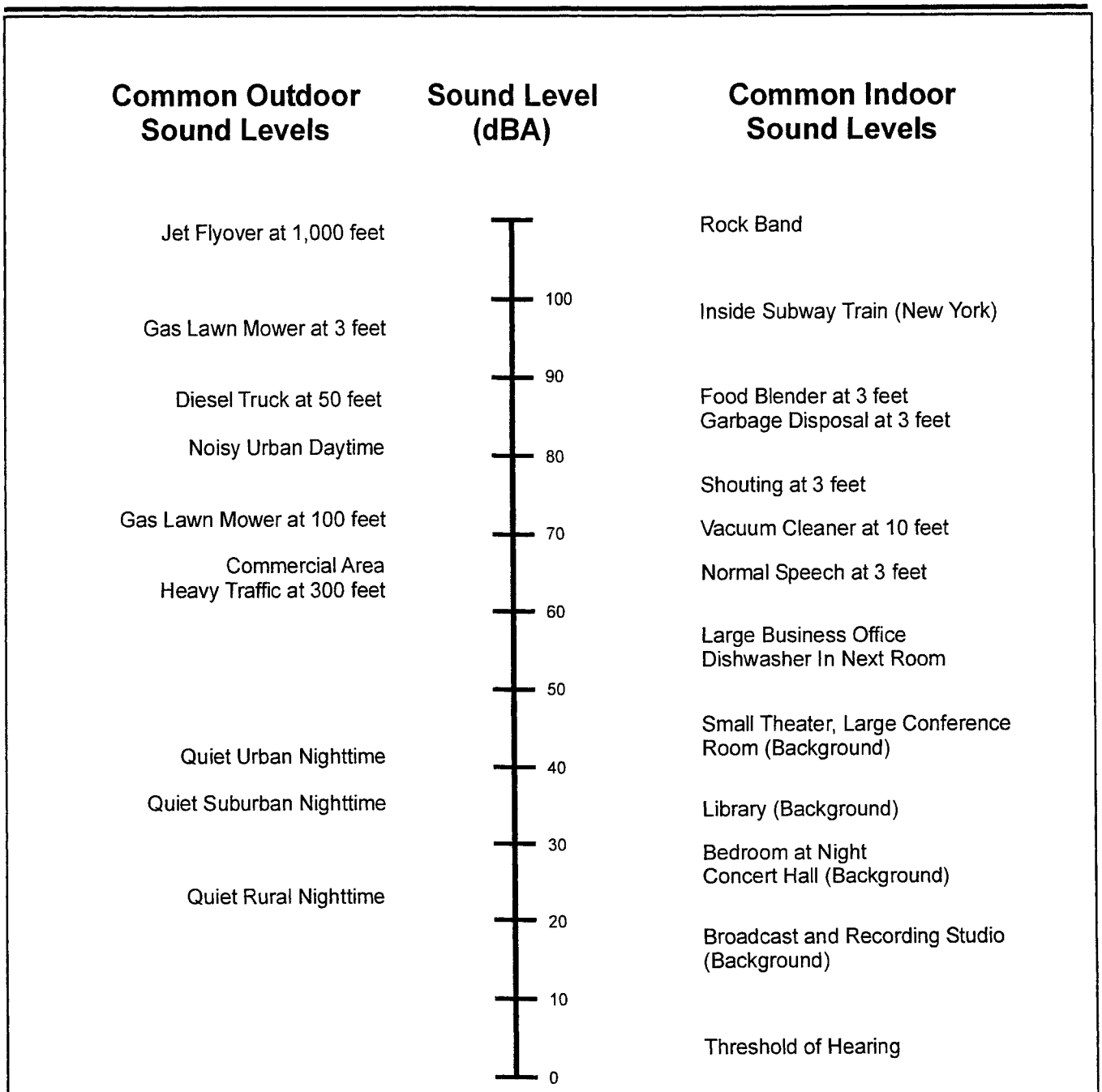
When measuring sound to determine its effects on the human population, A-weighted sound levels (dBA) are typically used to account for the response of the human ear. A-weighted sound levels represent adjusted sound levels. The adjustments, established by the American National Standards Institute (1983), are made according to the frequency content of the sound. Examples of typical A-weighted sound levels are shown in Figure 3.4-4.

Noise is usually defined as sound that is undesirable because it interferes with communication and hearing, is intense enough to damage hearing ability, or is otherwise annoying. Noise levels often change with time. Therefore, to compare levels over different time periods, several descriptors were developed to account for the time variances. These descriptors are used to assess and correlate the various effects of noise on humans, including land use compatibility, sleep and speech interference, annoyance, hearing loss, and startle effects.

The day-night average sound level (DNL) was developed to evaluate the total community noise environment. The DNL is the average A-weighted sound level during a 24-hour period with 10 dB added to nighttime levels (between 10:00 p.m. and 7:00 a.m.). This adjustment accounts for the increased sensitivity to nighttime noise. The DNL was endorsed by the EPA and is mandated by the U.S. Department of Housing and Urban Development, the FAA, and the DOD for land use assessments.

The DNL is an accepted unit for quantifying human annoyance to general environmental noise, which includes aircraft noise. The Federal Interagency Committee on Urban Noise developed land use compatibility guidelines for noise in terms of DNL (Code of Federal Regulations 1983). FAA-recommended DNL ranges for various land use categories based on the committee's guidelines are presented in Table 3.4-11. Guidelines were used in this study to determine noise impacts.

The DNL is recognized by the FAA and Air Force as the noise descriptor for airfield environments. The DNL is sometimes supplemented with other metrics, primarily the equivalent sound level ($L_{eq}$). The $L_{eq}$ is the equivalent, steady-state level that would contain the same acoustical energy as the time-varying level during the same time interval.




Source: Modified from Harris and Miller 1977

**Typical A-Weighted Sound Levels**

**Figure 3.4-4**

**Table 3.4-11**

**Land Use Compatibility With Yearly Day-Night Average Sound Levels[1] (in dB)**

| Land Use | Yearly Day-Night Average Sound Level (DNL) | | | | | |
|---|---|---|---|---|---|---|
| | Below 65 | 65-70 | 70-75 | 75-80 | 80-85 | Over 85 |
| **Residential** | | | | | | |
| Residential -- other than mobile homes and transient lodgings | Y[2] | N(1) | N(1) | N | N | N |
| Mobile home parks | Y | N | N | N | N | N |
| Transient lodgings | Y | N(1) | N(1) | N(1) | N | N |
| **Public Use** | | | | | | |
| Schools | Y | N(1) | N(1) | N | N | N |
| Hospitals and nursing homes | Y | 25 | 30 | N | N | N |
| Churches, auditoriums, and concert halls | Y | 25 | 30 | N | N | N |
| Governmental services | Y | Y | 25 | 30 | N | N |
| Transportation | Y | Y | Y(2) | Y(3) | Y(4) | Y(4) |
| Parking | Y | Y | Y(2) | Y(3) | Y(4) | N |
| **Commercial Use** | | | | | | |
| Offices -- business and professional | Y | Y | 25 | 30 | N | N |
| Wholesale and retail--building materials, hardware, and farm equipment | Y | Y | Y(2) | Y(3) | Y(4) | N |
| Retail trade--general | Y | Y | 25 | 30 | N | N |
| Utilities | Y | Y | Y(2) | Y(3) | Y(4) | N |
| Communication | Y | Y | 25 | 30 | N | N |
| **Manufacturing and Production** | | | | | | |
| Manufacturing, general | Y | Y | Y(2) | Y(3) | Y(4) | N |
| Photographic and optical | Y | Y | 25 | 30 | N | N |
| Agriculture (except livestock) and forestry | Y | Y(5) | Y(6) | Y(7) | Y(7) | Y(7) |
| Livestock farming and breeding | Y | Y(5) | Y(6) | N | N | N |
| Mining and fishing, resource production and extraction | Y | Y | Y | Y | Y | Y |
| **Recreational** | | | | | | |
| Outdoor sports arenas and spectator sports | Y | Y(8) | Y(8) | N | N | N |
| Outdoor music halls and amphitheaters | Y | N | N | N | N | N |
| Nature exhibits and zoos | Y | Y | N | N | N | N |
| Amusement parks, resorts, and camps | Y | Y | Y | N | N | N |
| Golf courses, riding stables, and water recreation | Y | Y | 25 | 30 | N | N |

Notes: [1]The designations contained in this table do not constitute a federal determination that any use of land covered by the program is acceptable or unacceptable under federal, state, or local laws. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise-compatible land uses.

[2]Key:

| | |
|---|---|
| Y (Yes) | Land use and related structures compatible without restrictions. |
| N (No) | Land use and related structures are not compatible and should be prohibited. |
| 25, 30, or 35 | Land use and related structures generally compatible; measures to achieve Noise Level Reduction (NLR) of 25, 30, or 35 dB must be incorporated into design and construction of structure. |

**Table 3.4-11, Page 2 of 2**

Notes: (cont.)

[2]Key: (cont.)

| | |
|---|---|
| (1) | Where the community determines that residential or school uses must be allowed, measures to achieve outdoor-to-indoor NLR of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide an NLR of 20 dB; thus, the reduction requirements are often stated as 5, 10, or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year-round. However, the use of NLR criteria will not eliminate outdoor noise problems. |
| (2) | Measures to achieve an NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low. |
| (3) | Measures to achieve an NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low. |
| (4) | Measures to achieve an NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise-sensitive areas, or where the normal noise level is low. |
| (5) | Residential buildings require an NLR of 25. |
| (6) | Residential buildings require an NLR of 30. |
| (7) | Residential buildings not permitted. |
| (8) | Land use compatible, provided special sound reinforcement systems are installed. |

Source: 14 CFR 150.

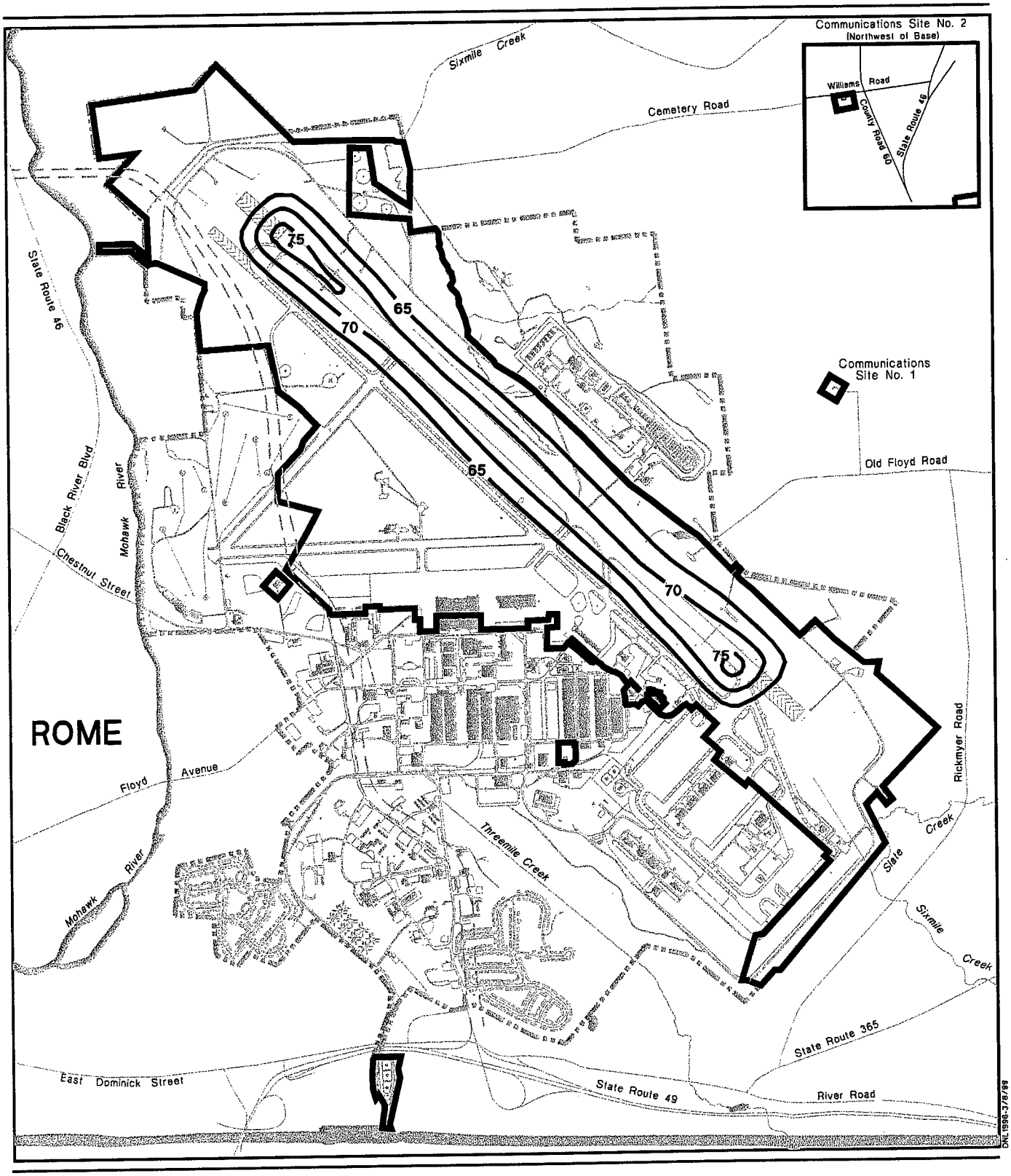
Appendix H provides additional information about the measurement and prediction of noise. Appendix H also provides more information on the units used in describing noise, as well as information about the effects of noise such as annoyance, sleep and speech interference, health effects, and effects on animals.

### 3.4.4.1 Existing Noise Levels

Typical noise sources in and around airfields include aircraft, surface traffic, and other human activities. Military aircraft operations and surface traffic on local streets and highways are the existing primary sources of noise in the vicinity of the airfield property at Griffiss AFB. Noise from railroads in the vicinity of the base would be negligible and is not included in the analysis. In airport analyses, areas with DNLs above 65 dB are often considered in land use compatibility planning and impact assessment; therefore, the DNL contours equal to or greater than 65 dB are of particular interest. Contours equal to and above DNL 65 dB are estimated and presented in 5-dB intervals.

The FAA Integrated Noise Model was used to predict 65, 70, and 75 DNL noise contours to estimate noise impacts from NYANG transient aircraft operations. The results of the aircraft noise modeling for pre-closure are presented as noise contours in Figure 3.4-5. As shown in the figure, all DNL noise contours 65 dB and above are confined to the airfield property.

Surface noise levels on an in the vicinity of the airfield property were calculated using the traffic data for 1996. The results of the modeling for the roadways analyzed are presented in Table 3.4-12.




**LEGEND**

- Airfield Property Boundary
- Former Griffiss AFB Boundary
- 65 Noise Contour (dB)

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# DNL Contours for Air National Guard Operations, 1996

**Figure 3.4-5**

Table 3.4-12

Distance of DNL From Roadway Centerlines on the Airfield Property and Vicinity, 1996

| Roadway | Distance (feet) | | |
|---|---|---|---|
| | DNL 65 dB | DNL 70 dB | DNL 75 dB |
| State Highway 49, East of Wright Drive Crossing | 240 | 110 | 60 |
| State Highway 49, West of Wright Drive Crossing | 210 | 100 | 60 |
| Connection Wright Dr./East Dominick Street | 30 | * | * |
| East Dominick Street, West of Wright Drive Crossing | 30 | * | * |
| River Road (State Highway 365) at County Road 88 Junction | 30 | * | * |
| Floyd Avenue, West of Floyd Gate | * | * | * |
| Chestnut Street, East of Black River Boulevard | 30 | * | * |
| Black River Boulevard, South of Floyd Avenue | 100 | 50 | * |
| Black River Boulevard, North of Floyd Avenue | 80 | 40 | * |
| Black River Boulevard, South of Chestnut Street | 90 | 50 | * |
| Black River Boulevard, North of Chestnut Street | 90 | 50 | * |

Note: *Contained within the highway.

### 3.4.5 Biological Resources

Biological resources include native and introduced plants and animals in the project area. For discussion purposes, these are divided into vegetation, wildlife (including aquatic biota), threatened or endangered species, and sensitive habitats.

The ROI for the biological resources analysis is the airfield property at Griffiss AFB and natural areas adjacent to the property. This includes the area in which impacts could occur and provides a basis for evaluating impacts on these resources.

Field surveys of Griffiss AFB, including the airfield property were conducted in 1993 and 1994 for general vegetation and wildlife, as well as for sensitive species. Less-intensive surveys were extended, where feasible, to natural areas adjacent to the base property that could be affected by reuse activities. These areas included habitats along Threemile Creek and Sixmile Creek between the base and the New York State Barge Canal, and were surveyed in October 1994. A rare plant species and significant natural communities survey was also conducted on the airfield property (New York State Natural Heritage Program 1993c, 1994).

#### 3.4.5.1 Vegetation

The airfield property lies within the broad valley of the Mohawk River, on alluvial and glacial outwash terraces. The river, in a narrow entrenched floodway, flowing north to south, forms a small part of the western boundary of the airfield property. Just southwest of the airfield property, the

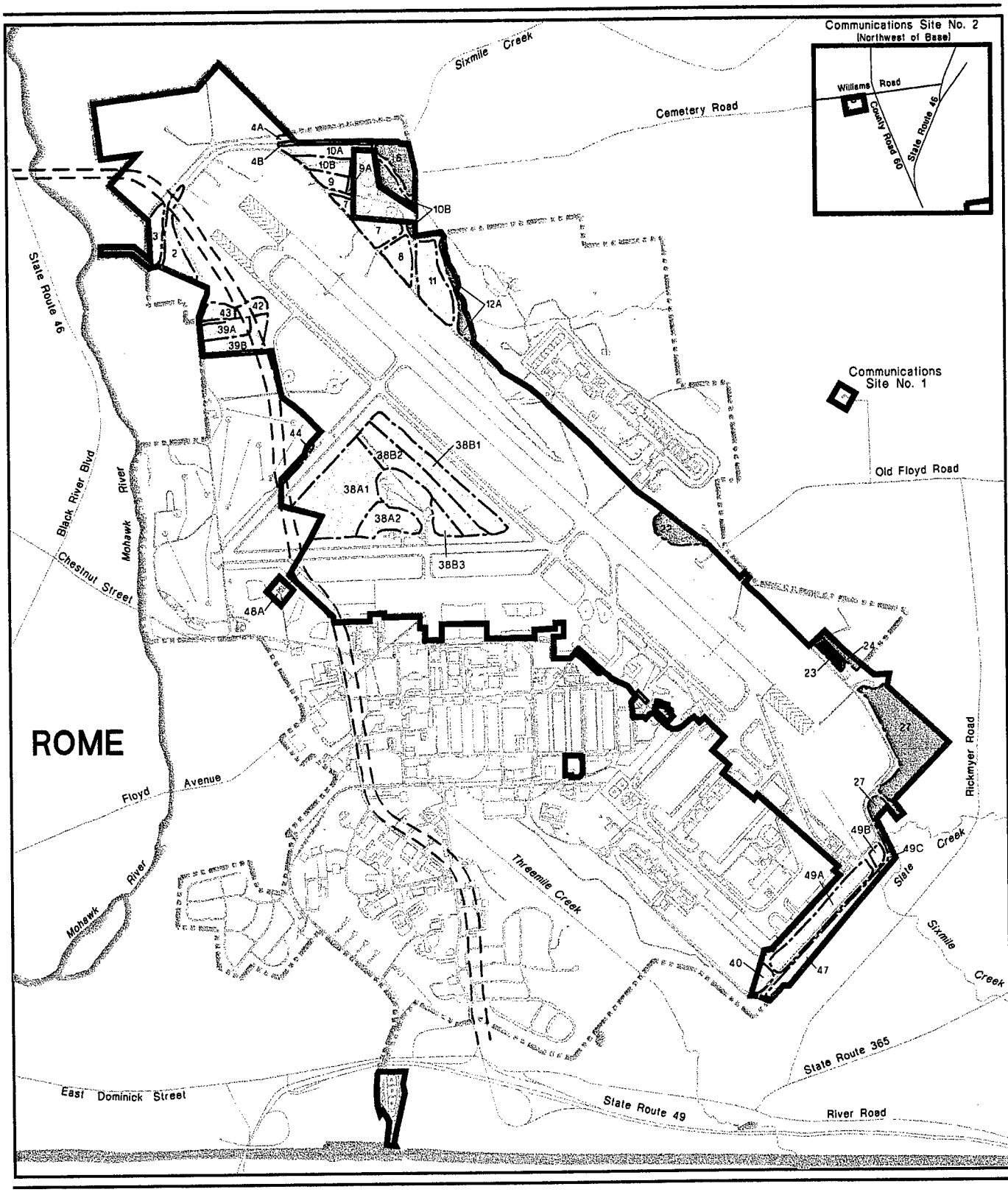
river turns eastward, joining the New York State Barge Canal in a floodplain that becomes increasingly wider. This broader floodplain and canal area form the southern border of the ROI. The original natural community of the uplands in this part of New York was probably northern hardwoods climax forest, a tall, broad-leaf deciduous forest with some needle-leaf evergreen trees. Sugar maple (*Acer saccharum*), birch (*Betula* spp.), American beech (*Fagus grandifolia*), and eastern hemlock (*Tsuga canadensis*) were the dominant species. On the water-logged floodplain soils, the forest was historically dominated by red maple (*Acer rubrum*), with yellow birch (*Betula alleghaniensis*) and some hemlock. Today it is unusual to encounter any natural evergreen growth in the floodplain.

The present floodplain forest is predominantly red maple, ash (*Fraxinus* spp.), American elm (*Ulmus americana*), and poplar (*Populus* spp.), either mixed or in relatively pure stands. There are also clusters of mature willows (*Salix* spp.). Silver maples (*Acer saccharinum*), box elders (*Acer negundo*), willows, and elms form a characteristic border along the river banks (Oneida County 1974).

Much of the airfield property is maintained in short vegetation, consisting of grasses, and various native perennials and introduced herbs and weedy species. This includes landscaped lawns; semi-improved grounds; agricultural outleases; and utility right-of-way and landfill areas. Areas near the runways, taxiways, and aircraft parking aprons are periodically mowed. Those areas closest to the runway and taxiways are mowed more frequently. Operational, industrial, and recreational areas are similarly maintained in short vegetation (U.S. Air Force 1985c).

Approximately 310 acres of forest land are on the airfield property and all are under some level of management. The forest management areas within the airfield property are shown on Figure 3.4-6. This map also shows generalized forest types. The predominant type of natural forest cover type is northern mixed hardwood (70 acres). These uneven-aged stands are dominated by gray birch (*Betula populifolia*), quaking aspen (*Populus tremuloides*), maple (*Acer* spp.) and black cherry (*Prunus serotina*) along with some white ash (*Fraxinus americana*). There are 3 acres of mixed forest, on the wetter sites, dominated by hemlock, maple, black cherry, and white ash. Reforestation efforts at the airfield property have produced 238 acres of even-aged, homospecific stands of coniferous forests. The species planted include red pine (*Pinus resinosa*), Scotch pine (*Pinus sylvestris*), white pine (*Pinus strobus*), larch (*tamarack*) Douglas fir (*Larix laricina*), white spruce (*Picea glauca*) and Norway spruce (*Picea abies*).

Table 3.4-13 identifies the planting areas, the year(s) of planting/replanting, and the species planted. Transplanting survival and growth has been good at all areas except area 49. The soils and/or airfield activities adjacent to this area have greatly hindered seedling survival for all species planted (U.S. Air Force 1993i).




**LEGEND**

- Airfield Property Boundary
- Former Griffiss AFB Boundary
- Proposed Parkway Corridor
- Hardwood Forest
- Coniferous Forest
- Mixed Forest

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# Forest Management Areas

**Figure 3.4-6**

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**Table 3.4-13**

**Forest Management Planting Areas at the Airfield Property**

| Forest Management Area | Planting Year | Tree Species Planted |
|---|---|---|
| 2 | 1975 | Larch, Scotch pine |
| 4A | 1967-68 | White pine, red pine, white spruce |
| 4B | 1967-68 | White pine, red pine, white spruce |
| 7 | 1976-78 | White spruce, red pine, norway spruce, white pine, larch, wildlife improvement package* |
| 8 | 1974 | White spruce, red pine, Norway spruce, white pine, larch, wildlife improvement package* |
| 9 | 1967 | White spruce |
| 9A | 1983 | White spruce |
| 10A | 1970-72 | Spruces |
| 10B | 1970-72 | Spruces |
| 38A1 | 1977-78 | Scotch pine, red pine |
| 38A2 | 1978-79 | Larch |
| 38B1 | 1975 | White spruce |
| 38B2 | 1975 | White spruce |
| 38B3 | 1975 | White spruce |
| 39A | 1974 | Red pine, white pine, Scotch pine |
| 39B | 1974 | Red pine, white pine, Scotch pine |
| 40 | 19741987 | Red pine, larch |
| 43 | 1975 | White pine, larch |
| 44 | 19791985 | White pine, red pine |
| 48A | 1976-78,1987 | Douglas fir, 6 trees survived in this area |
| 49A | 1983 | Larch, white spruce, red pine |
| 49B | 1983 | Larch |
| 49C | 1983 | Scotch pine, others planted but nothing else survived |

Note: The wildlife improvement package is made up of rose, silky dogwood, highbush cranberry, autumn olive, and honeysuckle.

Source: U.S. Air Force 1985b, 1993i and unpublished files.

Forest management has largely meant tree planting. However, there was a fairly large scale thinning cut made during late 1993 and early 1994. The largest of three areas cut was along the bottomland of Threemile Creek. Old growth forest in management area 23 was also cut. The harvest was largely red and sugar maple and black cherry, followed by hemlock, (half as much as all the deciduous) white pine and beech. In addition, there were a few yellow birch, Norway spruce, basswood, elm and ash. These areas were further cleaned by firewood cutting and collecting (U.S. Air Force 1985b, 1993c).

Currently, there is no active forest management activity within the airfield property.

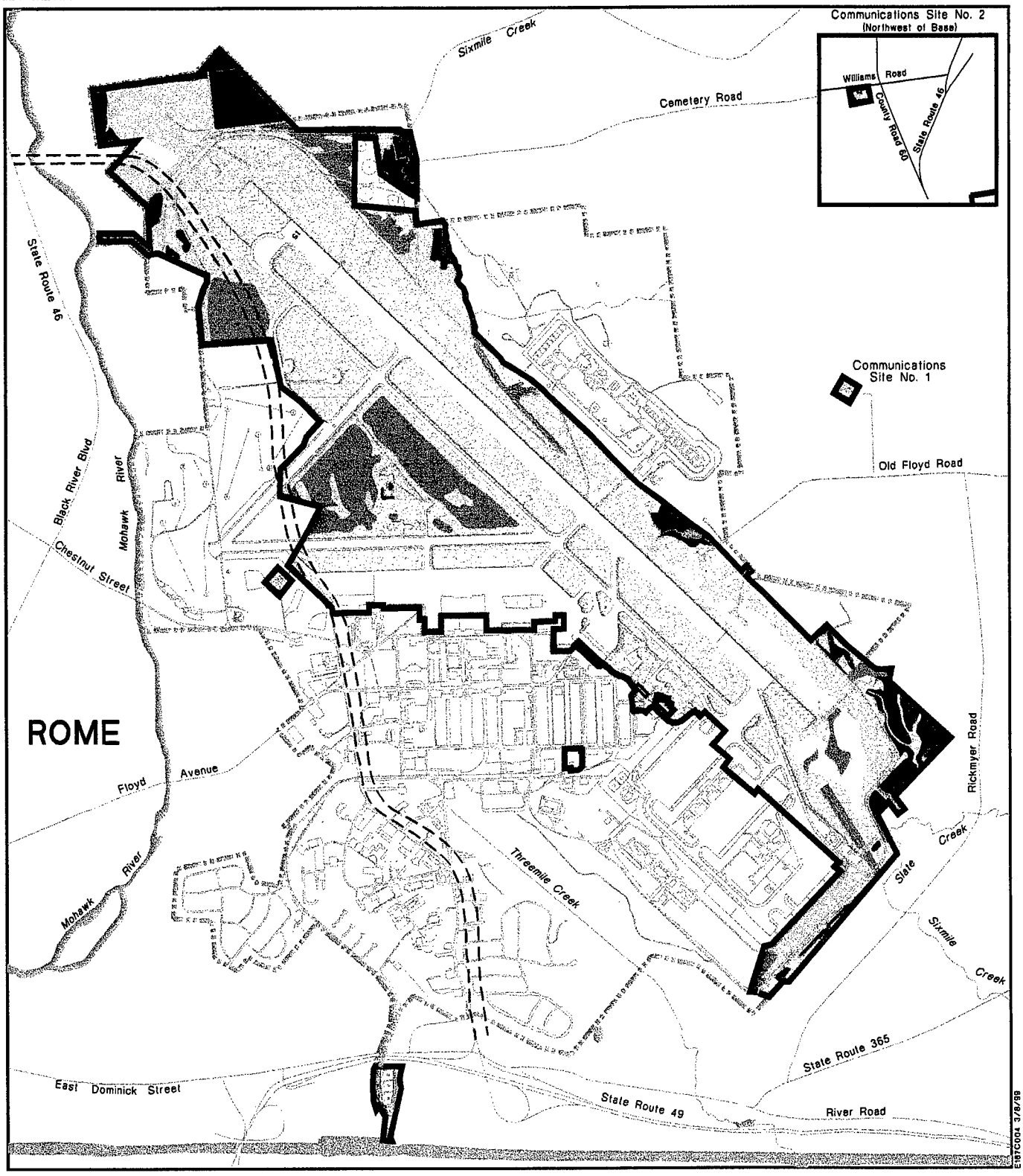
The vegetation map (Figure 3.4-7) shows the natural forest areas as upland native tree and as wooded wetland areas. In these areas, stands range from mixed deciduous hardwood through mixed hardwood, hardwood and conifer to nearly pure hemlock conifer. Shrubland is shown as either upland or wetland. The upland shrub includes native old-field regrowth areas to thinly planted (or low survivor) areas where the results are nearly the same as native old-field succession with a few non-native conifers added to the community. The native plant communities contain a number of plant species which occur on the NYSDEC list of threatened and endangered species (see also Section 3.4.5.3, Threatened, Endangered, and Candidate Species). The conifer areas shown are all plantation areas where the above mentioned conifer species were planted at various times starting in 1967. The largest ground cover on the airfield property is grassland. When the airfield was operational, the grassland was maintained by regular mowing. Most grassland is dry, but some wetland exists. The latter is artificially kept as meadow wetland (without obvious shrubs and trees) by regular mowing. The cultivated fields are restricted to a portion of the northern runway clear zone.

### 3.4.5.2 Wildlife

Initial wildlife management inventories were conducted in 1968 for preparation of a fish and wildlife plan (U.S. Air Force 1985a; 1993h). Field studies undertaken at that time by wildlife biologists from the U.S. Department of Interior Fish and Wildlife Service (USFWS) and the NYSDEC, and a subsequent inventory conducted in 1974 by the base's wildlife biologist, show a limited, though balanced, ecosystem on base.

Wildlife habitat classifications on the airfield property and their area totals are listed in Table 3.4-14. A vegetation and bird survey for sensitive species was conducted in 1993 and early 1994 by biologists for the New York State Natural Heritage Program. One new State-listed plant species was found, and two bird species listed as special concern species in New York were observed (see Section 3.4.5.3). Terrestrial species variety is excellent, and populations are well within the carrying capacity of the existing habitat. No new biological surveys have been conducted since the realignment of Griffiss AFB in September 1995.

Mammals and birds common to northern forests, open grassland and farmland, urban landscaped, and aquatic riverine habitats are all potential inhabitants of the airfield property. The lists are long, but include white tailed deer (*Odocoileus virginianus*), grey squirrel (*Sciurus carolinensis*), red squirrel (*Tamiasciurus hudsonicus*), eastern chipmunk (*Tamias striatus*), cottontail rabbit (*Sylvilagus* spp.), pileated woodpecker (*Dryocopus pileatus*), ruffed grouse (*Bonasa umbellus*), red-tailed hawk (*Buteo jamaicensis*), downy woodpecker (*Picoides pubescens*), blue jay (*Cyanocetta cristata*), American crow (*Corvus brachyrhynchos*), black-capped chickadee (*Parus atricapillus*), northern cardinal (*Cardinalis cardinalis*), and numerous other songbirds. Beaver (*Castor canadensis*), raccoon (*Procyon lotor*), bullfrog (*Rana*




**LEGEND**

- Upland Native Tree
- Wooded Wetland
- Upland Shrub/Old Field/ Scattered Tree
- Wetland Shrub
- Grass/Emergent Wetland
- Grass/Mowed
- Open Water
- Cultivated Field
- Plantation (Conifer)
- Non-Vegetated
- Airfield Property Boundary
- Former Griffiss AFB Boundary
- Proposed Parkway Corridor

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# Vegetation Distribution

**Figure 3.4-7**

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*catesbeiana*), green frog (*Rana clamitans melanota*), great blue heron (*Ardea herodias*), common snipe (*Capella gallinago*), red-winged blackbird (*Agelaius phoeniceus*), wood duck (*Aix sponsa*), and mallard (*Anas fulvigula*) are found along the streams and in wetlands. There are killdeer (*Charadrius vociferus*), gulls (*Larus* spp.), rough-legged hawk (*Buteo lagopus*), American kestrel (*Falco sparverius*), grasshopper sparrow (*Ammodramus savannarum*), upland sandpiper (*Bartramia longicauda*), as well as songbirds and small rodents in the very open grassy roadside areas. Wintering birds in these open areas include the northern harrier (*Circus cyaneus*) and snowy owl (*Nyctea scandiaca*).

**Table 3.4-14**

**Wildlife Habitat Classifications and Area Totals for the Airfield Property**

| Classification | Area |
|---|---|
| Hardwood forest | 70 acres |
| Coniferous forest | 238 acres |
| Mixed forest | 3 acres |
| Grassland (including airfield) | 823 acres |
| Wetland | 112 acres |
| Agricultural | 30 acres |
| Freshwater stream | 2 acres |

Source: U.S. Air Force 1993h.

The whole length of the Mohawk River in this area is considered a high quality fishery. The section from Delta Lake to Rome is both a cold and warm water fishery (i.e., trout and bass) supporting an excellent recreational fishery (Adirondack Hydro Development Corporation 1992). The Rome State Fish Hatchery is located along the Mohawk River about 1 mile north of the airfield property.

### 3.4.5.3 Threatened, Endangered, and Candidate Species

The status and distribution of threatened, endangered, and candidate species were determined through contacts with Federal and State agencies and a literature review. The Air Force requested a list of sensitive species in the project area from the USFWS, as required for initiation of informal consultation under Section 7 of the Endangered Species Act (as amended). Letter correspondence and a species list sent to the Air Force from the USFWS completed the consultation (U.S. Fish and Wildlife Service 1994 and 1997). This list is included in Table 3.4-15. Although none of the bird, mammal, or reptile species listed is known to inhabit the airfield property at this time, it is probable that the Indiana bat or bald eagle could use or inhabit the airfield property ecosystems. No rare or endangered species of fish occur in this area (U.S. Air Force 1993h).

**Table 3.4-15**

**Federal- and State-Listed and Candidate Species**
**Airfield Property and Vicinity**

| Common Name | Scientific Name | Status[1] | | Occurrence[2] |
|---|---|---|---|---|
| | | Federal | State | |
| **Birds** | | | | |
| Peregrine falcon | *Falco peregrinus* | E | E | C |
| Osprey | *Pandion haliaetus* | | T | |
| Northern bald eagle | *Haliaeetus leucocephalus* | E | E | C/P |
| **Herpetofauna** | | | | |
| Bog turtle | *Clemmys muhlenbergi* | | E | C |
| **Mammals** | | | | |
| Indiana bat | *Myotis sodalis* | E | E | C/P |
| **Plants** | | | | |
| Honeysuckle | *Lonicera* sp. | | E | O |
| Indian pipe | *Monotropa uniflora* | | E | O |
| Jack-in-the-pulpit | *Arisaema triphyllum* | | E | O |
| Partridgeberry | *Mitchella repens* | | E | O |
| Phlox | *Phlox* sp. | | E | O |
| Pitcher plant | *Sarracenia pupurea* | | E | O |
| Solomon's seal | *Polygonatum* sp. | | E | O |
| Wild rose | *Rosa* sp. | | E | O |
| Wintergreen | *Gaultheria procumbens* | | E | O |
| Whorled mountain-mint | *Pycnanthemum verticillatum* var. *verticillatum* | | T | O |
| American bittersweet | *Celastrus scandens* | | 4 | O |
| Ferns var. | *Ophioglossales, Filicales* spp. | | 4 | O |
| Lily var. | *Lilium* sp. | | 4 | O |
| Clubmoss | *Lycopodium* sp. | | 4 | O |
| Princess pine | *Lycopodium* sp. | | 4 | O |
| Ground pine | *Lycopodium* sp. | | 4 | O |
| Heath cypress | *Lycopodium* sp. | | 4 | O |
| Bayberry | *Myrica pensilvanica* | | 4 | O |
| Ginseng | *Panax quinquefolius* | | 4 | O |
| Trillium | *Trillium* sp. | | 4 | O |
| Burning bush | *Euonymus* sp. | | 4 | O |
| Lady's slipper | *Cypripedium* sp. | | 5 | O |

Notes: [1]Status: E = endangered; T = threatened; T(S/A) = threatened by similarity of appearance; 2 = federal candidate Category 2; 3 = federal candidate Category 3; 4 = state, native plant; 5 = state, wildflower
[2]Occurrence: C = confirmed within a 50-mile radius of Griffiss AFB; P = possible, based on habitat available, species range, and historical sightings; O = on-base verification.

Sources: U.S. Fish and Wildlife Service 1994; U.S. Air Force 1985b; New York State Natural Heritage Program 1994.

The State of New York lists nine plant species known to grow on the airfield property as endangered and has another generalized list of at least three plant species and nine plant genera of species that are currently protected under the law. One additional plant species, the whorled mountain-mint (*Pycnanthemum verticillatum* var. *verticillatum*), is on the New York list as threatened and was recently identified on the base (New York State Natural Heritage Program 1994). Based on the New York list, the airfield property is also within the ranges of four endangered and one threatened animal species. The current status of these species is presented in Table 3.4-15.

### 3.4.5.4 Sensitive Habitats

Sensitive habitats include wetlands, plant communities that are unusual or of limited distribution, and important seasonal use areas for wildlife (e.g., migration routes, breeding areas, or critical summer/winter habitat). There were no sensitive habitats on the airfield property identified in the New York State Natural Heritage Program database in the fall of 1993.

Based on the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), most areas that meet hydric soils and hydrophytic vegetation criteria for wetlands determination and are inundated for more than 12.5 percent of the growing season or longer are considered wetlands. Areas that are inundated between 5 and 12.5 percent of the growing season may also be considered wetlands depending on soils and vegetation characteristics.

Information on the size and type of wetlands present at the airfield property was obtained through a review of existing literature and surveys. The results of field surveys conducted by NYSDEC in 1984 and updated in 1993 identified a few wetlands on and crossing the boundary of the airfield property. The NYSDEC wetland classification system maps indicate only those wetland units that are 12.5 acres or larger. These areas are mostly in the eastern and southern portions of the base. Wetlands in the eastern portion of the property tend to drain onto the property, while those in the southern portion receive drainage from sources on the airfield property (New York State Department of Environmental Conservation 1984, 1993b).

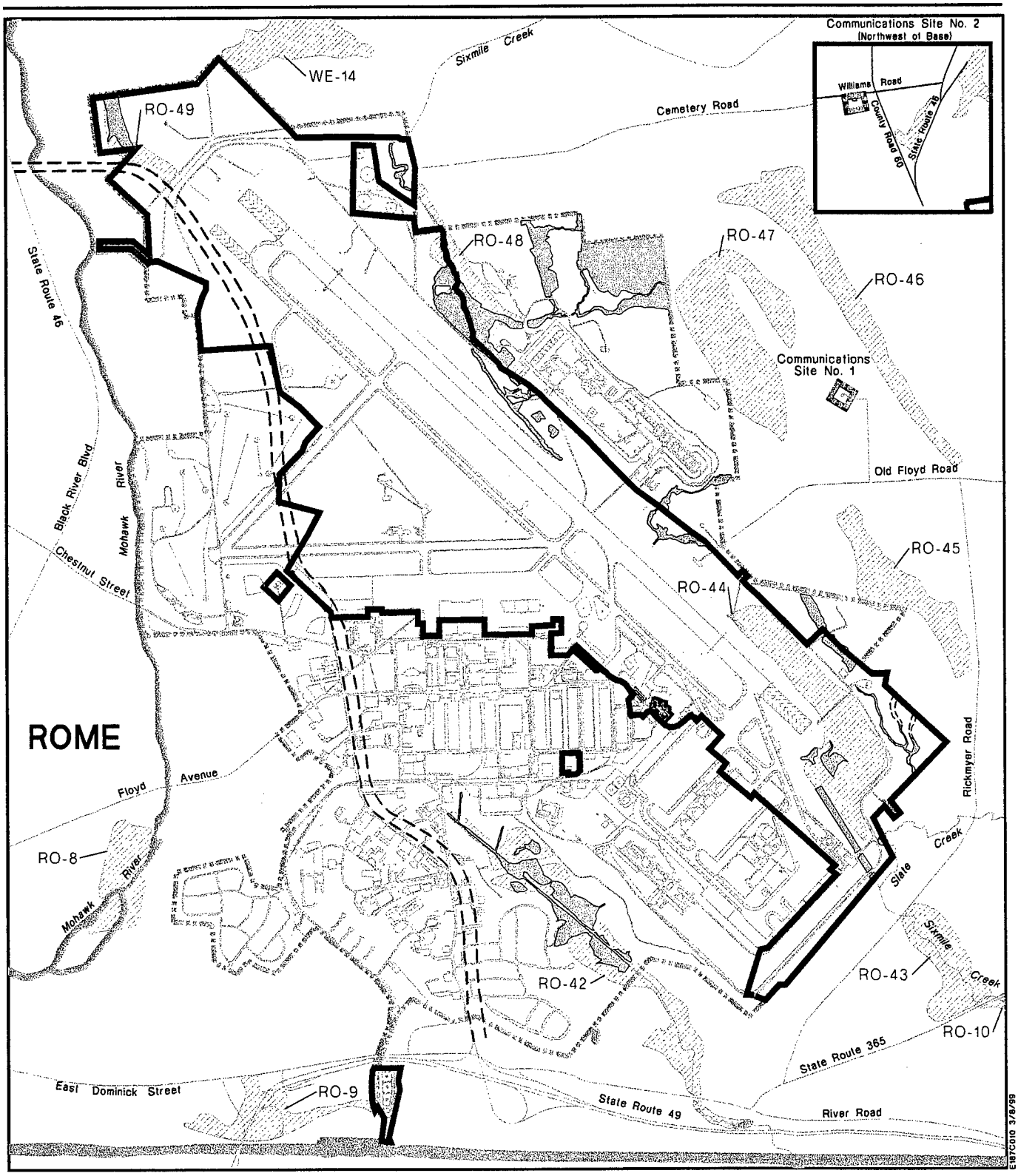
In August and September 1993, a jurisdictional wetland boundary survey was conducted on the airfield property (Law Environmental, Inc. 1994b). The boundaries were verified in November 1993 by the U.S. Army Corps of Engineers (COE), Buffalo, New York District. Some areas (a mowed grassland area between the WSA, the runway, and the extreme southeastern corner of the base) were not surveyed in 1993 because of lost flagging. These areas were surveyed in late 1994. The State and Federal wetland areas identified on the airfield property, reflecting each agency's classification criteria, are shown in Figure 3.4-8. A summary of wetland acreage on the airfield property is presented in Table 3.4-16.

The only wetland, as mapped by NYSDEC, that occurs entirely within the airfield property is 76 acres of Class II wetland in the southeastern portion of the flightline area (RO-44). This type of wetland plant community is generally composed of cattails (*Typha* spp.), purple loosestrife (*Lysimachia* spp.), swamp loosestrife (*Lysimachia terrestris*), arrowheads (*Sagittaria* spp.), reeds (*Phragmittes* spp.), bur-reeds (*Sparganium* spp.), pickerelweed (*Pontederia* sp.), wildrice (*Zizania* sp.), water plantain (*Alisma* sp.), bulrushes (*Scirpus* spp.) and arrow-arum (*Peltandra* sp.). This particular wetland is a little drier than the above plant list usually characterizes.

It was investigated in June 1993 by NYSDEC to verify the boundaries and was found to contain the following wetland vegetation: round-leaved sundew (*Drosera rotundifolia*), jewelweed (*Impatiens pallida*), boneset (*Eupatorium* sp.), joe-pye-weed (*Eupatorium* sp.), lurid sedge (*Cyperus* sp.), fox sedge (*Carex* sp.), green bulrush (*Scirpus* sp.), wool grass (*Scirpus* sp.), and soft rush (*Juncus effusus*) (New York State Department of Environmental Conservation 1993b). These are generally low, herbaceous plants encroaching on water areas and flooded with standing water much of the year. This wetland, although part of the Sixmile Creek drainage area, was formed as a result of construction of the runway.

Hydrologically, this area most resembles a sloping fen community. Incoming water is from groundwater seepage and overland runoff. Outgoing water from the northern two-thirds of this area drains via groundwater percolation and overflow into a drain connecting to the culverted Sixmile Creek under the runway or southward through roadway culverts under an access road near the south end of the runway. The southern one-third of this area lies on similar terrain but then becomes steeper, draining eventually back into the open ditch of Sixmile Creek. Sixmile Creek surfaces again about 370 yards south of the runway and follows a shrub- and willow-lined drainage ditch about 800 yards before exiting the southern property boundary. The major part of the area supports a diverse wet meadow and fen plant community dominated by reeds (*Phragmites communis*) in a patch-work pattern, horsetails (*equisetum* spp.), sphagnum mosses (*Sphagnum* spp.), and cattails (*Typha* spp.), but various rushes (*Juncus* sp. and *Scirpus* spp.) and sedges (*Carex* spp. and *Cyperus* spp.) were also observed. There also are scattered woody plants (trees and shrubs), including willows (*Salix* spp.) and quaking aspens, but these are kept to sprout regrowth clumps by periodic mowing. Because it is below the level of the runway, the southwest part of the area receives less clearing or mowing maintenance. This part of the wetland supports a shrub and tree community of red maple, aspen, willow, dogwood (*Cornus* spp.), and others.

One other NYSDEC-mapped wetland area, which is part of the Sixmile Creek drainage, is located on and partly off the airfield property. Wetland RO-48 is a Class II wetland that lies along the main stem of Sixmile Creek and one unnamed tributary where they approach the runway from the north. This




**LEGEND**

- Airfield Property Boundary
- Former Griffiss AFB Boundary
- Proposed Parkway Corridor
- NYSDEC Wetlands
- RO-45 NYSDEC Wetland Numbers
- USCOE Wetlands
- Wetlands to be Determined

SCALE IN FEET
0 1000 2000

## Wetlands

**Figure 3.4-8**

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original wooded wetland floodplain has also become a ponded and emergent wetland due to beaver impoundments.

**Table 3.4-16**

**Summary of Wetlands on the Airfield Property**

| Agency and Dates | Quantity Mapped (acres) NYSDEC Unique | COE Unique |
|---|---|---|
| NYSDEC 1984/1993 | 112 | - |
| U.S. COE 1993 | - | 5 |

In the northwest corner of the airfield property, in the north clear zone, there is a 13-acre, Class II wetland (RO-49). The southern half of this wetland has been largely cleared of trees and shrubs and kept mowed. It most resembles a wet meadow with a few small regrowth shrubs and trees. The northern portion is a mixed northern hardwood deciduous and conifer forest, dominated by red maple and white cedar and edged by shrubland. This wetland drains westward into a small tributary creek of the Mohawk River. A small portion of this wetland is outside the airfield property boundary.

The wetland delineation performed in 1993 (Law Environmental, Inc. 1994b) and verification/determination by the U.S. Army Corps of Engineers in 1993 and 1994 has increased the quantity of wetlands on the airfield property, as shown on Figure 3.4-8. Many of these added wetlands do not fit the size criteria of the NYSDEC regulations, but are Federal jurisdictional wetlands.

### 3.4.6 Cultural and Paleontological Resources

Cultural resources include prehistoric and historic sites, structures, districts, artifacts, or any other physical evidence of human activity or locations considered important to a culture, subculture, or community for scientific, traditional, religious, or any other reason. Paleontological resources are the fossil evidence of past plant and animal life. Cultural resources have been divided for the purpose of discussion into three main categories: prehistoric resources, historic resources, and Native American resources. These types of resources are defined in Appendix E.

The ROI for the cultural and paleontological resources analysis includes, at a minimum, all areas within the airfield property boundaries, whether or not certain parcels were subject to ground disturbance. For this analysis, the ROI is synonymous with the Area of Potential Effect (APE) as defined by the National Historic Preservation Act (NHPA). The potential conveyance of Federal property to a private party or nonfederal agency constitutes an undertaking, or a project. This undertaking falls under the requirements of cultural resource legislative mandates, because any historic properties located on that property would cease to be protected by Federal law. However, impacts resulting from conveyance could be reduced to nonadverse

levels by placing preservation covenants on the lease or disposal document. Reuse activities within designated parcels that may affect historic properties would require the reuser to comply with the requirements contained in the preservation covenants.

Numerous laws and regulations require Federal agencies to consider the effects of a proposed project on cultural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the Federal agency proposing the action, and prescribe the relationship among other involved agencies (e.g., State Historic Preservation Office [SHPO) and the Advisory Council on Historic Preservation). Methods used to achieve compliance with these requirements are presented in Appendix E.

Only those potential historic properties determined to be significant under cultural resource legislation are subject to protection or consideration by a Federal agency. The quality of significance, in terms of applicability to National Register of Historic Places (NRHP) criteria and of integrity, is discussed in Appendix E. Significant cultural resources, either prehistoric or historic in age, are referred to as "historic properties."

For a literature review of prehistoric, historic, and Native American resources in the region surrounding and including the airfield property at Griffiss AFB, the reader is referred to the *Final Environmental Impact Statement, Disposal and Reuse of Griffiss AFB*, completed in November 1995 (U.S. Air Force 1995a).

Several cultural resources surveys have been conducted at Griffiss AFB, including the airfield property (Law Environmental 1994a; Panamerican Consultants, Inc. 1995). A small cultural resources survey was conducted for areas where remedial investigations for hazardous materials were to be conducted. No cultural resources were identified during this survey; however, the project areas did not encompass any undisturbed areas of the base (Law Environmental 1994a). Extensive archaeological investigations on Griffiss AFB were conducted in 1994 (Panamerican Consultants, Inc. 1995). Pedestrian survey and subsurface testing based on a predictive model were conducted on portions of 906 undisturbed acres; reconnaissance survey and limited subsurface testing were conducted on 821 marginally disturbed acres. The purpose of these investigations was to identify cultural resources and to provide preliminary assessments on NRHP eligibility. Two low-density prehistoric sites were identified (Panamerican Consultants, Inc. 1995) and Phase II investigations were conducted in the fall of 1995 (Panamerican Consultants, Inc. 1997a). One site (PCI Site 22) was recommended as eligible for the National Register of Historic Places (NRHP) based on its research potential and physical integrity. The other site (PCI Site 21) lacked physical integrity and contained little research potential; it was recommended as not eligible. The New York SHPO has concurred with both determinations (Kuhn 1996; 1997). The eligible prehistoric site is not located within the airfield property boundaries.

Eighteen historic archaeological sites were also identified during the survey (Panamerican Consultants, Inc. 1995). These historic sites represent rural settlement and date from the late eighteenth century to the early twentieth century. Phase II investigations were conducted in October 1995 and June 1997 to evaluate these historic sites for eligibility to the NRHP (Panamerican Consultants, Inc. 1997a; 1997b). The New York SHPO has concurred with the eligibility determinations for the 18 historic archaeological sites. Six historic sites (PCI Sites 1, 12, 16, 18, 19, and 24) contain intact late eighteenth century and/or nineteenth century deposits and were recommended as eligible for the NRHP. All six NRHP-eligible historic sites are located within the airfield property boundaries. The remaining 12 historic sites lacked physical integrity and contained little research potential (Kuhn 1996). The New York SHPO has concurred that these sites are not eligible for inclusion on the NRHP and has no further concerns regarding these sites.

The Air Force has been consulting with the New York SHPO since 1994 regarding historic structures on Griffiss AFB (Thomason and Associates 1995, Smith 1996, Lowe *et al.,* 1997, Earthtech 1998). A draft report was submitted in 1998, which evaluated the historic themes and contexts associated with Griffiss AFB. This report also contained a comprehensive building and structure inventory of the base.

The principal themes represented on the Griffiss facility are World War II and the Cold War (Earthtech 1998). Griffiss AFB contains approximately 385 Cold War-era buildings; there are also 6 pre-1940, or settlement, structures, and 73 World War II-era buildings on the base property. Fifty-eight buildings were determined ineligible for listing on the NRHP by the New York SHPO prior to the 1998 report and inventory. Ten buildings have been demolished and five buildings (853, 854, 738, 6025, and 6028) have been divested. In a letter dated 09 September 1998, the New York SHPO agreed with the Air Force's recommendations that no buildings or structures associated with the World War II theme currently located at Griffiss AFB meet the NRHP criteria for evaluation. Because Griffiss AFB remained in active use until 1995, extensive modification and replacement of facilities has substantially altered the feeling and association of Griffiss AFB from its World War II appearance and character. The majority of the buildings and structures included on the inventory lack integrity to the period of significance due to subsequent alterations and/or conversion to other uses (New York Office of Parks, Recreation, and Historic Preservation 1998).

In that same letter, the New York SHPO disagreed with the Air Force's recommendation that no Cold War era resources are eligible for the NRHP. The following specific buildings, structures, and complexes identified from the 1998 inventory were determined eligible for listing on the state register and the NRHP by the New York SHPO because they are associated with the Cold War era:

- Building 150, Fighter Alert Building (Maintenance Hanger);

- Strategic Air Command Alert Area: The eligible resource is a historic district meeting NRHP criteria that includes a coherent complex of enclosed and defined by a secure, fenced perimeter, consisting of the alert aircraft apron, taxiway, and the following contributing buildings located within the security fence:

  - Building 745, Alert Fire Team Facility;
  - Building 767, Security Police Entry Control Building;
  - Building 793, Crew Readiness Facility;
  - Building 799, Security Police Visitor Control Center; and
  - Building 811, Master Surveillance and Control Facility.

- Weapons Storage Area: Within the secure, fenced perimeter enclosing the area, the following specialized structures reflect the evolution of storage for armament carried by aircraft based at Griffiss AFB over the course of the Cold War period:

  - Buildings 821, 822, 824, 825, 826, and 840, Rocket Checkout and Assembly Storage;
  - Buildings 900, 901, 902, 903, 904, 905, 906, 907, 912, and 913, Storage Igloos; and
  - Buildings 925, 926, 927, 928, and 929, Storage Igloos.

Buildings 150, 793, 799, and 811 are on the airfield property. The remainder of the buildings are located on property to be disposed as a result of the BRAC III decision. With the exception of those facilities specifically noted above, it is the opinion of the SHPO that the remainder of the buildings and structures identified in the 1998 report are not eligible for listing on the state register or the NRHP, and the WSA complex does not meet NRHP criteria for a historic district. Continuing consultations between the Air Force and the New York SHPO are under way regarding these structures.

Consultation with the Mohawk and Oneida Iroquois has been conducted and no sensitive Native American resources were identified.

No paleontological resources have been identified on Griffiss AFB. The paleontological materials most likely to be exposed at Griffiss AFB would be invertebrate assemblages, which are common. Invertebrate assemblages have relatively low research potential (National Research Council 1987).

## 3.5 ENVIRONMENTAL JUSTICE

### 3.5.1 Background

Executive Order 12898, Environmental Justice, was issued by the President on February 11, 1994. Objectives of the Executive Order, as it pertains to this SEIS, include development of federal agency implementation strategies, identification of minority and low-income populations where proposed federal

actions have disproportionately high and adverse human health and environmental effects, and participation of minority and low-income populations. Accompanying Executive Order 12898 was a Presidential Transmittal Memorandum that references existing federal statutes and regulations to be used in conjunction with Executive Order 12898. The memorandum addressed the use of the policies and procedures of NEPA. Specifically the memorandum indicates that, "Each Federal agency shall analyze the environmental effects, including human health, economic, and social effects, of Federal Actions, including effects on minority communities and low-income communities, when such analysis is required by the NEPA 42 USC Section 4321 *et sec.*" Although an environmental justice analysis is not mandated by NEPA or by AFI 32-7061, DOD has directed that NEPA will be used as the primary mechanism to implement the provisions of the Executive Order.

On November 28, 1997, the Air Force issued an *Interim Guide for Environmental Justice Analysis with the Environmental Impact Analysis Process (EIAP).* The guide provides a general approach for conducting environmental justice analysis and complies with the requirement that each Federal agency must develop strategies to comply with Executive Order 12898 (U.S. Air Force 1997b).

### 3.5.2 Demographic Analysis

Although Executive Order 12898 provides no specific guidelines as to how to determine concentrations of minority or low-income populations, a demographic analysis was used to provide information on the approximate locations of minority and low-income populations in Oneida County, the area potentially affected by the disposal and reuse of the airfield property at Griffiss AFB. Geographic boundaries and census block groups were determined using US Topographically Integrated Geographic Encoding and Referencing (TIGER) files. Census block groups, which are clusters of blocks within the same census tract, were delineated for Oneida County. Census data was associated to each census block group using the 1990 US Census of Population.

The 1990 Census of Population and Housing reports numbers of both minority residents and residents below poverty levels. Minority populations included in the census are identified as all persons of Hispanic origin, regardless of race, and all persons not of Hispanic origin other than white. Poverty status (used in this SEIS to define low-income status) is reported as the number of families with income below poverty level ($12,764 for a family of four in 1989, as reported in the 1990 Census of Population and Housing).

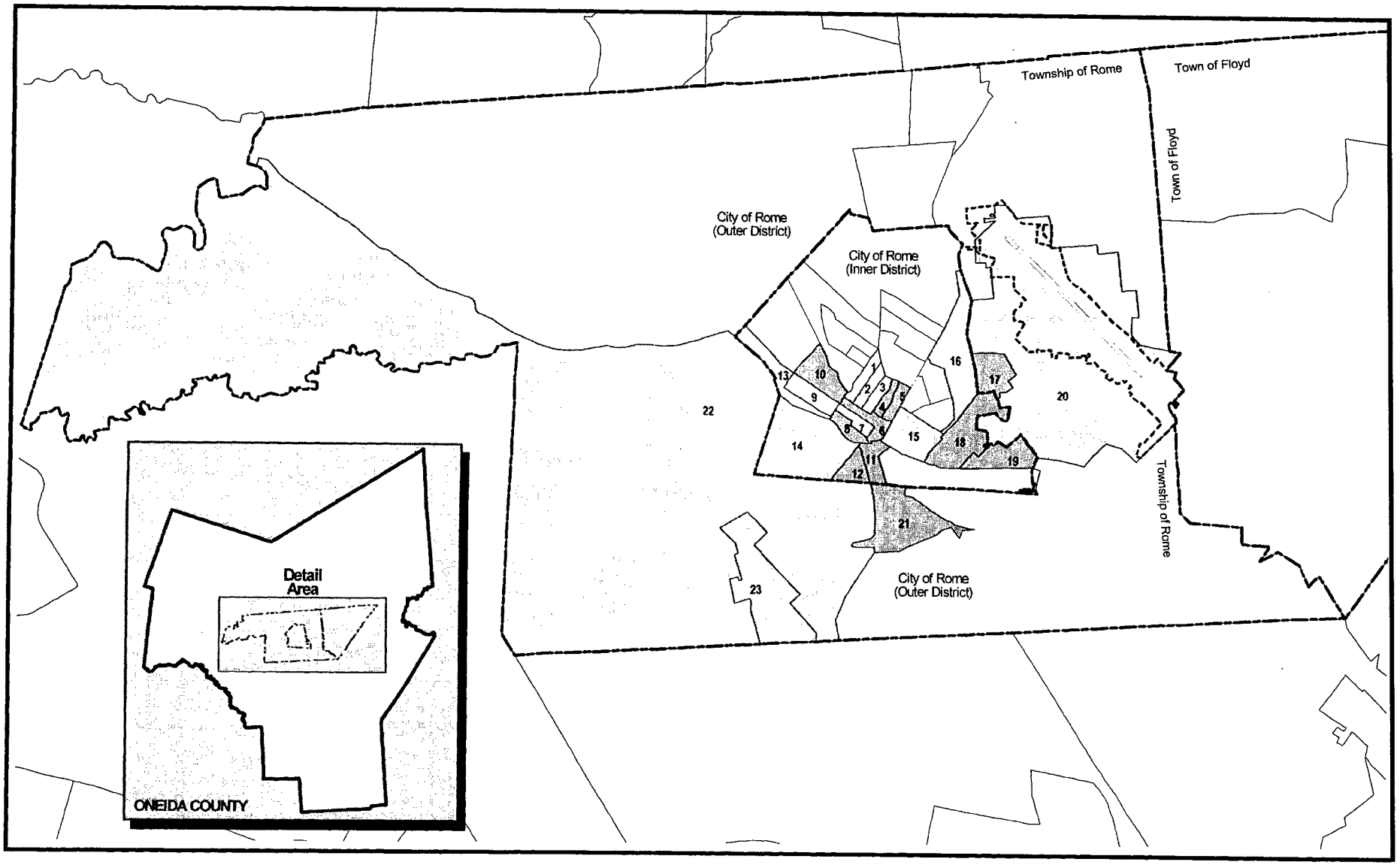
Oneida County is the community of comparison (COC) for the purpose of analysis. Based on the 1990 Census of Population and Housing, Oneida County had a population 250,836 persons. Of this total, 18,375, or

7.33 percent, were minorities and 28,203 persons, or 11.24 percent, were low income.

To determine whether the census block groups that surround the airfield property at Griffiss AFB have disproportionately high minority or low-income populations, the percentage of each of these groups in each census block group was compared to the overall COC percentage. Minority populations and low-income populations are separate groups, and the comparison was made for each. For example, a census block group may have a disproportionately high minority population, but its low-income population may be below the average COC percentage for low-income residents.

Oneida County is divided into 231 census block groups. Eighty-eight of the census block groups are made up of low-income population, and 55 census block groups constitute minority communities. Figure 3.5-1 illustrates the census block groups in the townships of Rome and Floyd and the City of Rome, which are the focus of this study, as they surround the airfield property at Griffiss AFB.

In Table 3.5-1, minority and low-income percentages are shown only for the affected census block groups (those that surround the airfield property at Griffiss AFB and are disproportionate). The table shows that 11 census block groups have both minority and low-income population percentages that are greater than the corresponding percentages for Oneida County, the COC. In addition, nine census block groups contain low-income population percentages that are greater than the COC, and three have minority population percentages that are greater than the COC.




Town / Township Boundary

Airfield Property Boundary at Griffiss AFB

22 Key Number for Census Block Group

Census Block Group

Census Block Group With Low-Income Population of More than 11.24 Percent, 1990

Census Block Group With Minority Population of More Than 7.33 Percent, 1990

Census Block Group With Both

Source:
U. S. Bureau of the Census, 1992.

1 0 1 Miles

# Oneida County Census Block Groups

**Figure 3.5-1**

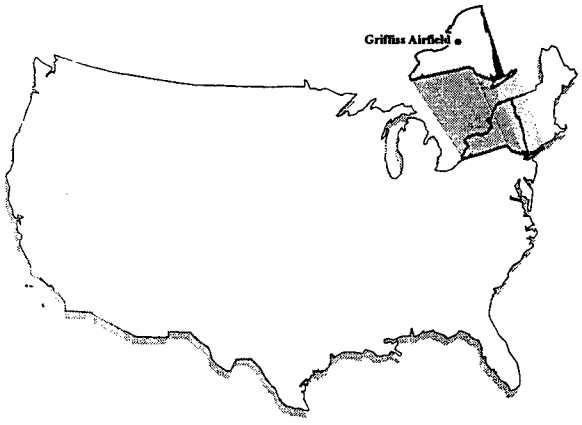
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Table 3.5-1

**Disproportionate Census Block Groups Surrounding the Airfield Property at Griffiss AFB**

| Geographical Unit | Key Map Designation | Minority Populations | | Low-Income Populations[1] | |
|---|---|---|---|---|---|
| | | Percent | Disproportionate | Percent | Disproportionate |
| United States | NA[2] | 16.08 | NA | 13.51 | NA |
| New York | NA | 25.60 | NA | 13.0 | NA |
| Oneida County | NA | 7.33 | NA | 11.24 | NA |
| **Affected Census Block Groups[3]** | | | | | |
| 223.5 | 1 | 5.54 | No | 14.42 | Yes |
| 223.4 | 2 | 4.74 | No | 18.33 | Yes |
| 223.3 | 3 | 6.73 | No | 13.08 | Yes |
| 223.2 | 4 | 13.33 | Yes | 20.22 | Yes |
| 223.1 | 5 | 7.63 | Yes | 19.66 | Yes |
| 218.1 | 6 | 11.32 | Yes | 13.58 | Yes |
| 218.2 | 7 | 0.93 | No | 32.09 | Yes |
| 218.3 | 8 | 15.63 | Yes | 59.38 | Yes |
| 220.3 | 9 | 6.44 | No | 16.05 | Yes |
| 220.2 | 10 | 7.66 | Yes | 26.70 | Yes |
| 219.1 | 11 | 20.43 | Yes | 37.26 | Yes |
| 219.2 | 12 | 7.64 | Yes | 24.34 | Yes |
| 220.4 | 13 | 4.87 | No | 12.53 | Yes |
| 219.3 | 14 | 2.80 | No | 21.34 | Yes |
| 225.5 | 15 | 7.21 | No | 22.05 | Yes |
| 224.1 | 16 | 11.40 | Yes | 8.43 | No |
| 225.1 | 17 | 9.32 | Yes | 12.71 | Yes |
| 225.2 | 18 | 17.76 | Yes | 32.84 | Yes |
| 225.3 | 19 | 10.32 | Yes | 24.84 | Yes |
| 226.9 | 20 | 19.72 | Yes | 5.29 | No |
| 228.1 | 21 | 9.43 | Yes | 17.92 | Yes |
| 228.8 | 22 | 1.73 | No | 12.66 | Yes |
| 229.1 | 23 | 69.06 | Yes | 0.00 | No |

Notes: [1]Low-income is defined as below poverty level ($12,764 for a family of four in 1989, as reported in the 1990 Census of Population and Housing).
[2]Not applicable.
[3]A census block group is deemed to have disproportionately high minority and/or low-income populations if the census block percentage is higher than the Oneida County percentage or is at least 50 percent, regardless of the COC percentage.




# CHAPTER 4.0
# ENVIRONMENTAL CONSEQUENCES

# 4.0 ENVIRONMENTAL CONSEQUENCES

## 4.1 INTRODUCTION

This chapter discusses the potential environmental consequences associated with the Proposed Action and alternatives. To provide the context in which potential environmental impacts may occur, discussions of potential changes to the local communities, including population, land use and aesthetics, transportation, and community and public utility services, are included in this Supplemental Environmental Impact Statement (SEIS). In addition, issues related to current and future management of hazardous materials and wastes are discussed. Impacts to the physical and natural environment are evaluated for soils and geology, water resources, air quality, noise, biological resources, and cultural and paleontological resources. These impacts may occur as a direct result of disposal and reuse activities or as an indirect result caused by changes within the local communities. An analysis of issues associated with Environmental Justice is also presented. Possible mitigation measures to minimize or eliminate the adverse environmental impacts have been developed.

Cumulative impacts result from "the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency undertakes such other actions." Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (Council on Environmental Quality [CEQ] 1978). Based on development records and planning documents from the Griffiss Local Development Corporation (GLDC), a total of 6.1 million square feet of new commercial and industrial space are recently completed or planned as part of the Griffiss Business and Technology Park Master Plan. The GLDC development projects, if fully implemented, would increase employment in the Region of Influence (ROI) by 8,629 full- and part-time employees by 2016. The development of the Griffiss Business and Technology Park includes the construction of a new parkway as described in Section 2.6, Other Future Actions in the Region. The analysis assumes that the southern portion of the parkway between Chestnut Street and the Skyline Entrance would be constructed by 2001 and that the remainder of the parkway would be constructed by 2016. Cumulative impacts of these activities in conjunction with the Proposed Action and alternatives are discussed by resource in this chapter.

Means of mitigating substantial adverse environmental impacts that may result from implementation of the Proposed Action or alternatives by property recipients are discussed as required by the National Environmental Policy Act (NEPA). Potential mitigation measures are described for those components likely to experience substantial and adverse changes with any or all of the alternatives. Potential mitigation measures depend on the particular resource affected. In general, however, mitigation measures are defined in CEQ regulations as actions that include:

- Avoiding the impact altogether by not taking an action or certain aspect of the action;
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

Measures that are clearly required by law and/or are standard industry practices were generally considered to be part of the Proposed Action or alternatives and were taken into account in the description of impacts projected for each resource area. Mitigation measures are described for each resource area where appropriate. Such measures include those the Air Force could implement, those the property recipients could implement, those discretionary mitigations or choices available to other governmental bodies (such as zoning and permit conditions), or lease and deed restrictions available to a possible primary recipient of the property such as the Local Redevelopment Authority.

For each resource area, suggested actions to mitigate substantial adverse impacts to the extent applicable are described as follows:

- A reasonable selection of feasible mitigation actions is identified and described;
- The benefits derived from each of the alternative mitigation actions to the environmental impacts are described;
- The burdens/costs associated with each of the mitigation actions are described;
- The effectiveness and probability of adoption for each of the possible mitigation measures are described. Probability relates only to non-Air Force actions; and
- The party(ies) who could implement and enforce, if applicable, each action is identified, especially non-Air Force entities.

This analysis has indicated that the need for mitigation at the airfield property at Griffiss AFB is minimized because the potential for impacts from reuse of

the airfield property can be significantly reduced through the avoidance of environmentally sensitive areas. The use of the avoidance technique for mitigation is possible because of characteristics associated with the region's real estate market and the conceptual framework of the redevelopment options being considered. The following summarizes key factors related to minimizing the need for mitigation activities on the airfield property at Griffiss AFB:

- The proposed uses of the airfield property mainly for an international freight hub, an aircraft maintenance facility, and/or a commercial airport could be accommodated within the already disturbed areas with few environmental impacts resulting from land disturbance activities;

- The conceptual nature of the site design for nonaviation uses at this stage of the planning process allows for flexibility in locating redevelopment projects, thus allowing for avoidance of potentially significant impacts; and

- Potentially significant impacts to biological and cultural resources can be avoided because of the flexibility provided by the limited new ground disturbance required to implement the Proposed Action and alternatives being evaluated.

Since most potential environmental impacts would result directly from the reuse by others, full responsibility for these suggested mitigations would generally be borne by future property recipients or local government agencies. However, the Air Force may place specific restrictions in leases or covenants in deeds that would limit the use of the property, alert transferees to special concerns or legal requirements, or provide for notice and reporting demands before taking actions affecting the property.

Alternatives are defined for this analysis on the basis of (1) plans of local communities and interested individuals, (2) general land use planning considerations, and (3) Air Force-generated plans to provide a broad range of reuse options. Reuse scenarios considered in this SEIS must be sufficiently detailed to permit environmental analysis. Initial concepts and plans are taken as starting points for scenarios to be analyzed. Available information on any reuse alternative is then supplemented with economic, demographic, transportation, and other planning data to provide a reuse scenario for analysis.

## 4.2 LOCAL COMMUNITY

This section discusses potential effects on local communities as a result of closure and reuse of the airfield property at Griffiss AFB.

### 4.2.1 Community Setting

Socioeconomic effects are addressed only to the extent that they are interrelated with the biophysical environment. Employment and population generated by implementation of the Proposed Action and each alternative are discussed in this section. The No-Action Alternative is the baseline against which all reuse alternatives are compared.

The ROI for the population analysis is defined as Oneida County, including the City of Rome. Population effects on other communities are expected to be too small to warrant further analysis.

With the closure of the airfield property at Griffiss AFB on September 30, 1998, a total of 131 military and civilian personnel, and their dependents are projected to relocate out of the area. The total population decrease of 231 would be from Oneida County.

This analysis recognizes the potential for community impacts arising from the effects of announcements regarding airfield property closure and reuse. Such announcements may affect a community's perceptions and could result in local economic effects. An example would be the inmigration of people anticipating employment with one of the reuse options. If it were later announced that the No-Action Alternative had been selected, many newcomers would leave the area to seek employment elsewhere. Such an effect could result in an initial, temporary increase followed by a decline in population.

#### 4.2.1.1 Proposed Action

The Proposed Action would result in a slight increase to Oneida County's employment and population. Employment resulting from the Proposed Action would include both direct and secondary jobs. Because changes to the local economy would result solely from new economic activity, only additional jobs created by the Proposed Action were considered in the analysis of employment and population.

Employment related to the Proposed Action would begin in 1999 and increase through 2016 (Table 4.2-1). In 1999, the Proposed Action would create a total of 276 jobs, including 186 direct and 90 secondary jobs. The majority of the direct jobs would involve the operation of the airfield. Employment in Oneida County would increase by 445 jobs (304 direct and 141 secondary) in 2001, 1,129 jobs (783 direct and 346 secondary) in 2006, and 1,624 jobs (1,144 direct and 480 secondary) in 2016, an increase of 1.8 percent over the baseline (No Action) employment estimate. In 2016, total employment in Oneida County would reach 94,201, an increase of 3.6 percent over the 1999 employment level of 90,892. The labor force in Oneida County would provide nearly all of the new employees necessary for this alternative.

Table 4.2-1

**Reuse-Related Employment and Population in Oneida County**
**Proposed Action**

| | Year | | | |
|---|---|---|---|---|
| | **1999** | **2001** | **2006** | **2016** |
| Direct Employment: | | | | |
| Construction/Demolition | 14 | 18 | 11 | 0 |
| Operations | 172 | 286 | 772 | 1,144 |
| **Direct Employment Total:** | **186** | **304** | **783** | **1,144** |
| Secondary Employment | 90 | 141 | 346 | 480 |
| Population Change | 86 | 159 | 703 | 1,654 |

With the Proposed Action, the population in Oneida County would increase by 86 in 1999, 159 in 2001, and 703 in 2006. By 2016, the county population is projected to increase by 1,654 reaching a total of 252,355 or 0.7 percent above the baseline. The Proposed Action would increase average annual population growth in Oneida County from 0.2 percent to 0.3 percent. Approximately 60 percent of the new residents of Oneida County would live in the City of Rome.

#### 4.2.1.2 Private Airfield Alternative

The Private Airfield Alternative would result in a smaller increase to Oneida County's employment and population as compared to the Proposed Action. Employment resulting from this alternative would include both direct and secondary jobs. Because changes to the local economy would result solely from new economic activity, only additional jobs created by the Proposed Action were considered in the analysis of employment and population.

Employment related to the Private Airfield Alternative would begin in 1999 and would increase through 2016. In 1999, this alternative would create a total of 254 jobs, including 171 direct and 83 secondary jobs (Table 4.2-2). The majority of the direct jobs would involve the operation of the airfield. Employment in Oneida County would increase by 410 jobs (280 direct and 130 secondary) in 2001, 1,042 jobs (723 direct and 319 secondary) in 2006, and 1,518 jobs (1,069 direct and 449 secondary) in 2016, an increase of 1.6 percent over the baseline (No Action) employment estimate. In 2016, total employment in Oneida County would reach 94,095, an increase of 3.5 percent of the 1999 employment level of 90,892. The labor force in Oneida County would provide nearly all of the new employees necessary for this alternative.

Table 4.2-2

**Reuse-Related Employment and Population in Oneida County**
**Private Airfield Alternative**

| | Year | | | |
|---|---|---|---|---|
| | 1999 | 2001 | 2006 | 2016 |
| Direct Employment: | | | | |
| Construction/Demolition | 11 | 13 | 7 | 0 |
| Operations | 160 | 267 | 716 | 1,069 |
| **Direct Employment Total:** | **171** | **280** | **723** | **1,069** |
| Secondary Employment | 83 | 130 | 319 | 449 |
| Population Change | 79 | 147 | 649 | 1,545 |

With the Private Airfield Alternative, the population in Oneida County would increase by 79 in 1999, 147 in 2001, and 649 in 2006. By 2016, the county population would increase by 1,545, reaching a total of 252,246, or 0.6 percent above the baseline. The Private Airfield Alternative would increase the average annual population growth in Oneida County from 0.2 percent to 0.3 percent.

#### 4.2.1.3 Nonaviation Alternative

Employment resulting from the Nonaviation Alternative would include both direct and secondary jobs. Because changes to the local economy would result solely from new economic activity, only additional jobs created by the Nonaviation Alternative were considered in the analysis of employment and population.

Employment with the Nonaviation Alternative would begin in 1999 and increase through 2016. In 1999, this alternative would create a total of 1,871 jobs, including 1,105 direct and 766 secondary positions (Table 4.2-3). A large portion of the new direct jobs would involve operation of businesses. Project-related new employment in Oneida County would total 3,076 (1,822 direct and 1,254 secondary) in 2001, 6,000 (3,581 direct and 2,419 secondary) in 2006, and 11,682 (7,043 direct and 4,639 secondary) in 2016. In 2016, total employment in Oneida County would reach 104,259, an increase of 13 percent over the baseline employment level.

With the Nonaviation Alternative, the population in Oneida County would increase by 513 in 1999, 957 in 2001, and 3,213 by 2006. By 2016, the county population is projected to increase by 10,182, for a total of 260,883, or 4.1 percent above the baseline. With the Nonaviation Alternative, annual population growth in Oneida County would increase from 0.2 to 0.4 percent. Approximately 60 percent of the new residents of Oneida County would live in the City of Rome.

Table 4.2-3

Reuse-Related Employment and Population
Nonaviation Alternative

| | Year | | | |
|---|---|---|---|---|
| | 1999 | 2001 | 2006 | 2016 |
| Direct Employment: | | | | |
| Construction/Demolition | 49 | 61 | 59 | 0 |
| Operations | 1,056 | 1,761 | 3,522 | 7,043 |
| **Direct Employment Total:** | **1,105** | **1,822** | **3,581** | **7,043** |
| Secondary Employment | 766 | 1,254 | 2,419 | 4,639 |
| Population Change | 513 | 957 | 3,213 | 10,182 |

#### 4.2.1.4 No-Action Alternative

With the No-Action Alternative, caretaker activities would be conducted by the existing caretaker force and would not result in new employment at the base. There would be no increase in population related to the No-Action Alternative. Total employment in Oneida County is projected to reach 92,577 by 2016, as a result of other regional economic factors. Total population in Oneida County is expected to be 250,701 by 2016.

**Cumulative Impacts.** The Griffiss Business and Technology Park is planned for the portion of Griffiss AFB which was realigned in September 1995. This development has the potential for 5,842 direct and 2,787 secondary jobs and a population increase of 8,067 in Oneida County by 2016. Because information was available for this development (U.S. Air Force 1995), this employment and population increase has been included in the baseline against which the effects of the Proposed Action, Private Airfield Alternative, and Nonaviation Alternative were compared.

### 4.2.2 Land Use and Aesthetics

This section discusses the Proposed Action and alternatives relative to land use and zoning to determine potential impacts in terms of master plans, zoning, land use, and aesthetics. Land use compatibility with aircraft noise is addressed in Section 4.4.4, Noise.

#### 4.2.2.1 Proposed Action

**Land Use.** The Proposed Action would result in the eastward expansion of the City of Rome Inside District by 1,680 acres by including the Griffiss airfield property within its jurisdiction. The land contained within the airfield property at Griffiss AFB as of 1970 was designated as Airport District by the City of Rome Zoning Ordinance. With the reuse of the airfield property for civilian airport purposes, the restrictions placed in the Accident Potential Zones (APZs) outside the Griffiss Airfield boundary would be removed. The

Runway Protection Zones (RPZs) required by the Federal Aviation Administration (FAA) for civil airports would be completely within the airfield property boundaries.

Closure of the airfield in 1999 would result in the New York Air National Guard (NYANG) vacating the airfield and aviation support area. These areas are expected to be immediately available for the civilian airport operations. The Air Force Air Installation Compatible Use Zone (AICUZ) program would end with the termination of New York Air National Guard (NYANG) control of the airfield, and the FAA would regulate the airport and associated airfield under its regulations. The City of Rome and the Town of Floyd would have the opportunity to rezone the offsite property formerly under the AICUZ program to the mutual benefit of the private property owners and respective jurisdictions; however, the rezoning would have to be compatible with FAA regulations.

The Town of Floyd is anticipated to rezone 46 acres of airbase environment (A) zoning. The private property currently located within APZs I and II could be rezoned, as the Runway Protection Zones would not encroach upon these lands. The current area within the Day/Night Average Sound Level (DNL) 65 decibel (dB) noise contours would be reduced in size, allowing the town to rezone property, which would be outside the noise contours to more appropriate districts.

With the Proposed Action, the airfield property at Griffiss AFB would be redeveloped into various themed development districts, resulting in a planned expansion of the Inside (urban) District of Rome. The GLDC has applied to the City of Rome to rezone all of Griffiss AFB from the Airport designation to a Planned Development District designation. This designation would allow different land uses in compliance with the GLDC's Master Plan and development guidelines. The GLDC's Master Plan would have to be revised to reflect the new, non-military airfield land use. The 561 acres of the public/recreational land use, mainly in the form of open space, would act as a buffer separating the aviation land uses of the Proposed Action from the urban area of Rome. Approximately 77 acres of the airfield property would be converted to industrial and 12 acres to agricultural land use. The remaining 1,030 acres of land would be used for airfield and aviation support uses to support the proposed International Air Freight Hub and Civil Airport.

**Aesthetics.** With the Proposed Action, the level of visual quality would remain the same in the short term and would be enhanced in the long term with maturity of natural and introduced landscaping.

**Cumulative Impacts.** The Proposed Action would result in the closure of the Oneida County Airport and transfer of its operations to Griffiss Airfield. Closure of the county airport would affect 396 acres of county-owned land located in the Town of Westmoreland currently used for one runway protection zone (clear zone) and surrounding noise buffer. In the Town of

Whitetown, the airport closure would affect 1,773 acres of land containing two runways, several taxiways, a commercial aviation terminal apron, a general aviation apron, a commercial maintenance apron, three runway protection zones, and surrounding vacant land used as a noise buffer. The closure would also affect 11 acres of county-owned airport support facilities, including hangars, a commercial terminal building, and fuel, utility, and maintenance facilities. The airport also has 6 acres of mixed federal and commercial property containing an airline food catering center, car rental facility, airline maintenance and reservation center, private banking facility, and a U.S. Department of the Treasury Federal Reserve Bank facility, which may be affected by the airport closure. Within the adjacent Airport Industrial Park, approximately 23 acres of commercial land use, 125 acres of industrial land use, and 63 acres of county and a U.S. Department of Agriculture facility may be affected by the airport closure. In addition, there are 253 acres of vacant land owned by the Oneida County Industrial Development Corporation and other private owners who may also be affected by the airport closure (Oneida County 1994).

The cumulative effects of the Proposed Action and the development of the Griffiss Business and Technology Park at the former Griffiss AFB, could result in an increase of 1,680 acres of developable land within the jurisdiction of the GLDC if all the airfield property was transferred to them. With the expected transfer of approximately 2,000 acres of land to GLDC as a result of the realignment of Griffiss AFB in 1995, the GLDC could obtain control of approximately 3,700 acres of land for civilian uses. The proposed reuses of this land would result in substantial changes in the availability of land for airfield, business, and industrial uses. In addition, over 2,000 acres of land vacated by the closure of the Oneida County Airport at its present site would be available for new land uses.

**Potential Mitigation Measures.** There are a number of potential mitigation measures that could be implemented to reduce the resulting impacts on land use. The following actions, procedures, guidelines, and recommendations have been identified as potential mitigations.

- Identification or establishment of conservation easements on the airfield property at Griffiss AFB under New York State Environmental Conservation Law, Article 49, could provide a basis for long-term protection and management of important land resources. Griffiss Airfield land that would qualify under the New York Conservation Law includes the public/recreational category identified in this SEIS. Land in this category includes agricultural, open space/recreation, wetlands, and wildlife management uses. The City of Rome could coordinate this action in cooperation with the State and GLDC. The City of Rome Planning Department could typically process the application and file it with the State of New York using existing staff at minimal cost.

- The GLDC could initiate the preparation of an amendment to their Master Plan and development guidelines for the airfield property to reduce impacts from piecemeal development.

Aesthetic resources would not be affected by the Proposed Action. Mitigation measures would not be required.

#### 4.2.2.2 Private Airfield Alternative

**Land Use.** The Private Airfield Alternative would result in the expansion of the City of Rome Inside District by the same acreage as the Proposed Action (1,680 acres). The Air Force AICUZ program would end with the termination of the (NYANG) control of the airfield. The 1,030-acre parcel proposed for Oneida County airport aviation-related uses in the Proposed Action would be redeveloped to support international air freight operations, aircraft maintenance, and general aviation. Non-aviation uses would be the same land uses on the same-sized parcels as those described for the Proposed Action.

**Aesthetics.** With the Private Airfield Alternative, the level of visual quality would be similar to the Proposed Action.

**Cumulative Impacts.** Cumulatively, the total acreage that would be acquired by the GLDC would be the same as described for the Proposed Action. However, the 2,000 acres of land at the existing Oneida County Airport would not become available for new land uses. Therefore, the net change in land use and land available for development in Oneida County would be less than the Proposed Action.

**Potential Mitigation Measures.** The potential land use and aesthetic resource mitigation measures identified for the Proposed Action would also be applicable for the Private Airfield Alternative.

#### 4.2.2.3 Nonaviation Alternative

**Land Use.** The Nonaviation Alternative would result in the eastward expansion of the City of Rome Inside District by the same acreage as the Proposed Action (1,680 acres) when the Griffiss airfield property is included within its jurisdiction. The Air Force AICUZ program would end with the termination of the NYANG control of the airfield. The airfield property, which is currently designated as Airport District by the City of Rome Zoning Ordinance, would be redeveloped into various nonaviation-related uses. With this alternative, the largest land use on the airfield property would be public/recreational/open space uses (964 acres or 57%) on land on the perimeter of the former airfield. Approximately 370 acres of the central portion of the airfield would be designated for manufacturing uses, expanding the existing manufacturing area in the Griffiss Business and Technology Park. The Rome Laboratory/Research and Development (R&D) Campus would be

expanded by 183 acres along the east side of the parkway. The existing Industrial Development area in the Griffiss Business and Technology Park would be extended to include 150 acres occupied by the southern portion of the runway and the associated taxiways and parking aprons. Agricultural land uses are proposed for 12 acres, consisting of the 2 noncontiguous communications site parcels.

**Aesthetics.** With the Nonaviation Alternative, the level of visual quality would be similar to Proposed Action.

**Cumulative Impacts.** Cumulatively, the total acreage available to the GLDC would be the same as for the Proposed Action. However, its planned uses would be substantially different, as described above. The 2,000 acres of land at the existing Oneida County Airport would not be available for development.

**Potential Mitigation Measures.** The potential land use and aesthetic resource mitigation measures identified for the Proposed Action would also be applicable for the Nonaviation Alternative.

#### 4.2.2.4 No-Action Alternative

With the No-Action Alternative, the airfield property would not be reused and would be maintained by the U.S. Government as vacant land. The AICUZ program would not be in effect because air operations would no longer occur.

Expansion of the City of Rome through redevelopment of the base would not occur. Jurisdictions would have the option to update their master plans. However, without appropriate funding sources, they may choose to continue using existing planning documents. The zoning ordinances of offbase communities could be amended to reflect that the AICUZ program would no longer be in effect.

**Aesthetics.** This alternative would not change the visual quality of the area.

**Cumulative Impacts.** With the end of air operations following airfield closure, the aircraft noise would be eliminated. The affected jurisdictions would have the opportunity to reevaluate their master plans which would direct future land use patterns. The retention of the airfield by the Federal Government would prevent integration of the airfield property into the reuse strategy for the remainder of Griffiss AFB.

### 4.2.3 Transportation

The effects of the Proposed Action and other alternatives on each component of the transportation system, including roadways, airspace and air traffic, and other modes of transportation, are presented in this section. Possible

mitigation measures are discussed for those components likely to experience substantial adverse impacts with the Proposed Action or other alternatives.

Legal requirements and standard industry practices for transportation are described below. These items were taken into account in the assessment of impacts.

- Short-term transportation impacts caused by road closures and construction equipment traffic would be mitigated through management of work schedules, construction vehicle routes, and construction staging.

- Normal construction practices would be exercised in accordance with accepted Federal, State, and local government standards. For example, temporary facilities could be located to avoid channeling undesirable amounts of traffic through residential neighborhoods or through road segments with inadequate available capacity. In addition, roads that are directly affected by project-related construction vehicles would be adequately maintained during the construction phase.

- Transportation System Management (TSM) measures would be used for more efficient use of existing transportation systems and facilities. State and local agencies would be responsible for implementing this system by measures such as the following:

  — Restrict on-street parking;
  — Restrict left turns; and
  — Limit number of driveways along a given route.

**Roadways.** Reuse-related effects on roadway traffic were assessed by estimating the number of trips generated by each land use, considering employees, visitors, residents, service vehicles associated with construction, and all other onsite activities for the Proposed Action and alternatives. Principal trip-generating land uses include airport, industrial, manufacturing, and office uses. These trips were assigned to the roadway system based on proposed land uses and existing travel patterns. This analysis is based on the distributed peak-hour trips and data on roadway capacities, traffic volumes, and standards established by State and local transportation agencies (New York State Department of Transportation 1992).

The transportation analysis used the standard analysis techniques of trip generation, trip distribution, and traffic assignment. Trip generation was based on applying the trip rates from the *Trip Generation* manual, 5th Edition (Institute of Transportation Engineers 1991) to the existing and proposed land uses to derive total daily and peak-hour trips.

Vehicle trip generation for each reuse alternative and for a variety of land uses was analyzed and quantified. Based on the reuse development

schedule for each land use, the variation in vehicle trips generated by onsite activities was determined for the average weekday and for the morning and afternoon peak hours of the adjacent streets.

The distribution of trips to and from the site is based on the access points to the site and on existing travel patterns for commuters. The resulting vehicle trips generated by the project during the peak hour of adjacent street traffic were then added to the peak hour of nonproject-generated traffic (background traffic). Future traffic in the area was projected by Harza Northeast in their study entitled *Traffic Circulation Plan for the Redevelopment of Griffiss Air Force Base*, completed in December 1996. This report is based on the proposals for reuse contained in the *Master Reuse Strategy for Griffiss Air Force Base*, prepared for the Griffiss Land Development Corporation in 1995, and reflects future developments outside the airfield property at Griffiss AFB and the Rome area, including the proposed parkway. The new parkway is a component of the *Master Reuse Strategy for Griffiss Air Force Base*. With the construction of the parkway, the intersection of East Chestnut Street/Mohawk Drive and Hill Road (west of Building 101) would be improved and realigned. For the purpose of analysis, it was assumed that the intersection improvement and the southern portion of the parkway would be constructed by 2001, while the northern portion of the parkway and the Mohawk River bridge would be constructed by 2016.

Traffic impacts were determined based on level of service (LOS) changes for each of the key roads. Interchanges and major intersections that would experience heavy traffic volumes were examined for deficiencies. Details on reuse are not sufficiently developed to permit an in-depth evaluation of intersection capacities or freeway operations analysis.

**Airspace/Air Traffic.** The airspace analysis examines the type and level of aircraft operations projected for the Proposed Action, and compares them to how the airspace was configured and used under the NYANG operations in 1996. The same constraints and considerations existing during 1996 were assumed, such as terrain, runway configurations, and other airport and airway air traffic. The Proposed Action assumed the continued availability of radar and tower air traffic control (ATC) services for the proposed air cargo hub and commercial airport.

The impact analysis considers the relationship of the projected aircraft operations to the operational capacity of the airport, using criteria that has been established by the FAA for determining airport service volumes.

The FAA is ultimately responsible for evaluating the specific effects that reuse of an airport will have on the safe and efficient use of navigable airspace by aircraft. Such a study is based on details from the airport proponent's Airport Master Plan and consists of an airspace analysis, a flight safety review, and a review of the potential effect of the proposal on ATC

and air navigational facilities. Once this study is completed, the FAA can then best determine the actual requirements, facilities, terminal and enroute airspace alignments, and ATC procedural changes needed.

**Air Transportation.** The Griffiss Local Development Corporation (GLDC) previously known as Griffiss Redevelopment Planning Council (GRPC), completed a master reuse strategy for Griffiss AFB in 1995, including reuse of the airfield (Hamilton, Rabinovitz, and Alschuler *et al.* 1995). This study concluded that air passenger demand in the Utica-Rome market area is more than 0.5 million annual passengers and the modest services available at Oneida County Airport, the commercial airport closest to the base, attracted slightly less than 12 percent of that demand in 1993, or 58,525 passengers. The study concludes that Utica-Rome market can be adequately served by a single airport.

Thus, if air service were developed at the airfield property at Griffiss AFB, existing service at Oneida County Airport would be transferred to Griffiss Airfield, and the Oneida County facilities would be put to another use. This recommendation forms the basis for the Proposed Action analyzed in this SEIS.

**Other Transportation Modes.** Because neither the Proposed Action nor any of the other alternatives assumes direct use of local railroads or waterways, direct effects on rail and water transport are expected to be minimal.

#### 4.2.3.1 Proposed Action

**Roadways.** The major traffic generators in 2016 with the Proposed Action would be the approximately 1,144 direct operations employees. By 2016, the traffic generated as a result of the Proposed Action land use and direct employment is estimated to be 6,500 vehicle trips for a typical weekday (Table 4.2-4). These trips account for operations, construction activities, and regional trips induced by the airport.

**Table 4.2-4**

**Average Daily Trip Generation[1]**

| | 2001 | 2006 | 2016 |
|---|---|---|---|
| Proposed Action | 2,700 | 5,850 | 6,500 |
| Private Airfield Alternative | 1,500 | 3,300 | 3,800 |
| Nonaviation Alternative | 5,850 | 11,450 | 22,500 |
| No-Action Alternative[2] | 0 | 0 | 0 |

Notes: [1]All values are rounded to the nearest 50. Daily trips shown are defined as one- way vehicle trips.
[2]No additional caretaker personnel would be included under the No-Action Alternative; therefore, incremental daily trips would be zero.

During a typical weekday peak hour, the site would generate about 1,080 vehicle trips on streets adjacent to the airfield property in 2016, which represent about 17 percent of the total daily trips. Based on the proposed redevelopment, the number of daily trips generated with the Proposed Action would increase steadily during the 20-year study period.

Table 4.2-5 presents peak-hour traffic on key roads and associated LOS that would result with the Proposed Action. By 2016, the Proposed Action would contribute less than 500 vehicles to any of the key roadways. The majority of the peak-hour traffic would be the result of growth at the Griffiss Business and Technology Park and generally within the Oneida County.

**Table 4.2-5**

**Peak-Hour Traffic Volumes[1] and LOS[2] on Key Roads**

**Proposed Action**

| ROADWAY SEGMENTS | Capacity (VPH)[3] | Closure (1999) Traffic | LOS | 2001 Traffic | LOS | 2006 Traffic | LOS | 2016 Traffic | LOS |
|---|---|---|---|---|---|---|---|---|---|
| SH-49, East Wright Dr. Crossing | 7,440 | 1,540 | A | 1,600 | A | 1,700 | A | 1,810 | A |
| SH-49, West Wright Dr. Crossing | 10,480 | 1,250 | A | 1,370 | A | 1,560 | A | 1,850 | A |
| Connection Wright Dr./ East Dominick Street | 1,460 | 230 | B | 400 | B | 670 | D | 1,170 | E |
| East Dominick St., West Wright Dr. Crossing | 1,460 | 1,150 | E | 1,180 | E | 1,220 | E | 1,290 | E |
| River Road (SH-365) at CR-88 Jct | 1,760 | 390 | B | 440 | B | 520 | C | 660 | C |
| Floyd Av. between Hill Rd. and Black River Blvd. | 1,460 | 500 | C | 780 | D | 1,250 | E | 1,980 | F |
| Chestnut St. East Black River Blvd. (Mohawk Dr. to Hill Rd.) | 1,460 | 900 | D | 1,170 | E | 1,600 | F | 2,330 | F |
| Black River Blvd South Floyd Av. | 5,020 | 1,960 | B | 2,160 | B | 2,480 | B | 3,050 | C |
| Black River Blvd North of Floyd Ave. | 8,520 | 1,390 | A | 1,550 | A | 1,810 | A | 2,210 | A |
| Black River Blvd South Chestnut St. | 6,120 | 1,650 | A | 1,800 | A | 2,040 | B | 2,470 | B |
| Black River Blvd North Chestnut St. | 6,120 | 1,700 | A | 1,880 | B | 2,170 | B | 2,730 | B |
| Hangar Rd. between Hill Rd. and Otis St. | 1,500 | 180 | A | 280 | B | 470 | C | 910 | D |
| Brooks Rd. between Hill Rd. and Otis St. | 1,500 | 310 | B | 470 | C | 790 | D | 1,550 | F |
| Hill Rd. between Wright Rd. and Brooks Rd. | 1,500 | 430 | C | 700 | D | 1,200 | E | 2,260 | F |
| Hill Rd. between Brooks Rd. and Hangar Rd. | 1,500 | 320 | B | 600 | C | 1,070 | E | 1,900 | F |
| Wright Dr. between Skyline entrance and Hill Rd. | 1,500 | 410 | B | 740 | D | 1,320 | E | 2,350 | F |
| Ellsworth Rd. between Hill Rd. and Otis St. | 1,500 | 230 | B | 420 | C | 740 | D | 1,330 | E |

Notes: [1] All traffic volumes are rounded to the nearest 10 vehicles per hour.
[2] LOS = Level of Service
[3] VPH = Vehicles per hour

By 2004, the LOS on the two-lane roadway segments of Chestnut Street east of Black River Boulevard would deteriorate to LOS F. Without the

project, LOS F would occur by 2007. By 2009, the LOS on Floyd Avenue between Black River Boulevard and Hill Road would also deteriorate to LOS F. Without the project, LOS F would not be reached until 2013 on Floyd Avenue. In addition, some roadway segments at the Griffiss Business and Technology Park would begin to deteriorate to LOS F starting in 2008 as a result of the Proposed Action. These two-lane roadways have limited capacity to handle the increase in air passenger and cargo related traffic from the proposed aviation uses as well as the growth from the Griffiss Business and Technology Park. With the Proposed Action, LOS F would occur on Hill Road from the junction at Wright Drive to Brooks Road by 2009. Brooks Road would reach LOS F by 2015. Hill Road between Brooks Road and Hangar Road would reach LOS F by 2011. Wright Drive, from the Skyline entrance to the junction at Hill Road, would operate at LOS F as early as 2008. Without the project, LOS F would only occur on Hill Road/Wright Drive between Brooks Road and the Skyline entrance sometime after 2011.

With the Proposed Action, it is assumed that most existing roads providing access to Griffiss Business and Technology Park would be used during the construction period, and would be upgraded where local development plans dictate a need based on community standards for roadways.

The Proposed Action could increase ridership on Amtrak at Rome Station; however, the projected effects would be minimal.

**Airspace/Air Traffic.** The reuse of Griffiss Airfield for civilian airport and the closure of the Oneida County Airport would have a beneficial effect on air traffic and airspace use in the ROI by eliminating a contributing source of potential congestion in the overlapping airspace used by the NYANG operations at Griffiss Airfield and Oneida County Airport arrivals and departures.

**Cumulative Impacts.** The adjacent Griffiss Business and Technology Park would contribute appreciably to the growth of regional and local traffic. In the Rome region, traffic was assumed to grow at the rate of 1 percent per year. Development of the Griffiss Business and Technology Park is expected to generate approximately 13,000 daily trips by 2016. Traffic volumes associated with the growth in the Rome region and Griffiss Business and Technology Park were developed by Harza Northeast as part of the *Traffic Circulation Plan for the Redevelopment of Griffiss Air Force Base* in December 1996 (Harza Northeast 1996). These baseline estimates included the effects of the parkway on key roads and local traffic generation. The Proposed Action would maintain the existing access points to the Griffiss Business and Technology Park. The new parkway, associated with the Griffiss Business and Technology Park, would likely experience an appreciable amount of traffic related to the airport throughout the day, with heavy left and right turn maneuvers to access Griffiss Business and Technology Park facilities, the new airport terminal, and other airfield facilities.

**Potential Mitigation Measures.** There are a number of potential mitigation measures that could be implemented to lessen the impacts on transportation facilities as a result of the project. The following actions have been identified as potential mitigations.

- Create an efficient onsite circulation system. This may include use of reversible traffic flows, one-way street couplets, installation of traffic signals, signal coordination, and improvement of bicycle and pedestrian facilities. This would be the responsibility of the developer(s) and may be achieved through the permitting process. These measures would be effective in managing onsite traffic. The cost would be moderate to high. There would be a very high probability for their implementation by the developer(s).

- Widen East Dominick Street to four lanes near the base. This measure would be carried out by local and state transportation agencies. The cost would be high and the probability of implementation low to moderate.

- Widen Floyd Avenue and Chestnut Street east of Black River Boulevard to four lanes. This action would add sufficient capacity to effectively mitigate the levels of congestion to acceptable levels. This measure would be carried out by the developer(s) and local and State transportation agencies. These measures add capacity to major access points to the site and consequently mitigate traffic impacts offsite. The cost of these measures would be high. The probability for implementation would be moderate.

- Widen and reconfigure Hill Road, Wright Drive, Brooks Road, and Ellsworth Road to four lanes. These actions would be in accordance with development of the circulation element of the Griffiss Business and Technology Park and local highway and planning departments. These measures would mitigate adequate access to the airfield property. The cost of the measures would be high. The probability for implementation would be moderate.

- Implement a Transportation Demand Management (TDM) program to encourage person- and vehicle-trip reductions and peak period modification. Short-term strategies include ridesharing, parking management, and changes in work hours. Long-term strategies include telecommuting, land use planning measures, and congestion management plans. The developer(s) would implement these measures at relatively low cost. However, this action would not fully mitigate all impacts. There is a high probability that a TDM program be implemented.

Some of the major mechanisms for funding these mitigations include developers contributions in the form of impact fees and mitigation fees.

Mitigation fees are assessed against new development and can be used for infrastructure improvements throughout the ROI.

Impact fees relate to development-specific impacts. They are (one-time charges imposed on new development based on the amount of traffic it generates to provide a portion of the capital costs of transportation facilities

Property recipients would be responsible for the administration of roads onsite, namely the planning, construction, operation, and implementation of TDM measures and other transportation actions. Representatives from the various jurisdictions, including the New York State Department of Transportation, Oneida County, and the City of Rome, would be involved in the implementation of these infrastructure improvements.

#### 4.2.3.2 Private Airfield Alternative

**Roadways.** The major traffic generators in 2016 with the Private Airfield Alternative would be the approximately 1,070 direct operations employees. By 2016, the traffic generated as a result of the Private Airfield Alternative land use and direct employment is estimated to be 3,800 vehicle trips for a typical weekday (Table 4.2-4). These trips account for operations, construction activities, and regional trips induced by the airport.

During a typical weekday peak hour on streets adjacent to the airfield property in 2016, the site would generate about 1,080 vehicle trips in the afternoon, which represent approximately 16.6 percent of the total daily trips. Based on the proposed redevelopment, the number of daily trips generated with the Private Airfield Alternative would increase steadily during the 20-year study period.

Table 4.2-6 presents peak-hour traffic on key roads and associated LOS that would result with the Private Airfield Alternative. However, by 2016 the Private Airfield Alternative would contribute less than 500 vehicles to any of the key roadways. The majority of the peak-hour traffic would be the result of growth at the Griffiss Business and Technology Park and generally within the Oneida County.

By 2005, the LOS on the two-lane roadway segments of Chestnut Street east of Black River Boulevard would deteriorate to LOS F. Without the project, LOS F would occur by 2007. By 2010, the LOS on Floyd Avenue between Black River Boulevard and Hill Road would also deteriorate to LOS F. Otherwise, LOS F on Floyd Avenue would be reached by 2013 without the project. In addition, some roadway segments at the Griffiss Business and Technology Park would deteriorate to LOS F sometime after 2009 in most cases as a result of the Private Airfield Alternative. These two-lane roadways have limited capacity to handle the increase in air passenger and cargo related traffic from the proposed aviation uses as well as the growth from the

**Table 4.2-6**

**Peak-Hour Traffic Volumes[1] and LOS[2] on Key Roads**
**Private Airfield Alternative**

| Roadway Segments | Capacity (VPH)[3] | Closure (1999) Traffic | LOS | 2001 Traffic | LOS | 2006 Traffic | LOS | 2016 Traffic | LOS |
|---|---|---|---|---|---|---|---|---|---|
| SH-49, East Wright Dr. Crossing | 7,440 | 1,540 | A | 1,580 | A | 1,650 | A | 1,760 | A |
| SH-49, West Wright Dr. Crossing | 10,480 | 1,240 | A | 1,350 | A | 1,510 | A | 1,800 | A |
| Connection Wright Dr./East Dominick Street | 1,460 | 230 | B | 390 | B | 650 | D | 1,150 | E |
| East Dominick St., West Wright Dr. Crossing | 1,460 | 1,150 | E | 1,170 | E | 1,210 | E | 1,270 | E |
| River Road (SH-365) at CR-88 Jct | 1,760 | 390 | B | 440 | B | 510 | C | 650 | C |
| Floyd Av. between Hill Rd. and Black River Blvd. | 1,460 | 490 | C | 740 | D | 1,150 | E | 1,880 | F |
| Chestnut St. East Black River Blvd. (Mohawk Dr. to Hill Rd.) | 1,460 | 890 | D | 1,140 | E | 1,530 | F | 2,260 | F |
| Black River Blvd South Floyd Ave. | 5,020 | 1,960 | B | 2,140 | B | 2,440 | B | 3,010 | C |
| Black River Blvd North of Floyd Ave. | 8,520 | 1,380 | A | 1,520 | A | 1,750 | A | 2,150 | A |
| Black River Blvd South Chestnut St. | 6,120 | 1,650 | A | 1,790 | A | 2,020 | B | 2,450 | B |
| Black River Blvd North Chestnut St. | 6,120 | 1,700 | A | 1,870 | B | 2,160 | B | 2,720 | B |
| Hangar Rd. between Hill Rd. and Otis St. | 1,500 | 180 | A | 270 | B | 450 | C | 890 | D |
| Brooks Rd. between Hill Rd. and Otis St. | 1,500 | 310 | B | 460 | C | 780 | D | 1,540 | F |
| Hill Rd. between Wright Rd. and Brooks Rd. | 1,500 | 420 | C | 660 | D | 1,130 | E | 2,190 | F |
| Hill Rd. between Brooks Rd. and Hangar Rd. | 1,500 | 310 | B | 530 | C | 930 | D | 1,750 | F |
| Wright Dr. between Skyline entrance and Hill Rd. | 1,500 | 390 | B | 660 | D | 1,160 | E | 2,180 | F |
| Ellsworth Rd. between Hill Rd. and Otis St. | 1,500 | 220 | A | 380 | B | 660 | D | 1,230 | E |

Notes: [1] All traffic volumes are rounded to the nearest 10 vehicles per hour.
[2] LOS = Level of Service
[3] VPH = Vehicles per hour

Griffiss Business and Technology Park. With the Private Airfield Alternative, LOS F would occur on Hill Road from the junction at Wright Drive to Brooks Road by 2009. Brooks Road would reach LOS F by 2015. Hill Road between Brooks Road and Hangar Road would reach LOS F by 2013. Wright Drive, from the Skyline entrance to the junction at Hill Road, would operate at LOS F by 2009. Without the project, LOS F would only occur on Hill Road/Wright Drive between Brooks Road and the Skyline entrance sometime after 2010.

With the Private Airfield Alternative, it is assumed that most existing roads providing access to Griffiss Business and Technology Park would be used during the construction period, and would be upgraded where local development plans dictate a need based on community standards for roadways.

The Private Airfield Alternative could increase ridership on Amtrak at Rome Station; however, the projected effects would be minimal.

**Airspace/Air Traffic.** The Private Airfield Alternative would essentially re-establish two major airfields in the Rome area. The reuse of Griffiss airfield

as a private airfield would have an effect on airspace use and air traffic in the ROI creating a source of potential air traffic congestion in the overlapping airspace with the Oneida County Airport. Annual operations (17,000) at the proposed new airport are projected to increase to levels that equal or exceed pre-realignment levels (approximately 13,670) in 1993 during the 20-year buildout. This would result in similar air traffic concerns that occurred in common airspace when the Griffiss airfield was an active military base.

Two basic air traffic flows are associated with approach control and instrument flight rule operations in the Rome area. These would include landings from the southeast (150 degrees) and takeoffs to the northwest (330 degrees). It was assumed that the majority of the operations at the proposed airport would continue to be to the northwest (approximately 75 percent) as occurred during military operations. The remainder (25 percent) would be from the southeast. To avoid aircraft taking off at the county airport, aircraft arrivals at Griffiss airfield would be cleared to higher elevations while outbound Oneida County Airport traffic would be held at lower elevations until clear of each other.

Radar approach control and precision approach control would be used to ensure that pilots comply with established glide slopes to the southeast and with local pattern approach altitudes. Where controller techniques and procedures could not resolve individual conflicts, depending on traffic volumes and routings, the two traffic flows would have to be on a one-to-one basis. No simultaneous operations would be possible for southeast flow operations.

Because aircraft departing Griffiss airfield typically depart to the northwest, away from Oneida County Airport, Griffiss tower would probably be permitted to have automatic, independent releases of departures. After sufficient altitude is attained, the aircraft would be vectored to an established airway. During certain VFR conditions, Griffiss traffic could make approaches to the base airfield independent of Oneida County Airport traffic. However, during IFR conditions, traffic flows into Griffiss would have to be sequenced with Oneida County Airport operations. Aircraft would have to use steeper approaches and higher pattern altitudes. Arriving aircraft would have to approach the airfield from the southeast whenever weather conditions permit. These procedures would be used to minimize air traffic and noise in developed areas west of the base.

**Cumulative Impacts.** The adjacent Griffiss Business and Technology Park, including the new parkway, would contribute appreciably to the growth of regional and local traffic. However, with approximately one-quarter of the operations at full development, the cumulative impacts associated with this alternative would be substantially less than those with Proposed Action.

**Potential Mitigation Measures.** Potential mitigation measures that could be implemented to lessen the impacts on transportation facilities as a result of the project would be the same as described under the Proposed Action.

#### 4.2.3.3 Nonaviation Alternative

**Roadways.** The major traffic generators in 2016 with the Nonaviation Alternative would be approximately 7,040 direct operations employees. By 2016, the traffic generated as a result of this alternative is estimated to be 22,500 vehicle trips for a typical weekday, representing more than three times the number of trips generated by the Proposed Action. These trips account for operations, construction activities, and regional trips.

During a typical weekday peak hour on streets adjacent to the airfield property in 2016, the site would generate about 2,970 vehicle trips, which represent 13 percent of the total daily trips. Based on the proposed redevelopment schedule, the number of daily trips generated by the Nonaviation Alternative would increase steadily during the 20-year study period. By 2011, the total daily trips would reach approximately 75 percent of the 2016 level.

Table 4.2-7 presents the projected peak-hour traffic on key roads and the associated LOS that would result with this alternative. By 2016, the Nonaviation Alternative would add to the baseline traffic, during the afternoon peak hour, approximately 860 vehicles on Floyd Avenue between Black River Road and Hill Road, 650 vehicles on Chestnut Street east of Black River Road, and 520 vehicles on Black River Boulevard north of Floyd Avenue. All other key segments would experience an increase less than 500 vehicles during the afternoon peak hour.

By the year 2006, Floyd Avenue, between Black River Road and Hill Road, would operate at LOS F. Without the project, Floyd Avenue would deteriorate to LOS F by 2013. By 2003, Chestnut Street east of Black River Boulevard would operate at LOS F. Without the project, the LOS would be E through 2007. In addition, almost all key segments at the Griffiss Business and Technology Park would deteriorate to LOS F some time before 2016. Wright Drive between the Skyline entrance and the junction at Hill Road would operate at LOS F by 2005. Both segments of Hill Road between Hangar Road and the junction with Wright Drive would operate at LOS F by 2007. Ellsworth Road would deteriorate to LOS F by 2012, and Brooks Road by 2014. Without the project, only Wright Drive and Hill Road from the Wright Drive junction to Brooks Road would reach LOS F before 2016. Throughout the 20-year analysis period, only Hangar Road would operate at LOS E or better.

The Nonaviation Alternative could increase ridership on Amtrak at Rome Station; however, the projected effects would be minimal.

**Table 4.2-7**

**Peak-Hour Traffic Volumes[1] and LOS[2] on Key Roads**
**Nonaviation Alternative**

| Roadway Segments | Capacity (VPH)[3] | Closure (1999) Traffic | LOS | 2001 Traffic | LOS | 2006 Traffic | LOS | 2016 Traffic | LOS |
|---|---|---|---|---|---|---|---|---|---|
| SH-49, East Wright Dr. Crossing | 7,440 | 1,570 | A | 1,650 | A | 1,780 | A | 2,050 | A |
| SH-49, West Wright Dr. Crossing | 10,480 | 1,280 | A | 1,410 | A | 1,640 | A | 2,090 | A |
| Connector road between Wright Dr./ East Dominick Street | 1,460 | 250 | A | 420 | C | 720 | D | 1,300 | E |
| East Dominick St., West of Wright Dr. crossing | 1,460 | 1,160 | E | 1,190 | E | 1,240 | E | 1,350 | E |
| River Road (SH-365) at County Road-88 Jct. | 1,760 | 400 | B | 460 | B | 550 | C | 720 | C |
| Floyd Ave., between Hill Rd. and Black River Blvd. | 1,460 | 560 | B | 890 | D | 1,430 | E | 2,520 | F |
| Chestnut St. East of Black River Blvd. (Mohawk Dr. to Hill Rd.) | 1,460 | 950 | D | 1,240 | E | 1,720 | F | 2,690 | F |
| Black River Blvd. South of Floyd Ave. | 5,020 | 1,990 | B | 2,200 | B | 2,560 | C | 3,270 | C |
| Black River Blvd. North of Floyd Ave. | 8,520 | 1,430 | A | 1,610 | A | 1,920 | A | 2,530 | A |
| Black River Blvd. South of Chestnut St. | 6,120 | 1,670 | A | 1,830 | A | 2,090 | B | 2,620 | B |
| Black River Blvd. North of Chestnut St. | 6,120 | 1,710 | A | 1,880 | B | 2,180 | B | 2,770 | B |
| Hangar Rd. between Hill Rd. and Otis St. | 1,500 | 190 | A | 290 | B | 500 | C | 990 | E |
| Brooks Rd. between Hill Rd. and Otis St. | 1,500 | 320 | B | 490 | C | 820 | D | 1,630 | F |
| Hill Rd. between Wright Rd. and Brooks Rd. | 1,500 | 480 | C | 770 | D | 1,330 | E | 2,640 | F |
| Hill Rd. between Brooks Rd. and Hangar Rd. | 1,500 | 420 | C | 750 | D | 1,340 | E | 2,660 | F |
| Wright Dr. between Skyline entrance and Hill Rd. | 1,500 | 520 | C | 910 | D | 1,620 | F | 3,220 | F |
| Ellsworth Rd. between Hill Rd. and Otis St. | 1,500 | 290 | B | 520 | C | 920 | D | 1,820 | F |

Notes: [1] All traffic volumes are rounded to the nearest ten vehicles per hour.
[2] LOS = Level of Service.
[3] VPH = Vehicles per hour.

Airspace/Air Traffic. The reuse of airfield property for nonaviation purposes would have a beneficial effect on air traffic and airspace use in the ROI by eliminating a contributing source of potential congestion in the overlapping airspace used by Griffiss Airfield/Oneida County Airport arrivals and departures.

**Air Transportation.** With the Nonaviation Alternative, no commercial air passenger, general aviation, or air freight services would be provided at Griffiss Airfield. Air travelers in the ROI would continue to use the services at Oneida County Airport and other public and private airfields. Oneida

County Airport would not experience a measurable change in passenger traffic.

**Cumulative Impacts.** Cumulative impacts would be slightly more than those described for the Proposed Action due to larger number of trips generated by the Nonaviation Alternative. There would be no cumulative airspace impacts.

**Mitigation Measures.** All potential mitigation measures for the Nonaviation Alternative would be similar to those described for the Proposed Action. However, traffic-related impacts would require widening of Ellsworth Road along with the other roadway segments at the Griffiss Business and Technology Park.

#### 4.2.3.4 No-Action Alternative

**Roadways.** With the No-Action Alternative, the expected population growth and development unrelated to reuse of the airfield property at Griffiss AFB would lead to traffic volume increases on local roadways through the year 2016. It is projected that traffic on the key local roads would increase in relation to the area's population growth and the development of the Griffiss Business and Technology Park, minus the traffic generated by New York Air National Guard, the current users of the airfield property. Table 4.2-8 presents the projected peak-hour traffic on key roads and the associated LOS that would result with the No-Action Alternative.

With the No-Action Alternative, State Highway (SH)-49 at Wright Drive would operate at LOS A throughout the analysis period. By 2007, the two-lane roadway segment of Chestnut Street east of Black River Boulevard would deteriorate to LOS F. Floyd Avenue would operate at LOS F by 2013. Hill Road between Brooks Road and the junction at Wright Drive would reach LOS F by 2011, and Wright Drive from Hill Road to the Skyline entrance to the Griffiss Business and Technology Park by 2012. All other key local roads would operate at LOS E or better throughout the analysis period.

**Airspace/Air Traffic.** With the No-Action Alternative, the NYANG operations at Griffiss Airfield would cease but no reuse of the airfield property would occur. Instead, the property would go into a caretaker status. Aircraft operating to or from Oneida County Airport would continue to be controlled by the Griffiss AFB-Oneida County Airport sector.

**Air Transportation.** With the No-Action Alternative, no commercial air facilities would be available for air passenger and air cargo transportation at the base. Oneida County Airport would continue to provide commercial air service to Utica-Rome area to meet projected regional demands.

**Mitigation Measures.** With the No-Action Alternative, the only potential mitigation measure required is the widening of East Dominick Street to four lanes near the base. This action would add sufficient capacity to effectively

**Table 4.2-8**

**Peak-Hour Traffic Volumes[1] and LOS[2] on Key Roads**
**No-Action Alternative**

| Roadway Segments | Capacity (VPH)[3] | Closure (1999) Traffic | LOS | 2001 Traffic | LOS | 2006 Traffic | LOS | 2016 Traffic | LOS |
|---|---|---|---|---|---|---|---|---|---|
| SH-49, East Wright Dr. Crossing | 7,440 | 1,530 | A | 1,550 | A | 1,590 | A | 1,660 | A |
| SH-49, West Wright Dr. Crossing | 10,480 | 1,240 | A | 1,310 | A | 1,440 | A | 1,700 | A |
| Connector road between Wright Dr./ East Dominick Street | 1,460 | 230 | B | 370 | B | 610 | C | 1,100 | E |
| East Dominick St., West of Wright Dr. crossing | 1,460 | 1,150 | E | 1,160 | E | 1,190 | E | 1,250 | E |
| River Road (SH-365) at County Road-88 Jct. | 1,760 | 390 | B | 430 | B | 500 | C | 630 | C |
| Floyd Ave., between Hill Rd. and Black River Blvd. | 1,460 | 470 | C | 670 | D | 1,000 | E | 1,650 | F |
| Chestnut St. East of Black River Blvd. (Mohawk Dr. to Hill Rd.) | 1,460 | 820 | D | 1,030 | E | 1,360 | E | 2,030 | F |
| Black River Blvd. South of Floyd Ave. | 5,020 | 1,950 | B | 2,110 | B | 2,380 | B | 2,920 | C |
| Black River Blvd. North of Floyd Ave. | 8,520 | 1,370 | A | 1,480 | A | 1,660 | A | 2,020 | A |
| Black River Blvd. South of Chestnut St. | 6,120 | 1,650 | A | 1,770 | A | 1,980 | B | 2,390 | B |
| Black River Blvd. North of Chestnut St. | 6,120 | 1,700 | A | 1,870 | B | 2,150 | B | 2,710 | B |
| Hangar Rd. between Hill Rd. and Otis St. | 1,500 | 180 | A | 260 | B | 430 | C | 860 | D |
| Brooks Rd. between Hill Rd. and Otis St. | 1,500 | 300 | B | 450 | C | 750 | D | 1,500 | E |
| Hill Rd. between Wright Rd. and Brooks Rd. | 1,500 | 410 | B | 610 | C | 1,020 | E | 2,030 | F |
| Hill Rd. between Brooks Rd. and Hangar Rd. | 1,500 | 290 | B | 430 | C | 720 | D | 1,440 | E |
| Wright Dr. between Skyline entrance and Hill Rd. | 1,500 | 370 | B | 550 | C | 920 | D | 1,830 | F |
| Ellsworth Rd. between Hill Rd. and Otis St. | 1,500 | 210 | A | 310 | B | 520 | C | 1,030 | E |

Notes: [1] All traffic volumes are rounded to the nearest ten vehicles per hour.
[2] LOS = Level of Service.
[3] VPH = Vehicles per hour.

mitigate the level of congestion to acceptable levels. This measure would be carried out by local and State transportation agencies. The cost would be relatively high and the probability for implementation low to moderate.

### 4.2.4 Utilities

Direct and indirect projected changes in future utility demands caused by the Proposed Action and each alternative were estimated based on per-capita preclosure average daily use on the airfield property at Griffiss AFB and in each of the nearby communities in the ROI. These per-capita rates were

applied to projections of numbers of future residents and employees associated with the Proposed Action and each of the alternatives. Table 4.2-9 shows the projected changes in utility demand in the ROI for each period of analysis (2001, 2006, 2016) after closure for the Proposed Action and alternatives. The figures shown for the No-Action Alternative generally reflect the change expected in utility usage in the nearby communities without redevelopment of the airfield property and are estimated based on projected changes in population and preclosure per-capita use.

**Table 4.2-9**

**Total Projected Utility Demand in the ROI[1]**

| | 2001 | Percent Change | 2006 | Percent Change | 2016 | Percent Change |
|---|---|---|---|---|---|---|
| **Water Demand (MGD)[4]** | | | | | | |
| No-Action Alternative | 8.37 | NA | 8.56 | NA | 9.28 | NA |
| Proposed Action | 8.40 | 0.4 | 8.66 | 1.2 | 9.51 | 2.5 |
| Private Airfield Alternative | 8.40 | 0.4 | 8.66 | 1.2 | 9.50 | 2.4 |
| Nonaviation Alternative | 8.61 | 2.9 | 9.12 | 6.5 | 10.76 | 15.9 |
| **Wastewater Generation (MGD)[4]** | | | | | | |
| No-Action Alternative | 8.37 | NA | 8.56 | NA | 9.28 | NA |
| Proposed Action | 8.40 | 0.4 | 8.66 | 1.2 | 9.50 | 2.4 |
| Private Airfield Alternative | 8.40 | 0.4 | 8.65 | 1.1 | 9.50 | 2.4 |
| Nonaviation Alternative | 8.54 | 2.0 | 9.03 | 5.5 | 10.64 | 14.7 |
| **Solid Waste Generation (tons/day)** | | | | | | |
| No-Action Alternative | 35.41 | NA | 36.20 | NA | 39.24 | NA |
| Proposed Action | 36.47 | 3.0 | 37.83 | 4.5 | 42.21 | 7.6 |
| Private Airfield Alternative | 36.43 | 2.9 | 37.73 | 4.2 | 42.03 | 7.1 |
| Nonaviation Alternative | 44.29 | 25.1 | 49.59 | 37.0 | 60.89 | 55.2 |
| **Electricity Demand[5] (MWh[6] /day)** | | | | | | |
| No-Action Alternative | 1,817.08 | NA | 1,857.64 | NA | 2,013.78 | NA |
| Proposed Action | 1,828.56 | 0.63 | 1,890.71 | 1.9 | 2,081.87 | 3.4 |
| Private Airfield Alternative | 1,827.68 | 0.58 | 1,888.14 | 1.6 | 2,077.05 | 3.1 |
| Nonaviation Alternative | 1,870.82 | 3.0 | 1,986.50 | 6.9 | 2,345.88 | 16.5 |
| **Natural Gas Demand (Thousand Therms/day)** | | | | | | |
| No-Action Alternative | 53.80 | NA | 55.00 | NA | 59.62 | NA |
| Proposed Action | 54.15 | 0.7 | 55.99 | 1.8 | 61.66 | 3.4 |
| Private Airfield Alternative | 54.12 | 0.6 | 55.91 | 1.7 | 61.51 | 3.2 |
| Nonaviation Alternative | 55.22 | 2.6 | 58.57 | 6.5 | 69.13 | 16.0 |

Notes: [1] Values for Proposed Action and reuse alternatives represent total projected demand in the ROI.
[2] Percent change as compared to the No-Action Alternative
[3] NA = Not applicable
[4] MGD = million gallons per day
[5] Represents total demand forecasted for the ROI for the years indicated, based on projected changes in population and 1996 per capita use, and data from local utility purveyors.
[6] MWh = Megawatt-hours

The overall population projections for the utilities ROI indicate almost no change during the planning period (1999 to 2016) with the No-Action Alternative, and this negligible change is reflected in the utility projections for that alternative. The utility projections for the Proposed Action and other alternatives reflect the growth anticipated due to airfield property reuse. Effects of reuse on utility systems were assessed by comparing projected demand with each reuse alternative to projected demand with the No-Action Alternative for each period of analysis (2001, 2006, 2016). Onsite utilities demands were estimated by applying use rates to appropriate units of land uses (employees and square footage of buildings).

The Proposed Action and alternatives would require changes to the water and wastewater systems, solid waste disposal, and the distribution systems for electricity and natural gas on the airfield property. For example, utility corridors would likely be required, and new metered service may be needed at existing facilities.

The following assumptions were made in the analysis of potential effects on utilities:

- Specific infrastructural improvements needed and associated costs would be borne directly or indirectly by the future site developer(s);
- The site would be serviced by local utility providers; and
- The existing distribution/collection systems would be available in their current condition for reuse.

#### 4.2.4.1 Proposed Action

**Water Demand.** With the Proposed Action, water consumption in the ROI in 2016 would be greater than the No-Action Alternative projections by 0.24 million gallons per day (MGD), increasing total demand in the ROI to 9.51 MGD. The existing capacity of the City of Rome water treatment plant is 18.9 MGD. The Proposed Action would create an onsite water demand of 0.04 MGD by 2016, more than the 0.012 MGD onsite demand prior to airfield closure.

The slight increases in ROI water demand resulting primarily from nonsite-related population growth would not require major infrastructure improvements or new supply sources in the ROI.

**Wastewater.** With the Proposed Action, wastewater generation in the ROI by 2016 would be greater than the No-Action Alternative by 0.23 MGD for a total demand of 9.50 MGD, remaining below the total wastewater treatment capacity in the ROI of 12 MGD at the City of Rome wastewater treatment plant.

Onsite wastewater generation would total 0.029 MGD in 2016, which is more than the 0.01 MGD generated prior to airfield closure. Continued connection of the airfield sewage system to the City of Rome Wastewater Treatment Plant would remain feasible. Industrial users may be required to provide pretreatment of industrial wastewater.

**Solid Waste.** With the Proposed Action, the amount of solid waste generated in the ROI in 2016 would be greater than with the No-Action Alternative projections by 2.96 tons per day for a total of 42.21 tons per day. This increase of 2.96 tons per day in solid waste generation in the ROI would be small when compared to the projected capacity of the ROI landfills (approximately 530 tons per day for the Oneida County transfer station and the Ava landfill combined).

With the Proposed Action, the generation of solid waste onsite would increase to an average of 2.12 tons per day in 2016, more than the 1.5 tons per day generated prior to airfield closure. The onsite demand, as estimated, accounts for building demolition during the first years of base reuse. The Ava Landfill would have enough capacity to accommodate solid waste resulting from the Proposed Action.

**Energy.**

***Electricity.*** Electrical consumption in the ROI with the Proposed Action would be about 2,082 megawatt-hours (MWh) per day, which is 68.09 MWh per day greater than the No-Action Alternative projections for 2016. Onsite electricity demand for the Proposed Action would amount to 24.77 MWh per day in 2016, more than the demand of 0.082 MWh per day prior to airfield closure. These average demands account for airfield and exterior lighting, water and wastewater pumping, and some incidental loads.

With the Proposed Action, the increase in electricity demand in the ROI resulting from nonsite-related population growth would not require major infrastructure improvements before 2016. Niagara-Mohawk Power Corporation has adequate capacity to supply the projected demands.

However, infrastructure changes would be needed on the airfield property to accommodate new development associated with the Proposed Action. The existing supply system would be upgraded and integrated into the new facilities. Individual facilities would need to be metered, and appropriate utility corridors and easements would also need to be established.

***Natural Gas.*** Natural gas consumption in the ROI with the Proposed Action would be greater than with the No-Action Alternative projections by 2.04 thousand therms per day, totaling 61.66 thousand therms per day by 2016. The Proposed Action would create an onsite natural gas demand of 0.76 thousand therms per day by 2016. Niagara-Mohawk Power Corporation has adequate capacity to supply these projected demands.

With the Proposed Action, the slight increase in natural gas demand in the ROI, resulting primarily from nonsite-related population growth, would not require major infrastructure improvements in the ROI before 2016. However, onsite individual facilities would need to be metered and appropriate utility corridors and easements would also need to be established.

**Cumulative Impacts.** The development of the Griffiss Business and Technology Park in the vicinity of the airfield property would increase regional utility demands. Development of the Griffiss Business and Technology Park through 2016 has been included in the baseline utility analysis along with the general growth in the ROI. Therefore, the cumulative impact of the Proposed Action and the Griffiss Business and Technology Park would not result in a substantial increase in utility demands beyond the capacity in the ROI. There would be enough capacity in the ROI to meet the future demands adequately. Costs of needed infrastructure improvements would be the responsibility of each developer.

**Potential Mitigation Measures.** No significant impacts would be expected to result from the Proposed Action and, therefore, no additional mitigation measures are necessary. However, the following mitigation measures may be used to lessen the effects of reuse of the existing systems. The following actions have been identified as potential mitigations.

- Assistance in the funding of additional water and wastewater treatment and distribution systems could be sought through Federal funding programs. This mitigation would assist in providing the necessary funding to construct needed expansions and upgrades to utility infrastructure. The effectiveness and probable success of this mitigation would depend on the availability of funding in order to accomplish the required infrastructure improvements. Because this mitigation only involves identification of appropriate programs, and applying for and administering the funds, associated costs would be relatively low. The responsible agency for implementing this mitigation would be primarily the GLDC in cooperation with prospective developers.

- Water conservation strategies (both on and off the airfield property) could be developed to reduce water use and the need for additional infrastructure. This measure would also have a related effect of concentrating sewage loads and thereby reducing sewage flows and the need for additional sewer distribution system upgrades. This type of measure typically involves voluntary measures for implementing the conservation strategy, although specific requirements could be incorporated into development and building codes. The effectiveness of this type of mitigation would depend on the specific measures selected for conservation. Because of the relative abundance of water in the ROI, the probability of this measure being implemented would be low. The responsible entities

for implementing this measure would be the GLDC, City of Rome, and Oneida County.

- Waste source separation programs (both on and off the airfield property) could be instituted to reduce the amount of solid waste that is ultimately disposed of in landfills, and provide a secondary market for recycled materials. The cost-effectiveness of this mitigation would depend on the type of program (e.g., mandatory or voluntary, the degree of waste separation, type of collection, etc.). Depending on the amount of education and the convenience of the program services provided, this measure could be successfully implemented. The responsible entities for implementing this measure would be the GLDC, City of Rome, and Oneida County.

- Energy conservation strategies (both on and off the airfield property) could be developed to reduce energy use and the need for additional infrastructure. This type of measure typically involves voluntary measures for implementing the conservation strategy, although specific requirements could be incorporated into development and building codes. The effectiveness of this type of mitigation would depend on the specific measures selected for conservation. The responsible entities for implementing this measure would be the GLDC, City of Rome, and Oneida County.

- Modifications to the existing utility system could be made to increase efficiency during the initial phases of reuse when low demand may result in system inefficiencies. This could involve modifications such as installation of devices that restrict utilities to unused or under used portions of the site. This could be combined with reuse phasing plans that encourage infill rather than "shotgun" redevelopment. Maintenance activities could focus on periodic flushing of the system or run up of power systems to ensure that systems do not deteriorate due to lack of use. The effectiveness of these types of actions would depend on the phasing and coordination of redevelopment. Some methods may be more costly than others, especially if major modifications to systems are required. The GLDC, in coordination with property recipients, the City of Rome, and utility purveyors, would be the primary implementing entities.

#### 4.2.4.2 Private Airfield Alternative

Overall, utility demands generated by the Private Airfield Alternative would be slightly less than those of the Proposed Action. Although similar in proposed land uses, lower projected employment and population changes would result in slightly lower overall utility demands. A comparison of the Proposed Action and this alternative is provided in Table 4.2-9.

**Water Demand.** With the Private Airfield Alternative, projected water consumption in the ROI in 2016 at 0.22 MGD would be less than the Proposed Action by 0.02 MGD. The daily demand would increase total demand in the ROI to 9.50 MGD. The Private Airfield Alternative would create an onsite water demand of 0.035 MGD by 2016, more than the 0.012 MGD onsite demand prior to airfield closure.

The slight increases in ROI water demand resulting primarily from nonsite-related population growth would not require major infrastructure improvements or new supply sources in the ROI.

**Wastewater.** With the Private Airfield Alternative, wastewater generation in the ROI by 2016 would be a total of 9.49 MGD, remaining below the total wastewater treatment capacity in the ROI.

Onsite wastewater generation would total 0.027 MGD in 2016, which is more than the 0.01 MGD generated prior to airfield closure. Continued connection of the airfield sewage system to the City of Rome Wastewater Treatment Plant would remain feasible. Industrial users may be required to provide pretreatment of industrial wastewater.

**Solid Waste.** With the Private Airfield Alternative, the amount of solid waste generated in the ROI in 2016 would be 42.03 tons per day. This increase of 2.79 tons per day over the No-Action Alternative in solid waste generation in the ROI would be small when compared to the projected capacity of the ROI landfills. The generation of solid waste onsite would increase to an average of 2.00 tons per day in 2016.

**Energy.**

***Electricity.*** Electrical consumption in the ROI with the Private Airfield Alternative would be about 2,077 megawatt-hours (MWh) per day, which is 63.28 MWh per day over baseline projections for 2016. Onsite electricity demand for the Private Airfield Alternative would amount to 22.81 MWh per day in 2016, more than the demand of 0.082 MWh per day prior to airfield closure. These average demands account for airfield and exterior lighting, water and wastewater pumping, and some incidental loads.

The Private Airfield Alternative would not require major infrastructure improvements before 2016 and the Niagara-Mohawk Power Corporation has adequate capacity to supply the projected demands.

As with the Proposed Action, infrastructure changes would be needed on the airfield property to accommodate new development associated with the Private Airfield Alternative. The existing power supply systems would have to upgraded and integrated into the new facilities, and individual facilities would need to be metered. Appropriate utility corridors and easements would also need to be established.

***Natural Gas.*** Natural gas consumption in the ROI with the Private Airfield Alternative would be 1.89 thousand therms per day greater than the No-Action Alternative, totaling 61.51 thousand therms per day by 2016. The Private Airfield Alternative would create an onsite natural gas demand of 0.70 thousand therms per day by 2016. Niagara-Mohawk Power Corporation has adequate capacity to supply these projected demands. The slight increase in natural gas demand would not require major infrastructure improvements in the ROI before 2016. However, onsite facilities would need to be individually metered and appropriate utility corridors and easements would need to be established.

**Cumulative Impacts.** The cumulative impacts of the Private Airfield Alternative would be the same as for the Proposed Action. With overall utility demands slightly lower than those of the Proposed Action, the cumulative impact of the Private Airfield Alternative and the Griffiss Business and Technology Park would not result in a substantial increase in utility demands beyond the capacity in the ROI.

**Potential Mitigation Measures.** No significant impacts would be expected to result from the Private Airfield Alternative and, therefore, no additional mitigation measures are necessary. Any additional mitigation measures that could be used to lessen the effects of reuse of the existing systems would be the same as those described for the Proposed Action.

#### 4.2.4.3 Nonaviation Alternative

The proposed nonaviation uses and substantially higher projected employment and population under the Nonaviation Alternative would result in higher overall utility demands in comparison to the Proposed Action (Table 4.2-9).

**Water Demand.** With the Nonaviation Alternative, projected water consumption in the ROI in 2016 would be an average of 1.48 MGD over the No-Action Alternative, increasing total demand in the ROI to 10.76 MGD. This alternative would create an onsite water demand of 0.26 MGD by 2016, more than the 0.012 MGD demand prior to airfield closure. While these increases in ROI water demand would be more than the Proposed Action, major infrastructure improvements or new sources of supply in the ROI would not be required.

**Wastewater.** With the Nonaviation Alternative, wastewater generation in the ROI would be 1.36 MGD over the No-Action Alternative by the year 2016, for a total of 10.64 MGD. This would be more than the Proposed Action, but would be below the total wastewater treatment capacity in the ROI.

Onsite wastewater generation with this alternative would be 0.13 MGD in 2016, which is more than the 0.01 MGD generated prior to closure of the airfield. Continued connection of the airfield sewage system to the City of

Rome Wastewater Treatment Plant would remain feasible. Industrial users may be required to provide pretreatment of industrial wastewater.

**Solid Waste.** With the Nonaviation Alternative, the amount of solid waste generated in the ROI would be 21.65 tons per day over the No-Action Alternative for a total of 60.89 tons per day in 2016. This increase in solid waste generation in the ROI would be more than the Proposed Action, but would be small when compared to the projected capacity of the ROI landfills.

With this alternative, onsite generation of solid waste would amount to 16.45 tons per day in 2016, more than the 1.5 tons per day generated prior to the closure of the airfield. The onsite demand accounts for building demolition during the first years of airfield reuse. The Ava Landfill could accommodate solid waste resulting from this alternative.

**Energy.**

***Electricity.*** Electrical consumption in the ROI with the Nonaviation Alternative would be about 2,346 MWh per day, that is, 332 MWh per day more than the No-Action Alternative projections for 2016. This alternative would create the largest onsite electricity demand of 65.41 MWh per day in 2016, which is substantially more than the demand of 0.082 MWh per day prior to airfield closure.

However, the increase in electricity demand in the ROI resulting primarily from nonsite-related population growth would not require major infrastructure improvements before 2016, and Niagara-Mohawk Power Corporation has adequate capacity to supply the projected demands. Infrastructure changes would be needed to accommodate new development associated with the Nonaviation Alternative (e.g., supply lines, substations, and distribution network). The existing supply system could be upgraded and integrated into the new facilities. Individual facilities would need to be metered, and appropriate utility corridors and easements would also need to be established.

***Natural Gas.*** Natural gas consumption in the ROI with the Nonaviation Alternative would be 9.51 thousand therms per day over the No-Action Alternative for a total of 69.13 thousand therms per day by 2016. This alternative would create higher onsite natural gas demand than the Proposed Action, amounting to 1.61 thousand therms per day by 2016.

Niagara-Mohawk Power Corporation has adequate capacity to supply the projected demands. The increase in natural gas demand in the ROI resulting primarily from nonsite-related population growth, would not require major infrastructure improvements in the ROI before 2016. However, onsite individual facilities would need to be metered and appropriate utility corridors and easements would also need to be established.

**Cumulative Impacts.** Even though the utility demands associated with the Nonaviation Alternative would be substantially higher than the Proposed Action, the cumulative impacts of this alternative would not be significant. Development of the Griffiss Business and Technology Park has been included in the baseline utility analysis through 2016 along with the general population growth in the ROI. The cumulative impact of the Nonaviation Alternative and the Griffiss Business and Technology Park, as shown in the total utility demands, would not result in increases in utility demands beyond the capacity in the ROI.

**Mitigation Measures.** All potential mitigation measures for the Nonaviation Alternative would be the same as described for the Proposed Action.

#### 4.2.4.4 No-Action Alternative

With the No-Action Alternative, onsite utility use would be much less than 1999 pre-closure levels, and would be minimal in comparison to the Proposed Action and other alternatives. Utility systems on the airfield property that would not be used to their designed capacity, however, could result in their degradation over the long term.

In the absence of any reuse of the airfield property, post-closure utility demand in the study area is projected to increase in relation to population growth in the ROI. This growth includes the development of the Griffiss Business and Technology Park. The following utility usage is forecast using per-capita demand factors determined from existing and projected consumption figures from the utility providers in the ROI.

**Water Demand.** With the No-Action Alternative, water consumption in the ROI would increase from 8.29 MGD in 1999 to 9.28 MGD by 2016.

**Wastewater.** With the No-Action Alternative, wastewater generation in the ROI would increase from 8.29 MGD in 1999 to 9.28 MGD by 2016.

**Solid Waste.** With the No-Action Alternative, solid waste generation in the ROI would increase from 35.08 tons per day in 1999 to 39.24 tons per day by 2016.

**Electricity.** With the No-Action Alternative, electricity consumption in the ROI would increase from 1,800 MWh per day in 1999 to 2,014 MWh per day by 2016.

**Natural Gas.** With the No-Action Alternative, natural gas consumption in the ROI would increase from 53.29 thousand therms per day in 1999 to 59.62 thousand therms per day by 2016.

**Mitigation Measures.** With the No-Action Alternative, no significant impacts are anticipated in the ROI to water, wastewater, solid waste, or energy, utilities and therefore, no mitigation measures are necessary.

## 4.3 HAZARDOUS SUBSTANCES MANAGEMENT

This section addresses the potential impacts of existing contaminated sites on the various reuse options, and the potential for environmental impacts caused by hazardous substances management practices associated with the reuse options. Hazardous materials and waste management, Installation Restoration Program (IRP) sites, storage tanks, asbestos, pesticides, polychlorinated biphenyls (PCBs), radon, medical/biohazardous wastes, ordnance, and lead are discussed in this section.

The Air Force is committed to the remediation of all contamination at the airfield property resulting from past and future Air Force activities. Delays or restrictions in disposal and reuse of property may occur due to the extent of contamination and the results of both the risk assessment and remedial designs determined for contaminated sites. Examples of conditions resulting in possible land use restrictions would be the capping of landfills, constraints from methane generation and cap integrity, and long-term monitoring wells, and the use and/or extraction of groundwater. These conditions would have to be considered in the layout of future development. Options to recipients include creation of parks, greenbelts, or open spaces in these areas.

Regulatory standards and guidelines have been applied to determine the impacts caused by hazardous materials and waste. The following criteria were used to identify potential impacts:

- Accidental release of friable asbestos during the demolition or modification of a structure;
- Generation of 100 kilograms (or more) of hazardous waste in a calendar month, resulting in increased regulatory requirements;
- New operational requirements or service for all underground storage tanks (USTs) and tank systems;
- Any spill or release of a reportable quantity of a hazardous material;
- Manufacturing of any compound that requires notifying the pertinent regulatory agency; and
- Exposure of the public or the environment to any hazardous material through release or disposal practices.

Measures that are clearly required by law or are standard industry practices are described below. These measures were taken into account in the assessment of the impacts.

- Hazardous substances management by new property recipients will be in compliance with Federal, State, and local regulations, and permitting requirements;

- Existing hazardous substance contamination at the airfield property will be remediated with the IRP;

- Identification and disclosure of the presence of ACM in facilities will be made to property recipients. Abatement of ACM will be performed in accordance with Air Force policy where health hazards are identified;

- Maintenance and/or renovation activities in structures with ACM will be performed in compliance with applicable regulations (e.g., worker safety regulations) to minimize the risk to human health and the environment;

- Renovation and/or demolition of structures with ACM will be performed in accordance with applicable regulations (e.g., the asbestos NESHAP);

- Disclosure of the presence or assumed presence of LBP in facilities will be made to property recipients. Abatement of LBP hazards will be performed in housing constructed prior to 1960, where children are likely to reside. Property remaining under Air Force control (e.g., lease) will be maintained to prevent potential LBP hazards to children under age 6;

- Renovation and/or demolition of structures with LBP will be performed in accordance with applicable Federal and State regulations (e.g., RCRA); and

- USTs that do not remain in service will be removed in accordance with applicable State regulations. USTs remaining in service will be coordinated with planning agencies to preclude placement of structures that would endanger the integrity of the tanks and associated piping systems.

### 4.3.1 Proposed Action

#### 4.3.1.1 Hazardous Materials Management

Hazardous materials likely to be used for activities in the proposed land use areas are identified in Table 4.3-1. The types of hazardous materials used with the Proposed Action would be similar to those used by the airfield prior to closure, although the quantity of hazardous materials used would increase mainly due to the increase in aircraft-related activities. However, the specific chemical compositions and exact use rates of these materials are not known.

**Table 4.3-1**

**Hazardous Material Usage by Land Use Category - Proposed Action**

| Land Use | Operation/Process | Hazardous Materials |
|---|---|---|
| Airfield | Aircraft Refueling; antideicing; utilization of clear zones, runways, taxiways, airfield parking; aircraft parking; administrative offices; private aviation facilities | Aviation fuel, fuel oil, glycols |
| Aviation Support | Operations associated with air transportation-related industry; aircraft maintenance; administrative services | Fuels, solvents, paints, hydraulic fluids, degreasers, corrosives, heavy metals, reactives, thinners, paints, glycols, ignitables, heating oil |
| Industrial | Activities associated with light industry and warehousing | Solvents, heavy metals, corrosives, catalysts, fuels, heating oil, ignitables, pesticides. |
| Public/Recreational/ Open Space | Maintenance of grounds | Pesticides, fertilizers, paints, thinners, solvents |
| Agricultural | Growing of crops | Pesticides, herbicides, fungicides, fertilizers |

With the Proposed Action, each separate organization involved with reuse of the airfield property would be responsible for the management of hazardous materials according to applicable regulations. Each organization would have to comply with the Emergency Planning and Community Right-to-Know Act (EPCRA) (Superfund Amendments and Reauthorization Act [SARA], Section 311, Title III), which requires that the Oneida County Local Emergency Planning Committee be informed of the use of any extremely hazardous materials. Mutual aid agreements with surrounding jurisdictions may need to be revised and additional training of emergency response personnel may be required. However, management of these materials would not create unacceptable environmental impacts.

#### 4.3.1.2 Hazardous Waste Management

Reuse activities associated with the Proposed Action would result in an increase in the amount of hazardous waste generated, compared to amounts generated prior to closure of the airfield property. This increase would occur largely from aviation support and industrial uses associated with the

Proposed Action. The increase in aircraft operations would also result in an increase in hazardous waste generation from baseline conditions. The types of hazardous waste that would be generated would generally consist of paints, thinners, solvents, and heavy metals. Waste fuels, petroleum products, lubricants, hydraulic fluids, glycols, and petroleum-base solvents would also be generated with this alternative. Hazardous wastes generation, however, does not constitute an unacceptable impact in and of itself, if managed in accordance with all applicable regulations. Upon disposal of the airfield property, hazardous waste management would become the responsibility of the property recipients. Each generator of hazardous waste (i.e., owner/operator) would then be required to obtain the appropriate permit(s) for the management of the wastestreams. Once the responsibilities of hazardous waste management are allocated to individual organizations, proficiency with those materials and spill response plans are required by Resource Conservation and Recovery Act (RCRA) regulations. The presence of numerous independent operators on the airfield property would change the regulatory requirements and probably increase the regulatory burden relative to hazardous waste management. However, hazardous waste management by independent owner/operators, in accordance with all applicable regulations would preclude any unacceptable impacts.

#### 4.3.1.3 Installation Restoration Program Sites

The Air Force is committed to continue IRP activities under the Defense Environmental Restoration Program (DERP) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). IRP activities will be coordinated by the Air Force, the U.S. Environmental Protection Agency (EPA), New York State Department of Environmental Conservation (NYSDEC), and local agencies (e.g., Oneida County).

The type of development that is appropriate for property adjacent to or over an IRP site may be limited by the risk to human health and the environment posed by contaminants at the site. For example, residential development over an IRP landfill is not appropriate. The risk posed by IRP sites is measured by a risk assessment that analyzes the types of substances present at a site and the potential means by which the public and the environment may be exposed to them. The Remedial Design, or blueprint for remediating the IRP site, is based on the results of the risk assessment and the geographical extent of the contamination.

Disposal and reuse of some of the airfield property may be delayed or limited by the extent and type of contamination at IRP sites and by current and future IRP remediation activities as shown in Figure 4.3-1. Based on the results of IRP investigations, the Air Force may, when appropriate, place limits on land reuse and/or groundwater use and/or extraction through deed restrictions on conveyances and use restrictions on leases. The Air Force intends to turn over the majority of uncontaminated parcels and non-IRP sites via deed transfers; however, the Air Force may enter into lease agreements

for contaminated properties pending cleanup with the IRP. The Air Force will retain right-of-access to other properties to inspect monitoring wells or conduct other IRP-related activities.

The IRP sites within each land use area for the Proposed Action are discussed below and are shown in Figure 4.3-1 and summarized in Table 4.3-2. More detailed IRP site profiles are provided in Appendix D. The extent of one IRP site may result in it being located in more than one proposed land use area.

- **Airfield.** One IRP site is located in the proposed airfield area: a storm drainage site (SD-32 [portion of site]);

- **Aviation Support.** Seven IRP sites are located in the proposed aviation support area: one fire training site (FT-30), one spill site (SS-46 [portion of site]), one disposal pit site (ST-06), one spill site (SS-24), one storage site (SS-25 [portion of site]), and two storage tanks sites (ST-36 and ST-51);

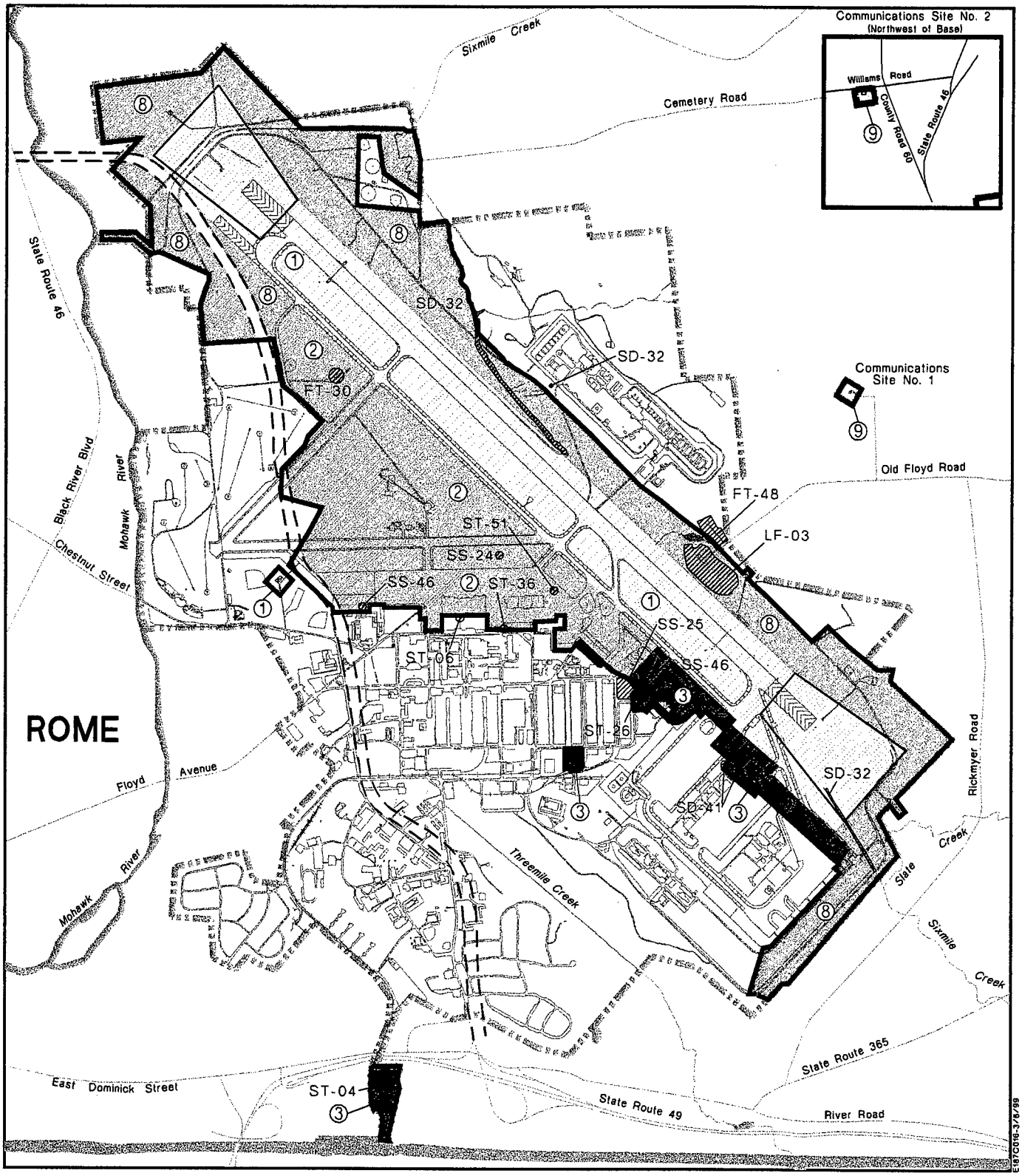
- **Industrial.** Four IRP sites are located in the proposed industrial area: two storage sites (ST-04 and ST-26), and one spill site (SS-46 [portion of site]), and one storm drainage site (SD-41);

- **Public/Recreational/Open Space.** Three IRP sites are located in the proposed public/recreational/open space area: a landfill site (LF-03); one storm drainage site (SD-32 [portion of site]); and a fire training area (FT-48 [portion of the site]); and

- **Agricultural.** No IRP sites are located in this proposed land use category.

#### 4.3.1.4 Storage Tanks and Oil/Water Separators

Aircraft flight and maintenance operations, as well as industrial and other land use activities considered under the Proposed Action, would require the use of both USTs and aboveground storage tanks, including the possible use of the bulk fuel storage area that is part of the airfield property located near the New York State Barge Canal. Reused and new USTs and aboveground storage tanks required by property recipients would be subject to all applicable Federal, State, and local regulations. These regulations include acceptable leak detection methods, spill and overfill protection, cathodic protection, secondary containment for hazardous waste tank systems including the piping, and liability insurance (for other than U.S. Government-owned tanks). The State of New York has adopted the Federal UST regulations under New York Codes, Rules, and Regulations (NYCRR) Title 6, Parts 612-615, which is administered by the NYSDEC.




**LEGEND**

- ① Airfield
- ② Aviation Support
- ③ Industrial
- ④ Manufacturing
- ⑤ Institutional (Education & Medical)
- ⑥ Commercial (Office/R&D)
- ⑦ Residential
- ⑧ Public/Recreational
- ⑨ Agricultural
- IRP Site
- Base Boundary
- Airfield Property
- Proposed Parkway Corridor
- Runway Protection Zone

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# Proposed Action and Private Aviation Alternative With IRP Sites

**Figure 4.3-1**

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Table 4.3-2

Installation Restoration Program Sites Within Land Use Areas- Proposed Action

| Proposed Land Use | IRP Sites |
|---|---|
| Airfield | Sixmile Creek and Weapons Storage Area Lagoon (SD-32 [portion of site]) |
| Aviation Support | Fire Protection Training Area (FT-30), Building 101 - Yellow Submarine and Disposal Pit (ST-06), Fire Demonstration Area (SS-24), T9 Storage Area (SS-25 [portion of site]), Building 110 - Aqua Refueling System (ST-36), Glycol Storage/Use Areas (SS-46 [portion of site]), and Building 100 Fuel Hydrant System (ST-51) |
| Industrial | Bulk Fuel Storage Area - Barge Canal (ST-04), Building 43 - Refueling Station (ST-26), Glycol Storage/Use Areas (SS-46 [portion of site]), and Building 782 - Nose Docks 1 & 2 (SD-41) |
| Public/Recreational/ Open Space | Landfill No. 7 (LF-03) and Sixmile Creek, Weapons Storage Area Lagoon (SD-32 [portion of site]), and Fire Training Area (FT-48 [portion of site]). |
| Agricultural | No IRP Sites |

USTs and associated piping that will not be used to support reuse activities will be removed in accordance with Air Force policy prior to property transfer. Aboveground fuel storage tanks not used to support reuse activities will be deactivated, purged of fumes to preclude fire hazards, and removed prior to property transfer. Oil/water separators not required for reuse activities also will be deactivated and removed by the Air Force before the property is transferred. Oil/water separators associated with either an above ground or below ground storage tank will be deactivated and removed in accordance with regulations that govern the specific storage tank. Any sludge and/or sediments found in the oil/water separator during the deactivation and removal activity will be disposed of in accordance with RCRA. Those oil/water separators not associated with above or below ground tanks will be deactivated and removed using best engineering practices.

#### 4.3.1.5 Asbestos

With the Proposed Action, a number of buildings with asbestos-containing materials (ACM) would be renovated for alternate uses or demolished for construction of new facilities. Such activities would be subject to all applicable Federal, State, and local regulations to minimize potential risks to human health and the environment. Applicable regulations would include compliance with the National Emission Standards of Hazardous Air Pollutants (NESHAP) for asbestos, which regulates emissions of asbestos during renovation or demolition projects, and the Occupational Safety and Health Administration (OSHA) regulations designed to protect workers from occupational exposures to asbestos. In addition, maintenance activities performed in buildings with ACM would be subject to the OSHA worker protection regulations.

It is Air Force policy to disclose to property recipients information regarding those structures with ACM, but not perform abatement of the asbestos,

unless there is a health hazard. The Air Force policy concerning the management of asbestos at closing and realigning bases is presented in Appendix G.

#### 4.3.1.6 Pesticides

Pesticide use associated with the Proposed Action would increase from amounts used under airfield property baseline conditions. Pesticide use is expected to occur in landscaped areas associated with airfield, aviation support, and industrial, and Public/recreational/open space land uses, and in and around buildings associated with such reuses. Management practices, including storage and use, would be subject to applicable Federal and State pesticide regulations; therefore, no unacceptable impacts should result.

#### 4.3.1.7 Polychlorinated Biphenyls

The airfield property will not contain any Federally-regulated PCB and PCB-contaminated equipment at the time of property transfer.

#### 4.3.1.8 Radon

It is Air Force policy to disclose to property recipients information regarding those structures with radon levels measured above the recommended EPA mitigation threshold (i.e., greater than 4 picoCuries per liter [pCi/l] of air), but not undertake measures to reduce the radon levels. Reuse of these structures, particularly those used as residences, may require implementation of appropriate measures to reduce radon levels to below the recommended threshold. There are no residential structures within the airfield property. Currently, no radon exposure guidelines or action levels have been established by Federal or State regulatory agencies for buildings other than schools or residences.

#### 4.3.1.9 Medical/Biohazardous Waste

No specific reuses are planned under the Proposed Action which would result in the generation of medical/biohazardous waste by recipients of the airfield property. The air cargo uses could be involved with handling and transport of materials that would be a potential source of medical/biohazardous wastes. These types of materials, however, would be subject to applicable Federal and State regulations for the handling of these materials. Individual freight handling enterprises would be required to have appropriate waste management plans in place in order to handle these types of materials; therefore, no unacceptable impacts are expected.

#### 4.3.1.10 Ordnance

During a 1996 review of all written records associated with ordnance-related uses at Griffiss AFB, 55 possible sites on the base were located that

warranted additional investigation. After site reconnaissances were performed, 11 sites were identified that required physical clearing of any possible ordnance. In 1998, these sites were cleared of any material that were ordnance related (Mark Rabe, AFBCA, personal communication, August 1998). Based on the past use of the airfield property, the possibility exists that undiscovered ordnance may exist. All reasonable precautions should be taken during any excavation in the event that ordnance is uncovered. If ordnance is discovered in areas previously unknown to the Air Force, disposal and reuse of the affected property may be delayed or limited. The affected area(s) would be subject to investigation and, if necessary, remediation.

#### 4.3.1.11 Lead

With the Proposed Action, a number of buildings with lead-based paint (LBP) would be renovated for alternate uses or demolished for construction of new facilities. Such activities would be subject to all applicable Federal, State, and local regulations to minimize potential risks to human health and the environment. Applicable regulations would include compliance with requirements of NYCCR Title 6, Part 371 for disposal of waste materials containing lead, and OSHA regulations designed to protect workers from occupational exposures to lead. In addition, maintenance activities performed in buildings with LBP would be subject to the OSHA worker protection regulations.

It is Air Force policy to disclose to property recipients information regarding those structures with LBP, but not perform abatement of LBP, except in housing constructed prior to 1960 where children are likely to reside. No such housing is present within the airfield property. The Air Force policy for management of LBP at closing bases is presented in Appendix G.

#### 4.3.1.12 Cumulative Impacts

Future actions in the region may eventually support over 6 million square feet of new commercial and industrial development, based on current plans at the Griffiss Business and Technology Park. These uses would consume, process, dispose of, or otherwise handle a variety of hazardous substances. Because the type of uses are expected to be similar to uses planned for the Proposed Action, the type of hazardous materials and wastes generated by these additional uses would be similar to those expected with the Proposed Action. The total amount expected is unknown. However, as long as future users comply with applicable Federal, State, and local regulations pertaining to hazardous substance management, no unacceptable cumulative impacts are expected to result from these actions.

#### 4.3.1.13 Mitigation Measures

**Potential Mitigation.** The following actions, procedures, and guidelines have been identified as potential mitigations.

- A planning body for hazardous materials and waste management could be established through a cooperative effort with the new individual operators on the base. Establishment of such a body could reduce the costs of environmental compliance training, health and safety training, and waste management, and would increase recycling, minimize waste, and assist in mutual spill responses. The planning body or reuser of the property can obtain information regarding suggested pollution prevention and waste minimization strategies from EPA's *Guidelines to Pollution Prevention* series of publications and *Waste Minimization Opportunity Assessment Manual* (Document No. EPA/625/7-88/003). These measures could be implemented through voluntary programs established by GLDC in cooperation with new property recipients, or through programs establish by local city, town, or county agencies. The cost of creating and implementing such programs depends on the nature and extent of program elements. Because individual compliance with numerous regulations can be difficult, any program that streamlines the regulatory process would very likely be adopted.

- The scheduling of collection days for hazardous household products, such as paints, pesticides, and cleaners, could mitigate publicly-owned treatment works and stormwater discharge concerns. Articles in the local papers and classes offered by community educational programs could increase public awareness on recycling, appropriate use of pesticides, waste minimization, and waste disposal. This measure could be implemented by the GLDC as part of a larger ongoing program aimed at integrated waste management by State, county, or local jurisdictions. The cost of implementing such a program depends on the nature and extent of the program. With implementation of an education and awareness program, this measure could be very effective and easy to implement.

### 4.3.2 Private Airfield Alternative

#### 4.3.2.1 Hazardous Materials Management

The Private Airfield Alternative would be almost identical to the Proposed Action in regards to the types of activities in the proposed land use areas. Therefore, the hazardous materials likely to be used for the activities associated with this alternative have been assumed to be the same as those described for the Proposed Action (Table 4.3-1). Due to the lower number of projected aircraft operations resulting from no commercial passenger services and fewer general aviation activities, the quantities of hazardous

materials would be lower overall. However, the specific chemical composition and exact use rates are not known. Otherwise, all RCRA reporting and mutual aid requirements would be the same as for the Proposed Action.

#### 4.3.2.2 Hazardous Waste Management

Reuse activities associated with the Private Airfield Alternative would result in an increase in the amount of hazardous waste generated. However, when compared to amounts generated by the Proposed Action, it is anticipated that overall quantities would be less due to generally fewer generating activities under the Private Airfield Alternative. The types of hazardous waste that would be generated would be generally the same as those for the Proposed Action. Similarly, hazardous waste management would become the responsibility of the new property recipients, and each generator of hazardous waste (i.e., owner/operator) would be required to obtain the appropriate permit(s) for the management of the wastestreams. Therefore, the Private Airfield would not result in any unacceptable impacts from the management of hazardous wastes.

#### 4.3.2.3 Installation Restoration Program Sites

The IRP sites within each land use area for the Private Airfield Alternative would be the same as those described in the Proposed Action. The Air Force would handle the disposition of airfield property under this alternative in accordance with the same policies for disposal and reuse of lands associated with IRP sites. Therefore, the Private Airfield Alternative would not result in any additional impacts beyond those anticipated in the Proposed Action.

#### 4.3.2.4 Storage Tanks and Oil/Water Separators

Aircraft flight and maintenance operations, as well as industrial and other land use activities similar or identical to the Proposed Action would require the use of both USTs and aboveground storage tanks under the Private Airfield Alternative. Reused and new USTs and aboveground storage tanks required by property recipients would be subject to all applicable Federal, State, and local regulations. USTs and associated piping that will not be used to support reuse activities will be removed in accordance with Air Force policy prior to property transfer. Aboveground fuel storage tanks not used to support reuse activities will be deactivated, purged of fumes to preclude fire hazards, and removed prior to property transfer. Oil/water separators not required for reuse activities will also be deactivated and removed by the Air Force before the property is transferred. Oil/water separators associated with either an above ground or below ground storage tank will be deactivated and removed in accordance with regulations that govern the specific storage tank. Any sludge and/or sediments found in the oil/water separator during the deactivation and removal activity will be disposed of in accordance with

RCRA. Those oil/water separators not associated with above or below ground tanks will be deactivated and removed using best engineering practices.

#### 4.3.2.5 Asbestos

With the Private Airfield Alternative, a number of buildings with ACM would be renovated for alternate uses or demolished for construction of new facilities. Such activities would be subject to all applicable Federal, State, and local regulations to minimize potential risks to human health and the environment, including compliance with the NESHAP for asbestos regulating emissions from renovation and demolition activities, and OSHA worker protection regulations. In addition, maintenance activities performed in buildings with ACM would be subject to the OSHA worker protection regulations. Air Force policy for disclosure and abatement of ACM would be the same as described for the Proposed Action (Appendix G).

#### 4.3.2.6 Pesticides

Pesticide use associated with this alternative would be the same as the Proposed Action. Pesticide use is expected to occur in landscaped areas associated with airfield, aviation support, industrial, and Public/recreational/open space land uses, and in and around buildings associated with such reuses. Management practices, including storage and use, would be subject to applicable Federal and State pesticide regulations; therefore, no unacceptable impacts should result.

#### 4.3.2.7 Polychlorinated Biphenyls

The airfield property will not contain any Federally-regulated PCB and PCB-contaminated equipment at the time of property transfer.

#### 4.3.2.8 Radon

Potential impacts due to radon would be the same as described in the Proposed Action. There are no existing or proposed residential structures within the airfield property. Therefore, no impacts from radon are expected in accordance with current Federal and State guidelines.

#### 4.3.2.9 Medical/Biohazardous Waste

Impacts related to medical/biohazardous wastes would be the same as that described for the Proposed Action. This waste would be managed in accordance with applicable Federal and State regulations.

#### 4.3.2.10 Ordnance

During a 1996 review of all written records associated with ordnance-related uses at Griffiss AFB, 55 possible sites on the base were located that warranted additional investigation. After site reconnaissances were performed, 11 sites were identified that required physical clearing of any possible ordnance. In 1998, these sites were cleared of any material that were ordnance related (Mark Rabe, AFBCA, personal communication, August 1998). Based on the past use of the airfield property, the possibility exists that undiscovered ordnance may exist. All reasonable precautions should be taken during any excavation in the event that ordnance is uncovered. If ordnance is discovered in areas previously unknown to the Air Force, disposal and reuse of the affected property may be delayed or limited. The affected area(s) would be subject to investigation and, if necessary, remediation.

#### 4.3.2.11 Lead

With the Private Airfield Alternative, a number of buildings with LBP would be renovated for alternate uses or demolished for construction of new facilities. Such activities would be subject to all applicable Federal, State, and local regulations to minimize potential risks to human health and the environment, including compliance with requirements of NYCCR Title 6, Part 371 for disposal of waste materials containing lead, and OSHA worker protection regulations. In addition, maintenance activities performed in buildings with LBP would be subject to the OSHA worker protection regulations.

It is Air Force policy to disclose to property recipients information regarding those structures with LBP, but not perform abatement of LBP, except in housing constructed prior to 1960 where children are likely to reside. No such housing is present within the airfield property. The Air Force policy for management of LBP at closing bases is presented in Appendix G.

#### 4.3.2.12 Cumulative Impacts

As with the Proposed Action, the Private Airfield Alternative in combination with future development at the Griffiss Business and Technology Park would result in potential cumulative impacts from hazardous materials and hazardous wastes. The extent of these cumulative impacts may be greater based on the type and extent of the reuse activities that may eventually occur. However, as long as future uses comply with applicable Federal, State, and local regulations pertaining to hazardous substance management, no unacceptable cumulative impacts would be expected to result from these cumulative actions.

#### 4.3.2.13 Mitigation Measures

Potential mitigation measures for the Private Airfield Alternative would be the same as described for the Proposed Action.

### 4.3.3 Nonaviation Alternative

#### 4.3.3.1 Hazardous Materials Management

Hazardous materials likely to be used for activities in the proposed land use areas with implementation of this alternative are listed in Table 4.3-3. The RCRA reporting requirements would be the same as described for the Proposed Action. Mutual aid agreements with surrounding jurisdictions may need to be revised and additional training of emergency response personnel may be required. With the closure of the airfield operations, hazardous materials used in airfield operations would not be generated with this alternative.

**Table 4.3-3**

**Hazardous Material Usage by Land Use Category - Nonaviation Alternative**

| Land Use | Operation/Process | Hazardous Materials |
|---|---|---|
| Industrial | Operations associate with light industry and warehousing | Fuels, solvents, paints, hydraulic fluids, degreasers, corrosives, catalysts, heavy metals, reactives, thinners, paints, glycols, ignitables, pesticides, heating oil |
| Manufacturing | Operations associated with manufacturing; maintenance; and; administrative services | Fuels, solvents, paints, hydraulic fluids, degreasers, corrosives, catalysts, heavy metals, reactives, thinners, paints, glycols, ignitables, pesticides, heating oil |
| Commercial (Office/R&D) | Activities associated with commercial office/R&D activities | Dry ink toners, solvents, cleaners, degreasers, adhesives, heating oil, pesticides. |
| Public/Recreational/ Open Space | Maintenance of grounds | Pesticides, fertilizers, paints, thinners, solvents |
| Agricultural | Growing of crops | Pesticides, herbicides, fungicides, fertilizers |

#### 4.3.3.2 Hazardous Waste Management

With disposal of portions of the base property, management of hazardous waste would be controlled by the property recipients. The proposed land use areas identified for the Nonaviation Alternative could be used for many types of industrial, manufacturing and commercial operations that have yet to be specifically defined. Activities associated with the Nonaviation Alternative would probably result in an increase in the amount of hazardous waste generated compared to the amount generated for the Proposed Action.

Although this alternative would have no airfield or aviation support related activities to generate hazardous waste, the extent of the proposed industrial, manufacturing, and commercial uses would result in more hazardous waste generation overall. However, this does not constitute an unacceptable impact, because all new owner/operators would be required to manage hazardous wastes in accordance with applicable regulations, and to obtain appropriate permits for generation and disposal of any hazardous wastes.

#### 4.3.3.3 Installation Restoration Program Sites

IRP remediation requirements may constrain the land uses proposed for this alternative. The location of IRP sites relative to the proposed land use areas for the Nonaviation Alternative is shown in Figure 4.3-2 and summarized in Table 4.3-4. More detailed IRP site profiles are provided in Appendix D. Some IRP sites may be located in more than one proposed land use area.

- **Industrial.** Five IRP sites are located in the proposed industrial area: two storage tank sites (ST-04 and ST-26), two spill sites (SS-25 and SS-46 [portion of site]), and one storm drainage site (SD-41).

- **Manufacturing.** Four IRP sites are located in the proposed manufacturing area: three storage tank sites (ST-06, ST-36, and ST-51), and one spill site (SS-24).

- **Commercial (Office/R&D).** One IRP sites is located in the proposed commercial area: one spill site (SS-46 [portion of site]).

- **Public/Recreational/Open Space.** Three IRP sites are located in the proposed public/recreational/open space area: one landfill site (LF-03), one fire training site (FT-30), one storm drainage site (SD-32 [portion of site]), and one fire training area (FT-48 [portion of site]).

- **Agricultural.** No IRP sites are located in this proposed land use category.

The extent of contamination, if any, for these sites will be determined. Remedial activities associated with these sites could cause delays in property disposal and possibly affect proposed land uses. Installation and use of long-term monitoring devices may delay or restrict reuse in some areas.

Determination of future base land uses will, to a certain extent, depend on regulatory review of the remedial design of the IRP sites. This review will identify current monitoring well locations and future land use limitations as a result of their presence. The regulatory review process would include notifying the EPA, NYSDEC, and local agencies (e.g., Oneida County) concerning the construction and locations of any monitoring wells.

#### 4.3.3.4 Storage Tanks and Oil/Water Separators

Potential impacts from storage tanks and oil/water separator would be similar to those described under the Proposed Action.

Storage tanks probably would be required to support reuse activities of the Nonaviation Alternative. The actual number and type of tanks or separators are not known. However, reused and new USTs and aboveground storage tanks required by property recipients would be subject to all applicable Federal, State, and local regulations. All tanks and separators that will not be used to support reuse activities with this alterative will be removed in accordance with Air Force policy prior to property transfer. Compliance with these policies and regulations would preclude any unacceptable impacts.

Oil/water separators associated with either an above ground or below ground storage tank will be deactivated and removed in accordance with regulations that govern the specific storage tank. Any sludge and/or sediments found in the oil/water separator during the deactivation and removal activity will be disposed of in accordance with RCRA. Those oil/water separators not associated with the above or below ground tanks will be deactivated and removed using best engineering practices.

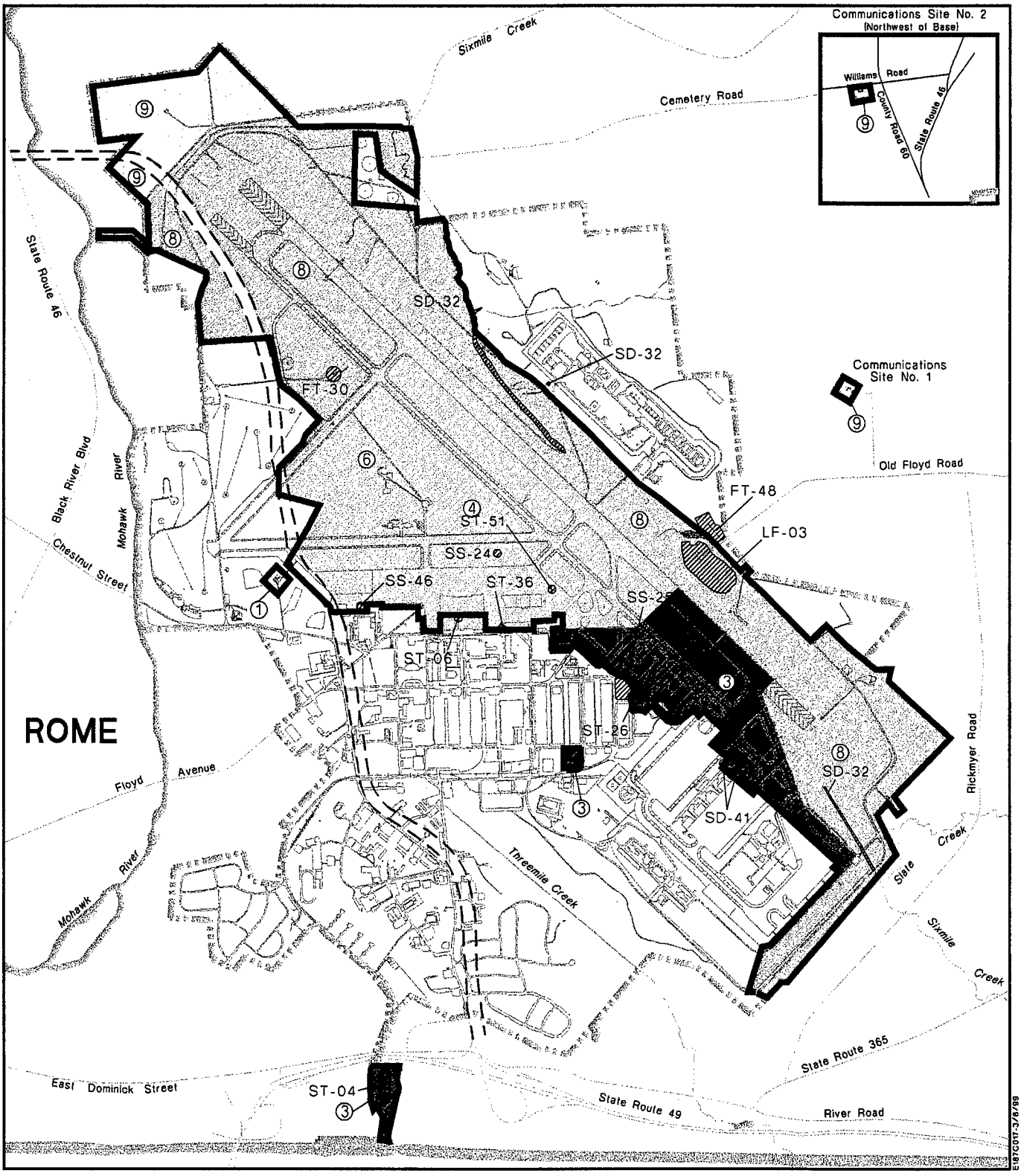
#### 4.3.3.5 Asbestos

With the Nonaviation Alternative, a number of buildings with ACM would be renovated for alternate uses or demolished for construction of new facilities. Such activities would be subject to all applicable Federal, State, and local regulations to minimize potential risks to human health and the environment, including compliance with the NESHAP for asbestos regulating emissions from renovation and demolition activities, and OSHA worker protection regulations. In addition, maintenance activities performed in buildings with ACM would be subject to the OSHA worker protection regulations.

It is Air Force policy to disclose to property recipients information regarding those structures with ACM, but not perform abatement of the asbestos, unless there is a health hazard. The Air Force policy concerning the management of asbestos at closing and realigning bases is presented in Appendix G.

#### 4.3.3.6 Pesticides

Pesticide use associated with this alternative would increase from amounts used under realignment baseline conditions. Pesticide use is expected to occur in landscaped areas associated with industrial, institutional, commercial, and Public/recreational/open space land uses, and in and around buildings associated with such reuses. Management practices, including storage and use, would be subject to applicable Federal and State pesticide regulations; therefore, no unacceptable impacts should result.




**LEGEND**

- ① Airfield
- ② Aviation Support
- ③ Industrial
- ④ Manufacturing
- ⑤ Institutional (Education & Medical)
- ⑥ Commercial (Office/R&D)
- ⑦ Residential
- ⑧ Public/Recreational
- ⑨ Agricultural
- IRP Site
- Base Boundary
- Airfield Property
- Proposed Parkway Corridor

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# Nonaviation Alternative With IRP Sites

**Figure 4.3-2**

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Table 4.3-4

Installation Restoration Program Sites Within Land Use Areas- Nonaviation Alternative

| Proposed Land Use | IRP Sites |
|---|---|
| Industrial | Bulk Fuel Storage Area - Barge Canal (ST-04), T9 Storage Area (SS-25), Building 43 - Refueling Station (ST-26), Glycol Storage/Use Areas (SS-46 [portion of site]), and Building 782 - Nose Docks 1 & 2 (SD-41). |
| Manufacturing | Building 101 - Yellow Submarine and Disposal Pit (ST-06), Fire Demonstration Area (SS-24), Building 110 - Aqua Refueling System (ST-36),and Building 100 Fuel Hydrant System (ST-51). |
| Commercial (Office/R&D) | Glycol Storage/Use Areas (SS-46 [portion of site]). |
| Public/Recreational/Open Space | Landfill No. 7 (LF-03), Fire Protection Training Area (FT-30); Six mile Creek and Weapons Storage Area Lagoon (SD-32 [portion of site]) and Fire Training Site (FT-48 [portion of site]). |
| Agricultural | No IRP Sites. |

#### 4.3.3.7 Polychlorinated Biphenyls

The airfield property will not contain any Federally-regulated PCB and PCB-contaminated equipment at the time of property transfer.

#### 4.3.3.8 Radon

It is Air Force policy to disclose to property recipients information regarding those structures with radon levels measured above the recommended EPA mitigation threshold (i.e., greater than 4 pCi/l of air), but not undertake measures to reduce the radon levels. Reuse of these structures with this alternative, particularly those used as residences, may require implementation of appropriate measures to reduce radon levels to below the recommended threshold. There are no existing or proposed residential structures within the airfield property. Currently, no radon exposure guidelines or action levels have been established by Federal or State regulatory agencies for buildings other than schools or residences.

#### 4.3.3.9 Medical/Biohazardous Waste

The Air Force has removed all medical/biohazardous waste from the airfield property. No reuses are planned under the Nonaviation Alternative which would result in the generation of medical/biohazardous waste by recipients of the airfield property.

#### 4.3.3.10 Ordnance

During a 1996 review of all written records associated with ordnance-related uses at Griffiss AFB, 55 possible sites on the base were located that warranted additional investigation. After site reconnaissances were performed, 11 sites were identified that required physical clearing of any possible ordnance. In 1998, these sites were cleared of any material that

were ordnance related (Mark Rabe, AFBCA, personal communication, August 1998). Based on the past use of the airfield property, the possibility exists that undiscovered ordnance may exist. All reasonable precautions should be taken during any excavation in the event that ordnance is uncovered. If ordnance is discovered in areas previously unknown to the Air Force, disposal and reuse of the affected property may be delayed or limited. The affected area(s) would be subject to investigation and, if necessary, remediation.

#### 4.3.3.11 Lead

With the Nonaviation Alternative, a number of buildings with LBP would be renovated for alternate uses or demolished for construction of new facilities. Such activities would be subject to all applicable Federal, State, and local regulations to minimize potential risks to human health and the environment, including compliance with requirements of NYCCR Title 6, Part 371 for disposal of waste materials containing lead, and OSHA worker protection regulations. In addition, maintenance activities performed in buildings with LBP would be subject to the OSHA worker protection regulations.

It is Air Force policy to disclose to property recipients information regarding those structures with LBP, but not perform abatement of LBP, except in housing constructed prior to 1960 where children are likely to reside. No such housing is present within the airfield property. The Air Force policy for management of LBP at closing bases is presented in Appendix G.

#### 4.3.3.12 Cumulative Impacts

As with the Proposed Action, the Nonaviation Alternative, in combination with future development at the Griffiss Business and Technology Park, would result in potential cumulative impacts from hazardous materials and hazardous wastes. The extent of these cumulative impacts may be greater based on the type and extent of the reuse activities that may eventually occur. However, as long as future uses comply with applicable Federal, State, and local regulations pertaining to hazardous substance management, no unacceptable cumulative impacts would be expected to result from these cumulative actions.

#### 4.3.3.13 Mitigation Measures

The potential mitigation measures for the Nonaviation Alternative would be the same as those described for the Proposed Action.

### 4.3.4 No-Action Alternative

#### 4.3.4.1 Hazardous Materials Management

With the No-Action Alternative, hazardous materials will be used for facility and grounds caretaker maintenance activities. Materials used for these activities would include pesticides, fuels, paints, and corrosives. The Air Force and other retained DOD organizations will be responsible for management of hazardous materials in accordance with applicable Federal and State regulations.

#### 4.3.4.2 Hazardous Waste Management

Except for those required by the Air Force and other DOD organization remaining at the base, all hazardous waste accumulation and satellite accumulation points will be closed and the waste disposed of through the Defense Reutilization and Marketing Office (DRMO) prior to base realignment. Management of hazardous waste generated by the retained organizations (including caretaker personnel) will be managed in accordance with applicable Federal and State regulations. The small amount of hazardous waste that would be generated with the No-Action Alternative may enable the Air Force to become an exempt, small-quantity generator.

#### 4.3.4.3 Installation Restoration Program Sites

Ongoing sampling and remedial design activities will be continued by individual IRP contractors. The Air Force would support the utility requirements for these contractors and provide security for the areas.

#### 4.3.4.4 Storage Tanks and Oil/Water Separators

All USTs will be removed in accordance with Air Force policy, except those, if any, required for caretaker activities or activities of DOD organizations at the base following realignment. Aboveground storage tanks not required for post-realignment activities will be deactivated, purged of fuel fumes to preclude fire hazards, and removed, as required. The NYSDEC has the discretion to order the removal of tanks that are out of service. All oil/water separators not required for post-realignment activities will be deactivated and removed. Oil/water separators associated with either an above ground or below ground storage tank will be deactivated and removed in accordance with regulations that govern the specific storage tank. Any sludge and/or sediments found in the oil/water separator during the deactivation and removal activity will be disposed of in accordance with RCRA. Those oil/water separators not associated with above or below ground tanks will be deactivated and removed using best engineering practices.

#### 4.3.4.5 Asbestos

Impacts resulting from the No-Action Alternative would be minimal. Vacated buildings will be secured to prevent contact with ACM. ACM will continue to be managed in a manner to ensure a safe site condition.

#### 4.3.4.6 Pesticides

With the No-Action Alternative, the grounds will be maintained in such a manner as to facilitate economic resumption of use. There will be an appreciable decrease in the use of pesticides compared to pre-realignment baseline conditions or the Proposed Action. Management practices, including use and storage, will be subject to applicable Federal and State regulations to ensure the proper and safe handling and application of all chemicals.

#### 4.3.4.7 Polychlorinated Biphenyls

Federally-regulated PCB and PCB-contaminated equipment remaining on the base following realignment will be managed in accordance with Federal and State regulations.

#### 4.3.4.8 Radon

Although there are structures on the base with radon levels measured above the recommended EPA mitigation threshold (i.e., greater than 4 pCi/l of air), no measures will be undertaken to reduce the radon levels under the No-Action Alternative. None of these structures will be used by Air Force or other DOD organizations remaining at the base following realignment.

#### 4.3.4.9 Medical/Biohazardous Waste

As medical services are not provided within the airfield property, no impacts are expected with the No Action alternative.

#### 4.3.4.10 Ordnance

During a 1996 review of all written records associated with ordnance-related uses at Griffiss AFB, 55 possible sites on the base were located that warranted additional investigation. After site reconnaissances were performed, 11 sites were identified that required physical clearing of any possible ordnance. In 1998, these sites were cleared of any material that were ordnance related (Mark Rabe, AFBCA, personal communication, August 1998). Based on the past use of the airfield property, the possibility exists that undiscovered ordnance may exist. All reasonable precautions should be taken during any excavation in the event that ordnance is uncovered. If ordnance is discovered in areas previously unknown to the Air Force, disposal and reuse of the affected property may be delayed or limited. The

affected area(s) would be subject to investigation and, if necessary, remediation.

#### 4.3.4.11 Lead

Impacts resulting from the No-Action Alternative would be minimal. Vacated facilities will be secured to prevent contact with LBP. LBP would continue to be managed to ensure a safe site condition. Management of LBP will be done in accordance with applicable Federal and State regulations, including compliance with requirements of NYCCR Title 6, Part 371 for disposal of waste materials containing lead, and OSHA worker protection regulations. In addition, maintenance activities performed in buildings with LBP would be subject to the OSHA worker protection regulations.

#### 4.3.4.12 Cumulative Impacts

With the No-Action Alternative, future development at the Griffiss Business and Technology Park would continue as planned. These developments would consume, process, dispose, or otherwise handle a variety of hazardous substances.

#### 4.3.4.13 Mitigation Measures

With the No-Action Alternative, the Air Force will be responsible for the management of hazardous materials and waste. Contingency plans developed to address spill response would be less extensive than those required for the Proposed Action or other reuse alternatives. Implementation of such procedures could effectively mitigate any potential impacts associated with the No-Action Alternative.

## 4.4 NATURAL ENVIRONMENT

This section describes the potential effects of the Proposed Action and alternatives on soils and geology, water resources, air quality, noise, biological resources, and cultural and paleontological resources in the Griffiss AFB area and the surrounding region.

### 4.4.1 Soils and Geology

The potential effects of the Proposed Action and reuse alternatives on local soils and geology, as well as the potential constraints imposed by geological and soil conditions on activities of the Proposed Action and alternatives, have been analyzed based on a review of published literature.

Measures that are clearly required by law or are standard industry practices are described below. These measures were taken into account in the assessment of the impacts.

- Add protective covering such as mulch, straw, or other material (tacking will be required);
- Limit the amount of area disturbed and the length of time slopes and barren ground are left exposed;
- Stockpile topsoil from construction areas and later spread in areas where Proposed Action activities have disturbed the soil profile;
- Construct diversion dikes and interceptor ditches to divert water away from construction areas;
- Install slope drains (conduits) and/or water velocity-control devices to reduce concentrated high-velocity streams from developing;
- Control dust and reduce wind erosion through sprinkling; and
- After construction, control long-term erosion by revegetation.

Standard practices will be followed to minimize problems associated with soil properties and seismic activity. Appropriate engineering practices, such as stronger foundations and deeper pilings, would reduce the effect of the shrinking and swelling of soils if test borings indicate that soils of this nature are present. Compliance with the Uniform Building Code design standards will diminish the effects of any seismic activities and liquefaction on structures. New construction and retrofitting of structures would follow current seismic codes for seismic risk zone 1.

#### 4.4.1.1 Proposed Action

Effects of the Proposed Action on regional soils and geology would be minimal. Effects on local soils and geology would result primarily from construction activities associated with the Proposed Action. Soil profiles and local topography have been altered by past construction activities, and the airfield property is now mapped as urban land. Acreage to be disturbed with the Proposed Action by land use category by the years 2001, 2006, and 2016 is presented in Chapter 2.0 (Table 2.2-3). A total of 26 acres would be disturbed by 2016.

No significant change is expected in the supply or quality of mineral resources as a result of the Proposed Action. Consumption of sand and gravel used for construction of new facilities and roadways would not reduce the availability of these materials from local suppliers. Adequate supplies are available in the ROI, and the quantities used relative to the amount available would not be significant. No earth resources on the airfield property would be extracted or covered as a result of the Proposed Action.

Because the airfield property lies in an area of infrequent seismic activity, little or no damage is expected from earthquakes. No impacts are anticipated from seismic events.

There are no significant limiting factors in terms of subsidence, slope stability, or shrink-swell potential of soils in the areas considered for the Proposed Action. Steep slopes (>10 %) are present in portions of the airfield property, but only along ridges or parallel to streams. Because no steep slopes are present where construction is anticipated, no impacts are expected. The shrink-swell potential of all the soils is low; however, the limitations of most of the soils must be considered because of their wetness and the high water table. In addition, some soils are limited by caving, ponding, or frost action.

Demolition or removal of existing structures may expose soils. In many cases, however, the soils have already been disturbed. Topsoil may have been removed, or infilling on top of an undisturbed soil may have buried the topsoil. Any ground exposed in demolition or removal could be disturbed to some extent and be susceptible to erosion. New construction on the sites of existing demolished structures would be unlikely to cause further disturbance unless there is deeper excavation. New construction where soil profiles are intact would disturb soils at the building sites, including the construction laydown areas. This disturbance may include grading, excavation, infilling, or removal of topsoil. Removal of vegetation during the demolition and construction period could increase the potential for erosion.

The erosion potential of soils over most of the area to be affected by the Proposed Action is low. Soils with high erosion potential are limited in extent and are present only in areas that are undeveloped. Soil losses from erosion are not expected to be significant, because they can be kept well within maximum tolerable limits by using standard treatments for controlling erosion.

Soils classified as prime farmland make up part of the areas proposed for public/recreational/open space use. This land use category, as part of the Proposed Action, is open space uses and would not require conversion of prime farmland.

**Cumulative Impacts.** The Proposed Action would be constructed over the same development time frame as the Griffiss Business and Technology Park on land within the former Griffiss AFB. Construction of this project in combination with the Proposed Action would result in cumulative impacts to local soils because of temporary ground disturbance activities during construction. The Griffiss Business and Technology Park is projected to disturb about 310 acres by 2016. The cumulative effect would be a total land disturbance of about 336 acres over the 20 years of development. With the use of standard construction methods to control erosion, the cumulative impacts to soils would be minimized (see required mitigations).

Prime farmland along the parkway corridor would be disturbed by grading, compacting, and road construction along a 250-foot-wide route. This route crosses approximately 5,600 feet of prime farmland, 3,750 feet of which lies along the airfield property. Acreage to be converted is shown in Table 4.4-1.

**Table 4.4-1**

**Soil Series, Estimated Acreage, and Status of Farmland to be Converted With the Proposed Action**

| Soil Series | Acreage to be Converted | Farmland Status |
|---|---|---|
| Alton gravelly loam | 8 on-airfield property | Prime Farmland |
| Alton gravelly loam | 2 off-airfield property | Prime Farmland |
| Total: | 10 | |

Source: U.S. Department of Agriculture 1993.

Conversion of prime or unique farmland would require coordination with the local Natural Resources Conservation Service (NRCS) district office, which would determine the severity of the loss. U.S. Department of Agriculture Form AD-1006, Farmland Conversion Impact Rating, must be completed by the proponent and the NRCS.

**Potential Mitigation Measures.** The project design and construction methods should adequately mitigate potential impacts on soils and geology; therefore, no additional mitigation measures have been identified.

#### 4.4.1.2 Private Airfield Alternative

Effects of the Private Airfield Alternative on regional soils and geology would be similar to those described for the Proposed Action. Effects on local soils and geology would result primarily from construction activities and would be similar to those described for the Proposed Action. Soil profiles and local topography have been altered by past construction activities, and the airfield property is now mapped as urban land. Acreage to be disturbed with the Private Airfield Alternative is presented in Chapter 2.0 (Table 2.2-3). A total of 23 acres would be disturbed with this alternative.

Soils classified as prime farmland make up part of the areas proposed for public/recreational/open space use. This land use category would not require conversion of prime farmland because it would be open space.

**Cumulative Impacts.** The Private Airfield Alternative would be constructed over the same development time frame as the Griffiss Business and Technology Park on land within the former Griffiss AFB. Construction of this project in combination with the Private Airfield Alternative would result in cumulative impacts to local soils because of temporary ground disturbance activities during construction. The cumulative effect would be a total land disturbance of about 336 acres over the 20 years of development. With the

use of standard construction methods to control erosion, the cumulative impacts to soils would be minimized.

Prime farmland along the parkway corridor would be disturbed by grading, compacting, and road construction along a 250-foot-wide route. This route crosses approximately 5,600 feet of prime farmland, 3,750 feet of which lies along the airfield property. Acreage to be converted would be the same as for the Proposed Action (Table 4.4-1).

**Mitigation Measures.** Mitigation measures would be the same as those described for the Proposed Action.

#### 4.4.1.3 Nonaviation Alternative

Effects of the Nonaviation Alternative on regional soils and geology, as well as impacts of geological and soil conditions on project activities, would be similar to those described for the Proposed Action.

The total amount of land disturbed by construction and demolition with this alternative would be 60 acres, or 143 percent greater than the amount that would be disturbed with the Proposed Action. Almost three times the acreage in the industrial area would be disturbed by demolition and construction with this alternative than with the Proposed Action. Minimal public/recreational/open space, and no agricultural land would be disturbed with this alternative (Table 2.3-8).

**Cumulative Impacts.** Cumulative impacts on geology and soils anticipated as a result of the Nonaviation Alternative would be similar to the Proposed Action, with the exception that total ground disturbance activities is expected to be 370 acres. However, like the Proposed Action, the application of standard construction practices would minimize any cumulative impacts to soils and geology.

Prime farmland along the parkway corridor would be disturbed by grading, compacting, and road construction along a 250-foot-wide route. This route crosses approximately 5,600 feet of prime farmland, 3,750 feet of which lies along the airfield property. Acreage to be converted would be the same as for the Proposed Action (Table 4.4-1).

**Mitigation Measures.** Mitigation measures for the Nonaviation Alternative would be the same as those described for the Proposed Action.

#### 4.4.1.4 No-Action Alternative

No impacts to soils and geology of the airfield property and the surrounding region are expected with the No-Action Alternative. No cumulative impacts would result, and no mitigation measures would be required. The

construction activities associated with this alternative would be minimal or nonexistent and restricted to caretaker maintenance or IRP activities.

### 4.4.2 Water Resources

The following section describes the potential impacts on water resources as a result of the Proposed Action and reuse alternatives. Construction activities could alter soil profiles and natural drainages, which may temporarily alter water flow patterns. Impacts on water quality from hazardous waste contamination are addressed in Section 4.3, Hazardous Materials and Hazardous Waste Management.

Measures that are clearly required by law or are standard industry practices are described below. These measures were taken into account in the assessment of the impacts.

- Establish engineered drainage systems, either existing or newly built, in areas of new construction, so that surface runoff causes minimum erosion or ponding and provides a level of discharge into streams and wetlands that would maintain water levels and through-flows at optimum conditions of equilibrium;
- Minimize areas of surface disturbance;
- Control site runoff by dikes, diversion channels, or impoundment basins;
- Maintain all existing diversion channels to prevent flooding, both on and offsite;
- Minimize time that disturbed areas are exposed to erosion;
- Schedule surface-disturbing activities during dry seasons;
- Provide regular street sweeping to reduce sediment;
- Create landscaped areas that allow infiltration of surface water; and
- Provide an approved wastewater collection and disposal system during both construction and operation periods. This will include installation or maintenance of existing oil-water separators for facilities where there is a possibility of fuel or oil entering water to be discharged to the stormwater or sanitary sewer systems.

The Proposed Action and alternatives would be unlikely to affect water quality because implementation of these measures (and other site-specific measures if identified during construction) should reduce the probability of sedimentation and contaminant release.

#### 4.4.2.1 Proposed Action

**Surface Water.** With the Proposed Action, soils would be compacted during new construction and overlain by pavement or buildings, creating new impervious surfaces that would cause increased storm water runoff to local storm sewers and sewage systems. Drainage would be altered to divert water away from facilities and paved areas. Storm water discharge from nonpoint sources, especially the airfield aviation support and industrial areas, may contain fuels, oils, and other residual contaminants, which could degrade the quality of surface water. If uncontrolled, runoff from nonpoint sources could cause increased sediment loads in drainage systems and adjacent streams.

It is not anticipated, however, that there would be any significant hydrological changes or effects on surface water as a result of the Proposed Action. Threemile Creek lies outside the airfield property and would not be affected by activities of the Proposed Action except that it would receive runoff from adjacent industrial and aviation support areas. The diverted segment of Sixmile Creek near the north end of the runway lies partly in the airfield area and partly in the proposed public/recreational/open space area. The flow patterns and discharges of Threemile Creek and Sixmile Creek would not be changed from the present conditions as a result of the Proposed Action. There would be no increase in the amount of sediment entering these streams if adjacent areas were vegetated and stormwater flows were controlled. Similarly, hydrologic conditions in wetlands, including those associated with the streams, are expected to be unaffected by the Proposed Action.

With the Proposed Action, all water would continue to be supplied by the City of Rome system. No water would be withdrawn from the Mohawk River or other surface waters, either on the base or the area immediately surrounding it.

There are no flood hazards in any of the areas covered by the Proposed Action, except for a very small portion of the airfield property in the northwest corner lying within the floodplain of the Mohawk River. However, no construction or other change in conditions is proposed on the 100-year floodplain. Therefore, no impacts would be incurred by flooding.

Disposal by the Air Force of property which includes a floodplain requires a series of procedures outlined in Executive Order 11988 and Air Force Instruction (AFI) 32-7060 prior to project implementation, including identification of impact minimization measures, consideration of alternatives to the action, and public notices and reviews. The Air Force would implement these steps as part of the disposal process. In accordance with Executive Order 11988, the Air Force must disclose Federal, State, and local regulations and restrictions affecting future use of the floodplains to the new

property owner and identify any additional restrictions on the property, or withhold the property from disposal.

The project may be subject to National Pollutant Discharge Elimination System (NPDES) permit requirements for storm water discharges during the demolition and construction period. This provision is contained in the NPDES Permit Application Regulations for Storm Water Discharges issued by the Environmental Protection Agency as a final rule on November 16, 1990. A Stormwater Pollutant Discharge Elimination System (SPDES) permit would also be required for point source discharges at facilities where pollutants may be discharged into the stormwater system. Outfalls from these discharges would be monitored as required under the permit. Discharges to the Rome sanitary sewer system would be in accordance with the regulations of the City of Rome.

**Groundwater.** No groundwater would be withdrawn for use on the airfield property or in the ROI as a result of the Proposed Action. No impacts to the groundwater flow system or to groundwater quality that would result from the Proposed Action are anticipated. Remediation of possible groundwater contamination from past activities would be addressed with the IRP. Small amounts of contaminated water may be withdrawn as part of the cleanup process. These amounts would not have a significant impact on the water table. Location and construction of new facilities in any reuse area would have to consider the presence of IRP sites and restoration activities which may be ongoing or anticipated. The IRP is discussed in further detail in Section 4.3, Hazardous Materials and Hazardous Waste Management.

**Offsite Impacts.** With the implementation of appropriate control measures, none of the activities associated with the Proposed Action are anticipated to have impacts on surface water or groundwater off the airfield property.

**Cumulative Impacts.** Future development in Rome and the surrounding region may temporarily increase sediment loads to local waterways, particularly the New York State Barge Canal and the Mohawk River. Projects in the surrounding region include the development of the Griffiss Business and Technology Park. Development of the Griffiss Business and Technology Park includes the construction of a parkway. A portion of the parkway, located outside the boundaries of both the airfield property and the Griffiss Business and Technology Park, includes the construction of a bridge across the Mohawk River, which would cause disturbance of the river banks and stream bed. The width of the 100-year floodplain at the proposed crossing is 850 feet, and the width of the river and floodway is about 230 feet. Therefore, the amount of disturbance caused by construction of footings, piers, and approaches could cause temporary sediment loads to enter the river. The amount of sediment would depend on the design of the bridge and construction methods. Control measures should be used to keep sedimentation to a minimum.

**Potential Mitigation Measures.** The project design and construction methods should adequately mitigate potential water resource related impacts; therefore, no mitigation measures would be needed.

#### 4.4.2.2 Private Airfield Alternative

**Surface Water.** With the Private Airfield Alternative, effects on surface water quality and hydrology would be similar to those described for the Proposed Action. The level of impact, however, would be slightly less because fewer acres would be disturbed with this alternative.

This alternative may be subject to NPDES and SPDES permit requirements, as described for the Proposed Action.

**Groundwater.** No groundwater would be withdrawn for use on the airfield property, or in the ROI as a result of the Private Airfield Alternative. No impacts to the groundwater flow system or to groundwater quality would result from the Private Airfield Alternative. Remediation of possible groundwater contamination from past activities would be addressed with the IRP.

**Offsite Impacts.** With the implementation of appropriate control measures, none of the activities associated with the Private Airfield Alternative are anticipated to have impacts on surface water or groundwater off the airfield property.

**Cumulative Impacts.** Cumulative impacts associated with the Private Airfield Alternative, the Griffiss Business and Technology Park and the Mohawk River bridge would be similar to those described for the Proposed Action.

**Mitigation Measures.** Mitigation measures would be the same as those described for the Proposed Action.

#### 4.4.2.3 Nonaviation Alternative

**Surface Water.** Effects of the Nonaviation Alternative on regional surface water resources would be negligible. As with the Proposed Action, no impacts to surface water hydrology are anticipated. The Nonaviation Alternative does not designate areas for airfield or aviation support uses. The lack of these operations and the contaminants associated with them should contribute to improved downstream surface water quality. However, there is more area designated for industrial, manufacturing, and commercial uses with this alternative. With the development of these areas there would be more temporary construction disturbance and more paved surfaces than with the Proposed Action. Sedimentation from construction and possible contaminant release from storm water drainage on paved surfaces should be controlled with the appropriate mitigation measures.

**Groundwater.** No groundwater would be withdrawn from the airfield property or the ROI as a result of the Nonaviation Alternative. No impacts to the groundwater flow system or to groundwater quality would result from the Nonaviation Alternative. Remediation of possible groundwater contamination from past activities would be addressed with the IRP. Small amounts of contaminated water may be withdrawn as part of the cleanup process. These amounts would not have a significant impact on the water table.

**Cumulative Impacts.** Cumulative impacts associated with the Nonaviation Alternative on water resources in the region are the same as those associated with the construction of the bridge across the Mohawk River described in the Proposed Action. Future development in Rome and the surrounding region may temporarily increase sediment loads to local waterways, particularly the New York State Barge Canal and the Mohawk River. Other projects in the surrounding region include the development of the Griffiss Business and Technology Park. These impacts would be similar to those described in the Proposed Action. The level of impact would be slightly greater because more land would be disturbed and more paved surfaces would be created with this alternative. However, no significant impacts are anticipated. No other cumulative impacts to water resources are anticipated.

**Mitigation Measures.** Mitigation measures for the Nonaviation Alternative are the same as those described for the Proposed Action.

#### 4.4.2.4 No-Action Alternative

The No-Action Alternative would result in no major new impacts on the water resources of the airfield property area and the surrounding region. The No-Action Alternative would have positive effects on surface water and groundwater quality. With very limited operations and no increase in population, water demands resulting from caretaker and retained government organization activities would be minimal and could be supplied by existing systems. No cumulative impacts would result, and no mitigation measures would be required. Construction activities associated with this alternative would be minimal or non-existent and restricted to maintenance of IRP activities.

### 4.4.3 Air Quality

Air quality impacts could occur during construction and operations associated with the Proposed Action and alternatives for the reuse of the airfield property at Griffiss AFB. Intermittent construction-related impacts could result from fugitive dust (particulate matter) and construction equipment emissions. Operational impacts could occur from mobile sources such as aircraft, aircraft operation support equipment, commercial transport vehicles, and personal vehicles.

The method selected to analyze impacts depends upon the type of air emission source being examined. Because construction emissions are generally considered temporary and not subject to air quality regulations, analyses are limited to estimating the amount of uncontrolled fugitive dust that may be emitted from disturbed areas. Analysis for point source and secondary source emissions consists of quantifying the project-related emissions and evaluating how those emissions would affect progress toward attainment or maintenance of the National Ambient Air Quality Standards (NAAQS). The ambient effects of aircraft and related vehicular emissions are analyzed by modeling. The Emissions and Dispersion Modeling System, Version 3.0 (EDMS) is used to simulate the dispersion of emissions from airport operations (CSSI 1997). EDMS was developed jointly by the FAA and the U.S. Air Force specifically for the purpose of generating airport and airbase emission inventories and to calculate the concentrations caused by these emissions as they disperse downwind. The model is run in a screening mode using an array of 1-hour worst-case meteorological conditions.

The following assumptions were made in estimating the effects of the Proposed Action and alternatives:

- EDMS was used to calculate the emissions for all airport operations. Aircraft types and operations are shown in Appendix I;

- Motor vehicle emissions were estimated from the number of vehicle trips generated by each alternative. Average trip length was assumed to be 12 miles. Emission factors were obtained from the EPA Mobile Source Emission Factor Model 5a (U.S. Environmental Protection Agency 1993); and

- Exhaust emissions from construction equipment were developed from construction equipment scenarios with estimates of the types and numbers of construction equipment used daily during the construction period.

Air quality analysis is presented for the Proposed Action and alternatives through 2016. The effects of the 1990 Clean Air Act (CAA) Amendments, such as electric and other low emission vehicle ownership percentages, cannot be accurately predicted very far into the 21st century. Therefore, uncertainties of long-range population and traffic projections, future CAA changes, and the complex interaction of meteorology with emission inventories makes a 15-year emission and air quality projection somewhat speculative.

The process by which a regulatory agency permits major new stationary sources or modifications of existing sources depends on the attainment status of the source location. In an area meeting the NAAQS, such as Griffiss AFB, the process is called Prevention of Significant Deterioration

(PSD). The PSD process requires that Best Available Control Technology be installed and it limits the allowable ambient impact of emissions to specific increments as shown in Chapter 3.0, Section 3.4.3, Table 3.4-5. The increments are designed to prevent significant degradation of the area's acceptable air quality.

Additionally, as described in Section 3.4.3, Air Quality, by 2000, most medium- and large-sized sources of hazardous air pollutants (HAPs) generated by potential reuse at Griffiss AFB would be required to follow U.S. EPA regulations that will control HAPs emissions. Because details about the specific type of industrial activities to be conducted under the reuse proposals are unknown, it is not possible to develop any inventory of HAP emissions for this analysis.

Measures that are clearly required by law or are standard industry practices are described below. These measures were taken into account in the assessment of the impacts.

- Implement standard construction practices for dust control during demolition and construction; and

- Control combustive emission impacts by efficient scheduling of equipment use, implementing a phased construction schedule to reduce the number units operating simultaneously, and performing regular vehicle engine maintenance.

#### 4.4.3.1 Proposed Action

Total estimated emissions of the Proposed Action are presented in Table 4.4-2 for the years 2001, 2006, and 2016. The EDMS model uses EPA aircraft emission factors and information on peak and annual landing and takeoff (LTO) cycles to produce an emissions inventory report for the aircraft operations. Emissions for all other categories of emissions were calculated as described in Appendix I.

**Construction.** Fugitive dust and combustion emissions would be generated during construction activities associated with airfield, aviation support, industrial, and public/recreational/open space land uses. These emissions would be greatest during demolition, site clearing, and grading activities.

The largest amount of land disturbance would occur between 1999 and 2001. Construction on the airfield property at Griffiss AFB for the Proposed Action would disturb approximately 16 acres during this period. Assuming the construction would be completed in 12 months, the average monthly acreage disturbed over this period would be about 1.3 acres. Therefore, unmitigated particulate matter would be emitted at an average rate of about 0.78 ton per month of $PM_{10}$. However, the elevated concentrations would be a temporary effect that would decrease rapidly with distance.

**Operations.** Total estimated emissions associated with operations with the Proposed Action for the years 2001, 2006, and 2016 are shown in Table 4.4-2. Potential impacts to air quality as a result of air emissions from the operations with the Proposed Action were evaluated in terms of regional and local spatial scales. The regional-scale analysis considered the potential for project emissions to cause or contribute a nonattainment condition in the ROI. The local-scale analysis evaluated the potential impact to ambient air quality concentrations in the immediate vicinity of the base.

**Regional Scale.** Emissions resulting from the implementation of the Proposed Action would have little effect on the pollution burden in the ROI. As shown in Table 4.4-2, percentage increases in Oneida County emissions would reach a maximum of about 1 percent by 2016. The increase shown in Table 4.4-2 is a worst-case scenario. It is potentially greater than would actually occur because these emission increases would be partially offset by the closure of the Oneida County Airport.

Because the existing background pollutant concentrations in the ROI are well below the NAAQS and New York State AAQS (NYSAAQS) (Table 4.4-3), these small increases in pollutant emissions would not cause violations of the ambient standards.

**Local Scale.** The local-scale analysis was performed with the EDMS model. Peak-hour scenarios for emissions from proposed airfield operations were modeled. A variety of worst-case meteorological conditions, which combined 2.0-meter-per-second wind speed with F stability class and 4.0-meter-per-second wind speed with D stability class, were used as input in conjunction with 36 wind directions. EPA conversion factors were used to convert the model-predicted 1-hour impact results to conservative screening-level estimates of longer averaging period concentrations (U.S. Environmental Protection Agency 1977). The actual long-term averages would be less than the values produced by use of the conversion factors. A summary of the EDMS analysis is presented in Table 4.4-3.

The results show that for a peak-hour airport operation scenario, the maximum 1-hour pollutant concentration would occur on an airport roadway located approximately 1,200 feet downwind from the northern end of Runway 15/33. The primary contributing factor would be aircraft exhaust emitted while the aircraft are in a queue, awaiting takeoff. As shown in Table 4.4-3, the addition of Proposed Action pollutant concentrations to the background concentrations produce total concentrations well below the national and state ambient air quality standards. The modeling results indicate that no local ambient pollutant concentrations produced by emissions from the Proposed Action would cause the NAAQS/NYSAAQS to be exceeded. Thus, the attainment status of the local area would be maintained.

**Table 4.4-2**

**Pollutant Emissions Associated With the Proposed Action (tons per day)**

| Pollutant | Oneida County Emission Inventory[1] | Proposed Action Emissions[2] | | | Percent Increase in County Emissions | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 |
| $NO_x$ | 26.6 | 0.162 | 0.225 | 0.238 | 0.61 | 0.85 | 0.89 |
| VOC | 37.0 | 0.133 | 0.211 | 0.215 | 0.36 | 0.57 | 0.58 |
| $PM_{10}$ | 35.8 | 0.042 | 0.019 | 0.012 | 0.12 | 0.05 | 0.03 |
| CO | 163.3 | 0.754 | 1.394 | 1.505 | 0.46 | 0.85 | 0.97 |
| $SO_x$ | 9.8 | 0.011 | 0.010 | 0.009 | 0.11 | 0.10 | 0.09 |

Notes: [1]1988 Emission Inventory
[2]See Appendix I for emission information by source category.

**Table 4.4-3**

**Air Quality Modeling Analysis of the Airport and Vicinity**
**Proposed Action**
**($\mu g/m^3$)**

| Pollutant | Averaging Time | Project Impact 2001 | Project Impact 2006 | Project Impact 2016 | Background Concentrations | Total Concentrations 2001 | Total Concentrations 2006 | Total Concentrations 2016 | NAAQS/ NYSAAQS |
|---|---|---|---|---|---|---|---|---|---|
| CO | 8-hour | 119 | 137 | 129 | 7,440 | 7,559 | 7,577 | 7,569 | 10,000 |
| | 1-hour | 943 | 1,081 | 839 | 11,560 | 12,503 | 12,641 | 12,399 | 40,000 |
| $SO_2$ | annual | 0.10 | 0.12 | 0.11 | 10 | 10.1 | 10.1 | 10.1 | 80 |
| | 24-hour | 0.38 | 0.46 | 0.43 | 45 | 45.4 | 45.5 | 45.4 | 365 |
| | 3-hour | 2.09 | 2.53 | 2.36 | 94 | 96.1 | 96.5 | 96.4 | 1,300 |
| $NO_2$ | annual | 1.47 | 2.79 | 2.91 | 19* | 20.5 | 21.7 | 21.9 | 100 |
| $PM_{10}$ | annual (arithmetic) | 0.01 | 0.02 | 0.02 | 24 | 24.0 | 24.0 | 24.0 | 50 |
| | 24-hour | 0.03 | 0.06 | 0.08 | 47 | 47.0 | 47.1 | 47.1 | 150 |

Note: *$NO_2$ concentrations are typical concentration for cities with relatively low pollution (California Air Resources Board 1993).

**Cumulative Impacts.** Other actions in Oneida County that would contribute to air pollutant emissions concurrent with those from the Proposed Action are the construction and operation of the Griffiss Business and Technology Park.

The details of the construction and operation of these facilities are not available at this time. However, it is likely that most of the emissions related to these facilities would be produced by the motor vehicles used by visitors and employees of these facilities. Therefore, an approximate estimate of facility emissions was made from the number of average trips applicable for the facilities.

For Griffiss Business and Technology Park, the following number of daily one-way trips were assumed:

| Year | Trips |
|---|---|
| 2001 | 10,800 |
| 2006 | 15,625 |
| 2016 | 26,800 |

The maximum daily cumulative emissions for these facilities and the Proposed Action are presented in Table 4.4-4. As shown in the table, pollutant emissions would increase with time, reaching a maximum in 2016. In 2016, the total VOC, CO, and $NO_x$ county pollution burden would be increased by less than 1 percent. Because the existing background pollutant concentrations are well below ambient standards in Oneida County, these cumulative emissions would not produce violations of the standards.

**Table 4.4-4**

**Maximum Daily Cumulative Emissions for the Proposed Action (tons per day)**

| | Pollutants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2001 | | | 2006 | | | 2016 | | |
| Source | VOC | CO | $NO_x$ | VOC | CO | $NO_x$ | VOC | CO | $NO_x$ |
| Business and Technology Park | 0.186 | 0.657 | 0.114 | 0.268 | 0.951 | 0.165 | 0.390 | 1.631 | 0.284 |
| Proposed Action | 0.133 | 0.754 | 0.162 | 0.211 | 1.394 | 0.225 | 0.215 | 1.505 | 0.238 |
| **Total:** | **0.319** | **1.411** | **0.276** | **0.479** | **2.345** | **0.390** | **0.605** | **3.136** | **0.522** |

**Potential Mitigation Measures.** No mitigation measures would be needed because standard industry practices assumed to be part of project design and construction methods should adequately mitigate potential air quality-related impacts.

#### 4.4.3.2 Private Airfield Alternative

Total estimated emissions from the Private Airfield Alternative are presented in Table 4.4-5 for the years 2001, 2006, and 2016. Air operations at the airfield property would be less than those described for the Proposed Action. Nonaviation uses would be similar to those described for the Proposed Action.

**Construction.** The largest amount of land disturbance would occur between 1999 and 2001. Construction of the airfield property at Griffiss AFB for the Private Airfield Alternative would disturb approximately 15 acres during this period. Assuming the construction would be completed in 12 months, the average monthly acreage disturbed over this period would be about 1.25 acres. Therefore, unmitigated particulate matter would be emitted at an average rate of about 0.75 tons per month of $PM_{10}$. These emissions would elevate short-term particulate concentrations at receptors close to the construction area. However, the elevated concentrations would be a temporary effect that would decrease rapidly with distance.

**Operations.** Total estimated emissions associated with operations with the Private Airfield Alternative for the years 2001, 2006, and 2016 are shown in Table 4.4-5. Emissions resulting from the implementation of the Private Airfield Alternative would have little effect on the pollution burden in the ROI. As shown in Table 4.4-5, percentage increases in Oneida County emissions would reach a maximum of 1 percent by 2016. Because the existing background pollutant concentrations in the ROI are well below the NAAQS and NYSAAQS (Table 4.4-6), these small increases in pollutant emissions would not cause violations of the ambient standards.

The results of the EDMS analysis for this alternative show that, for a peak-hour airport operation scenario, the maximum 1-hour pollutant concentration would occur on an airport roadway located approximately 1,200 feet downwind from the northern end of Runway 15/33. The primary contributing factor would be aircraft exhaust emitted while the aircraft are in a queue, awaiting takeoff. As shown in Table 4.4-6, the addition of Private Airfield Alternative pollutant concentrations to the background concentrations produce total concentrations well below the national and state ambient air quality standards. The modeling results indicate that no local ambient pollutant concentrations produced by emissions from the Private Airfield Alternative would cause the NAAQS/NYSAAQS to be exceeded. Thus, the attainment status of the local area would be maintained.

**Cumulative Impacts.** The maximum daily cumulative emissions for the Griffiss Business and Technology Park and the Private Airport Alternative would be slightly less than those anticipated for the Proposed Action and are presented in Table 4.4-7. Because the existing background pollutant concentrations are

**Table 4.4-5**

**Pollutant Emissions Associated With the Private Airfield Alternative**
**(tons per day)**

| Pollutant | Oneida County Emission Inventory[1] | Private Airfield Alternative Emissions[2] | | | Percent Increase in County Emissions | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 |
| $NO_x$ | 26.6 | 0.121 | 0.138 | 0.182 | 0.45 | 0.52 | 0.68 |
| VOC | 37.0 | 0.093 | 0.126 | 0.169 | 0.25 | 0.34 | 0.46 |
| $PM_{10}$ | 35.8 | 0.041 | 0.014 | 0.010 | 0.11 | 0.04 | 0.03 |
| CO | 163.3 | 0.337 | 0.537 | 0.675 | 0.21 | 0.33 | 0.41 |
| $SO_x$ | 9.8 | 0.008 | 0.006 | 0.007 | 0.08 | 0.06 | 0.07 |

Notes: [1]1988 Emission Inventory
[2]See Appendix I for emission information by source category.

**Table 4.4-6**

**Air Quality Modeling Analysis of the Airport and Vicinity**
**Private Airfield Alternative**
**($\mu g/m^3$)**

| Pollutant | Averaging Time | Project Impact | | | Background Concentrations | Total Concentrations | | | NAAQS/ NYSAAQS |
|---|---|---|---|---|---|---|---|---|---|
| | | 2001 | 2006 | 2016 | | 2001 | 2006 | 2016 | |
| CO | 8-hour | 112 | 135 | 124 | 7,440 | 7,552 | 7,575 | 7,564 | 10,000 |
| | 1-hour | 889 | 1,081 | 993 | 11,560 | 12,449 | 12,641 | 12,553 | 40,000 |
| $SO_2$ | annual | 0.09 | 0.11 | 0.11 | 10 | 10.1 | 10.1 | 10.1 | 80 |
| | 24-hour | 0.34 | 0.44 | 0.43 | 45 | 45.3 | 45.4 | 45.4 | 365 |
| | 3-hour | 1.87 | 2.42 | 2.37 | 94 | 95.8 | 96.4 | 96.4 | 1,300 |
| $NO_2$ | annual | 1.36 | 2.53 | 2.86 | 19* | 20.4 | 21.5 | 21.9 | 100 |
| $PM_{10}$ | annual | 0.01 | 0.02 | 0.02 | 24 | 24.0 | 24.0 | 24.0 | 50 |
| | (arithmetic) 24-hour | 0.03 | 0.06 | 0.06 | 47 | 47.0 | 47.1 | 47.1 | 150 |

Note: *$NO_2$ concentrations are typical for cities with relatively low pollution (California Air Resources Board 1993).

**Table 4.4-7**

**Maximum Daily Cumulative Emissions for the Private Airfield Alternative (tons per day)**

| Source | Pollutants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2001 | | | 2006 | | | 2016 | | |
| | VOC | CO | $NO_x$ | VOC | CO | $NO_x$ | VOC | CO | $NO_x$ |
| Business and Technology Park | 0.186 | 0.657 | 0.114 | 0.268 | 0.951 | 0.165 | 0.390 | 1.631 | 0.284 |
| Private Airfield Alternative | 0.093 | 0.337 | 0.121 | 0.126 | 0.537 | 0.138 | 0.169 | 0.675 | 0.182 |
| **Total:** | **0.279** | **0.994** | **0.235** | **0.394** | **1.488** | **0.303** | **0.559** | **2.306** | **0.466** |

well below ambient standards in Oneida County, these cumulative emissions would not produce violations of the air quality standards.

**Mitigation Measures.** Mitigation measures would be the same as those described for the Proposed Action.

### 4.4.3.3 Nonaviation Alternative

The primary difference between the Nonaviation Alternative and the Proposed Action is the focus on reuse of the airfield property for nonaviation-related uses, with emphasis on manufacturing, industrial, commercial, and public/recreational land uses. With this alternative, operation of the airfield for all types of aircraft would be discontinued.

**Construction.** Construction and demolition impacts with this alternative would be greater than those described for the Proposed Action. The peak construction period would occur during the 2006-2016 period, when a total of 30 acres would be disturbed. If it is assumed that this disturbance would occur over a 12-month period, 2.5 acres would be disturbed during a 1-month period. This action would result in unmitigated particulate emissions of 1.5 tons per month of $PM_{10}$. These emissions would elevate particulate concentrations in areas close to construction locations. However, the concentration would decrease rapidly with distance from the construction areas.

**Operations.** The results of the emission calculation associated with the operation of the Nonaviation Alternative for the years 2001, 2006, and 2016 are summarized in Table 4.4-8. The percentage increase in county emissions resulting from this alternative are also presented in the table for the years 2001, 2006, and 2016. As shown in the table, the highest percentage increase, 1.1 percent, would occur in the $NO_x$ burden. However, aircraft emissions would continue at the Oneida County Airport. Motor vehicle emissions would be greater with this alternative than those with the Proposed Action.

Table 4.4-8

Pollutant Emissions Associated With the Nonaviation Alternative
(tons per day)

| Pollutant | Oneida County Emission Inventory[1] | Nonaviation Alternative Emissions[2] | | | Percent Increase in County Emissions | | |
|---|---|---|---|---|---|---|---|
| | 1990 | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 |
| $NO_x$ | 26.6 | 0.095 | 0.156 | 0.285 | 0.36 | 0.59 | 1.07 |
| VOC | 37.0 | 0.106 | 0.204 | 0.337 | 0.29 | 0.55 | 0.91 |
| $PM_{10}$ | 35.8 | 0.038 | 0.037 | 0.073 | 0.11 | 0.10 | 0.20 |
| CO | 163.3 | 0.355 | 0.697 | 1.369 | 0.21 | 0.43 | 0.84 |
| $SO_x$ | 9.8 | 0.006 | 0.006 | 0.009 | 0.06 | 0.09 | 0.09 |

Notes: [1]1988 Emission Inventory.
[2]See Appendix I for emission information by source category.

Overall, the pollutant emission generated by this alternative are less than those in the Proposed Action. Therefore, pollutant emissions related to this alternative would not produce ambient concentrations that would exceed the NAAQS/NYSAAQS on the regional and local scales. The ROI would continue to maintain attainment classification for all criteria pollutants.

**Cumulative Impacts.** The cumulative impacts with this alternative would be about the same as those described for the Proposed Action. The maximum cumulative emissions are presented in Table 4.4-9. As shown in the table, the cumulative emissions will reach their maximum in 2016. In 2016, the total VOC, CO, and $NO_x$ county pollution burden would be increased by less than 1 percent. As described in the Proposed Action, this cumulative emission would not produce violations of the ambient standards.

**Table 4.4-9**

**Maximum Daily Cumulative Emissions for the Nonaviation Alternative (tons per day)**

| | Pollutants | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2001 | | | 2006 | | | 2016 | | |
| Source | VOC | CO | $NO_x$ | VOC | CO | $NO_x$ | VOC | CO | $NO_x$ |
| Business and Technology Park | 0.186 | 0.657 | 0.114 | 0.268 | 0.951 | 0.165 | 0.390 | 1.631 | 0.284 |
| Nonaviation Alternative | 0.106 | 0.355 | 0.095 | 0.204 | 0.697 | 0.156 | 0.337 | 1.369 | 0.285 |
| **Total:** | **0.292** | **1.012** | **0.209** | **0.472** | **1.648** | **0.321** | **0.727** | **3.000** | **0.569** |

**Mitigation Measures.** All mitigation measures for the Nonaviation Alternative would be the same as those described for the Proposed Action.

### 4.4.3.4 No-Action Alternative

The No-Action Alternative would not adversely affect air quality. Pollutant emissions associated with caretaker maintenance activities would be substantially less than those prior to closure. There may be some level of air quality benefit associated with maintaining the base at a reduced level of activity compared to the levels of activity associated with the Proposed Action or alternatives.

**Cumulative Impacts.** Because the impact on air quality resulting from the No-Action Alternative would be negligible, there would be no adverse cumulative impacts.

## 4.4.4 Noise

Environmental impact analysis related to noise includes the potential effects on the local human and animal populations. This analysis will estimate the extent and magnitude of noise levels generated by the Proposed Action and

alternatives using the predictive models discussed below. The baseline noise conditions and predicted noise levels will then be assessed with respect to potential annoyance, speech interference, sleep disturbance, hearing loss, health and land-use impacts. The metrics used to evaluate noise are day-night average sound level (DNL) and energy-equivalent continuous noise level ($L_{eq}$). Appendix H contains an expanded discussion of these metrics.

Methods used to quantify the effects of noise, such as annoyance, speech interference, sleep disturbance, health and hearing loss, have undergone extensive scientific development during the past several decades. The most reliable measures at present are noise-induced hearing loss and annoyance. Extra-auditory effects (those not directly related to hearing capability) are also important, although they are not as well understood. The current scientific consensus is that "evidence from available research reports is suggestive, but it does not provide definitive answers to the question of health effects, other than to the auditory system, of long-term exposure to noise" (National Academy of Sciences 1981). The effects of noise are summarized within this section and a detailed description is provided in Appendix H.

The Airport Noise and Capacity Act of 1990 (49 USC 9302 *et seq.*) established the National Aviation Noise Policy. This policy prohibits, after December 31, 1999, the operation of civil subsonic turbojet aircraft with a maximum weight of more than 75,000 pounds, unless such aircraft complies with Stage 3 noise levels. Waivers to this deadline may be obtained, but all commercial carriers must comply with Stage 3 noise levels by December 31, 2003 at the latest (49 USC 9308). Stage 2 and Stage 3 noise levels are defined in Federal Aviation Regulation 36, Appendix C. These noise levels are a technical federal rating of the relative noise of a jet aircraft when compared to all other jet aircraft. In general, Stage 2 aircraft are noisier than Stage 3 aircraft. However, because the noise limits are based on weight, a larger Stage 3 aircraft would generally be louder than a smaller Stage 3 aircraft.

**Annoyance.** Noise annoyance is defined by the EPA as any negative subjective reaction to noise on the part of an individual or group. Table 4.4-10 presents the results of over a dozen studies of transportation models, including airports, investigating the relationship between noise and annoyance levels. This relationship has been suggested by the National Academy of Sciences (1977) and reevaluated (Fidell *et al.* 1989) for use in describing peoples' reaction to semi-continuous (transportation) noise. These data provide a perspective on the level of annoyance that might be anticipated. For example, 15 to 25 percent of persons exposed to DNL of 65 to 70 decibels (dB) are expected to be highly annoyed by the noise levels.

A discussion of the effects of noise on speech and sleep interference, hearing loss, health, and animals is provided in Appendix H.

Table 4.4-10

Percentage of Population Highly Annoyed by Noise Exposure

| DNL[1] Interval in dB[2] | Percentage of Persons Highly Annoyed |
|---|---|
| <65 | <15 |
| 65-70 | 15-25 |
| 70-75 | 25-37 |
| 75-80 | 37-52 |

Notes: [1]DNL = day-night average sound level
[2]dB = decibel

Source: Adapted from National Academy of Sciences, 1977.

**Land Use Compatibility.** Estimates of total noise exposure resulting from aircraft operations, as expressed using DNL, can be interpreted in terms of the compatibility with designated land uses. The Federal Interagency Committee on Urban Noise has developed land-use compatibility guidelines for noise (U.S. Department of Transportation 1980). Based on these guidelines, suggested compatibility guidelines for evaluating land uses in aircraft noise exposure areas are developed by the FAA and presented in Section 3.4.4. The land use compatibility guidelines are based primarily on annoyance and hearing loss considerations described in Appendix H. Part 150 of the FAA regulations describes the procedures, standards, and methodology governing the development, submission, and review of airfield noise exposure maps and airfield noise compatibility programs. It prescribes use of yearly DNL in the evaluation of airfield noise environments. It also identifies those land-use types that are normally compatible with various levels of exposure. Compatible or incompatible land use is determined by comparing the predicted DNL level at a site with the recommended land uses.

**Noise Modeling.** In order to define the noise impacts from aircraft operations on the airfield property, the FAA-developed Integrated Noise Model (INM) Version 4.11 was utilized to predict DNL 65, 70, and 75 dB noise contours. Appendix H defines these descriptors and provides a listing of day/night operations by aircraft. The contours were generated for the Proposed Action for two future year projections (5 and 20 years after closure).

For the Proposed Action and Private Airfield Alternative, it was assumed that aircraft operations would consist of only civilian aircraft. The air freight operations would utilize some wide-body, heavy-lift aircraft (e.g., Boeing 747). Operations would consist of some jet, twin-engine, and single-engine aircraft. Input data to INM include information on aircraft types; runway use; takeoff and landing flight tracks; aircraft altitude, speeds, and engine power settings; and number of daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) operations.

Surface vehicle traffic-noise levels for roadways in the vicinity of Griffiss airfield property were analyzed using the Federal Highway Administration's

(FHWA) Highway Noise Model (Federal Highway Administration 1978). This model incorporates vehicle mix, traffic volume projections, day/night split, and speed to generate DNL.

**Major Assumptions.** Half of all aircraft operations were assumed to be takeoffs and the other half landings. Incoming and outgoing aircraft operations and mix of various aircraft types are included in Appendix H. All operations were assumed to follow standard glide slopes and takeoff profiles provided by the FAA's INM. It was assumed that some Stage 2 aircraft would be in operation in 2001, but that the quieter Stage 3 aircraft would be in operation in 2016.

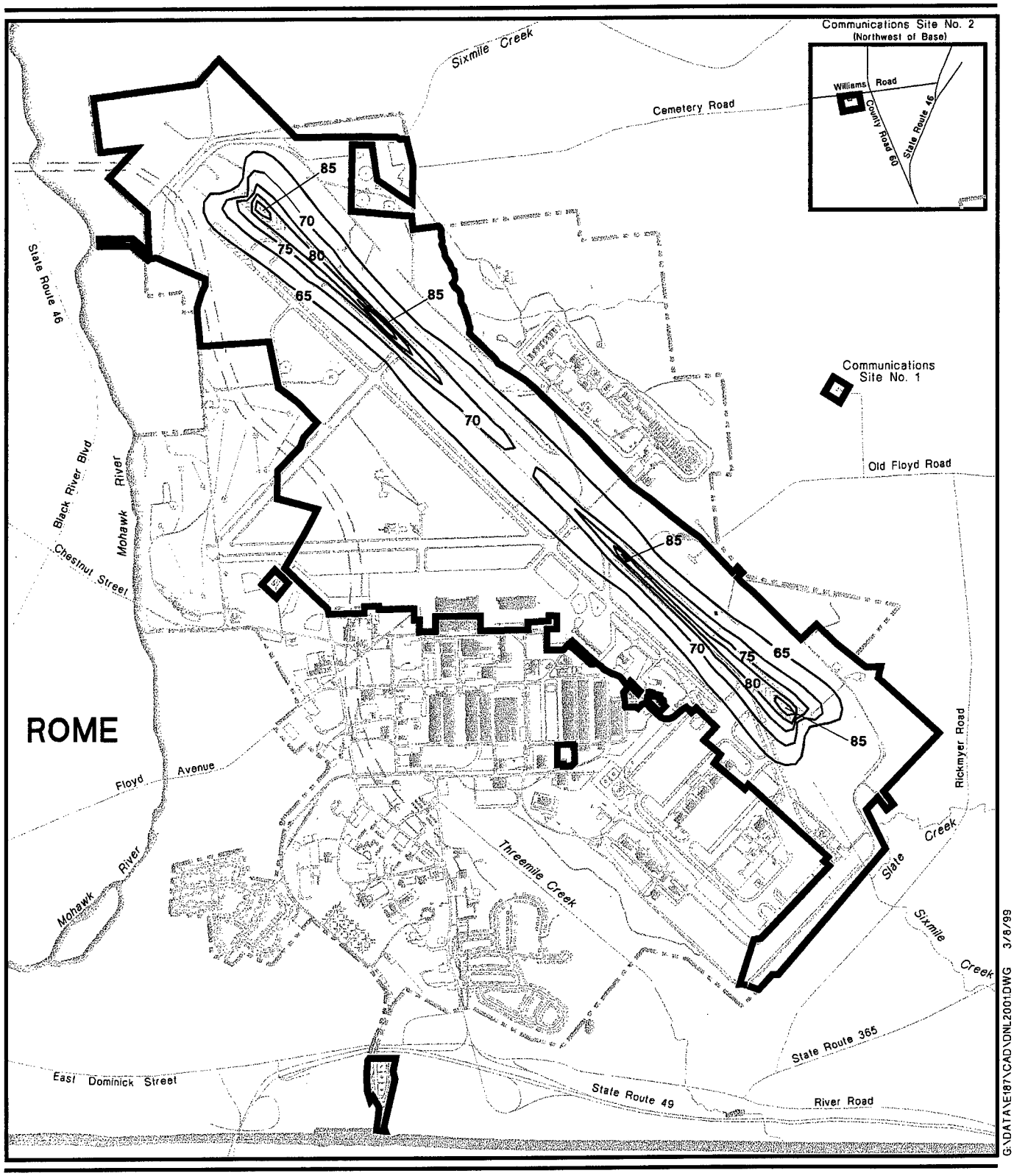
Major roads leading to or around the airfield property were analyzed. Traffic data used to project future noise levels were derived from information gathered in the traffic analysis presented in Section 4.2.3. Traffic data used in this analysis are presented in Appendix H.

#### 4.4.4.1 Proposed Action

The results of the aircraft noise modeling for the Proposed Action for 2001 and 2016 are presented as noise contours in Figures 4.4-1 and 4.4-2. Table 4.4-11 presents the approximate number of acres within each DNL contour for the years 1996, 2001, and 2016. Initially, in 2001, the land area within the DNL 65 dB noise contour would increase by 75 acres as compared to the NYANG operations. However, with the use of Stage 3 aircraft, noise levels would decrease to a level that would be less than that experienced with NYANG operations. As depicted in Figures 4.4-1 and 4.4-2, the noise contours for 2001 and 2016 would not extend beyond the airfield property. The area under the flight tracks is generally rural and has relatively low population densities. Because none of the flight tracks pass over the City of Rome, noise resulting from aircraft operations would have little or no impact on the city.

Surface traffic noise levels for several road segments are presented in Table 4.4-12. These levels are presented in terms of DNL as a function of distance from the centerline of the roadways analyzed. These levels represent the highest noise levels that would occur (2016), and also represent the noise created by all the traffic on these road segments (Proposed Action plus Baseline). Noise levels would increase substantially from the baseline levels. The distance of the 65 dB, 70 dB, and 75 dB DNLs from the roadway centerline for the Proposed Action would be in the range of 10 to more than 100 percent distance over the baseline distances (Chapter 3.0, Table 3.4-12). Residences and commercial businesses along these segments would experience DNL noise levels in excess of 65 dB by 2016.

**Cumulative Impacts.** Other proposed projects, in combination with the Proposed Action, would not result in cumulative impacts because of aircraft




**LEGEND**

Former Griffiss AFB Boundary

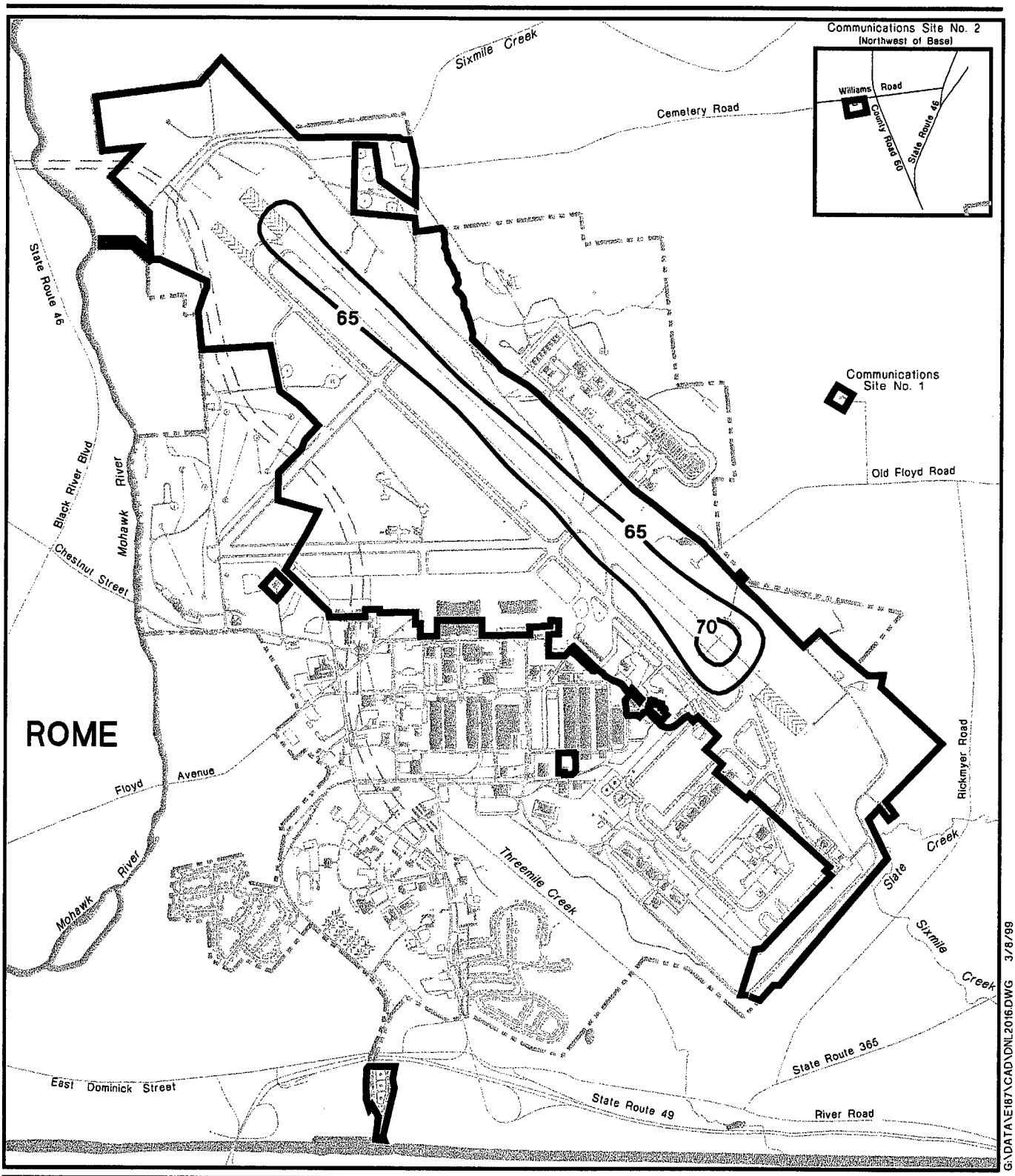
Airfield Property Boundary

65 Noise Contour (dB)

SCALE IN FEET
0 1000 2000

# DNL Contours With Proposed Action, 2001

**Figure 4.4-1**




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**LEGEND**

Former Griffiss AFB Boundary

Airfield Property Boundary

65 Noise Contour (dB)

SCALE IN FEET
0 1000 2000

# DNL Contours With Proposed Action, 2016

**Figure 4.4-2**

Table 4.4-11

Area (Acres) Within DNL Contours,
Proposed Action
DNL dB

| | 65 dB |
|---|---|
| Air National Guard Operations (1996) | 217 |
| Proposed Action (2001) | 292 |
| Proposed Action (2016) | 226 |

Table 4.4-12

Distance of DNL from Road Centerline - Proposed Action (2016)

| | Distance (feet) | | |
|---|---|---|---|
| Roadway | DNL 65 dB | DNL 70 dB | DNL 75 dB |
| State Highway 49, East of Wright Drive Crossing | 272 | 131 | 60 |
| State Highway 49, West of Wright Drive Crossing | 271 | 131 | 70 |
| Connection Wright Dr./East Dominick St. | 70 | 30 | * |
| East Dominick St., West of Wright Drive Crossing | 40 | * | * |
| River Road (State Highway 365) at County Road 88 Junction | 40 | * | * |
| Floyd Avenue, West of Floyd Gate | 40 | * | * |
| Chestnut Street, East of Black River Boulevard | 50 | 30 | * |
| Black River Boulevard, South of Floyd Avenue | 130 | 70 | 40 |
| Black River Boulevard, North of Floyd Avenue | 111 | 60 | * |
| Black River Boulevard, South of Chestnut Street | 120 | 60 | * |
| Black River Boulevard, North of Chestnut Street | 120 | 60 | 40 |

Note: *Contained within the highway right-of-way.

noise. The noise generated by surface traffic from cumulative development is incorporated in the baseline traffic analysis of the Proposed Action. By 2016, the areas exposed to DNL 65 dB and above due to surface traffic would increase between 10 and 100 percent or more on affected road segments.

**Mitigation Measures.** No significant impacts have been identified from aircraft noise. Mitigation would not be required for aircraft noise for the Proposed Action. The effectiveness of the noise mitigation measures presented here cannot be completely determined without extensive modeling and/or noise measurements by future developers. This should be the first step in implementing noise mitigation measures.

Mitigation measures for potential impacts associated with surface traffic noise could include a sound insulation program that cold be implemented to reduce interior noise levels for sensitive receptors exposed to DNL 65 dB or greater. Noise reduction inside buildings could be accomplished by

incorporating solid core wood or steel-faced exterior doors, non-opening dual-pane windows, and aggregate block walls into the building design, and limiting the total square footage of windows to not more than 10 percent of exterior exposed walls. These features can reduce interior noise levels by as much as 26 to 53 A-weighted dB when properly designed and constructed.

For future development, county and township land use planning could incorporate noise compatibility measures when establishing residential zoning. Measures such as the restriction of residential development of areas outside the DNL 65 dB contour and incorporating buffer zones into community development could be used.

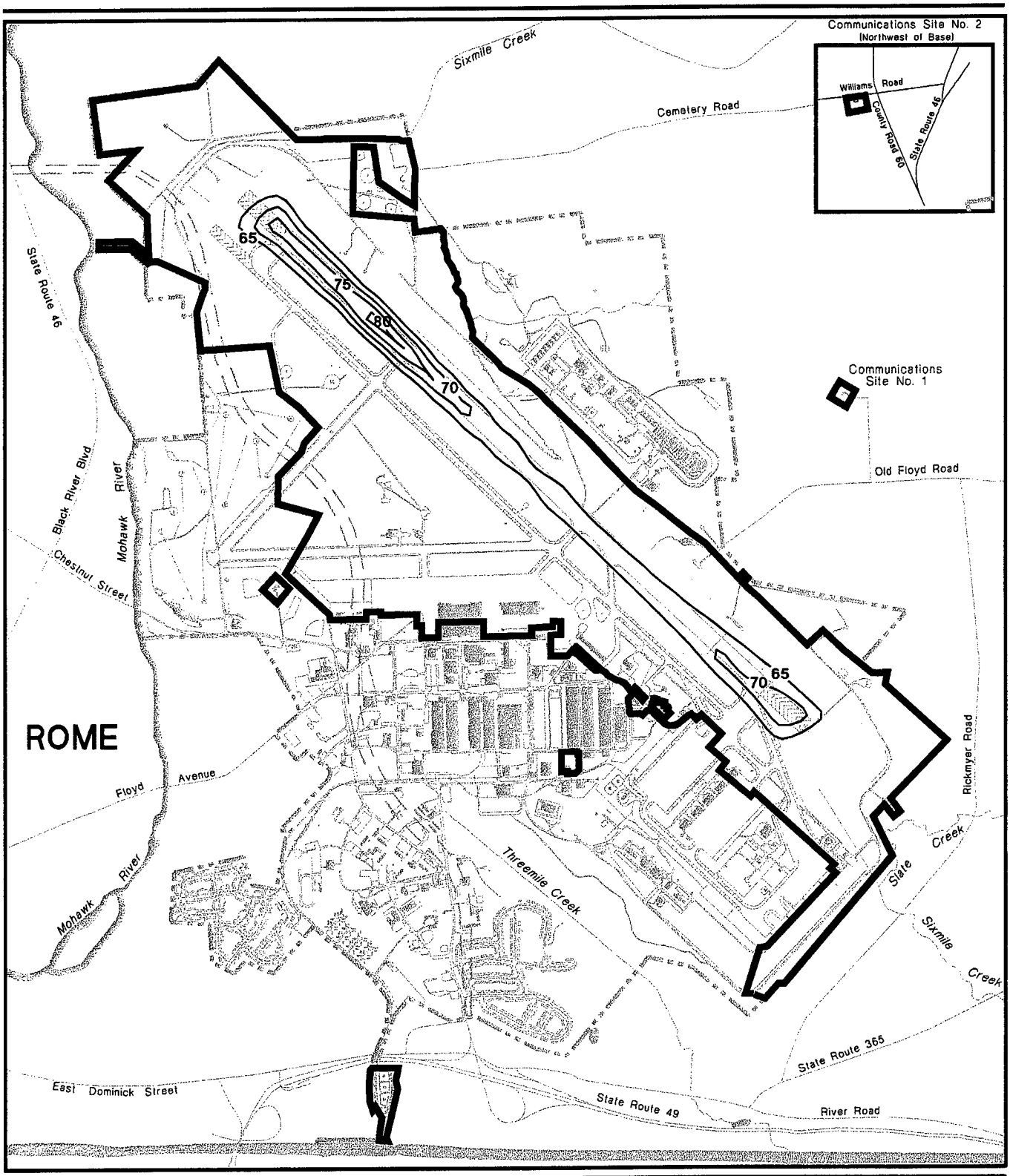
#### 4.4.4.2 Private Airfield Alternative

In comparison to the Proposed Action, the Private Airfield Alternative would generate less aircraft noise because the commercial airport component would not be relocated from Oneida County Airport to the airfield property. The results of the aircraft noise modeling for the Private Airfield Alternative for 2001 and 2016 are presented as noise contours in Figures 4.4-3 and 4.4-4. Table 4.4-13 presents the approximate number of acres within each DNL contour for the years 1996, 2001, and 2016. Compared to the NYANG operations in 1996, this represents a decrease of 248 acres within the DNL 65 dB by 2016. Therefore, noise resulting from aircraft operations for the Private Airfield Alternative would be less than the Proposed Action and would have little or no impact on the City of Rome.

Impacts from surface traffic noise for this alternative would also be less than for the Proposed Action due to lower overall traffic levels. Surface traffic noise levels for several road segments are presented in Table 4.4-14. These levels represent the highest noise levels which would occur in the year 2016 for all the traffic on these road segments (Private Airfield Alternative plus Baseline). Noise levels would increase substantially from the baseline levels. The distance of the 65 dB, 70 dB, and 75 dB DNLs from the roadway centerline for the Private Airfield Alternative would be in the range of 10 to more than 100 percent distance over the baseline distances (Chapter 3.0, Table 3.4-12). Residences and commercial businesses along these segments would experience DNL noise levels in excess of 65 dB, by 2016.

**Cumulative Impacts.** Cumulative impacts from the Private Airfield Alternative would be the same as for the Proposed Action. Other proposed projects, in combination with the Private Airfield Alternative, would not result in cumulative impacts due to aircraft noise. By the year 2016, the areas exposed to DNL 65 dB and above due to surface traffic would increase between 10 and 100 percent or more on affected road segments.

**Mitigation Measures.** Mitigation measures for this alternative would be the same as those described for the Proposed Action.




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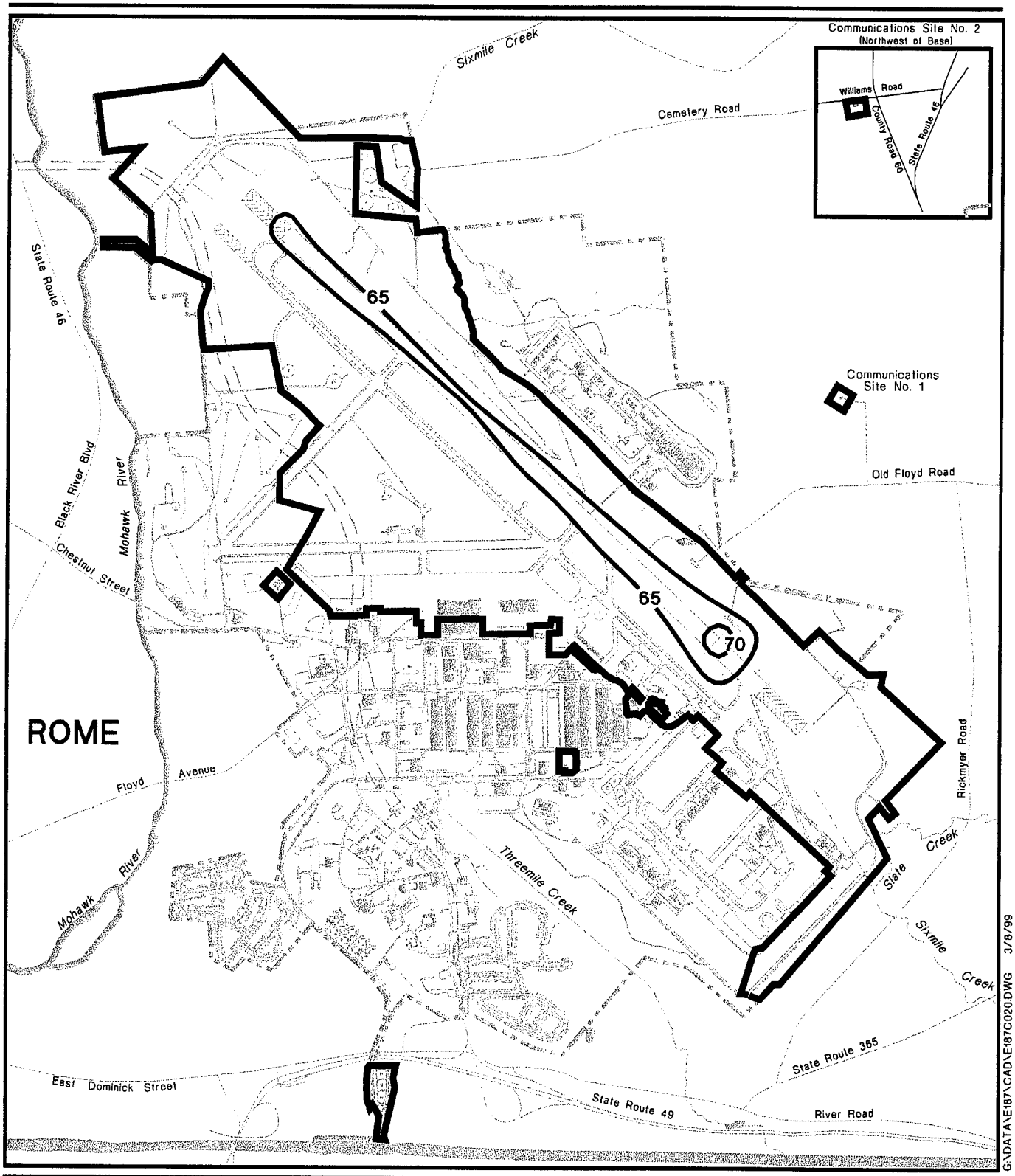
**LEGEND**

- Former Griffiss AFB Boundary
- Airfield Property Boundary
- 65 Noise Contour (dB)

SCALE IN FEET
0 1000 2000

# DNL Contours With Private Airfield Alternative, 2001

**Figure 4.4-3**




**LEGEND**

- Former Griffiss AFB Boundary
- Airfield Property Boundary
- 65 Noise Contour (dB)

SCALE IN FEET
0 1000 2000

## DNL Contours With Private Airfield Alternative, 2016

**Figure 4.4-4**

Table 4.4-13

Area (Acres) Within DNL Contours,
Private Airfield Alternative
DNL dB

| | 65 dB |
|---|---|
| Air National Guard Operations (1996) | 217 |
| Private Airfield Alternative (2001) | 132 |
| Private Airfield Alternative (2016) | 139 |

Table 4.4-14

Distance of DNL from Road Centerline - Private Airfield Alternative (2016)

| | Distance (feet) | | |
|---|---|---|---|
| Roadway | DNL 65 dB | DNL 70 dB | DNL 75 dB |
| State Highway 49, East of Wright Drive Crossing | 264 | 127 | 59 |
| State Highway 49, West of Wright Drive Crossing | 264 | 127 | 68 |
| Connection Wright Dr./East Dominick St. | 69 | 29 | * |
| East Dominick St., West of Wright Drive Crossing | 40 | * | * |
| River Road (State Highway 365) at County Road 88 Junction | 39 | * | * |
| Floyd Avenue, West of Floyd Gate | 38 | * | * |
| Chestnut Street, East of Black River Boulevard | 49 | 29 | * |
| Black River Boulevard, South of Floyd Avenue | 128 | 69 | 39 |
| Black River Boulevard, North of Floyd Avenue | 108 | 59 | * |
| Black River Boulevard, South of Chestnut Street | 119 | 60 | * |
| Black River Boulevard, North of Chestnut Street | 120 | 60 | 39 |

Note: *Contained within the highway right-of-way.

#### 4.4.4.3 Nonaviation Alternative

With this alternative, there would be no aircraft operations at Griffiss Airfield. Aircraft noise would not be a concern.

Surface noise levels for this alternative would be slightly higher than those for the Proposed Action. Surface traffic noise levels for several road segments are presented in Table 4.4-15. These levels represent the highest noise levels (compared to the Proposed Action and Private Airfield Alternative) that would occur in the year 2016 and also represent noise created by the traffic on these road segments. State Highway 49, Wright Drive, Floyd Avenue, Chestnut Street, and Black River Road would all experience higher noise levels compared to 1996 levels. Construction of the Parkway along Wright Drive and Hill Road would reduce noise levels within the Griffiss Business and Technology Park.

**Cumulative Impacts.** Cumulative impacts for surface traffic noise would be similar to those described for the Proposed Action.

**Mitigation Measures.** Mitigation for the surface traffic is would be the same as those described for the Proposed Action.

Table 4.4-15

Distance of DNL from Road Centerline
Nonaviation Alternative (2016)

| Roadway | Distance (feet) | | |
|---|---|---|---|
| | DNL 65 dB | DNL 70 dB | DNL 75 dB |
| State Highway 49, East of Wright Drive Crossing | 270 | 130 | 70 |
| State Highway 49, West of Wright Drive Crossing | 280 | 140 | 70 |
| Connection Wright Dr./East Dominick St. | 70 | 40 | * |
| East Dominick Street, West of Wright Drive Crossing | 40 | * | * |
| River Road (State Highway 365) at County Road 88 Junction | 40 | 20 | * |
| Floyd Avenue, West of Floyd Gate | 40 | 20 | * |
| Chestnut Street, East of Black River Boulevard | 50 | 30 | * |
| Black River Boulevard, South of Floyd Avenue | 140 | 70 | 40 |
| Black River Boulevard, North of Floyd Avenue | 110 | 60 | * |
| Black River Boulevard, South of Chestnut Street | 120 | 60 | * |
| Black River Boulevard, North of Chestnut Street | 120 | 60 | 40 |

Note: *Contained within the highway right-of-way.

#### 4.4.4.4 No-Action Alternative

Military aircraft operations conducted by the NYANG would be eliminated with the transfer of operations to Fort Drum with the No-Action Alternative. Therefore the aircraft noise would not be a concern.

Surface traffic noise levels for this alternative would be less than those experienced in 1996 when NYANG was in full operation at Griffiss Airfield. The elimination of aircraft noise in the area would have an overall beneficial noise impact.

**Cumulative Impacts.** No cumulative impacts would result from this alternative in combination with other projects. Noise from increased surface traffic due to other projects in the area would occur independent of the disposition of the airfield property.

### 4.4.5 Biological Resources

The Proposed Action and alternatives (except the No-Action Alternative) could potentially affect biological resources through alteration or loss of vegetation and wildlife habitat. Of particular concern is the potential for loss of any threatened or endangered species or loss of any other sensitive species or habitats. These impacts are described in the following sections for each alternative.

Assumptions used in analyzing the effects of the Proposed Action and alternatives include:

- Staging and other areas temporarily disturbed by construction shall be placed in previously disturbed areas (e.g., paved or cleared areas) to the maximum extent possible; and

- The proportion of disturbance associated with each land use category was determined based on accepted land use planning concepts. Development in each area could occur at one or more locations, unless designated as vacant land.

Measures that are clearly required by law or are standard industry practices are described below. These measures were also taken into account in the assessment of the impacts. These relate to all habitats and species. The most sensitive habitat requiring mitigation at the airfield property are wetlands. Potential disturbance to wetlands in New York are controlled and permitted by State and Federal regulations, including Executive Order 11990, Section 404 of the Clean Water Act (CWA) and Article 24 of the New York Environmental Conservation Law (6 NYCRR Part 664). Mitigations required could include, (1) avoidance of direct and indirect disturbance of wetlands through facility design or appropriate restrictions in the transfer documents; (2) onsite (if possible) replacement of any wetlands lost at a ratio determined through consultation with USFWS and the COE; (3) re-creation of wetland habitat elsewhere onsite or purchase and fencing of any offsite replacement habitat; and (4) monitoring (until habitat becomes well established) of any replacement wetlands required to determine the effectiveness of replacement and any remedial measures necessary.

Filling of wetland areas totaling less than 3 acres does not require an individual COE permit, because this activity is covered by the existing authorization of a nationwide permit. Filling of a wetland between 1/3 and 3 acres requires prior notification of the COE, whereas filling of a wetland under 1/3 acre does not. However, the COE recommends they be notified even in those cases where filling of less than 1/3 acre is anticipated. Air Force policy as stated in Executive Order 11990 has no lower limit threshold. No wetlands can be filled regardless of size until the requirements of the Executive Order have been met and the COE guidelines have become active.

- All practicable means of avoidance, by early planning and design control, will be exercised to minimize direct and indirect effects on known sensitive or unique biological habitats and species;

- Staging and other areas temporarily disturbed by construction will be placed in previously disturbed areas (e.g., paved or cleared areas) to the maximum extent possible;

- Construction zone work limits will be established and enforced to minimize disturbance of habitat;

- All standard construction practices and prudent planning will be taken to minimize noise, dust, erosion, and sediment runoff into water bodies;

- Short-term soil stabilization with quick-growing native species, and long-term revegetation with native plants will be carried out wherever feasible;

- Disturbance of aquatic habitats, habitats of sensitive, threatened and endangered species, and other identified sensitive habitats will be reduced to the extent possible through sound construction practices and avoidance on a localized basis that does not represent a significant change in project configuration;

- Compliance with Section 4 of Executive Order 11990 will be followed in the disposal and transfer of Griffiss AFB property containing wetlands. When Federally-owned wetlands are leased or disposed to non-Federal or private parties, the Federal agency shall (a) reference in the conveyance, those uses which are restricted with Federal, State, or local regulations; and (b) attach other appropriate restrictions to the uses of the property by the grantee or purchaser and any successor, except where prohibited by law; or (c) withhold such properties from disposal. Implementation will ensure the protection of these resources.

  Executive Order 11990, Section (2)1, states that a Federal agency, to the extent permitted by law, will avoid providing assistance for new construction located in wetlands unless the head of the agency concludes that there is no practicable alternative to such construction and that the proposed project includes all practicable measures to minimize harm to wetlands that may result from such use. In determining whether an alternative is practicable, the agency may consider costs, existing technology, logistics, environmental effects, and the purpose of the project that causes the discharge of fill or dredged material into the affected wetlands. Secondary development (including industrial, commercial, residential, or recreational development that is attracted to the area by improved infrastructure or redevelopment) will also be regulated by the COE; and

- Compliance with the New York Environmental Conservation Law (Article 24) when the project potentially effects wetlands falling under the state's protection (Class I, II, III, or IV). These actions would require review and permits from the NYSDEC.

#### 4.4.5.1 Proposed Action

Construction and operations activities associated with the Proposed Action would adversely affect biological resources primarily through permanent loss of vegetation and its associated wildlife. About 26 acres of land, most of it supporting habitat of relatively low biological value, would be disturbed by 2016. Additional adverse or beneficial effects are associated with the conversion of habitats (e.g., conversion of forest to grassland or developed housing area to forest woodland). Specific impacts projected to result from the implementation of this alternative are described below.

**Vegetation.** Overall, the Proposed Action would result in minimal losses to native tree and shrub vegetation. The construction of the new passenger terminal complex along the runway would disturb approximately 3 acres of grassy landscaped areas. The area west of the southern end of Runway 15/33 is designated for industrial use and would be used for the development of large-scale manufacturing and processing operations. This would disturb approximately 10 acres of grassy landscaped areas. Approximately 1 acre of mowed grass would be disturbed at the two communication sites, which are designated for agriculture. The existing structures in these areas would be demolished. Approximately 12 acres containing landscaped areas, vegetation, buildings, and paved areas would be disturbed during demolition of facilities in the public/recreational/open space land use area.

**Wildlife.** The majority of impacts to wildlife are expected to be long term and include loss and/or fragmentation of habitat, displacement, increased stress, disruption of daily/seasonal behavior, and mortality for less mobile species. The ability of more mobile species to be displaced and survive in adjacent habitats would depend primarily on the presence or absence of suitable habitat and, if present, whether adjacent suitable habitat is at carrying capacity. If adjacent habitats are at carrying capacity at the time of construction or when operations begin, the forced introduction of individuals into these areas would cause an increase in competition for resources (e.g., food, nesting areas). This, in turn, would cause a temporary increase in mortality for some species until equilibrium is reestablished.

Most of the habitat alteration or loss/change would occur on that portion of the base classified as grass/landscaped with trees, which is largely man made and regularly disturbed. These areas do have small pockets of less disturbed communities of trees and shrubs, or border upon larger more natural habitat areas and, therefore, do support a number of typical urban adapted species of birds and animals, such as robins (*Turdus migratorius*), various sparrows, catbirds (*Dumetella carolinensis*), brown thrashers (*Toxostoma rufum*), various warblers (*Dendroica* spp.), downy woodpeckers (*Picoides pubescens*), northern cardinals (*Cardinalis cardinalis*), black-capped chickadees (*Parus atricapillus*), gophers, and tree squirrels. While the loss and alteration of habitats would be detrimental to these wildlife species, the

Proposed Action is not expected to have a significant impact on regional wildlife populations because of the low sensitivity levels, relatively small quantities, and generally high levels of previous disturbance to most of the affected habitats.

The Proposed Action would ultimately decrease the number of aircraft operations on the airfield property by 2016. As a result, the noise levels associated with less aircraft activity would cause fewer disruptions to local wildlife. However, in the short term, aircraft noise would increase slightly until Stage 3 noise levels are fully implemented in 2003. In addition, activities such as the initial demolition and clearing of some areas and construction in portions of those areas would increase human activity levels. The largest single construction project would be the new passenger terminal complex. The proposed aircraft operations and associated airfield activities, however, is not expected to have a significant impact on wildlife species that have adapted to disruptions from noise and human activity associated with the airfield property.

**Threatened and Endangered Species.** The Air Force has conducted informal Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) and the NYSDEC, as suggested by the USFWS, for potential land conveyance to private parties. The USFWS and NYSDEC have indicated that there are several listed species that reside throughout the State of New York or are seasonal visitors and could occur within a 50-mile radius of the airfield property. No threatened and endangered species were found on the airfield property, although habitat for the Indiana bat and bald eagle exists on the airfield property.

Because no Federal-listed species have been identified on the airfield property, no impacts to such species are projected. The New York State-listed animal species are likewise not currently known to inhabit the airfield property. Some State-listed plant species, however, are known to inhabit the base. Because activity and disturbance caused by the Proposed Action would occur primarily in the developed portion of the airfield property, reuse activities would not be expected to affect any State-listed plant species.

For properties conveyed to non-Federal and private parties, those parties would be subject to the prohibitions listed in Section 9 of the Endangered Species Act (16 United States Code [USC] §1538) and 50 Code of Federal Regulations (CFR) Part 17, Subparts C, D, F, and G. For certain activities involving the export, possession, taking, sale, or transport of threatened or endangered animal species, non-Federal and private parties would be required to obtain a permit as described in Section 10 of the Endangered Species Act (16 USC §1539) and 50 CFR Part 17, Subparts C and D.

**Sensitive Habitats.** The U.S. Army Corps of Engineers (COE) has determined that Jurisdictional Wetlands are located on the airfield property of Griffiss AFB. Following their guidelines, COE has also determined that there are

several Waters of the United States on the airfield property subject to protection according to the permitting requirements of Section 404 of the Clean Water Act. The NYSDEC has also determined and mapped several wetland areas on the airfield property that are subject to protection according to the States' permitting authority. State mapping and protection applies to wetlands that are a minimum of 12.5 acres. Article 24 of the New York Environmental Conservation Law (6 NYCRR Part 664) regulates certain activities in freshwater wetlands and within 100 feet of the wetland boundary.

Disturbance activities associated with the Proposed Action would occur outside of any wetland boundary. Although no direct effects are expected, there would be indirect effects of changed operations and site cleanup activities on the quality of runoff waters reaching the wetlands, both on and off the airfield property. The various cleanup actions would reduce pollutant input to local waters and be a beneficial impact on the downstream wetlands and aquatic systems. The increased aircraft operations would not affect the local waters as long as the appropriate control measures are in place (see Section 4.4.2.1, Water Resources, Proposed Action).

**Cumulative Impacts.** The Proposed Action and the local community plans with enhanced greenways and open space corridors, along the Mohawk River, between Delta Lake and the New York State Barge Canal south of Rome and the former Griffiss AFB, including the canal-river harbor plans, should have a combined positive long-term and cumulative effect on the natural communities of the area. Other future actions within the region include the development of the Griffiss Business and Technology Park. The Griffiss Business and Technology Park includes the construction of a parkway and bridge across the Mohawk River. The northern end of the parkway corridor covers approximately 15 acres. The vegetation in the part of the corridor on the airfield property includes about 5 acres of conifer plantation, 6 acres of mowed grass, and 4 acres of upland shrub, all of which would be lost to roadway construction.

The construction of the parkway and bridge has the potential of interrupting wildlife movement along the river corridor. Construction could also cause elevated levels of sediment/turbidity in the river unless adequate erosion control practices are used. After construction activities cease, the Mohawk River floodplain corridor usage by wildlife will return if adequate terrestrial passage area is provided in the floodplain area by the final bridge and roadway design. Construction activity in the Mohawk River corridor could indirectly affect transient usage of this river (aquatic) habitat by the Federally and State-listed bald eagle (*Haliaeetus leucoephalus*) and the State-listed osprey (*Pandion haliaetus*).

No wetlands would be affected with the development of the Griffiss Business and Technology Park or the Proposed Action. Therefore, no cumulative impacts would occur.

**Potential Mitigation Measures.** The following actions, procedures, guidelines, and recommendations have been identified as potential mitigations. The Air Force can reference in the property conveyance documents those uses which are restricted under Federal and State wetlands regulations, including those subject to Section 404 of the CWA, Executive Order 11990, and the New York Environmental Conservation Law (Article 24). Even approved permits from the COE and/or the NYSDEC may require mitigation to compensate for the disturbances. The following procedures and guidelines have been identified as potential mitigation measures that can be implemented to protect and/or restore biological resources disturbed by project activity:

- Minimizing Disturbances - Unavoidable sensitive habitat taking or wetland filling can be minimized by prudent planning and design control. Construction work zones can be restricted throughout sensitive areas. Wetland and stream crossing for transportation corridors can be facilitated by appropriate bridge design and minimization of the area disturbed for construction in the parkway corridor. The effectiveness would be site specific, depending on environmental conditions and design compatibilities. Because wetland disturbance requires permitting, the probability of avoidance and design measures being incorporated would be nearly 100 percent. Costs would be dependent on size of facilities and uniqueness of design to solve the problem. The land owner/developer and/or project proponent would be responsible for these mitigations.

- Conservation Easements or Deed Restrictions - Specific tracts of land can be protected from development disturbance by establishing conservation easements or writing deed restrictions. Easements can specify the actual management practices designed for the properties. These easements and/or restrictions would help to minimize potential direct and indirect wetland impacts. By protecting sensitive habitats, this mitigation could be 100 percent effective in eliminating or avoiding the respective impacts. These habitats may be offsite, in compensation for losses onsite. The Air Force or initial property recipient can set up these easements or restrictions. In compliance with permitting, the probability of using easements or deed restrictions would depend on the overall plan. Depending on land values, its availability, and negotiations, the costs could range from deed costs to land purchases. Conservation easements could be managed by responsible agencies, such as the USFWS, NYSDEC, The Nature Conservancy, or other entities that would maintain and monitor the habitats/wetlands. Deed restrictions would place the responsibility for protection of wetlands with property recipients.

- Develop Replacement/Additional Habitats - Wetlands filled or upland habitats destroyed as part of project development may be replaced on the basis of a pre-negotiated ratio. This mitigation could entail the creation or development of new wetlands and/or upland habitats, in quantities exceeding the actual acreage taken. The land requirements

may exist within the project boundaries but may also require offsite acquisitions. Effectiveness would depend on the initial plan, use of local native plant materials, physical replication of ecosystem elements, seasons of creation and planting, and the weather conditions at the time. In compliance with permitting and the specific plan, the probability would be plan dependent, but higher for wetland habitat than upland habitat. Depending on land availability, values and design/construction details, the costs would be moderate to high to replace/recreate wetland habitat and slightly less for upland habitat. The landowner/developer, and/or project proponent would be responsible for these mitigations, and complying with permits and/or regulations of the COE, EPA, and/or NYSDEC.

- Monitor Developed/Replacement Habitats - These measures may include a continuing planting and/or replanting/watering/feeding operation in accordance with the initial mitigation plan for revegetation or development of additional habitats to compensate for impact losses. The effectiveness would be dependent on the initial plan, the consistency of the monitoring, and the weather. The probability would be plan specific. The costs would also be dependent on plan details and length of activity, and would likely include labor costs. These would be the responsibility of the landowner and developer.

#### 4.4.5.2 Private Airfield Alternative

Construction and operations activities associated with the Private Airfield Alternative would adversely affect biological resources primarily through permanent loss of vegetation and its associated wildlife. About 23 acres of land, most of it supporting habitat of relatively low biological value, would be disturbed. Additional adverse or beneficial effects are associated with the conversion of habitats (e.g., conversion of forest to grassland or developed housing area to forest woodland). Specific impacts projected to result from the implementation of this alternative are described in the following paragraphs.

**Vegetation.** Overall, the Private Airfield Alternative would result in minimal losses to native tree and shrub vegetation. The construction of the new international air freight hub along the runway would disturb approximately 1 acre of grassy landscaped areas. The area west of the southern end of Runway 15/33 is designated for industrial use and would be used for the development of large-scale manufacturing and processing operations. This would disturb approximately 9 acres of grassy landscaped areas. A total of 1 acre of mowed grass would be disturbed at the two communication sites, which are designated for agriculture. The existing structures in these areas would be demolished. Approximately 12 acres containing landscaped areas, buildings, and paved areas would be disturbed during demolition of facilities in the public/recreational/open space land use area.

**Wildlife.** The majority of impacts to wildlife are expected to be long term and include loss and/or fragmentation of habitat, displacement, increased stress, disruption of daily/seasonal behavior, and mortality for less mobile species. The ability of more mobile species to displace and survive in adjacent habitats would depend primarily on the presence or absence of suitable habitat and, if present, whether adjacent suitable habitat is at carrying capacity. If adjacent habitats are at carrying capacity at the time of construction or when operations begin, the forced introduction of individuals into these areas would cause an increase in competition for resources (e.g., food, nesting areas). This, in turn, would cause a temporary increase in mortality for some species until equilibrium is reestablished.

As with the Proposed Action, most of the habitat alteration or loss/change will occur on that portion of the base classified as grass/landscaped with trees, which is largely man made and regularly disturbed. While the loss and alteration of habitats would be detrimental to these wildlife species, the Private Airfield Alternative is not expected to have a significant impact on regional wildlife populations. This is because of the low sensitivity levels, relatively small quantities, and generally high levels of previous disturbance to most of the affected habitats and the presence and quantity of suitable adjacent habitats.

The Private Airfield Alternative would have decreased noise levels as compared to NYANG operations. However, human activity levels would be expected to increase over the long term with the projected operations of the airfield. In the short term, activities would involve the initial demolition and clearing of some areas and construction in portions of those areas. The change in aircraft operations and associated airfield activities, however, is not expected to have a significant impact on wildlife species that have adapted to disruptions from noise and human activity associated with the airfield property.

**Threatened and Endangered Species.** The presence/absence of threatened and endangered species and possible effects upon them by this alternative would be the same as for the Proposed Action.

**Sensitive Habitats.** As with the Proposed Action, all direct disturbance activities for this alternative would occur outside of any wetland boundary. Potential indirect effects or need for State permits would be the same as for the Proposed Action.

**Cumulative Impacts.** The type of cumulative impacts would be similar to those described for the Proposed Action.

**Mitigation Measures.** Mitigation measures for the Private Airfield Alternative would be the same as described for the Proposed Action.

#### 4.4.5.3 Nonaviation Alternative

Construction and operations activities associated with the Nonaviation Alternative would adversely affect biological resources primarily through permanent loss of vegetation and its associated wildlife. About 60 acres of land, most of it supporting habitat of relatively low biological value, would be disturbed. Additional adverse or beneficial effects are associated with the conversion of habitats (e.g., conversion of forest to grassland or developed housing area to forest woodland). Specific impacts projected to result from the implementation of this alternative are described below.

**Vegetation.** Overall, the Nonaviation Alternative would result in the most amount of change or loss to native tree and shrub vegetation. Twenty-nine acres of land in the area designated for industrial use at the southern end of Runway 15/33 would be disturbed with the development of large-scale industrial and processing operations. Approximately 21 acres of this land is mowed grass that would be disturbed with the construction and demolition activities. Sixteen acres of the land designated for manufacturing in the middle portion of the airfield property would be disturbed by construction and demolition activities. Much of this area is covered with vegetation, including mowed grass and planted conifers, that would be disturbed by this activity. Most of the area designated for commercial land use is in the middle of the airfield property. Fifteen acres of this land would be disturbed by construction and demolition activities. Less than 1 acre of disturbance to vegetation would be associated with public/recreational/open space land uses. A total of 12 acres would be converted to agriculture at the two communications sites.

**Wildlife.** With the Nonaviation Alternative, the potential impacts to wildlife would be greater than those described for the Proposed Action. Beneficial effects from the loss of aircraft operations would be offset by the increase in disturbed acreage and the increased number of people associated with this alternative.

As with the Proposed Action, habitat alteration or loss/change would occur on the portion of the airfield property classified as grass/landscaped with trees, which is largely man made and regularly disturbed. However, the amounts of area disturbed would be greater, and the long-term results would mean less green/open space wildlife habitat in the central portion of the airfield property with this alternative. However, the loss and alteration of habitats with the Nonaviation Alternative is not expected to have a significant impact on regional wildlife populations because of the low sensitivity, relatively small quantities, and generally high levels of previous disturbance to most of the affected habitats and the presence and quantity of suitable adjacent habitat.

There would be no noise associated with aircraft activity with the Nonaviation Alternative. Other activities would be expected to increase by the

final development phase. These activities would involve the initial demolition and clearing of some areas as well as construction of new facilities.

**Threatened and Endangered Species.** The presence/absence of threatened and endangered species and possible effects upon them by this alternative would be the same as for the Proposed Action.

**Sensitive Habitats.** As with the Proposed Action and Private Airfield Alternative, all direct disturbance activities would occur outside of any wetland boundary. Potential indirect effects or need for State permits would be the same as for the Proposed Action.

**Cumulative Impacts.** Even though the magnitude of potential cumulative impacts to biological resource would be slightly greater in terms of land disturbance, the type of cumulative impacts in general resulting from the Nonaviation Alternative would be similar to those described in the Proposed Action. Development of the Griffiss Business and Technology Park in combination with the Nonaviation Alternative, would have essentially the same effects on biological resources as those described in the Proposed Action.

**Mitigation Measures.** Mitigation measures for the Nonaviation Alternative would be the same as described for the Proposed Action.

#### 4.4.5.4 No-Action Alternative

Caretaker maintenance of the airfield property would have beneficial effects on biological resources. A reduction in human activity and aircraft operations would reduce disturbance (particularly those caused by noise and continued alteration of habitat) to wildlife on and in the vicinity of the airfield property. Habitat quality for wildlife could improve if mowing of nonlandscaped areas were terminated or reduced. This would allow wildlife species richness and diversity to increase and would have an overall positive effect on biological resources at the airfield property at Griffiss AFB. This would be most notable in the areas around drainages. With the No-Action Alternative, these areas would continue to mature and provide additional habitat for wildlife species.

### 4.4.6 Cultural and Paleontological Resources

Potential impacts were assessed by (1) identifying types and possible locations of reuse activities that could directly or indirectly affect cultural resources, and (2) identifying the nature and potential significance of cultural resources in potentially affected areas.

Pursuant to the National Historic Preservation Act (NHPA), consultation, as directed by the Section 106 review process, has been initiated with the State

Historic Preservation Office (SHPO). The Air Force, in consultation with the SHPO, will comply with regulations for protection of cultural resources.

#### 4.4.6.1 Proposed Action

With the Proposed Action, Building 799, Security Police Visitor Control Center and Building 811, Master Surveillance and Control Facility, would be demolished. Building 150, Fighter Alert Building and Building 793, Crew Readiness Facility would be reused. Reuse for industrial purposes may affect the integrity and/or subsequently destroy those characteristics that would make them eligible. These actions would constitute adverse effects.

Six NRHP-eligible historic archaeological sites would be affected by the Proposed Action. One site, PCI Site 1, is located in an area designated as open space, which would have non-restrictive access by the public. This site would be adversely affected by increased access and possible unauthorized artifact collecting and vandalism. Another site, PCI Site 12, is located in the proposed FAA Runway Protection Zone. While any ground disturbing activities beyond the existing level of vegetation maintenance may disturb the integrity of PCI Site 12, this is unlikely. Four historic sites, PCI Sites 16, 18, 19, and 24, are located in the area proposed for aviation support activities. Ground disturbing activities associated with the construction of aviation support facilities would affect the integrity of these sites and/or subsequently destroy those characteristics which make them eligible.

**Cumulative Impacts.** In addition to the impacts to cultural resources described above for the airfield property, prehistoric site PCI Site 22 could be adversely affected with modification to the existing golf course. PCI Site 22 is located on the BRAC III portion of the base.

**Mitigation.** The protection of Buildings 150, 793, 799, and 811 from demolition or reuse is not practicable for a variety of reasons. Modifications have been made to some buildings such that they no longer reflect the original design. Where this is not the case, as in Building 811, the Security Entry Police Control Facility, the building by itself it is not adequate to portray the feeling or association of the Cold War Mission. Therefore little benefit could be derived from the preservation of these structures. Certain measures are, however, available to mitigate the loss of these buildings.

Appropriate mitigation would negotiated with the New York SHPO during continued consultation and documented in a Memorandum of Agreement between the Air Force and the NY SHPO. If it is agreed that recordation is the appropriate mitigation for the facilities on Griffiss AFB, documentation would reduce the effect from adverse to no adverse effect. The HABS/HAER recordation could be entered into the state archives or into a local repository and would be available for future research.

#### 4.4.6.2 Private Airfield Alternative

Impacts to cultural resources as a result of the Private Airfield Alternative would include modification or demolition of potentially NRHP-eligible buildings, and disturbance to NRHP-eligible historic sites through construction. Land conveyance may also affect NRHP-eligible resources. The same buildings and structures described in the Proposed Action, which may be NRHP-eligible under the Cold War theme, may be demolished or modified with the Private Airfield Alternative. These activities would affect the integrity and/or subsequently destroy those characteristics which would make them eligible. The same six NRHP-eligible historic archaeological sites would be affected by the Private Airfield Alternative as described for the Proposed Action.

**Cumulative Impacts.** Cumulative impacts would be the same as for the Proposed Action.

**Mitigation Measures.** Mitigation measures for the Private Airfield Alternative would be the same as described for the Proposed Action.

#### 4.4.6.3 Nonaviation Alternative

Impacts to cultural resources as a result of the Private Airfield Alternative would include modification or demolition of potentially NRHP-eligible buildings, and disturbance to NRHP-eligible historic sites through construction. Land conveyance may also affect NRHP-eligible resources. Some buildings and structures, which may be NRHP-eligible under the World War II and Cold War themes, may be demolished or modified under the Private Airfield Alternative. These activities would affect the integrity and/or subsequently destroy those characteristics which would make them eligible. The same six NRHP-eligible historic archaeological sites would be affected by the Private Airfield Alternative as described for the Proposed Action.

**Cumulative Impacts.** Cumulative impacts would be the same as for the Proposed Action.

**Mitigation Measures.** Mitigation measures for the Nonaviation Alternative would be the same as described for the Proposed Action.

#### 4.4.6.4 No-Action Alternative

There would be no affect on cultural and paleontological resources resulting from implementation of the No-Action Alternative because the airfield property would remain under Federal jurisdiction. However, the Air Force caretaker personnel should continue to ensure that there is adequate security to discourage unauthorized collecting of archaeological sites and vandalism of buildings. Maintenance of historic buildings would continue to prevent deterioration of historic properties under Air Force ownership.

## 4.5 ENVIRONMENTAL JUSTICE

The analysis conducted for this SEIS includes a review of influencing factors (local community resources), and a discussion of resulting impacts associated with hazardous materials and hazardous waste management and the natural environment. Local community resources (i.e., community setting, land use and aesthetics, transportation, and utilities) have been identified to be influencing factors exclusively and, therefore, would not have disproportionately high and adverse human health and environmental effects on minority and low-income populations.

Environmental justice impacts can arise, however, as a result of the use of hazardous materials and generation of hazardous waste. Impacts associated with the IRP may occur regardless of implementation of the Proposed Action and alternatives. Impacts may also occur to soils and geology, water resources, air quality, noise, biological, and cultural and paleontological resources as a result of reuse-related development activities.

Based on the analysis conducted for this SEIS, impacts resulting from hazardous materials and hazardous waste management, soils and geology, water resources, biological, and cultural and paleontological resources as a consequence of the Proposed Action and alternatives would be contained within the boundary of the airfield property at Griffiss AFB. Activities that would affect air quality would occur regionally. Thus, no disproportionately high and adverse impacts to minority and low-income populations would be expected for these resources, and further environmental justice analysis was not conducted.

Aircraft activities associated with the Proposed Action and alternatives may cause an increase in noise. With the Proposed Action there would be a decrease in area affected by aircraft noise when compared to the NYANG operations in 1996; however, the area under the flight tracks is generally rural and has relatively low population densities. Because none of the flight tracks would pass over the City of Rome, noise resulting from aircraft operations would have little or no impact on the city. The noise contours would not extend beyond the airfield property at Griffiss AFB. The Private Airfield Alternative would generate even less aircraft noise, because the commercial airport component would not be relocated from Oneida County Airport to the airfield property at Griffiss AFB. With the Nonaviation Alternative, there would no aircraft operations at the airfield property at Griffiss AFB. Aircraft noise would not be a concern. No additional environmental justice analysis is required for aircraft-generated noise.

With traffic activities additional surface noise would be generated, and an environmental justice analyses was conducted to determine whether there would be disproportionately high and adverse noise impacts on minority and low-income populations.

The environmental impact analysis indicates that adverse environmental impacts would occur within Oneida County. Therefore, the community of comparison (COC), used to establish a baseline for comparison, is defined as Oneida County. To determine whether disproportionate impacts to minority or low-income populations would result from the Proposed Action or alternatives, census data for each census block group surrounding the airfield property at Griffiss AFB were compiled. This area included census block groups in the Township of Rome, the Town of Floyd, and the City of Rome, which were analyzed to determine if these census block groups contain a disproportionately high percentage of minority and/or low-income residents. This was calculated by comparing the percentage of minority residents and the percentage of low-income residents in each census block group with that of Oneida County, the COC. The mean for minority populations in the COC was 7.33 percent; the mean for low-income populations was 11.24. Census block groups that did not contain disproportionately high minority or low-income populations were eliminated from further analysis.

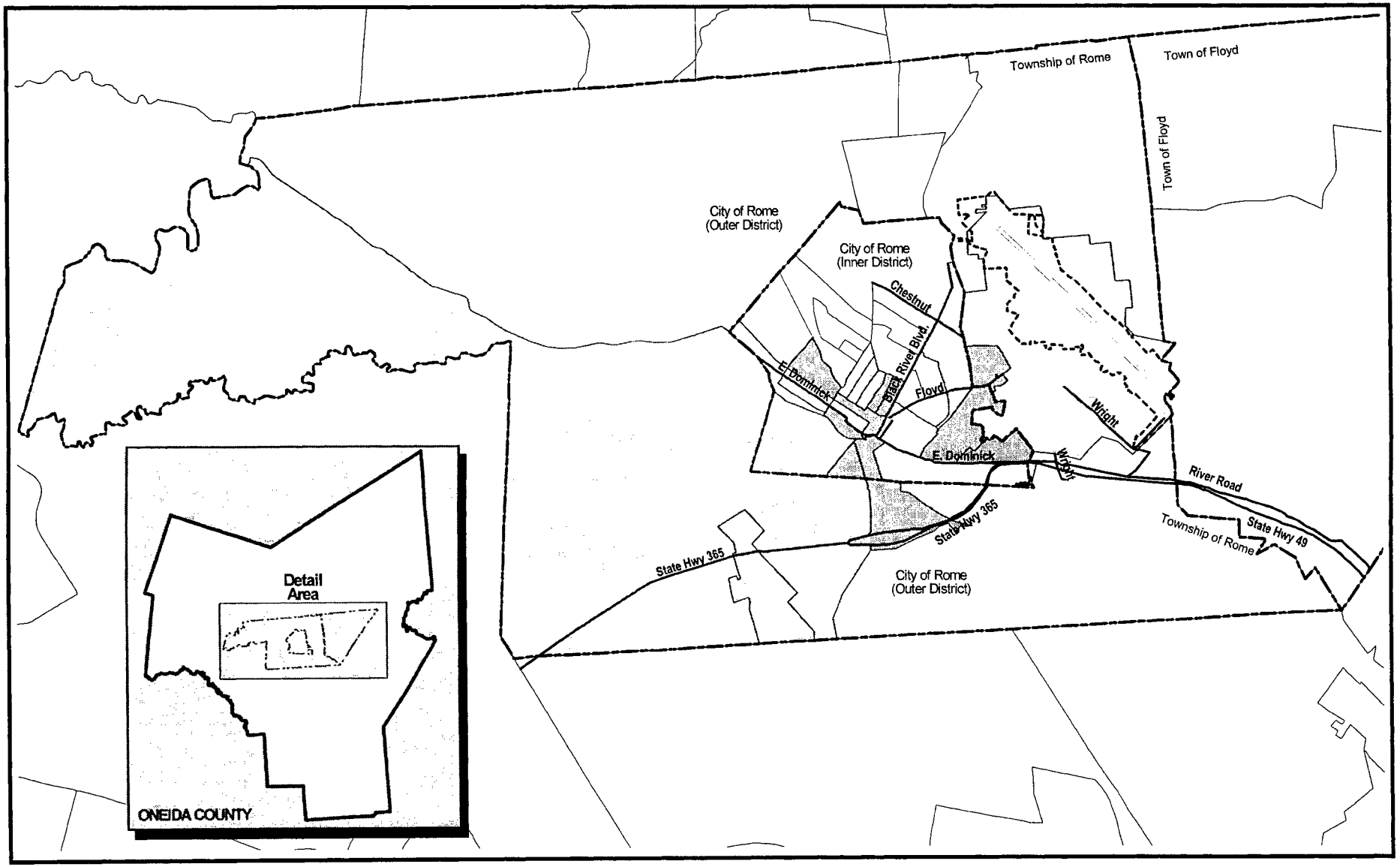
**Surface Traffic Noise**

As discussed in Section 4.2.3, adverse surface traffic noise impacts were identified for major roads around or leading to the airfield property at Griffiss AFB. Surface traffic noise levels represent the highest noise levels that would occur in 2016, and also represent the noise created by all traffic on these road segments. Surface traffic noise levels are presented in terms of DNL as a function of distance from the centerline of the roadways analyzed.

**Proposed Action.** The distance of the 65 dB, 70 dB, and 75 dB DNLs from the roadway centerline for the Proposed Action would be in the range of 10 to more than 100 percent more over the baseline distances. Residences and commercial businesses along these segments would experience DNL noise levels in excess of 65 dB by 2016. With the Proposed Action, increased surface traffic noise would occur in six disproportionate census block groups (Figure 4.5-1). The impacts would affect residents and businesses along State Highway 49, east and west of Wright Drive, East Dominick Street at Wright Drive and west of Wright Drive, Floyd Avenue west of Floyd Gate, Chestnut Street east of Black River Boulevard, and Black River Boulevard south and north of Floyd Avenue and south and north of Chestnut Street. The increased surface traffic noise would affect census block groups 218.1, 223.1, 224.1, 225.3, 225.5, and 226.9. On Figure 3.5-1 these coincide with key numbers 6, 5, 16, 19, 15, and 20, respectively.

**Private Airfield Alternative.** Impacts from surface traffic noise for this alternative would be less than those of the Proposed Action because of lower traffic levels.

Surface traffic noise levels would, nevertheless, increase substantially from the baseline levels. The distance of the 65 dB, 70 dB, and 75 dB DNLs from




Town / Township Boundary

Airfield Property Boundary at Griffiss AFB

Roads

Census Block Group

Census Block Group With Low-Income Population of More than 11.24 Percent, 1990

Census Block Group With Minority Population of More Than 7.33 Percent, 1990

Census Block Group With Both

Source:
U. S. Bureau of the Census, 1992.

1 0 1 Miles

# Roadway Segments with Disproportionate Census Block Groups

**Figure 4.5-1**

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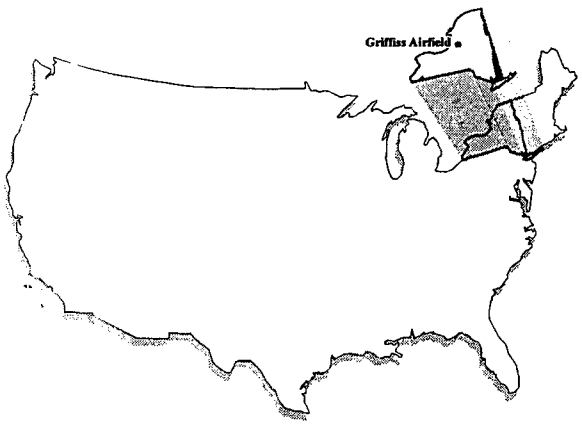
the roadway centerline for the Private Airfield Alternative would also be in the range of 10 to more than 100 percent distance over the baseline distances. Residences and commercial businesses along these segments would also experience DNL noise levels in excess of 65 dB by 2016. With the Private Airfield Alternative, increased surface traffic noise would occur in the same disproportionate census block groups as the Proposed Action.

**Nonaviation Alternative.** Surface noise levels for this alternative would be the highest of all alternatives. State Highway 49, Wright Drive, Floyd Avenue, Chestnut Street, and Black River Road would experience higher noise levels compared to 1996 levels. With the Nonaviation Alternative, increased surface traffic noise would occur in six disproportionate census block groups. The impacts would affect residents and businesses along the same roadways as the Proposed Action, except at a higher level.

**Mitigation Measures.** Mitigation measures for potential environmental justice impacts associated with surface traffic noise could include a sound insulation program that could be implemented to reduce interior noise levels for sensitive receptors exposed to DNL 65 dB or greater. Noise reduction inside buildings could be accomplished by incorporating solid core wood or steel-faced exterior doors, non-opening dual pane windows, and aggregate block walls into the building design, and limiting the total square footage of windows to not more than 10 percent of exterior exposed walls. These features can reduce interior noise levels by as much as 26 to 53 A-weighted dB when properly designed and constructed.

For future development, county and township land use planning could incorporate noise compatibility measures when establishing residential zoning. Measures such as restricting residential development to areas outside the DNL 65 dB contour and incorporating buffer zones into community development could be used. Finally, the effectiveness of the operational and management noise mitigation measures presented here cannot be completely determined without extensive modeling and/or noise measurements by the future proponent. This should be the first step taken in implementation of environmental justice mitigation measures.

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# CHAPTER 5.0
# CONSULTATION AND COORDINATION

# 5.0 CONSULTATION AND COORDINATION

The Federal, State, and local agencies and private agencies/organizations that were contacted during the course of preparing this Supplemental Environmental Impact Statement are listed below.

**FEDERAL AGENCIES**

Department of the Interior, Fish and Wildlife Service

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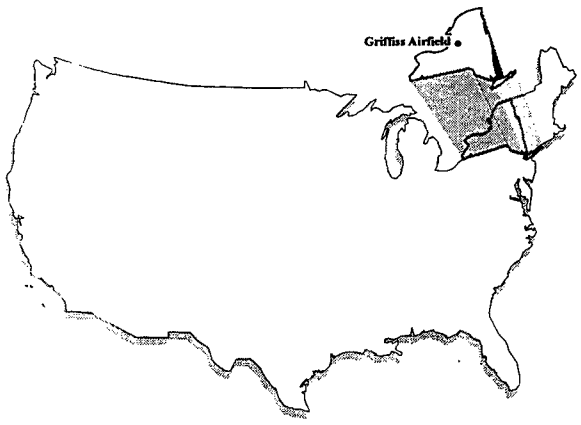
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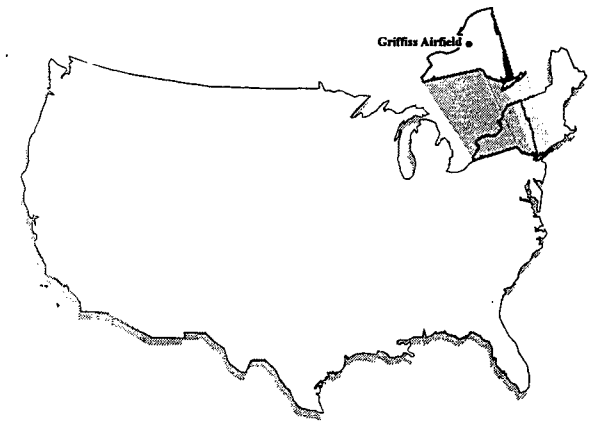
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# CHAPTER 7.0
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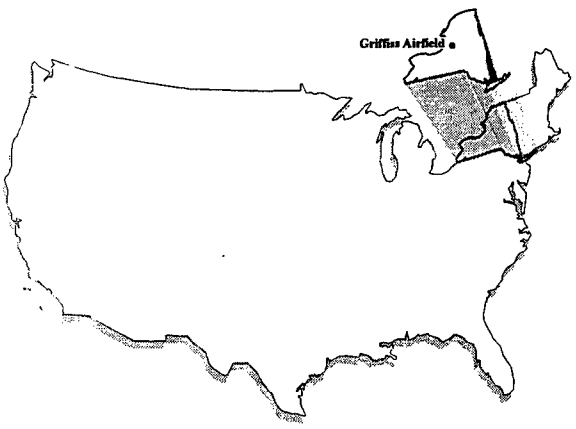
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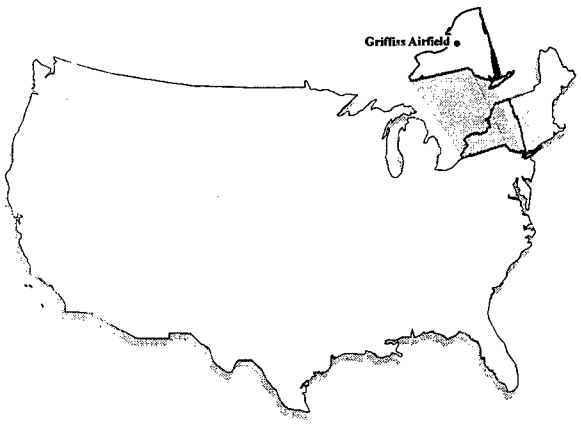
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# CHAPTER 9.0
# PUBLIC COMMENTS AND RESPONSES

# 9.0 PUBLIC COMMENTS AND RESPONSES

## 9.1 INTRODUCTION

The Council on Environmental Quality (CEQ) regulations (40 CFR 1503.1) implementing the National Environmental Policy Act (NEPA) require that "after preparing a draft environmental impact statement and before preparing a final environmental impact statement the agency shall:

1) Obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impacts involved or which is authorized to develop and enforce environmental standards.

2) Request the comments of:

   i) Appropriate state and local agencies which are authorized to develop and enforce environmental standards.

   ii) Indian tribes, when the effects may be on a reservation.

   iii) Any agency which has requested that it receive statements or actions of the kind proposed.

3) Request comments from the applicant, if any.

4) Request comments from the public, affirmatively soliciting comments from those persons or organizations who may be interested or affected."

The regulations further require that "an agency preparing a final environmental impact statement shall assess and consider comments both individually and collectively," and shall respond to those comments in the final document.

In compliance with these regulations, the Air Force released the *Draft Supplemental/Environmental Impact Statement, Disposal and Reuse of the Airfield at Griffiss Air Force Base, New York* for a 45-day public review and comment period on November 13, 1998. The Notice of Availability (NOA) was published in the *Federal Register* on the same day. Copies of the Draft Supplemental/Environmental Impact Statement (SEIS) were sent to agencies, organizations, and individuals as required, and were made available to the public on request. A listing of recipients is provided in Appendix C. Copies of the DEIS were also sent to public libraries in the Griffiss Airfield area. A

press release was sent to local newspapers and radio stations. A public hearing was conducted on December 9, 1998.

This chapter provides a summary of the public review and comment period and contains an overview of the public comment management process, a listing of all respondents (Table 9.3-1), copies of the public hearing transcript and all written comments received, and a listing of all comments identified in the documents and the Air Force response to the comments.

**Table 9.3-1**

**Index of Commentors**

| Document No. | Author | Page No. |
|---|---|---|
| 1 | Public Hearing Transcript | |
| | Speaker #1 Mr. John Fitzgerald, Rome-Floyd Residents Association, Rome, New York | 9-4 |
| | Speaker #2 Mr. Remo Moroni, Rome Area Chamber of Commerce, Rome, New York | 9-11 |
| | Speaker #3 Mr. Joe Roback, Rome, New York | 9-11 |
| | Speaker #4 Mr. Emlyn Griffith, Rome, New York | 9-11 |
| | Speaker #5 Mr. Mark Reynolds, Griffiss Local Development Corporation, Rome, New York | 9-12 |
| | Speaker #6 Mr. Mark Malorzo, Rome, New York | 9-12 |
| | Speaker #7 Utica Observer-Dispatch Editorial Staff (Submitted by Mr. John Fitzgerald) Rome, New York | 9-12 |
| 2 | Mr. Rocco L. Versace, Rome Area Chamber of Commerce | 9-13 |
| 3 | Mr. Louis Mounser, Rome, New York | 9-13 |
| 4 | Mr. Andrew Raddant, U.S. Department of the Interior | 9-13 |
| 5 | Mr. Joseph P. Roback, Rome, New York | 9-16 |
| 6 | Ms. Ruth L. Pierpont, New York State Office | 9-17 |
| 7 | Mr. Michael J. Cappareli, Jr., Rome, New York | 9-18 |
| 8 | Ms. Jaclynne M. O'Neill, Gaithersburg, Maryland | 9-19 |
| 9 | Ms. Jennie Pouse, Rome, New York | 9-21 |
| 10 | Ms. Marion P. Sorensen, Rome, New York | 9-21 |

The review of public comments served as one element in the preparation of the Final SEIS. Some issues addressed in the public comments led to the conduct of further analysis, reanalysis, and/or verification of data. In accordance with CEQ regulations, all comments have received responses. In some cases the response is that the comment is beyond the scope of the SEIS. All comments received and the Air Force response to each comment are included as part of the Final SEIS.

## 9.2 ORGANIZATION

The public review and comment period for the Draft SEIS began on November 13, 1998, with a *Notice of Availability* published in the *Federal Register,* and ended on December 28, 1998. During this review period, public comments on the Draft SEIS were solicited through direct mail to agencies, organizations, and individuals listed in Appendix C and through press releases to the local media. Written comments were submitted to the Air Force Center for Environmental Excellence at Brooks AFB, Texas. Verbal and written comments were received at a public hearing conducted at the Mohawk Valley Community College, Rome, New York, on December 9, 1998. At the public hearing the Air Force presented the findings of the Draft SEIS and invited public comments.

Finally, it should be emphasized that not only have responses to SEIS comments been addressed in this chapter, but the text of the SEIS itself has also been revised, as appropriate, to reflect the concerns expressed in the public comments.

## 9.3 PUBLIC COMMENT MANAGEMENT PROCESS

During the public comment and review period, comments on the Draft SEIS were received from federal, state, and local agencies and officials; organizations; and individuals. The comments included testimony at the public hearing held in Rome (i.e., the transcript as recorded by a court reporter), written statements submitted at the public hearing, and letters received through the mail. Nine comments were received, and with the transcript result in 10 documents. Each of these are hereafter referred to as documents and all were given the same consideration in the review and analysis process.

The process used for analyzing comments is described below. The objective of this process was to analyze each comment received, formulate a response, and incorporate corrections and revisions into the FEIS. All documents were assigned a document number for purposes of identification and information tracking. The public hearing transcript was assigned document number 1 and the written comment documents were assigned document numbers 2 through 10. A listing of individuals who provided verbal comments at the public hearing and all respondents who submitted written comments is provided in Table 9.3-1, identifying the author's name and affiliation (if appropriate), corresponding document number, and the page of this chapter on which the Air Force's response(s) to the author's comment(s) is provided.

Within each document, each comment is numbered sequentially. For example, comment number 2.3 refers to comment 3 in document 2, and comment number 1.2-2 refers to comment 2 from speaker 2 in document 1. Table 9.3-1 lists the name of the commentor and page number where

responses have been provided. Copies of the original comments are included at the end of this chapter.

Please note that projected changes in socioeconomic factors as a result of the disposal of the airfield property are considered in this SEIS only to the extent that they affect the physical or natural environment. Other socioeconomic issues, such as the region's school budgets, municipal/state tax revenues, municipal land planning, medical care for military retirees and dependents, local governments and services, real estate, and economic effects on utility systems and specific businesses, are beyond the scope of NEPA and implementing CEQ regulations. As such, some socioeconomic comments are beyond the scope of this environmental analysis. The response indicates this where applicable. However, all comments have been included and appropriate responses provided in this chapter.

## 9.4 RESPONSES TO INDIVIDUAL COMMENTS

*Document #1: Public Hearing Transcript*

*Speaker #1: Mr. John Fitzgerald*

**1.1-1** **Comment:** ...we are presented with a document that indicates a proposal to operate the airfield with 80,000 aircraft operations per year. That's one aircraft leaving or landing every four minutes during a 16-hour day. How does this compare to Griffiss in its heyday? I believe this is a large number...of operations. And I don't think there was any comparison in the document itself from the heyday of Griffiss to what's proposed. You did mention 1993.

**Response:** This environmental document, which supplements *the Final Environmental Impact Statement, Disposal and Reuse of Griffiss Air Force Base, New York*, (FEIS) published in November 1995, focuses only on the environmental issues related to closure and reuse of the airfield property. As a consequence, conditions that were present prior to closure of the airfield property were used as a basis for comparison. Prior to closure, the airfield property was a minimum essential airfield used by the New York Air National Guard (NYANG) and therefore the activities and level of operation of the NYANG are used throughout the document to determine effects of reuse. However, details of aircraft operations (in 1992) prior to realignment are documented in Table 3.2-4 of the 1995 FEIS, which was incorporated by reference in the Draft SEIS.

As described in Table 3.2-4 of the 1995 FEIS, a total of 13,672 operations (departure, arrival, or closed pattern) occurred at Griffiss AFB in 1993, the last fully operational year prior to the realignment

of the base. It should be noted that the majority of the aircraft operations in 1993 were heavy military aircraft, such as the KC-135. These aircraft are considerably noisier than civilian aircraft. In comparison, as can be seen in Table 2.2-4 of the SEIS, approximately 74 percent of the 78,548 projected annual operations in 2016 are anticipated to be single-engine or twin-engine general aviation aircraft and approximately 2 percent are anticipated to be heavy jet aircraft associated with air freight and aircraft maintenance activities. In addition, and for purposes of comparison, the total number of operations at Oneida County Airport was 70,274 in 1991 and 42,520 in 1996. Syracuse International Airport had 185,169 operations in 1991 and is projected to have 339,000 operations in 2011.

1.1-2 **Comment:** And that certainly indicates that this is a proposal much, much larger. So every four minutes, there will be noise and a chance for an accident in the Rome community. A new high school is proposed for Griffiss Park. Every four minutes during the school day, noise and an accident will and could happen. Is this reasonable?

**Response:** One possible location for a high school being considered by the Rome City School District is approximately 2 miles south of the runway. This possible school location is also south of the existing Rome Laboratory and other active reuses of the former Griffiss AFB property. All of these uses are closer to the runway than the possible high school location. The Federal Aviation Administration (FAA) recommended land use compatibility guidelines (Table 3.4-11 in the SEIS) allow school uses in areas with a day-night average sound level (DNL) of less than 65 decibels (dB). The possible location of this high school is not close to DNL 65 noise contours, which generally are located in a west-northwesterly direction from the ends of the runway (Figures 4.4-1 and 4.4-2 in the SEIS). Currently, no flight tracks are proposed over the school site. Should this site be chosen for a high school, it would not be significantly affected by noise or safety hazards from reuse of the runway.

1.1-3 **Comment:** Your impact statement states on page 4-76 that noise resulting from 80,000 aircraft operations would have little or no impact on the City of Rome. This is not true. Common sense and past experience provides proof that aircraft do make loud noises. And some people will be more impacted than others.

**Response:** Impacts related to aircraft operations are evaluated based on many factors in addition to the number of aircraft. As described in Section 4.4.4, the FAA-developed Integrated Noise

Model was used to predict day-night average sound level (DNL) noise contours. Input data to the Integrated Noise Model includes information on aircraft types; runway use; takeoff and landing flight tracks; aircraft altitude, speeds, and engine power settings; and number of daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) operations. As described in the response to Comment 1.1-1, the majority of aircraft operations in 2016 (74%) is expected to be related to smaller, quieter, general aviation aircraft, as compared to the larger and noisier military aircraft used in 1993, prior to the realignment of the base.

Another factor contributing to the anticipated decrease in noise levels is the replacement of Stage 2 aircraft with Stage 3 aircraft. As described in Section 4.4.4, Noise, the National Aviation Noise Policy required compliance with Stage 3 noise levels by 2003. Stage 2 and Stage 3 noise levels are defined in Federal Aviation Regulation 36, Appendix C. These noise levels are a technical federal rating of the relative noise of a jet aircraft when compared to all other jet aircraft. Stage 2 aircraft are noisier than Stage 3 aircraft when the same aircraft type is compared. As seen in Figure 4.4-1 and Figure 4.4-2, noise levels decrease from 2001 to 2016 because of the introduction of Stage 3 aircraft by 2003. Even prior to the introduction of Stage 3 aircraft, however, noise levels greater than 65 dB are not expected outside of the airfield property in any year.

**1.1-4** **Comment:** Airplanes do crash. It happens. It could happen here. How will crash and rescue services at the air park be provided? These services could cost up to a million dollars a year for round-the-clock protection...Who will pay for crash and rescue service?

**Response:** This comment is out of the scope of this SEIS because it does not relate to impacts on the biophysical environment. The Oneida County government will make the final decision to move the airport to the Griffiss Airfield Property. This decision will take into account financial, environmental, and safety concerns. If the Oneida County Airport is moved, the FAA requires the airport owner (in this case, Oneida County) to prepare a plan for aircraft rescue and firefighting prior to receiving an airport operating certificate from the FAA. Federal Aviation Regulation (FAR) part 139, Certification and Operations, lists safety and aircraft rescue and firefighting requirements. If the Oneida County Airport is not moved, the Master Plan for the Private Airfield Alternative operations would be required to detail safety and firefighting considerations prior to approval by FAA.

1.1-5 **Comment:** The Proposed Action would create 1,624 jobs by 2016. The Nonaviation Alternative would result in 7,043 jobs. Therefore, there is no advantage in job creation in the pending Proposed Action...Also, how much would it cost local taxpayers to create the 1,624 jobs? And what if these jobs don't get created?

**Response:** Employment forecasts were created for analysis of impacts related to the environment, such as increased traffic and changes in air pollutant emissions. These employment forecasts are developed using standard industry planning guidelines. The employment forecasts used in the SEIS assume that maximum utilization of the airfield property would occur by 2016. This allows for the analysis of the most severe potential impact to the environment. The time-frame in which actual maximum utilization is likely to occur, however, is dependent on the market. Details on the assumptions used to develop each alternative can be found in Section 2.2, Description of the Proposed Action, Section 2.3.1, Private Airfield Alternative, and Section 2.3.2, Nonaviation Alternative.

1.1-6 **Comment:** On page S-13, it states the type of hazardous materials and waste generated as a result of the Proposed Action...are expected to be similar and greater to those prior to closure of Griffiss Air Force Base. Yet there is no specific plan for dealing with this situation. Only the assumption that the proper uses and handling of hazardous materials and waste will be the norm. Now, considering the poor disposal practices and problems of the past at the base, this cavalier attitude is irresponsible. Where are the specifics for dealing with hazardous materials, such as deicing for the planes and other types of waste under the Proposed Action?

**Response:** Although widely accepted at the time, procedures followed prior to the mid-1970s for managing and disposing of many wastes often resulted in contamination of the environment. Current regulations, such as Resource Conservation and Recovery Act (RCRA), require proficiency with hazardous materials handling and the implementation of Spill Response Plans. In addition, each generator of hazardous waste would be required to obtain the appropriate federal, state, and local permits for the management of waste. The specifics of hazardous materials and hazardous waste management under the Proposed Action or any reuse to which the airfield is put in the future would be the responsibility of the reuser. Unlike the year prior to the mid-1970's, today management of hazardous materials and hazardous waste is highly regulated at the Federal, State, and local level. As detailed in Section 4.3, Hazardous Substances Management, Subsection 4.3.1, Proposed Action, each reuser would be required to comply with the

Emergency Planning and Community Right-to-Know Act (Superfund Amendments and Reauthorization Act [SARA] Section 311, Title III).

It is also possible, depending upon the nature of reuse as related to potential hazardous waste generation, an onsite planning body for hazardous materials and waste management could be established through a cooperative effort with the new operators on the base. Such a body might increase recycling, minimize waste, assist in mutual spill responses, and reduce the costs of environmental compliance, health, and safety training. Specific techniques for accomplishing the same might include the scheduling of coordinated collection days for hazardous household products such as paints, pesticides, and cleaners. These and other type measures could be implemented by the GLDC as part of a larger ongoing program aimed at integrated waste management by State, county, or jurisdictions.

1.1-7 **Comment:** On page S-14, it states that six sites are eligible for the National Register of Historic Places and would be affected by the Proposed Action, yet it says all impacts can be mitigated. But this really needs to be explained. What sites and what mitigations?

**Response:** A detailed discussion of the six sites eligible for the National Register of Historic Places is located in Section 3.4.6, Cultural and Paleontological Resources. Impacts and mitigation measures related to the Proposed Action are discussed in Section 4.4.6.1, Proposed Action.

1.1-8 **Comment:** Pages 2-13 and 4-7 indicate that changing from the military to civilian control would result in modifications of the current AICUZ zones and accident potential zones, and that is to make them smaller by 125 acres. Where is the common sense increasing air traffic and decreasing safety zones. There should be no change in these zones if the Proposed Action is attempted.

**Response:** With the reuse of the airfield property for civilian airport purposes, the Air Force's Air Installation Compatible Use Zone (AICUZ) program would no longer be in effect and the FAA regulations would govern the airport and associated airfield. A preliminary analysis was prepared in the *Master Reuse Strategy for Griffiss Air Force Base, Rome, New York*, issued by the Griffiss Redevelopment Planning Council (GRPC) in 1995, which has now been replaced by the Griffiss Local Development Corporation (GLDC). This preliminary analysis indicated that the FAA Runway Protection Zones (RPZ) would be completely within the airfield property boundaries. As described in the SEIS in Section 2.2,

Description of the Proposed Action, Subsection 2.2.1, Airfield, if the Oneida County government chooses to move the airport to the Griffiss airfield property, an Airport Layout Plan (ALP) will be submitted to the FAA, which will include a detailed analysis of the location of RPZs. The dimensions of the RPZs will be based on criteria such as the characteristics of the aircraft that would use the runway, the type of operations, and minimum visibility requirements.

1.1-9 **Comment:** On page 2-1 it describes a 10-acre bulk fuel storage area north of the barge (canal). Any danger from these tanks now or with the Proposed Action? I don't believe this was addressed in the statement.

**Response:** Currently, the tanks and pipeline in the bulk fuel storage area are in the process of being cleaned and closed in place because they are no longer used by the military. Soil contamination related to a removed underground storage tank is being remediated as part of the IRP. As described in the response to Comment 1.1-6, individual owners and operators would be required to comply with all federal, state, and local regulations regarding hazardous materials and waste. Specifically, as described in Section 4.3.1.4, Storage Tanks and Oil/Water Separators, these regulations include acceptable leak detection methods, spill and overfill protection, cathodic protection, and liability insurance.

1.1-10 **Comment:** The chart on page 3-27 indicates the lack of need...to relocate the County Airport. The drop in passengers at the airport is dramatic, and moving it to the park has not been supported by information in this impact statement.

**Response:** The Oneida County government will make the final decision regarding the relocation of the Oneida County Airport to the Griffiss airfield property. Towards that end, we understand that the County has begun a year-long study to determine the economic feasibility of relocating the airport. This SEIS is for the purpose of analyzing potential environmental impacts of all reasonably-foreseeable alternatives.

1.1-11 **Comment:** Pages 3-61 and 3-62 states that there is no contamination in Six Mile Creek surface waters. This is misleading and taints the integrity of the impact statement. It fails to mention the sediment samples at Six Mile Creek and the contamination problems at Three Mile Creek.

**Response:** A discussion of sediment contamination in Three Mile Creek and Six Mile Creek can be found in Section 3.3.3, Installation

Restoration Program Sites. More detailed information on the contamination of Three Mile Creek can be found in the 1995 FEIS, since it is not located on the airfield property.

1.1-12 **Comment:** On page 3-70, it indicates the potential of failing to meet the new standard for ozone and being reclassified to nonattainment. This needs to be elaborated upon. What does this mean with regards to the Proposed Action?

**Response:** The section in question discusses changes to the federal air quality standards for ozone in the entire United States, including the Central New York Intrastate Air Quality Control Region, in which the Griffiss airfield property is located. The discussion on page 3-70 of the Draft EIS explains that the latest standards for ozone and particulates introduced in 1997 were more stringent and that any region that didn't meet these new standards would be reclassified as non-attainment. This would occur even though there have been no actual deterioration in air quality.

Prior to the 1997 standards the region had been designated unclassified/attainment for ozone. This designation did not change for this region when the standards changed in 1997.

Ozone emissions estimated for the Proposed Action were evaluated against the existing 1997 standard and no significant impacts were found. Section 4.4.4, Air Quality, has been edited to clarify this point.

1.1-13 **Comment:** ...the Rome-Floyd Residents Association recommends the Nonaviation Alternative over the Proposed Action. The acceptance of physical dangers and noise nuisances from the 80,000 aircraft operations are not justified by this impact statement.

**Response:** The purpose of this document is not to justify any particular course of action but to evaluate potential environmental effects. These results are considered in making environmentally informed decision making. Analysis of noise and safety impacts are discussed in Section 4.4.3 and Section 4.4.4, respectively. However, the final decision regarding moving the Oneida County Airport to the Griffiss airfield property rests with the Oneida County government.

1.1-14 **Comment:** Additionally, we have no confidence that this major undertaking can be accomplished as planned. We feel that the financial expenditures for local government to attempt this project

has the potential to bankrupt the local economy. This is the extreme opposite of what is desired.

**Response:** Comment noted. The analysis of impacts not related to the biophysical environment are out of the scope of this SEIS.

*Speaker #2: Mr. Remo Moroni*

**1.2-1 Comment:** The Chamber of Commerce supports the proposal [for] the development of an international air cargo hub and aircraft maintenance facility and commercial airport at Griffiss airfield in Rome.

**Response:** Comment noted.

*Speaker #3: Mr. Joe Roback*

**1.3-1 Comment:** I don't know what 65 decibels mean...I now run a business, a small business, of my own. And I run it out of my house. And I have anxiously awaited the planes to stop flying so that I can conduct business in my home. I could not open my windows and conduct business because I couldn't talk on the phone. It was very difficult to talk with the windows closed. Sixty-five decibels, if it compares to the cargo planes or jet aircraft that were flying over my house, is much too much for me to tolerate.

**Response:** A comparative chart of common sounds related to typical sound levels is shown on Figure 3.4-4. Sixty-five decibels is comparable to commercial area heavy traffic at 300 feet or normal speech at 3 feet. Please also see the response to Comment 1.1-3.

**1.3-2 Comment:** I believe that we are in such close proximity to the airbase that it is a hazard as far as crashes are concerned...

**Response:** Please see the responses to Comment 1.1-4 and Comment 1.1-8.

*Speaker #4: Mr. Emlyn Griffith*

**1.4-1 Comment:** I...endorse the [Rome Area] Chamber [of Commerce]'s position as set forth in the letter from Chairman Versace, which has just been read to you [by Mr. Moroni]. Also I urge the ...GLDC to intensify its effort to implement the recommendations in the EIS report...I personally recognize the importance of continuing air cargo service to meet the needs of companies which currently employ more than 1,000 persons in the Onieda County Airport.

**Response:** Comment noted.

*Speaker #5: Mr. Mark Reynolds*

**1.5-1** **Comment:** I would like to emphasize one point that was stated...in the presentation. The decision to relocate the County Airport from Oneida County to Griffiss is not a decision that will be make by the Griffiss Local Development Corporation, and I don't know that it's to debate in this forum. It's a decision that will be made by the Oneida County government after their careful study they have just commenced...studying the economic impacts, not environmental impacts, of creating this Proposed Action. So, hence, the Griffiss Local Development Corporation is prepared to support the alternative actions if that is the will of the people of Oneida County not to relocate the airport from Whitestown to Griffiss. On the other hand, if it is the decision by County government to do that, the Griffiss Local Development Corporation is fully supportive of the Proposed Action.

**Response:** Comment noted.

*Speaker #6: Mr. Mark Malorzo*

**1.6-1** **Comment:** ..I was a little confused by some of the analysis here in the sense that it says with nonuse of aviation that we were going to (have)...larger employment...than if we used the air facility.

**Response:** Please see the response to Comment 1.1-5.

**1.6-2** **Comment:** ...I am definitely a big proponent of having the facility be used for air cargo, air use, commercial, private. I think that it is the biggest asset we have...I also feel that Oneida County Airport should be consolidated here for a number of reasons. One is that the air facility here is far superior, even at it stands today, with the length of the runway and...the air tower, the radar capabilities, and other uses that Griffiss air facility has in place already.

**Response:** Comment noted.

*Speaker #7: Utica Observer-Dispatch Editorial Staff (Submitted by John Fitzgerald)*

**1.7-1** **Comment:** One of the keys to the future of the former Griffiss Air Force Base is how to best use the former airfield. So far, area economic development officials have focused on two chief options - as an air cargo hub or as an aircraft maintenance facility. However, there is a third option that keeps popping up that needs to be put to

rest - that of shifting Oneida County Airport to the former base. Don't do it. From a competitive standpoint, shifting the airport farther west almost ensures that air travelers in eastern Oneida County and Herkimer County will travel to Syracuse when they want to fly. It's not that much more of a drive. Also, Oneida County has a long-term investment in the current site, and it would be foolish to throw that away for an air strip that may be even more costly to properly maintain than the current airport. A year-long study by the Federal Aviation Administration will assess the region's air service needs and look at how best the two airfields can be used. Until then, the region's economic development and political officials need to focus on air cargo and air maintenance operations at Griffiss.

**Response:** Comment noted.

*Document #2:* *Rocco L. Versace, Rome Area Chamber of Commerce*

2.1 **Comment:** The Rome Area Chamber of Commerce supports development of an international air cargo hub, and aircraft maintenance facility, and a commercial airport at the Griffiss Airfield in Rome, NY.

**Response:** Comment noted.

*Document #3:* *Louis J. Mounser, Whitesboro, New York*

3.1 **Comment:** It is of the utmost importance to this area and this part of the United States and Canada that Griffiss become an international cargo port with the least possible delay...Please do not allow this vital development to be delayed.

**Response:** Comment noted.

*Document #4:* *Andrew Raddant, U.S. Department of the Interior, Office of Environmental Policy and Compliance*

4.1 **Comment:** The Department of Interior (Department) suggests that the DSEIS include more details of the wetlands on Griffiss Air Force Base. The wetlands should be classified by type (i.e., emergent/open water, scrub/shrub, and forested wetlands) with a description of the vegetation and its size. The potential impacts to the wetlands and the amount of impact from the proposed action and alternatives should be described. A wetland is considered impacted if it is filled, dredged, or altered (i.e., trees cut off a forested wetland or the wetland is used for stormwater retention). There should be a description of measures reviewed for the proposed action and each alternative that avoid and minimize impacts to wetlands. The unavoidable impacts should be tallied according to type. This

information is used in determining adequate compensation for unavoidable impacts to wetlands from proposed alternatives.

**Response:** Data describing existing conditions of sensitive habitats, including wetlands, are included in Section 3.4.5.4, Sensitive Habitats. These data include the type of wetland, a description of wetland vegetation, and the size of the two wetlands located on the Griffiss airfield property. Wetlands located on the remainder of the former Griffiss Air Force Base were described in the 1995 FEIS, which is incorporated in the SEIS by reference. Potential impacts to wetlands for each alternative are described in Section 4.4.5, Biological Resources, under the subheading Sensitive Habitats. Disturbance activities, including dredging, filling, or alteration, related to the Proposed Action and the Private Airfield Alternative would not occur within any wetland boundary. These wetlands are located within an area designated as open space for the airfield safety buffer.

As a result of the Department's letter, the Air Force has reexamined all of the alternatives in the Draft SEIS with regard to impacts to wetlands. These agricultural uses were proposed for this area as a continuation of an existing agricultural outlease for mowing hay. This agricultural outlease area was not within the boundary of any wetland. However, as configured in the Nonaviation Alternative analyzed in the Draft SEIS, the agricultural uses area is larger and north of the runway would disturb a 13-acre New York State wetland (RO-49) and an overlapping Federal wetland. As a result of the Department's comment, the Air Force has revised the Nonaviation Alternative to eliminate the agricultural land use category and replace it with open space uses. This revision will avoid all impacts to wetlands with the Nonaviation Alternative. Thus, for the Proposed Action, as well as the alternatives, none of the existing wetlands will be used or affected.

With all alternatives, IRP cleanup actions would reduce pollutant input to local waters, including wetlands. This is considered a beneficial impact because the amount of runoff would not change from existing conditions, but the quality of the water would be improved.

4.2 **Comment:** After impacts to wetlands have been avoided and minimized to the greatest extent possible, compensation for wetland impacts through mitigation can be considered. The creation of wetlands in association with irrigation and stormwater retention areas are not considered as mitigation for impacts to wetlands from a project because the main functions are different. The Department does not support fees in lieu of wetland creation as this can result in a net loss of wetlands. Once provided with documentation of an adequate alternatives analysis and minimization of impacts, mitigation for residual wetland impacts by creating or restoring wetlands in the

vicinity of the proposed wetland loss would be considered. The mitigation should be in the form of creation or restoration of wetlands at ratios of 1:1 (1 acre created for every acre lost) for open water/emergent wetland, 1.5:1 for shrub/scrub wetland, and 2:1 for forested wetland. Ratios increase with difficulty in establishing the wetland type and the amount of time it takes to become functional.

**Response:** No adverse impacts to wetlands have been identified for the Proposed Action or the Private Aviation Alternative. As discussed in the response to comment 4.1, the Nonaviation Alternative has been revised to avoid adverse impacts to wetlands. Thus, for the Proposed Action, as well as the alternatives, none of the existing wetlands will be used or affected.

4.3 **Comment:** The Department will consider Griffiss Air Force Base as a subdivision of individual project areas. Therefore, all impacts to wetlands should consider the cumulative impacts to the wetlands of the entire base area. The Department recommends that the Master Plan for the property include wetland areas that will remain undisturbed and areas targeted for wetland creation or restoration for compensatory mitigation of unavoidable impacts to wetlands.

**Response:** Because the SEIS is a supplement to the 1995 FEIS, all of the information in the FEIS has been incorporated by reference. The Proposed Action of the 1995 FEIS reflects the adopted Master Plan for the former Griffiss AFB. As described in Section 4.4.5.1, Proposed Action, of the 1995 FEIS, all disturbance activities associated with the Proposed Action would occur outside any wetland boundary. Therefore, no areas are currently targeted for wetland creation or restoration for compensatory mitigation of unavoidable impact to wetlands in the Master Plan. No adverse impacts to wetlands would occur as a result of implementation of the Proposed Action or Private Airfield Alternative documented in this SEIS. Also, as discussed in the response to comment 4.1, the Nonaviation Alternative has been revised to avoid adverse impacts to wetlands. Therefore, as there will be no wetlands impact under the Proposed Action or any of the alternatives, there will not be any cumulative impact for wetlands.

4.4 **Comment:** Activities associated with this project may require site-specific environmental review to evaluate the effects of the activities on fish and wildlife resources. Accordingly, these comments do not preclude separate evaluation and comments by the Department which may be necessary pursuant to the Fish and Wildlife Coordination Act (16 USC 1661 et seq.), or if implementation requires a permit from the U.S. Army Corps of Engineers, pursuant to Section 404 of the Clean Water Act of 1972, as amended (P.L. 92-500). Nor does it

preclude additional U.S. Fish and Wildlife Service comments under the Endangered Species Act of 1973 (87 Stat. 884, as amended: 16 U.S.C. 1531 et seq.), or other legislation on any Federal permits that may be required.

**Response:** The Draft SEIS was distributed for comment to the EPA, U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and other federal agencies as listed in Appendix C.

*Document #5: Joseph P. Roback, Rome, New York*

5.1 **Comment:** On November 6, 1998 I read an article in a local paper that the Air Force endorsed plans to convert GAFB to a commercial aviation facility...In this same article it mentioned a public hearing would be held on December 9, 1998...As December 9th approached, I did not observe any follow-up reminders of the hearing...I would like an extension and additional copies of the plan to be distribute[d] to my neighbors. One hundred (100) copies would be fine for starters.

**Response:** The Air Force has complied with CEQ regulations implementing NEPA and the Air Force Environmental Impact Analysis Process while conducting the public notification and comment process (including scoping, public hearing, and comment periods) throughout this SEIS. When the Draft SEIS was published on November 6, 1998, press releases were sent to local newspapers and radio and television stations. In addition to the November 6, 1998 article mentioned in the comment, on December 1, 1998, the Rome Sentinel published an article with information from the press release, stating the date of the public hearing and that copies of the Draft SEIS were available for review at the Jervis Public Library and the Mohawk Valley Community College Library. The Draft SEIS was sent to all local and state officials and regional regulatory federal and state agencies, as well as persons who expressed an interest in the 1995 FEIS.

Any interested party may obtain a copy of this document by contacting:

Mr Jonathan D. Farthing
Headquarters, Air Force Center for Environmental Excellence
HQ AFCEE/ECA
3207 North Road
Brooks Air Force Base, Texas 78235-5363
(210) 536-3787

5.2 **Comment:** Noise obviously is only one concern of ours. At the public meeting during the Air Force presentation it was mentioned that no

noise exceeding 65 dB would be transmitted outside of the Air Base boundaries. I do not think anyone in attendance could fathom what 65 dB worth of noise that was present during the aircraft touch and go exercises, then 65dB is extremely noisy. During those exercises I was unable to open my windows in the summertime due to the noise. I have my own electronic sales business and being able to converse on the telephone was literally impossible with the windows open. With the windows closed it was still difficult. Without the telephone during business hours I might just as well fold up my company.

**Response:** A comparative chart of common sounds related to typical sound levels is shown on Figure 3.4-4. Sixty-five decibels is comparable to commercial area heavy traffic at 300 feet or normal speech at 3 feet. Please also see the response to Comment 1.1-3.

**5.3** **Comment:** In the SEIS report it states that the...nonaviation [alternative] is six (6) times greater for job creation...I urge you to decide on the Nonaviation Alternative as the only action that would be best for Oneida County.

**Response:** Please see the responses to Comment 1.1-5 and Comment 1.1-13.

*Document #6:* *Ruth L. Pierpont, New York State Office of Parks, Recreation, and Historic Preservation*

**6.1** **Comment:** Based on the information provided, the DSEIS did not include any reference to our findings regarding buildings, structures, and complexes at Griffiss AFB determined eligible for listing on the National Register of Historic Places. These findings were conveyed to you under the SHPO's cover letter of September 9, 1998 (a copy is enclosed for your reference).

The SHPO requests that a record of these eligibility determinations be included in the final EIS for Griffiss AFB. Your agency will also need to discuss with the SHPO the potential effects upon National Register-eligible cultural resources resulting from the alternatives proposed in the DSEIS. Any finding of Adverse Effect will require further discussion with the SHPO in order to determine appropriate mitigation measures.

**Response:** The Cultural and Paleontological Resources analysis (Section 4.4.6) has been revised to reflect the information contained in the attachment to this comment.

6.2 **Comment:** Nothing in the above comments should be construed as a final effect determination for the overall project. A full evaluation of issues affecting cultural resources will take place when the SHPO receives complete project documentation.

**Response:** Comment noted.

*Document #7: Michael J. Capparelli, Jr., Rome, New York*

7.1 **Comment:** ...a resurrected facility could see 80,000 aircraft operations per year...The noise pollution would be particularly disturbing to residents adjacent to the airstrip and terminal part of the glide path, like me, especially if the stated number of operations, 80,000, and potential hours of daily operation were even approached. Lesser numbers would not make the situation any more tenable.

**Response:** Please see the responses to Comment 1.1-1 and Comment 1.1-3.

7.2 **Comment:** Renewed operations would have a harmful effect on the local fauna.

**Response:** As described in Section 4.4.5.1, impacts to local wildlife are not expected to have a significant impact on wildlife species that have adapted to disruptions from noise and human activity. Noise associated with the Proposed Action would be less than what was experienced when Griffiss AFB was fully operational.

7.3 **Comment:** Operation levels at only a very small fraction of those suggested would create more air pollution than was extant when the USAF operated flying missions out of GAFB.

**Response:** The Emissions and Dispersion Modeling System (EDMS) was used to calculate emissions associated with the Proposed Action. This model was developed by the FAA and the U.S. Air Force specifically for the purpose of generating airport and airbase emissions. Appendix I contains details on the inputs to this model, which includes the number of aircraft operations and the type of aircraft. No local ambient pollutant concentrations produced by emissions from the Proposed Action would cause the National Ambient Air Quality Standards (NAAQS) or the New York State Ambient Air Quality Standards (NYSAAQS) to be exceeded. The results of the air quality modeling for the Proposed Action is shown in Table 4.4-3 and represents a worst-case scenario in that it does not take into account the decrease in emissions resulting from the proposed closure of the Oneida County Airport.

**7.4** **Comment:** The sheer number of potential aircraft operations would make the risk of crashes significantly higher than that which existed when the USAF flew out of Griffiss. The risk would be further exacerbated if the facility were also used as the site of an overhaul and/or repair/refurbishing operation. Aircraft coming to the facility for overhaul or periodic maintenance are by definition less serviceable, capable, and, quite possibly, less airworthy than those in an early part of their periodic cycles.

**Response:** Please see the responses to Comment 1.1-1 and Comment 1.1-8. The aircraft maintenance activities proposed for the Griffiss airfield property are for preventative maintenance. Therefore, these aircraft are not less air worthy than other aircraft.

**7.5** **Comment:** There would very probably be further pollution of the aquifer which, I am sure, is still used by many for potable water. I would venture to guess that the aquifer, ergo the risk, has not been completely mapped. During winter months, aircraft would still have to be deiced. It is not clear to me what would make a commercial deicing operation any safer or less polluting than the one that the USAF had? Or, what precautionary steps or process improvements could or would be taken to ensure non-polluting deicing, especially with a large number of aircraft operations?

**Response:** Please see the response to Comment 1.1-6.

**7.6** **Comment:** There is a great likelihood of resumed pollution of Six Mile Creek that flows through the Griffiss facility.

**Response:** Please see the response to Comment 1.1-6.

*Document #8:* *Jaclynne M. O'Neill, Gaithersburg, MD*

**8.1** **Comment:** Failure to mention Minicozzi/O'Neill proposal regarding GAFB Airfield Property Reuse submitted FIRST in March 1994 and again at a later date. Mr. Minicozzi has a signed receipt documenting this submission.

**Response:** The proposal referred to in this comment is for the former housing area, which is off of the airfield property. Therefore, this comment is out of the scope of this SEIS.

**8.2** **Comment:** Failure to mention any/all proposals submitted by reputable homeless organizations regarding reuse of the GAFB Airfield Property. At least one proposal was rejected by Mr. DiMeo's office and no mention was made to the organization informing them of their legal recourse - specifically the name of the governmental department

where they could appeal. This homeless organizations has leadership and a successful track record exceeding three decades. Their plan would have not only assisted the homeless community, but would have created all levels of employment for the Mohawk Valley. It could have been operational by this time.

**Response:** Please see the response to comment 8.1.

**8.3** **Comment:** Failure to list members of the [Local Reuse Board] LRB. This listing should include addresses and contact numbers.

**Response:** This information is out of the scope of this SEIS because the information is not related to the assessment of impacts to the biophysical environment.

**8.4** **Comment:** Failure to inform the local community of actions that affect their lives and futures. This is accomplished by publishing articles in the Rome Sentinel where important information is purposely omitted. This is in violation of Environmental Justice.

**Response:** Please see the response to Comment 5.1.

**8.5** **Comment:** Failure on the part of those individuals entrusted with the task of economically developing the former Griffiss AFB to proceed with purpose in ensuring that Rome, NY will be a viable community in the future. An overabundance of studies will not accomplish what an informed, pro-active community can. Change is long past due. The people of Rome and Oneida County deserve better. (Check late the history of the successful conversion of Dow AFB in Bangor, Maine which recently celebrated its 30th year. They accomplished - not studied. That community was involved and their leaders cared and accomplished.)

**Response:** Commented noted.

**8.6** **Comment:** Failure of the LRB to hire an Executive Director with a proven track record in successful conversion of a former military facility, particularly one with potential international air terminal capability.

**Response:** Commented noted.

**8.7** **Comment:** Failure to establish a deadline for reuse accomplishment by the present LRB and the Executive Director. Perhaps it is time to start with a fresh slate.

**Response:** Comment noted.

*Document #9: Jennie Pouse, Rome, New York*

**9.1** **Comment:** Locating air cargo air maintenance facility and commercial airport not a good idea at the former Griffiss site. Reason(s) - pollution

**Response:** Please see the response to Comment 1.1-6.

**9.2** **Comment:** Reason(s) - ....noise

**Response:** Please see the response to Comment 1.1-3.

**9.3** **Comment:** Reason(s) - ...and most of all safety to the community.

**Response:** Please see the response to Comment 1.1-8.

*Document 10: Marion Sorensen, Rome, New York*

**10.1** **Comment:** Please remove my name from the mailing list for future copies of any Environmental Impact Statements regarding property at Griffiss AFB, NY.

**Response:** Name deleted.

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# Document 1

UNITED STATES AIR FORCE
PUBLIC HEARING
on the
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
for
DISPOSAL AND REUSE
of the
AIRFIELD AT GRIFFISS AIR FORCE BASE

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

Held at: Mohawk Valley Community College
Rome Campus
Rome, New York 13440
December 9, 1998
7:00 p.m.

APPEARANCES:

Colonel Michael B. McShane
Chief Trial Judge
U.S. Air Force Trial Judiciary
AFSLA/JAJT
112 Luke Avenue, Room 301
Bolling AFB, DC 20332-5113

Lynn Hancsak
HQ AFBCA

Margaret Harris
HQ AFCEE/ECA

ALSO PRESENT:

Felicia Bradfield, AICP
Senior Environmental Planner 348 W. Hospitality Lane,
Tetra Tech, Inc.
Suite 300
San Bernardino, California 92408-3216

Anne J. Surdzial, AICP
Environmental Planner
Tetra Tech, Inc.
Suite 300
San Bernardino, California 92408-3216

Therese B. Jalonack, Certified Court Reporter



COL. MC SHANE: Good evening. It's about seven o'clock by my watch. So we will go ahead and get started. Please come on in and find a seat if you can. Thank you for coming tonight. I would like to welcome you to the public hearing on the Draft Supplemental Environmental Impact Statement for the disposal and reuse of the airfield property at the former Griffiss Air Force Base. I am Colonel Mike McShane, and I will be the presiding officer for tonight's meeting. I am the Chief Trial Judge for the air force, and I am assigned at Bolling Air Force Base in Washington D.C.

This evening, you will hear an overview of the disposal and reuse process. You will also hear about the Environmental Impact Statement that was prepared for the disposal and reuse of the air field property.

The members of the panel tonight are Lynn Hancsak, Headquarters Air Force Base Conversion Agency, and Ms. Margaret Harris of the Air Force Center for Environmental Excellence at Brooks Air Force Base in Texas. Ms. Hancsak will describe the air



force base disposal process. Ms. Harris will brief you on the environmental impact analysis process and summarize the results reported in the Draft Supplemental Environmental Impact Statement.

The purpose of tonight's hearing is to receive your comments, suggestions and concerns on the Draft Supplemental Environmental Impact Statement. Those of you who have not have had an opportunity to review the Draft SEIS may want to read the summary of the major findings in the handout -- It looks like this -- available at the door. The panel members will also address the findings in their presentations.

I would like to explain my role in this hearing so you can better understand the process. My usual duties involve presiding over Air Force Courts-Marshal. I am not assigned to and do not have any connection with Griffiss Air Force Base or the office that drafted the Supplemental Environmental Impact Statement that you will hear about tonight. I am not acting as a legal advisor to the Air Force. I am not here as an



authority on this Draft SEIS, nor have I had any involvement in its development. I am telling you this so that you will understand that my role here tonight is simply to ensure that we have a fair, orderly and impartial hearing and that everyone who wishes to provide input or make a comment has the opportunity to speak and be heard.

Now I would like to explain the public hearing process and the procedures we will follow this evening. The Air Force has prepared the Draft Supplemental Environmental Impact Statement -- And since we are so fond of using acronyms, we will be calling it the Draft SEIS all night -- on the disposal and the reuse of the airfield property at Griffiss Air Force Base in accordance with the National Environmental Policy Act and Air Force Implementing Regulations. The purpose of the hearing is to summarize the results of the Draft SEIS and to receive your comments on the Draft SEIS.

Tonight's hearing will be in two parts. During the first part, Ms. Hancsak and Ms. Harris will present information to you

concerning the disposal process and the Environmental Impact Analysis process. In the second part of the hearing, you will have an opportunity to provide information and make statements for the record. We do it this way, the briefings first and then your comments, so that you may be better informed as you offer your remarks.

This hearing is intended to provide a public forum for two-way communication about the Draft SEIS with a view to improving the decision-making process. Your inputs ensure that the decision makers have the benefit of your knowledge of the local area and any adverse environmental effects that you think may result from the proposed action or the alternatives to that action. The Secretary of the Air Force will ultimately make the final decision about the disposal of the airfield. This process ensures, as much as possible, that the decision is well-informed.

Throughout the hearing, I ask that you keep in mind that this hearing is not a debate. It is not a popularity vote or a referendum,



and it is not a vote on the actions that have been analyzed in the Draft SEIS. The focus of the hearing is on the environmental impacts associated with the proposals being studied by the Air Force. Comments on nonenvironmental issues should not be raised at this hearing. They will not add anything to the record and may limit the opportunities of others to provide comments on the Supplemental EIS.

I would also remind you that none of the panel members are the Air Force decision makers on this project, so do not expect a final decision tonight.

When you came in tonight, you were provided an attendance card. And on it, you were asked to indicate if you wished to speak tonight. After Ms. Harris has finished her presentation, we will have a short recess and collect all the cards. Following the recess, I will recognize elected officials first. Then I will call on members of the public in random order from the cards that have been handed in. If you have not had an opportunity to fill out a card, please raise



your hand to indicate that you want to speak and someone will give you a card.

If you brought a prepared statement with you tonight, you may read it out loud or leave it with one of the people at the registration table. It will become part of the record.

If you do not want to make an oral statement tonight but you would like to provide your input, you may do so in writing. For your convenience, there are written comment sheets. And they look like this. There are a bunch these available back at the registration table. Any comments that you make, whether you give them orally or provide them in writing tonight or send them in later on, will be given equal consideration in the decision-making process.

If you want your written comments to be included in the record and considered in the process, the written comments must be received no later than December 28th. Even if you speak tonight or hand in a written comment, you still have until December 28th to provide additional input. The address to provide written comments is on the screen and



at the bottom of the written comment sheets.

In summary, I would like to stress that this is your opportunity to provide the Air Force with any information you may have regarding environmental factors that are unknown to the Air Force and to have input into the decisions that the Air Force must make regarding the disposal and reuse of the air field property at Griffiss Air Force Base.

Now, it is my pleasure to introduce Lynn Hancsak, who will describe the Air Force Base disposal process.

MS. HANCSAK: Thank you, Colonel McShane. Good evening, ladies and gentlemen. My name is Lynn Hancsak, and I work for the Air Force Base Conversion Agency, which is an organization created to manage cleanup and disposal of Air Force bases closed and realigned under the authority of the Base Closure and Realignment Laws. In discussing the disposal of the airfield property at Griffiss Air Force Base, I am going to cover these general topics: Under the Defense Base Closure and Realignment Act of 1990, Griffiss Air Force

Base was initially realigned in accordance with the '93 Base Closure Commission's recommendation. The recommendations, which became effective in '93, included the closure of significant portions of the base. However, several Air Force and DOD functions were retained. One retention was the airfield to service the U.S. Army 10th Infantry Light Division at Fort Drum, New York. In accordance with the National Environmental Policy Act, the final Environmental Impact Statement, Disposal and Reuse of Griffiss Air Force Base, New York, November 1995 was prepared by the U.S. Air Force.

In 1995, however, a newly-appointed commission reevaluated the '93 Commission action and recommended the closure of Griffiss airfield as Fort Drum airfield improvements allowed the 10th Infantry's Light Division Air Support to be consolidated at Fort Drum. Thus, a supplement to the '95 Griffiss Final Environmental Impact Statement is being prepared to analyze the potential environmental consequences of the disposal



and reuse of the airfield property of Griffiss Air Force Base. This document is referred to as a Supplemental Environmental Impact Statement or the SEIS. Although disposal itself will have few, if any, environmental effects, future reuse by others may create environmental effects. This document, therefore, will include analyses of the potential impacts of a range of reasonably foreseeable alternative reuses. The secretary of the Air Force has delegated the authority to act as the federal disposal agent under the Defense Base Closure and Realignment Act of 1990 as amended to utilize and dispose of the federal property at the airfield closing bases. Usually, this responsibility rests with the General Services Administration or the GSA. Despite this change, the existing statutes and regulations for disposal of federal property are still in effect. The Air Force must adhere to those laws and regulations. The Air Force has also issued additional policy and procedures to implement the delegated authority to transfer conveyed property. The



closure laws require us to consult with the state governor and the heads of local government for the purpose of considering any plan for the use of the property by the local community concerned. We are meeting this consultation requirement by working with the Griffiss Local Development Corporation, which I will refer to as a GLDC.

Finally, our planning process recognizes that the Secretary of the Air Force has full discretion in deciding how the Air Force will dispose of the property. It's the Air Force's goal to complete base closure as quickly and efficiently as possible and transfer property to promote economic development. The Air Force recognizes significant economic impact that base closure may have on a local community. The federal government and the Air Force, in particular, are committed to assisting each community in its effort to replace the departing military activity with viable public and private enterprises. We are in the process of developing a comprehensive disposal plan that attempts to balance the needs of the local



community, the environmental consequences of our disposal decisions and the needs of the federal government. The Air Force also supports the use of interim leases and early transfers of property to keep and create jobs in the community. Now, the disposal of property is accomplished in the three-part planning process that includes the Air Force's Environmental Impact Statement which analyzes the environmental consequences of the various reasonable disposal and reuse alternatives for the base, the community's plan for the future of the property and the Air Force's disposal plan, which analyzes the various property transfer and disposal options. The schedule for cleanup of cost contamination is also a consideration. By law, the disposal plan must give substantial deference to the GLDC's redevelopment plan. In general, as shown on the slide, the public disposal options are: Transfer to another federal agency, public benefit conveyance to states and eligible nonprofit institutions, negotiated sales to public agencies, competitive sales to the general public and

economic development conveyances.
The laws and regulations governing disposal do not establish a rigid priority for disposal but provide the federal disposal agent with the flexibility to ensure that all federal real property interests are considered. The secretary of the Air Force will decide on the actual disposal plan for the airfield at Griffiss Air Force Base. The disposal decision process culminates with the issuance of one or more Records of Decision. These documents are decisions for the disposal of all or portions of the real and personal property. They also specify what environmental mitigations or corrective actions may be needed to protect human health and the environment as a result of the disposal decisions.
Thank you for the opportunity to meet with you this evening. Now, I will turn the briefing over to Ms. Margaret Harris, who will discuss the environmental analysis process, the description of the proposed actions and the alternatives and the environmental impacts associated with that.



MS. HARRIS: Good evening. My name is Margaret Harris. And I work for the Air Force Center for Environmental Excellence. The Air Force Base Conversion Agency used our office to manage the environmental analysis for the disposal of the airfield. An independent environmental contractor assisted in the preparation of the document. They are Tetra Tech. Tonight, I am going to provide some background on the environmental impact analysis process generally and then discuss the Draft SEIS that has been prepared for the disposal of the airfield. The National Environmental Policy Act, or NEPA, requires that federal agencies consider the environmental consequences of their acts in their decision-making process.
The Air Force decision, which triggers NEPA, is to the disposal of the airfield property at Griffiss Air Force Base. We are, therefore, preparing an EIS to analyze the potential environmental consequences of the disposal of the airfield. Due to the analysis of potential commercial airport activity, the Federal Aviation



Administration, the FAA, is serving as a cooperating agency in the preparation of this document. NEPA also requires that the public be included in this decision-making process. We held a scoping meeting in this auditorium in July of 1997 to explain the disposal process and the EIS process and to request public input on the issues to be addressed. That input was used to guide the preparation of this document. This Draft document was filed with the EPA on November the 6th, 1998 and was announced in the Federal Register and released for public comment on November the 13th, 1998.
Tonight's public hearing is a formal meeting in which we review the results presented in the Draft document, and we receive your input on the document. In addition to tonight's hearing, written comments on the Draft will continue to be accepted until December 28th. All comments, whether written or verbal, become part of the public record and will be considered as we prepare the final document. Written comments should be sent to the address shown on this slide. The address can



also be found in the brochure provided at the door. At the end of the public comment period, all comments will be reviewed, individual responses will be prepared, and the EIS may be revised, if necessary. The final SEIS is scheduled for completion this spring. If you are not on our mailing list, you can request a copy by writing to the address on the slide. The final SEIS will also include all the comments received during the public review period and our response to those comments. Following the release of the final document and a required 30-day waiting period, the Air Force can publish its ROD, the Record of Decision, indicating its decision on disposing of the airfield. As you just heard, other studies and considerations besides those addressed in the SEIS will enter into the final disposal decision. The three major portions of the document are the Description of Alternatives, which is presented in Chapter 2; the Division of the Affected Environment, Chapter 3 and the Environmental Consequences or the Impacts, which are presented in Chapter 4.

Chapter 2, the Description of the Alternatives, is the heart of the EIS. It explains the activities that are being proposed, the proposed actions. And the two alternatives which were formulated by the Air Force will be described in detail later on. In addition, as also required by NEPA, we have included a no-action alternative in which the Air Force would retain ownership of the airfield property. In this case, the property would remain unused but preserved by caretakers. Chapter 3 of the EIS describes the effect of environment as I said. It provides a description of the conditions prior to closure of the airfield. Chapter 4 of the EIS describes the potential environmental impacts that may occur as a result of implementing the proposed action. This is done by comparing the effects of each alternative for the next 20 years to the no-action alternative. Chapter 4 also includes suggested mitigations where potential adverse impacts have been identified. The issues analyzed in Chapters 3 and 4 are impacts to the natural



environment that may occur as a direct result of disposal and reuse of the airfield property or indirect recruit changes in the community. Resources evaluated are listed on the slide: Soils and geology, water, air, noise, biological and cultural resources and indirect changes to the community that provide measures against which environmental impacts could be analyzed, including changes to employment, population, land use and esthetics, transportation and utility services in the local community.

In addition, issues relating to the current and future management of hazardous substances are discussed. These issues include hazardous materials and petroleum product management, hazardous waste and waste petroleum, the Air Force's IRP Program, storage tanks and oil/water separators, asbestos, polychlorinated biphenyls, or PCBs, ordnance and lead-base paint. If as a result of our analysis, it was determined that adverse environmental impacts would occur, suggested methods to minimize those impacts were identified and included in the



document. Ultimate responsibility for mitigation of environmental impacts would, for the most part, be the responsibility of the future property recipients.

As I mentioned earlier, this Draft document focus on the impact to the natural environment that would occur, either directly or indirectly, from the disposal and reuse of the airfield property at Griffiss Air Force Base.

Air Force policy in preparing these documents is to use the plan prepared by the local reuse authority as the proposed action and analyze that action and several reasonable alternatives. The proposed action was developed by the GLDC. In addition, as required by law, the Air Force analyzed two alternatives and the no-action alternative.

Now, I will present an overview of the proposed action and the alternatives, and I will follow with a synopsis of the results of our analysis by resource category.

This figure shows GLDC's reuse plan, which is presented as the proposed action. The redevelopment land uses in the proposed



action are airfield, aviation support, industrial, open space and agricultural uses.

The proposed action for reuse of the airfield property considered in this SEIS would include development of an international air freight hub, an aircraft maintenance facility and a commercial airport. Development of a commercial airport would involve relocation of commercial air cargo and general aviation operations from Oneida County Airport.

The following are the terms defined as they are used in this document: Commercial aircraft operations are aircraft activity licensed by a state or federal authority to transport passengers or cargo for hire. Air cargo operations has to do with the movement of mail, packages and freight exclusively.

And general aviation operations are all other civilian operations, such as business flying, commercial flying, like crop dusting, instructional flying and pleasure or personal flying.

The proposed action would also include

aviation support, industrial and agricultural uses, and some of the airfield property will also be left as open space.

A second aviation alternative considered in this document is that of a private airfield operation in case the Oneida County Government does not agree to relocate the County Airport to the Griffiss airfield. With this alternative, the airfield would be marketed for air cargo operations, aircraft maintenance operations and some general aviation. Other land uses, such as industrial, recreational and agricultural, would be similar to those identified for the proposed action.

Another reasonable alternative to the proposed action, the nonaviation alternative, was developed. This alternative, the nonaviation alternative, was developed. This alternative contains elements similar to the proposed action but does not include reuse of the airfield property for aviation purposes. The nonaviation alternative includes commercial uses for office and R and D, research and development use, industrial use,



manufacturing, recreational and agricultural uses. And some of the property would also be left as open space.

The no-action alternative would result in the U.S. Government retaining ownership of the airfield property. In that case, caretaker activity on the base would consist of resource protection, grounds maintenance, operation as necessary of existing utilities and building care. IRP activity would also continue. It's cold down here.

As noted earlier, the SEIS analyzed impacts to various resources which were broadly grouped into three categories: The local community, hazardous substances management and the natural environment.

In general, the analysis indicated that there would only be minor impacts associated with most of the alternatives. These include increased traffic in the vicinity of the airfield property, increased traffic-related noise, small increases in air pollutant emissions, temporary increase in soil erosion as a result of construction activities and potential disturbance of six cultural



resources that are eligible for the National Register of Historic Places. The nonaviation alternative would have the greatest impacts and the private aviation alternative would have the least impacts.

The following slides summarize and show the comparative impacts among the reuse alternatives by resource area.

This graph shows the potential or possible increase in employment in the region due solely to reuse-related activity projected through the year 2016. These increases include direct jobs generated on site and secondary jobs created in Oneida County. Depending on the alternative implemented, reuse activities at the base could result in approximately 1,500 to 11,700 additional direct and indirect jobs in the region by the year 2016. With the employment base in the region and expected regional growth, this would represent a total reuse-related employment increase in Oneida County by 2016 of from one to 13 percent over the period that is studied over and above the no-action base line.



A one to four percent population increase over a no-action base line is expected with the proposed action or two alternatives as a result of workers and their families moving into the at this and county to fill some of the jobs created by reuse. Depending on the alternative selected, 1,500 to 10,000 people would enter the region by 2016. Most of these people are expected to reside in the City of Rome.

Although there would be changes to land uses and the visual character of the airfield property, most of these would be minor and could be controlled through the use of standard land use planning techniques to guide development. For a portion of Oneida County, master plans and zoning ordinances would have to be modified to accommodate the airfield property reuses, but this is considered a minor effect.

The number of daily projected vehicular trips to and from the site due to reuse of the airfield property would range from approximately 38 hundred with the private airfield alternative to 22,500 with the

nonaviation alternative by 2016.
Reuse-generated traffic would cause some road segments to operate at LOSF by 2004 or later.
Projected traffic increases due to regional growth would require improvements to local transportation networks for all alternatives, including the no-action alternative.
This figure represents the number of annual air operations projected through 2016. For reference, approximately 14,000 flight operations occurred at Griffis Air Force Base in 1993 prior to the closure of the base.
With the proposed action, aviation operations would discontinue at the Oneida County Airport and be transferred to Griffiss.
Flight activities are projected at about 78,000 operations by 2016. This is due primarily to growth in general aviation operations. For the purpose of the environmental impact analysis, we have assumed that all the growth at the airfield at Griffiss Air Force Base would be the same as has been projected for the County Airport. With the private airfield



alternative, Oneida County operations would not transfer to the airfield. In this case, approximately 17,000 air operations would occur by the year 2016.
Utility use with any of the reuse alternatives would increase only slightly from projections without reuse over the 20-year analysis period. These increases would be well within the capacity of the City of Rome systems. Improvements are planned to accommodate population growth unrelated to reuse. Most utility demands would decrease when compared to 1993 pre-realignment conditions.
The Air Force will take all necessary actions for environmental cleanup of the base to protect public health and the environment. Cleanup activity will be accomplished in accordance with applicable federal and state laws and regulations. Environmental actions and monitoring may continue after disposal and reuse of the airfield property, and long-term access to certain sites during reuse may be required to ensure the success of the remediation efforts.



To comply with federal disclosure laws regarding disposal of property, the Air Force conducted an environmental base line survey at Griffiss Air Force Base. This effort identified all errors of the base that need contained constraints to transfer of property. Types of constraints include contaminated sites that require cleanup and the presence of hazardous materials, such as asbestos, that must be properly managed to minimize health threats.
Hazardous materials and waste management activities would be the responsibility of the new users and would be subject to applicable regulations. All underground and aboveground storage tanks that do not meet regulations or are not identified for reuse are to be removed before transfer of property. All polychlorinated biphenyls, (PCBs), have been removed from the base. Based on past uses of the airfield property, the possibility exists that undiscovered ordnance may exist.
Lead-base paint may be present in the facilities constructed before 1978. And some facilities on the base do contain asbestos.



Demolition or renovation of these facilities should be accomplished in accordance with all applicable federal, state and local regulations and would be the responsibility of the new owners.
Compliance with National Pollutant Discharge Elimination System, or NPDES, permit requirements and standard construction practices would minimize soil erosion on affected acres as a result of planned construction activity. This would vary from 23 to 60 acres, depending on the alternative.
In addition, compliance with NPDES permit requirements and standard construction practices would also minimize runoff caused by construction activity on affected areas.
Reuse-related air pollutant emissions would increase during construction and operations, but that increase would not affect the region's attainment designation for all criteria pollutants. Our projections indicate that none of the federal or state standards would be exceeded as a result of reuse-related emissions. Overall, there

would be no impacts to local air quality. There would be increased surface traffic noise along most local roads when compared to the no-action base line. Noise levels of 65 decibels or greater would not extend beyond the airfield property boundary.

Biological resources include the animals and plants inhabiting an area, especially any considered threatened or endangered, as well as wetlands or other sensitive habitats. There would be disturbance of 26 acres of grassy, landscaped areas. Planning and design would minimize direct and indirect impacts. The U.S. Fish and Wild Life Service has indicated that no federally-listed threatened or endangered species are known to be present on the base. No wetlands on the airfield property would be affected.

All Griffiss Air Force Base property has been surveyed for cultural resources. The Phase II Archaeological Investigations Report has been submitted to the New York State Historic Preservation officer or SHPO. Six NHRP-eligible sites are located on the airfield property. In addition, we have



submitted a historic structure survey which surveys World War II and Cold War facilities. Native American consultations have been completed, and no known sensitive Native American resources are located on Griffiss Air Force Base. If evidence of Native American resources is encountered during reuse activity, additional consultation with these groups will be required.

In closing, I remind you that the study is not final. Our goal is to provide Air Force decision makers with accurate information on the environmental consequences of its actions. To do this, we are soliciting your comments on the Draft SEIS. Your added input will support informed decision making. And now, I would like the turn the meeting back over to Colonel McShane.

COLONEL MC SHANE: Thank you, Ms. Harris. In a moment, after a 10- or 15-minute recess, we will move into the next portion of the meeting, which is the public comment period. If you want to speak and you have not already turned in a card, please do



so during the break. And I will be using the break to get the cards from the staff people back there and find out if we have any elected officials who want to speak and then shuffling the cards to make them random. So we will go ahead and take a break now and get back in about 10 to 15 minutes.

(A brief recess was taken at 7:38 p.m.)

(Hearing reconvened at 7:53 p.m.)

COLONEL MC SHANE: Okay. If we have got everybody back, if there is anybody out there, would you please invite them to come join us. I understand from the folks who are local here that we didn't have any public officials sign up. I almost forgot, I have some ground rules I need to run through here. If anybody has changed their mind and you now want to speak but you haven't filled out a card, please do that now. Don't be hesitant or shy about making a statement here tonight. I want to be sure that everyone who desires to speak will have the chance to be heard. We do have a court reporter here who is taking down word for word everything that is said during the hearing, and this record



will become part of the Final Supplemental Environmental Impact Statement. The court reporter will be able to make a complete record only if she can hear and understand what you say. With that in mind, please help me with the following ground rules: First, speak only after I recognize you and please address your remarks to me. We do have a microphone here. If you would come up to that, it'll help everybody hear what you have to say. If you do have a written statement, you may hand it to one of the people at the back there or leave it on the table here. You may read it out loud, or you can just leave it with us. Or you can do both as long as the -- Well, I was about to say as long as time limitations are observed. But with only five people speaking, I don't think I will put a time limit on anybody. Normally, we go for five minutes. But we can adjust that tonight.

Please do speak clearly and slowly into the microphone, starting with your name, address and the capacity in which you appear. And that would be representing a group or

expressing your own views as a private citizen. Or if we do have any elected public officials who decide to speak, please state that status.

Third, this is the one about time limits. I don't think I will worry about those tonight unless we get somebody who's really going on and on. I will keep the time.

Fourth, out of respect for others, please listen carefully to what they are saying.

And again, a lot of this doesn't apply since I don't have the time limit here. Do not speak while another person is speaking. Only one person will be recognized at a time. I would like to remind you to limit your comments to the Supplemental Environmental Impact Statement, as that is the purpose of this public comment period. Also, I would like to suggest that you avoid repeating what another speaker has just said. There certainly is nothing inappropriate about agreeing with another speaker, but repeating the same thing unnecessarily delays others from making their comments.

One thing I can't express enough, you may



have information about environmental issues that are unknown to the Air Force. The Air Force is very interested in hearing and analyzing all potential environmental impacts of the alternatives. You have experience that comes from living in this area, so the second part of tonight's communication, the part that flows from you to the Air Force, is important. Don't hesitate to be part of the proceeding.

We will go ahead and start now with the comment period. And as I have said, I have got five folks who indicated they wanted to speak. And I have been shuffling these cards here, and they are totally random. First off, I have John Fitzgerald. Is John here?

JOHN FITZGERALD: Yes, I am here. Hi. My name is John Fitzgerald. And thank you for the opportunity to speak tonight. I am president of the Rome Floyd Residence Association. Most of our membership lives adjacent to Griffiss Park. During the Cold War, Griffiss Air Force Base admirably defended our nation. This is a fact that our members know and appreciate. We will always



be very thankful for Griffiss Air Force Base. Also, our local economy received an enormous amount of money from the federal government over the years Griffiss Air Force Base operated. The security of the nation and financial well-being of the local economy made the noise and danger of crashes necessary evils as far as we were concerned. This was our sacrifice, our part for the common good of us all locally and nationally. But the base is now part of our history. None of us wanted the air base to close, but it did. Now, to be honest, we do enjoy the quiet, and we are certainly less apprehensive about crashes. But now we are presented with a document that indicates a proposal to operate the airfield with 80,000 aircraft operations per year. That's one aircraft leaving or landing every four minutes during the 16-hour day. How does this compare to Griffiss in its hay day? I believe that this is a large number of -- I believe that this is a larger number of operations. And I don't think there was any comparison in the document itself from the

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hay day of Griffiss to what's proposed. You did mention 1993. And that certainly indicates that this is a proposal much, much larger. So every four minutes, there will be noise and a chance for an accident in the Rome community. A new high school is proposed for Griffiss Park. Every four minutes during the school day, noise and an accident will and could happen. Is this reasonable? Your impact statement states on page 4-76 that noise resulting from 80,000 aircraft operations would have little or no impact on the City of Rome. This is not true. Common sense and past experience provides proof that aircraft do make loud noises. And some people will be more impacted than others. Air planes do crash. It happens. It could happen here. How will crash and rescue services at the air park be provided? These services could cost up to a million dollars a year for round-the-clock protection. Now, the federal government can afford this but not our local government. Rome and Utica are financially stressed. The county is spending its surplus bailing out

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Utica and for Medicaid. State help is not guaranteed every year. Who will pay for crash and rescue service? Page 3-9 indicates the places and people at risk. The proposed action would create 1,624 jobs by 2016. The nonaviation alternative would result in 7,043 jobs. Therefore, there is no advantage in job creation in the pending proposed action. Quite the opposite is true. So why do it? Also, how much would it cost local taxpayers to create the 1,624 jobs? And what if these jobs don't get created? We will have yet another white elephant added to the local herd. On page S-13, it states the type of hazardous materials and waste generated as a result of the proposed action. It states that the types of hazardous material and waste generated as a result of the proposed action are expected to be similar and greater to those proposed prior to -- to those prior to closure of Griffiss Air Force Base. Yet there is no specific plan for dealing with this situation. Only the assumption that the proper uses and handling of hazardous material and waste will be the norm. Now,

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considering the poor disposal practices and problems of the past at the base, this cavalier attitude is irresponsible. Where are the specifics for dealing with hazardous materials, such as deicing for the planes and other types of waste under the proposed action? On page S-14, it states that six sites are eligible for the National Register of Historical Places and would be affected by the proposed action, yet it says all impacts can be mitigated. But this really needs to be explained. What sites and what mitigations? Pages 2-13 and 4-7 indicate that changing from the military to civilian control would result in modifications of the current AICUZ zones and accident potential zones, and that is to make them smaller by 125 acres. Where is the common sense increasing air traffic and decreasing safety zones? There should be no change in these zones if the proposed action is attempted. On page 2-1, it describes a 10-acre bulk fuel storage area north of the barge. Any danger from these tanks now or with the proposed action? I don't believe this was addressed

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in the statement. The chart on Page 3-27 indicates the lack of need, the lack of a need to relocate the County Airport. The drop in passengers at the airport is dramatic, and moving it to the park has not been supported by information in this impact statement. Keep in mind, the competition of vibrant airports in Syracuse, Rochester, Albany and Buffalo. Pages 3-61 and 3-62 states that there is no contamination in Six Mile Creek surface waters. This is misleading and taints the integrity of the Impact Statement. It fails to mention the sediment samples at Six Mile Creek and the contamination problems at Three Mile Creek. On page 3-70, it indicates the potential of failing to meet the new standard for the ozone and being reclassified to nonattainment. This needs to be elaborated upon. What does this mean with regards to proposed action? I will conclude by saying that we, the people, are not privy to back room discussions, and we can only comment on this Impact Statement. And with that being said, the Rome Floyd Residence Association

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recommends the nonaviation alternative over the proposed action. The acceptance of physical dangers and noise nuisances from the 80,000 aircraft operation are not justified by the this Impact Statement. Additionally, we have no confidence that this major undertaking can be accomplished as planned. We feel that the financial expenditures for local government to attempt this project has the potential to bankrupt the local economy. This is the extreme opposite of what is desired. Thank you very much.

COLONEL MC SHANE: Thank you. I next call on Remo Moroni.

REMO MORONI: I am Remo Moroni. I represent the Rome Area Chamber of Commerce. The Chamber of Commerce supports the proposal to the development and international air cargo hub and aircraft maintenance facility and commercial airport at Griffiss airfield in Rome. Although Rome and Oneida County were hard hit by realignment of the base and the of departure significant military activities at Griffiss, efforts are under way

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today to rebuild our economy. Utilizing Griffiss airfield to its maximum potential will provide jobs that stimulate the real estate market and add to the economic well-being of all Central New York. Thank you.

COLONEL MC SHANE: Thank you. Next, I have Joe Roback.

JOE ROBACK: My name is Joe Roback, and I live on 7527 Lambert Road. I just recently become a resident of Rome within the past year. I bought 40 acres of land which abuts the northeast end of Griffiss Air Force Base. And the group that I represent isn't quite as elaborate as the preceding speakers. But I do represent my family, and I just recently built a home on my property. My daughter built next to me. I have a daughter down the street. And I have another daughter that plans to build on my property. I would never have bought this property had I known that there was any chance of flying again. I don't know what 65 decibels mean, but I also I am a retired engineer of general electric. I now run a business, a small

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business, of my own. And I run it out of my house. And I have anxiously awaited the planes to stop flying so that I can conduct my business in my home. I could not open my windows and conduct business because I couldn't talk on the phone. And I am very -- It was very difficult even to talk with the windows closed. Sixty-five decibels, if it compares to the cargo planes or jet aircraft that were flying over my house, is much too much for me to tolerate and along with my family, I believe. And I believe that we are in such close proximity to the air base that it is a hazard as far as crashes are concerned and definitely as far as noise is concerned. Thank you very much.

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COLONEL MC SHANE: Thank you. Next, I have Emlyn Griffith.

EMLYN GRIFFITH: I am Emlyn Griffith. I am a practicing attorney in Rome, New York. As a lifelong resident of this community, as former chair of two Griffiss Air Force Base liaison committees and as past president of the Rome Area Chamber of Commerce, I rise to endorse the Chamber's position as set forth

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in the letter from Chairman Versace, which has just been read to you. Also, I urge the Griffiss Local Development Corporation, GLDC, to intensify its effort to implement the key recommendations in the SEIS report. I understand that the Rome Area Chamber of Commerce has taken no position on consolidation of airport facilities in Griffiss. And I personally recognize the importance of continuing air cargo service to meet the needs of companies which currently employ more than 1,000 persons in the Oneida County Airport. These needs should be given careful consideration by the Air Force Base Conversion Agency, the GLDC and area Chambers of Commerce as the other SEIS recommendations are implemented. Thank you.

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COLONEL MC SHANE: Thank you. And next, I have Mark Reynolds.

MARK REYNOLDS: My name is Mark Reynolds. I am director of Planning and Development for Oneida County Action. We provide the staff services to the Griffiss Local Development Corporation. And I believe I was one of the chief architects, if you



will, in the creation of the reuse plan, and I have discussed it with Margaret and the other AFCEE people in some detail. I would like to emphasize one point that was stated by Margaret in her presentation. The decision to relocate the County Airport from Oneida County to Griffiss is not a decision that will be made by the Griffiss Local Development Corporation, and I don't know that it's to debate in this forum. It's a decision that will be made by the Oneida County government after their careful study they have just commenced, what I think is a yearlong redevelopment strategy for the airfield studying the impacts of economic impacts, not environmental impacts, of creating this proposed action. So hence, the Griffiss Local Development Corporation is prepared to support the alternative actions if that is the will of the people of Oneida County to not relocate the airport from Whitestown to Griffiss. On the other hand, if it is the decision by the County government to do that, the Griffiss Local Development Corporation is fully supportive

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1.5-1 of the proposed action. Thank you.

COLONEL MC SHANE: Thank you. We looked through the rest of the cards, and I didn't see anybody else who expressed a desire to comment. I would ask if anybody has changed their mind and would like to now speak. We do have a taker. Come on down, sir. Your name is?

MARK MALORZO: My name is Mark Malorzo. I am local realtor. I have a business here. And I guess I am here -- I was more curious to see, obviously, what the reuse thought processes were going to be. And having heard Mr. Fitzgerald's comments, I think there is certainly, you know -- they were very well intended and also well thought of. The Floyd area at one point did have a negative affect with the air use at one point with the pollution of various waters, drinking potability and so forth. But the Air Force and the government came through and did correct that, as I see. I guess the concern that I have -- And it's very important, I believe. And I think everyone here has the same thought process -- as far as I can



remember in the area here, one of the key assets we have here at the Griffiss air facility was always the runway capacity here and its use and always has been mentioned that this is our biggest use. That is our biggest asset for use. And it appears to me that I was a little confused by some of the analysis here in the sense that it says with

1.6-1 nonuse of aviation that we were going to exceed a certain larger employment issue here than we would if we used the air facility. I was a little confused by that somewhat. However, to put it in perspective, I am definitely a big proponent of having the facility be used for air cargo, air use, commercial, private. I think that certainly is the biggest asset we have. I think it's something we have to utilize very

1.6-2 specifically. I think as that develops, we will see other employment opportunities develop as well. I also feel that the Oneida County Airport should be consolidated here for a number of reasons. One is that the air facility here is far superior, even as it stands today with the length of the runway



and the other -- you know, the air tower, the

1.6-2 radar capabilities and other uses that Griffiss air facility has in place already. I just feel -- And I guess it's just maybe being a little redundant here -- that that is the issue that we really should be maintaining as far as our focus for the redevelopment. I think if we lack -- Not if we lack. But if we don't take it in that direction, I just don't see us developing the other employment opportunities here as quickly and as soon as we would like to see. We have already been in a four- or five-year position at this point on a downtrend. We have come to stabilization period. All of our growth, it really is not where it should be. And I don't foresee that happening in the near future, and I think that's where our focus should be. Thank you.

COLONEL MC SHANE: Thank you. Anybody else decide? Mr. Fitzgerald, some more comments?

JOHN FITZGERALD: I have a question. I

1.7-1 have an editorial from the Utica Observer Dispatch editorial staff. And it pertains to



this proposed action. And I was wondering if

1.7-1 I could submit that in the record?

COLONEL MC SHANE: Certainly.

JOHN FITZGERALD: Thank you.

COLONEL MC SHANE: Anybody else? Don't see any. I do remind you that the public comment period is open until the 28th of December of 1998. If you decide you want to make further comments, you might want to pick up one of these comment forms back there and send it on in. All comments, written or oral, are given the same weight. I can't get anybody else to speak? We will adjourn the hearing. Thank you very much for attending.

(Whereupon, the proceedings were adjourned.)

# Document 1.7-1

Utica Observer-Dispatch Editorial
November 21, 1998
Submitted by John Fitzgerald at the December 9, 1998 Public Hearing

## Don't shift airport to Griffiss

One of the keys to the future of the former Griffiss Air Force Base is how to best use the former airfield.

So far, area economic development officials have focused on two chief options — as an air cargo hub, or an aircraft maintenance facility. However, there is a third option that keeps popping up that needs to be put to rest — that of shifting Oneida County Airport to the former base.

Don't do it.

From a competitive standpoint, shifting the airport farther west almost ensures that air travelers in eastern Oneida County and Herkimer County will travel to Syracuse when they want to fly. It's not that much more of a drive. Also, Oneida County has a long-term investment in the current site, and it would be foolish to throw that away for an air strip that may be even more costly to properly maintain than the current airport.

A year-long study by the Federal Aviation Administration will assess the region's air service needs and look at how best the two airfields can be used. Until then, the region's economic development and political officials need to focus on air cargo and air maintenance operations at Griffiss.

1.7-1

# Document 2


ROME AREA CHAMBER OF COMMERCE

139 W. Dominick Street • Rome, NY 13440-5809 • Phone (315) 337-1700 • Fax (315) 337-1715
Internet Address: http://www.romechamber.com • E-Mail: info@romechamber.com


*OUR BUSINESS IS HELPING YOUR BUSINESS*


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Membership Director
Debra A. Pelton
Business Manager
Suzanne M. Jenks
Secretary / Receptionist


December 9, 1998

Jonathan D. Farthing
HQ AFCEE/ECA
3207 North Road
Brooks AFB, TX 78235-5363

Dear Mr. Farthing:

Following are comments on the Draft Supplemental Environmental Impact Statement for the Disposal and Reuse of the Airfield Property at Griffiss Air Force Base, NY.

The Rome Area Chamber of Commerce supports development of an international air cargo hub, an aircraft maintenance facility, and a commercial airport at the Griffiss Airfield in Rome, NY. 2.1

Although Rome and Oneida County were hard hit by the realignment of the base and the departure of significant military activities at Griffiss, efforts are underway to prepare for the future by rebuilding our economy today. Utilizing Griffiss Airfield to its maximum potential will provide jobs, stimulate the real estate market, and add to the economic well-being of the central New York region.

Sincerely,

Rocco L. Versace
Chairman of the Board


OFFICERS

Rocco L. Versace, Chairman of the Board
Attorney

Ted W. Cupp, First Vice Chairman
President
Rome Country Club

Steve M. Sislo, ChFC, Second Vice Chairman
Chartered Financial Consultant

Barbara M. Chilluffo, Treasurer
Assistant Vice-President
Rome Savings Bank

# Document 3

LJM LOUIS J. MOUNSER

TEL.: (316) 736-5572

62 GREEN ACRES DRIVE
WHITESBORO, NEW YORK 13492

December 16, 1998

Mr. Jonathan D. Farthing
Chief, Environmental Analysis Division
HQ AFCEE/ECA
3207 North Road
Brooks AFB
Texas 78235-5363

Dear Mr. Farthing:

It is of the utmost importance to this area and this part of the United States and Canada that Griffiss become an international cargo port with the least possible delay. 3.1

It is situated within 65% of the population of the United States and Canada - one days truck delivery.

There is substantial cargo going from upstate New York to New York City that could be handled through Griffiss as a saving in time and money.

An industrial location, with the space available at Griffiss unrestricted by built up urban congestion, is an unbelievable industrial development with huge potential.

Please do not allow this vital development to be delayed!

Most folks in this area, seem to have their heads in the sand. They are so used to being characterized as old mill town they can't see the forest for the trees.

I was in Port St. Lucie, FL. when the base closings were announced. The Palm Beach Post commented, "when the airbase at West Palm was closed, we thought it was the end of the world, but aren't we much better off with West Palm International Airport?"

If given the opportunity, Griffiss and this area can experience the same economic upsurge!

Sincerely,

Louis J. Mounser

# Document 4


## United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
408 Atlantic Avenue – Room 142
Boston, Massachusetts 02210-3334


ER 98/0723 December 16, 1998

Mr. Jonathan D. Farthing
HQ AFCEE /ECA
3207 North Road
Brooks AFB, TX 78235-5363

Dear Mr. Farthing:

This is in response to the request for review of the Draft Supplemental Environmental Impact Statement (DSEIS) for the Disposal and Reuse of the Airfield Property at Griffiss Air Force Base, Rome, Oneida County, New York. This is part of the implementation of a Base Realignment and Closure directive for disposal and reuse of the 1,680 acre airfield property. The proposed action is to develop an international air cargo hub, an aircraft maintenance facility, and a commercial airport. All commercial, air cargo, and general aviation operations currently based at Oneida County Airport would be reallocated to the airfield property.

The Department of the Interior (Department) suggests that the DSEIS include more details of the wetlands on Griffiss Air Force Base. The wetlands should be classified by type (i.e., emergent/open water, scrub/shrub, and forested wetlands) with a description of the vegetation and its size. The potential impacts to the wetlands and the amount of impact from the proposed action and alternatives should be described. A wetland is considered impacted if it is filled, dredged, or altered (i.e., trees cut off a forested wetland or the wetland is used for stormwater retention). There should be a description of measures reviewed for the proposed action and each alternative that avoid and minimize impacts to wetlands. The unavoidable impacts should be tallied according to type. This information is used in determining adequate compensation for unavoidable impacts to wetlands from proposed alternatives. 4.1

After impacts to wetlands have been avoided and minimized to the greatest extent possible, compensation for wetland impacts through mitigation can be considered. The creation of wetlands in association with irrigation and stormwater retention areas are not considered as mitigation for impacts to wetlands from a project because the main functions are different. The Department does not support fees in lieu of wetland creation as this can result in a net loss of wetlands. Once provided with documentation of an adequate alternatives analysis and minimization of impacts, mitigation for residual wetland impacts by creating or restoring wetlands in the vicinity of the proposed wetland loss would be considered. The mitigation should be in the form of creation or restoration of wetlands at ratios of 1:1 (1 acre created for every 1 acre lost) for open water/emergent wetland, 1.5:1 for shrub/scrub wetland, and 2:1 for forested wetland. Ratios increase with difficulty in establishing the wetland type and the amount of time it takes to become functional. 4.2

The Department will consider Griffiss Air Force Base as a subdivision of individual project areas. Therefore, all impacts to wetlands should consider the cumulative impacts to the wetlands of the entire base area. The Department recommends that the Master Plan for the property include wetland areas that will remain undisturbed and areas targeted for wetland creation or restoration for compensatory mitigation of unavoidable impacts to wetlands. 4.3

Activities associated with this project may require site-specific environmental review to evaluate the effects of the activities on fish and wildlife resources. Accordingly, these comments do not preclude separate evaluation and comments by the Department which may be necessary pursuant to the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), or if implementation requires a permit from the U.S. Army Corps of Engineers, pursuant to Section 404 of the Clean Water Act of 1972, as amended (P.L. 92-500). Nor does it preclude additional U.S. Fish and Wildlife Service comments under the Endangered Species Act of 1973 (87 Stat. 884, as amended: 16 U.S.C. 1531 et seq.), or other legislation on any Federal permits that may be required. 4.4

We hope these comments are useful. Please direct any questions to Diane Mann-Klager at (607) 753-9334.

Sincerely,

Andrew Raddant
Regional Environmental Officer

cc: USACOE, Buffalo District, Buffalo, NY
USEPA, New York, NY

# Document 5

**WRITTEN COMMENT SHEET**

**DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT**
**FOR THE DISPOSAL AND REUSE OF THE AIRFIELD PROPERTY AT GRIFFISS AFB, NEW YORK**

Thank you for attending this public hearing. Our purpose for hosting this hearing is twofold: (1) to summarize for you the environmental consequences of the disposal and reuse of Griffiss AFB, and (2) to afford you an opportunity to bring to our attention potential environmental issues that you feel have not been adequately analyzed in the Draft Supplemental Environmental Impact Statement (SEIS). Please use this sheet to provide written comments on potential environmental issues that you feel have not been adequately addressed in the Draft SEIS. Your written comments should be received to December 28, 1998 to ensure that they will be addressed in the Final SEIS.

Date: 12/27/98

SEE ATTACHED

Name: JOSEPH P. ROBACK

Address: 7527 LAMBERT ROAD (Street Address) ROME, NY 13440 (City/State/Zip Code)

Telephone: 315-338-5652

**Please hand this form in or mail to the following address by December 28, 1998.**

**HQ AFCEE/ECA**
Attn: Jonathan D. Farthing
3207 North Road
Brooks AFB, TX 78235-5363

ON NOVEMBER 6, 1998 I READ AN ARTICLE IN A LOCAL PAPER THAT THE AIR FORCE ENDORSED PLANS TO CONVERT GAFB TO A COMMERCIAL AVIATION FACILITY. THERE WAS NO MENTION OF HOW ONE WOULD OBTAIN THIS PLAN OR IF IT WERE OPEN FOR PUBLIC REVIEW. IN THIS SAME ARTICLE, IT MENTIONED A PUBLIC HEARING WOULD BE HELD ON DECEMBER 9, 1998. I ASSUMED THAT THE PREVIOUSLY MENTIONED PLANS WOULD BE DISTRIBUTED AT THIS HEARING. AS DECEMBER 9th APPROACHED I DID NOT OBSERVE ANY FOLLOW-UP REMINDERS OF THE HEARING. I THOUGHT THIS STRANGE FOR SUCH AN IMPORTANT MEETING. I ALSO BELIEVE IT THE MAIN REASON FOR THE POOR TURNOUT. AT THIS MEETING I NOTICED A FEW PEOPLE WITH AN OFFICIAL LOOKING BOOKLET WHICH I FOUND OUT TO BE THE PLANS FOR CONVERSION. THERE WWERE NO COPIES AVAILABLE AT THIS MEETING. I WAS INFORMED THAT A DOCUMENT WAS AVILABLE FOR REVIEW IN ROME LIBRARIES. I WISH SOMEONE TOLD ME EARLIER SO I COULD HAVE BEEN PREPARED. I REQUESTED A PERSONAL COPY AND RECEIVED ONE IN THE MAIL ON DECEMBER 15, 1998.

AT THIS MEETING THE AIR FORCE GAVE A SLIDE PRESENTATION AND LATER THE PUBLIC WAS GIVEN A CHANCE TO COMMENT. SINCE I HAD NO PREVIOUS INFORMATION I COULD ONLY COMMENT ON WHAT I LEARNED WHILE THERE. COMMENT SHEETS WERE HANDED OUT FOR WRITTEN COMMENT. THE COMMENT DATE WAS TO BE MAILED IN BY DECEMBER 28, 1998. THIS HAS GIVEN ME A CHANCE TO REVIEW A COMPLEX PLAN APPROXIMATELY ONE INCH THICK AND REPLY WITHIN THIRTEEN (13) DAYS. THIS NORMALLY WOULD BE ENOUGH TIME IF NOT SCHEDULED DURING THE BUSIEST HOLIDAY OF THE YEAR. IN A LETTER CONTAINED IN THE PLAN THAT THE AIR FORCE WAS ALLOWING A 45-DAY REVIEW PERIOD TO REVIEW THE PLAN, CONSIDERABLY MORE THAN THE THIRTEEN (13) DAYS I HAVE BEEN ALLOWED.

I WOULD LIKE AN EXTENSION AND ADDITIONAL COPIES OF THE PLAN TO DISTRIBUTE TO MY NEIGHBORS. ONE HUNDRED (100) COPIES WOULD BE FINE FOR STARTERS. 5.1

MY WIFE AND I ARE NEW ARRIVALS TO ROME HAVING PURCHASED FORTY ACRES OF LAND WHICH ADJOINS THE AIR BASE ON THE NORTHEASTERLY BOUNDRIES. IN 1997 WE BUILT OUR RETIREMENT DREAM HOME. WE CHOSE THIS PROPERTY WITH THE UNDERSTANDING THAT GRIFFISS AIR BASE WOULD NO LONGER BE OPERATIONAL AFTER 1998.

IN 1998 MY DAUGHTER AND HER HUSBAND BUILT NEXT TO OUR HOME WITH THE SAME UNDERSTANDING.

I HAVE TWO OTHER DAUGHTERS THAT WOULD LIKE TO BUILD ON OUR PROPERTY NEXT YEAR. THEY WILL BE HOLDING OFF PREPARATIONS UNTIL A DECISION IS MADE CONCERNING THE USE OF THE BASE. OUR FOURTH DAUGHTER, HUSBAND AND FAMILY LIVE LESS THAN ONE-HALF MILE AWAY IN FLOYD, NEW YORK.

NOISE OBVIOUSLY IS ONLY ONE CONCERN OF OURS. AT THE PUBLIC MEETING DURING THE AIR FORCE PRESENTION IT WAS MENTIONED THAT NO NOISE EXCEEDING 65DB WOULD BE TRANSMITTED OUTSIDE OF THE AIR BASE BOUNDRIES. I DO NOT THINK ANYONE IN ATTENDANCE COULD FATHOM WHAT 65DB WORTH OF NOISE SOUNDED LIKE. HOWEVER IF IT CAN BE LIKEND TO THE NOISE THAT WAS PRESENT DURING THE AIRCRAFT TOUCH AND GO EERCISES, THEN 65DB IS EXTREMELY NOISY. DURING THOSE EXERCISES 5.2

I WAS UNABLE TO OPEN MY WINDOWS IN THE SUMMERTIME DUE TO THE NOISE. I HAVE MY OWN ELECTRONIC SALES BUSINESS AND BEING ABLE TO CONVERSE ON THE TELEPHONE WAS LITERALLY IMPOSSIBLE WITH THE WINDOWS OPEN. WITH THE WINDOWWS CLOSED IT WAS STILL DIFFICULT. WITHOUT THE TELEPHONE DURING BUSINESS HOURS I MIGHT JUST AS WELL FOLD UP MY COMPANY. 5.2

DURING THE PUBLIC HEARING AN INDIVIDUAL IN SUPPORT OF THE **PROPOSED ACTION** MENTIONED THE AIR BASE AS A **KEY ASSET** FOR ROME. FIRST OF ALL BEING A KEY ASSET IS NOT THE CONSIDERATION HERE. **P E O P L E A R E!!!!**

IN THE SEIS REPORT IT STATES THAT NUMBER OF JOBS TO BE CREATED BY THE YEAR 2016 FOR THE **PROPOSED ACTION** to be 1144. THE NUMBER OF JOBS CREATED BY THE **NONAVIATION ALTERNATIVE** WOULD BE 7043. THE DIFFERENCE IS OBVIOUSLY SIGNIFICANT AND THE DECISION SIMPLISTIC. THE **NON AVIATION** IS SIx (6) TIMES GREATER FOR JOB CREATIONS.

I HAVE YOUNG GRANDCHILDREN WHICH BECAUSE OF CLOSE FAMILY TIES WOULD LIKE THE OPPORTUNITY TO STAY IN THE AREA. CERTAINTLY THE MORE JOBS IN THE AREA, THE BETTER ARE THEIR CHANCES. 5.3

THE **PURSUIT OF HAPPINESS** FOR PEOPLE IS THEIR CONSTITUTIONAL RIGHT. THIS DECISION SHOULD BE MADE WITH ALL PEOPLE BEING CONSIDERED.

**I URGE YOU TO DECIDE ON THE NON AVIATION ALTERNATIVE AS THE ONLY ACTION THAT WOULD BE BEST FOR ONEIDA COUNTY.**

YOURS TRULY,

**JOSEPH AND JACQUELINE ROBACK** 12/26/
**7527 LAMBERT ROAD**
**ROME, NEW YORK 13440**

**MICHAEL AND SHARON YAGEY** 12/26
**7523 LAMBERT ROAD**
**ROME, NEW YORK 13440**

**GEORGE AND DEBRA CHANDLER** 12-26
**7635 RICKMYER ROAD**
**FLOYD, NEW YORK 13440**

**SUSAN ROBACK AND CHARLES JONES** 12/26
**7527 LAMBERT ROAD**
**ROME, NEW YORK 13440**

**JOANN AND RONALD PAL** 12/26/
**737 SOUTH STREET**
**UTICA, NEW YORK 13501**

# Document 6

**New York State Office of Parks, Recreation and Historic Preservation**
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

Bernadette Castro
*Commissioner*

December 7, 1998

Jonathan D. Farthing
HQ AFCEE/ECA
3207 North Road
Brooks AFB, TX 78235-5363

re: DSEIS, Disposal & /re-use,
Griffiss AFB Closure
Rome, Oneida Co.
96PR1364

Dear Mr. Farthing:

Thank you for requesting the comments of the State Historic Preservation Office (SHPO) concerning the project noted above. We have reviewed the project documentation in accordance with Section 106 of the National Historic Preservation Act of 1966 and relevant implementing regulations.

Based upon the information provided, the DSEIS did not include any reference to our findings regarding buildings, structures and complexes at Griffiss AFB determined eligible for listing in the National Register of Historic Places. These findings were conveyed to you under the SHPO's cover letter of September 9, 1998. (A copy is enclosed for your reference).

The SHPO requests that a record of these eligibility determinations be included in the final EIS for Griffiss AFB. Your agency will also need to discuss with the SHPO the potential effects upon National Register-eligible cultural resources resulting from the alternatives proposed in the DSEIS. Any finding of Adverse Effect will require further discussion with the SHPO in order to determine appropriate mitigation measures. 6.1

Nothing in the above comments should be construed as a final effect determination for the overall project. A full evaluation of issues affecting cultural resources will take place when the SHPO receives complete project documentation. 6.2

Please refer to the Project Review (PR) number in any future correspondence regarding this project. If you have questions, please call Raymond W. Smith at 518-237-8643 ext. 260.

Sincerely,

Ruth L. Pierpont

Ruth L. Pierpont
Director, Field Services Bureau

encl.

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

Bernadette Castro
Commissioner

September 9, 1998

Mr. Jonathan D. Farthing
Chief, Environmental Analysis Division
Environment Conservation & Planning Directorate
Department of the Air Force
HQ AFCEE/ECA
3207 North Road
Brooks AFB, TX 78235-5363

Dear Mr. Farthing:

re: AIR FORCE
Griffiss Air Force Base Closure
Rome, Oneida County
92PR1182

Thank you for requesting the comments of the State Historic Preservation Office (SHPO) concerning your project's potential effect upon historic cultural resources. The documentation which you provided has been reviewed by our staff according to Section 106 of the National Historic Preservation Act of 1966 and implementing regulations.

Comments regarding eligible properties are noted on the attachment accompanying this letter. The SHPO will continue to work with your agency to develop appropriate mitigation measures as your project proceeds. Any questions concerning our comments and/or requests for additional information should be directed to me at 518-237-8643 x260.

When responding, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

Raymond W. Smith
Program Analyst

attachments: [X] National Register of Historic Places Eligibility Comments



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New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

Bernadette Castro
Commissioner

**RESOURCE EVALUATION** DATE: 08 Sept 98 STAFF: RWS

PROPERTY: Griffiss Air Force Base facilities MCD: Rome (c)
ADDRESS: See below COUNTY: Oneida
PROJECT REF: 92PR1182 USN: multiple (see below)

I. ___ Property is individually listed on SR/NR:
name of listing: _____

___ Property is a contributing component of a SR/NR district:
name of district: _____

II. _X_ Property meets eligibility criteria.
___ Property contributes to a district which appears to meet eligibility criteria. Pre SRB: ___ Post SRB: ___ _____
SRB date

Criteria for Inclusion in the National Register:

A. _x_ Associated with events that have made a significant contribution to the broad patterns of our history;
B. ___ Associated with the lives of persons significant in our past;
C. _x_ Embodies the distinctive characteristics of a type, period or method of construction; or represents the work of a master; or possess high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction;
D. ___ Have yielded, or may be likely to yield information important in prehistory or history.

**Summary of Eligibility Findings: Griffiss Air Force Base**

The State Historic Preservation Office (SHPO) has received from the Department of the Air Force the draft Historic Building Inventory and Evaluation report for the former Griffiss Air Force Base, Rome, Oneida Co. This document articulates the historic themes and contexts in which this facility should be evaluated, and includes a comprehensive building-structure inventory of the complex. The information contained in the draft report provides the basis for determining the National Register eligibility for those elements of the former Griffiss AFB facility not previously evaluated.

Established as Rome Army Air Depot in 1942, the facility served the Army Air Corps and the U.S. Air Force through World War II and the Cold War era. Re-named Griffiss Air Force Base in 1948, the facility continued to function until 1993, when it was closed by the Department of Defense as part of the Base Realignment and Closure program (BRAC). The principal themes represented by the Griffiss facility are World War II and the Cold War.

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Building 150--Fighter Alert Building (Maintenance Hangar), 1953; 1960 (USN 06541.000540);

SAC Alert Area: The eligible resource includes a coherent complex enclosed and defined by a secure, fenced perimeter, consisting of the Alert aircraft apron, taxiway, and the following contributing buildings located within the security fence:

Building 745--Alert Fire Team Facility (USN 06541.000541)
- " 767--Security Police Entry Control Building (.000542)
- " 793--Crew Readiness Facility (.000543)
- " 799--Security Police Visitor Control Center (000544)
- " 811--Master Surveillance and Control Facility (.000545).

Weapons Storage Area: Within the secure, fenced perimeter enclosing the area, the following specialized structures reflect the evolution of storage for armament carried aloft by aircraft based at Griffiss AFB over the course of the Cold War period of significance:

Buildings 821, 822, 824, 825, 826, 840--Rocket Checkout and Assembly Storage (USN 06541.000546 => .000551, inclusive);

Buildings 900, 902, 903, 904, 905, 906, 907, 912, 913--Storage "Igloos" (USN 06541.000552 => .000560, inclusive)

Buildings 925, 926, 927, 928, 929--Storage "Igloos" (USN 06541.000561 => .000565, inclusive).

**********

With the exception of those facilities specifically noted above, it is the opinion of the SHPO that the remainder of the buildings/structures identified in the cultural resources report for Griffiss AFB are not eligible for listing in the State and National Registers of Historic Places.

Please contact Raymond Smith at 518-237-8643 ext. 260 if you have questions concerning this determination.

Based upon the information contained in the report, the State Historic Preservation Office (SHPO) concludes the following:

World War II Era Resources: No buildings/structures associated with this theme currently located at the former Griffiss AFB meet the National Register criteria for evaluation. Because Griffiss AFB remained in active use through the Cold War era, extensive modification and replacement of facilities has substantially altered the feeling and association of the base from its World War II appearance and character. The majority of the buildings and structures included in the inventory lack integrity to the period of significance due to subsequent alterations and/or conversion to other uses.

Cold War Era Resources: The cultural resources report documents the historic themes and events associated with the Cold War era (1946-1991) sufficient for evaluation of extant facilities at the former Griffiss AFB. Under the National Register criteria, the Cold War has been determined to be an historic theme of exceptional significance by definition, occurring as it has within the past 50 years. Moreover, the profound historical impact of the Cold War upon the military, political, social and economic order of the United States, from national to local levels during the period of significance, has been adequately documented through recent historical scholarship.

The SHPO has determined that Griffiss AFB played a significant role in the global nuclear/air defense strategy of the United States throughout the Cold War era. Griffiss became part of the northeast air defense net as early as 1950, when a fighter/interceptor squadron was assigned to the existing Rome facility. As one of two Strategic Air Command (SAC) bases established in New York (along with Plattsburgh AFB), Griffiss supported B-52 bomber and KC-135 tanker aircraft on potential alert status from 1959 until 1993. Accordingly, those features of Griffiss AFB that possess integrity to the period of the Cold War and reflect the distinct, particular mission of this facility as it contributed to the nation's Cold War defense strategy are deemed significant, and are eligible for listing in the State and National Registers of Historic Places.

It is the opinion of the SHPO that the following specific buildings, structures and complexes identified from the cultural resources inventory report reflect the Cold War era history of Griffis AFB, and are determined eligible for listing in the State and National Registers (features are identified by building number where these exist):

# Document 7

December 19, 1998

Environmental Analysis Division
HQ AFCEE/ECA
3207 North Road
Brooks AFB, TX 78235-5363

Dear Mr. Farthing:

I was unable to attend the 12/9 public meeting called to address the Supplemental Environmental Impact Statement on the future use of the airstrip at the former Griffiss Air Force Base (GAFB). But, I was assured that I could provide my comments to you at the above address. Although my comments are largely non-quantitative they are personal environmental observations derived from living for more than 30 years in very close proximity to the GAFB flying activity. I thank you for that opportunity to present the following comments.

I'd like to start by providing some background information as my records and memory allow. I have lived at my present address since September 1963. My home is located less than one-half mile from, what I call, the terminal approach to the runway at the former GAFB. To give you an idea of my proximity, I could often see the pilots in their cockpits. There were some advantages to my location. I did see an SR-71 head for the Middle East. I watched the current Air Force One shoot approaches in the final shakedown and testing phases. I saw most of the newest aircraft types before they became old hat. I had a good view of air shows from a lawn chair in my front yard. But, through the time that the flying mission was present at GAFB the disadvantages greatly outweighed those sparse and questionable advantages. For instance:

- Usually, even with all windows and doors closed, indoor conversations and television programing were drowned out for a not insignificant time by aircraft noise when one was taking off or landing. Similarly, when out-of-doors, aircraft noises often reached the threshold of discomfort, if not pain, forcing me to cover my ears until the noise subsided. If you doubt this, ask someone whose been close to the take off path of a climbing, fully loaded, KC-135 on a hot, humid day. The air virtually crackles. Whether causative or contributory, I have significantly degraded hearing in both ears.
- The smell of jet fuel was not an uncommon odor. Military planes occasionally vented fuel locally instead of going to, what I was told was, a designated "dump area" somewhere in the Adirondack Mountains.
- Jet engine exhaust, clearly visible from laboring B-52's, KC-135's, etc. as they strained to gain altitude, seemed to provide us with an ever present dirty, oily layer for our windows, cars, etc. not to mention the contamination of our breathing air.
- In late 1967 or early 1968 a B-52 crashed within two or three miles of my home barely missing houses and resulting in a spectacular fire with the loss of all aboard.

- I often observed slicks and sometimes dead fish on the surface of Six Mile Creek which runs through the Griffiss site.
- Over the years there has been a drastic decrease in the number of wintering birds that visit our feeders. Some others have made the same observation. What part, if any, pollution caused in association with the GAFB flying mission contributed to this, I couldn't say. I only cite the observation here.
- About, 1987 concerns started to be publicly expressed about contamination of the aquifer providing much of the local potable well water. Potential carcinogens were detected in analysis of sampled wells. As I recall, ethylene glycol, used at that time as an aircraft deicer and trichloroethane, usually found in degreasers, along with other chemicals, were found in well water samples. At one point, a small number of families were instructed to immediately cease using their well water for showering due to the high levels of detected contamination. The "battle" raged on for several years, with much "Who me?" on the part of the government representatives. As the wrangling went on, the USAF paid for bottled drinking water that was delivered to about 1000 homes in the Town of Floyd. Finally, the USAF underwrote the cost of providing Rome city water to most of the homes in the town without ever publicly, to my knowledge, admitting to being the source of contaminants. One member of the Rome-Floyd Resident's Association called for an epidemiological study to determine the statistical significance of what he thought was an unusually high rate of cancer cases and deaths in the town. I believe that he subsequently lost a battle with cancer, himself. The study to my knowledge was never performed.

From the time that the USAF flying missions left Griffiss in 1994 and the departure of the Air National Guard, this year, the only notable sources of environmental pollution that I observed were the contribution to air and noise pollution provided by the aircraft performing touch-and-go and practice landings. The noise of C-5's was particularly egregious due to the low altitude employed in their practice approach and take off flight path. Often they practiced week days nonstop from about 1200 hours to about 1700 hours.

The 12/10 edition of the Utica Observer Dispatch stated that a resurrected facility could see 80,000 aircraft operations per year. That would equate to "...one aircraft leaving or landing every four minutes during a 16-hour day.", as stated in the article. That causes me great concerned for all of the reasons alluded to or stated above.

- The ***noise pollution*** would be particularly disturbing to residents adjacent to the airstrip and terminal part of the glide path, like me, especially if the stated number of operations, 80,000, and potential hours of daily operation were even approached. Lesser numbers would not make the situation any more tenable. 7.1
- Renewed operations would have a ***harmful effect on the local fauna***. 7.2
- Operation levels at only a very small fraction of those suggested would create more 7.3

***air pollution*** than was extant when the USAF operated flying missions out of GAFB. 7.3

- The sheer number of potential aircraft operations would make the ***risk of crashes*** significantly higher than that which existed when the USAF flew out of Griffiss. That risk would be further exacerbated if the facility were also used as the site of an overhaul and/or repair/refurbishing operations. Aircraft coming to the facility for overhaul or periodic maintenance are by definition less serviceable, capable, and, quite possibly, less airworthy than those in an early part of their periodic cycles. 7.4
- There would very probably be further ***pollution of the aquifer*** which, I am sure, is still used by many for potable water. I would venture to guess that the aquifer, ergo the risk, has not been completely mapped. During winter months, aircraft would still have to be deiced. It is not clear to me what would make a commercial deicing operation any safer or less polluting than the one that the USAF had? Or, what precautionary steps or process improvements could or would be taken to ensure non-polluting deicing, especially with a large number of aircraft operations? 7.5
- There is a great likelihood of ***resumed pollution of Six Mile Creek*** that flows through the Griffiss facility. 7.6

It is environmentally unfair to expect people living in close proximity to the glide path, in particular, and to Griffiss, in general, to be subjected to the eventualities of an, as yet, undefined air field operation that could result in 80,000 yearly aircraft operations. I feel that the environmental impact assessment should be based on the merits of a clearly defined intended use and not an open-ended and undefined possibility whose very nonspecific nature provides a ready tool to parry unfavorable opinions and ideas and lends support to a favorable finding.

For the reasons cited above, I firmly believe that the Griffiss facility should be utilized as a ***non-aviation use*** facility. Please feel free to contact me if you have questions or would like further information or input. I can be reached by e-mail at cappy@ntcnet.com, by telephone at (315)337-1866, or at the below address.

Respectfully submitted,

Michael J. Capparelli, Jr.

Michael J. Capparelli, Jr.
7712 Sunset Drive
Rome, NY 13440-6401

# Document 8

Best Available Copy
(See retyped version
immediately following)

15719 Mahogany Circle
Gaithersburg, MD 20878
December 28, 1998

Jonathan D. Farthing
HQ AFCEE/ECA
3207 North Road
Brooks AFB TX 78235-5363

RE: DSEIS for the Disposal and Reuse of the Airfield Property at Griffiss Air Force Base, NY, 3 Nov 98.

This document indicates:

(1) Failure to mention Minicozzi/O'Neill proposal regarding GAFB Airfield Property Reuse submitted FIRST in March 1994 and again at a later date. Mr. Minicozzi has a signed receipt documenting this submission.

(2) Failure to mention any/all proposals submitted by reputable homeless organizations regarding reuse of the GAFB Airfield Property. At least one proposal was rejected by Mr. DiMeo's office and no mention was made to the organization informing them of their legal recourse - specifically the name of the governmental department where they could appeal. This homeless organization has leadership and a successful track record exceeding three decades. Their plan would have not only assisted the homeless community but would have created all levels of employment for the Mohawk Valley. It could have been operational by this time.

(3) Failure to list members of the LRA. This listing should include addresses and contact numbers.

(4) Failure to inform the local community of actions that effect their lives and futures. This is accomplished by publishing articles in the Rome Sentinel where important information is purposely omitted. This is in violation of Environmental Justice.

(5) Failure on the part of those individuals entrusted with the task of economically developing the former Griffiss AFB to proceed with purpose in ensuring that Rome, NY will be a viable community in the future. No overabundance of studies will not accomplish what an informed, pro-active community can. Change is long past due. The people of Rome and Oneida County deserve better. (Check into the history of the successful conversion of Dow AFB in Bangor, Maine which recently celebrated it's 30th year. They accomplished - not studied. That community was involved and their leaders cared and accomplished.)

(6) Failure of the LRA to hire an Executive Director with a proven track record in successful conversion of a former military facility particularly one with potential international air terminal capability.

(7) Failure to establish a deadline for reuse accomplishment by the present LRA and the Executive Director. Perhaps it is time to start with a fresh slate.

Thank you.

Sincerely,

Jacigene M. O'Neill

# Document 8 - Retyped Version

15719 Mahogany Circle
Gaithersburg, MD 20878
December 28, 1998

onathan D. Farthing
Q AFCEE/ECA
207 North Road
rooks AFB, TX 78235-5363

E: DSEIS for the Disposal and Reuse of the Airfield Property at Griffiss Air Force Base, NY, 3 Nov 98.

his document indicates:

(1) Failure to mention Minicozzi/O'Neill proposal regarding GAFB Airfield property Reuse submitted FIRST in March 1994 and again at a later date. Mr. Minicozzi has a signed receipt documenting this submission. 8.1

(2) Failure to mention any/all proposals submitted by reputable homeless organizations regarding reuse of the GAFB Airfield Property. At least one proposal was rejected by Mr. DiMeo's office and no mention was made to the organization informing them of their legal recourse - specifically the name of the governmental department where they could appeal. This homeless organization has leadership and a successful track record exceeding three decades. Their plan would have not only assisted the homeless community but would have created all levels of employment for the Mohawk Valley. It could have been operational by this time. 8.2

(3) Failure to list members of the LRB. This listing should include addresses and contact numbers. 8.3

(4) Failure to inform the local community of actions that affect their lives and futures. This is accomplished by publishing articles in the Rome Sentinel where important information is purposely omitted. This is in violation of Environmental Justice. 8.4

(5) Failure on the part of those individuals entrusted with the task of economically developing the former Griffiss AFB to proceed with purpose in ensuring that Rome, NY will be a viable community in the future. As overabundance of studies will not accomplish what an informed, pro-active community can. Change is long past due. The people of Rome and Oneida County deserve better. (Check late the history of the successful conversion of Dow AFB in Bangor, Maine which recently celebrated it's 30th year. They accomplished - not studies. That community was involved and their leaders cared and accomplished.) 8.5

(6) Failure of the LRB to hire an Executive Director with a proven track record in successful conversion of a former military facility, particularly one with potential international air terminal capability. 8.6

(7) Failure to establish a deadline for reuse accomplishment by the present LRB and the Executive Director. Perhaps it is time to start with a fresh slate. 8.7

Thank you.

Sincerely,

Jaclynne M. O"Neill

# Document 9

Locating Air Cargo
Our maintenance facility and
Commercial airport not a
good idea at the former
Griffiss site. 9.1

Reason

Pollution

noise 9.2

and most of all
safety to the 9.3
Community

Jennie Rose
Rome NY

# Document 10

8 Nov '98

Jonathan D. Farthing
Hq. AFCEE/ECA
3207 North Road
Brooks AFB, Texas 78235-5363

Dear Sir:

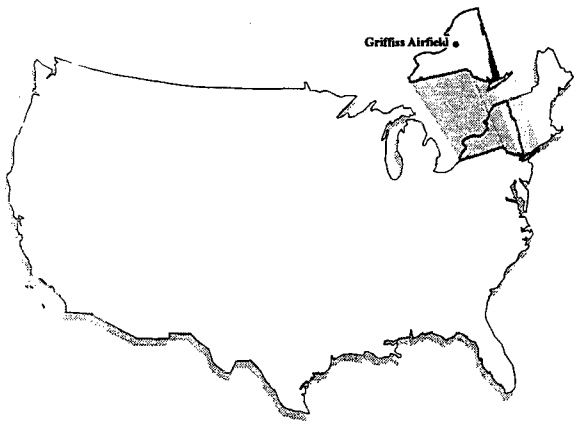
Please remove my name from the mailing list for future copies of any Environmental Impact Statements regarding property at Griffiss AFB, N.Y. 10.1

All I was ever interested in was the housing at Griffiss and since nothing can be done about that I have no further interest.

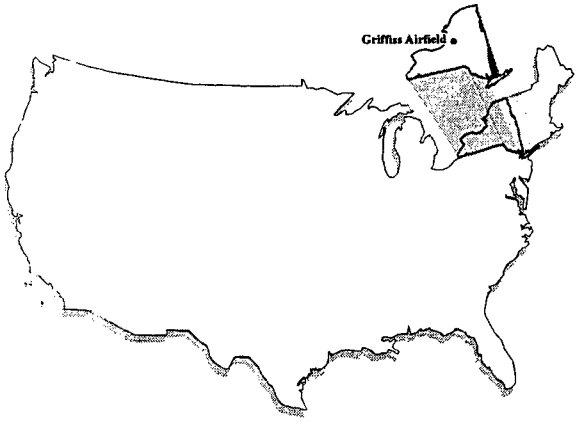
Sincerely

Marion P. Lorenz
136 Ringdale Ct, Apt 1
Rome, N.Y. 13440
(formerly
5957 Freemanstown Rd.
Verona, N.Y. 13478

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# APPENDICES




# APPENDIX A

# APPENDIX A

# GLOSSARY OF TERMS, ACRONYMS, UNITS OF MEASUREMENT, AND CHEMICAL ABBREVIATIONS

## TERMS

**A-Weighted Sound Level (dBA).** A number representing the sound level which is frequency-weighted according to a prescribed frequency response established by the American National Standards Institute (ANSI S1.4-1971) and accounts for the response of the human ear.

**Abatement.** Any set of measures designed to permanently eliminate health and environmental hazards. These may include (1) removal, permanent containment of encapsulation, or replacement, and (2) all preparation, cleanup, disposal, and postabatement clearance testing activities associated with such measures.

**Accident Potential Zones (APZ).** Areas immediately beyond the ends of Department of Defense fixed-wing runways that have a higher potential for aircraft accidents than other areas. Specifically, APZs fall into two categories: APZ 1 is the area beyond the runway clear zone that possesses a significant potential for accidents, and APZ 2 is an area beyond APZ 1 that has a measurable potential for accidents.

**Accumulation Point.** A location where a generator accumulates hazardous wastes awaiting movement to a treatment, storage or disposal (TSD) facility. An accumulation point does not require an Environmental Protection Agency TSD permit as long as wastes are stored for less than 90 days.

**Advisory Council on Historic Preservation.** A 19-member body appointed, in part, by the President of the United States to advise the President and Congress and to coordinate the actions of federal agencies on matters relating to historic preservation, to comment on the effects of such actions on cultural resources, and to perform other duties as required by law (Public Law 89-655; 16 USC 470).

**Aesthetics.** Referring to the perception of beauty.

**Air Cargo Operations.** The movement of mail, packages, freight, etc. exclusively (i.e., does not involve scheduled or ticketed passenger service).

**Air Installation Compatible Use Zone.** A concept developed by the Air Force to promote land use development near its airfields in a manner that protects adjacent communities from noise and safety hazards associated with aircraft operations, and to preserve the operational integrity of the airfields.

**Aircraft Operation.** A takeoff or landing at an airport.

**Airport Layout Plan.** The plan of an airport showing the layout of existing and proposed airport facilities.

**Airport Radar Service Area (ARSA).** Regulatory airspace surrounding designated airports wherein air traffic control provides vectoring and sequencing on a full-time basis for all instrument flight rule and visual flight rule aircraft.

**Airport Traffic Area.** Airspace within a radius of 5 statute miles of an airport with an operating control tower, encompassing altitudes between the surface and 3,000 feet above ground level, in which an aircraft cannot operate without prior authorization from the control tower.

**Alluvial Plain.** Plain produced by deposition of alluvium.

**Alluvial Fan.** Alluvial deposit of a stream where it issues from a gorge upon a plain. Viewed from above, it is the shape of an open fan, with the apex at the mouth.

**Alluvium.** Clay, silt, sand, gravel, or similar material deposited by running water.

**Ambient Air.** That portion of the atmosphere, outside of buildings, to which the general public has access.

**Ambient Air Quality Standards.** Standards established on a state or federal level that define the limits for airborne concentrations of designated "criteria" pollutants (nitrogen dioxide, sulfur dioxide, carbon monoxide, total suspended particulates, ozone, and lead), to protect public health with an adequate margin of safety (primary standards) and to protect public welfare, including plant and animal life, visibility, and materials (secondary standards).

**Aquifer.** The water-bearing portion of subsurface earth material that yields or is capable of yielding useful quantities of water to wells.

**Archaeology.** A scientific approach to the study of human ecology, cultural history, and cultural process, emphasizing systematic interpretation of material remains.

**Arterial.** Signalized street that serves primarily through-traffic and provides access to abutting properties as a secondary function.

**Artifact.** Anything that owes its shape, form, or placement to human activity. In archaeological studies, the term is applied to portable objects (e.g., tools and the by-products of their manufacture).

**Asbestos.** A carcinogenic substance formerly used widely as an insulation material by the construction industry; often found in older buildings.

**Association.** Two or more soils occurring together in a characteristic pattern.

**Attainment Area.** A region that meets the National Ambient Air Quality Standards for a criteria pollutant under the Clean Air Act.

**Average Annual Daily Traffic (AADT).** For a 1-year period, the total volume passing a point or segment of a highway facility in both directions, divided by the number of days in the year.

**Average daily traffic (ADT).** The typical 24-hour volume of traffic passing a given point or segment of a roadway in both directions.

**Average Travel Speed.** The average speed of a traffic stream computed as the length of a highway segment divided by the average travel times of vehicles traversing the segment, in miles per hour.

**Avigation.** The navigation of airplanes.

**Base Realignment and Closure (BRAC).** Collectively, the Base Closure and Realignment Act of 1988 (P.L. 100-526, 102 Stat. 2623) (also called BRAC 88, or Round I) and the Defense Base Closure and Realignment Act of 1990 (P.L. 101-510, 104 Stat. 1808) (also called BRAC 91, 93, and 95; or Round II, Round III, and Round IV). Department of Defense (DOD) installations subject to closure or realignment pursuant to these laws are referred to as BRAC installations.

**Bedrock.** Geologic formation or unit which underlies soil or other unconsolidated surficial deposits.

**Biological resources.** The native and introduced plants and animals in the project area.

**Biophysical.** Pertaining to the physical and biological environment, including the environmental conditions crafted by man.

**Biota.** The plant and animal life of a region.

**Calcareous.** Containing calcium carbonate.

**Capacity (Transportation).** The maximum rate of flow at which vehicles can be reasonably expected to traverse a point or uniform segment of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions.

**Capacity (Utilities).** The maximum load a system is capable of carrying under existing service conditions.

**Carbon Monoxide (CO).** A colorless, odorless, poisonous gas produced by incomplete fossil-fuel combustion. One of the six pollutants for which there is a national ambient standard. See Criteria Pollutants.

**Class I, II, and III Areas.** Under the Clean Air Act, clean air areas are divided into three classes. Very little pollution increase is allowed in Class I areas, some increase in Class II areas, and more in Class III areas. National parks and wilderness areas receive mandatory Class I protection. All other areas start out as Class II. States can reclassify Class II areas up or down, subject to federal requirements.

**Clear Zone.** The area surrounding a runway where the aircraft accident risk is high enough that necessary land use restrictions would prohibit reasonable economic use of the land.

**Commercial Aviation.** Aircraft activity licensed by state or federal authority to transport passengers and/or cargo for hire on a scheduled or nonscheduled basis.

**Comprehensive Plan.** A public document, usually consisting of maps, text, and supporting materials, adopted and approved by a local government legislative body, which describes future land uses, goals, and policies.

**Contaminants.** Undesirable substances rendering something unfit for use.

**Contamination.** The degradation of naturally occurring water, air, or soil quality either directly or indirectly as a result of human activities.

**Control Zone.** Controlled airspace with a normal radius of 5 statute miles from a primary airport plus any extensions needed to include instrument arrival and departure paths, encompassing altitudes between the surface and 14,449 feet mean sea level.

**Corridor.** A strip of land of various widths on both sides of a particular linear facility such as a highway or rail line.

**Council on Environmental Quality (CEQ).** Established by the National Environmental Policy Act (NEPA), the CEQ consists of three members appointed by the President. CEQ regulations (40 CFR Parts 1500-1508, as of July 1, 1986) describe the process for implementing NEPA, including preparation of environmental assessments and environmental impact statements, and the timing and extent of public participation.

**Criteria Pollutants.** The Clean Air Act required the Environmental Protection Agency to set air quality standards for common and widespread pollutants after preparing "criteria documents" summarizing scientific knowledge on their health effects. Today there are standards in effect for six "criteria pollutants": sulfur dioxide ($SO_2$), carbon monoxide (CO), particulate matter less than 10 micrometers in diameter ($PM_{10}$), nitrogen dioxide ($NO_2$), ozone ($O_3$), and lead (Pb).

**Cultural Resources.** Prehistoric and historic districts, sites, buildings, objects, or any other physical evidence of human activity considered important to a culture, subculture, or a community for scientific, traditional, religious, or any other reason.

**Cumulative Impact.** The impacts on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (Council on Environmental Quality [CEQ] regulations, NEPA, 40 CFR 1508.8).

**Day-Night Average Sound Level (DNL).** The 24-hour-average energy sound level expressed in decibels, with a 10-decibel penalty added to sound levels between 10:00 P.M. and 7:00 A.M. to account for increased annoyance due to noise during night hours.

**Decibel (dB).** A unit of measurement on a logarithmic scale which describes the magnitude of a particular quantity of sound pressure or power with respect to a standard reference value.

**Developed.** Land, a lot, a parcel, or an area that has been built upon, or where public services have been installed prior to residential or commercial construction.

**Direct Impact.** Effects resulting solely from the proposed program.

**Discharge.** Release of groundwater in springs or wells, through evapotranspiration, or as outflow.

**Disposal.** Orderly placement or distribution of property.

**Disturbed Area.** Land that has had its surface altered by grading, digging, or other construction-related activities.

**Easement.** A right or privilege (agreement) that a person may have on another's property.

**Effect.** A change in an attribute. Effects can be caused by a variety of events, including those that result from program attributes acting on the resource attribute (direct effect); those that do not result directly from the action or from the attributes of other resources acting on the attribute being studied (indirect effect); those that result from attributes of other programs or other attributes that change because of other programs (cumulative effects); and those that result from natural causes (e.g., seasonal change).

**Employment.** The total number of persons working (includes all wage and salary workers), both civilian and military, and proprietors.

**Endangered Species.** Any [plant or animal] species that is in danger of extinction throughout all or a significant portion of its range (ESA 1973 as amended).

**Environmental Impact Analysis Process (*EIAP*).** The process of conducting environmental studies as outlined in Air Force Instruction 32-7061 (formerly Air Force Regulation (AFR) 19-2).

**Environmental Protection Agency (EPA).** The independent federal agency, established in 1970, that regulates environmental matters and oversees the implementation of environmental laws.

**Environmental Protection Agency Hazardous Waste Number.** The number assigned by the Environmental Protection Agency to each hazardous waste listed in 40 CFR 261, Subpart D, and to each characteristic identified in 40 CFR 261, Subpart C.

**Equivalent sound level ($L_{eq}$).** The equivalent steady-state sound level that, in a specified period of time, would contain the same acoustical energy as time-varying sound levels during the same period.

**Erosion.** Wearing away of soil and rock by weathering and the action of streams, wind, and underground water.

**Excess property.** Property that is reported to the General Services Administration as no longer required by a federal agency. This property is then made available to all other federal agencies.

**Expenditure.** A disbursement of funds by a government entity; includes operation and maintenance costs, as well as capital costs.

**Fault.** A fracture in the earth's crust accompanied by a displacement of one side of the fracture with respect to the other and in a direction parallel to the fracture.

**Fault Block.** Crustal units bounded by faults.

**Federal Candidate Category 1 Species.** Taxa for which the U.S. Fish and Wildlife Service has sufficient biological information to support a proposal to list as endangered or threatened.

**Federal Candidate Category 2 Species.** Taxa for which existing information may warrant listing, but for which substantial biological information to support a proposed rule is lacking.

**Federal Candidate Category 3(c) Species.** Taxa more common than previously thought; no longer being considered for a listing proposal at this time.

**Fiscal Year.** In government finance, the 12-month period that corresponds to the jurisdiction's accounting period, typically beginning October 1st and ending September 30th.

**Fleet Mix.** Combination of aircraft used by a given agency.

**Floodplain.** The relatively flat land lying adjacent to a river channel that is covered by water when the river overflows its banks.

**Fossiliferous.** Containing fossils.

**Freeway.** A multilane, divided highway having a minimum of two lanes for exclusive use of traffic in each direction and full control of access and egress.

**Frequency.** The time rate (number of times per second) that the wave of sound repeats itself, or that a vibrating object repeats itself -- now expressed in Hertz (Hz), formerly in cycles per second (cps).

**Fugitive Dust.** Particulate matter composed of soil that is uncontaminated by pollutants from industrial activity. Fugitive dust may include emissions from haul roads, wind erosion of exposed soil surfaces, and other activities in which soil is either removed or redistributed.

**Fugitive Emissions.** Emissions released directly into the atmosphere that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

**Fungicides.** Any substance that kills or inhibits the growth of fungi.

**General Aviation.** Civilian aviation operations that do not include air cargo or commercial aviation such as business (e.g., Lear jets), commercial (e.g., crop dusting), instructional, and personal/pleasure flying.

**Geomorphic.** Pertaining to the form of the earth or its surface features.

**Groundwater.** Water within the earth that supplies wells and springs.

**Groundwater Basin.** Subsurface structure having the character of a basin with respect to collection, retention, and outflow of water.

**Groundwater Recharge.** Absorption and addition of water to the zone of saturation.

**Hazardous Material.** Generally, a substance or mixture of substances that has the capability of either causing or significantly contributing to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or posing a substantial present or potential risk to human health or the environment. Use of these materials is regulated by Department of Transportation (DOT), Occupational Safety and Health Administration (OSHA), and Superfund Amendments and Reauthorization Act (SARA).

**Hazardous Waste.** A waste, or combination of wastes, which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Hazardous waste is regulated under the Resource Conservation and Recovery Act (RCRA).

**Heavy Metals.** A metal (e.g., lead, mercury, cadmium, and chromium) of atomic weight greater than sodium (a.w.-22.9 grams/molecule) that forms soaps on reaction with fatty acids.

**Herbicides.** A pesticide, either organic or inorganic, used to destroy unwanted vegetation, especially various types of weeds, grasses, and woody plants.

**Herpetofauna.** Reptiles and amphibians.

**Historic.** A period of time after the advent of written history dating to the time of first Euro-American contact in an area.

**Historic sites.** Under the National Historic Preservation Act (NHPA), these are properties of national, state, or local significance in American history, architecture, archaeology, engineering, or culture, and worthy of preservation.

**Hydraulic Gradient.** The change in head with a change in distance in a given direction (head is the pressure on a fluid at a given point).

**Hydrocarbons (HC).** Any of a vast family of compounds containing hydrogen and carbon. Used loosely to include many organic compounds in various combinations; most fossil fuels are composed predominantly of hydrocarbons. When hydrocarbons mix with nitrogen oxides in the presence of sunlight, ozone is formed; hydrocarbons in the atmosphere contribute to the formation of ozone.

**Hydrology.** A science dealing with the properties, distribution, and circulation of water both above and below the earth's surface.

**Impact.** An assessment of the meaning of changes in all attributes being studied for a given resource; an aggregation of all the adverse effects, usually measured using a qualitative and nominally subjective technique. In this EIS, as well as in the CEQ regulations, the word impact is used synonymously with the word effect.

**Indirect Impact.** Program-related impact (usually population changes and resulting impacts) not directly attributable to the program itself. Indirect effects... are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable... [and] may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (Council on Environmental Quality [CEQ] regulations, NEPA, 40 CFR 1508.8[b]).

**Infrastructure.** The basic installations and facilities on which the continuance and growth of a community, state, etc., depend, e.g., roads, schools, power plants, transportation systems, and communication systems, etc.

**Interstate.** The designated National System of Interstate and Defense Highways located in both rural and urban areas; they connect the East and West coasts and extend from points on the Canadian border to various points on the Mexican border.

**Kilowatt.** A unit of power equivalent to 1,000 watts.

**Land Use Plans and Policies.** Guidelines adopted by governments to direct future land use within their jurisdictions.

**Lead (Pb).** A heavy metal used in many industries, which can accumulate in the body and cause a variety of negative effects. One of the six pollutants for which there is a National Ambient Air Quality Standard. See Criteria Pollutants.

**$L_{eq}$ Noise Level.** The equivalent steady state sound level which, in a stated period of time, would contain the same acoustical energy as a time-varying sound level during the same period.

**Level of Service (LOS).** In transportation analyses, a qualitative measure describing operational conditions within a traffic stream and how they are perceived by motorists and/or passengers. In public services, a measure describing the amount of public services (e.g., fire protection and law enforcement services) available to community residents, generally expressed as the number of personnel providing the services per 1,000 population.

**Masking.** The action of bringing one sound (audible when heard alone) to inaudibility or to unintelligibility by the introduction of another sound.

**Mean sea level (MSL).** The average height of the sea surface if undisturbed by waves, tides, or winds.

**Medical/biohazardous waste.** Material that includes, but is not limited to, isolation wastes, infectious agents, human blood and blood products, pathological wastes, sharps (e.g., scalpels, needles), body parts, contaminated bedding, surgical wastes and potentially contaminated laboratory wastes, and dialysis wastes.

**Megawatt.** One thousand kilowatts or 1,000,000 watts.

**Microgram.** One-millionth of a gram.

**Micron.** A unit of length equal to one-millionth of a meter; also called a micrometer. There are approximately 25,400 micros per inch.

**Military Operating Area.** Airspace areas of defined vertical and lateral limits established for the purpose of separating certain training activities, such as air combat maneuvers, air intercepts, and acrobatics, from other air traffic operating under instrument flight rules.

**Military Training Route.** Airspace of defined vertical and lateral dimensions established for the conduct of military flight training at airspeeds in excess of 250 knots.

**Mineral.** A naturally occurring inorganic element or compound.

**Mineral Resources.** Mineral deposits that may eventually become available; known deposits that are not recoverable at present or yet undiscovered.

**Miocene.** An epoch of geological time dating from 24 to 5 million years ago.

**Mitigation.** A method or action to reduce or eliminate program impacts.

**Mobile source.** A moving source of air pollutants such as motor vehicle, airplane, train, or ship.

**Multiple-Family Housing.** Townhouse or apartment units that accommodate more than one family; however, each dwelling unit is occupied by only one household.

**National Ambient Air Quality Standards (NAAQS).** Section 109 of the Clean Air Act requires EPA to set nationwide standards, the National Ambient Air Quality Standards, for widespread air pollutants. Currently, six pollutants are regulated by primary and secondary NAAQS: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter less than 10 micrometers in diameter ($PM_{10}$), and sulfur dioxide. See Criteria Pollutants.

**National Environmental Policy Act (NEPA).** Public Law 91-190, passed by Congress in 1969. The Act established a national policy designed to encourage consideration of the influences of human activities (e.g., population growth, high-density urbanization, and industrial development) on the natural environment. NEPA also established the Council on Environmental Quality. NEPA procedures require that environmental information be made available to the public before decisions are made. Information contained in NEPA documents must focus on the relevant issues in order to facilitate the decision-making process.

**National Priority List.** A list of sites (federal and state) that contain hazardous materials that may cause an unreasonable risk to the health and safety of individuals, property, or the environment.

**National Register of Historic Places.** A register of districts, sites, buildings, structures, and objects important in American history, architecture, archaeology, and culture, maintained by the Secretary of the Interior under authority of Section 2(b) of the Historic Sites Act of 1935 and Section 101(a)(1) of the National Historic Preservation Act of 1966, as amended.

**Native Americans.** Used in a collective sense to refer to individuals, bands, or tribes who trace their ancestry to indigenous populations of North America prior to Euro-American contact.

**Native Vegetation.** Plant life that occurs naturally in an area without agricultural or cultivational efforts. It does not include species that have been introduced from other geographical areas and become naturalized.

**Natural Levee.** A ridge along a stream bank formed of sediment deposited in times of bank overflow.

**Nitrogen Dioxide ($NO_2$).** Gas formed primarily from atmospheric nitrogen and oxygen when combustion takes place at high temperature. $NO_2$ emissions contribute to acid deposition and formation of atmosphere ozone. $NO_2$ is one of the six pollutants for which there is a national ambient standard. See Criteria Pollutants.

**Nitrogen Oxides ($NO_x$).** Gases formed primarily by fuel combustion, which contribute to the formation of acid rain. Hydrocarbons and nitrogen oxides combine in the presence of sunlight to form ozone, a major constituent of smog.

**Noise.** Any sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying (unwanted sound).

**Noise Attenuation.** The reduction of a noise level from a source by such means as distance, ground effects, or shielding.

**Noise Contour.** A curve connecting points of equal noise exposure on a map. Noise exposure is often expressed using the average day-night sound level, DNL.

**Nonattainment Area.** An area that has been designated by the Environmental Protection Agency or the appropriate state air quality agency as exceeding one or more National or State Ambient Air Quality Standards.

**Normal Fault.** A type of fault in which beds on one side of the fault have slipped down and away from beds on the other side.

**Operating Location (OL).** An organizational element of the Air Force Base Conversion Agency located at a closing base. The OL is responsible for the care and custody of closed areas of the base, disposal of real and related personal property, and environmental cleanup. This office is the primary point of contact for local community reuse organizations and the general public who deal with the disposal and reuse of the base.

**Ordnance.** Military supplies including weapons, ammunition, combat vehicles, and maintenance tools and equipment.

**Outgrant.** In this context, real estate and facilities on the base that are made available, by the Air Force, for use by another agency or a private individual through easement, license, permit, or lease.

**Outmigration.** The act of leaving one region or community in order to settle in another.

**Ozone (ground-level).** A major ingredient of smog. Ozone is produced from reactions of hydrocarbons and nitrogen oxides in the presence of sunlight and heat. Some 68 areas, mostly

metropolitan areas, did not meet a 31 December 1987 deadline in the Clean Air Act for attaining the ambient air quality standard for ozone.

**Paleo-Indian.** Prehistoric hunter-gatherer populations characterized by efficient adaptations to terminal Pleistocene environments in which small bands exploited megafauna such as mammoth (app. 10,000-6,000 B.C.).

**Paleontological Resources.** Fossilized organic remains from past geological periods.

**Palustrine.** The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 percent. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 hectares (20 acres); (2) active wave formation or bedrock shoreline features lacking; (3) water depth in the deepest part of the basin less than 2 meters at low water; and (4) salinity due to ocean-derived salts less than 0.5 percent.

**PCB-contaminated equipment.** Equipment that contains a concentration of polychlorinated biphenyls (PCBs) (see definition) from 50 to 499 parts per million (ppm) and is regulated by the U.S. EPA.

**PCB equipment.** Equipment that contains a concentration of PCBs of 500 ppm or greater and is regulated by the U.S. EPA.

**Peak Demand.** The highest instantaneous amount of electrical power (in kilowatts) that an electrical system is required to supply over a given time frame, usually 1 year.

**Peak Hour.** The hour of highest traffic volume on a given section of roadway between 7:00 A.M. and 9:00 A.M. or between 4:00 P.M. and 6:00 P.M.

**Peak Year.** The year when a particular program-related effect is greatest.

**Perennial Stream.** A stream that flows all the time.

**Permeability.** The capacity of a porous rock or sediment to transmit a fluid.

**Pesticides.** Any substance, organic or inorganic, used to destroy or inhibit the action of plant or animal pests; the term thus includes insecticides, herbicides, fungicides, rodenticides, miticides, fumigants, and repellents. All pesticides are toxic to humans to a greater or lesser degree. Pesticides vary in biodegradability.

**pH.** A measure of the acidity or alkalinity of a material, expressed as the negative exponent of the hydrogen ion concentration.

**Physiographic Province.** A region in which all parts are similar in geologic structure and climate.

**PicoCurie.** One trillionth of a curie; the unit used to measure radioactivity.

**Pleistocene.** An earlier epoch of the Quaternary period during the "ice age" beginning approximately 3 million years ago and ending 10,000 years ago. Also refers to the rocks and sediments deposited during that time.

**Plume.** An elongated mass of contaminated fluid moving with the flow of the fluid.

**Polychlorinated Biphenyls (PCBs).** Any of a family of industrial compounds produced by chlorination of biphenyl. These compounds are noted chiefly as an environmental pollutant that accumulates in organisms and concentrates in the food chain with resultant pathogenic and teratogenic effects. They also decompose very slowly.

**Polychlorinated Biphenyl-Contaminated Equipment.** Equipment which contains a concentration of PCBs from 50 to 499 ppm and is regulated by the EPA.

**Polychlorinated Biphenyl Equipment.** Equipment which contains a concentration of PCBs of 500 ppm or greater and is regulated by the EPA.

**Potable Water.** Water suitable for drinking.

**Prehistoric.** The period of time before the written record.

**Prevention of Significant Deterioration (PSD).** In the 1977 Amendments to the Clean Air Act, Congress mandated that areas with air cleaner than required by National Ambient Air Quality Standards must be protected from significant deterioration. The Clean Air Act's PSD program consists of two elements: requirements for best available control technology on major new or modified sources and compliance with an air quality increment system.

**Prevention of Significant Deterioration Area.** A requirement of the Clean Air Act (160 et seq.) that limits the increases in ambient air pollutant concentrations in clean air areas to certain increments even though ambient air quality standards are met.

**Primary Roads.** A consolidated system of connected main roads important to regional, statewide, and interstate travel; they consist of rural arterial routes and their extensions into and through urban areas of 5,000 or more population.

**Prime Farmland.** Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion, as determined by the Secretary of Agriculture (Farmland Protection Policy Act, 7 CFR 658).

**Protohistoric.** The period when Native American cultures were affected by Euro-Americans without direct contact. For instance, inland Indian tribes received trade goods and reports of European cultures from coastal tribes before the arrival of European explorers in the interior.

**Raptors.** Birds of prey.

**Rare/protected species.** A species that, although not presently threatened with extincion, is in such small numbers throughout its range that it may be endangered if its environment worsens.

**Recent.** The time period from approximately 10,000 years ago to the present and the rocks and sediments deposited during that time.

**Recharge.** The process by which water is absorbed and added to the zone of saturation, either directly into a formation or indirectly by way of another formation.

**Restricted Area.** Designated airspace in which aircraft activity, while not prohibited, is subject to certain restrictions.

**Riparian.** Of or relating to land lying immediately adjacent to a river or stream, and having specific characteristics of that transitional area (e.g., riparian vegetation).

**Riverine.** The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens; and (2) habitats with water containing ocean-derived salts in excess of 0.5 percent.

**Ruderal.** Weedy or introduced vegetation growing in disturbed areas.

**Runoff.** The noninfiltrating water entering a stream or other conveyance channel shortly after a rainfall event.

**Runway Protection Zone.** An area (formerly the clear zone) used to enhance the safety of aircraft operations. It is at ground level beyond the runway end.

**Satellite Accumulation Point.** An area where up to 55 gallons of hazardous waste and up to 1 quart of acutely hazardous waste can be accumulated indefinitely. Containers with excess waste must be marked with the date the excess began accumulating and removed from the area within 3 days to a permitted storage area or to an accumulation point.

**Secondary Employment.** In economics, the additional employment and income generated by the economic activity required to produce the inputs to meet the initial material requirements. The term is often used to include induced effects.

**Sediment.** Material deposited by wind or water.

**Sedimentary.** Rock formed by mechanical, chemical, or organic sediments such as rock formed of fragments transported from their source and deposited elsewhere by water (e.g., sandstone or shale).

**Seismic.** Pertains to the characteristics of an earthquake or earth vibrations including those that are artificially induced.

**Seismicity.** Relative frequency and distribution of earthquakes.

**Shrink/Swell Potential.** Volume change possible upon wetting or drying.

**Sheetwash.** Sheet erosion; the removal of a fairly uniform layer of soil from the land surface by runoff water.

**Significance.** The importance of a given impact on a specific resource as defined under the Council on Environmental Quality regulations.

**Single-Family Housing.** A conventionally built house consisting of a single dwelling unit occupied by one household.

**Site.** As it relates to cultural resources, any location where humans have altered the terrain or discarded artifacts.

**Sludge.** A heavy, slimy deposit, sediment, or mass resulting from industrial activity; solids removed from wastewater.

**Soil Association.** A collection of soils found to occur geographically together.

**Soil Series.** A group of soils having similar parent materials, genetic horizons, and arrangement in the soil profile.

**Solid waste management unit (SWMU).** Any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released. Solid wastes include any garbage, refuse, sludge, and other discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural activities.

**Solvent.** A substance that dissolves or can dissolve another substance.

**Sound.** The auditory sensation evoked by the compression and rarefaction of the air or other transmitting medium.

**Special Use Airspace.** Airspace restricted from commercial and private use.

**Specific Plan.** A plan regulating development within a defined area of a city, consistent with the city's General Plan. Specific plans are required prior to development in specified areas that have not been zoned for particular land uses.

**State Historic Preservation Officer.** The official within each state, authorized by the State at the request of the Secretary of the Interior, to act as liaison for purposes of implementing the National Historic Preservation Act.

**State-Sensitive/State-Recognized Species.** Plant and animal species in each state that are monitored and listed for purposes of protection.

**Sulfur Dioxide ($SO_2$).** A toxic gas that is produced when fossil fuels, such as coal and oil, are burned. $SO_2$ is the main pollutant involved in the formation of acid rain. $SO_2$ can irritate the upper respiratory tract and cause lung damage. During 1980, some 27 million tons of sulfur dioxide were

emitted in the United States, according to the Office of Technology Assessment. The major source of $SO_2$ in the United States is coal-burning electric utilities.

**Surplus property.** Property designated as excess that is of no interest to any federal agency. These properties are made available to state, local, or nonprofit organizations, or sold to private organizations.

**Terrace.** A bench-like feature composed of sediment of an old floodplain and formed as a stream renews its downcutting and leaves the old deposits elevated and approximately parallel to the present floodplain.

**Terrestrial.** Living on or in, or growing from, the land.

**Threatened Species.** Any [plant or animal] species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (ESA 1973 as amended).

**Toluene.** A liquid aromatic hydrocarbon used as a solvent.

**Total Dissolved Solids.** The concentration of solid materials that are dissolved in a sample of water; determined as the weight of the residue of a water sample upon filtration and evaporation divided by the volume of the sample.

**Total Suspended Particulates (TSP).** The particulate matter in the ambient air. The previous National Ambient Air Quality Standard for particulates was based on TSP levels; it was replaced in 1987 by an ambient standard based on $PM_{10}$ levels.

**Total Water Use.** The amount of water withdrawn from the natural resource base for a beneficial purpose, excluding water used for hydroelectric power generation and certain nonconsumptive uses such as once-through cooling water for thermoelectric power generation, wildlife habitat, and fish farming.

**Traffic Assignment.** The allocation of traffic flows among routes available between any two places.

**Trichloroethylene (TCE).** An organic solvent used in dry cleaning and in the removal of grease from metal.

**Trip Distribution.** A determination of the interchange of trips among zones in the region.

**Trip Generation.** A determination of the quantity of trip ends associated with a parcel of land.

**Turbid.** Cloudy (as applied to water) with sediment or other solids.

**Unconfined Aquifer.** An aquifer where the water table is exposed to the atmosphere through openings (pores) in the overlying materials.

**Understory.** An underlying layer of low vegetation.

**Unemployment Rate.** The number of civilians, as a percentage of the total civilian labor force, without jobs but actively seeking employment.

**Unified Soil Classification System.** A rapid method for identifying and grouping soils for military construction. Soils are grouped by grain size, gradation, and liquid limit.

**Unique and Sensitive Habitats.** Areas that are especially important to regional wildlife populations or protected species that have other important biological characteristics (e.g., severe wintering habitats, nesting areas, and wetlands).

**Upland.** Ground elevated above bottomlands (e.g., rolling hill terrain and terraces).

**Volume (Transportation).** The total number of vehicles that pass over a given point or section of a roadway during a given time interval. Volumes may be expressed in terms of annual, daily, hourly, or subhourly periods.

**Watershed.** An area consisting of a surface water drainage basin and the divides that separate it from adjacent basins.

**Water Table.** The sustainable volume of water discharged from a well per units of time, often expressed in gallons per minute.

**Watt.** A unit of electrical power equal to 1/756th horsepower.

**Wetlands.** Areas that are inundated or saturated with surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil. This classification includes swamps, marches, bogs, and similar areas. Jurisdictional wetlands are those wetlands that meet the hydrophytic vegetation, hydric soils, and wetland hydrology criteria under normal circumstances (or meet the special circumstances as described in the U.S. Army Corps of Engineers, 1987, wetland delineation manual where one or more of these criteria may be absent and are a subset of "waters of the United States").

**Zoning.** The division of a municipality (or county) into districts for the purpose of regulating land use, types of buildings, required yards, necessary off-street parking, and other prerequisites to development. Zones are generally shown on a map and the text of the zoning ordinance specifies requirements for each zoning category.

## ACRONYMS

| | |
|---|---|
| AADT | Average Annual Daily Traffic |
| ACHP | Advisory Council for Historic Preservation |
| ACM | Asbestos-Containing Material |
| AFB | Air Force Base |
| AFBCA | Air Force Base Conversion Agency |
| AFFF | Aqueous Film-Forming Foam |
| AFI | Air Force Instruction |
| AFCEE | Air Force Center for Environmental Excellence |
| AFOSH | Air Force Occupational Safety and Health |
| AGE | Aerospace Ground Equipment |
| AHERA | Asbestos Hazard Emergency Response Act |
| AICUZ | Air Installation Compatible Use Zone |
| AIP | Airport Improvement Program |
| ALP | Airport Layout Plan |
| AOC | Area of Concern |
| APE | Areas of Potential Effect |
| APZ | Accident Potential Zone |
| AQCR | Air Quality Control Region |
| ARTCC | Air Route Traffic Control Center |
| ATC | Air Traffic Control |
| BRAC | Base Closure and Realignment |
| BRAC III | Base Realignment and Closure Commission Round III Closures and Realignments |
| BRAC IV | Base Realignment and Closure Commission Round IV Closures and Realignments |
| CAAA | Clean Air Act Amendments |
| CEQ | Council on Environmental Quality |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CERFA | Community Environmental Response Facilitation Act |
| CFR | Code of Federal Regulations |
| COC | Community of Comparison |
| COE | U.S. Army Corps of Engineers |
| CPSC | Consumer Product Safety Commission |
| CWA | Clean Water Act |
| DBCRA | Defense Base Closure and Realignment Act |
| DERP | Defense Environmental Restoration Program |
| DFAS | Defense Accounting and Finance Service |
| DNL | Day-Night Average Sound Level |
| DOD | Department of Defense |
| DRMO | Defense Reutilization and Marketing Office |
| DSEIS | Draft Supplemental Environmental Impact Statement |
| EBS | Environmental Baseline Survey |
| EDMS | Emissions and Dispersion Modeling System |
| EE/CA | Engineering Evaluation/Cost Analysis |
| EIS | Environmental Impact Statement |
| EPA | U.S. Environmental Protection Agency |
| EPCRA | Emergency Planning and Community Right-to-Know Act |
| ERF | Energy Recovery Facility |
| FAA | Federal Aviation Administration |
| FBO | Fixed-Based Operator |

| | |
|---|---|
| FEIS | Final Environmental Impact Statement |
| FFA | Federal Facility Agreement |
| FIFRA | Federal Insecticide, Fungicide, and Rodenticide Act |
| FS | Feasibility Study |
| FEIS | Final Environmental Impact Statement |
| FHWA | Federal Highway Administration |
| FSEIS | Final Supplemental Environmental Impact Statement |
| GLDC | Griffiss Local Development Corporation |
| GRPC | Griffiss Redevelopment Planning Council |
| GSA | General Services Administration |
| HABS | Historic American Building Survey |
| HAP | Hazardous Air Pollutant |
| HMTA | Hazardous Materials Transportation Act |
| HVAC | Heating, Ventilation, and Air Conditioning |
| IFR | Instrument Flight Rules |
| ILS | Insltrument Landing System |
| IRP | Installation Restoration Program |
| JP-4 | Jet Petroleum (Grade 4) |
| JP-8 | Jet Petroleum (Grade 8) |
| LBP | Lead-Based Paint |
| LOS | Level of Service |
| LTO | Landing and Takeoff |
| MACT | Maximum Achievable Control Technology |
| MGD | Million Gallons per Day |
| MSDS | Material Safety Data Sheets |
| MSL | Mean Sea Level |
| NAAQS | National Ambient Air Quality Standards |
| NCP | National Contingency Plan |
| NEADS | Northeast Air Defense Sector |
| NEPA | National Environmental Policy Act of 1969 |
| NESHAP | National Emissions Standards for Hazardous Air Pollutants |
| NHPA | National Historic Preservation Act |
| NLR | Noise Level Reduction |
| NOI | Notice of Intent |
| NPDES | National Pollutant Discharge Elimination System |
| NPL | National Priorities List |
| NPS | National Park Service |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NYANG | New York Air National Guard |
| NYCRR | New York Codes, Rules, and Regulations |
| NYSAAQS | New York State Ambient Air Quality Standards |
| NYSDEC | New York Department of Environmental Conservation |
| OL | Operating Location |
| OSHA | Occupational Safety and Health Administration |
| OTR | Ozone Transport Region |
| OU | Operating Unit |
| PA | Preliminary Assessment |
| PA/SI | Preliminary Assessment/Site Inspection |
| PEL | Permissible Exposure Limit |
| P.L. | Public Law |
| POL | Petroleum, Oil, and Lubricants |

| | |
|---|---|
| PSD | Prevention of Significant Deterioration |
| RACT | Reasonably Achievable Control Technology |
| RADC | Rome Air Development Center |
| RAMP | Radon Assessment and Mitigation Program |
| RAPCON | Radar Approach Control |
| RCRA | Resource Conservation and Recovery Act |
| R&D | Research and Development |
| RD/RA | Remedial Design/Remedial Action |
| RI | Remedial Investigation |
| RIMS | Regional Interindustry Multiplier System |
| RI/FS | Remedial Investigation/Feasibility Study |
| ROD | Record of Decision |
| ROI | Region of Influence |
| RPZ | Runway Protection Zone |
| SAC | Strategic Air Command |
| SARA | Superfund Amendments and Reauthorization Act |
| SEIS | Supplemental Environmental Impact Statement |
| SEL | Sound Exposure Level |
| SH | State Highway |
| SHPO | State Historic Preservation Officer |
| SI | Site Inspection |
| SIAS | Socioeconomic Impact Analysis Study |
| SIP | State Implementation Plan |
| SPDES | Stormwater Pollutant Discharge Elimination System |
| SWMA | Solid Waste Management Authority |
| TD | Technology Development |
| TDM | Transportation Demand Management |
| TIGER | Topographically Integrated Geographic Encoding and Referencing |
| TSCA | Toxic Substances Control Act |
| TSD | Treatment, Storage, and Disposal |
| TSM | Transportation System Management |
| TSP | Total Suspended Particulates |
| USC | United States Code |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| UST | Underground Storage Tank |
| VFR | Visual Flight Rules |
| VOC | Volatile Organic Compound |
| WSA | Weapons Storage Area |
| 3CI | Command, Control, Communications, and Intelligence Technologies |

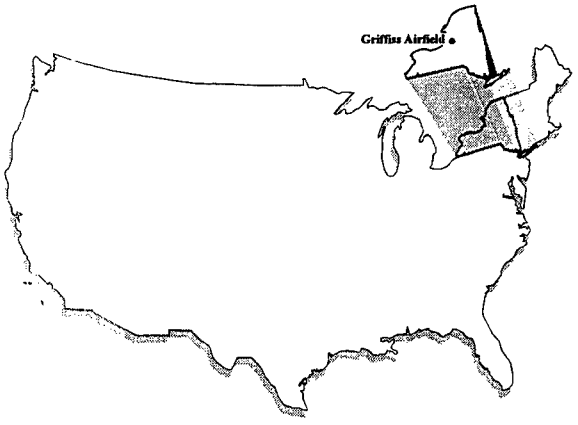
**UNITS OF MEASUREMENT**

| | |
|---|---|
| BTU | British thermal units |
| °C | degrees Celsius |
| dB | decibel |
| dBA | decibel measured on the A-weighted scale |
| DNL | day-night average noise level |
| °F | degrees Fahrenheit |
| kV | Kilovolts |
| kVa | kilovolt-ampere |
| kWh | kilowatt-hour |

| | |
|---|---|
| $L_{eq}$ | energy-equivalent continuous noise level |
| $L_{max}$ | maximum sound level |
| MG | million gallons |
| MGD | million gallons per day |
| MMcf | million cubic feet |
| mph | miles per hour |
| MW | megawatt |
| Mwh | Megawatt Hour |
| MWH/day | Megawatt hours/day |
| pCi/l | picoCuries per liter |
| pH | negative logarithm of hydrogen ion activity |
| $PM_{2.5}$ | Particulate Matter 2.5 micron diameter |
| $PM_{10}$ | particulate matter less than or equal to 10 micrometers in diameter |
| ppm | parts per million |
| $\mu$g/l | micrograms/liter |
| $\mu g/m^3$ | micrograms per cubic meter |

**CHEMICAL ABBREVIATIONS**

| | |
|---|---|
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| DDT | dichlorodiphenyltrichloroethane |
| HC | hydrocarbons |
| Li | Lithium |
| Ni-Cd | Nickel-Cadmium |
| $NO_x$ | nitrogen oxides |
| $NO_2$ | nitrogen dioxide |
| $O_3$ | ozone |
| PAH | polyaromatic hydrocarbons |
| Pb | lead |
| PCB | polychlorinated biphenyls |
| $SO_x$ | sulfur oxides |
| $SO_2$ | sulfur dioxide |
| TCE | trichloroethylene |




# APPENDIX B

# APPENDIX B

## NOTICE OF INTENT

The following Notice of Intent (NOI), published in the *Federal Register* on July 9, 1997, provided public notice of the Air Force's intent to prepare a Supplemental Environmental Impact Statement on the disposal and reuse of the Airfield Property at Griffiss Air Force Base. The NOI has been retyped for clarity and legibility.

## NOTICE OF INTENT

*Federal Register*: July 9, 1997, Volume 62, Number 131, Notices, Page 36777.

**DEPARTMENT OF DEFENSE**

**Department of the Air Force**

Notice of Intent To Prepare a Supplemental Environmental Impact Statement for Disposal and Reuse of Airfield at Griffiss Air Force Base, NY

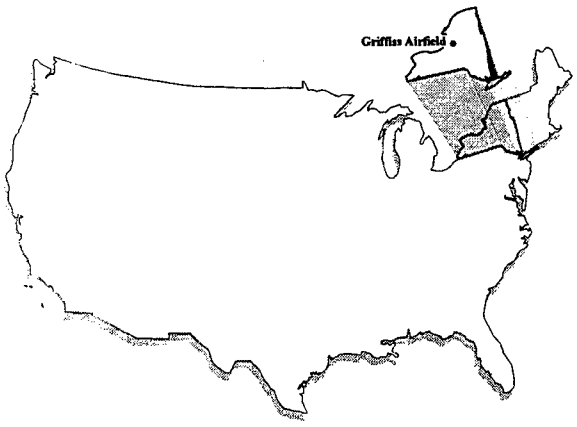
The United States Air Force is issuing this notice to advise the public it will prepare a supplement to an existing Environmental Impact Statement (EIS), "Final EIS, Disposal and Reuse of Griffiss AFB, New York November 1995," which was prepared in accordance with the 1993 Base Closure Commission's recommendation: These recommendations included the retention of several Air Force and DOD functions at the base, including the continued operation of the airfield at a minimum level to support the U.S. Army l0th Infantry Light Division at Fort Drum, New York.

In 1995, a newly appointed Base Closure Commission reevaluated the 1993 Base Closure Commissions decision, recommending closure of the airfield as it was determined that the airfield at Fort Drum could meet the needs of the U.S. Army's 10th Infantry Light Division. The Air Force will fulfill its responsibilities under the National Environmental Policy Act (NEPA) by preparing a supplement to the existing EIS. The Supplemental EIS will address the potential environmental impacts of disposing of the property to public or private entities. All reasonable alternatives, including the no-action alternative (defined as closure of the airfield, but without property disposal taking place), will be examined. It will also examine possible cumulative effects of proposed reuse in concert with disposal proposals under the 1993 disposal EIS.

A scoping meeting will be held in Rome, New York, on July 29 1997, starting at 5:00 p.m. It will be held at the Plumley Complex Auditorium, Mohawk Valley Community College-Rome Campus, on Floyd Avenue. It provides a forum for public officials and the community to provide the Air Force with information and comments. It also assists the Air Force in identifying issues that need to be assessed and discussed in the Supplemental EIS. The Air Force will discuss the proposal to dispose of the airfield at Griffiss Air Force Base, describe the Supplemental EIS process, and ask for help in identifying alternative uses for the airfield and any significant environmental impacts that may result from its disposal. In soliciting alternatives, the Air Force will consider all reasonable alternatives offered by any federal, state, or local government agency, or any federally-sponsored or private entity or individual. The overall scoping process will extend to September 30, 1997. The resulting Final Supplemental EIS will be considered in making disposal decision, if any, that will be documented in the Air Force's Record of Decision.

To ensure sufficient time to adequately consider public comments concerning environmental issues and alternatives to be included in the Supplemental EIS, the Air Force recommends comments and reuse proposals be presented at the upcoming scoping meeting or forwarded to the address listed below at the earliest possible date. The Air Force will, however, accept additional comments at any time during the environmental impact analysis process.

Please direct written comments or requests for further information concerning the Supplemental EIS for disposal and reuse of the airfield at Griffiss Air Force Base to: Jonathan D. Farthing, HQ AFCEE/ECA, 3207 North Road, Brooks Air Force Base, Texas 78235-5363, (210) 536-5649.




# APPENDIX C

# APPENDIX C

# FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT MAILING LIST

This list of recipients includes federal, state, and local agencies and individuals who have expressed an interest in receiving the Final Environmental Impact Statement. This list also includes the Governor of New York, as well as United States senators and representatives and state legislators.

## ELECTED OFFICIALS

### FEDERAL OFFICIALS

**U.S. Senate**

Honorable Alfonse D'Amato
Honorable Daniel Moynihan

**U.S. House of Representatives**

Honorable Sherwood Boehlert
Honorable John M. McHugh

### STATE OF NEW YORK OFFICIALS

**Governor**

Honorable George Pataki

**State Legislature**

***State Senate***

Honorable Joseph L. Bruno
Honorable Martin Connor
Honorable Nancy Lorraine Hoffman
Honorable Raymond Meier

***House of Representatives***

Honorable Michael J. Bragmann
Honorable RoAnn Destito
Honorable Thomas M. Reynolds
Honorable Sheldon Silver
Honorable David R. Townsend, Jr.

### LOCAL OFFICIALS

***Oneida County***

Gerald Fiorini, Chairman, Board of County Legislators
Neil Angell
Patricia Ankin
Arthur Ankrum, Sr.
Harry Hertline
Robert Julian
Pamela Mandryk
Peter Pascucci
Frederick Schmidt
John Smith
Franklin Stooks, Jr.
Scott Tardugno
David Wood

***City of Rome***

Joseph Griffo, Mayor

***Rome Common Council***

John Mazzaferro, President
John Barry
John Ciccotti
Louis Dimarco, Jr.
Steven Evans
James O'Rourke
Anthony Pettinelli
Angela Petty
Willard Streiff, Jr.
Keith Townsend

***Town of Floyd***

John Buczek, Town Supervisor
Carey Cohanski
William Smith
Willard Streiff, Jr.
David Williams

**GOVERNMENT AGENCIES**

**Federal Agencies**

Advisory Council on Historic Preservation
Washington, D.C.

Buffalo District, U.S. Army Corps of Engineers
Buffalo, New York

Council of Economic Advisors
Washington, D.C.

Defense Technical Information Center
Fort Belvoir, Virginia

Department of Agriculture, Forest Service
Environmental Coordination Office
Washington, D.C.

Department of Commerce
Economic Adjustment Division
Washington, D.C.

Department of Commerce
Office of Intergovernmental Affairs
Washington, D.C.

Department of Defense
Bryant Monroe
Office of Economic Adjustment
Arlington, Virginia

Department of Housing and Urban Development
Washington, D.C.

Department of Interior
Office of Environmental Policy
Washington, D.C.

Department of Interior
Bureau of Indian Affairs
Ada Deer
Washington, D.C.

Department of Transportation
Admin. Services and Property Management
Washington, D.C.

Department of Veterans Affairs
Washington, D.C.

Federal Aviation Administration
Frank Squeglia
JFK International Airport
Jamaica, New York

Federal Aviation Administration
Robert Lenuzza
Upstate New York Airports District Office
Garden City, New Jersey

General Services Administration
Office of Property Disposal
John Martin
Washington, D.C.

Small Business Administration
Washington, D.C.

U.S. Environmental Protection Agency
Office of Federal Actions
Richard Sanderson
Washington, D.C.

U.S. Environmental Protection Agency
Region II, Environmental Impacts Branch
Douglas Pocze
New York, New York

U.S. Fish and Wildlife Service
David Stilwell
Cortland, New York

U.S. Geological Survey
EIS Review Branch
Troy, New York

U.S. Soil Conservation Service
Kevin Lewis
Oneida County Soil Conservation District
Oriskany, New York

***U.S. Air Force***

AFBCA-Griffiss
Anna Lemaire
Michael McDermott
Rome, New York

HQ ACC/CEV
Langley AFB, Virginia

HQ AFBCA/EV
Lynn Hancsak
Arlington, Virginia

HQ AFCEE/CCR-A
George Dodson
Atlanta, Georgia

HQ AFCEE/ECA
Margaret Harris
Brooks AFB, Texas

**New York State Agencies (Includes Local Offices)**

Department of Transportation
Don Paulin
Utica, New York

New York State Clearinghouse, Division of the Budget
Mary Ellen Sampson
Albany, New York

New York State Department of Environmental Conservation
John Greco
Marsden Chan
Jonathan Greco
Albany, New York

New York State Department of Environmental Conservation
Jim Doyle
Joseph Homburger
David Marcisofsky
Utica, New York

New York State Department of Environmental Conservation, Region 6
Randy Vaas
Watertown, New York

Office of Parks, Recreation, and Historic Preservation
Joan Davidson, SHPO Commissioner
Albany, New York

Office of Parks, Recreation, and Historic Preservation
Ruth Pierpont
Historic Preservation Field Services Bureau
Cohoes, New York

Office of Public Health
Henriette Hamel
Syracuse, New York

**Local Government Agencies**

Joe Benner
Commissioner of Aviation
Oneida County Airport Authority
Oriskany, New YOrk

Robert Comis, Public Works Commissioner
Rome, New York

Ronald Conover, Planning Director
Rome, New York

Ralph Eannace, Jr.
Oneida County Executive
Utica, New York

Georgianna Larry
Town Clerk
Town of Floyd, New York

Sheriff Daniel Middaugh
Oneida County Sheriff's Department
Oriskany, New York

Oneida County Environmental Management Council
Utica, New York

Chief William Reilly
Rome Fire Department
Rome, New York

Superintendent
Rome City School District
Rome, New York

Gary Swierczek, Deputy Commissioner of Aviation
Oneida County Airport Authority
Oriskany, New York

**Other Organizations/Individuals**

John Austin, Director
Rome Historical Society
Rome, New York

Dick Fox
Rome Research
Rome, New York

Joseph Gaska
Pheonix Systems and Technology
New Hartford, New York

Frederick Komacewicz
Rome, New York

Mark Mojave, Director of Marketing and Development
Oneida County EDGE
Rome, New York

Ed Ratazzi, Director
Rome Industrial Development Corp.
Rome, New York

Rome Area Chamber of Commerce

Rome Laboratory
- Brian Hoehn
- Bruce Mero

***Griffiss Local Development Corporation***

Steve Dimeo, Executive Director
Carmen Arcuri
Sherwood Boehlert
Paul Cataldo II
RoAnn Destito
Ralph Eannace, Jr.
Patricia Laino
Raymond Meier
Jane Rees
Mark Reynolds
Charles Sprock
Fred Tillman
Robert Traube

***Griffiss Air Force Base Restoration Advisory Board***

Michael McDermott, Co-Chair
Mark Reynolds, Co-Chair
Patricia Ankin
Robert Comis
Bruce Carpenter
Malcom Didio
John Fitzgerald
Michael Gapin
Jonathan Greco
Joseph Griffo
Henriette Hamel
Lynn Hancsak
Anna Lemaire
Angus McKinnon
Peter Pascucci
Robert Pecze
Randy Vaas

**Interested Individuals That Received the Final EIS (1995) or Requested a Copy of the Draft SEIS**

Kevin Berkel
Valdosta, Georgia

Lizette Boyer
Alaska District, U.S. Army Corps of Engineers
Elmendorf, Alaska

Michael Capparelli
Rome, New Ork

Pat Corbett
Rome Observer-Dispatch
Rome, New York

John Fitzgerald
Rome-Floyd Citizen's Group
Rome, New York

CFW Wheelock
Syracuse, New York

Don Davidson, Jr.
Rome, New York

Charles Devine
Remsen, New York

Jesse Gaige
Holland Patent, New York

Emlyn Griffith
Rome, New York

David Homokay
Rome, New York

Mark Malorzo
Rome, New York

Frank A. Minicozzi
Rome, New York

Louis Mounser
Whitesboro, New York

Jim Ocuto
Rome, New York

Oneida Environmental Resources Board
Oneida Tribe in Wisconsin

Oneida Tribal Offices
Oneida Nation Territory, New York

Jacklynne O'Neill
Gaithersburg, Maryland

Jennie Pouse
Rome, New York

Richard Rainone
Lester, Pennsylvania

Joseph Roback
Rome, New York

Louis Robertson
Rome, New York

Rome Sentinel
Rome, New York

Kara Whitstock
Colorado State University
Fort Collins, Colorado

Terry Wolfe
Lancaster, New York

John Yaney
Whitman, Massachusetts

Joseph Zeppetello
Rome, New York

**Libraries**

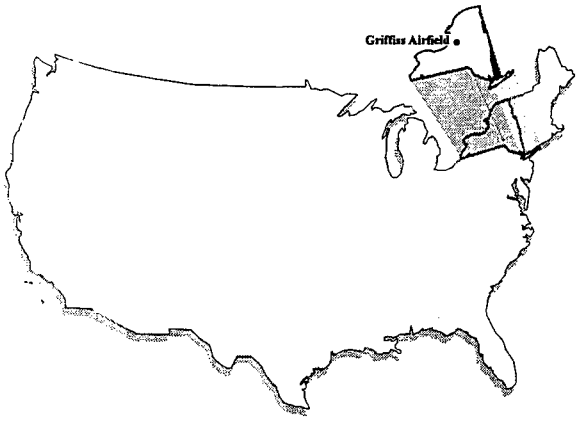
Jervis Public Library
Rome, New York

Mohawk Valley Community College
(Rome Campus)
Rome, New York

Onondaga County Public Library
Attn: Collection Management
Syracuse, New York

Utica Public Library
Utica, New York

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# APPENDIX D

# APPENDIX D

# INSTALLATION RESTORATION PROGRAM SITE PROFILES

## LANDFILL NO. 7 (LF-03)

**Description:** This approximately 4.5-acre inactive unlined landfill is located south of the Weapons Storage Area (WSA) between Perimeter Road and the runway in the east-central portion of the base. The area's native soils are highly permeable fine- and coarse-grained sands. Open burning was the method of operation for the life of the landfill from 1950 to 1954. This landfill reportedly received general refuse (domestic waste, aircraft parts, etc.) and liquid wastes (spent solvents and petroleum wastes). It is estimated that 60,000 to 130,000 cubic yards of refuse are buried in the landfill. Approximately four trenches were dug 20 feet deep, 50 to 60 feet wide, and about 400 feet long. Liquid wastes were deposited in small pits at the bottom of the trenches. Site visits have recorded burrowing animals displacing charred debris. Leachate has been observed in the southeast corner of the landfill covering a depression adjacent to a runway instrument station. The leachate has been a discolored, oily water with a strong ammonia odor. The landfill is located on a topographic high in relation to the airfield. Sixmile Creek flows to the south of the site through a culvert; a tributary to Sixmile Creek is to the north. A pond and its surrounding wetlands, also to the north of the landfill, drain into this tributary which passes under Perimeter Road east of the landfill then along the northern margin of the landfill before it enters Sixmile Creek. Surface drainage coming off the landfill drains to a wetland area adjacent to the runway. The landfill has been partially capped using clay and topsoil, and grasses are well established, masking the boundaries of the site. Subsidence areas with some ponding are present along the length of the southwest toe of the landfill, parallel to the runway. The site currently has a gravel runway observation parking area on top of it.

**Status:** This site was identified in the Phase I - Records Search. Analyses of groundwater samples from downgradient wells have detected phenols, oil and grease, tetrachloroethene, total organic carbon, methylene chloride, lead, arsenic, copper, and nickel. Analyses of soil, sediments, and surface water from the banks of the tributary to Sixmile Creek that flows north of the landfill were also taken in 1991. Polynuclear aromatic hydrocarbon (PAH) compounds, phenols, and BHC (a pesticide) were detected in soil samples, as well as arsenic, beryllium, chromium, lead, nickel, and zinc. Sediment samples indicated PAH compounds in higher levels than in the soil samples as well as the inorganic metals and metalloids and the pesticide, DDT. Volatile organic, inorganic analytes of interest, and pesticides were detected in one or more surface water samples. In 1992, the site was designated an Area of Concern under the Federal Facility Agreement, and a Remedial

Investigation of this site was recommended. Subsequently, a Presumptive Remedy of capping the landfill was approved.

**BULK FUEL STORAGE AREA (BARGE CANAL AREA) (ST-04)**

**Description:** This site designates an area where a suspected leaking underground storage tank and numerous JP-4 fuel spills have occurred at a truck fill stand. The site is located south of State Route 49 adjacent to the New York State Barge Canal at the extreme south end of Griffiss AFB property. The majority of the site is occupied by three 15,000-barrel (630,000 gallons) fuel tanks (Facilities 653, 655, and 657) and associated confinement diking. The site is in a region along the barge canal where privately owned fuel tank farms are on both sides of the Air Force property. The Air Force storage area is covered by a New York State Major Oil Storage Facility (MOSF) Permit and the discharge from its confinement dikes is covered under a New York State Pollutant Discharge Elimination System (SPDES) Permit. The area's native soils are highly permeable. The fuel storage area has been in operation since 1959. Originally, the ground-mounted steel tanks were filled from barges using the canal; now, the tanks are serviced by a contractor-operated regional supply pipeline. Fuel is transferred to the main base by a pipeline operated by the Air Force. A fuel spill occurred at a high point drain valve near the barge unloading platform. Contamination from this spill is being investigated under a source removal AOC for this area.

**Status:** This site was identified in the Phase I - Records Search. Analyses of groundwater samples collected in 1991 detected benzene (19 parts per billion [ppb]), cadmium (0.11 parts per million [ppm]), iron (70.6 ppm), and manganese (11.4 ppm). Benzene and cadmium levels exceeded primary Maximum Contaminant Levels (MCLs) and New York Groundwater Standards; iron and manganese levels exceed secondary MCLs and state standards. In 1992, the site was designated a Source Removal Area of Concern under the Federal Facility Agreement Resolution of Disputes. A Proposed Plan is currently being prepared.

**BUILDING 101 - YELLOW SUBMARINE & DISPOSAL PIT (ST-06)**

**Description:** This site is located at Building or Hangar 101 on the flightline in the center of the base. The site consists of a former battery acid disposal pit (BADP) and drainage system in the Lead Battery Room within the hangar and a former semi-buried underground fiberglass storage tank (12,000-gallon capacity), yellow in color, located on the south side of the hangar. The BADP consisted of a pit beneath the concrete floor measuring approximately 2 feet by 2 feet by 10 feet deep which was covered by a steel grate. A 4-inch floor drain line at the BADP location ran west to a drainage pit located beyond the west wall of the Lead Battery Room. The BADP was in use from the early 1940s to 1985. Acids from spent batteries were neutralized with baking soda before being poured into the BADP, where the neutralized liquid

was allowed to percolate in the underlying soil or the overflow went to the drainage pit. The Yellow Submarine underground storage tank was in service from 1973 to 1987 and was used as a holding and dilution tank for plating wastes from a shop housed in Building 101 prior to the wastes discharge into the sanitary sewer. The plating shop was closed in 1989. Plating shop activities consisted of chemical stripping of old finishes, as well as anodizing, chrome, cadmium, and nickel plating. Prior to installation of the tank, shop wastes were discharged to the storm sewer. Upon installation of the tank, the storm drain lines were sealed and abandoned. The tank reportedly received less than 20 gallons of washdown waste a day and 10 gallons per year of plating solids and bath solutions. All influent and effluent pipes were reportedly sealed in 1987.

**Status:** This site was identified in the Phase I - Records Search. In 1985, the BADP was removed. Samples of the soil were taken every 2 feet for a depth of 8 feet. Battery sludge was encountered to a depth of 6 feet. Soil samples were analyzed for heavy metals, with lead, copper, and zinc found at shallow depths. The BADP was excavated to a depth of 10 feet and the hole was filled with clean fill, and the floor drain pipe between the BADP and the drainage pit replaced. Vapor emissions from the area of the old BADP, now a floor drain, have been cause for sealing the drain. A sampling of the remaining drainage pit detected cadmium, chromium, cobalt, lead, mercury, nickel, silver, vanadium, and zinc, as well as chlorinated hydrocarbons and petroleum hydrocarbons, solvents, and PAH compounds. The Yellow Submarine was removed in 1993 as an interim source removal. Prior to its removal, the aqueous phase of its contents was analyzed. Cadmium, chromium, lead, nickel, and cyanide, as well as chlorinated solvents (methylene chloride, tetrachloroethene, 1,2-trans-dichloroethene, and trichloroethene), were detected. The sludge phase had benzene, 1,1-dichloroethene, ethylbenzene, and toluene within it. Groundwater was investigated as part of the Onbase Groundwater Contamination Area of Concern under the Federal Facility Agreement. An Interim Removal Action was approved and completed.

**BUILDING 101 - WASTE OIL STORAGE AREA (SS-18)**

**Description:** This site is located at Building or Hangar 101 on the flightline in the central portion of the base. The site was a former waste oil storage area where oil and fuel containers were stored prior to disposal. Originally, the containers were disposed of in burn pits onbase and later by contractor pick-up.

**Status:** This site was identified in the Phase I - Records Search. The site is currently in the Installation Restoration Program (IRP), but no further action is anticipated at the site. This site is regulated under the Resource Conservation and Recovery Act (RCRA), and will be closed pursuant to applicable regulations.

**FIRE DEMONSTRATION AREA (SS-24)**

**Description:** This site is located in the north-central portion of the base between Taxiways 16 and 17 north of Hangar or Building 101. The site is a flat grassy area surrounded by stormwater catch basins. The Fire Demonstration Area was used from 1974 to 1992. It consisted of a metal trough which was flooded with fuel and miscellaneous flammable materials, ignited, and extinguished as a demonstration on how to put out fires. Prior to 1987, the site was reportedly not equipped with a metal trough and the fuel was ignited and extinguished directly on the ground.

**Status:** In 1986, three boreholes were advanced to groundwater depth to collect soil and groundwater samples. Unfortunately, the location of the boreholes is not given in the report.

Soil samples were collected at approximately 2-foot intervals and a grab sample was taken of the groundwater at the bottom of the boring at approximately 8 feet. One borehole was subsequently made into a monitoring well. Soil and groundwater samples from the soil borings were analyzed for oil and grease, metals (total metals in aqueous samples, EPTOX metals in soils), PCBs, and 1,1,1-trichloroethane. Residual hydrocarbon contamination, indicated as oil and grease, and zinc were found in all the soil samples. Lead was also found in the EPTOX extract from the 6- to 8-foot interval in one boring. Groundwater analysis indicated the presence of cadmium, chromium, lead, nickel, and zinc. PCBs and 1,1,1-trichloroethane were not detected in any samples. In 1992, the site was designated an Area of Concern under the Federal Facility Agreement. A Proposed Plan was prepared and No Further Action has been recommended.

**T-9 STORAGE AREA (SS-25)**

**Description:** This site is located in the east-central portion of the base northwest of the base vehicle refueling station (Building 43) in an open grass and gravel lot. The area has been used for heavy equipment parking for the Grounds Maintenance Unit, which is responsible for maintenance of outside areas, including herbicide application, grass cutting, snow plowing, and pavement maintenance. The site has been used to store herbicides and other chemicals used for grounds and maintenance upkeep. The site formerly contained a 550-gallon kerosene aboveground storage tank and an unspecified number of 55-gallon drums of soil cuttings from past drilling operations. Soils around the kerosene tank were notably stained with the tank reportedly leaking on several occasions. Trucks used for carrying asphalt were rinsed with kerosene in the area with the rinseate falling to the ground.

**Status:** In 1986, 24 soil borings were made and 4 groundwater monitoring wells were installed. Groundwater samples were taken from two of the wells and soil boring samples and grab samples of groundwater were taken

from the boreholes. Soil and groundwater samples were analyzed for oil and grease, metals (total metals in aqueous samples, EPTOX metals in soils), PCBs, and 1,1,1-trichloroethane. Residual hydrocarbon contamination, indicated as oil and grease, was found in nearly all the samples. Chromium, lead, nickel, and zinc were found in the soil samples. PCBs were not found in the soil samples. 1,1,1-trichloroethane was detected in several of the soil samples, both at the surface and subsurface. Grab groundwater samples contained oil and grease, cadmium, chromium, lead, nickel, zinc, PCBs, and 1,1,1-trichloroethane. PCBs were found primarily in the northern area of the site. The highest PCB contamination concentration was 1.82 ppm. Samples from monitoring wells were found to contain only chromium and zinc. In 1992, the site was designated an Area of Concern under the Federal Facility Agreement. A Proposed Plan was prepared and No Further Action has been recommended.

**BUILDING 43 - REFUELING STATION (ST-26)**

**Description:** This site is located in the east-central portion of the base northeast of Building 10. There are five 10,000-gallon petroleum product underground storage tanks associated with the fuel station and an underground fuel/water separator and waste tank. Additionally, 25,000- and 30,000-gallon propylene glycol underground storage tanks are at the site. The tanks were installed in 1985 and 1986. A fuel spill was reported in 1986, along with the occasional small fueling spills which may have leaked into soils on the site.

**Status:** Three monitoring wells were installed at the site and one well was installed west of Turner Street. Soil was determined to be contaminated with petroleum products. The site was designated as a Source Removal Area of Concern pursuant to the Federal Facility Agreement Resolution of Disputes. An Interim Remedial Action is currently being conducted.

**FIRE PROTECTION TRAINING AREA (FT-30)**

**Description:** This site serves as a training area for the Base Fire Department and is located west of the north end of the runway. The site has been used since the 1960s to simulate aircraft fires. Fires using petroleum are set on the average of three to four times a year for extinguishing and air crew rescue practice. The fuel product most used is JP-4. Water-contaminated fuel from maintenance operations is used whenever available. The original fire-training activities occurred on bare soil at this site. In 1985, contaminated soils were removed and a new training area constructed at the same site. Contaminated soil was defined as soil with oil and grease contamination greater than 10 ppm. It was reported that approximately 497 cubic yards of soil were used to replace the earth cover removed. Analyses of the soil also indicated the presence of lead and zinc. The new training area consists of a clay-lined concrete basin that is 100 feet in diameter and contains an aircraft mock-up in its center. An oil/water separator is used to

collect the waste liquids generated during fire training. However, the system capacity is reportedly insufficient to handle the volume of waste liquids generated during the exercises and has overflowed frequently. A fuel UST is also at the site. In 1993, the fire training area was redesigned and reconstructed with a new waste handling facility.

**Status:** The Phase I - Records Search mentions the Fire Protection Training Area, but does not evaluate it in detail. The site is still used for fire-training exercises. Analyses of the waste liquid generated during an exercise indicate the presence of petroleum hydrocarbons, oil, and grease. In 1992, the site was designated an Area of Concern under the Federal Facility Agreement. A Remedial Investigation of this site is currently being conducted. No Further Action has been recommended.

**SIXMILE CREEK AND WSA LAGOON (SD-32)**

**Description:** Sixmile Creek and its floodplain serve as the major surface drainage feature of the base receiving almost all the surface runoff and storm system drainage from the eastern portion of the base. The sometimes meandering course of the creek is directed by an underground culvert for about 6,000 feet from an area just east of the center of the runway past the south end of the runway. The stream enters the base from the northeast and flows the length of the runway, eventually exiting the southeast portion of the base. Areas surrounding the creek are NYSDEC-designated wetlands and areas above the culvert section in many areas are also wetlands. The size of the creek increases as it flows through the base from about 8 feet wide and 3 feet deep in the north to 20 feet wide and 4 feet deep in the south. The creek is marked by alternating pools and riffles, and lined by overhanging trees. Prior to the construction of the base, the creek's primary use was agricultural. Because the creek is a discharge point for a portion of the base's storm drainage system, the creek has received wastes such as oils, solvents, fuel soot, pesticides, and fuels. Leachate from landfills has also been reported to have entered the creek. The WSA lagoon consists of a 2,000-gallon earthen collection/holding pond (i.e., depression in the ground) designed to receive Aqueous Film Forming Foam (AFFF) solution if there were a fire in Building 917 and the fire suppression system was activated. AFFF is a fire-fighting solution of water, ethanol, surfactants, synthetic detergents, and urea. In the event of a fire, wastewater from floor drains in Building 917, which would normally pass through an oil/water separator (OWSEP-917), would be diverted to the lagoon and held for treatment. Although the lagoon has never been used for its intended purpose, it has received wastewater flows when the oil/water separator has overflowed during normal operations. These overflow events have resulted in surface discharges from the lagoon to Sixmile Creek.

**Status:** In 1981, the Air Force took samples of Three and Sixmile Creek sediments and adjacent soils to determine levels of metals. The limited study found aluminum, barium, beryllium, cadmium, calcium, copper, iron,

manganese, magnesium, mercury, and zinc in all samples. Inorganics detected in one or more samples included arsenic, antimony, boron, cobalt, lead, nickel, selenium, silver, sodium, thallium, tin, and vanadium. In 1988, the USFWS conducted an investigation of bottom sediments and fish in Sixmile Creek. Samples were taken at one site above the base and one below the base boundary. Lead and strontium were the only inorganic analytes of interest which showed significant increases in concentration at the downstream site. PAH compounds increased in the downstream sediments, but were reported to be consistent with results from control sites from other studies. PCB levels in Sixmile Creek fish samples were below the 2.0 ppm action level. Inorganic contaminants increased in the downstream sampling, but were not considered toxic or indicative of heavy pollution. In 1992, the site was designated an Area of Concern under the Federal Facility Agreement. A Feasibility Study of this site is currently being conducted.

**BUILDING 110 - AQUA REFUELING SYSTEM (ST-36)**

**Description:** The site is in the central portion of the base north of Building 101. The Aqua System consisted of an 8-inch pipe network that provided AVGAS and JP-4 fuel to various areas of the flightline and aircraft parking areas. There were four 25,000-gallon underground storage tanks and ancillary equipment south of Building 110. The system was built in 1942 and used until the 1980s. Water was used to force fuel through the lines obtained from Tank Farms 1 and 3. The building, tanks, and piping were removed in 1993.

**Status:** The aqua pipeline and tanks were never reportedly tested for tightness and no information exists on sampling of the site. The pump pits contain wastewater and floating fuel. The site was designated as a Source Removal Area of Concern pursuant to the 1992 Federal Facility Agreement Resolution of Disputes.

**BUILDING 782 - NOSE DOCKS #1 & #2 (SD-41)**

**Description:** This site is located in the southeastern portion of the base, between Aprons 1 and 2. The site is topographically flat with surface drainage directed into the storm drainage system via a drainage swale located between the end of the parking area and the runway, which drains into Sixmile Creek. The site consists of two areas of contaminated soil, one associated with releases from an oil/water separator located near the northeastern corner of Building 782, and the second comprising the location of a soil fire that occurred during trenching operations between the nose docks and Apron 1 in July 1990. Reportedly, the trenching equipment created a spark by hitting a rock, and a flash fire ensued. The area of trenching was not near a fuel line; however, the soils were reported to be saturated with apparent fuel. The oil/water separator consists of a concrete wet well vault that has been in operation since the 1940s to collect fuel and water mixtures and miscellaneous washdown wastes from the five nose

docks in the area. Wastes are routed to two oil/water separators and the aqueous phase discharged into the stormwater drainage system. The separator has overflowed in the past due to insufficient capacity and has been cited as the most significant source of soil staining and contamination in the area. Stained soil has been excavated in the past to a depth of 2 feet; however, contamination below this level is known to exist.

**Status:** No previous sampling or investigation in the area of the fuel fire has occurred. A soil sample was analyzed in the area of the oil/water separator in 1992 by Griffiss AFB for characterization of waste to be disposed. The analysis detected petroleum hydrocarbons. This is the only investigation in the area to date. The site was designated an Area of Concern under the Federal Facility Agreement in 1992. An Interim Removal Action on this site is currently being conducted.

**GLYCOL STORAGE/USE AREAS (SS-46)**

**Description:** This site comprises the locations of past use and potential release of glycol compounds. Glycols are stored in two underground storage tanks, one 25,000 gallons and one 30,000 gallons, near Building 43. A 2,600-gallon aboveground storage tank reportedly existed near Building 785. Additionally, it has been reported that anti-freeze was released annually from base vehicles west of Building 220 for an unknown period prior to the 1970s. Glycol compounds from the three tanks mentioned above were and are used to de-ice aircraft during winter operations. Most sites where glycol is used and stored are flat with surface drainage via storm drains. The predominant form of glycol used prior to 1987 was reportedly ethylene glycol. Since that time it has been changed to propylene glycol.

**Status:** There have been no previous site-specific investigations of glycol storage and use areas on Griffiss AFB. Analysis for total glycols in groundwater samples from six onbase wells in 1991 detected 1.5 mg/l in one well. In 1992, the site was designated an Area of Concern under the Federal Facility Agreement. A Proposed Plan has been recommended and is currently under review.

**FIRE TRAINING AREA (FT-48)**

**Description.** This site is located in the east-central portion of the base, approximately 800 feet south of the southern end of the weapons storage area, within 400 feet of the installation boundary. The site is reported to have been the former location of borrow pits used to obtain sand and gravel for base construction. Griffiss AFB firemen used the area to simulate aircraft fires. The fire-training activities were supposedly conducted in a circular, gravel-covered area still evident today where a KC-97 aircraft was placed. Fuel, usually contaminated with water (not usable for flying operations), was poured on the ground and ignited. The exact year in which the site was in use for fire-training activities is unknown; however, the training site was

abandoned in 1974, confirmed by aerial photos. At the time of abandonment, fire-training exercises would have been held about once a week.

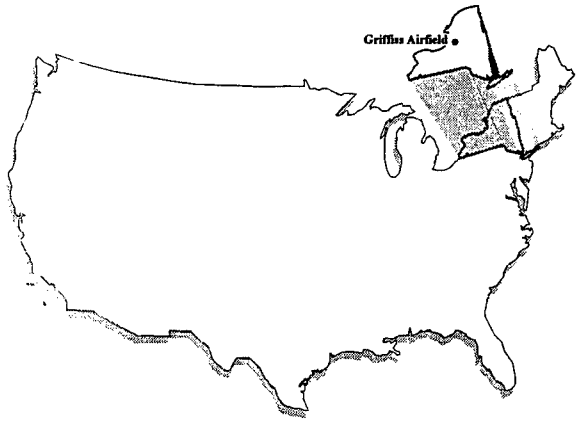
**Status:** The site currently consists of gravel-covered, circular drive of sandy materials with low-lying vegetation. Areas east and north of the site are wooded. A pond and a stream that drain into Sixmile Creek are located to the south and west. There is no surface runoff containment at the site. Two monitoring wells associated with Landfill 7 southwest of the site. Iron, lead, manganese, nickel, and zinc have been detected. No previous site-specific investigations at the suspected fire-training area have been conducted. In 1992, the site was designated an Area of Concern under the Federal Facilities Agreement. A Remedial Investigation of this site is currently being conducted.

**BUILDING 100 - FUEL HYDRANT SYSTEM (ST-51)**

**Description:** The site is east of Building (or Hangar) 100 in the center of the base west of Taxiways 14 and 22. The site served as a refueling system for jet aircraft. The piping system led to refueling pits with a return to a 25,000-gallon salvage tank. The site was in operation from the 1940s to 1986.

**Status:** The lines were reportedly capped and abandoned in place. There have been no previous site-specific investigations of the area. In 1992, the site was designated a Source Removal Area of Concern under the Federal Facility Agreement. An Interim Removal Action has been completed and additional remediation will be proposed.

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# APPENDIX E

# APPENDIX E

# METHODS OF ANALYSIS

This appendix includes a description of the methods used in preparing this Supplemental Environmental Impact Statement (SEIS). These methods were designed and implemented to evaluate the potential environmental impacts of disposal of Airfield Property at Griffiss Air Force Base (AFB), New York and incident reuse. Because future reuse of the site is uncertain in its scope, activities, and timing, alternative reuse scenarios were considered in the analysis and their associated environmental impacts evaluated. The reuse scenarios analyzed in this SEIS were defined for this study to span the anticipated range of reuse activities that are reasonably likely to occur as a result of disposal of the Airfield Property. The scenarios were developed based on proposals put forth by the local community, interested individuals, and the Air Force, and considered general land use planning objectives.

The various analysis methods used to develop this SEIS are summarized here by resource. In some instances, more detail is included in another appendix. These instances are noted for each resource in its respective subsection below.

## 1.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Development of the Proposed Action for this SEIS was coordinated with the Griffiss Local Development Corporation (GLDC) who initiated the *Master Reuse Strategy for Griffiss Air Force Base* completed in 1995. When appropriate, data from the *Master Reuse Strategy* were used to develop the Proposed Action; additional data were provided by GLDC who commissioned Syracuse University to perform a market study and an operational pro forma for an international air freight center at Griffiss. The methodologies used in developing data for the Proposed Action were repeated for the alternatives to ensure that all reuse scenarios would be treated equitably when analyzed for potential future impacts.

The GLDC's preferred reuse plan for an international air freight hub was used as a baseline for delineating land use acreages for the Proposed Action. Data were developed for building space (square feet), disturbance (acres), phasing (acres developed by approximately 5, 10, and 20 years after closure), utility demands, and vehicle trips for the Proposed Action and each of the alternatives using standard land use planning factors. Geographic Information System (GIS) modeling was also used to derive consistent land use acreages for the Proposed Action and the alternative.

The Proposed Action is based on the assumption that the Oneida County airport would be relocated to Griffiss Airfield. It is possible that the Oneida

County government may not agree to relocate the County airport to Griffiss.

For this reason, it was considered prudent to explore another aviation alternative, that of a private airfield operation at Griffiss, not funded by the federal Airport Improvement Program (AIP), and the Oneida County Airport remaining as is. With this alternative, Griffiss Airfield would be marketed for international air freight operations, aircraft maintenance operations, and general aviation to the extent this activity can be attracted to Griffiss Airfield. These operations were estimated based on the Syracuse University Market study, historic demand in Oneida County, and input from the GLDC. Nonaviation uses, such as industrial and public/recreational uses, would be similar to those identified for the Proposed Action. Construction of the north-south parkway corridor would be retained as an option similar to the one identified for the Proposed Action.

The Air Force also developed a nonaviation reuse alternative based on GLDC's recommendation to extend their current reuse plan subacres to the north, northeast, and southeast. This allowed development of more large parcel office, research, industrial and manufacturing space for long range development with little to no up-front infrastructure investments. These expanded areas could be served by the existing road and utility network with capital improvements developed as property is developed.

Population data for the Proposed Action and each alternative were based on the estimated number of employees for each land use category, indirect or secondary employment generated by the direct employment and other investments, and the estimates of in-migrating employees. The existing household size of the local area was applied to the in-migrating employee number to determine the total population in the future years.

Recommendations for building demolition were based on factors including utility, physical conditions, location, size, age, and function with respect to the proposed land use for each alternative. The architectural value and historical significance of the buildings were also taken into account. For the Proposed Action and the alternative, the total acreage available for new development was determined for each proposed land use. Standard planning factors (i.e., floor area ratios) were applied to the redevelopment acreage to determine the amount of building space (square feet) that could be constructed within each land use category.

Employment data for the Proposed Action and alternatives were based on the number of square feet of building space per employee. These factors, based on typical industrial standards, varied depending on the land use; for example, retail space would typically generate more employees per square foot than industrial space.

Employment, building retention, and new building construction were used to determine the development potential for the base property. Because the

analysis was limited to a 20-year period, the proposed land uses may or may not be completely developed by the end of this time period. The percentage of development for each land use parcel generally reflects the utilization at the end of the 20-year analysis period. The utilization rate would apply to such factors as demolition, renovation, new construction, and occupancy of building space; employment utility and trip generation; and ground disturbance. Market, economic, and development data were used for each of the alternatives to determine the absorption of the land uses within the 5-, 10-, and 20-year intervals.

Ground disturbance within a land use parcel may affect between 0 and 100 percent of the parcel, depending on whether existing facilities would be utilized without renovation or the entire parcel must be bulldozed and regraded for building and intrastructure development. Depending on the types of activities occurring within each of the phasing periods, a different disturbance factor (in percent) may be used to calculated ground disturbance by the end of the 5-, 10-, and 20-year intervals.

The number of vehicle trips associated with the Proposed Action and alternatives was estimated using the Institute of Transportation Engineers (ITE) Trip Generation model. Each proposed land use was compared to the land use categories in the ITE database and an appropriate land use category was selected. Trip generation was then estimated based on the intensity of the land use using a weighted average trip generation rate based on traffic studies included in the ITE database. The number of trips was determined from the weighted trip generation rate per unit of the independent variable (i.e., per employee or per 1,000 square feet). Trips were then aggregated for the project site to determine the total estimated average daily traffic volume for the Proposed Action and each alternative. Average daily traffic, peak hour generation, and trip generation during the peak hour of the adjacent street were provided for use in the environmental analysis. Trip generation data were estimated for the 5-, 10-, and 20-year analysis phases based upon the anticipated phasing of development.

Utility usage was projected based on land use type and acreage, square footage of building space, and projected population and employment. Utility projections were derived using standard planning rates which were adjusted to reflected historical consumption data collected from local utility purveyors and base personnel.

## 2.0 LOCAL COMMUNITY

### 2.1 COMMUNITY SETTING

The community setting section provides the context within which impacts on the biophysical environment were assessed. Community setting effects were based on projected direct and secondary employment and resulting population changes related to the reuse of the Griffiss Airfield Property.

These projections were used to quantify and evaluate changes in demands on community services and transportation systems.

Information used in estimating the population was obtained from various sources including the U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, and the Technical Assistance Center, State University of New York. The Regional Interindustry Multiplier System (RIMS) model was used to generate demographic and economic projections used to analyze changes that would result from the Proposed Action and alternatives.

## 2.2 LAND USE AND AESTHETICS

Potential land use impacts were projected based on compatibility of land uses associated with the Proposed Action and alternatives with adjacent land uses and zoning; consistency with comprehensive plans and other land use plans, including airport master plans, regulations, and policies; and effects of aircraft noise and safety restrictions on land uses.

The Region of Influence (ROI) for the majority of direct land use impacts for this study consists of the Griffiss Airfield Property and adjacent lands. Noise-related land use impacts were determined by the extent of noise contours created by the reuse alternatives.

Maps and recent aerial photographs were used to characterize the existing land uses. Applicable policies, regulations, and land use restrictions were identified from the land use plans and ordinances of municipalities in the ROI. The proposed and alternative conceptual reuse plans were compared to existing land uses and zoning to identify areas of conflict, as well as to local planning documents.

Alternatives incorporating airfield uses were examined for consistency with the Federal Aviation Administration (FAA) regulations which govern and/or recommend compatible land uses in the vicinity of airfields. Impacts of airfield-generated noise were assessed by comparing the extent of noise-affected areas and receptors under different reuse alternatives against preclosure baseline conditions.

For the aesthetics analysis, the affected environment was described based on the visual sensitivity of areas within and visible from the Airfield Property. These areas were categorized as areas of high, medium, or low sensitivity. The Proposed Action and alternative were then evaluated to identify land uses to be developed, visual modifications that would occur, new areas of visual sensitivity, and whether modification of unique or otherwise irreplaceable visual resources would occur and detract from the visual qualities or setting. Consistency with applicable plans that protect visual resources was also examined.

## 2.3 TRANSPORTATION

The analysis of potential impacts to transportation resulting from the Proposed Action and alternative conceptual reuse plans for the Airfield Property at Griffiss AFB focused on key roads, local airport use, and passenger rail service in the area, including those segments of the transportation networks in the region that serve as direct linkages to the airfield property. The need for improvements to Griffiss AFB access roads, and regional arterials was considered. The analysis was derived using information from State and local government agencies, including the State of New York Department of Transportation, local airport authorities, and Amtrak. Other data sources used for the roadway analysis include a special study entitled *Traffic Circulation Plan for the Redevelopment of Griffiss Air Force Base,* prepared by Harza Northeast in 1996, and publications from the Institute of Transportation Engineers and the Transportation Research Board. The ROI for the transportation analysis includes the existing principal road, air, and rail networks in the Rome area with emphasis on the immediate area surrounding Griffiss AFB. The closest commercial airport to Griffiss AFB Airfield is Oneida County Airport (OCA), located 5 miles southeast of the base.

The number of vehicle trips expected as a result of specific land uses on the site was estimated for 1999, 2001, 2006, and 2016 on the basis of direct onsite jobs and other attributes of onsite land uses (such as the number of dwelling units; projected airport passenger volume, commercial, industrial, institutional, and recreational development; and other factors). Trip generation data from the *Trip Generation Manual* (Institute of Transportation Engineers 1991) were used to determine vehicle trips. Vehicle trips were then assigned to the local road network using prior patterns and expected destinations and sources of trips. When appropriate, the local road network was adjusted to account for changes over time from currently planned road capacity improvements and improvements required by the proposed reuse scenarios. Changes in work and associated travel patterns were derived by assigning or removing traffic to or from the most direct commuting routes. Changes in traffic volumes from reuse alternatives for the Airfield Property at Griffiss AFB were estimated and resulting volume changes on key local and regional roadway segments were then determined.

The transportation network in the ROI was then examined to identify potential impacts to levels of service (LOS) from future baseline conditions and effects of reuse alternatives. Planning computations from the *Highway Capacity Manual* (Transportation Research Board 1985) provided estimates of traffic and anticipated LOS where the amount of detail and accuracy of information were limited. The planning procedures used in this analysis were based on projections of average annual daily traffic and on assumed traffic, roadway, and control conditions. The results provided a basic assessment of whether or not capacity was likely to be exceeded for a given volume. Intersection analysis was then integrated into the planning capacity analysis

for each roadway section analyzed and the results provided an estimate of the changes in LOS ratings expected as a result of traffic volume changes on key local, regional, and onbase roadway segments.

Airspace use in the vicinity of an airport is driven primarily by factors such as runway alignment, surrounding obstacles and terrain, air traffic control and navigational aid capabilities, proximity of other airports/airspace uses in the area, and noise considerations. These same factors normally apply regardless of whether the airport is used for military or civil aircraft operations.

Historical data on military aircraft operations used to characterize airspace use at and around Griffiss AFB Airfield were obtained from the New York Air National Guard. Aviation forecasts were derived from the conceptual reuse plans, reports, and, where necessary, assumptions were made based on other similar airport operational environments.

The airspace ROI for Griffiss AFB Airfield is described in Chapter 3.0. Air traffic control for military and civil aircraft operating in the vicinity of Griffiss AFB Airfield is provided by the FAA Radar Approach Control (RAPCON) and Boston Air Route Traffic Control Center (ARTCC). The FAA RAPCON facility at Griffiss AFB provides radar coverage for all aircraft from the surface to 10,000 feet mean sea level, excluding certain Special Use Airspace areas. Air traffic above 10,000 feet is controlled by Boston ARTCC.

The types and levels of aircraft operations projected for the International Air Freight Hub Alternative (the Proposed Action with commercial aircraft operations) and the Private Airfield Alternative were estimated and compared to the way airspace was configured and used under the New York Air National Guard. The capacity of the airport to accommodate the projected aircraft fleet and operations was assessed by calculating the airport service volume, using the criteria in FAA Advisory Circular 150/5060-5. Potential effects on airspace use were assessed, based on the extent to which projected operations could (1) require modifications to the airspace structure or air traffic control systems and/or facilities; (2) restrict, limit, or otherwise delay other air traffic in the region; or (3) encroach on other airspace areas and uses.

It was recognized throughout the analysis process that a more in-depth study would be conducted by the FAA, if the Proposed Action were implemented, to identify any impacts of this reuse and what actions would be required to support the projected aircraft operations. Therefore, this analysis was used only to consider the level of operations that could likely be accommodated under the existing airspace structure, and to identify potential impacts if operational capacities were exceeded.

Data addressing private, passenger, and air cargo service in the region were estimated on the basis of demand forecasts developed by the *Master Reuse*

*Strategy for Griffiss Air Force Base* prepared by Hamilton, Rabinovitz, and Alschuler et al. 1994 and the *Oneida County Airport Master Plan* (C & S Engineers, Inc. 1994). The effect of base closure on local airports was derived by subtracting current base-related enplanements from current total enplanements. For each reuse alternative, impacts on air transportation were determined by multiplying the ratio of enplanements to population by the projected future populations of the local airport service areas.

Information regarding existing rail transportation was obtained from Amtrak and railroad companies serving the region. Projected effects of reuse alternatives on railroad transportation were based on the anticipated use of these railroads for freight service. Impacts on passenger service were based on projected population in the ROI, using existing passenger-to-population ratio. None of the alternatives assumes direct use of local railroad.

## 2.4 UTILITIES

Utility demands were determined based on proposed land uses and projected area population increases. The utility systems addressed in this analysis include the facilities and infrastructure used for potable water (pumping, treatment, storage, and distribution), wastewater (collection and treatment), solid waste (collection and disposal), and energy generation and distribution (electricity and natural gas). Historical consumption data, service curtailment data, peak demand characteristics, and storage and distribution capacities, were extracted from data provided by various City of Rome utility departments, utility companies, and Griffiss AFB. Information was also obtained from public and private utility purveyors and related county and city agencies.

The ROI for this analysis comprises the service areas of the local purveyors of potable water, wastewater treatment, solid waste, and energy that serve the Airfield Property at Griffiss AFB and the surrounding area, including the City of Rome. It was assumed that these local purveyors would provide services at the Airfield Property at Griffiss AFB.

Potential impacts were evaluated based on demand projections obtained from the various utility purveyors within the region (through 2016) for each of their respective service areas or based on population changes in the ROI. In each case, the most recent projections were considered. These projections were then adjusted to reflect the decrease in demand associated with the closure of the Airfield operations at Griffiss AFB or with the No-Action Alternative. These adjusted forecasts were then considered the future baseline for comparison with potential reuse alternatives.

The potential effects of reuse alternatives were evaluated by estimating and comparing the additional direct and indirect demand associated with each alternative to the existing and projected operating capabilities of each utility system. Estimates of direct utility demands on the site were used to identify

the effects of the reuse activities on site-related utility systems. All changes to the utility purveyors' long-term forecasts were based on estimated project-related population changes in the region and the future rates of per capita demand indicated by the projections or derived from those projections. It was assumed that the per capita demand rates were representative of the reuse activities, based on assumed similarities between proposed land uses and existing or projected uses in the region. Utility projections include direct demand associated with activities planned on the Griffiss Airfield Property, as well as resulting changes in domestic demand associated with population changes in the region.

## 3.0 HAZARDOUS SUBSTANCE MANAGEMENT

Two categories of hazardous materials and hazardous waste management issues were addressed in this analysis: (1) impacts of hazardous materials utilized and hazardous waste generated with each reuse proposal and (2) residual impacts associated with past Air Force practices including delays resulting from Installation Restoration Program (IRP) site remediation. IRP sites are identified as part of the affected environment (Chapter 3.0), while remediation impacts associated with these sites are addressed as environmental consequences (Chapter 4.0). Impacts resulting from waste generated by each reuse proposal are also addressed in Chapter 4.0. Primary data sources included existing published reports such as IRP and RCRA documents, various hazardous materials and waste management plans (e.g., spill response, hazardous waste, underground storage tanks, asbestos),, and survey results (e.g., hazardous wastes, asbestos, and radon). Pertinent Federal, State, and local regulations and standards were reviewed for applicability to the Proposed Action and alternatives. Hazardous materials and waste management plans and inventories were obtained from the Griffiss AFB-OL and New York Air National Guard. Interviews with personnel associated with these onbase organizations provided the information necessary to fill any data gaps.

The ROI includes the current airfield property and all geographical areas that have been affected by an onbase release of a hazardous material or hazardous waste.

Pre-closure baseline conditions for the airfield property, as defined for this study, include hazardous materials and waste management practices and inventories pertaining to the following areas: hazardous materials, hazardous waste, IRP sites, aboveground and underground storage tanks, oil/water separators, asbestos, pesticides, polychlorinated biphenyls (PCBs), radon, medical/biohazardous waste, and ordnance. The impact analysis considers (1) the amount and type of hazardous materials and waste currently associated with specific facilities and/or areas proposed for each reuse alternative; (2) the regulatory requirements or restrictions associated with property transfer and reuse; (3) delays to development resulting from IRP remediation activities; and (4) remediation schedules of specific hazardous

materials and waste (i.e., PCBs, medical/biohazardous waste) currently used by the New York Air National Guard.

## 4.0 NATURAL ENVIRONMENT

### 4.1 SOILS AND GEOLOGY

The evaluation of impacts to soils addressed erosion potential, construction-related dust generation and other soils problems (low soil strength, expansive soils, etc.), and disturbance of unique soil types. Information was obtained from federal and local agencies. Assessment of potential impacts to geology from the reuse alternatives included evaluation of resource potential including aggregate and geologic hazards (particularly potential for seismicity, liquefaction, and subsidence).

The soils analysis was based on a review of U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) documents for soil properties. The soils in the ROI were then evaluated for erosion potential, permeability, evidence of hardpans, shrink-swell potential, and other characteristics as these relate to construction problems and erosion potential during construction. Mitigations were evaluated based on standard construction practices and SCS recommendations. Common engineering practices were reviewed to determine poor soil characteristics and to recommend mitigation measures.

The ROI for the geologic analysis includes the region surrounding the Airfield Property at Griffiss AFB relative to seismic activity and aggregate resources. The ROI for the soils analysis is limited to the airfield property and specific areas designated for construction or renovation.

The geologic analysis was based on a review of existing literature for construction problems associated with geologic hazards, availability of construction aggregate, and whether reuse would affect the availability of known mineral resources.

### 4.2 WATER RESOURCES

Analysis of impacts of the reuse alternatives on water resources considered groundwater quality and quantity, surface water quality (effects from erosion or sedimentation and contamination), surface water drainage diversion, flooding potential, and nonpoint source surface runoff to the Mohawk River and tributary streams. Impacts to water quality resources resulting from IRP activities are addressed in the Hazardous Substances Management section (Section 3.3). Information was obtained from several Federal, State, and local agencies. The ROI for water resources includes the groundwater basin underlying the air property, and the surface drainage directly affected by runoff from the airfield property.

Existing surface water conditions were evaluated for flood potential, nonpoint source discharge or transportation of contaminants, and surface water quality. Groundwater resources were evaluated as they pertained to adequate water supplies for each of the reuse alternatives. Groundwater quality and the potential as a potable water source for each reuse alternative was documented. The existing stormwater drainage system was evaluated based on available literature, and the impacts to this system from each of the reuse alternatives were determined.

## 4.3 AIR QUALITY

The air quality resource is defined as the condition of the atmosphere, expressed in terms of the concentrations of air pollutants occurring in an area as a result of emissions from natural and/or man-made sources. Reuse alternatives have the potential to affect air quality depending on net changes in the release of both gaseous and particulate matter emissions. The impact significance of these emission changes was determined by comparing the resulting atmospheric concentrations to State and Federal ambient air quality standards. This analysis drew from climatological data, air quality monitoring data, baseline emission inventory information, construction scheduling information, reuse-related source information, and transportation data. Principal sources of these data were the New York State Department of Environmental Conservation (NYSDEC) and the National Climate Data Center.

The ROI was determined by emissions from sources associated with construction and operation of the reuse alternatives. For inert pollutant emissions (all pollutants other than ozone and its precursors), the measurable ROI is limited to a few miles downwind from the source (i.e., the immediate area of the Airfield Property at Griffiss AFB). The ROI for ozone impacts from project emissions is Oneida County, and the four surrounding counties of Herkeimer, Lewis, Madison, and Oswego.

Emissions predicted to result from the proposed alternatives were compared to existing baseline emissions to determine the potential for adverse air quality impacts. Impacts were also assessed by modeling, where appropriate, and compared to air quality standards and attainment levels for complying with these standards. Appendix I contains the projected emissions inventory information and methods. Background concentrations were added to the project impacts for comparison with the standards and attainment levels. Impacts were considered significant if project emissions would (1) increase an offsite ambient pollutant concentration from below to above a Federal, State, or local standard; (2) contribute a measurable amount to an existing or projected air quality standard exceedance; or (3) expose sensitive receptors (such as schools or hospitals) to substantial pollutant concentrations. All other air quality impacts were considered insignificant.

## 4.4 NOISE

The noise analysis addressed potential noise impacts from reuse-generated aircraft operations, surface traffic, and other identified noise sources on communities surrounding the Airfield Property at Griffiss AFB. Most of the data were obtained from the aircraft operations and traffic data prepared for the reuse alternatives. Day-night average sound levels (DNL) were used to determine noise impacts. Scientific literature on noise effects was also referenced.

The ROI for noise was defined as the area within DNL 65 decibels (dB) contours based on land use compatibility guidelines developed from FAA regulations. The ROI for surface traffic noise impacts incorporated key road segments identified in the transportation analysis.

Noise levels from aircraft operations were estimated using the FAA-developed Integrated Noise Model (INM), Version 4.11. Noise contours for DNL 65 dB and above were depicted. Noise levels due to surface traffic were estimated using Federal Highway Administration's Highway Noise. Potential noise impacts were identified by overlaying the noise contours with land use and population information to determine the number of residents who would be exposed to DNL above 65 dB.

Methods used to analyze noise impacts with each reuse scenario are presented in detail in Appendix H of this EIS.

## 4.5 BIOLOGICAL RESOURCES

Biological resources analyzed for disposal and reuse of the Airfield Property at Griffiss AFB include vegetation, wildlife, threatened and endangered species, and sensitive habitats (e.g., wetlands). Primary data sources for the analysis included published literature and reports, field reconnaissance of the base, and contacts with agencies such as the U.S. Fish and Wildlife Service and the NYSDEC. The ROI for the biological resources assessment comprises the Airfield Property at Griffiss AFB, adjacent natural areas, and other areas potentially affected by reuse alternatives.

Vegetation, wildlife habitat, and sensitive biological resources (e.g., unique natural communities and protected species) on the airfield property were mapped using aerial photographs and field observations obtained during a reconnaissance survey of the base conducted in early October 1994. Data were also taken from the New York Natural Heritage Program (1993c) inventory of rare plant species and significant natural communities at Griffiss AFB. Wetlands on the airfield property were mapped by the NYSDEC (updated to 1994); delineated in 1993 using the 1987 U.S. Army Corps of Engineers (COE) *Manual for Identifying and Delineating Jurisdictional Wetlands*; and determined/surveyed by the COE in 1993 and 1994. These data were used to create the wetlands composite map in this SEIS.

The impact analysis was performed by overlaying project land use maps for each alternative onto the biological resource maps to calculate the overlap by land use category. Based on the timing of development in the 20-year study period and the type of development proposed (e.g., demolition, new construction, or reuse of existing facilities) for each land use planning area, the amount of habitat that could be affected was quantitatively estimated. The proportion of disturbance associated with each respective action in the planning areas was determined based on accepted land use development/planning concepts. It was assumed that disturbance for new development could occur at one or more sites with the assigned land use polygon. Disturbance of each habitat type present was considered to be in direct proportion to the development factor. These direct, quantitative impacts were further divided into three development phases by knowing the schedule of development per land use area and location of biological resources. All other impacts (indirect/secondary) were qualitatively assessed based on literature and scientific expertise on the responses of plants and animals to project-related disturbances such as noise, landscaping, and vegetation maintenance.

## 4.6 CULTURAL AND PALEONTOLOGICAL RESOURCES

Cultural resources include three main categories: prehistoric resources, historic resources, and Native American (traditional) resources. Paleontological resources are the fossil evidence of past plant and animal life.

Prehistoric resources are physical properties resulting from human activities predating written records, identified as either isolated artifacts or sites. Sites contain concentrations of artifacts (e.g., stone tools and ceramic sherds), features (e.g., hearths), and plant and animal remains. Depending on their age, complexity, integrity, and relationship to one another, sites may be important and capable of yielding information about past populations and adaptive strategies.

Historic resources consist of physical properties that postdate the existence of written records and include architectural structures (e.g., log cabins, dams, and bridges) and archaeological features such as foundations, trails, and trash dumps. Such resources may have research potential in the same manner as prehistoric sites, but are more often considered important because of their association with historic persons or events, or as examples of distinctive architectural styles.

Native American (traditional) resources include sites, areas, and materials important to Native Americans for religious or heritage reasons. Sensitive resources may include some types of prehistoric sites, features and artifacts, contemporary sacred areas, traditional use areas (e.g., native plant habitat), and sources for materials used in the production of sacred objects and traditional tools.

Cultural resources of particular concern include properties listed on the National Register of Historic Places (NRHP), properties potentially eligible for the NRHP, and sensitive Native American sites and areas.

Paleontological resources are the physical remains, impressions, or traces of plants or animals from a former geological age. They include casts, molds, and trace fossils such as burrows or tracks. Fossil localities typically include surface outcrops, areas where subsurface deposits are exposed, and special environments favoring preservation, such as caves, peat bogs, and tar pits. Paleontological resources are important mainly for their potential to provide scientific information on the evolutionary history of plants and animals and paleoenvironments.

Data used to compile information on these resources were obtained from existing environmental documents; interviews with individuals familiar with the history, archaeology, or paleontology of the Rome area; and records of the New York State Historic Preservation Office (SHPO). The ROI for cultural resources includes all areas within the boundaries of the Airfield Property at Griffiss AFB.

The SEIS contains the most up-to-date information on the importance of cultural resources on the Airfield Property at Griffiss AFB, based on recent and ongoing evaluation of eligibility for the NRHP. Cultural resources for which eligibility information was unavailable were assumed to be eligible for the National Register, as is stipulated in the National Historic Preservation Act (NHPA).

According to National Register criteria (36 CFR 60.4), the quality of significance is present in districts, sites, buildings, structures, and objects that:

a) Are associated with events that have made a significant contribution to the broad patterns of history;

b) Are associated with the lives of persons significant in the past;

c) Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic value; or represent a significant and distinguishable entity whose components may lack individual distinction; and

d) Have yielded, or may be likely to yield, information important in prehistory or history.

To be listed or considered eligible for listing on the National Register, a cultural resource must meet at least one of the above criteria and must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. Integrity is defined as the authenticity of a

property's historic identity, as evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric occupation or use. If a resource retains the physical characteristics it possessed in the past, it has the capacity to convey information about a culture or people, historical patterns, or architectural or engineering design and technology.

Compliance with requirements of cultural resource laws and regulations ideally involves four basic steps: (1) identification of significant cultural resources that could be affected by the Proposed Action or its alternatives, (2) assessment of the impacts or effects of these actions, (3) determination of significance of potential historic properties within the ROI, and (4) development and implementation of measures to eliminate or reduce adverse impacts. The primary law governing cultural resources in terms of their treatment in an environmental analysis is the NHPA, which addresses the protection of historic and cultural properties. In compliance with the NHPA, the Air Force is in the process of consultation with the SHPO, as required under Sections 106 and 110 of the Act.

Adverse effects that may occur as a result of the airfield reuse are those that have a negative impact on characteristics that make a resource eligible for listing on the NRHP. Actions that can diminish the integrity, research potential, or other important characteristics of an historic property include the following (36 CFR 800.9):

- Physical destruction, damage, or alteration of all or part of the property;
- Isolating the property from its setting or altering the character of the property's setting when that character contributes to the property's qualification for the National Register;
- Introduction of visual or auditory elements that are out of character with the property or that alter its setting;
- Transfer or sale of a Federally owned property without adequate conditions or restrictions regarding its preservation, maintenance, or use; and
- Neglect of a property, resulting in its deterioration or destruction.

Regulations for implementing Section 106 of the NHPA indicate that the transfer, conveyance, lease, or sale of an historic property is procedurally considered to be an adverse effect, thereby ensuring full regulatory consideration in Federal project planning and execution. However, effects of a project that would otherwise be found to be adverse may not be considered adverse if one of the following conditions exists:

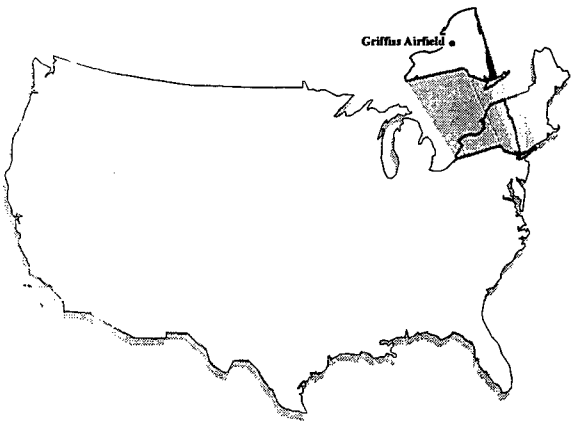
- When the historic property is of value only for its potential contribution to archaeological, historical, or architectural research, and when such value can be substantially preserved through the conduct of appropriate research, and such research is conducted in accordance with applicable professional standards and guidelines;

- When the undertaking is limited to the rehabilitation of buildings and structures and is conducted in a manner that preserves the historical and architectural value of the affected historic property through conformance with the Secretary of the Interior's *Standards for Rehabilitation and Guidelines for Rehabilitation of Historic Buildings*; or

- When the undertaking is limited to the transfer, conveyance, lease, or sale of an historic property, and adequate restrictions or conditions are included to ensure preservation of the property's significant historic features.

The treatment of paleontological resources is governed by Public Law 74-292 (the National Natural Landmarks Program, implemented by 36 CFR 62). Only paleontological remains determined to be scientifically important are subject to consideration and protection by a Federal agency. Among the criteria used for National Natural Landmark designation are illustrative character, present condition, diversity, rarity, and value for science and education.

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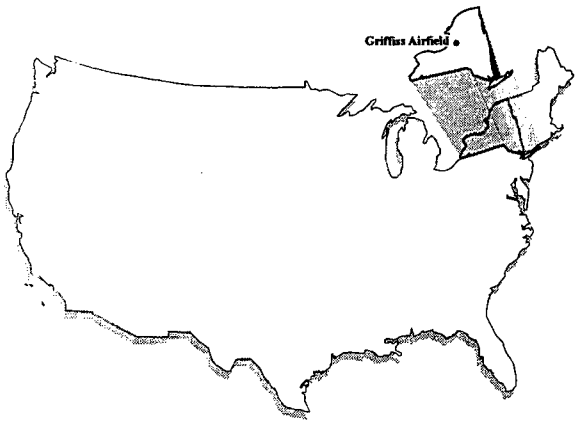

# APPENDIX F

Table F-1

Griffiss AFB Airfield Property Permits

| Permit No. | Permitted Facility | Date of Issue | Date of Expiration | Issuing Agency | Comments/Conditions |
|---|---|---|---|---|---|
| **Air Permits** | | | | | |
| 029G- | Heat Plant/Lime Blower - Bldg. 29 | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 029H- | Heat Plant/Lime Use Bin - Bldg. 29 | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 029-I | Heat Plant/Recovery Bin - Bldg. 29 | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 029-J | Heat Plant/Coal Conveyor - Bldg. 29 | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 029-K | Heat Plant/Coal Bunker 1 - Bldg. 29 | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 029-L | Heat Plant/Coal Bunker 2 - Bldg. 29 | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 029-M | Heat Plant/Coal Bunker 3 - Bldg. 29 | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 029-N | Heat Plant/Coal Bunker 4 - Bldg. 29 | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 0771A-D | Underground tank - Bldg. 771 | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 0773A-D | Underground tank - Bldg. 773 | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 8000A | Aboveground storage tank | 1 December 1993 | 1 December 1998 | New York State DEC | |
| 8001A | Aboveground storage tank | 1 December 1993 | 1 December 1998 | New York State DEC | |

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# APPENDIX G

# APPENDIX G

# AIR FORCE POLICY FOR MANAGEMENT OF ASBESTOS-CONTAINING MATERIAL AND LEAD-BASED PAINT AT CLOSURE BASES

## Management of Asbestos Containing Material (ACM) at Closure Bases

This policy applies specifically to property being disposed of through the Base Realignment and Closure (BRAC) process and supersedes all previous policy on this matter.

### 1. REFERENCES

a. Asbestos Hazard Emergency Response Act (AHERA).

b. Federal Tort Claims Act, 28 U.S.C. § 2671.

c. 40 CFR Part 61, Subpart M - National Emission Standards for Hazardous Air Pollutants (NESHAPS).

d. 29 CFR Section 1910.1001 - Occupational Safety and Health Administration (OSHA) general industry standard for asbestos.

e. 29 CFR Section 1926.58 - Occupational Safety and Health Administration (OSHA) construction industry standard for asbestos.

f. 40 CFR Part 302 - Designation, Reportable Quantities, and Notification.

g. 41 CFR Section 101-47.304-13 - Federal Property Management Regulations provisions relating to asbestos.

h. AFI 32-1052, Facility Asbestos Management.

i. AFI 32-7006, Environmental Baseline Surveys in Real Estate Transactions.

### 2. DEFINITIONS

a. **Asbestos.** A group of naturally occurring minerals that separate into fibers, including chrysotile, amosite, crocidolite, asbestiform anthophyllite, asbestiform tremolite, and asbestiform actinolite.

b. **ACM.** Asbestos-containing material. Any material containing more than one percent asbestos.

c. **Accredited Asbestos Professional.** Air Force Bioenvironmental Engineer or any other professional who is accredited through EPA's asbestos model accreditation plan or other equivalent method.

## 3. POLICY

The Air Force will ensure that at the time any property is conveyed, leased, or otherwise disposed of through the Base Realignment and Closure (BRAC) process, it does not pose a threat to human health due to ACM and that the property complies with all applicable statutes and regulations regarding ACM.

a. **Responsibilities.**

(1) The Air Force Base Conversion Agency (AFBCA) conducts and funds, from BRAC accounts, any asbestos surveys and remediation needed solely for base closure; to include, but not limited to, additional asbestos surveys for environmental baseline surveys, asbestos repair or resurvey of vacated buildings.

(2) The MAJCOM's conduct and fund asbestos surveys and remediation needed to properly manage asbestos hazards, in accordance with current policy guidelines, up to the time of property management responsibility transfer to AFBCA.

b. **Surveys for ACM.** A survey of facilities for ACM will be accomplished or updated within the 6 months prior to the initial transfer; whether by lease, sale, or other disposal method. Surveys will, at a minimum, identify the extent of asbestos contained in facilities and the exposure hazards. Surveys will be accomplished under the supervision of an accredited asbestos professional. These surveys will minimally include the following:

(1) A review of facility records.

(2) A visual inspection.

(3) An intrusive inspection, as directed by an accredited asbestos professional.

(4) Ambient air sampling, if directed by an accredited asbestos professional, in order to determine if any take (sic) appropriate remedial actions are needed prior to the property being leased or transferred, or to protect facility occupants.

c. **Remediation of ACM.** Remediation of ACM in facilities at closure bases will be in accordance with applicable laws, regulations, and standards. Remediation of ACM may be required if, in the judgment of an accredited asbestos professional, at least one of the following criteria apply:

(1) The ACM is of a type, condition, and in a location such that, through normal and expected use of the facility, it will be damaged to the extent that it will produce an asbestos fiber hazard to facility occupants.

(2) The type and condition of the ACM is such that it is not in compliance with appropriate statutes or regulations.

**4. EFFECTIVE DATE**

This policy becomes effective on the date signed and remains in effect until superseded.

**Lead-Based Paint (LBP) Instruction for Facilities at Closure Bases**

**1. REFERENCES**

a. Base Closure and Realignment Act of 1988 (BRAC).

b. Defense Base Closure and Realignment Act of 1990 (DBRAC).

c. 16 CFR Section 1303, Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint, implementing the Consumer Product Safety Act of 1977.

d. 24 CFR Part 35, Lead-Based Poisoning Prevention in Certain Residential Structures.

e. Title 42 U.S.C. Section 4822, as amended, Lead-Based Paint Poisoning Prevention Act (LBPPPA) of 1971.

f. Federal Register, 18 April 1990, Vol. 55, No. 75, Department of Housing and Urban Development (HUD), Lead-Based Paint: Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing, as amended, September 1990.

g. 29 CFR Part 1926, Safety and Health Regulations for Construction.

h. 29 CFR Section 1910.1025, Occupational Safety and Health Standards, Lead.

i. 40 CFR Section 50.12, National Primary and Secondary Ambient Air Quality Standards for Lead.

j. 40 CFR Parts 240 through 280, Implementing the Resource Conservation and Recovery Act (RCRA).

k. 40 CFR Part 302, Implementing the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

l. Department of Defense Directive (DoDD) 6050.16, DoD Policy for Establishing and Implementing Environmental Standards at Overseas Installations.

m. P.L. 102-550, Title X, Residential Lead-Based Paint Hazard Reduction Act of 1992.

n. 15 USC Section 2601 et seq., the Toxic Substances Control Act (TSCA).

o. Air Force Policy and Guidance on Lead-Based Paint in Facilities, dated 24 May 1993.

p. DoD Policy Memorandum on Lead-Based Paint (LBP) - Risk Assessment, Associated Health Risk in Children, and Control of Hazards in DoD Housing and Related Structures, dated 24Nov1992.

## 2. BACKGROUND

a. Active Air Force installations, including those scheduled for closure as directed by BRAC and DBRAC, will comply with Air Force policy and guidance on LBP (reference o.) and all subsequently published Air Force p9licy/guidance/instructions applicable to active installations. In addition to LBP requirements applicable to active installations, closure bases are responsible for disposing of real property and consequently must comply with Federal LBP laws and regulations pertaining to the disposition of Federally-owned housing. The Air Force must ensure that any threat to human health and the environment has been identified and, if necessary, remediated. Lead pigments in some paints applied to facilities can be a source of hazardous exposure to lead if not properly handled.

b. Ingestion of lead or inhalation of lead dust can cause a variety of adverse health effects for facility occupants, especially children and workers exposed to LBP hazards. Based on common painting practices used in the past at Air Force installations, LBP may be found in industrial facilities, on steel Structures (water tanks, pipelines, etc.), in yellow-painted pavement markings, and nonindustrial facilities (housing, schools, hospitals, playgrounds, etc.) constructed prior to 1980. Painted ferrous metal surfaces in nonindustrial facilities constructed during or after 1980 are also likely to contain LBP.

c. MAJCOM's remain responsible for protecting Air Force employees, contractors, and the general public from LBP health risk at closure bases prior to closure.

## 3. LEGAL AND REGULATORY REQUIREMENTS

a. Congress has directed the Department of Defense (DoD) to take a more active role regarding potential LBP health hazards (reference 1.o.).

b. Prior legislation effected in 1978 restricted lead paint used in nonindustrial facilities (reference 1.c.) and in residential structures constructed and rehabilitated by Federal agencies (reference 1.d.). The Lead-Based Paint Poisoning Prevention Act (LBPPPA) and associated guidelines took steps to eliminate LBP in public and Indian housing (references 1.e. and 1.f.). Compliance with applicable Federal, State, and local laws and regulations for LSP activities, environmental protection, and occupational health and safety is required. Occupational Safety and Health Administration regulations, for example, specify worker protection requirements (references 1.g. and 1.h.), while Federal environmental regulations restrict lead emissions (reference 1.i. (and address when LBP debris must be controlled as a hazardous waste (references 1.j. and 1.k.). The LBPPPA and TSCA were amended to establish a program to evaluate and reduce LBP in housing (references 1.m. and 1.n.).

## 4. DEFINITIONS

a. **Abatement.** Set of measures designed to permanently eliminate LBP hazards in accordance with standards established by appropriate Federal agencies. Abatement strategies include: the removal of LBP; encapsulation or enclosure of LBP (with drywall or siding); the replacement of building components covered by LBP (doors, cabinets, molding, etc.); removal of lead-contaminated dust; removal or covering of lead-contaminated soil; as well as all preparation, cleanup, disposal, and post-abatement clearance tests.

b. Defective or **Deteriorated** LBP. Any interior or exterior LBP that is peeling, chipping, chalking or cracking, or located on any surface or fixture that is damaged or deteriorated.

c. High-Priority Facilities. Facilities or portions of facilities, to include areas of exposed soil near buildings with exterior LBP, which are to be used for residential occupancy or may be frequented/used by children under age seven. These facilities include: military family housing (MFH) units, transient lodging facilities, child development centers and annexes, Air Force-maintained preschools, playgrounds, and playground equipment.

d. Housing. Any dwelling used, or intended to be used, as the home or residence of one or more persons.

e. **In-Place Management.** Interim measures which reduce a LBP hazard to acceptable levels. These interim measures include monitoring the condition of painted surfaces and reducing/eliminating LBP dust by high phosphate detergent washing, top coating all surfaces, repairing deterioration, high-efficiency particle air (H EPA) vacuuming, disposing of contaminated carpeting and decontaminating upholstered furniture to the maximum extent possible. (In-place management normally pertains to active installations.)

f. **Lead-Based Paint.** Paint on surfaces with lead in excess of 1.0 milligram per centimeter squared (1.0 mg/cm$^2$) as measured by X-ray fluorescence (XRF) detector or 0.5 percent (.5%) led by weight.

g. **LBP Hazard.** Any condition that causes exposure to lead sufficient to cause adverse human health effects. This may occur when there is deteriorated LBP; when LBP is on a friction surface" such as floors or friction surfaces on windows; when LBP is on an "impact surface" such as a door frame; when LBP is on an "accessible surface" for a young child to mouth or chew, such as a window sill; or when young children are exposed to soil contaminated with lead.

h. Residential **Structure.** Any house, apartment or structure intended for human habitation, including any non-dwelling facility operated by the owner and commonly used by children under seven years of age, including but not limited to child care centers.

I. **Treatment.** Covering or removal of defective paint surfaces. Covering may be accomplished by adding a layer of wallboard or permanent wall coverings may be attached. Covering or replacing trim surfaces is also permitted. Paint removal may be

accomplished by scraping, heat treatment or chemicals. **Machine sanding is not** permitted. In the case of defective paint spots, wet scraping and repainting the defective area is acceptable. **Washing and repainting without thorough removal** or **covering does not constitute adequate treatment.**

## 5. OBJECTIVE

Our objective is four-fold:

- Comply with applicable Federal, State and local laws and regulations,
- Adequately protect human health from LBP hazards,
- Facilitate property disposal through common-sense approaches to LBP hazards,
- Manage LBP hazards in a cost-effective manner.

## 6. CONVEYANCE PROCEDURES

The survey, treatment, and abatement requirements discussed below will not be required when the building is scheduled for demolition or non-residential use (or frequent use by children under age seven). If the building is scheduled for residential use, abatement of LBP hazards by the Air Force will not be required if the transferee is required through the contract of sale and/or deed to abate LBP hazards consistent with regulatory requirements.

a. Each closure base will have a LBP survey of high-priority facilities and the findings will be documented in an installation LBP Survey Report. **This** survey may be conducted in accordance with the sampling guidance provided as attachments to this Instruction, based on Department of Housing and Urban Development (HUD) protocol, or in accordance with the Air Force Guide for Lead-Based Paint Investigation currently being developed by Armstrong Laboratory (projected publication date of November 1993). The LBP Survey Report will identify where LBP exists on the installation and will be incorporated into the installation's Environmental Baseline Survey (EBS) Report.

(1) If the LBP survey has not been accomplished prior to the completion of the Basewide EBS, a data gap will be identified in the EBS Report and LBP sampling will be a part of the subsequent EBS effort.

(2) Where LBP is found to exist, use in-place management first to reduce risk of hazardous exposure to acceptable levels. Perform abatement only when in-place management will not control the hazard effectively. (Reference 1 .o.)

(3) Under the existing Federal regulations, property may be conveyed without a LBP Survey Report until December31, 1994. However, without a survey LBP is assumed to be present if the housing was constructed prior to 1978. By 1995, when the applicable portion of the Residential LBP Hazard Reduction Act of 1992 (Title X) goes into effect, **all** pre-1978 housing will be surveyed before being transferred. Housing

intended for the elderly or the disabled (unless any child under 6 years of age is expected to reside in such housing) and 0-bedroom dwellings (efficiency apartments and dormitories) will remain exempt from this survey requirement. (Reference 1 .m.)

b. Prior to property conveyance, housing constructed before 1978 will be inspected to determine the condition of all interior and exterior painted surfaces and whether LBP hazards exist. The inspection results are to be documented in an installation LBP Inspection Report. All defective paint surfaces shall be assumed to be an immediate hazard until test results show otherwise. (Reference 1.m.) Housing units with negative LBP survey results are exempt from this requirement and their defective paint surfaces are not a LBP hazard.

c. Abatement of LBP hazards is legally required for any housing constructed prior to 1960 if the disposition occurs on or after January 1, 1995, and children are likely to reside there after the transfer. Housing intended for the elderly or persons with disabilities (unless any child under 6 years of age is expected to reside in such housing), and 0-bedroom dwellings are exempt. (Reference 1.m.)

d. Prior to January 1, 1995, installations have the discretion either to treat pre-1978 residential structures (see definition of residential structures) under the existing HUD LBP regulation (24 C.F.R. Part 25, Subpart E), or abate pre-1960 housing under the new Title X. Facility managers should consider the most cost-effective alternative while protecting human health and the environment. Under 24 C.F.R. Part 35, Subpart E, all residential structures constructed prior to 1978 will have their defective LBP surfaces treated prior to sale. Wet scraping and repainting defective paint spots is an allowable treatment. Title X requirements for LBP hazard abatement in pre-1960 housing are stated in paragraph 6.c. above. Abatement does not permit the scraping and repainting of defective paint spots (see definition of abatement). The "LBP Summary Chart for Housing to be Conveyed. Attachment 5, provides a quick reference for determining what is required.

e. The LBP Inspection and Survey Reports will be made available to all potential recipients of closure base property prior to conclusion of transfer agreements. Prospective purchasers will be provided all notifications in accordance with P.L. 102-550, Title X, Sections 1013 and 1018. Before the purchaser is obligated under any contract.

(1) They will be provided any information available on the presence of LBP or LBP hazards,

(2) They shall be given at least 10 days to conduct a risk assessment or inspection,

(3) They will be informed of the hazards of LBP, symptoms and treatment of LBP poisoning, and the precautions to be taken to avoid LBP poisoning, and

(4) The sales contract shall include the following Lead Warning Statement.

"Every purchaser of any interest in residential real property on which a residential dwelling was built prior to 1978 is notified that such a property may present exposure to lead from lead-based paint that may place young children at risk of developing lead poisoning. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligence quotient, behavioral problems, and impaired memory. Lead poisoning also poses a particular risk to pregnant women. The seller of any interest in residential real property is required to provide the buyer with any information on lead-based paint hazards from risk assessments or inspections in the seller's possession and notify the buyer of any known lead-based paint hazards. A risk assessment or inspection for possible lead- based paint hazards is recommended prior to purchase."

**7. LEASE PROCEDURES**

a. For disposal by leasehold, as a matter of policy the Air Force will follow the same procedures as for a conveyance under paragraph 6.

b. For leases of pre-1978 housing which has confirmed or assumed LBP, the following is required.

(1) A visual inspection and report to determine the condition of all painted surfaces prior to lease execution and annually thereafter,

(2) Treatment of defective LBP surfaces in pre-1960 housing prior to lease execution, and

(3) Notification to prospective tenants the same manner as required by P.L. 102-550, Title X, Section 1018, to include any information available on the presence of LBP or LBP hazards of LBP, the symptoms and treatment of LBP poisoning, and the precautions to be taken to avoid LBP poisoning.

c. The lessee will be made responsible through the lease for monitoring the condition of painted surfaces for potential LSP hazards and for abating those hazards resulting from damaged or deteriorated LBP.

**8. LBP DEBRIS**

Closure bases will comply with applicable environmental protection regulations. For example, LBP debris will be evaluated in accordance with Federal, State, and local RCRA regulations, to include transportation, treatment, storage and disposal. Under RCRA regulations, LBP debris is considered hazardous waste when the leachate exceeds 5 parts per million from a 100- gram sample or 5 milligrams per liter by the Toxicity Characteristic Leaching Procedure (TCLP). Installations will comply with CERCLA and other applicable reporting requirements when LBP debris is released into the environment. CERCLA requirements apply to releases of more thar%pound of LBP debris if it is considered hazardous waste and the particles are less than 4 mil in diameter. Bases will ensure ambient air quality standards are not violated. Criteria for lead emissions is 1.5 micrograms per cubic meter, maximum

arithmetic mean over 90 days. Closure bases will also comply with TSCA requirements for LBP activities.

**9. FUNDING**

a. LBP Surveys for all closure bases will be programmed for by AFBDA/EV as a closure-related environmental compliance requirement under Budget Program 600.

b. The treatment/abatement of LBP hazards and the remediation of LBP debris will be programmed for by the installation as a closure-related environmental compliance requirement under Budget Program 600.

**10. EFFECTIVE DATE**

| | |
|---|---|
| Date | /s/<br>Alan K. Olsen<br>Director |

1. Installation Sampling Strategy
2. Sampling Strategy for Quantifying Lead in Interior and Exterior Paint
3. Interpretation XRF Sampling
4. Testing in Single Family Housing
5. LBP Summary Chart for Housing to be Conveyed

**Table G-1**

**Housing Sampling Strategy**

| Number of Units or Buildings | Number of Units or Buildings to be Tested |
|---|---|
| ≤20 | All |
| ≤40 | 31 |
| ≤60 | 38 |
| ≤80 | 42 |
| ≤100 | 45 |
| ≤200 | 51 |
| ≤300 | 54 |
| ≤400 | 55 |
| ≤600 | 56 |
| ≤1,000[a] | 57 |

Note: (a) When the total number of units exceed 1,000, test 58 of the units. The above sampling strategy should be used for housing constructed at the same time and having a common history. The units chosen for testing should be selected randomly so they represent accurately the total population of units or buildings being considered for possible abatement. 100-percent testing will be accomplished on high-priority facilities other than housing.

**Table G-2**

**Sampling Strategy for Quantifying Lead in Interior and Exterior Paint**

| Item to be Tested | Sampling Specifics |
|---|---|
| **Interior** | |
| Baseboard | 1 in each area |
| Ceiling | In each area |
| Crown molding | 1 in each area |
| Door | Surface of door and 1 side of the frame on a representative interior door in each area |
| Fireplace | (a) |
| Floor | 1 in each area |
| Radiator | (a) |
| Shelf | 1 in each area |
| Shelf Support | In each area |
| Stairs | Riser, tread, stripper, newel post, railing cap, balustrade |
| Wall | Upper and lower wall, chair rail in each area |
| Window | Sash, casing and sill on a representative window |
| **Exterior** | |
| Bulkhead | (a) |
| Ceiling | (a) |
| Cornerboard | (a) |
| Door | Surface of door and door casing |
| Fence | (a) |
| Floor | (a) |
| Joist | (a) |
| Lattice | (a) |
| Lower railing | (a) |
| Painting roofs | (a) |
| Porch | (a) |
| Railingcap | (a) |
| Siding | (a) |
| Stairs | Tread, riser, and handrail |
| Support column | (a) |
| Trim | (a) |
| Window | Sill, casing and sash of representative window; sample cellar window if available |

Note: (a) Where sampling specifics are not listed, test one item per housing unit tested.

## INTERPRETATION OF X-RAY FLUORESCENCE SAMPLING DATA

**For multifamily housing units having a common paint history and single-family housing built at the same time and having a common paint history.**

Sampling data from X-ray fluorescence (XRF) testing may be used to decide, for each building component, whether lead-based paint (LBP) is present. The following decision rules should be followed when using a direct reading XRF or spectrum analyzer XRF instruments. These rules should be applied in sequence until a decision is reached.

**Rule 1:** If more than 1 5 percent of direct reading XRF results or 1 1 percent spectrum analyzer XRF results are positive, then lead is present and either all such components should be assumed to have LBP, or all should be tested. Determine if the LBP can be managed in place or if it must be abated. If the testing option is chosen, all inconclusive results must be confirmed by laboratory analysis.

**Rule 2:** No further testing, abatement or in-place management is required if the following criteria are met.

Spectrum analyzer XRF: No positive or inconclusive results.

Direct reading XRF: No positive results and 17 percent or less are inconclusive. (Inconclusive readings in this instance do not require confirmatory testing.)

**Rule 3:** If some XRF results, in the percentages given below, are positive or inconclusive (all readings above 1.0 milligrams per square centimeter ($mg/cm^2$)], confirmatory laboratory testing is required. If there are any confirmed results greater than 1.0 $mg/cm^2$, then all such components should be assumed to have LBP, or all should be tested. Determine if the LBP can be managed in place or if it must be abated.

Direct reading XRF: If 15 percent or less are positive or more than 17 percent are inconclusive.

Spectrum analyzerr XRF: If 11 percent or less are positive or any are inconclusive.

**TESTING IN SINGLE FAMILY HOUSING**
**(Not qualifying as multi-family housing)**

Testing with the spectrum analyzer XRF is recommended. If direct reading XRF is used, it is necessary to scrape the paint to determine a substrate equivalent lead (SEL) for each different building component. This is because the variability of the direct reading XRP cannot be averaged out over a large number of samples as is the case in multifamily housing. All inconclusive results must be confirmed by laboratory testing.

Spectrum analyzer XRF:

Results are positive if reading is 1.3 $mg/cm^2$ or higher.

Results are inconclusive if reading is 0.8 to 1.2 $mg/cm^2$.

Results are negative if reading is less than 0.8 $mg/cm^2$.

Direct reading XRF:

Results are pOsitive if the CLC is greater than or equal to 1.6 $mg/cm^2$.

Results are inconclusive if the CLO is 0.5 to 1.5 $mg/cm^2$.

Results are negative if the CLC is less than 0.5 $mg/cm^2$.

**Definitions**

CLC: Corrected Lead Concentration, CLC = ALC - average SEL. All direct reading XRF results are reported in CLC.

ALC: Apparent Lead Concentrations, the displayed reading on a direct reading XRF.

SEL: Substrate Equivalent Lead, the substrate's contribution to the ALC. The average SEL is determined by first removing the paint from the substrate then measuring the ALC.

**LBP Summary Chart for Housing to be Conveyed**

***Between Now and 1 Jan 95***

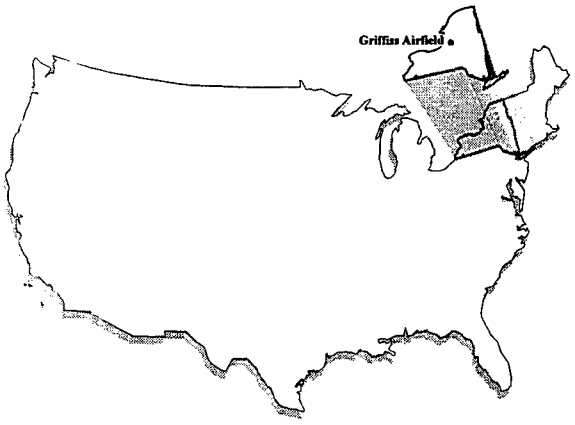
| Requirements | Pre-1960 | 1960-1977 | 1978-Present |
|---|---|---|---|
| LBP Survey of High-Priority Facilities (may assume LBP is present without testing) | X | X | NA |
| Inspection of Painted Surfaces with Confirmed or Assumed LBP | X | X | NA |
| Treatment or Assumed LBP | X | Only required if there is also pre-1960 housing[(a)] | NA |
| Disclosure | X | X | NA |

***After 1 Jan 1995***

| Requirements | Pre-1960 | 1960-1977 | 1978-Present |
|---|---|---|---|
| LBP Survey of High-Priority Facilities | X | X | NA |
| Inspection of Painted Surfaces with Confirmed or Assumed LBP | X | X | NA |
| Abatement of LBP | X | X | NA |
| Hazards | X | No action required | NA |
| Disclosure | X | X | NA |

Notes: (a) Treatment of 1960-1977 housing is not required under Title X. However, for consistency purposes, if a base chooses to treat pre-1960 housing under 24 Code of Federal Regulations (CFR) rather than abate under Title X, then 1960-1977 housing should also be treated since it is a requirement under 24 CFR.

LBP = lead-based paint
NA = not applicable




# APPENDIX H

# APPENDIX H

# NOISE

## 1.0 DESCRIPTION OF PROPOSED ALTERNATIVES

### 1.1 PRE-CLOSURE

Typical noise sources on and around airfields usually include aircraft, surface traffic, and other human activities.

Military aircraft operations are the primary source of noise in the vicinity of the airfield property on Griffiss Air Force Base (AFB). The number and type of aircraft operations and the resulting noise contours for pre-closure were obtained from the New York Air National Guard (NYANG). The contours for pre-closure operations are shown in Figure 3.4-5 in Chapter 3.0 of this Supplemental Environmental Impact Statement (SEIS). In airport analyses, areas with a Day-Night Average Sound Level (DNL) above 65 A-weighted decibels (dBA) are considered in land use compatibility planning and impact assessment; therefore, the distances to areas with DNLs greater than 65 dBA were of particular interest.

The baseline surface traffic noise levels in the vicinity of the airfield property were established in terms of DNL by modeling the arterial roadways and near the airfield property using current traffic and speed characteristics. Annual average daily traffic (AADT) data were developed in the traffic engineering study presented in Section 3.2.3, Transportation, and were used to estimate pre-closure noise levels. Ten percent of the traffic was assumed to be nighttime traffic. The noise levels generated by surface traffic were predicted using the model STAMINA 2.0 published by the Federal Highway Administration (1982). The noise levels were estimated as a function of distance from the centerline of the nearest road.

### 1.2 CLOSURE BASELINE

Following closure of the airfield property at Griffiss AFB, there would be no aircraft activity at the airfield. The airfield could be maintained as a general aviation airfield, using day visual flight rules (VFR) during the nonwinter months. The airspace would be Class E, which is an airfield without a control tower. All navigation aids, control tower communications, and weather facilities would be deactivated by removing antennas, sensors, and other elements for storage to avoid damage or theft by vandals. The winter closure would be announced by a Notice to Airmen (NOTAM) under FAA procedures. The reactivation of the airfield and associated equipment would be accomplished when the airfield is upgraded in accordance with a new Master Plan. The noise levels projected for the closure baseline for surface

traffic were calculated using the traffic projections at closure. The AADTs used for the analysis are presented in Table H-1.

**Table H-1**

**Surface Traffic Operations for Total Traffic Volumes 1996**

| Roadway Segment | Annual ADT | Speed Assumed (MPH) | Road Width (Number of Lanes) |
|---|---|---|---|
| **CLOSURE 1996** | | | |
| SH-49, East of Wright Drive Crossing | 15,100 | 60 | 4 |
| SH-49, West of Wright Drive Crossing | 11,800 | 60 | 6 |
| Connector road between Wright Drive/East Dominick Street | 1,250 | 45 | 2 |
| East Dominick Street, West of Wright Drive Crossing | 11,300 | 30 | 2 |
| River Road (SH-365) at County Road 88 Junction | 3,600 | 40 | 2 |
| Floyd Avenue, West of Floyd Gate | 3,350 | 25 | 2 |
| Chestnut Street, East of Black River Boulevard | 6,850 | 30 | 2 |
| Black River Boulevard, South of Floyd Avenue | 18,400 | 45 | 4 |
| Black River Boulevard, North of Floyd Avenue | 12,950 | 45 | 6 |
| Black River Boulevard, South of Chestnut Street | 15,600 | 45 | 4 |
| Black River Boulevard, North of Chestnut Street | 15,850 | 45 | 4 |
| Hangar Road between Hill Road and Otis Street | 860 | 30 | 2 |
| Brooks Road between Hill Road and Otis Street | 1,500 | 30 | 2 |
| Hill Road between Wright Drive and Brooks Road | 2,030 | 30 | 2 |
| Hill Road between Brooks Road and Hangar Road | 1,440 | 30 | 2 |
| Wright Drive between Skyline entrance and Hill Road | 1,830 | 30 | 2 |
| Ellsworth Road between Hill Road and Otis Street | 1,030 | 30 | 2 |

## 1.3 PROPOSED ACTION

The Proposed Action for the reuse of the airfield property on Griffiss AFB would result in a comprehensive reuse plan which includes the use of the airfield as a civil airport with an international freight hub, aircraft maintenance, and commercial air services. Oneida County Airport would be moved to the airfield on Griffiss AFB. Nonaviation uses would include industrial and recreational land uses.

Annual aircraft operations associated with use of the airfield as a civilian airport were developed for 2001 and 2016. The DNL contours for the proposed flight operations are presented in Section 4.4.4, Noise. The assignment of aircraft operations by track and day-night split is presented in Tables H-2 and H-3.

Surface traffic data used in the modeling were developed from the project traffic study presented in Section 4.2.3, Transportation, and are presented in Table H-4.

Table H-2

Assignment of Aircraft Operations (2001)

| Aircraft ID | Aircraft Description | Track | Runway | Annual Takeoffs | | Annual Landings | | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | Day | Night | Day | Night | |
| **PROPOSED ACTION** | | | | | | | | |
| 737 | B737/JT8D-9 | Straight | 33 | 240 | 27 | 240 | 27 | 532 |
| BEC190 | Beech 1900 | Straight | 33 | 1,675 | 186 | 1,675 | 186 | 3,722 |
| CNA172 | Cessna 172 | Straight | 33 | 4,620 | 94 | 4,620 | 94 | 9,428 |
| BEC23 | Beech Model 23 | Straight | 33 | 1,969 | 51 | 1,969 | 51 | 4,041 |
| 747-200 | B747-200/JT9D-7 | Straight | 33 | 151 | 17 | 151 | 17 | 335 |
| 737-200 | B737-300/CFM56-3B-1 | Straight | 33 | 109 | 12 | 109 | 12 | 242 |
| 737 | B737/JT8D-9 | Straight | 15 | 239 | 27 | 239 | 27 | 531 |
| BEC190 | Beech 1900 | Straight | 15 | 1,675 | 186 | 1,675 | 186 | 3,722 |
| CNA172 | Cessna 172 | Straight | 15 | 4,620 | 94 | 4,620 | 94 | 9,428 |
| BEC23 | Beech Model 23 | Straight | 15 | 1,969 | 510 | 1,969 | 510 | 4,041 |
| 747-200 | B747-200/JT9D-7 | Straight | 15 | 151 | 17 | 151 | 17 | 335 |
| 747-200 | B737-300/CFM56-3B-1 | Straight | 15 | 109 | 12 | 109 | 12 | 242 |
| | | | **Total Operations** | **17,527** | **773** | **17,527** | **773** | **36,601** |
| **PRIVATE AIRFIELD ALTERNATIVE** | | | | | | | | |
| CNA172 | Cessna 172 | Straight | 33 | 1,173 | 24 | 1,173 | 24 | 2,395 |
| BEC23 | Beech Model 23 | Straight | 33 | 500 | 13 | 500 | 23 | 1,027 |
| 747-200 | B747-200/JT9D-7 | Straight | 33 | 153 | 17 | 153 | 17 | 341 |
| 737-200 | B737-300/CFM56-3B-1 | Straight | 33 | 111 | 12 | 111 | 12 | 246 |
| CNA172 | Cessna 172 | Straight | 15 | 1,173 | 24 | 1,173 | 24 | 2,395 |
| BEC23 | Beech Model 23 | Straight | 15 | 500 | 13 | 500 | 13 | 1,027 |
| 747-200 | B747-200/JT9D-7 | Straight | 15 | 153 | 17 | 153 | 17 | 341 |
| 747-200 | B737-300/CFM56-3B-1 | Straight | 15 | 111 | 12 | 111 | 12 | 246 |
| | | | **Total Operations** | **3,876** | **133** | **3,876** | **133** | **8,019** |

## 1.4 PRIVATE AIRFIELD ALTERNATIVE

The Private Airfield Alternative would be similar to the Proposed Action with the exception that Oneida County Airport would remain at its present location, and the airfield on Griffiss AFB would not include commercial air services. All other uses would be the same as those described for the Proposed Action.

Annual aircraft operations for the aviation alternative are also presented in Tables H-2 and H-3. The resulting DNL contours are described in Section 4.4.4, Noise for comparison with the Proposed Action.

Surface traffic data used in the modeling of this alternative are also presented in Table H-4, and the traffic impacts are described in Section 4.2.3, Transportation.

**Table H-3**

**Assignment of Aircraft Operations (2016)**

| Aircraft ID | Aircraft Description | Track | Runway | Annual Takeoffs | | Annual Landings | | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | Day | Night | Day | Night | |
| **PROPOSED ACTION** | | | | | | | | |
| BEC190 | Beech 1900 | Straight | 33 | 3,595 | 399 | 3,595 | 399 | 7,988 |
| CNA172 | Cessna 172 | Straight | 33 | 9,915 | 202 | 9,915 | 202 | 20,234 |
| BEC23 | Beech Model 23 | Straight | 33 | 4,226 | 110 | 4,226 | 110 | 8,672 |
| 747-200 | B747-200/JT9D-7 | Straight | 33 | 324 | 36 | 324 | 36 | 720 |
| 737-300 | B737-300/CFM56-3B-1 | Straight | 33 | 748 | 83 | 748 | 83 | 1,662 |
| BEC190 | Beech 1900 | Straight | 15 | 3,595 | 399 | 3,595 | 399 | 7,988 |
| CNA172 | Cessna 172 | Straight | 15 | 9,915 | 202 | 9,915 | 202 | 20,234 |
| BEC23 | Beech Model 23 | Straight | 15 | 4,226 | 110 | 4,226 | 110 | 8,672 |
| 747-200 | B747-200/JT9D-7 | Straight | 15 | 324 | 36 | 324 | 36 | 720 |
| 747-300 | B737-300/CFM56-3B-1 | Straight | 15 | 747 | 83 | 747 | 83 | 1,660 |
| | | | **Total Operations** | **37,615** | **1,660** | **37,615** | **1,660** | **78,550** |
| **PRIVATE AIRFIELD ALTERNATIVE** | | | | | | | | |
| CNA172 | Cessna 172 | Straight | 33 | 2,479 | 51 | 2,479 | 51 | 5,059 |
| BEC23 | Beech Model 23 | Straight | 33 | 1,057 | 28 | 1,057 | 28 | 2,168 |
| 747-200 | B747-200/JT9D-7 | Straight | 33 | 324 | 36 | 324 | 36 | 720 |
| 737-300 | B737-300/CFM56-3B-1 | Straight | 33 | 234 | 26 | 234 | 26 | 520 |
| CNA172 | Cessna 172 | Straight | 15 | 2,479 | 51 | 2,479 | 51 | 5,059 |
| BEC23 | Beech Model 23 | Straight | 15 | 1,057 | 28 | 1,057 | 28 | 2,168 |
| 747-200 | B747-200/JT9D-7 | Straight | 15 | 324 | 36 | 324 | 36 | 720 |
| 747-300 | B737-300/CFM56-3B-1 | Straight | 15 | 234 | 26 | 234 | 26 | 520 |
| | | | **Total Operations** | **8,187** | **280** | **8,187** | **280** | **16,933** |

## 1.5 NONAVIATION ALTERNATIVE

With the Nonaviation Alternative, no aircraft-related noise would be generated. Surface traffic data used for noise modeling are presented in Table H-4.

**Table H-4**

**Surface Traffic Operations for Total Volumes**

| Roadway Segments by Alternative | 2001 | | 2006 | | 2016 | | Road Width (Number of Lanes) |
|---|---|---|---|---|---|---|---|
| | Annual ADT | Speed (MPH) | Annual ADT | Speed (MPH) | Annual ADT | Speed (MPH) | |
| **PROPOSED ACTION** | | | | | | | |
| SH-49, East Wright Dr. Crossing | 16,000 | 60 | 17,000 | 60 | 18,100 | 60 | 4 |
| SH-49, West Wright Dr. Crossing | 13,700 | 60 | 15,600 | 60 | 18,500 | 60 | 6 |
| Connector road between Wright Dr./ East Dominick Street | 4,000 | 45 | 6,700 | 45 | 11,700 | 45 | 2 |
| East Dominick St., West of Wright Dr. crossing | 11,800 | 30 | 12,200 | 25 | 12,900 | 25 | 2 |
| River Road (SH-365) at County Road-88 Jct. | 4,400 | 40 | 5,200 | 40 | 6,600 | 40 | 2 |
| Floyd Ave., between Hill Rd. and Black River Blvd. | 7,800 | 25 | 12,500 | 25 | 19,800 | 25 | 2 |
| Chestnut St. East of Black River Blvd. (Mohawk Dr. to Hill Rd.) | 11,700 | 30 | 16,000 | 30 | 23,300 | 30 | 2 |
| Black River Blvd. South of Floyd Ave. | 21,600 | 40 | 24,800 | 40 | 30,500 | 40 | 4 |
| Black River Blvd. North of Floyd Ave. | 15,500 | 45 | 18,100 | 45 | 22,100 | 45 | 6 |
| Black River Blvd. South of Chestnut St. | 18,000 | 45 | 20,400 | 45 | 24,700 | 45 | 4 |
| Black River Blvd. North of Chestnut St. | 18,800 | 45 | 21,700 | 45 | 27,300 | 45 | 4 |
| Hangar Rd. between Hill Rd. and Otis St. | 2,800 | 30 | 4,700 | 30 | 9,100 | 30 | 2 |
| Brooks Rd. between Hill Rd. and Otis St. | 4,700 | 30 | 7,900 | 30 | 15,500 | 30 | 2 |
| Hill Rd. between Wright Rd. and Brooks Rd. | 7,000 | 30 | 12,000 | 30 | 22,600 | 30 | 2 |
| Hill Rd. between Brooks Rd. and Hangar Rd. | 6,000 | 30 | 10,700 | 30 | 19,000 | 30 | 2 |
| Wright Dr. between Skyline entrance and Hill Rd. | 7,400 | 30 | 13,200 | 30 | 23,500 | 30 | 2 |
| Ellsworth Rd. between Hill Rd. and Otis St. | 4,200 | 30 | 7,400 | 30 | 13,300 | 30 | 2 |
| **PRIVATE AIRFIELD ALTERNATIVE** | | | | | | | |
| SH-49, East Wright Dr. Crossing | 15,400 | 60 | 15,800 | 60 | 17,600 | 60 | 4 |
| SH-49, West Wright Dr. Crossing | 12,400 | 60 | 13,500 | 60 | 18,000 | 60 | 6 |
| Connector road between Wright Dr./ East Dominick Street | 2,300 | 45 | 3,900 | 45 | 11,500 | 45 | 2 |
| East Dominick St., West of Wright Dr. crossing | 11,500 | 30 | 11,700 | 25 | 12,700 | 25 | 2 |
| River Road (SH-365) at County Road-88 Jct. | 3,900 | 40 | 4,400 | 40 | 6,500 | 40 | 2 |
| Floyd Ave., between Hill Rd. and Black River Blvd. | 4,900 | 25 | 7,400 | 25 | 18,800 | 25 | 2 |
| Chestnut St. East of Black River Blvd. (Mohawk Dr. to Hill Rd.) | 8,900 | 30 | 11,400 | 30 | 22,600 | 30 | 2 |
| Black River Blvd. South of Floyd Ave. | 19,600 | 40 | 21,400 | 40 | 30,100 | 40 | 4 |
| Black River Blvd. North of Floyd Ave. | 13,800 | 45 | 15,200 | 45 | 21,500 | 45 | 6 |
| Black River Blvd. South of Chestnut St. | 16,500 | 45 | 17,900 | 45 | 24,500 | 45 | 4 |

**Table H-4, Page 2 of 2**

| Roadway Segments by Alternative | 2001 | | 2006 | | 2016 | | Road Width (Number of Lanes) |
|---|---|---|---|---|---|---|---|
| | Annual ADT | Speed (MPH) | Annual ADT | Speed (MPH) | Annual ADT | Speed (MPH) | |
| Black River Blvd. North of Chestnut St. | 17,000 | 45 | 18,700 | 45 | 27,200 | 45 | 4 |
| Hangar Rd. between Hill Rd. and Otis St. | 1,800 | 30 | 2,700 | 30 | 8,900 | 30 | 2 |
| Brooks Rd. between Hill Rd. and Otis St. | 3,100 | 30 | 4,600 | 30 | 15,400 | 30 | 2 |
| Hill Rd. between Wright Rd. and Brooks Rd. | 4,200 | 30 | 6,600 | 30 | 21,900 | 30 | 2 |
| Hill Rd. between Brooks Rd. and Hangar Rd. | 3,100 | 30 | 5,300 | 30 | 17,500 | 30 | 2 |
| Wright Dr. between Skyline entrance and Hill Rd. | 3,900 | 30 | 6,600 | 30 | 21,800 | 30 | 2 |
| Ellsworth Rd. between Hill Rd. and Otis St. | 2,200 | 30 | 3,800 | 30 | 12,300 | 30 | 2 |
| **NONAVIATION ALTERNATIVE** | | | | | | | |
| SH-49, East Wright Dr. Crossing | 16,500 | 60 | 17,800 | 60 | 20,500 | 60 | 4 |
| SH-49, West Wright Dr. Crossing | 1,410 | 60 | 16,400 | 60 | 20,900 | 60 | 6 |
| Connector road between Wright Dr./ East Dominick Street | 4,200 | 45 | 7,200 | 45 | 13,000 | 45 | 2 |
| East Dominick St., West of Wright Dr. crossing | 11,900 | 30 | 12,400 | 25 | 13,500 | 25 | 2 |
| River Road (SH-365) at County Road-88 Jct. | 4,600 | 40 | 5,500 | 40 | 7,200 | 40 | 2 |
| Floyd Ave., between Hill Rd. and Black River Blvd. | 8,900 | 25 | 14,300 | 25 | 25,200 | 25 | 2 |
| Chestnut St. East of Black River Blvd. (Mohawk Dr. to Hill Rd.) | 12,400 | 30 | 17,200 | 30 | 26,900 | 30 | 2 |
| Black River Blvd. South of Floyd Ave. | 22,000 | 40 | 25,600 | 40 | 32,700 | 40 | 4 |
| Black River Blvd. North of Floyd Ave. | 16,100 | 45 | 19,200 | 45 | 25,300 | 45 | 6 |
| Black River Blvd. South of Chestnut St. | 18,300 | 45 | 20,900 | 45 | 26,200 | 45 | 4 |
| Black River Blvd. North of Chestnut St. | 18,800 | 45 | 21,800 | 45 | 27,700 | 45 | 4 |
| Hangar Rd. between Hill Rd. and Otis St. | 2,900 | 30 | 5,000 | 30 | 9,900 | 30 | 2 |
| Brooks Rd. between Hill Rd. and Otis St. | 4,900 | 30 | 8,200 | 30 | 16,300 | 30 | 2 |
| Hill Rd. between Wright Rd. and Brooks Rd. | 7,700 | 30 | 13,300 | 30 | 26,400 | 30 | 2 |
| Hill Rd. between Brooks Rd. and Hangar Rd. | 7,500 | 30 | 13,400 | 30 | 26,600 | 30 | 2 |
| Wright Dr. between Skyline entrance and Hill Rd. | 9,100 | 30 | 16,200 | 30 | 32,200 | 30 | 2 |
| Ellsworth Rd. between Hill Rd. and Otis St. | 5,200 | 30 | 9,200 | 30 | 18,200 | 30 | 2 |

## 2.0 NOISE METRICS

Noise, as used in this context, refers to sound pressure variations audible to the ear. The audibility of a sound depends on the amplitude and frequency of the sound and the individual's capability to hear the sound. Whether the sound is judged as noise depends largely on the listener's current activity and attitude toward the sound source, as well as the amplitude and frequency of the sound. The range in sound pressures that the human ear can comfortably detect encompasses a wide range of amplitudes, typically a factor larger than a million. To obtain convenient measurements and sensitivities at extremely low and high sound pressures, sound is measured in units of dB. The dB is a dimensionless unit related to the logarithm of the ratio of the measured level to a reference level.

Because the logarithmic nature of the decibel unit, sound levels cannot be added or subtracted directly. However, the following shortcut method can be used to combine sound levels:

| Difference between two dB values | Add the following to the higher level |
|---|---|
| 0 to 1 | 3 |
| 2 to 3 | 2 |
| 4 to 9 | 1 |
| 10 or more | 0 |

The ear is not equally sensitive at all frequencies of sound. At low frequencies, characterized as a rumble or roar, the ear is not very sensitive while at higher frequencies, characterized as a screech or a whine, the ear is most sensitive. The A-weighted level was developed to measure and report sound levels in a way which would more closely approach how people perceive the sound. All sound levels reported here are in terms of A-weighted sound levels.

Environmental sound levels typically vary with time. This is especially true for areas near airports where noise levels will increase substantially as the aircraft passes overhead and afterwards diminish to typical community levels. Both the Department of Defense (DOD) and Federal Aviation Administration (FAA) have specified the following three noise metrics to describe aviation noise.

**Day-Night Average Sound Level (DNL)** is the 24-hour energy average A-weighted sound level with a 10 dB weighting added to those levels occurring between 10 p.m. and 7 a.m. the following morning. The 10 dB weighting is a penalty representing the added intrusiveness of noise during

normal sleeping hours. DNL is used to determine land use compatibility with noise from aircraft and surface traffic. The expression $L_{dn}$ is often used in equations to designate day-night average sound level.

**Maximum Sound Level** is the highest instantaneous sound level observed during a single noise event no matter how long the sound may persist (see Figure H-1).

**Sound Exposure Level (SEL)** value represents the A-weighted sound level integrated over the entire duration of the event and referenced to a duration of 1 second. Hence, it normalizes the event to a 1-second event. Typically, most events (e.g., an aircraft flyover) last longer than 1 second, and the SEL value will be higher than the maximum sound level of the event. Figure H-1 illustrates the relationship between the maximum sound level and SEL.

## 3.0 NOISE MODELS

### 3.1 AIR TRAFFIC

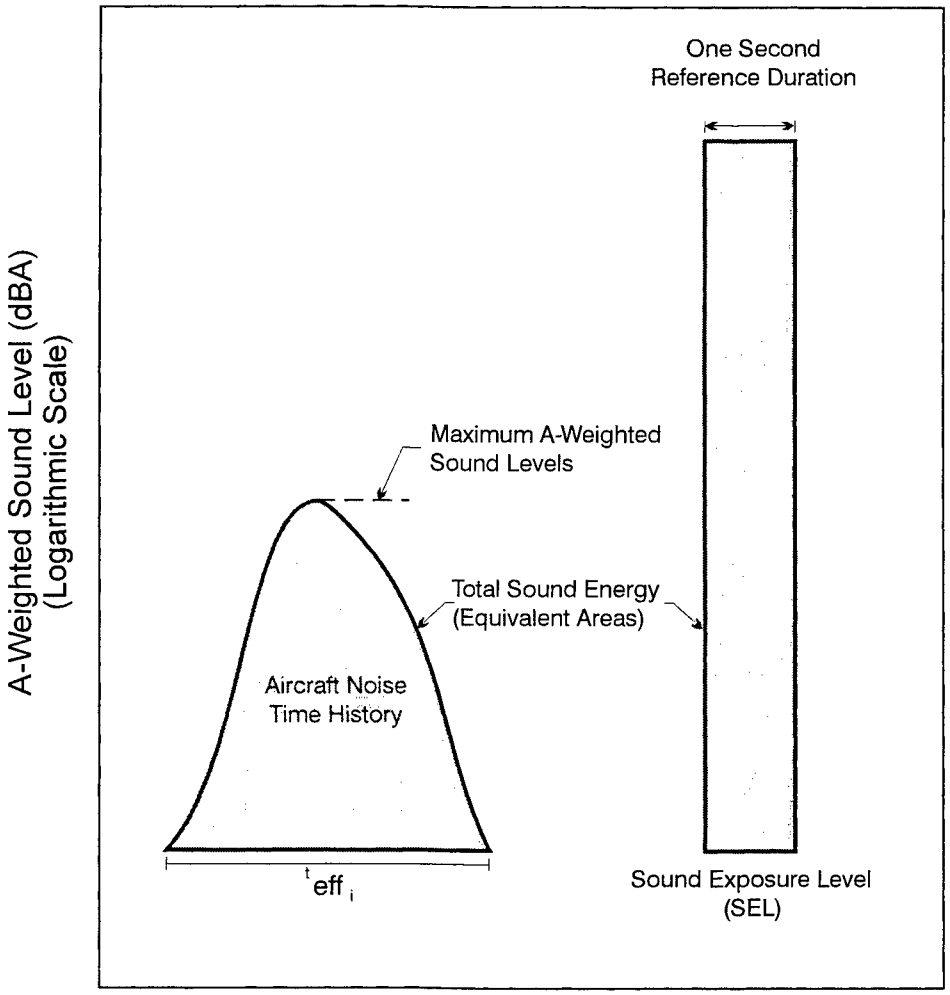
The DOD Noise Exposure Model (NOISEMAP), version 6.3, was used to predict aircraft noise levels. Since the early 1970s, DOD has been actively developing and refining the NOISEMAP program and its associated data base. The NOISEMAP computer program is a comprehensive set of computer routines for calculating noise contours from aircraft flight and ground runup operations, using aircraft-unique noise data for both fixed- and rotary-wing aircraft. The program requires specific input data, consisting of runway layout, aircraft types, number of operations, flight tracks, and noise performance data, to compute a grid of DNL values at uniform intervals. The grid is then processed by a contouring program which draws the contours at selected intervals.

### 3.2 SURFACE TRAFFIC

The Federal Highway Administration Noise Model Stamina 2.0 (1982) was used to predict surface traffic noise. The model uses traffic volumes, vehicular mix, traffic speed, traffic distribution and roadway length to estimate traffic noise levels.

## 4.0 ASSESSMENT CRITERIA

Criteria for assessing the effects of noise include annoyance, speech interference, sleep disturbance, noise-induced hearing loss, possible nonauditory health effects, reaction by animals, and land use compatibility. These criteria are often developed using statistical methods. The validity of generalizing statistics devised from large populations are suspect when applied to small sample sizes as we have in the affected areas near the




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**Sound Exposure Level (SEL) and Comparison to Aircraft Noise Time History**

**Figure H-1**

airfield property on Griffiss AFB. Caution should be employed when interpreting the results of the impact analysis.

## 4.1 ANNOYANCE DUE TO SUBSONIC AIRCRAFT NOISE

Noise-induced annoyance is an attitude or mental process with both acoustic and nonacoustic determinants (Fidell et al. 1988). Noise-induced annoyance is perhaps most often defined as a generalized adverse attitude toward noise exposure. Noise annoyance is affected by many factors including sleep and speech interference and task interruption. The level of annoyance may also be affected by many nonacoustic factors.

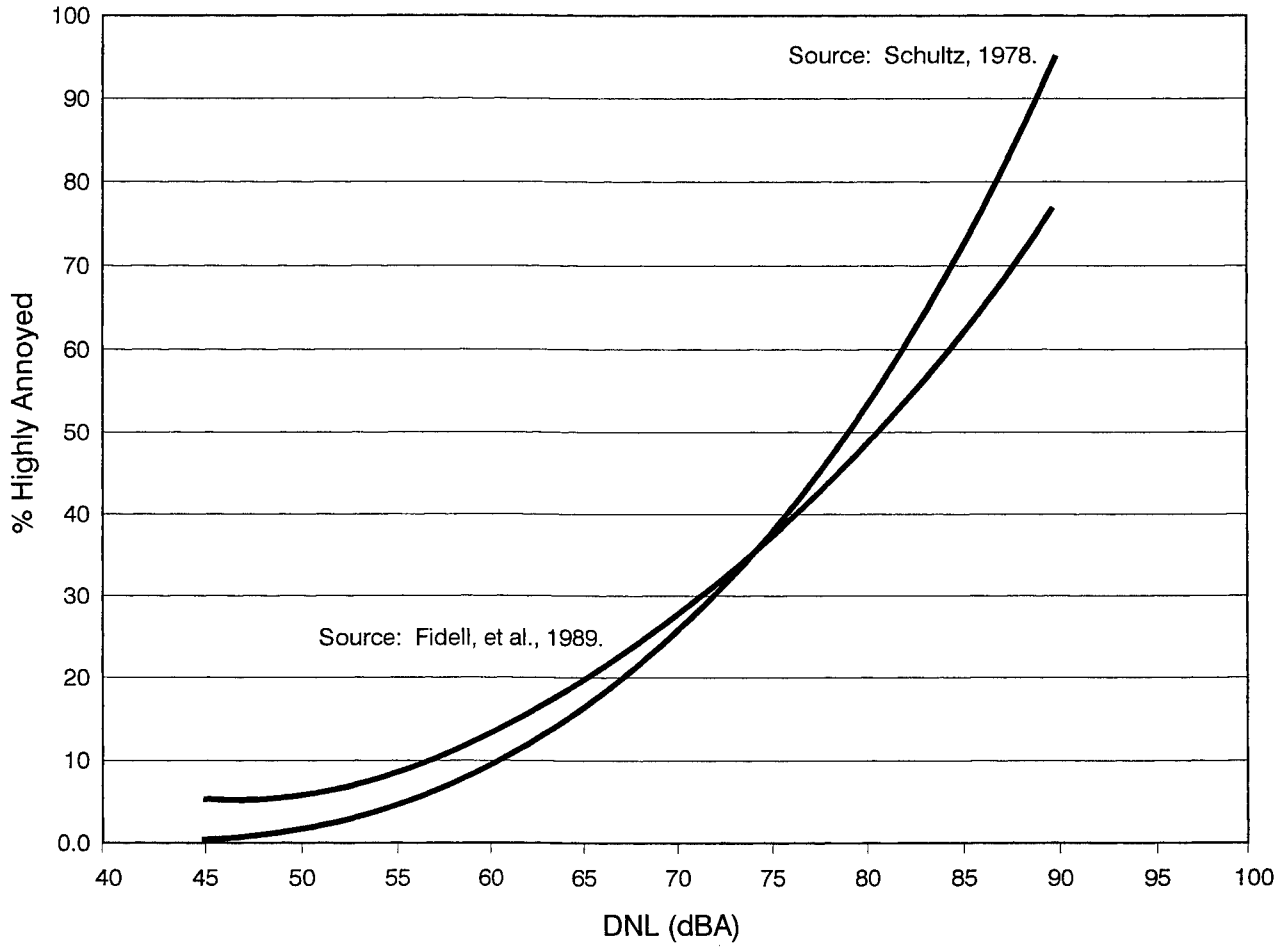
In communities in which the prevalence of annoyance is affected primarily by noise, reductions in exposure can be expected to lead to reductions in prevalence of annoyance. In communities in which the prevalence of annoyance is controlled by nonacoustic factors, such as odor, traffic congestion, etc., there may be little or no reduction in annoyance associated with reductions in exposure. The intensity of community response to noise exposure even may, in some cases, be essentially independent of physical exposure. In the case of community response to actions, such as airport siting or scheduling of supersonic transport aircraft, vigorous reaction has been encountered at the mere threat of exposure, or minor increases in exposure.

The standard method for determining the prevalence of annoyance in noise-exposed communities is by attitudinal survey. Surveys generally solicit self-reports of annoyance through one or more questions of the form "How bothered or annoyed have you been by the noise of (noise source) over the last (time period)?" Respondents are typically constrained in structured interviews to select one of a number of response alternatives, often named categories such as "Not At All Annoyed," "Slightly Annoyed," "Moderately Annoyed," "Very Annoyed," or "Extremely Annoyed." Other means are sometimes used to infer the prevalence of annoyance from survey data (for example, by interpretation of responses to activity interference questions or by construction of elaborate composite indices), with varying degrees of face validity and success.

Predictions of the prevalence of annoyance in a community can be made by extrapolation from an empirical dosage-effect relationship. Based on the results of a number of sound surveys, Schultz (1978) developed a relationship between percent highly annoyed and DNL:

$$\%\ Highly\ Annoyed = 0.8553\ DNL - 0.0401\ DNL^2 + 0.00047\ DNL^3$$

This relationship should not be evaluated outside the range of DNL = 45 to 90 dB. Figure H-2 presents this equation graphically. Less than 15 to




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**Community Noise Annoyance Curves**

**Figure H-2**

20 percent of the population would be predicted to be annoyed by DNL values less than 65 dBA, whereas over 37 percent of the population would be predicted to be annoyed from DNL values greater than 75 dBA. The relationship developed by Schultz was presented in the Guidelines for Preparing Environmental Impact Statements on Noise (National Academy of Sciences 1977).

These results were recently reviewed (Fidell et al. 1989) and the original findings updated with results of more recent social surveys, bringing the number of data points used in defining the relationship to over 400. The findings of the new study differ only slightly from those of the original study.

## 4.2 SPEECH INTERFERENCE AND RELATED EFFECTS DUE TO AIRCRAFT FLYOVER NOISE

One of the ways that noise affects daily life is by preventing or impairing speech communication. In a noise environment, understanding of speech is diminished by masking of speech signals by intruding noises. Speakers generally raise their voices or move closer to listeners to compensate for masking noise in face-to-face communications, thereby increasing the level of speech at the listener's ear. As intruding noise levels rise higher and higher, speakers may cease talking altogether until conversation can be resumed at comfortable levels of vocal effort after noise intrusions end.

If the speech source is a radio or television, the listener may increase the volume during a noise intrusion. If noise intrusions occur repeatedly, the listener may choose to set the volume at a high level so that the program material can be heard even during noise intrusions.

In addition to losing information contained in the masked speech material, the listener may lose concentration because of the interruptions and thus become annoyed. If the speech message is some type of warning, the consequences could be serious.

Current practice in quantification of the magnitude of speech interference and predicting speech intelligibility ranges from metrics based on A-weighted sound pressure levels of the intruding noise alone to more complex metrics requiring detailed spectral information about both speech and noise intrusions. There are other effects of the reduced intelligibility of speech caused by noise intrusions. For example, if the understanding of speech is interrupted, performance may be reduced, annoyance may increase, and learning may be impaired.

As the noise level of an environment increases, people automatically raise their voices. The effect does not take place, however, if the noise event were to rise to a high level very suddenly.

### 4.2.1 Speech Interference Effects From Time-Varying Noise

Most research on speech interference due to noise has included the study of steady state noise. As a result, reviews and summaries of noise effects on speech communications concentrate on continuous or at least long duration noises (Miller 1974). However, noise intrusions are not always continuous or of long duration, but are frequently transient in nature. Transportation noise generates many such noise intrusions, consisting primarily of individual vehicle pass-bys, such as aircraft flyovers. Noise emitted by other vehicles (e.g., motorboats, snowmobiles, and off-highway vehicles) is also transient in nature.

It has been shown, at least for aircraft flyover noise, that accuracy of predictors of speech intelligibility are ranked in a similar fashion for both steady state and time-varying or transient sounds (Williams et al. 1971; Kryter and Williams 1966). If one measured the noise of a flyover by the maximum A-level, then intelligibility associated with this level would be higher than for a steady noise of the same value, simply because the level is less than the maximum for much of the duration of the flyover.

### 4.2.2 Other Effects of Noise Which Relate to Speech Intelligibility

Aside from the direct effects of reduction in speech intelligibility, related effects may occur that tend to compound the loss of speech intelligibility itself.

**Learning.** One of the environments in which speech intelligibility plays a critical role is the classroom. In classrooms of schools exposed to aircraft flyover noise, speech becomes masked or the teacher stops talking altogether during an aircraft flyover (Crook and Langdon 1974). Pauses begin to occur when instantaneous flyover levels exceed 60 dB (A-weighted). Masking of the speech of teachers who do not pause starts at about the same level.

At levels of 75 dB some masking occurs for 15 percent of the flyovers and increases to nearly 100 percent at 82 dB. Pauses occur for about 80 percent of the flyovers at this noise level. Since a marked increase in pauses and masking occurs when levels exceed 75 dB, this level is sometimes considered as one above which teaching is impaired due to disruption of speech communication. The effect that this may have on learning is unclear at this time. However, one study (Arnoult *et al.* 1986) could find no effect of noise on cognitive tasks from jet or helicopter noise over a range from 60 to 80 dB (A-level), even though intelligibility scores indicated a continuous decline starting at the 60 dB level. In a Japanese study (Ando *et al.* 1975), researchers failed to find differences in mental task performance among children from communities with different aircraft noise exposure.

Although there seems to be no proof that noise from aircraft flyovers affects learning, it is reported by Mills (1975) that children are not as able to understand speech in the presence of noise as are adults. It is hypothesized that part of the reason is due to the increased vocabulary which the adult can draw on as compared to the more limited vocabulary available to the young student. Also, when one is learning a language, it is more critical that all words be heard rather than only enough to attain 95 percent sentence intelligibility, which may be sufficient for general conversations. It was mentioned before that when the maximum A-level of aircraft flyovers heard in a classroom exceeds 75 dB, masking of speech increases rapidly. However, it was also noted that pausing during flyovers and masking of speech for those teachers who continue to lecture during a flyover start at levels around 60 dB (Pearsons and Bennett 1974).

**Annoyance.** Klatt, Stevens, and Williams (1969) studied the annoyance of speech interference by asking people to judge the annoyance of aircraft noise in the presence and absence of speech material. The speech material was composed of passages from newspaper and magazine articles. In addition to rating aircraft noise on an acceptability scale (unacceptable, barely acceptable, acceptable, and of no concern), the subjects were required to answer questions about the speech material. The voice level was considered to represent a raised voice level (assumed to be 68 dB). In general, for the raised voice talker, the rating of barely acceptable was given to flyover noise levels of 73 to 76 dB. However, if the speech level was reduced, the rating of the aircraft tended more toward unacceptable. The results suggested that if the speech level were such that 95 percent or better sentence intelligibility was maintained, then barely acceptable rating or better acceptability rating could be expected. This result is in general agreement with the finding in schools that teachers pause or have their speech masked at levels above 75 dB (Crook and Langdon 1974).

Hall, Taylor, and Birnie (1985) tried to relate various types of activity interference in the home, related to speech and sleeping, to annoyance. The study found that there is a 50 percent chance that people's speech would be interfered with at a level of 58 dB. This result is in agreement with the other results, considering that the speech levels in the school environment of the Crook study are higher than the levels typically used in the home. Also, in a classroom situation the teacher raises his or her voice as the flyover noise increases in intensity.

### 4.2.3 Predicting Speech Intelligibility and Related Effects Due to Aircraft Flyover Noise

It appears, from the previous discussions, that when aircraft flyover noises exceed approximately 60 dB, speech communication may be interfered with either by masking or by pausing on the part of the talker. Increasing the level

of the flyover noise to 80 dB would reduce the intelligibility to zero even if a loud voice were used by those attempting to communicate.

The levels mentioned above refer to noise levels measured indoors. The same noises measured outdoors would be 15 to 25 dB higher than these indoor levels during summer (windows open) and winter months (windows closed), respectively. These estimates are taken from U.S. Environmental Protection Agency (EPA) reviews of available data (1974).

Levels of aircraft noise measured inside dwellings and schools near the ends of runways at airports may exceed 60 dB inside (75 dB outside). During flyovers, speech intelligibility would be degraded. However, since the total duration is short, no more than a few seconds during each flyover, only a few syllables may be lost. People may be annoyed, but the annoyance may not be due to loss in speech communication, but rather due to startle or sleep disturbance as discussed in the following section.

## 4.3 SLEEP DISTURBANCE DUE TO NOISE

The effects of noise on sleep have long been a concern of parties interested in assuring suitable residential noise environments. Early studies noted background levels in people's bedrooms in which sleep was apparently undisturbed by noise. Various levels between 25 to 50 dB (A-weighted) were observed to be associated with an absence of sleep disturbance. The bulk of the research on noise effects on which the current relationship is based was conducted in the 1970s. The tests were conducted in a laboratory environment in which awakening was measured either by a verbal response or by a button push, or by brain wave recordings (EEG) indicating stages of sleep (and awakening). Various types of noise were presented to the sleeping subjects throughout the night. These noises consisted primarily of transportation noises including those produced by aircraft, trucks, cars, and trains. The aircraft noises included both flyover noises as well as sonic booms. Synthetic noises, including laboratory-generated sounds consisting of shaped noises and tones, were also studied.

Lukas (1975) and Goldstein and Lukas (1980) both reviewed data available in the 1970s on sleep-stage changes and waking effects of different levels of noise. Since no known health effects were associated with either waking or sleep-stage changes, either measure was potentially useful as a metric of sleep disturbance. However, since waking, unlike sleep-stage changes, is simple to quantify, it is often selected as the metric for estimating the effects of noise on sleep. These two reviews showed great variability in the percentage of people awakened by exposure to noise. The variability is not merely random error, but reflects individual differences in adaptation or habituation, and also interpretation of the meaning of the sounds. Such

factors cannot be estimated from the purely acoustic measures in noise exposure.

Another major review, by Griefahn and Muzet (1978), provided similar information for effects of noise on waking. However, Griefahn and Muzet's results suggested less waking for a given level of noise than predicted by Lukas.

A recent review (Pearsons et al. 1989) of the literature related to sleep disturbance demonstrated that the relationship, based exclusively on laboratory studies, predicts greater sleep disturbance than that likely to occur in a real-life situation in which some adaptation has occurred. The prediction relationships developed in this review should not be considered to yield precise estimates of sleep disturbance because of the great variability in the data sets from which they were developed. The relationships include only the duration and level components of "noise exposure." Increasing the precision of prediction would depend on quantification of some of the nonacoustic factors. Further, a recent review of field, as well as laboratory studies, suggests that habituation may reduce the effect of noise on sleep (Pearsons et al. 1989).

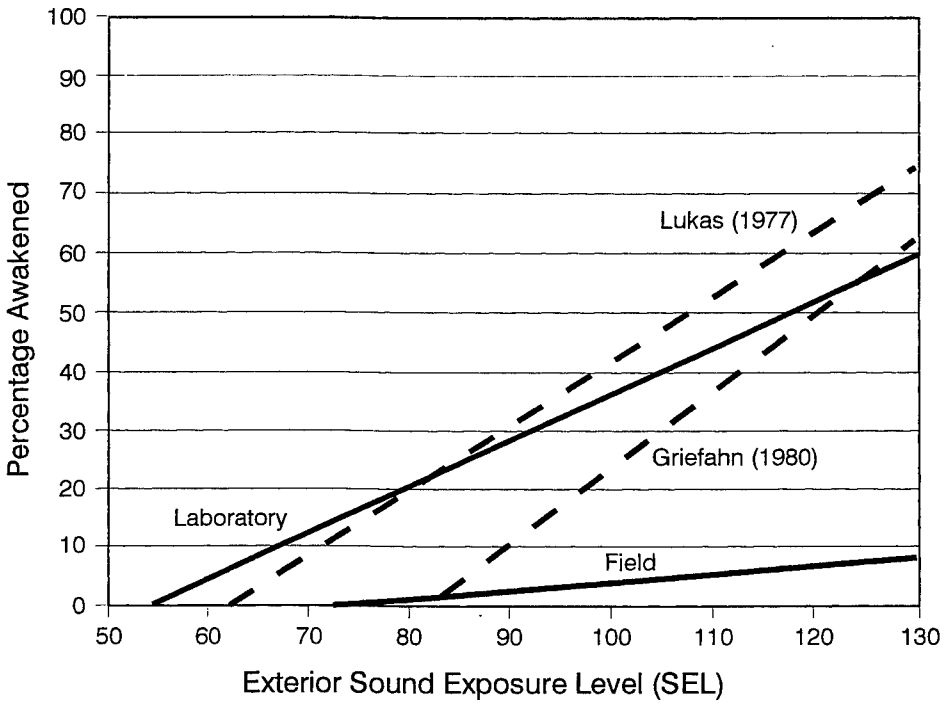
Noise must penetrate the home to disturb sleep. Interior noise levels are lower than exterior levels due to the attenuation of the sound energy by the structure. The amount of attenuation provided by the building is dependent on the type of construction and whether the windows are open or closed. The approximate national average attenuation factors are 15 dB (decibels) for open windows and 25 dB for closed windows (U.S. Environmental Protection Agency 1974).

Incorporating these attenuation factors, the percent awakened relationships previously discussed under summer conditions are presented in Figure H-3.

In conclusion, the scientific literature does not provide a consensus on sleep disturbance. There is no recognized criteria or standard that provides guidance to assess sleep disturbance due to noise.

### 4.4 NOISE-INDUCED HEARING LOSS

Hearing loss is measured in decibels and refers to the permanent auditory threshold shift of an individual's hearing in an ear. Auditory threshold refers to the minimum acoustic signal that evokes an auditory sensation, i.e., the quietest sound a person can hear. When a threshold shift occurs, a person's hearing is not as sensitive as before and the minimum sound that a person can hear must be louder. The threshold shift that naturally occurs with age is called presbycusis. Exposure to high levels of sound can cause temporary and permanent threshold shifts usually referred to a noise-induced hearing




Source: Pearsons (1985)

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**Sleep Disruption (Awakening)**

**Figure H-3**

loss. Permanent hearing loss is generally associated with destruction of the hair cells of the inner ear.

The U.S. EPA (1974) and the Committee on Hearing, Bioacoustics, and Biomechanics (National Academy of Sciences 1981) have addressed the risk of outdoor hearing loss. They have concluded that hearing loss would not be expected for people living outside the noise contour of 75 DNL. Several studies of populations near existing airports in the United States and the United Kingdom have shown that the possibility for permanent hearing loss in communities near intense commercial take-off and landing patterns is remote. An FAA-funded study compared the hearing of the population near the Los Angeles International Airport to that of the population in a quiet area away from aircraft noise (Parnel et al. 1972). A similar study was performed in the vicinity of London Heathrow Airport (Ward *et al.* 1972). Both studies concluded that there was no significant difference between the hearing loss of the two populations, and no correlation between the hearing level with the length of time people lived in the airport neighborhood.

## 4.5 NONAUDITORY HEALTH EFFECTS OF RESIDENTIAL AIRPORT NOISE

Based on summaries of previous research in the field (Thompson 1981; Thompson and Fidell 1989), predictions of nonauditory health effects of aircraft noise cannot be made. A valid predictive procedure requires: (1) evidence for causality between aircraft noise exposure and adverse nonauditory health consequences, and (2) knowledge of a quantitative relationship between amounts of noise exposure (dose) and specific health effects. Because results of studies of aircraft noise on health are equivocal, there is no sound scientific basis for making adequate risk assessments.

Alleged nonauditory health consequences of aircraft noise exposure that have been studied include birth defects, low birth weight, psychological illness, cancer, stroke, hypertension, sudden cardiac death, myocardial infraction, and cardiac arrhythmias. Of these, hypertension is the most biologically plausible effect of noise exposure. Noise appears to cause many of the same biochemical and physiological reactions, including temporary elevation of blood pressure, as do many other environmental stressors. These temporary increases in blood pressure are believed to lead to a gradual resetting of the body's blood pressure control system. Over a period of years, permanent hypertension may develop (Peterson et al. 1984).

Studies of residential aircraft noise have produced contradictory results. Early investigations indicated that hypertension was from two to four times higher in areas near airports than in areas located away from airports (Karogodina *et al.* 1969). Although Meecham and Shaw (1988) continue to report excessive cardiovascular mortality among individuals 75 years or older living near the Los Angeles International Airport, their findings cannot be replicated

(Frerichs *et al.* 1980). In fact, noise exposure increased over the years while there was a decline in all cause, age-adjusted death rates and inconsistent changes in age-adjusted cardiovascular, hypertension, and cerebrovascular disease rates.

Studies that have controlled for multiple factors have shown no, or a very weak, association between noise exposure and nonauditory health effects. This observation holds for studies of occupational and traffic noise as well as for aircraft noise exposure. In contrast to the early reports of two- to six-fold increases in hypertension due to high industrial noise (Thompson and Fidell 1989), the more rigorously controlled studies of Talbott *et al.* (1985) and van Dijk *et al.* (1987) show no association between hypertension and prolonged exposure to high levels of occupational noise.

In the aggregate, studies indicate no association exists between street traffic noise and blood pressure or other cardiovascular changes. Two large prospective collaborative studies of heart disease are of particular interest. To date, cross-sectional data from these cohorts offer contradictory results. Data from one cohort show a slight increase in mean systolic blood pressure (2.4mm Hg) in the noisiest compared to the quietest area; while data from the second cohort show the lowest mean systolic blood pressure and highest high-density lipoprotein cholesterol (lipoprotein protective of heart disease) for men in the noisiest area (Babisch and Gallacher 1990). These effects of traffic noise on blood pressure and blood lipis were more pronounced in men who were also exposed to high levels of noise at work.

It is clear from the foregoing that the current state of technical knowledge cannot support inference of a causal or consistent relationship, nor a quantitative dose-response between residential aircraft noise exposure and health consequences. Thus, no technical means are available for predicting extra-auditory health effects of noise exposure. This conclusion cannot be construed as evidence of no effect of residential aircraft noise exposure on nonauditory health. Current findings, taken in sum, indicate only that further rigorous studies are needed.

## 4.6 DOMESTIC ANIMALS AND WILDLIFE

A recent study was published on the effects of aircraft noise on domestic animals which provided a review of the literature and a review of 209 claims pertinent to aircraft noise over a period spanning 32 years (Bowles *et al.* 1990). Studies since the late 1950s were motivated both by public concerns about what was at that time a relatively novel technology, supersonic flight, and by claims leveled against the U.S. Air Force for damage done to farm animals by very low-level subsonic overflights. Since that time, over 40 studies of aircraft noise and sonic booms, both in the United States and overseas, have addressed acute effects, including effects of startle responses

(sheep, horses, cattle, fowl) and effects on reproduction and growth (sheep, cattle, fowl, swine), parental behaviors (fowl, mink), milk letdown (dairy cattle, dairy goats, swine), and egg production.

The literature on the effects of noise on domestic animals is not large, and most of the studies have focused on the relation between dosages of continuous noise and effects (Ames 1974; Belanovski and Omel'yanenko 1982). Chronic noises are not a good model for aircraft noise, which lasts only a few seconds, but which is often very startling. The review of claims suggest that a major source of loss was panic induced in animals.

Aircraft noise may have effects because it might trigger a startle response, a sequence of physiological and behavioral events that once helped animals avoid predators. There are good dose-response relations describing the tendency to startle to various levels of noise, and the effect of habituation on the startle response.

The link between startles and serious effects (i.e., effects on productivity), is less certain. An effect can be defined as any change in a domestic animal that alters its economic value, including changes in body weight or weight gain, number of young produced, weight of young produced, fertility, milk production, general health, longevity, or tractability. At this point, changes in productivity are usually considered an adequate indirect measure of changes in well being, at least until objective legal guidelines are provided.

Recent focus on the effects on production runs counter to a trend in the literature toward measuring the relation between noise and physiological effects, such as changes in corticosteroid levels, and in measures of immune system function. As a result, it is difficult to determine the relation between dosages of noise and serious effects using only physiological measures. A literature survey (Kull and Fisher 1986) found that the literature is inadequate to document long-term or subtle effects of noise on animals. No controlled study has documented any serious accident or mortality in livestock despite extreme exposure to noise.

## 4.7 LAND USE COMPATIBILITY GUIDELINES

Widespread concern about the noise impacts of aircraft noise essentially began in the 1950s with the major introduction of high power jet aircraft into military service. The concern about noise impacts in the communities around airbases, and also within the airbases themselves, led the Air Force to conduct major investigations into the noise properties of jets, methods of noise control for test operations, and the effects of noise from aircraft operations in communities surrounding airbases. These studies established an operational framework of investigation and identified the basic parameters affecting community response to noise. These studies also resulted in the

first detailed procedures for estimating community response to aircraft noise (Stevens and Pietrasanta 1957).

Although most attention was given to establishing methods of estimating residential community response to noise (and establishing the conditions of noise "acceptability" for residential use), community development involves a variety of land uses with varying sensitivity to noise. Thus, land planning, with respect to noise, requires the establishment of noise criteria for different land uses. This need was met with the initial development of aircraft noise compatibility guidelines for varied land uses in the mid-1960s (Bishop 1964).

In residential areas, noise intrusions generate feelings of annoyance on the part of individuals. Increasing degrees of annoyance lead to the increasing potential for complaints and community actions (most typically, threats of legal actions, drafting of noise ordinances, etc.). Annoyance is based largely on noise interference with speed communication, listening to radio and television, and sleep. Annoyance in the home may also be based on dislike of "outside" intrusions of noise even though no specific task is interrupted.

Residential land use guidelines have developed from consideration of two related factors:

(1) Accumulated case history experience of noise complaints and community actions near civil and military airports; and

(2) Relationships between environmental noise levels and degrees of annoyance (largely derived from social surveys in a number of communities).

In the establishment of land use guidelines for other land uses, the prime consideration is task interference. For many land uses, this translates into the degree of speech interference, after taking into consideration the importance of speech communication and the presence of nonaircraft noise sources related directly to the specific land use considered. For some noise-sensitive land uses where any detectable noise signals that rise above the ambient noise are unwanted (such as music halls), detectability may be the criterion rather than speech interference.

A final factor to be considered in all land uses involving indoor activities is the degree of noise insulation provided by the building structures. The land use guideline limits for unrestricted development within a specific land use assumes noise insulation properties provided by typical commercial building construction. The detailed land use guidelines may also define a range of higher noise exposure where construction or development can be undertaken, provided a specific amount of noise insulation is included in the buildings. Special noise studies, undertaken by architectural or engineering specialists,

may be needed to define the special noise insulation requirements for construction in these guideline ranges.

Estimates of total noise exposure resulting from aircraft operations, as expressed in DNL values, can be interpreted in terms of the probable effect on land uses. Suggested compatibility guidelines for evaluating land uses in aircraft noise exposure areas were originally developed by the FAA as presented in Section 3.4.4, Noise. Part 150 of the FAA regulations prescribes the procedures, standards, and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs. It prescribes the use of yearly DNL in the evaluation of airport noise environments. It also identifies those land use types that are normally compatible with various levels of noise exposure. Compatible or incompatible land use is determined by comparing the predicted or measured DNL level at a site with the values given in the table. The guidelines reflect the statistical variability of the responses of large groups of people to noise. Therefore, any particular level might not accurately assess an individual's perception of an actual noise environment.

While the FAA guidelines specifically apply to aircraft noise, it should be noted that DNL is also used to describe the noise environment due to other community noise sources, including motor vehicles and railroads. The use of DNL is endorsed by the scientific community to assess land use compatibility as it pertains to noise (American National Standards Institute 1990). Hence, the land use guidelines presented by the FAA can also be used to assess the noise impact from community noise sources other than aircraft.

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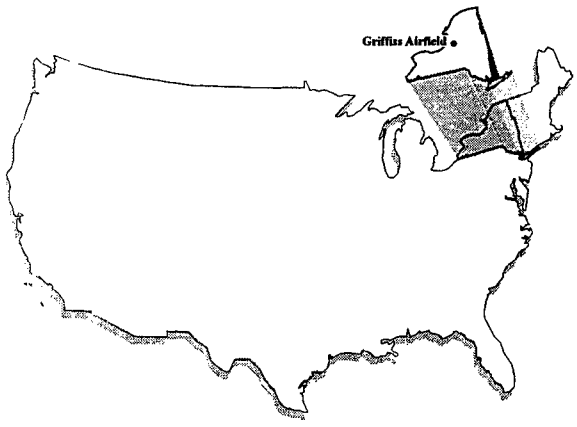
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# APPENDIX I

# APPENDIX I

# AIR EMISSIONS INVENTORY

**Construction Emissions.** Construction activities would generate both combustive emissions from heavy equipment use and fugitive dust from ground-disturbing activities. Fugitive dust would be generated during construction activities associated with airfield, aviation support, industrial, institutional, commercial, residential, and public/recreational land uses. These emissions would be greatest during site clearing and grading activities. Uncontrolled fugitive dust (particulate matter) emissions from ground-disturbing activities are emitted at a rate of 1.2 tons per acre per month (U.S. Environmental Protection Agency 1985a). The particulate matter equal to or less than 10 micrometers in diameter ($PM_{10}$) of the total fugitive dust emissions was assumed to be 50 percent or 0.6 ton per acre per month. It was assumed that there are 22 working days per month.

Construction for the Proposed Action would disturb approximately 15 acres between 1999 and 2001. For the Proposed Action years 1999 to 2001, it was assumed that all disturbance would occur in one year. $PM_{10}$ emissions were calculated as follows:

Average Monthly Disturbed Acreage

$$\frac{16 \text{ acres disturbed}}{1 \text{ year}} \times \frac{1 \text{ year}}{12 \text{ months}} = 1.3 \text{ acres/month}$$

Average Daily $PM_{10}$ Emissions

$$\frac{1.3 \text{ acres}}{\text{month}} \times \frac{1.2 \text{ tons } PM_{10}}{\text{acre}} \times 0.5 = 0.78 \text{ tons } PM_{10}\text{/month}$$

$$\frac{0.78 \text{ tons } PM_{10}}{\text{month}} \times \frac{\text{month}}{22 \text{ days}} = 0.035 \text{ ton } PM_{10}\text{/day}$$

Therefore, the amount of $PM_{10}$ emitted would be 0.035 ton per day for 1999 to 2001. These temporary emissions would produce short-term elevated $PM_{10}$ concentrations which would fall off rapidly with distance from the source. Similar calculations for fugitive dust emissions were performed for construction activities related to the other alternatives and for the 2001 to 2016 time period.

$PM_{10}$ emissions from demolition were estimated from the approximate volumes of the buildings to be demolished and an emission factor for $PM_{10}$ emissions from building demolition (South Coast Air Quality Management District 1993). With the Proposed Action, a total of 57,385 square feet of facilities would be demolished. It was assumed that all demolition would occur over one year.

$PM_{10}$ emissions were calculated as follows:

Building Volume Destroyed Per Month

$$\frac{\text{57,385 square feet X 10 feet high}}{\text{1 year X 12 months/year}} = \text{47,821 cubic feet/month}$$

$$\frac{\text{47,821 cubic feet/month}}{\text{22 days/month}} = \text{2,174 cubic feet/day}$$

$$\frac{\text{0.00042 pounds of } PM_{10}}{\text{cubic feet}} \text{ X } \frac{\text{2,174 cubic feet/day}}{\text{2,000 pounds/ton}} = \text{0.001 ton } PM_{10}\text{/day}$$

Therefore, 0.001 ton of $PM_{10}$ would be emitted as a result of demolition activities. Similar calculations for $PM_{10}$ emissions were performed for the other alternatives.

Combustive emissions from equipment exhaust were estimated by developing scenarios of typical daily construction equipment usage for the Proposed Action for the 1999 to 2001 and 2001 to 2006 construction time periods. The type and number of construction equipment used for this analysis are presented in Table I-1. It was assumed that the construction equipment operated 5 hours per day. Emission factors for the construction equipment were obtained from *Compilation of Air Pollutant Emission Factors, AP-42* (U.S. Environmental Protection Agency 1985b). Exhaust emissions for the alternatives were obtained from the Proposed Action emissions by scaling them in proportion to the disturbed construction areas.

**Table I-1**

**Typical Daily Construction Equipment Assumed for the Proposed Action**

| | Number | | |
|---|---|---|---|
| Equipment | 1999-2001 | 2001-2006 | 2006-2016 |
| Off-highway truck | 4 | 2 | 0 |
| On-highway truck | 1 | 1 | 1 |
| Tracked tractor | 2 | 1 | 1 |
| Wheeled loader | 2 | 2 | 1 |
| Wheeled tractor | 1 | 1 | 1 |
| Motor grader | 1 | 1 | 1 |
| Miscellaneous | 3 | 2 | 1 |

**Aircraft Operations.** Emissions were calculated for aircraft operations associated with the proposed air freight and aircraft maintenance activities for both the Proposed Action and the Private Airfield Alternative. In addition, civilian passenger and general aviation aircraft operations transferred to the airfield at Griffiss AFB with the relocation of the Oneida County Airport as described for the Proposed Action were also considered. All aircraft emissions were calculated with the Emissions and Dispersion Modeling System (EDMS) model (CSSI 1997), which contains a built-in data base of U.S.

Environmental Protection Agency (EPA) AP-42 emission factors for various types of aircraft and refueling activities. EDMS was then used to calculate downward pollutant concentrations that would occur from each alternative. Table I-2 shows the breakdown of air operations in 2016.

**Table I-2**

**Assignment of Aircraft Operations (2016)**

| Aircraft ID | Aircraft Description | Track | Runway | Annual Takeoffs | | Annual Landings | | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | Day | Night | Day | Night | |
| **PROPOSED ACTION** | | | | | | | | |
| BEC190 | Beech 1900 | Straight | 33 | 3,595 | 399 | 3,595 | 399 | 7,988 |
| CNA172 | Cessna 172 | Straight | 33 | 9,915 | 202 | 9,915 | 202 | 20,234 |
| BEC23 | Beech Model 23 | Straight | 33 | 4,226 | 110 | 4,226 | 110 | 8,672 |
| 747-200 | B747-200/JT9D-7 | Straight | 33 | 324 | 36 | 324 | 36 | 720 |
| 737-300 | B737-300/CFM56-3B-1 | Straight | 33 | 748 | 83 | 748 | 83 | 1,662 |
| BEC190 | Beech 1900 | Straight | 15 | 3,595 | 399 | 3,595 | 399 | 7,988 |
| CNA172 | Cessna 172 | Straight | 15 | 9,915 | 202 | 9,915 | 202 | 20,234 |
| BEC23 | Beech Model 23 | Straight | 15 | 4,226 | 110 | 4,226 | 110 | 8,672 |
| 747-200 | B747-200/JT9D-7 | Straight | 15 | 324 | 36 | 324 | 36 | 720 |
| 747-300 | B737-300/CFM56-3B-1 | Straight | 15 | 747 | 83 | 747 | 83 | 1,660 |
| | | | **Total Operations** | **37,615** | **1,660** | **37,615** | **1,660** | **78,550** |
| **PRIVATE AIRFIELD ALTERNATIVE** | | | | | | | | |
| CNA172 | Cessna 172 | Straight | 33 | 2,479 | 51 | 2,479 | 51 | 5,059 |
| BEC23 | Beech Model 23 | Straight | 33 | 1,057 | 28 | 1,057 | 28 | 2,168 |
| 747-200 | B747-200/JT9D-7 | Straight | 33 | 324 | 36 | 324 | 36 | 720 |
| 737-300 | B737-300/CFM56-3B-1 | Straight | 33 | 234 | 26 | 234 | 26 | 520 |
| CNA172 | Cessna 172 | Straight | 15 | 2,479 | 51 | 2,479 | 51 | 5,059 |
| BEC23 | Beech Model 23 | Straight | 15 | 1,057 | 28 | 1,057 | 28 | 2,168 |
| 747-200 | B747-200/JT9D-7 | Straight | 15 | 324 | 36 | 324 | 36 | 720 |
| 747-300 | B737-300/CFM56-3B-1 | Straight | 15 | 234 | 26 | 234 | 26 | 520 |
| | | | **Total Operations** | **8,187** | **280** | **8,187** | **280** | **16,933** |

**Vehicle Emission Calculations.** Vehicle emissions were obtained through the use of vehicle daily trip generation for the Proposed Action and alternatives (Table 4.2-4 in Chapter 4.0). The average trip length was assumed to be 12 miles. Pollutant emission factors for the years 2001, 2006, and 2016 were obtained from the EPA Mobile Source Emission Factor Model (MOBILE 5a) (1993).

**General Conformity Determination.** As discussed in Section 3.4.3, Oneida County is designated as an attainment area for all pollutants. Therefore, a general conformity determination would not be required for these activities.

**Results.** The results of the emission calculations for the years 2001, 2006, 2016 are presented in Tables I-3 through I-7. Each table shows the emissions for a specific pollutant for the Proposed Action and the two alternatives. Sources are grouped into the following classes:

- Construction;

- Aircraft operations;
- Aircraft support equipment; and
- Motor vehicles.

Information regarding facility industrial processes was not known, and therefore, not included in the emission estimates.

**Table I-3**

**Airfield Property at Griffiss AFB**
**Emissions Inventory for Particulate Matter ($PM_{10}$)**
**(tons/day)**

| | Proposed Action | | | Private Airfield Alternative | | | Nonaviation Alternative | | |
|---|---|---|---|---|---|---|---|---|---|
| Source | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 |
| Construction | 0.042 | 0.018 | 0.011 | 0.041 | 0.014 | 0.010 | 0.041 | 0.041 | 0.075 |
| Aircraft Operations | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | NA | NA | NA |
| Aircraft Support Equipment | 0.000 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | NA | NA | NA |
| Motor Vehicles | NC | NC | NC | NC | NC | NC | NC | NC | NC |
| **Total:** | **0.042** | **0.019** | **0.012** | **0.041** | **0.014** | **0.010** | **0.041** | **0.041** | **0.075** |

Notes: NA = Not applicable.
NC = Not calculated, emission factor not available.

**Table I-4**

**Airfield Property at Griffiss AFB**
**Emissions Inventory for Sulfur Oxides**
**(tons/day)**

| | Proposed Action | | | Private Airfield Alternative | | | Nonaviation Alternative | | |
|---|---|---|---|---|---|---|---|---|---|
| Source | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 |
| Construction | 0.007 | 0.004 | 0.002 | 0.006 | 0.003 | 0.002 | 0.006 | 0.006 | 0.009 |
| Aircraft Operations | 0.004 | 0.005 | 0.006 | 0.002 | 0.003 | 0.005 | NA | NA | NA |
| Aircraft Support Equipment | 0.000 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | NA | NA | NA |
| Motor Vehicles | NC | NC | NC | NC | NC | NC | NC | NC | NC |
| **Total:** | **0.011** | **0.010** | **0.009** | **0.008** | **0.006** | **0.007** | **0.006** | **0.006** | **0.009** |

Notes: NA = Not applicable.
NC = Not calculated, emission factor not available.
NP = Not present.

**Table I-5**

**Airfield Property at Griffiss AFB**
**Emissions Inventory for Carbon Monoxide**
**(tons/day)**

| | Proposed Action | | | Private Airfield Alternative | | | Nonaviation Alternative | | |
|---|---|---|---|---|---|---|---|---|---|
| Source | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 |
| Construction | 0.038 | 0.024 | 0.014 | 0.033 | 0.015 | 0.014 | 0.033 | 0.035 | 0.059 |
| Aircraft Operations | 0.340 | 0.576 | 0.625 | 0.188 | 0.261 | 0.356 | NA | NA | NA |
| Aircraft Support Equipment | 0.208 | 0.435 | 0.469 | 0.024 | 0.058 | 0.074 | NA | NA | NA |
| Motor Vehicles | 0.168 | 0.359 | 0.397 | 0.092 | 0.203 | 0.231 | 0.355 | 0.697 | 1.369 |
| **Total:** | **0.754** | **1.394** | **1.505** | **0.337** | **0.537** | **0.675** | **0.388** | **0.732** | **1.428** |

Notes: NA = Not applicable.
NP = Not present.

**Table I-6**

**Airfield Property at Griffiss AFB**
**Emissions Inventory for Volatile Organic Compounds**
**(tons/day)**

| | Proposed Action | | | Private Airfield Alternative | | | Nonaviation Alternative | | |
|---|---|---|---|---|---|---|---|---|---|
| Source | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 |
| Construction | 0.008 | 0.005 | 0.003 | 0.007 | 0.003 | 0.003 | 0.006 | 0.007 | 0.010 |
| Aircraft Operations | 0.072 | 0.096 | 0.107 | 0.059 | 0.070 | 0.109 | NA | NA | NA |
| Aircraft Support Equipment | 0.005 | 0.009 | 0.010 | 0.001 | 0.002 | 0.002 | NA | NA | NA |
| Motor Vehicles | 0.048 | 0.101 | 0.095 | 0.026 | 0.051 | 0.055 | 0.100 | 0.197 | 0.327 |
| **Total:** | **0.133** | **0.211** | **0.215** | **0.093** | **0.126** | **0.169** | **0.106** | **0.204** | **0.337** |

Notes: NP = Not present.

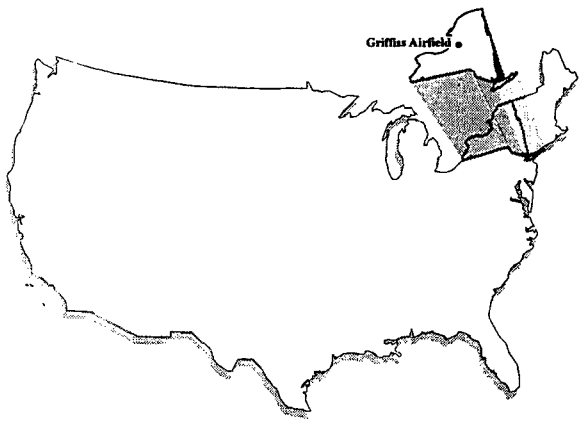
**Table I-7**

**Airfield Property at Griffiss AFB**
**Emissions Inventory for Nitrogen Oxides**
**(tons/day)**

| | Proposed Action | | | Private Airfield Alternative | | | Nonaviation Alternative | | |
|---|---|---|---|---|---|---|---|---|---|
| Source | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 | 2001 | 2006 | 2016 |
| Construction | 0.041 | 0.025 | 0.014 | 0.035 | 0.015 | 0.014 | 0.033 | 0.034 | 0.047 |
| Aircraft Operations | 0.079 | 0.112 | 0.128 | 0.066 | 0.083 | 0.121 | NA | NA | NA |
| Aircraft Support Equipment | 0.013 | 0.025 | 0.027 | 0.004 | 0.005 | 0.007 | NA | NA | NA |
| Motor Vehicles | 0.029 | 0.063 | 0.069 | 0.016 | 0.035 | 0.040 | 0.062 | 0.122 | 0.238 |
| **Total:** | **0.162** | **0.225** | **0.238** | **0.121** | **0.138** | **0.182** | **0.095** | **0.156** | **0.285** |

Notes: NA = Not applicable.

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# APPENDIX J

# APPENDIX J

# ENVIRONMENTAL IMPACTS OF GRIFFISS AIR FORCE BASE REALIGNMENT AND REUSE BY LAND USE CATEGORY

The purpose of this appendix is to quantify the environmental impacts of each land use category identified for the alternatives, including the Proposed Action, evaluated in this Supplemental Environmental Impact Statement (SEIS). The data in Tables J-1 through J-17 present the impacts of activities in individual land use categories, such as industrial, commercial, or aviation support, on their respective Regions of Influence, as well as compare the impacts of the Proposed Action and alternatives for three benchmark years, 2001, 2006, and 2016, where applicable.

Tables J-1 through J-4 present data on the influencing factors (factors that drive environmental impacts); Tables J-5 through J-17 list the impacts on individual environmental resources evaluated in the SEIS. These resources include transportation, utilities, hazardous substances management, soils and geology, water resources, air quality, noise, biological resources, and cultural and paleontological resources. Included in this appendix is at least one table for each resource area, except water resources. Data on water demand are presented as part of the utilities analysis; the effects on surface and groundwater resources in and around the base have not been quantified in the SEIS and have not been disaggregated in this appendix.

No quantification is provided in Table J-11 (Hazardous Materials Use by Land Use Category) because the quantities of hazardous materials used will depend on the type and intensity of industrial and commercial activities developed on the site. Table J-11 presents a generalized description of the hazardous materials that could be used under individual land use categories. Table J-12 summarizes the number of identified Installation Restoration Program (IRP) sites within each land use category (see Section 3.3.3), but does not give the likely status of these sites in 2001, 2006, and 2016. It is expected that most of the sites will be remediated by the first benchmark year (2001).

A number of factors and assumptions were used in disaggregating the total impacts of an alternative to individual land use categories. These are presented as footnotes on the relevant tables.

Table J-1

Total New Employment by Land Use Category*

| Land Use Category | 2001 Proposed Action | 2001 Private Airfield Alternative | 2001 Nonaviation Alternative | 2006 Proposed Action | 2006 Private Airfield Alternative | 2006 Nonaviation Alternative | 2016 Proposed Action | 2016 Private Airfield Alternative | 2016 Nonaviation Alternative |
|---|---|---|---|---|---|---|---|---|---|
| Aviation Support | 292 | 264 | 0 | 740 | 785 | 0 | 1,065 | 1,030 | 0 |
| Industrial | 112 | 112 | 536 | 285 | 221 | 1,064 | 410 | 434 | 2,108 |
| Manufacturing | 0 | 0 | 1,323 | 0 | 0 | 2,625 | 0 | 0 | 5,199 |
| Commercial | 0 | 0 | 1,079 | 0 | 0 | 2,140 | 0 | 0 | 4,238 |
| Public/Recreational | 15 | 15 | 35 | 37 | 27 | 70 | 53 | 54 | 138 |
| Construction Phase | 26 | 19 | 103 | 67 | 10 | 99 | 96 | 0 | 0 |
| **Total:** | **445** | **410** | **3,076** | **1,129** | **1,043** | **5,999** | **1,624** | **1,518** | **11,682** |

Note: *Total new employment includes direct and secondary employment.

Table J-2

New Direct Employment by Land Use Category

| Land Use Category | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Aviation Support | 200 | 181 | 0 | 600 | 544 | 0 | 800 | 725 | 0 |
| Industrial | 77 | 77 | 318 | 153 | 153 | 636 | 306 | 306 | 1,271 |
| Manufacturing | 0 | 0 | 783 | 0 | 0 | 1,567 | 0 | 0 | 3,134 |
| Commercial | 0 | 0 | 639 | 0 | 0 | 1,278 | 0 | 0 | 2,555 |
| Public/Recreational | 10 | 10 | 21 | 19 | 19 | 42 | 38 | 38 | 83 |
| Construction Phase | 18 | 13 | 61 | 11 | 7 | 59 | 0 | 0 | 0 |
| **Total:** | **305** | **281** | **1,822** | **783** | **723** | **3,582** | **1,144** | **1,069** | **7,043** |

Table J-3

Population Inmigration by Land Use Category

| Land Use Category | 2001 Proposed Action | 2001 Private Airfield Alternative | 2001 Nonaviation Alternative | 2006 Proposed Action | 2006 Private Airfield Alternative | 2006 Nonaviation Alternative | 2016 Proposed Action | 2016 Private Airfield Alternative | 2016 Nonaviation Alternative |
|---|---|---|---|---|---|---|---|---|---|
| Aviation Support | 104 | 95 | 0 | 461 | 488 | 0 | 1,085 | 1,048 | 0 |
| Industrial | 41 | 41 | 167 | 177 | 138 | 570 | 417 | 442 | 1,837 |
| Manufacturing | 0 | 0 | 411 | 0 | 0 | 1,406 | 0 | 0 | 4,531 |
| Commercial | 0 | 0 | 336 | 0 | 0 | 1,146 | 0 | 0 | 3,694 |
| Public/Recreational | 5 | 5 | 11 | 23 | 17 | 38 | 54 | 55 | 120 |
| Construction Phase | 9 | 7 | 32 | 41 | 6 | 53 | 98 | 0 | 0 |
| **Total:** | **159** | **147** | **957** | **703** | **649** | **3,213** | **1,654** | **1,545** | **10,182** |

Table J-4

Projected Land Use Infill (acres) by Land Use Category*

| Land Use Category | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Airfield | 127 | 133 | <1 | 430 | 393 | <1 | 605 | 605 | 1 |
| Aviation Support | 89 | 94 | 0 | 302 | 276 | 0 | 425 | 425 | 0 |
| Industrial | 16 | 17 | 38 | 55 | 50 | 75 | 77 | 77 | 150 |
| Manufacturing | 0 | 0 | 93 | 0 | 0 | 185 | 0 | 0 | 370 |
| Commercial | 0 | 0 | 46 | 0 | 0 | 92 | 0 | 0 | 183 |
| Public/Recreational | 118 | 123 | 216 | 398 | 365 | 431 | 561 | 561 | 862 |
| Agricultural | 3 | 3 | 12 | 9 | 8 | 12 | 12 | 12 | 114 |
| **Total:** | **353** | **370** | **420** | **1,193** | **1,092** | **840** | **1,680** | **1,680** | **1,680** |

Note: *All Proposed Action infill for each land use category was assumed to reach 21 percent in 2001, 61 percent in 2006, and 100 percent in 2016; with the Private Airfield Alternative it was assumed to reach 22 percent in 2006, 65 percent in 2006, and 100 percent in 2016; with the Nonaviation Alternative it was assumed to reach 25 percent in 2001, 50 percent in 2006, and 100 percent in 2016.

Table J-5

Transportation Impacts by Land Use Category
(average daily one-way trips generated)

| | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use Category | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Airfield | 1,463 | 316 | 0 | 2,957 | 638 | 0 | 3,180 | 686 | 0 |
| Aviation Support | 957 | 867 | 0 | 2,393 | 2,168 | 0 | 2,393 | 2,168 | 0 |
| Industrial | 197 | 197 | 990 | 394 | 394 | 1,980 | 787 | 787 | 3,960 |
| Manufacturing | 0 | 0 | 2,441 | 0 | 0 | 4,883 | 0 | 0 | 9,766 |
| Commercial | 0 | 0 | 1,967 | 0 | 0 | 3,934 | 0 | 0 | 7,868 |
| Public/Recreational | 38 | 38 | 223 | 76 | 76 | 445 | 152 | 152 | 891 |
| Construction Phase | 65 | 65 | 220 | 40 | 40 | 212 | 0 | 0 | 0 |
| **Total:** | **2,720** | **1,483** | **5,841** | **5,860** | **3,316** | **11,454** | **6,512** | **3,793** | **22,485** |

Table J-6

Water Demand by Land Use Category[1]
(Million gallons per day)

| Land Use Category | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Aviation Support | 0.0183 | 0.0166 | 0.0000 | 0.0768 | 0.0695 | 0.0000 | 0.1595 | 0.1445 | 0.0000 |
| Industrial | 0.0067 | 0.0067 | 0.0280 | 0.0201 | 0.0201 | 0.0835 | 0.0595 | 0.0595 | 0.2471 |
| Manufacturing | 0.0000 | 0.0000 | 0.0691 | 0.0000 | 0.0000 | 0.2060 | 0.0000 | 0.0000 | 0.6093 |
| Commercial | 0.0000 | 0.0000 | 0.1210 | 0.0000 | 0.0000 | 0.2341 | 0.0000 | 0.0000 | 0.5734 |
| Public/Recreational | 0.0060 | 0.0060 | 0.0131 | 0.0078 | 0.0078 | 0.0172 | 0.0142 | 0.0142 | 0.0311 |
| Other[2] | 0.0024 | 0.0021 | 0.0158 | 0.0033 | 0.0028 | 0.0223 | 0.0034 | 0.0032 | 0.0232 |
| **Total:** | **0.0335** | **0.0315** | **0.2470** | **0.1081** | **0.1002** | **0.5632** | **0.2366** | **0.2214** | **1.4841** |

Notes: [1]Water demand is the sum of onbase new employee requirements plus inmigration requirements associated with each land use category.
[2]Other = fire and landscaping.

Table J-7

Wastewater Generation by Land Use Category[1]
(million gallons per day)

| Land Use Category | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Aviation Support | 0.0172 | 0.0156 | 0.0000 | 0.0745 | 0.0674 | 0.0000 | 0.1555 | 0.1409 | 0.0000 |
| Industrial | 0.0067 | 0.0067 | 0.0280 | 0.0201 | 0.0201 | 0.0835 | 0.0595 | 0.0595 | 0.2471 |
| Manufacturing | 0.0000 | 0.0000 | 0.0691 | 0.0000 | 0.0000 | 0.2060 | 0.0000 | 0.0000 | 0.6093 |
| Commercial | 0.0000 | 0.0000 | 0.0617 | 0.0000 | 0.0000 | 0.1639 | 0.0000 | 0.0000 | 0.4712 |
| Public/Recreational | 0.0033 | 0.0033 | 0.0072 | 0.0049 | 0.0049 | 0.0109 | 0.0104 | 0.0104 | 0.0228 |
| Other[2] | 0.0021 | 0.0017 | 0.0093 | 0.0028 | 0.0023 | 0.0147 | 0.0026 | 0.0024 | 0.0122 |
| **Total:** | **0.0293** | **0.0274** | **0.1753** | **0.1023** | **0.0947** | **0.4790** | **0.2280** | **0.2132** | **1.3626** |

Notes: [1]Wastewater generation is the sum of onbase new employees' generation and inmigration generation associated with each land use category.
[2]Other = Provision for testing, cleaning, etc.

Table J-8

Solid Waste Generation by Land Use Category[1]
(tons per day)

| Land Use Category | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Aviation Support | 0.4011 | 0.3632 | 0.0000 | 0.9831 | 0.8910 | 0.0000 | 1.7902 | 1.6228 | 0.0000 |
| Industrial | 0.2574 | 0.2575 | 1.0701 | 0.5142 | 0.5140 | 2.1337 | 0.9907 | 0.9907 | 4.1151 |
| Manufacturing | 0.0000 | 0.0000 | 2.6390 | 0.0000 | 0.0000 | 5.2621 | 0.0000 | 0.0000 | 10.1486 |
| Commercial | 0.0000 | 0.0000 | 4.4123 | 0.0000 | 0.0000 | 5.6952 | 0.0000 | 0.0000 | 6.9954 |
| Public/Recreational | 0.1107 | 0.1107 | 0.2416 | 0.1247 | 0.1247 | 0.2712 | 0.1800 | 0.1800 | 0.3932 |
| Other[2] | 0.2898 | 0.2885 | 0.5164 | 0.0050 | 0.0032 | 0.0270 | 0.0000 | 0.0000 | 0.0000 |
| **Total:** | **1.0590** | **1.0198** | **8.8794** | **1.6270** | **1.5329** | **13.3893** | **2.9609** | **2.7935** | **21.6523** |

Notes: [1]Solid waste generation is the sum of onbase new employee generation plus inmigration population generation associated with each land use category.
[2]Solid waste generated by demolition of existing structures in various land use areas during the first 5-year period of the project.

Table J-9

Electricity Demand by Land Use Category[1]
(megaWatt-hours per day)

| | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use Category | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Airfield | 0.1012 | 0.1012 | 0.0000 | 0.2046 | 0.2046 | 0.0000 | 0.2200 | 0.2200 | 0.0000 |
| Aviation Support | 7.8081 | 7.0662 | 0.0000 | 24.4617 | 22.1218 | 0.0000 | 47.8156 | 43.2824 | 0.0000 |
| Industrial | 2.2207 | 2.2237 | 8.2009 | 5.7927 | 5.7857 | 22.1044 | 15.3643 | 15.3626 | 60.4855 |
| Manufacturing | 0.0000 | 0.0000 | 20.2251 | 0.0000 | 0.0000 | 54.5140 | 0.0000 | 0.0000 | 149.1697 |
| Commercial | 0.0000 | 0.0000 | 20.4102 | 0.0000 | 0.0000 | 44.0334 | 0.0000 | 0.0000 | 110.7566 |
| Public/Recreational | 0.1362 | 0.1366 | 0.3173 | 0.4471 | 0.4462 | 1.0174 | 1.4386 | 1.4384 | 3.1832 |
| Other[2] | 1.1952 | 1.0576 | 4.5791 | 2.1688 | 1.9244 | 7.2165 | 3.2300 | 2.9800 | 8.5300 |
| **Total:** | **11.4614** | **10.5852** | **53.7326** | **33.0750** | **30.4828** | **128.8858** | **68.0684** | **63.2834** | **332.1250** |

Notes: [1]Electricity demand is the sum of onbase new employee requirements plus inmigration household requirements associated with each land use category.
[2]Other = External lighting, losses, pumps, etc.

Table J-10

Natural Gas Demand by Land Use Category*
(therms per day)

| Land Use Category | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Airfield | 8.1000 | 8.1000 | 0.0000 | 8.1000 | 8.1000 | 0.0000 | 8.1000 | 8.1000 | 0.0000 |
| Aviation Support | 269.9485 | 244.2313 | 0.0000 | 801.0596 | 724.2979 | 0.0000 | 1,536.6315 | 1,390.4558 | 0.0000 |
| Industrial | 67.7375 | 66.5016 | 241.2638 | 170.6232 | 170.4150 | 651.5565 | 453.3615 | 453.3124 | 1,785.7876 |
| Manufacturing | 0.0000 | 0.0000 | 602.4262 | 0.0000 | 0.0000 | 1,631.7932 | 0.0000 | 0.0000 | 4,404.1173 |
| Commercial | 0.0000 | 0.0000 | 571.9734 | 0.0000 | 0.0000 | 1,271.7871 | 0.0000 | 0.0000 | 3,222.2609 |
| Public/Recreational | 5.2630 | 5.1808 | 9.2980 | 13.2368 | 13.2110 | 30.0194 | 42.5900 | 42.5839 | 94.1062 |
| **Total:** | **351.0490** | **324.0137** | **1,424.9614** | **993.0195** | **916.0239** | **3,585.1563** | **2,040.6830** | **1,894.4520** | **9,506.2720** |

Note: *Natural gas demand is the sum of onbase new employee requirements plus inmigration household requirements associated with each land use category.

Table J-11

Hazardous Materials Usage by Land Use Category

| Land Use Category | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
|---|---|---|---|
| Airfield | Aviation fuel, fuel oil, glycols | Same as Proposed Action | NA* |
| Aviation Support | Fuels, solvents, paints, hydraulic fluids, degreasers, corrosives, heavy metals, reactives, thinners, paints, glycols, ignitables, heating oil | Same as Proposed Action | NA |
| Industrial | Solvents, heavy metals, corrosives, catalysts, fuels, heating oil, ignitables, pesticides | Same as Proposed Action | Fuels, solvents, paints, hydraulic fluids, degreasers, corrosives, catalysts, heavy metals, reactives, thinners, paints, glycols, ignitables, pesticides, heating oil |
| Manufacturing | NA | NA | Fuels, solvents, paints, hydraulic fluids, degreasers, corrosives, catalysts, heavy metals, reactives, thinners, paints, glycols, ignitables, pesticides, heating oil |
| Commercial | NA | NA | Dry ink toners, solvents, cleaners, degreasers, adhesives, heating oil, pesticides |
| Public/Recreational | Pesticides, fertilizers, paints, thinners, solvents | Same as Proposed Action | Same as Proposed Action |
| Agricultural | Pesticides, herbicides, fungicides, fertilizers | Same as Proposed Action | Same as Proposed Action |

Note: NA = Not applicable

**Table J-12**

**Number of Installation Restoration Program Sites by Land Use Category**

| Land Use Category | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
|---|---|---|---|
| Airfield | 2 | Same as Proposed Action | NA* |
| Aviation Support | 7 | Same as Proposed Action | NA |
| Industrial | 3 | Same as Proposed Action | 4 |
| Manufacturing | NA | NA | 6 |
| Commercial | NA | NA | 0 |
| Public/Recreational | 2 | Same as Proposed Action | 3 |
| Agricultural | 0 | Same as Proposed Action | Same as Proposed Action |

Note: NA = Not applicable

Table J-13

Soils and Geology Impacts by Land Use Category
(acres of soil disturbed)

| | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use Category | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Aviation Support | 0.6 | 0.3 | 0.0 | 1.4 | 0.6 | 0.0 | 0.8 | 0.4 | 0.0 |
| Industrial | 2.2 | 2.3 | 7.2 | 4.7 | 4.1 | 7.2 | 2.8 | 3.3 | 14.5 |
| Manufacturing | 0.0 | 0.0 | 4.2 | 0.0 | 0.0 | 4.2 | 0.0 | 0.0 | 8.3 |
| Commercial | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 | 6.9 |
| Public/Recreational | 11.6 | 11.6 | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.4 |
| Agricultural | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total:** | 15.4 | **15.2** | **15.1** | **6.1** | **4.7** | **15.1** | **3.6** | **3.7** | **30.1** |

Table J-14

Air Quality Impacts by Land Use Category*
(total emissions in tons/day)

| | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use Category | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Airfield | 0.495 | 0.315 | 0.000 | 0.789 | 0.417 | 0.000 | 0.866 | 0.591 | 0.000 |
| Aviation Support | 0.392 | 0.118 | 0.000 | 0.831 | 0.289 | 0.000 | 0.886 | 0.309 | 0.000 |
| Industrial | 0.081 | 0.055 | 0.147 | 0.191 | 0.105 | 0.239 | 0.176 | 0.132 | 0.445 |
| Manufacturing | 0.000 | 0.000 | 0.255 | 0.000 | 0.000 | 0.479 | 0.000 | 0.000 | 0.916 |
| Commercial | 0.000 | 0.000 | 0.209 | 0.000 | 0.000 | 0.391 | 0.000 | 0.000 | 0.747 |
| Public/Recreational | 0.110 | 0.098 | 0.008 | 0.017 | 0.008 | 0.014 | 0.018 | 0.012 | 0.025 |
| Agricultural | 0.009 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Construction Phase | 0.014 | 0.006 | 0.017 | 0.031 | 0.003 | 0.017 | 0.033 | 0.000 | 0.000 |
| **Total:** | **1.102** | **0.600** | **0.636** | **1.859** | **0.821** | **1.139** | **1.979** | **1.043** | **2.134** |

Note: *For the airfield land use category, emissions are based on aircraft operations and include the airport land use area for Alternative C; for all other categories, emissions are based on average daily traffic generated by activity within each land use category.

**Table J-15**

**Expected Noise Levels Within Each Land Use Category (typical DNL in dB)**

| Land Use Category | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
|---|---|---|---|
| Airfield | 65-85+ | 65-85+ | NA* |
| Aviation Support | 65 | 65 | NA |
| Industrial | 65 | 65 | NA |
| Public/Recreational | 65-75 | 65-75 | NA |

Note: *NA = Not applicable

Table J-16

Biological Resource Impacts by Land Use Category
(acres of vegetation potentially disturbed)

| Land Use Category | 2001 | | | 2006 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
| Aviation Support | 0.6 | 0.3 | 0.0 | 1.4 | 0.6 | 0.0 | 0.8 | 0.4 | 0.0 |
| Industrial | 2.2 | 2.3 | 7.2 | 4.7 | 4.1 | 7.2 | 2.8 | 3.3 | 14.5 |
| Manufacturing | 0.0 | 0.0 | 4.2 | 0.0 | 0.0 | 4.2 | 0.0 | 0.0 | 8.3 |
| Commercial | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 | 6.9 |
| Public/Recreational | 11.6 | 11.6 | 0.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.4 |
| Agricultural | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total:** | 15.4 | **15.2** | **15.1** | **6.1** | **4.7** | **15.1** | **3.6** | **3.7** | **30.1** |

Table J-17

Cultural and Paleontological Resources Impacts by Land Use Category*

| Land Use Category | Proposed Action | Private Airfield Alternative | Nonaviation Alternative |
|---|---|---|---|
| | Impacts on cultural resources as a result of the Proposed Action would include modification or demolition of potentially NRHP-eligible buildings, and disturbance to NRHP-eligible historic sites through construction. | Impacts on cultural resources as a result of the Private Airfield Alternative would include modification or demolition of potentially NRHP-eligible buildings, and disturbance to NRHP-eligible historic sites through construction. | Impacts on cultural resources as a result of the Nonaviation Alternative would include modification or demolition of potentially NRHP-eligible buildings, and disturbance to NRHP-eligible historic sites through construction. |
| | Six NRHP-eligible historic archaeological sites would be affected by this alternative: PCI Sites 1, 12, 16, 18, 19, and 24. | Six NRHP-eligible historic archaeological sites would be affected by this alternative: PCI Sites 1, 12, 16, 18, 19, and 24. | Six NRHP-eligible historic archaeological sites would be affected by this alternative: PCI Sites 1, 12, 16, 18, 19, and 24. |
| Airfield | Any ground disturbing activities beyond the existing level of vegetation maintenance may disturb the integrity of PCI Site 12. | Any ground disturbing activities beyond the existing level of vegetation maintenance may disturb the integrity of PCI Site 12. | NA* |
| Aviation Support | Ground disturbing activities associated with the construction of aviation support facilities would affect the integrity of and/or subsequently destroy PCI Sites 16, 18, 19, and 24. | Ground disturbing activities associated with the construction of aviation support facilities would affect the integrity of and/or subsequently destroy PCI Sites 16, 18, 19, and 24. | NA |
| Manufacturing | NA | NA | Ground disturbing activities associated with the construction of manufacturing facilities would affect the integrity of and/or subsequently destroy PCI Sites 16, 18, 19, and 24. |
| Public/Recreational | PCI Site 1 would be adversely affected by increased access and possible unauthorized artifact collecting and vandalism. | PCI Site 1 would be adversely affected by increased access and possible unauthorized artifact collecting and vandalism. | PCI Site 1 would be adversely affected by increased access and possible unauthorized artifact collecting and vandalism. |
| Agricultural | NA | NA | Ground disturbing activities beyond the existing level of plowing and agricultural activities may disturb the integrity of and/or subsequently destroy PCI Sites 16, 18, 19, and 24. |

Note: NA = Not applicable