

EXECUTIVE SUMMARY

The events of September 11, 2001 and the economic uncertainties facing commercial aviation have affected the timing of the Proposed Action. The Metropolitan Washington Airports Authority has determined that some of the projects in the proposed action will commence shortly after the completion of the NEPA approval processes. Other projects are being deferred, principally for economic circumstances. For the purposes of this environmental assessment all of the projects in the Proposed Action should be viewed as proposed for construction. Therefore, even the deferred projects are being evaluated on environmental grounds in this assessment.

The Metropolitan Washington Airports Authority (the Authority) is currently undertaking a capital improvement program to replace and upgrade existing aircraft, passenger, and support facilities at Washington Dulles International Airport (IAD). The purpose of this Environmental Assessment (EA) is to evaluate existing conditions and environmental effects for one component of the Dulles Development (d2) program: Tier 2 and related projects. The Proposed Action (Build Alternative) includes these four elements: Tier 2 Concourse, Automated People Mover (APM) System, South Utilities, and Support Facilities. The construction activities associated with each element are provided in [Table ES-1](#). The layout plan for Tier 2 and related projects is depicted in [Figure ES-1](#).

In this EA, the environmental consequences or effects of the Proposed Action (Build Alternative) and No Build Alternative were evaluated. Other alternatives were evaluated as planning concepts (i.e., terminal concepts, APM alignment), but were found not to meet the project purpose and need. The features of the Region Of Influence (ROI) that were studied included: noise; compatible land use; social and socioeconomic characteristics; air quality; water quality; geology and soils; Department of Transportation (DOT) Section 4(f) lands; historic, architectural, archaeological, and cultural resources; biotic communities; endangered and threatened species; wetlands; floodplains; coastal zone management; coastal barriers; wild and scenic rivers; prime and unique farmland; energy; light emissions; visual aesthetics; solid waste, hazardous waste, and pollution prevention; and design, art, and architecture.

This EA has been prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, the regulations of the President's Council on Environmental Quality (CEQ) for NEPA compliance, and Federal Aviation Administration (FAA) Orders 1050.1D (*Policies and Procedures for Considering Environmental Impacts*) and 5050.4A (*Airport Environmental Handbook*).

ES.1 Description and Need for Proposed Action. The Tier 2 Concourse is the major component of the Proposed Action (Build Alternative). The new concourse will replace the existing Concourse C/D which has neither the necessary space nor appropriate updated passenger amenities to serve present-day or future needs of United Airlines, the largest airline at IAD and the principal tenant on the existing Concourse C/D. The project will consist of the construction of a permanent midfield concourse south of the existing Concourse C/D. In addition, a baggage tunnel containing a baggage conveyor system, a tug tunnel, and a pedestrian walkback tunnel will be constructed as part of the Tier 2 Concourse project. After completion of the new concourse, existing Concourse C/D will be demolished.

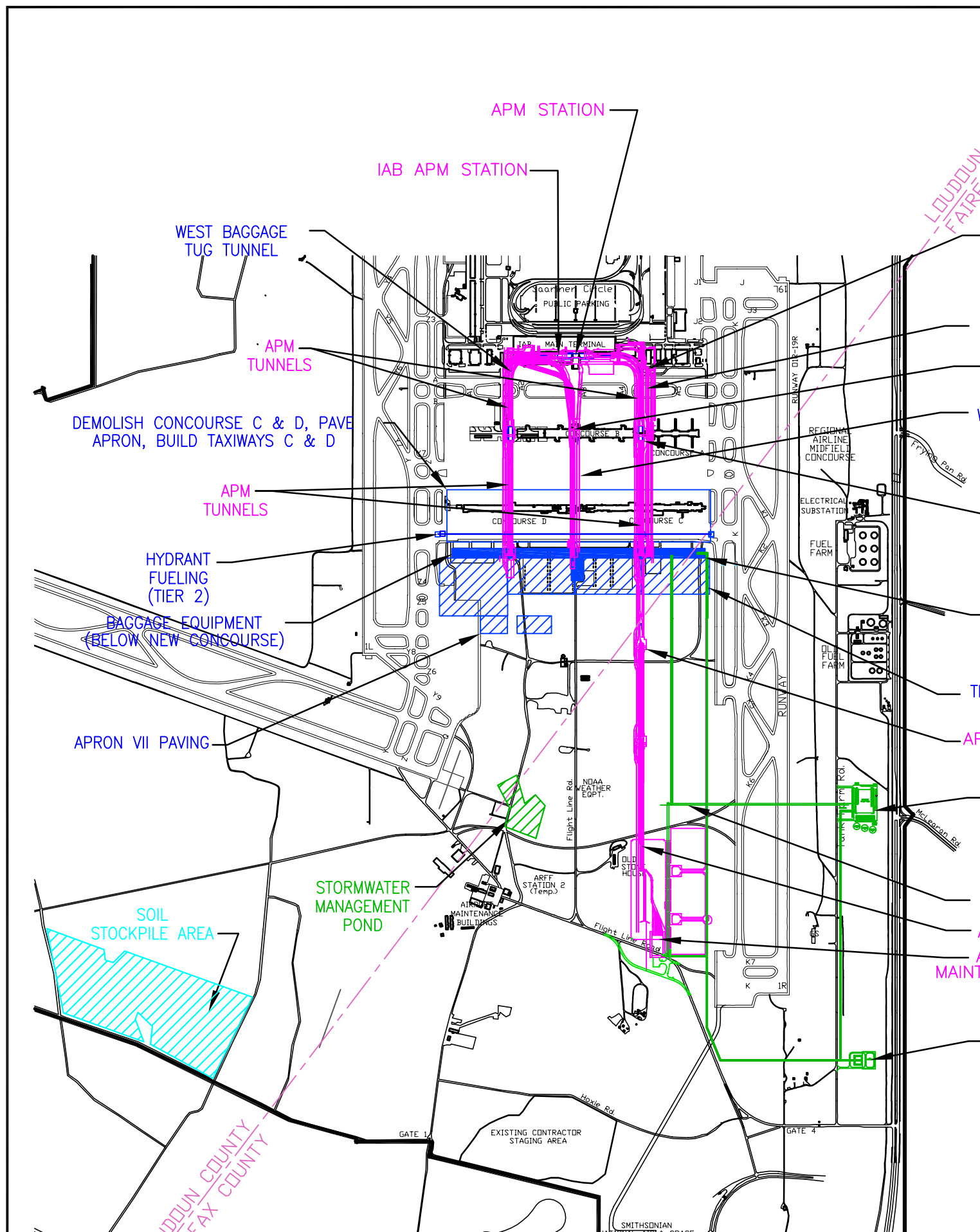


TABLE ES-1 TIER 2 AND RELATED PROJECTS: DULLES DEVELOPMENT PROGRAM, WASHINGTON DULLES INTERNATIONAL AIRPORT

TIER 2 CONCOURSE	Airport Buildings: <ul style="list-style-type: none"> • Tier 2 Concourse • Walkback Tunnel (Tier 2 to Tier 1) (Phase II) • Baggage Tug Tunnels • Baggage Conveyor Tunnels to Tier 2 • High Speed Conveyor Baggage System (Main Terminal to Tier 2) • Tier 2 Baggage Equipment Airfield Facilities: <ul style="list-style-type: none"> • Demolish Old C/D Concourses, Repave Apron and Taxiways C/D • Tier 2 Apron Paving • Hydrant Fueling for Tier 2 • Apron VII Paving
AUTOMATED PEOPLE MOVER SYSTEM	Airport Buildings: <ul style="list-style-type: none"> • International Arrivals Building (IAB) People Mover Stations, Tunnels and System • Concourse B Bldg. Adaptations for IAB People Mover (Tier 1) • People Mover – Main Terminal to Concourse B • Concourse B Bldg. Adaptations for People Mover • People Mover – Maintenance Facility and Service Tunnel • People Mover – Tier 1 to Tier 2 • APM Tunnel and Station Shell between Tier 2 and APM Vehicle Maintenance Facility • Security Mezzanine & Main Terminal People Mover Station, Pkg. 6
SOUTH UTILITIES	Airport Buildings: <ul style="list-style-type: none"> • South Utility Building, Phase I Utility Systems: <ul style="list-style-type: none"> • Stormwater Management Facilities, Tier 2 Projects • Utility Tunnel • Expanded Water Storage • Dominion Virginia Power (DVP) Substation and Distribution Center
SUPPORT FACILITIES	Other: <ul style="list-style-type: none"> • Soil Stockpile Area

The APM system project will consist of a new underground train system for moving people between concourses and the Main Terminal. The train system will be electric-powered and will substantially reduce the use of the existing mobile lounge service. The project will include 6 miles of tunnels, eight stations, and connections to the Main Terminal, to the concourses, and to a maintenance facility. Two separate APM systems will be constructed: one for domestic passengers and one for arriving international passengers.

The South Utilities project includes a series of utility improvements southeast of the Tier 2 Concourse. These improvements include a new South Utility Building (SUB), expanded water storage, a Dominion Virginia Power (DVP) substation, utility tunnels, and stormwater management facilities. These facilities will serve the new Tier 2 structures and will be designed to allow for expansion to accommodate future airport projects.

The Support Facilities include a soil stockpiling area located in the southern portion of the airport parcel. This will facilitate construction activities for the Tier 2 projects.

The economic slowdown in the aviation industry following the events of September 11, 2001 has made it necessary to phase the implementation of the projects that are the subject of this Environmental Assessment. Some of the projects will begin shortly after completion of the NEPA approval process. These projects include Apron VII, a portion of the domestic people mover system with an interim connection to Concourse C, and the utility improvements needed to support these projects. Other projects primarily related to the Tier 2 Concourse, consisting of Tier 2 itself, the International Arrivals APM, portions of the domestic APM to Tier 2, baggage tunnels, the South Utility Building and the demolition of Concourse C/D are being deferred. The Authority expects to proceed with these projects when circumstances, principally economic, are appropriate.

ES.2 Environmental Consequences of the Proposed Action. A summary of environmental effects for each of the four project components is provided in [Table ES-2](#). A summary of temporary construction-related impacts is provided in [Table ES-3](#). Overall, implementation of Tier 2 and related projects at IAD (Build Alternative) is not expected to have a significant impact on the human environment. Implementation of the Build Alternative is not expected to negatively affect noise, land use, socioeconomic, air quality, DOT Section 4(f) lands, endangered and threatened species, floodplains, coastal zones, coastal barriers, wild and scenic rivers, prime and unique farmland, energy, light emissions, visual aesthetics, solid waste, hazardous waste, pollution prevention, sanitary waste, or design, art, and architecture.

Some impacts to water quality, soils, historic and cultural resources, biotic communities, and wetlands are expected as a result of the Build Alternative. These environmental consequences, however, will be minor in nature, will be minimized through best management practices (BMPs), and/or will be mitigated. The environmental consequences are summarized below.

- Additional air emissions from new boilers are within the existing permitted limitations, and emissions from Mobile Lounges will be reduced under the Build Alternative due to their displacement by the Automated People Mover.
- Impacts to water quality include an increase in stormwater runoff from increased impervious surface area. These effects will be managed using BMPs and stormwater detention ponds.

TABLE ES-2 SUMMARY OF ENVIRONMENTAL CONSEQUENCES FROM TIER 2 AND RELAT

Environmental Consequences	Projects			
	Tier 2 Concourse	APM	South Utilities	
Noise	No Impact	No Impact	No Impact	
Compatible Land Use	No Impact	No Impact	No Impact	
Social Impacts Including Environmental Justice, Child Safety	No Impact	No Impact	No Impact	
Induced Social Impacts	No Impact	No Impact	No Impact	
Air Quality –Stationary sources	No Impact	No Impact	Emissions from new boilers will be within permitted limitations	
Air Quality–Mobile Sources	No Impact	Reduction of mobile lounge emissions	No Impact	
Water Quality	Increased runoff managed by stormwater Best Management Practices (BMPs)	No Impact	Increased runoff managed by stormwater BMPs	
Soils and Geology	Excess soil will be stockpiled and re-used	Excess soil will be stockpiled and re-used	Excess soil will be stockpiled and re-used	
DOT Action Section 4(f) Lands	No Impact	No Impact	No Impact	
Historic, Architectural, Archaeological, and Cultural Resources–Buildings	No Adverse Effect	No Adverse Effect	No Adverse Effect	
Historic, Architectural, Archaeological, and Cultural Resources–Below grade	No Adverse Effect	No Adverse Effect	No Adverse Effect	
Biotic Communities	No Impact	No Impact	Loss of forest habitat	Lo v
Endangered and Threatened Species	No Impact	No Impact	No Impact	
Wetlands	Impact to be mitigated by banking	Impact to be mitigated by banking	Impact to be mitigated by banking	
Floodplains	No Impact	No Impact	No Impact	
Coastal Zone Management	No Impact	No Impact	No Impact	
Coastal Barriers	Not Applicable	Not Applicable	Not Applicable	
Wild and Scenic Rivers	Not Applicable	Not Applicable	Not Applicable	
Prime and Unique Farmland	Not Applicable	Not Applicable	Not Applicable	
Energy	No Impact	No Impact	No Impact	
Light Emissions	No Impact	No Impact	No Impact	

Environmental Consequences	Projects			
	Tier 2 Concourse	APM	South Utilities	
Visual Impacts	No Impact	No Impact	No Impact	
Solid Waste, Hazardous Waste, and Pollution Prevention	No Impact	No Impact	No Impact	
Sanitary Waste	No Impact	No Impact	No Impact	
Toxic or Hazardous Substances	Demolition of Concourse C/D asbestos and lead-based paint will be managed in accordance with regulations	No Impact	No Impact	
Design, Art, and Architecture	No Impact	No Impact	No Impact	
Cumulative Impacts	No Impact	No Impact	No Impact	

**TABLE ES-3 SUMMARY OF POTENTIAL CONSTRUCTION IMPACTS
FOR TIER 2 AND RELATED PROJECTS**

Resource	Environmental Consequences
Noise	Perimeter buffer mitigates noise impact on ROI; increase in localized noise levels
Compatible Land Use	No Impact
Social Impacts Including Environmental Justice, Child Safety	Increase in construction-related employment opportunities over 5-year period
Induced Social Impacts	No Impact
Air Quality–Stationary sources	No Impact
Air Quality–Mobile Sources	Construction emissions from Tier 2 and related projects are within the SIP budget; fugitive emissions controlled by BMPs
Water Quality	Increased runoff managed by stormwater BMPs; Soil Erosion and Sediment Control Plan
Soils and Geology	Impacts mitigated by soil management program providing conservation by reuse
DOT Action Section 4(f) Lands	No Impact
Historic, Architectural, Archaeological, and Cultural Resources–Buildings	No Adverse Effect
Historic, Architectural, Archaeological, and Cultural Resources–Below grade	No Adverse Effect
Biotic Communities	Approximately 90 acres of forested habitat will be lost to soil stockpile; impact to be mitigated by revegetation after construction
Endangered and Threatened Species	No Impact
Wetlands	Impact to be mitigated by banking
Floodplains	No Impact
Coastal Zone Management	No Impact
Coastal Barriers	Not Applicable
Wild and Scenic Rivers	Not Applicable
Prime and Unique Farmland	Not Applicable
Energy Supply and Resources	No Impact
Light Emissions	No Impact
Visual Impacts	No Impact
Solid Waste	No Impact
Sanitary Waste	No Impact
Toxic or Hazardous Substances	Excavated and stockpiled soils will be tested as part of soil management program
Design, Art, and Architecture	No Impact

- Impacts to soils include disturbance and removal. Excess soils will be stockpiled and re-used, and appropriate BMPs for erosion control will be implemented to minimize offsite transport of stockpiled soils.
- Historic and cultural resources exist in close proximity to the construction areas. Building design will comply with the Airport Master Plan and will be compatible with the design of existing airport structures. Proposed activities are covered under existing memoranda of agreement (MOAs) between the Authority, the Advisory Council on Historic Preservation (ACHP), and the Virginia State Historic Preservation Officer (SHPO). Archaeological surveys have been completed for the Tier 2 and related projects. A conditional determination of “No Adverse Effect” was concluded from the evaluation of the Tier 2 and related projects on the historic and archaeological resources at IAD. This determination of “No Adverse Effect” is documented in a coordination letter from the Authority to the Virginia SHPO dated February 22, 2002, and a Statement of Concurrence from the SHPO dated March 11, 2002 ([Appendix D](#)).
- Impacts on biotic communities include clearing of trees and ground vegetation, loss of habitat, and displacement of wildlife. The soil stockpile area will be stabilized and re-vegetated after the construction period.
- Approximately 26 acres of wetlands may be altered as a result of implementation of the Build Alternative. The Authority has submitted a Joint Permit Application (JPA) to the Virginia Department of Environmental Quality (DEQ) for the Tier 2 and related projects. The loss of wetlands will be mitigated through a wetland banking program that will result in no net loss of wetlands. Loss of streams will be mitigated through purchase of stream credits or an in-lieu fee payment to the Virginia Wetlands Restoration Trust Fund.
- Demolition of Concourse C/D may require removal of asbestos-containing materials (ACM), lead-based paint (LBP), and petroleum-containing soils and water. These materials will be removed and disposed of following appropriate guidelines.

ES.3 Construction Impacts. In addition to project-related environmental effects, temporary effects associated with construction activities are expected. The majority of construction-related impacts are expected to be temporary in nature (lasting over the 5-year construction period), minimized by BMPs, and limited to the IAD property. Construction activities are expected to have a short-term positive impact on socioeconomic resources due to construction-related employment opportunities. Construction activities will have potential negative effects on noise, air quality, water quality, soils, historic and cultural resources, biotic communities, and wetlands. The potential environmental consequences related to construction activities are summarized below.

- There will be a short-term, temporary increase in localized noise levels in the vicinity of the project area during construction and demolition activities. The noise disruptions will be temporary in nature, and phasing of construction will minimize effects to airport

services. All construction activities will take place on the IAD property, and nearby residents will not be affected.

- With respect to air quality, NO_x and VOC emissions from construction activities are allotted for in the emission budget developed by the Metropolitan Washington Council of Governments (COG) for the Northern Virginia part of the State Implementation Plan (SIP). Fugitive particulate emissions will be controlled by BMPs.
- Impacts to water quality include an increase in runoff from construction areas and potential erosion of disturbed soils and sedimentation into streams. These effects will be managed using BMPs, erosion control measures, and stormwater detention ponds.
- Impacts to soils include disturbance and removal. Excess soils will be stockpiled and re-used, and appropriate BMPs for erosion control will be implemented to minimize offsite transport of stockpiled soils.
- Historic and cultural resources exist in close proximity to the construction areas. The viewsheds and aesthetic value of the historic areas on the airport property may be temporarily disrupted. Construction activities will be coordinated through consultation with the Virginia SHPO and the ACHP prior to implementation.
- Vegetation will be cleared for some of the construction projects and habitat for terrestrial biota will be removed. Loss of ground vegetation and trees will be mitigated by replanting trees after construction is completed. No construction-related impacts to rare, threatened, or endangered (RTE) species are expected.

ES.4 Cumulative Impacts. Implementation of the Build Alternative is not expected to create negative cumulative effects. The Tier 2 and related projects comprise a small portion of the current and planned development activity in the Dulles region. Although the region could experience cumulative effects to air quality, water quality (stormwater runoff from increased impervious surface area), and habitat loss due to multiple ongoing roadway and development projects, the Tier 2 projects account for a small fraction of these effects. The Tier 2 projects will not cause otherwise insignificant impacts to exceed thresholds of significance.

The Build Alternative is consistent with the long-term objectives of the Airport Master Plan that has been in place and well coordinated with the public since 1985. It is designed to replace and upgrade facilities to enable IAD to efficiently serve to the projected airport level of use.

ES.5 Public and Agency Review. The Draft Environmental Assessment (May 2002) was submitted to the federal, state, and local agencies and made available to the public on June 2, 2002. A notice of availability was published in local newspapers and a public information session was held on June 17, 2002. Comments were received until July 8, 2002. This Final Environmental Assessment incorporates the comments of the public and regulatory agencies and responses.