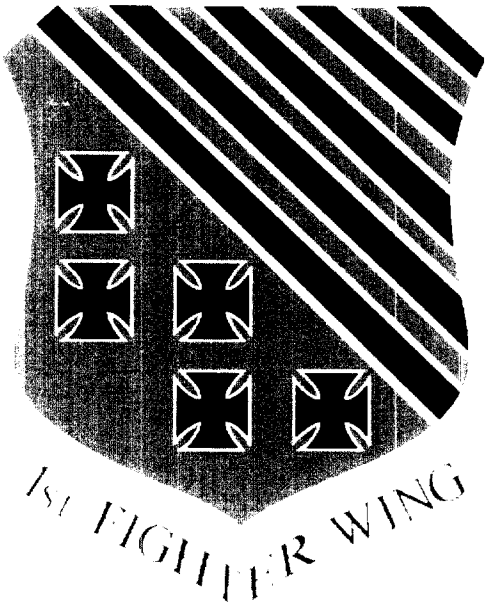
# Final
# Environmental Assessment




## Fitness Center

## Langley Air Force Base, Virginia

**U.S. Air Force**
**Air Combat Command**
**1st Fighter Wing**

**July 2001**

# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| 1 FW | 1st Fighter Wing |
| AAC | Army Air Corps |
| ACC | Air Combat Command |
| AFB | Air Force Base |
| AFI | Air Force Instruction |
| Air Force | United States Air Force |
| AQCR | Air Quality Control Region |
| BIA | Bureau of Indian Affairs |
| CAA | Clean Air Act |
| CEQ | Council on Environmental Quality |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CFR | Code of Federal Regulations |
| CO | carbon monoxide |
| CWA | Clean Water Act |
| dB | decibel |
| dBA | A-weighted sound level measurements |
| DEQ | Department of Environmental Quality |
| DoD | Department of Defense |
| DHR | Department of Historic Resources |
| EA | Environmental Assessment |
| EIAP | Environmental Impact Analysis Process |
| EO | Executive Order |
| EPCRA | Emergency Planning and Community Right-to-Know Act |
| ERP | Environmental Restoration Program |
| FW | Fighter Wing |
| FY | fiscal year |
| HAWC | Health and Wellness Center |
| HRSD | Hampton Roads Sanitation District |
| MAP | Management Action Plan |
| MTMC | Military Transportation Management Command |
| $\mu g/m^3$ | micrograms per cubic meter |
| NAAQS | National Ambient Air Quality Standards |
| NACA | National Advisory Committee for Aeronautics |
| NASA | National Aeronautics and Space Administration |
| NEPA | National Environmental Policy Act |
| NGVD | National Geodetic Vertical Datum |
| NHPA | National Historic Preservation Act |
| $NO_2$ | nitrogen dioxide |
| $NO_x$ | nitrogen oxides |
| NPDES | National Pollutant Discharge Elimination System |
| NRHP | National Register of Historic Places |
| OSHA | Occupational Safety and Health Act |
| $O_3$ | ozone |
| Pb | lead |
| P.L. | Public Law |
| $PM_{2.5}$ | respirable particulate matter equal to or less than 2.5 micrometers in diameter |
| $PM_{10}$ | respirable particulate matter equal to or less than 10 micrometers in diameter |
| ppm | parts per million |
| RCRA | Resource Conversation and Recovery Act |
| ROI | region of influence |
| RPA | resource protection area |
| SAIC | Science Applications International Corporation |
| SF | square foot |
| SIP | State Implementation Plan |
| SMSA | Standard Metropolitan Statistical Area |
| $SO_2$ | sulfur dioxide |
| SR | State Route |
| SWPPP | Stormwater Pollution Prevention Plan |
| TSP | Total Suspended Particulates |
| USACOE | U.S. Army Corps of Engineers |
| USEPA | U.S. Environmental Protection Agency |
| VOC | volatile organic compound |
| VPDES | Virginia Pollutant Discharge Elimination System |
| WRM | war reserve material |

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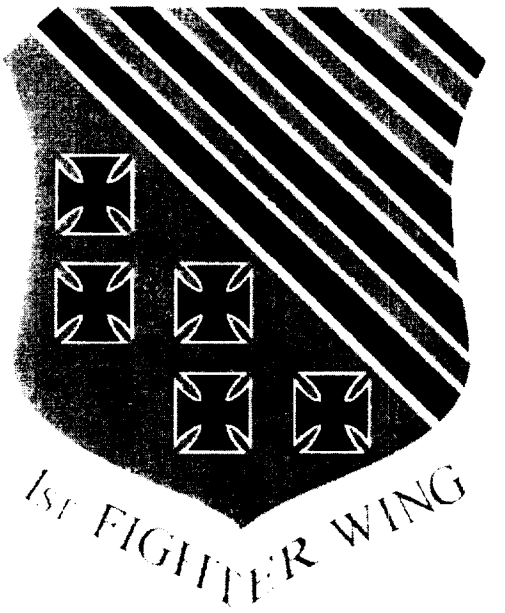


## Fitness Center

## Langley Air Force Base, Virginia

**U.S. Air Force**
**Air Combat Command**
**1st Fighter Wing**

**July 2001**

# FINDING OF NO SIGNIFICANT IMPACT/
# FINDING OF NO PRACTICABLE ALTERNATIVE

**DESCRIPTION OF THE PROPOSED ACTION.** Langley Air Force Base (AFB) Virginia proposes to construct and operate a new Fitness Center with a Health and Wellness Center (HAWC) at a location, along Sweeney Boulevard, between Elm and Holly Streets. The new 66,767 square foot building would be an addition to the existing 4,478 square-foot racquetball facility for a total of 71,235 square feet. It would be used in conjunction with the existing Fitness Center, Building 658, to provide adequate capacity, capability, and services to the base population.

**ALTERNATIVES TO THE PROPOSED ACTION.** In addition to evaluating the environmental impacts of the proposed action, an alternative location for the Fitness Center off Burrell Street was also examined. The No-Action Alternative, under which no new fitness center would be constructed, is also addressed within this Environmental Assessment (EA).

**SUMMARY OF ENVIRONMENTAL EFFECTS.** This EA provides an analysis of the potential consequences associated with the construction and operation of the Fitness Center at the proposed action site, at the Burrell Street alternative site, and the No-Action Alternative. Eight resource categories received thorough evaluation to identify potential environmental consequences: air quality, water resources, biological resources, cultural resources, land use and transportation, hazardous materials and waste management, socioeconomics, and noise.

Air emissions after the Fitness Center is completed at either location would increase by approximately seven percent for carbon monoxide and two percent or less for all other criteria pollutants over those currently generated by Langley AFB. This increase is attributable to the use of natural gas fired boilers for daily operations. Construction-related emissions would be generated both on base and within the region, with the hauling of fill material to the base. These emissions would be less than one percent of emissions in the Hampton Air Quality Control Region. Langley AFB is located in a maintenance area for ozone; however, the proposed action would not contribute ozone-related emissions above U.S. Environmental Protection Agency (USEPA) established *de minimus* levels for ozone. Therefore, a formal air quality conformity determination is not required.

Construction and operation of the Fitness Center at the proposed action site would not significantly affect the water quality of the Back River and Chesapeake Bay. Installation of rotational storm water filters and a detention pond would reduce the amount of sediment entering these water bodies. Environmental consequences of the construction and operation of the Fitness Center at the Burrell Street site would be slightly greater than the proposed action since, due to its closeness to the Back River, only rotational storm water filters could be used to trap sediments. The majority of Langley AFB, including both sites, is located within the 100-year floodplain. Hence, there is no practicable alternative that would not involve construction in the floodplain.

Construction activities would have no adverse effects to individual species or native plants or animals at either location since the only plant or animal species likely to be displaced from this marginal habitat are individuals of common and locally abundant species. Construction at the proposed action site would affect approximately 0. 18 acres of wetlands. As a component of the

proposed action, 0.065 acres of wetland would be developed with the expansion of the existing tidal ditch south of the site in accordance with a mitigation plan approved by U.S. Army Corps of Engineers (USACOE). Construction at the Burrell Street site would affect 0.45 acres of wetlands and would include a mitigation plan that addresses the 100 percent replacement of this wetland area.

No threatened, endangered, or special species/communities would be adversely affected by the proposed action or the Burrell Street Alternative. Incidentally occurring listed, proposed, or candidate species are not likely to be adversely affected because no critical habitat exists on Langley AFB and the area to be disturbed is of low ecological value and is not suitable for nesting or other critical life cycle functions.

No impacts to archaeological resources are expected under the proposed action because no significant archaeological resources have been identified by past surveys. The Burrell Street site lies within an area where there is some potential for both prehistoric and historic archaeological resources. If this site is chosen for development then unsurveyed portions of the area would need to be examined prior to construction and significant cultural resources if discovered, would be avoided. No impacts to architectural or traditional resources at either site are anticipated. Historic architectural resources have not been identified within the project area and no construction would take place within the boundaries of the Langley Field Historic District. No traditional resources have been identified at Langley AFB and there are no federally recognized Indian lands or resources at Langley AFB.

Construction of the Fitness Center at the Sweeney Boulevard location is in accordance with various Langley AFB comprehensive planning documents. The Burrell Street location, while providing adequate space for the Fitness Center, has been projected as the location for the construction of future additional Visiting Officers Quarters. The proposed action would be consistent with the goals of the Coastal Zone Management Act and the Chesapeake Bay Preservation Act. Construction of the Fitness Center building at the Burrell Street location would encroach into the buffer from the wetlands as required by the Chesapeake Bay Preservation Act. Storm water standard construction practices would be included in the project construction to mitigate the effect of the encroachment and impacts to the Chesapeake Bay watershed would be minimal.

Truck traffic associated with the hauling of fill materials to either site would increase by up to 80 truckloads daily during the initial 30-day period of construction. By scheduling the delivery of the fill material during off-peak traffic hours, congestion at the West Gate would have minimal environmental consequences. Once open, the location of the Fitness Center at the proposed action site would have the potential to reduce on-base traffic levels since airmen living just south of the site could easily walk to the facility.

No hazardous waste generation is expected with the operation of the Fitness Center at either site from the proposed pool maintenance processes. Construction of the right-turn lane from Sweeney Boulevard onto Elm Street and alterations to the base's storm water drainage system, associated with the proposed action, would have the potential to disturb portions of two Environmental Restoration Program (ERP) sites. Development of the Burrell Street site would include placing the parking lot over ERP site OT-06 Annex which would cap the existing contaminated soils. For both locations, the Langley AFB ERP Manager would coordinate a

waiver from ACC policy concerning development of ERP sites. Waivers would identify the appropriate control measures that would be necessary for the activities at the ERP sites and no long-term adverse environmental consequences are anticipated.

Construction activity, employment, and earnings associated with the proposed action and the Burrell Street alternative would be very similar. No adverse environmental consequences would be expected. Demolition of existing facilities and the construction and operation of the Fitness Center would not create any disproportionately high and adverse health and environmental effects on low-income and minority populations on base or in the vicinity of Langley AFB, and no environmental health or safety risks would disproportionately affect children at either site.

Construction of the Fitness Center at either site would have temporary, localized noise effects during the construction phase. These localized noise increases may disrupt residents in the nearby structures, however, the noise disruptions would be temporary and limited to daytime hours; therefore, impacts are considered insignificant.

**CONCLUSION**

Based on the findings of the environmental assessment, no significant impact is anticipated from implementation of either the proposed action or the Burrell Street alternative. Therefore, issuance of a Finding of No Significant Impact is warranted, and an environmental impact statement is not required. Pursuant to Executive Order 11988 and Executive Order 11990, the authority delegated in SAFO 791.1, and taking the above information into account, I find that there is no practicable alternative to this action and that the proposed action and Burrell Street alternative include all practicable measures to minimize harm to floodplain environments, and that there would be minimal to no impact on wetland environments from this construction.

Donald G Cook

**DONALD G. COOK**
Lieutenant General, USAF
Vice Commander, Air Combat Command

7 Aug 01

**DATE**

# EXECUTIVE SUMMARY

This Environmental Assessment (EA) describes the potential environmental consequences resulting from a proposal to construct a new Fitness Center and Health and Wellness Center (HWAC) at Langley Air Force Base (AFB), Virginia.

## ENVIRONMENTAL IMPACT ANALYSIS PROCESS

This EA has been prepared by the United States Air Force (Air Force), the 1st Fighter Wing (1 FW) in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA, and Air Force Instruction (AFI) 32-7061 (*The Environmental Impact Analysis Process*, 32 Code of Federal Regulations [CFR] 989).

## PURPOSE AND NEED FOR ACTION

The purpose of this action is to provide a new Fitness Center with a Health and Wellness Center (HAWC) to increase the Fitness Center capacity and capability available to Langley AFB military personnel and to improve morale, welfare, and recreational opportunities for all eligible personnel.

Fitness centers are intended to support the requirement for individual physical fitness, better enabling military personnel to perform the Air Force mission and to provide and promote services, programs, and activities. The existing physical fitness facilities at Langley AFB are unable to support these requirements due to limited gymnasium space and substandard facilities, which detracts from both mission performance and personnel retention. The need for the Fitness Center was identified in the *Langley 2000 Base Development and Facility Improvement Plan 1987-88* (Air Force 1988) and *Air Force Program Document* (AF DD Form 1391) (Air Force 1999).

## PROPOSED ACTION AND ALTERNATIVES

The proposed action consists of constructing and operating a new Fitness Center at a location along Sweeney Boulevard between Elm and Holly Streets that was identified in the *Langley 2000 Base Development and Facility Improvement Plan 1987-88* (Air Force 1988). The new 66,767-square-foot Fitness Center, which is an addition to the existing 4,478 square-foot racquetball court facility, would be used in conjunction with the existing Fitness Center, Building 658, to provide adequate capacity, capability, and services to the base population. Approximately 8 acres of landscaped and developed lands would be disturbed in the construction of the proposed Fitness Center, associated roads, and parking area, including 0.18 acre of jurisdictional wetlands. An alternative location for the Fitness Center off Burrell Street was also examined. The No-Action Alternative, under which no new fitness center would be constructed, is also addressed within this EA.

## SUMMARY OF ENVIRONMENTAL CONSEQUENCES

This EA provides an analysis of the potential environmental consequences associated with the construction of the Fitness Center at the proposed action site, at the Burrell Street Alternative site, and the No-Action Alternative. Eight resource categories received thorough evaluation to identify potential environmental consequences. As indicated in Chapter 4.0, construction of the Fitness Center at either of the proposed sites would not result in significant impacts to any resource area.

Air emissions once the Fitness Center is completed at either location would increase by approximately 7 percent for carbon monoxide and 2 percent or less for all other criteria pollutants over those currently generated by Langley AFB. Construction-related emissions would be generated both on base and within the region with the hauling of fill material to the base. These emissions would be less than one percent of emissions in the Hampton Air Quality Control Region. Langley AFB is located in a maintenance area for ozone; however, the proposed action would not contribute ozone-related emissions above U.S. Environmental Protection Agency (USEPA) established *de minimus* levels for ozone. Therefore, a formal air quality conformity determination is not required.

Construction and operation of the Fitness Center at the proposed action site would not be expected to significantly affect the water quality of the Back River and Chesapeake Bay. Installation of rotational storm water filters and a detention pond and would reduce the amount of sediment entering these water bodies. Environmental consequences of the construction and operation of the Fitness Center at the Burrell Street site would be slightly greater than the proposed action since only rotational storm water filters would be used to trap sediments. The majority of Langley AFB, including both sites are located within the 100-year floodplain. There is no practicable alternative, however, that would not involve construction in the floodplain.

Construction activities would have no adverse effects to individual species or native plants or animals at either location since the only plant or animal species likely to be displaced from this marginal habitat are individuals of common and locally abundant species. Construction at the proposed action site would affect approximately 0.18 acres of wetlands. As a component of the project, 0.065 acres of wetland would be developed with the expansion of the existing tidal ditch south of the site in accordance with a mitigation plan approved by U.S. Army Corps of Engineers (USACOE). Construction at the Burrell Street site would affect 0.45 acres of wetlands and would include a mitigation plan that addresses the replacement of this wetland area.

No threatened, endangered, or special species/communities would be adversely affected by the proposed action or the Burrell Street Alternative. Incidentally occurring listed, proposed or candidate species are not likely to be adversely affected because no critical habitat exists on Langley AFB. The area to be disturbed is of low ecological value and bald eagles do not use Langley AFB for nesting or other critical life cycle functions.

No impacts to archaeological resources are expected under the proposed action because; no significant archaeological resources have been identified by past surveys. The Burrell Street site lies within an area where there is some potential for both prehistoric and historic archaeological resources. If this site is chosen for development then unsurveyed portions of the area would

need to be examined prior to construction and significant cultural resources if discovered, would be avoided. No impacts to architectural or traditional resources at either site are anticipated. Historic architectural resources have not been identified within the project area and no construction would take place within the boundaries of the Langley Field Historic District. No traditional resources have been identified at Langley AFB and there are no federally recognized Indian lands or resources at Langley AFB.

Construction of the Fitness Center at the Sweeney Boulevard location is in accordance with various Langley AFB comprehensive planning documents. The Burrell Street location, while providing adequate space for the Fitness Center, has been projected as the location for the construction of future additional Visiting Officers Quarters. The proposed action would be consistent with the goals of the Coastal Zone Management Act and the Chesapeake Bay Preservation Act Construction of the Fitness Center building at the Burrell Street location would encroach into the buffer from the wetlands as required by the Chesapeake Bay Preservation Act. Storm water standard construction practices would be included in the project construction to mitigate the effect of the encroachment and impacts to the Chesapeake Bay watershed would be minimal.

Truck traffic associated with the hauling of fill materials to either site would increase by up to 80 truckloads daily during the initial 30-day period of construction. By scheduling the delivery of the fill material during off-peak traffic hours, congestion at the West Gate would have minimal environmental consequences. Once open, the location of the Fitness Center at the proposed action site would have the potential to reduce on-base traffic levels since airmen living just south of the site could easily walk to the facility.

No hazardous waste generation is expected with the operation of the Fitness Center at either site from the proposed pool maintenance processes. Construction of the right-turn lane from Sweeney Boulevard onto Elm Street and alterations to the base's storm water drainage system, associated with the proposed action, would have the potential to disturb portions of two Environmental Restoration Program (ERP) sites. Development of the Burrell Street site would include placing the parking lot over ERP site OT-06 Annex which would cap the existing contaminated soils. For both locations, the Langley AFB ERP Manager would coordinate a waiver from ACC policy concerning development of ERP sites. Waivers would identify the appropriate control measures that would be necessary for the activities at the ERP sites and no long-term adverse environmental consequences are anticipated.

Construction activity, employment, and earnings associated with the proposed action and the Burrell Street alternative would be very similar. No adverse environmental consequences would be expected. Demolition of existing facilities and the construction and operation of the Fitness Center would not create any disproportionately high and adverse health and environmental effects on low-income and minority populations on base or in the vicinity of Langley AFB, and no environmental health or safety risks would disproportionately affect children at either site.

Construction of the Fitness Center at either site would have temporary, localized noise effects during the construction phase. These localized noise increases may disrupt residents in the in nearby structures, however, the noise disruptions would be temporary and would be limited to daytime hours; therefore, impacts are considered insignificant.

Table ES-1. Summary of Potential Environmental Impacts of Proposed Action and Alternatives

| *Resource* | *Proposed Action* | *Burrell Street Alternative* | *No-Action Alternative* |
|---|---|---|---|
| Air Quality | - | - | 0 |
| Water Resources | - | - | 0 |
| Biological Resources | + | - | 0 |
| Cultural Resources | 0 | - | 0 |
| Land Use/Transportation | +/- | -/- | 0 |
| Hazardous Materials and Waste Management | 0 | - | 0 |
| Socioeconomics and Environmental Justice | + | + | 0 |
| Noise | - | - | 0 |

- = Adverse, but not significant, impact
+ = Positive/beneficial impact
0 = No change

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## List of Tables

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# 1.0 PURPOSE AND NEED

## 1.1 INTRODUCTION

The Air Force and 1 FW propose to construct a new Fitness Center with a Health and Wellness Center (HAWC) at Langley AFB. This EA has been prepared to analyze the potential environmental consequences associated with the proposed action in accordance with the requirements of NEPA (Public Law [P.L.] 91-190, 42 United States Code 4321 *et seq.*) as amended in 1975 by P.L. 94-52 and P.L. 94-83. In addition, this document was prepared in accordance with the following:

- AFI 32-7061 (*The Environmental Impact Analysis Process* [EIAP], 32 Code of Federal Regulations [CFR] 989), which implements Section 102 (2) of NEPA
- Regulations established by the CEQ (40 CFR 1500-1508)

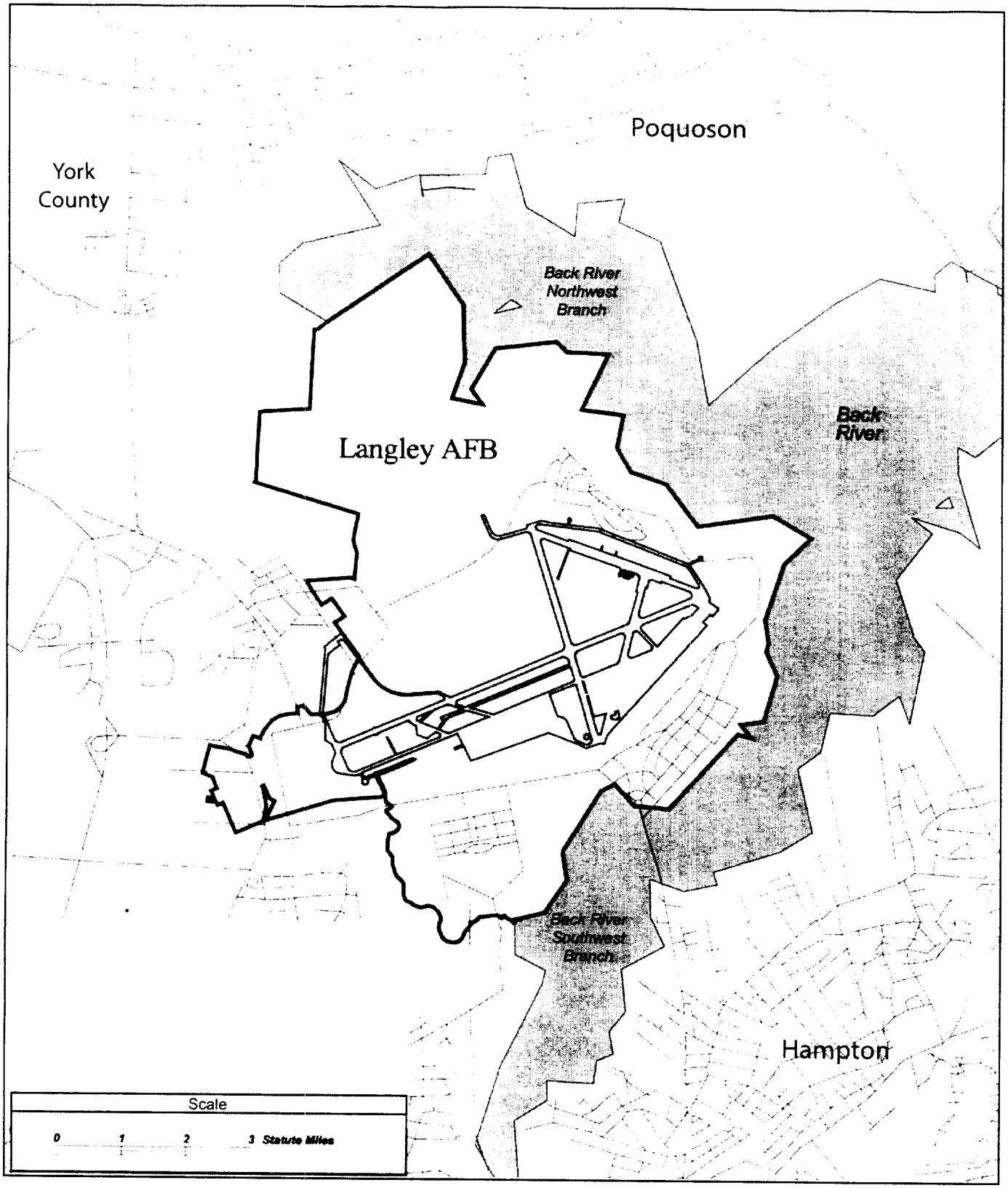
Section 1.2 provides background information on Langley AFB. The purpose and need for the proposed action are described in Section 1.3. Section 1.4 provides a summary of permits that may apply to the proposed action.

A detailed description of the proposed action, the Burrell Street Alternative, and the No-Action Alternative is provided in Chapter 2.0. Chapter 3.0 describes the existing conditions of various environmental resources that could be affected if the proposal were implemented. Chapter 4.0 describes how those resources would be affected by implementation of the proposed action, the Burrell Street Alternative, and the No-Action Alternative. Chapter 5.0 addresses the cumulative effects of the proposed action, as well as other recent past, current, and future actions that may be implemented in the region of influence (ROI) for the proposed action.

## 1.2 BACKGROUND

Langley AFB is located approximately 120 miles south of Washington, D.C, near the south end of the lower Virginia Peninsula on the Back River, a tributary of the Chesapeake Bay. Langley AFB is situated in the Hampton Roads Standard Metropolitan Statistical Area (SMSA), in the City of Hampton, Virginia. Other cities in the area include Newport News, Poquoson, Norfolk, and Portsmouth. As shown in Figure 1-1, the main base occupies 2,883 acres between the Northwest and Southwest Branches of the Back River.

Langley AFB is headquarters for the Air Combat Command (ACC) and home of the 1 FW. ACC is one of eight major commands in the Air Force and is responsible for organizing, equipping, training, and maintaining combat-ready forces at the highest level of readiness. The primary mission of Langley AFB is to provide air operational support to a broad spectrum of aircraft in both peacetime and combat environments. Langley's primary mission aircraft is the F-15C Eagle, a twin-engine, all-weather, extremely maneuverable tactical fighter designed to gain and maintain air superiority. General goals of the base are to sustain the resources and relationships deemed appropriate to pursue national interests, and provide for the command/control/communications necessary to execute the missions of the Air Force, ACC, and the 1 FW.



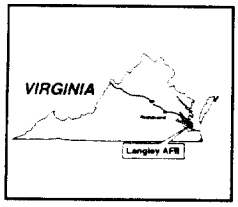




**Figure 1-1**

**MAP OF LANGLEY AFB, VIRGINIA**

## 1.3 PURPOSE AND NEED

The purpose of this action is to provide a new Fitness Center as an addition to the existing racquetball court and increase service facility capacity that improves the physical fitness services and morale, welfare, and recreational opportunities for all Langley AFB eligible personnel. Currently three facilities perform this function. Building 658 is a multi-purpose gymnasium providing for court, aerobic, swimming, and strength activities. This facility is severely overcrowded and is deteriorating with numerous areas of structural failure (Air Force 1999a). Building 226 contains four racquetball courts. Building 223, the Health and Wellness Center is used for fitness testing, but has been evaluated against Air Force standards (see following paragraph) and determined to be substandard and inadequate. Building 1421, at the Bethel housing area, was once categorized for base fitness activities, but is now dedicated to youth center activities.

Fitness centers are intended to support the requirement for individual physical fitness, better enabling military personnel to perform the Air Force mission and to provide and promote services, programs and activities. The existing physical fitness facilities at Langley AFB are unable to support these requirements due to limited gymnasium space and substandard facilities. The need for the Fitness Center was identified in the *Langley 2000 Base Development and Facility Improvement Plan 1987-88* (Air Force 1988) and *Air Force Program Document (AF DD Form 1391)* (Air Force 1999).

In the *Langley 2000 Base Development and Facility Improvement Plan 1987-88* (Air Force 1988), the *Customer Concept Document Fitness Center Langley Air Force Base, Virginia June 24, 1994* (Air Force 1994a) and again in the *Community Center Area Development Plan* (Air Force 1997a), the construction of a new Fitness Center was projected on a site along Sweeney Boulevard as an addition to the existing racquetball court. Constructed at this location, the facility would conveniently and safely service a large concentration of airmen living in dormitories within walking distance and be located adjacent to other base support facilities such as the library, Base Exchange and commissary.

## 1.4 REGULATORY COMPLIANCE

Implementation of the proposed action would require concurrence from several regulatory agencies. Table 1-1 lists the potentially applicable federal, state, and local regulatory requirements for the proposed action.

Table 1-1. Regulatory Requirements

| *Type of Permit or Regulatory Requirement* | *Requirement* | *Agency* |
|---|---|---|
| Corps of Engineers Section 404 Permit | Required for authorizing fill within wetlands or Waters of the United States | U.S. Army Corps of Engineers, Norfolk District |
| Endangered Species Act | Required to consult on impacts of project implementation on federally listed or proposed threatened and endangered species | U.S. Fish and Wildlife Service |
| Clean Water Act | Virginia Pollutant Discharge Elimination System storm water permit | Commonwealth of Virginia Department of Conservation and Recreation |

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# 2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

Langley AFB proposes to improve the physical fitness facilities used by Langley military personnel by constructing a new Fitness Center, including a Health and Wellness Center (HAWC). Two locations will be evaluated in this EA for the construction of the new 66,767-SF Fitness Center.

The proposed action location encompasses an area located along Sweeney Boulevard between Elm and Holly Streets. The Burrell Street Alternative location is situated south of Burrell Loop Street. Figure 2-1 presents the locations of the two sites. The No-Action Alternative, under which no new fitness center would be constructed, is also addressed within this EA.

## 2.1 PROPOSED ACTION

The proposed action consists of constructing and operating a new Fitness Center at a location along Sweeney Boulevard between Elm and Holly Streets, that was identified in the *Langley 2000 Plan Base Development and Facility Improvement Plan 1987-88* (Air Force 1988) and the *Community Center Area Development Plan* (Air Force 1997a). The new 66,767-SF Fitness Center would be an addition to the existing racquetball court and would be used in conjunction with the existing Fitness Center, Building 658, to provide adequate size, capacity, and services to the base population of approximately 20,800 people. Parking for 146 vehicles would be provided by a new parking lot that utilizes part of the war reserve material (WRM) storage yard associated with Building 222. No new storage yard would be constructed for WRM use. An additional 79 parking spaces would be constructed in an area adjacent to the existing automobile resale lot located on the southeast corner of Holly Street and Ash Avenue. Sixty-one existing parking spaces adjacent to Building 223 would be re-designated for Fitness Center parking (see Figure 2-2). Total parking for the new Fitness Center would be 286 spaces.

The Fitness Center functions are currently all housed in Building 658. The Fitness Center portion of the building would consist of a multi-court gymnasium, running track, lap pool, group exercise areas, free weight training, resistance weight training, cardiovascular training, classrooms, restrooms, locker rooms, showers, massage therapy, sauna, steam room, vending area, and the existing racquetball courts. The Health and Wellness Center functions are currently housed in Building 223. The proposed Fitness Center would include the HAWC as required by the Air Force Fitness Center Design Guide. The HAWC portion of the building would include offices, taping rooms, ergonomics, classrooms, wellness access/microfit, library, kitchen, reception/lobby/waiting area, and a relaxation room. The Air Force Criteria for Physical Fitness and Health and Wellness Centers, ACC Design Criteria, and Langley AFB Architectural Standards would be used for development of the Fitness Center design.

Approximately 8 acres of landscaped and developed lands would be disturbed in the construction of the proposed Fitness Center, roads, and parking area including 0.18 acre of jurisdictional wetlands. Site preparation would include removal of Facility Number 227 outdoor basketball courts (~14,375 SF), the parking lot in front of Building 226 racquetball center (~8,270 SF), and a portion of the storage yard associated with Building 222 (~12,650 SF).

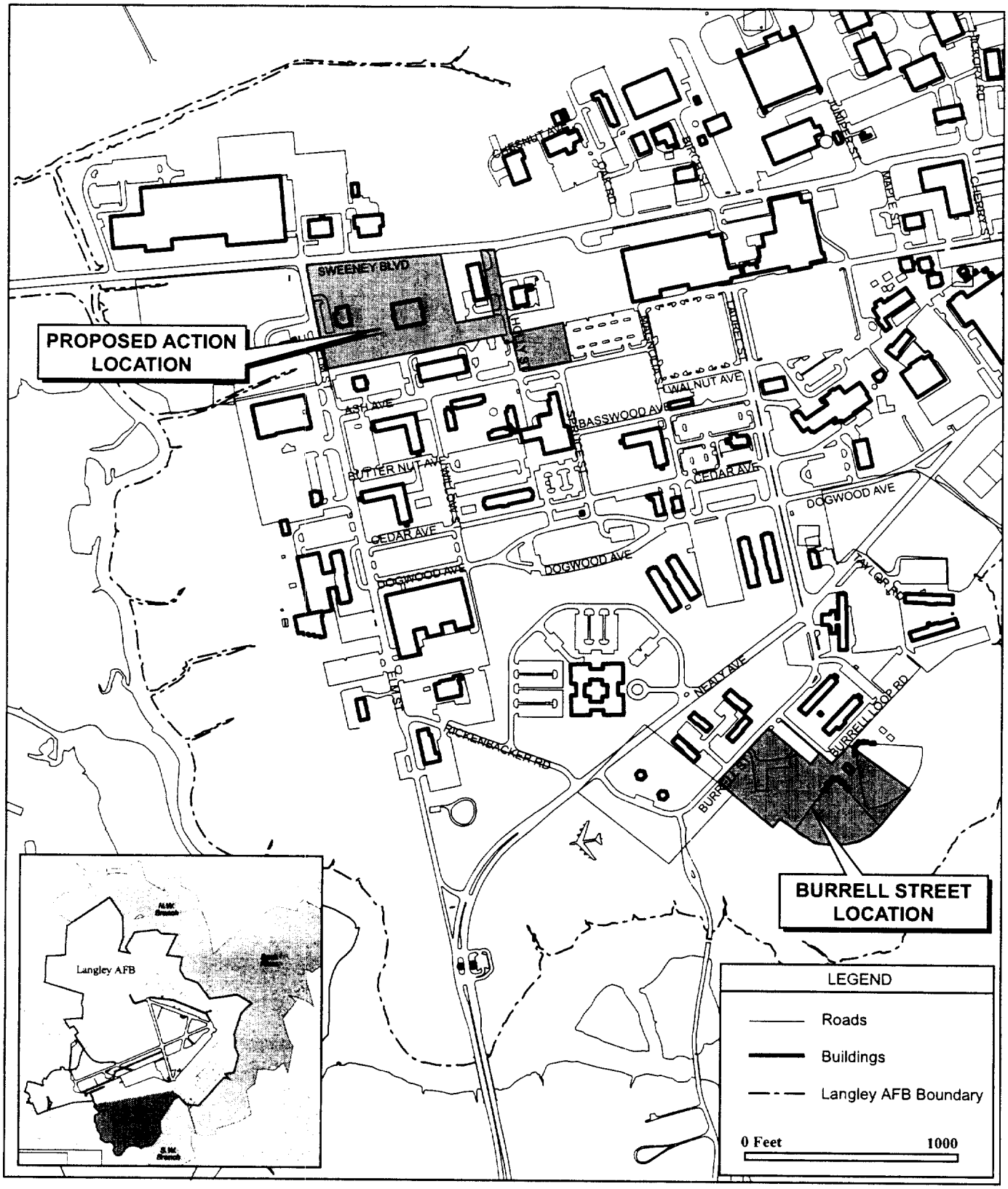
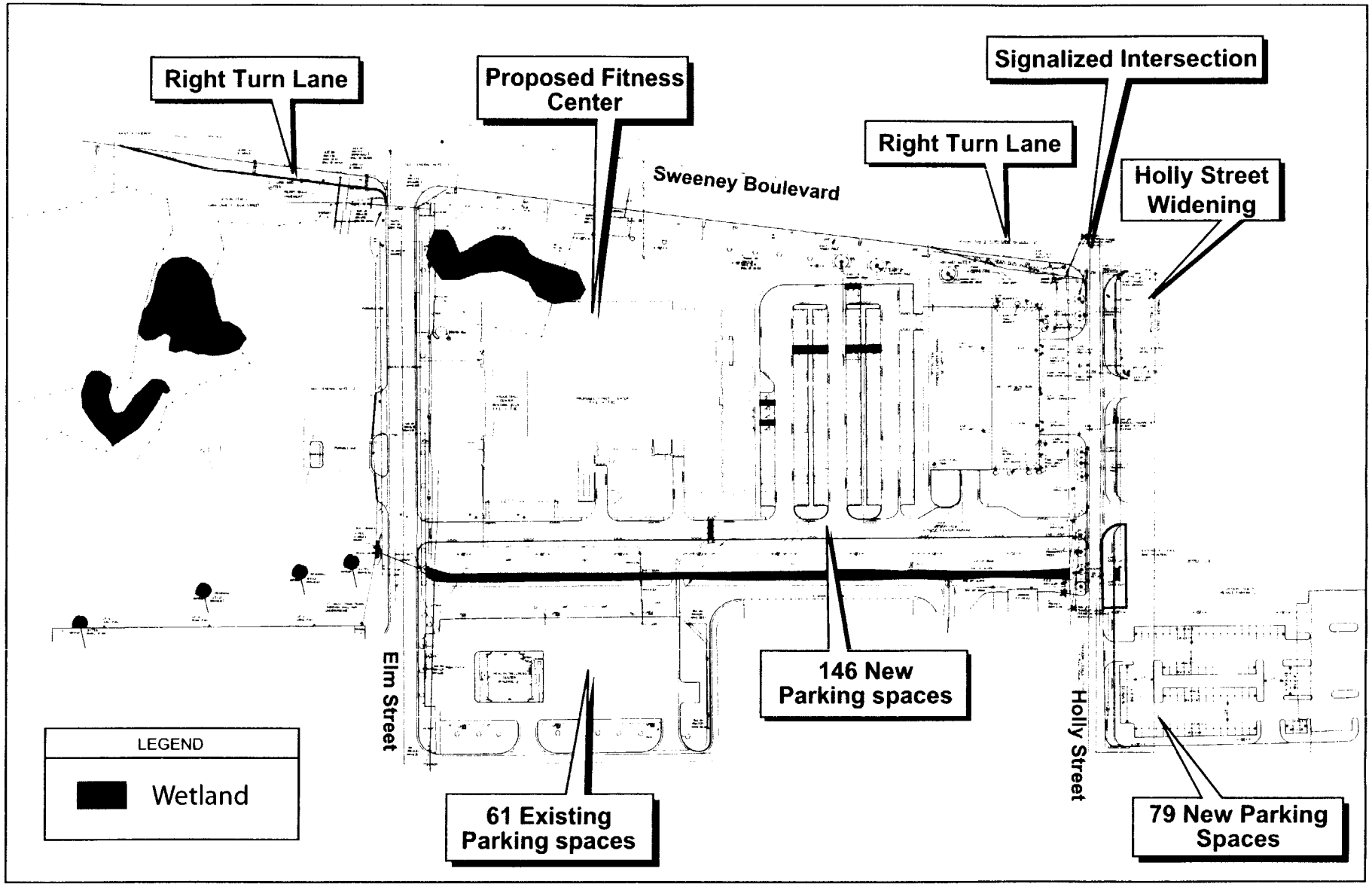



**Figure 2-1**

**POTENTIAL PROJECT LOCATIONS**



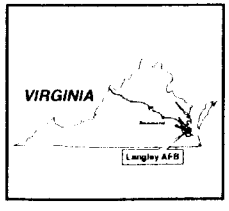




Figure 2-2

PROPOSED ACTION

Portions of Building 226 other than the racquetball courts would be demolished (~530 SF). Also the existing communication duct running across the site would be relocated around the perimeter of the site. The elevation of the building location would be increased approximately 4 to 5 feet above the existing elevation, to 9.0 feet National Geodetic Vertical Datum (NGVD). The elevation of the parking lot between the new Fitness Center and Building 222 would be raised approximately 2 to 2.5 feet. Site preparation and placement of approximately 44,000 cubic yards of fill material would require approximately one month. Fill material would be used to expedite compaction of subsurface soils because the existing materials are unsuitable to directly support construction. This material would remain in place for approximately 3 months prior to final grading and building construction. Construction would then continue for approximately 20 months.

Another component of the project would be the improvement of roads servicing the general vicinity of the new Fitness Center. A new accessway would be constructed on the southern side of the site to provide access to the Fitness Center parking areas from Elm Street and Holly Street. Holly Street would be widened from two lanes to three 12-foot-wide lanes with the center lane being designated as a turning lane. A fully actuated traffic signal would be installed at the intersection of Sweeney Boulevard and Holly Street. This signal would be synchronized with the existing signal at the corner of Sweeney Boulevard and Elm Street. In addition, two separate tapered, right-turn lanes would be constructed to assist traffic flow from Sweeney Boulevard turning onto Elm and Holly Streets. Total length of the right turn lane for Elm Street would be 325 feet long while the right turn lane for Holly Street would be 200 feet.

Existing water service is currently being upgraded as part of another project. Connections to the new water supply system would provide adequate domestic and fire water systems for the proposed Fitness Center. Wastewater generated by the Fitness Center would be discharged to the existing system located in Elm Street, which discharges to a lift station for the community center area being upgraded by a separate project. Electric and natural gas connections to the existing system are available in the immediate vicinity of the project area.

Storm water runoff and soil erosion from the site would be controlled by filtration and detention. Prior to the start of construction, silt fences, storm drain inlet and outlet protection, tree protection, and other appropriate standard construction practices would be instituted in accordance with the *Langley Stormwater Pollution Prevention Plan* (SWPPP) (Air Force 2000a). To control sediment and other pollutants that enter storm runoff from parking lots, a rotational storm water filter system would be installed as part of the project. Also a detention pond would be constructed to control and filter storm water generated as a result of site development. The existing flat-bottomed tidal ditch, located south of Building 226, would be expanded by approximately 0.065 acres and planted with smooth cordgrass (*spartina alterniflora)* to mitigate the consequences of the proposed action.

Landscaping on the site would be provided using vegetation identified in the *Langley AFB Preferred Plant Species List.* A native landscaped buffer would be planted between the new accessway and the existing tidal ditch. Both the landscaped buffer and the new wetlands would act as storm water filters. This standard construction practice would assist in preserving the Chesapeake Bay Preservation Act buffer.

## 2.2 BURRELL STREET ALTERNATIVE

The Burrell Street Alternative site, shown in Figure 2-3, would include the same-sized Fitness Center with a HAWC along with a single parking lot for 286 cars. Site preparation would include removal of two softball fields, a parking area that was associated with a previous structure, and concrete anchors associated with a former antenna tower. The new Fitness Center would be used in conjunction with the existing Fitness Center, Building 658, and Racquetball Court Building 226 to provide adequate size and services to the base population. The elevation of the building location would be increased approximately 4 to 5 feet above the existing elevation to 9.0 feet NGVD. The elevation of the new parking lot would be raised approximately 3 feet. Site preparation and placement of approximately 37,000 cubic yards of fill material would require approximately one month. Fill material would be used to expedite compaction of subsurface soils because the existing materials are unsuitable to directly support construction. This material would remain in place for approximately 3 months prior to final grading and building construction. Construction would then continue for approximately 20 months.

Approximately 7.5 acres of previously developed lands and existing softball fields would be disturbed by the construction of the proposed Fitness Center, and parking area, including 0.45 acre of jurisdictional wetlands. Wetland mitigation would include 0.45 acre to be created along the edge of the parking lot with the planting of smooth cordgrass (*spartina alterniflora)* to mitigate the consequences of the proposal. Existing water service is currently being upgraded as part of another project. Connections to the new water supply system would provide adequate domestic and fire water systems for the proposed Fitness Center. Wastewater generated by the Fitness Center would be discharged to the existing system located in Burrell Street and serviced by lift pump 62. Electric and natural gas connections to the existing system are available in the immediate vicinity of the project area.

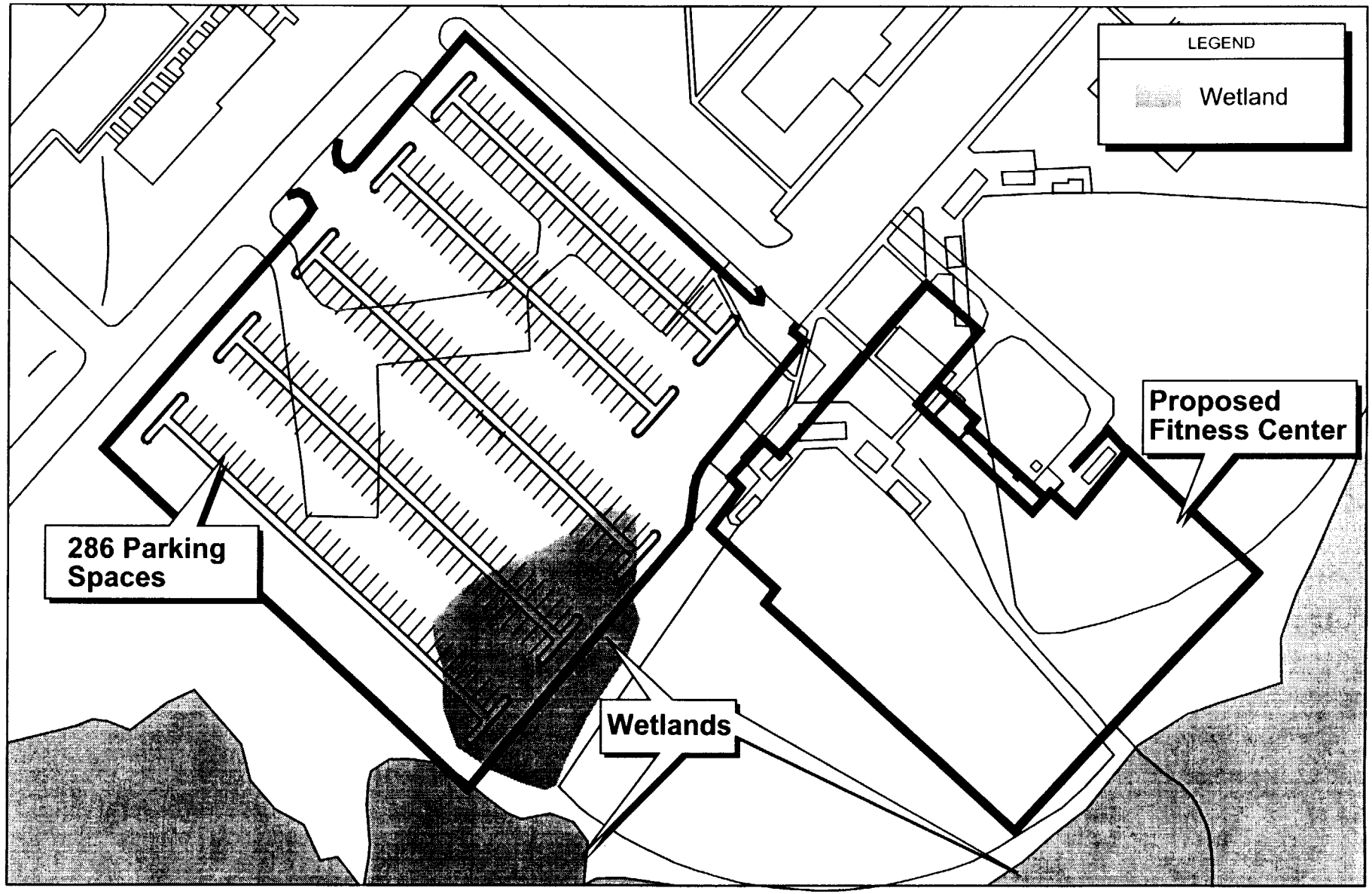
Storm water runoff from site alterations would be controlled by filtration. Prior to the start of construction, silt fences, storm drain inlet and outlet protection, tree protection, and other appropriate standard construction practices would be instituted in accordance with the Langley SWPPP (Air Force 2000a). Landscaping on the site would be provided utilizing vegetation identified in the *Langley AFB Preferred Plant Species List.*

## 2.3 NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the proposed Fitness Center would not be constructed. The Fitness Center activities would continue to be served by Buildings 658 and 227. The HAWC functions would continue to be served by Building 223.

## 2.4 ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD

One of the major objectives in the siting of the proposed action is to be consistent with the Langley 2000 *Base Development and Facility Improvement Plan 1987-88* (Air Force 1988), the *Langley 2020 Commander's General Plan* (Air Force 1994) and the *Community Center Area Development Plan* (Air Force 1997a). The proposed action site provides easy access for a large group of airmen located in nearby dormitories, takes advantage of existing base infrastructure



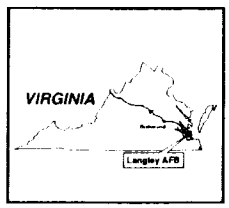




**Figure 2-3**

**BURRELL STREET ALTERNATIVE**

(utilities and roads) and the immediate access to Building 226 Racquetball Courts, and provides the opportunity to redevelop a previously developed site instead of constructing in a new area.

The site selection process, which was conducted in 1989, focused on the Community Center portion of the base, which is comprised of a large grouping of dormitories and other base support facilities, such as the library, commissary, post office, base exchange, and banking facilities. A review of areas available for siting the Fitness Center identified three potential locations within the Community Center. The potential locations, in addition to the proposed action site, included a site which is currently under construction for new dormitories near the intersection of Dogwood Avenue and Spruce Street, and a vacant site on the southwest corner of Sweeney Blvd and Elm Street.

The site southwest of the intersection of Sweeney Boulevard and Elm Street was eliminated from further consideration due to the amount and quality of wetlands that would be disturbed in comparison to the site of the proposed action, the potential disturbance to the existing ERP site (LF-5), and the cost and amount of time needed to construct the facility on this site given these constraints.

## 2.5 COMPARISON OF ALTERNATIVES

Table 2-1 summarizes the potential environmental impacts of the proposed action and alternatives, based on the detailed impact analyses presented in Chapter 4.0. In no instance would the potential environmental consequences be significant with the implementation of the

Table 2-1. Summary of Potential Environmental Impacts of Proposed Action and Alternatives

| *Resource* | *Proposed Action* | *Burrell Street Alternative* | *No-Action Alternative* |
|---|---|---|---|
| Air Quality | - | - | 0 |
| Water Resources | - | - | 0 |
| Biological Resources | + | - | 0 |
| Cultural Resources | 0 | - | 0 |
| Land Use/Transportation | +/- | -/- | 0 |
| Hazardous Materials and Waste Management | 0 | - | 0 |
| Socioeconomics and Environmental Justice | + | + | 0 |
| Noise | - | - | 0 |

- = Adverse, but not significant, impact
+ = Positive/beneficial impact
0 = No Change

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# 3.0 AFFECTED ENVIRONMENT

This chapter describes relevant environmental conditions at Langley AFB for resources potentially affected by the proposed action, the Burrell Street Alternative, and No-Action alternative described in Chapter 2.0. In compliance with guidelines contained in NEPA and CEQ regulations, and AFI 32-7061, the description of the existing environment focuses on those environmental resources potentially subject to impacts.

For the environmental impact analysis process, the resources to be analyzed are identified and the expected geographic scope of potential impacts, known as the region of influence (ROI), is defined. The environment includes all areas and lands that might be affected, as well as the natural, cultural, and socioeconomic resources they contain or support. In the following sections, the existing environmental conditions for each of the environmental resources are presented.

## 3.1 AIR QUALITY

Air quality is described by the atmospheric concentration of six pollutants: ozone ($O_3$), nitrogen dioxide ($NO_2$), carbon monoxide (CO), sulfur dioxide ($SO_2$), particulate matter equal to or less than 10 microns in diameter ($PM_{10}$), and lead (Pb). Langley AFB is located within the Hampton Roads Intrastate Air Quality Control Region (AQCR) #223. The Hampton Roads AQCR includes four counties (York, James City, Isle of Wright, and Southampton) area, as well as nine independent cities (Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg). This area includes substantial industry, several military and commercial airfields, and a large population that generates emissions. Table 3-1 summarizes the baseline emissions (stationary and mobile) of criteria pollutants and precursor emissions for this AQCR. Baseline Langley AFB emissions are incorporated into these totals for the AQCR. For each criteria pollutant, Langley AFB contributes less than 1 percent of regional emissions.

Table 3-1. Baseline Emissions for Langley AFB Affected Environment

| *Emissions* | *Pollutants (tons per year)* | | | | |
|---|---|---|---|---|---|
| | CO | VOCs | $NO_x$ | $SO_2$ | $PM_{10}$ |
| Hampton Roads AQCR[1] | 257,325 | 79,750 | 83,560 | 110,220 | 49,860 |
| Langley AFB[2] | 775.4 | 137.6 | 271.0 | 6.6 | 12.7 |
| ---Stationary Sources | 14.5 | 33.1 | 29.8 | 1.0 | 4.5 |
| ---Mobile Sources | 760.9 | 104.5 | 241.2 | 5.6 | 8.2 |

*Source:* 1. Federal Register (629123) June 26, 1997
2. Air Force 1999b

Air quality in Hampton Roads AQCR is classified as attainment for all criteria pollutants. For ozone and its pollutant precursors (VOCs and $NO_x$) the area is considered in "transitional

attainment" or "maintenance." In addition to its current status as a "maintenance area" for $O_3$ attainment, the Hampton Roads area is expected to be designated as nonattainment for the new 8-hour $O_3$ standard. However, based on the ruling of *Whitman v. American Trucking*, 121 S.Ct. 903(2001), these new standards are currently unenforceable. While the future implementation is still uncertain, the USEPA has proceeded with initial designations based on 3 years of consecutive monitoring data. Designations are either "nonattainment" or "attainment/ unclassifiable." According to USEPA Guidance (March 2000), conformity and other planning requirements would be triggered on the effective date of the final USEPA designations.

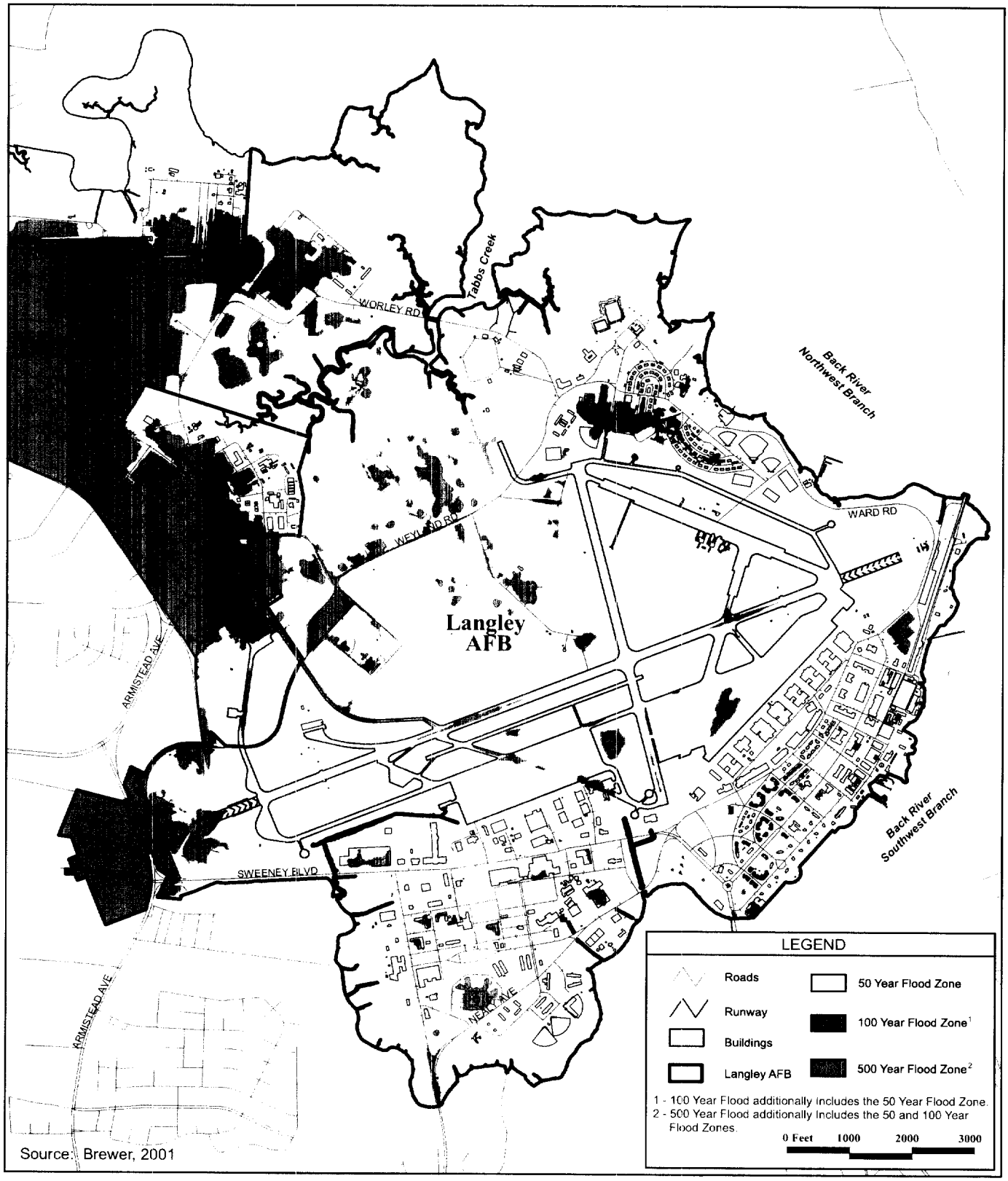
Clean Air Act (CAA) Section 176(c), General Conformity, established certain statutory requirements for federal agencies with proposed federal activities to demonstrate conformity of the proposed activities with each state's State Implementation Plan (SIP) for attainment of national ambient air quality standards (NAAQS). In 1993, USEPA issued the final rules for determining air quality conformity. Federal activities must not (1) cause or contribute to any new violation; (2) increase the frequency or severity of any existing violation; or (3) delay timely attainment of any standard, interim emission reductions, or milestones in conformity to a SIP's purpose of eliminating or reducing the severity and number of NAAQS violations or achieving attainment of NAAQS. General conformity applies only to non-attainment and maintenance areas. If the emissions from a federal action proposed in a non-attainment area exceed annual emission thresholds identified in the rule (*de minimis* levels) or are regionally significant (identified as equal to or more than 10 percent of the emissions inventory for the region), a conformity determination is required of that action. The thresholds become more restrictive as the severity of the non-attainment status of the region increases.

## 3.2 WATER RESOURCES

Water resources include surface and groundwater features located within the base as well as watershed areas affected by existing and potential runoff from the base, including floodplains. Water supply to the base is addressed in section 3.7. The ROI is defined as the base and the immediate vicinity.

Langley AFB occupies a flat lowland peninsula with a gentle eastward slope of 1 foot per mile and elevations of 5 to 11 feet above mean sea level within the Atlantic Coastal Plain physiographic province. The base is bounded on the northeast side by the Northwest Branch of the Back River, and on the southeast side by the Southwest Branch of the Back River, which flow, into the Chesapeake Bay. Storm water drainage is carried by a series of pipes, box culverts and open ditches to 53 outfalls with 26 outfalls associated with areas that contain industrial operations. The base has been issued a Virginia Pollutant Discharge Permit (No. VA0083194) that expires on May 2, 2005. This permit identifies effluent limitations and requires quarterly sampling and management of runoff and sediment and erosion control. The base's SWPPP identifies standard construction practices for minimizing runoff contamination (Air Force 2000a).

Due to its proximity to the Back River and the Chesapeake Bay, much of Langley AFB, including the proposed action location and the Burrell Street alternative location lies within the 100-year flood zone. Figure 3-1 illustrates the extent of the floodplains on Langley AFB.



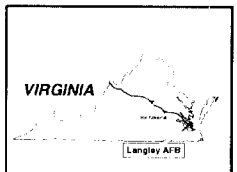




**Figure 3-1**

**LANGLEY AFB FLOODPLAIN MAP**

## 3.3 BIOLOGICAL RESOURCES

For purposes of the impact analysis, biological resources will be divided into three major categories: (1) terrestrial communities, (2) wetland and freshwater aquatic communities, and (3) threatened, endangered, and special status species/communities. The ROI for biological resources includes Langley AFB and the specific areas associated with the proposed action.

### 3.3.1 Terrestrial Communities

Wildlife on the base are widespread species that are habitat generalists or tolerant of disturbance. This includes a wide variety of game and furbearing species, small mammals, waterfowl, songbirds, raptors, amphibians, reptiles, and fish. The proximity of the base to estuarine and marine habitats of Chesapeake Bay provides habitat for a variety of neotropical migrants and waterfowl.

### 3.3.2 Wetland and Freshwater Aquatic Communities

Wetlands at Langley AFB encompass approximately 652 acres, 462 acres of which are non-freshwater estuarine wetlands. Freshwater wetlands on base include palustrine forested, emergent, and scrub-shrub wetlands. Forest and scrub-shrub wetlands occur in low-lying upland areas with nutrient-poor sandy soils and are dominated by bottomland hardwood trees and shrubs. Emergent wetlands primarily occur as small remnant patches, along drainage ditches, and as tidal marsh (Hobson 1996, Air Force 1998b). A wetlands delineation of the entire base was conducted in late 2000 and resulted in the wetlands map presented in Figure 3-2 (Air Force 2001a). The wetlands identified during this effort are under jurisdictional determination review by the Norfolk USACOE (Wittkamp, 2001).

Salt and freshwater marshes of the Northwest and Southwest Branches of the Back River, New Market Creek, Brick Kiln Creek, Tabbs Creek, and Tides Mill Creek surround the base on three sides. Tidal flow from the Chesapeake Bay is substantial along these margins; however, most inland freshwater wetlands have been filled, drained to ditches, or converted into golf course features (Air Force 1998b). Currently, Langley AFB is in the process of restoring and stabilizing sections of Chesapeake shoreline through the establishment of smooth and saltmeadow cordgrass fringe marsh. This project will result in a more erosion-resistant shoreline, improve water quality, and promote the Chesapeake Bay's unique estuarine ecosystem (Air Force 2001b).

At the Sweeney Boulevard location there is a 0.18-acre wetland mosaic area that has been identified by the USACOE (see Appendix B) and is identified in a base wetlands survey as a palustrine, narrow-leaved emergent wetland. The USACOE also identified a 0.02 acre wetland area within the drainage ditch to the east of Holly Street. At the Burrell Street location, the base wetland survey identified a 0.45-acre palustrine wetland area that is within the project area (see Figure 2-3). The Burrell Street location is surrounded on the south by an estuarine intertidal wetland that extends to the Southwest Branch of the Back River.

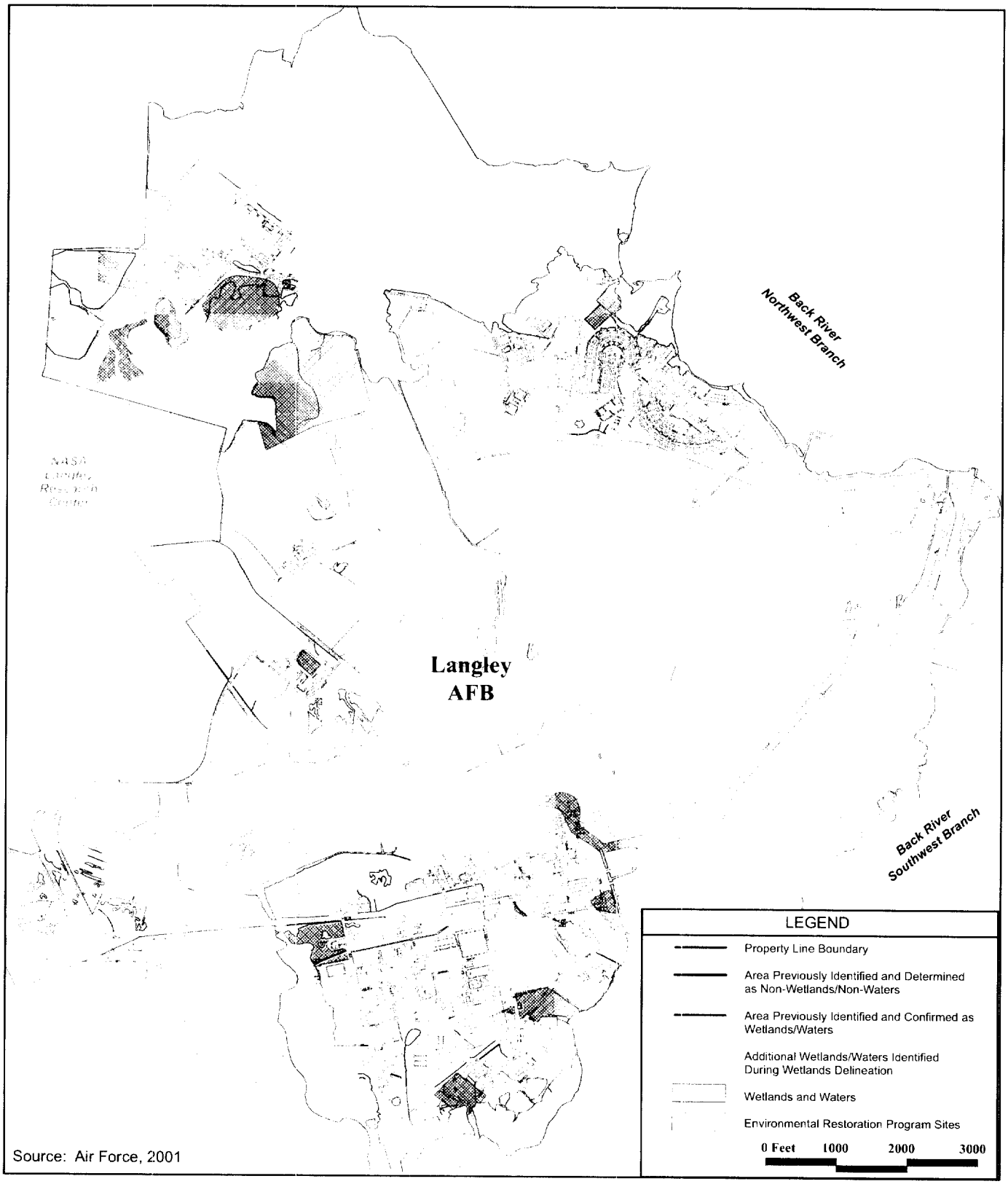
### 3.3.3 Threatened, Endangered, and Special Status Species/Communities

Fourteen special status species occur or have the potential to occur on Langley AFB and are presented in Table 3-2. Eleven have special state status and three have additional federal status. No critical habitat occurs on base.

Table 3-2. Threatened, Endangered, and Special-Status Species/ Communities that Occur or Potentially Occur on Langley AFB

| *Species* | *Status* | *Areas of Occurrence* |
|---|---|---|
| **Plants** | | |
| Harper's fimbristylis<br>*Fimbristylis perpusill* | SE | Coastal seasonal ponds |
| **Invertebrates** | | |
| Northeastern beach tiger beetle<br>*Cicindela dorsalis dorsalis* | FT | Broad beaches with well-developed sand dunes |
| **Amphibians** | | |
| Barking treefrog<br>*Hyla gratiosa* | ST | Breeds in coastal seasonal freshwater ponds. Needs fish-free breeding habitat. Base at northern edge of range. Spends warm months in treetops, seeks moisture during dry periods by burrowing among tree roots and clumps of vegetation. |
| Mabee's salamander<br>*Ambystoma mabeei* | ST | Breeds in coastal seasonal freshwater ponds. Needs fish-free breeding habitat. Tupelo and cypress bottoms in pine woods, open fields, and lowland deciduous forest. |
| **Reptiles** | | |
| Canebreak rattlesnake<br>*Crotalus horridus atricaudatus* | SE | Meadows, canebreak or "green sea" wetlands. At risk because of wetland loss. Swampy areas, canebrake thickets, and floodplains. |
| **Birds** | | |
| Bald eagle<br>*Haliaeetus leucocephalus* | FT/SE | Often nests in loblolly pines close to a food and water source. Inland waterways and estuarine areas. |
| Foster's tern<br>*Sterna forsteri* | SS | Coastal and marshland bird that fishes the waters of the region |
| Glossy ibis<br>*Plegadis falcinellus* | SS | Wades in marshes and fishes the waters of the region |
| Great egret<br>*Asmerodius albus* | SC | Palustrine and estuarine wetlands; marshes |
| Night-heron yellow-crowned<br>*Nyctanassa violacea violacea* | SS | Wades in marshes and fishes the waters of the region |
| Northern harrier<br>*Circus cyaneus* | SS | Hunts over marshes and fields and is known to nest in the area. |
| Least tern<br>*Sterna antillarum* | SS | Found feeding or nesting on beaches in the area |
| Peregrine falcon<br>*Falco peregrinus* | SE | Observed foraging over salt marshes on base. Open wetlands near cliffs. |
| Piping plover<br>*Charadrius melodius* | FT/ST | Prefers areas with expansive sand or mudflats (for foraging) in close proximity to a sand beach (for roosting) |

*Note:* FT = Federal Threatened
SC = State Candidate
SE = State Endangered
SS= State Sensitive ST = State Threatened



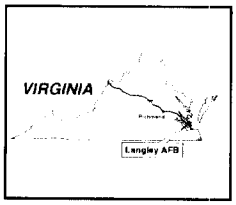




**Figure 3-2**

**LANGLEY AFB WETLANDS MAP**

Langley AFB provides habitat for one federally listed threatened species: the bald eagle. Surveys conducted in 1993 and 1994 indicated that foraging by bald eagles occurs to a limited extent within creeks and marshes of the base. Habitat suitable for nesting or roosting occurs among the loblolly pines on the northern side of the base, but no nesting or long-term roosting has ever been observed. Uniform age/size structure of loblolly pine stands may limit use of the base as nesting or roosting habitat (Barrera 1995). The second federally listed threatened species, the northeastern beach tiger beetle, has no record of occurrence on base; it typically inhabits broad sandy beaches and has become a species of concern within the Chesapeake Bay ecosystem. The third federally listed threatened species, the piping plover, is associated with sandy beaches, which are not found on Langley AFB.

Virginia special status species, include the barking treefrog, canebrake rattlesnake, Foster's tern, glossy ibis, great egret, Harper's fimbristylis, least tern, Mabee's salamander, night-heron yellow-crowned, and the peregrine falcon. While these species might be found at other locations on Langley AFB, conditions on both the sites considered for the Fitness Center are not suitable for use by any of the species.

The following federal and commonwealth agencies were consulted concerning threatened, endangered, and special status species/communities. These agencies included the United States Fish and Wildlife, Virginia Field Office, the Virginia Department of Agriculture and Consumer Services, Division of Consumer Protection, Office of Plant and Pest Services; Department of Game and Inland Fisheries; and the Department of Conservation and Recreation, Division of Natural Heritage. Copies of consultation letters and correspondence are provided in Appendix A.

## 3.4 CULTURAL RESOURCES

Cultural resources are defined as any prehistoric or historic district, site, building, structure, or object considered important to a culture, subculture, or community for scientific, traditional, or religious reasons. Cultural resources are typically divided into three categories: archaeological; architectural; and traditional.

*Archaeological resources* are locations where prehistoric, historic activity measurably altered the earth or produced deposits of physical remains (e.g., arrowheads, bottles). *Architectural resources* include standing buildings, dams, canals, bridges, and other structures of historic significance. Architectural resources generally must be more than 50 years old to be considered for inclusion in the National Register of Historic Places (NRHP). However, more recent structures, such as Cold War era resources, may warrant protection if they manifest "exceptional significance" or the potential to gain significance in the future. *Traditional resources* are resources associated with cultural practices and beliefs of a living community that are rooted in its history and are important in maintaining the continuing cultural identity of the community. The ROI for cultural resources is the area within which the proposed action has the potential to affect existing or potentially occurring archaeological, architectural, or traditional resources. For the proposed action, the ROI is defined as Langley AFB.

### Archaeological and Architectural Resources

Thirteen archaeological sites and many historic architectural resources have been identified within Langley AFB or on the base border with National Aeronautics and Space Administration's (NASA) Langley Research Center (Air Force 1998a; 1996b). None of these are within the area of affected environment for the proposed action or its alternative. Archaeological survey and testing in Planning Area 3, Commercial Center (Wheaton et al 1992), did not identify significant cultural resources within the area of proposed construction, and the area is considered to have a low probability for intact cultural deposits. In Planning Area 5, Community South, both historic and prehistoric archaeological resources have been identified (Air Force 1996b), although none are within the area of affected environment for the Burrell Street Alternative. The entire shoreline of Planning Area 5 is considered to have a high potential for prehistoric archaeological resources. The northern part of the planning area is considered sensitive for historic resources including those associated with the Shellbank Plantation and farm (Air Force 1996b). An architectural survey of buildings constructed prior to 1945 identified two historic buildings in the part of the base historically known as the Shellbank area: Building 90 (Hampton Normal and Agricultural Institute), and Building 253 (Youth Center Barn). Neither of these is within the area of affected environment for the Proposed Action or its Alternative (NPS 1992).

Table 3-3 summarizes NRHP-listed historic properties within or immediately adjoining the base. None of these are within the area of affected environment for the proposed action or its alternative.

Table 3-3. National Register-Listed Historic Properties at Langley AFB

| *City* | *Property* | *Location* |
|---|---|---|
| Hampton | Lunar Landing Research Facility National Historic Landmark | Langley Research Center (NASA property) |
| | Rendezvous Docking Simulator National Historic Landmark | Langley Research Center (NASA property) |
| | Variable Density Tunnel National Historic Landmark | Langley Research Center (Air Force property) |
| | Full Scale Tunnel National Historic Landmark | Langley Research Center (Air Force property) |
| | Eight-Foot High Speed Tunnel | Langley Research Center (Air Force property) |
| *Source:* National Register Information Service 2000 | | |

### Traditional Resources

No traditional resources or Native American issues have been identified at Langley AFB (Air Force 1996). No federally recognized Indian tribes or lands are located in Virginia. The Bureau of Indian Affairs (BIA) identifies Tribal Designated Statistical Areas for four tribes in eastern Virginia: the Mattaponi, the Pamunkey, the Chickahominy, and the Eastern Chickahominy (BIA 1998). The Commonwealth of Virginia recognizes several tribes in eastern Virginia: the

Chickahominy, the Eastern Chickahominy, the Pamunkey, the Mattaponi, and the Nansemond (Virginia Indian Council 1997).

## 3.5 LAND USE AND TRANSPORTATION

Land uses are frequently regulated by management plans, policies, ordinances, and regulations that determine the types of uses that are allowable or protect specially designated or environmentally sensitive areas. Special use areas are identified by agencies as being worthy of more rigorous management.

Transportation resources refer to the infrastructure and equipment required for the movement of people, raw materials, and manufactured goods in geographic space. Particular emphasis for this analysis is given to the road and rail networks in the region. The ROI for land use and transportation resources consists of Langley AFB and the area in the immediate vicinity.

### 3.5.1 Land Use

Langley AFB is located in the city of Hampton between the Northwest and Southwest Branches of the Back River. Land uses on Langley AFB are grouped by function in distinct geographic areas. For example, residential areas are primarily located in the eastern portion of the base, while aircraft operations and maintenance facilities are located in the southern portion. Adopted plans and programs guide land use planning on Langley AFB. The *Langley 2020–Commanders General Plan* provides an overall perspective concerning development opportunities and constraints. The base has nine Area Development Plans that focus on specific, geographically based development issues. The proposed action location is contained within the area studied in the *Community Center Area Development Plan*, while the Burrell Street location is addressed in the *Community Center South Area Development Plan*. The base's *Integrated Natural Resource Management Plan* is used to coordinate natural resource management. Base plans and studies present factors affecting both on- and off-base land use and include recommendations to assist on-base officials and local community leaders in ensuring compatible development.

Langley AFB is located at an elevation of 5 to 11 feet above mean sea level. Only a relatively small portion of the base is forested or remains in its natural state. Plant communities include approximately 250 acres of mixed oak-hickory hardwood forests, 60 acres of 60-year-old planted loblolly pine forests, 450 acres of tidal salt marshes, and an undetermined amount of old-field successional areas. The tidal salt marshes and estuaries of the base are particularly significant resources that contain many diverse ecological habitats and plant subcommunities. The remaining portions of the base consist of managed lawns and developed areas of buildings, structures, and pavement. The proposed action location includes Buildings 227 (basketball courts), 226 (racquetball courts) and the storage yard for Building 222 (WRM Storage) with the grassed areas surrounding these buildings. Located just south of Building 226, is the HAWC in Building 223. The Burrell Street location is currently open space and softball fields with a parking area. Previously the site was an antenna field and was the location of Building 60.

Langley AFB, including both of the locations considered for the Fitness Center, is located within the coastal zone of the Commonwealth of Virginia. Federal agency activities within the coastal zone must be carried out in a manner that is consistent to the maximum extent

practicable with the enforceable policies All federal actions are subject to this consistency requirement if they would affect natural resources, land uses, or water uses in the coastal zone. The base area is designated as a Resource Protection Area under the Chesapeake Bay Preservation Act. The Chesapeake Bay Local Assistance Department regulates activities in the Chesapeake Bay Resource Management Areas and Resource Protection Areas.

The Virginia Department of Environmental Quality (DEQ) oversees activities in the coastal zone of the commonwealth through a number of enforceable programs. In reviewing proposed action, DEQ may require agencies to coordinate with its specific divisions or other agencies for consultation or to obtain permits; they also may comment on environmental impacts and mitigation. Virginia DEQ enforceable programs and policies pertain to fisheries management, subaqueous lands management, wetlands management, dunes management, non-point source pollution control, point source pollution control, shoreline sanitation, air pollution control, and costal lands management. Not all of these enforceable programs are applicable to the proposed action, as explained in the following sub-sections. The remaining programs (air pollution control, non-point source pollution control, point source pollution control, and wetlands management) are discussed in relevant resource sections (i.e., air quality, water resources, biological resources).

Fisheries Management. The construction of the Fitness Center at either location, within the base cantonment area, (see Figure 2-1) would have no adverse effect on the conservation and enhancement of finfish and shellfish resources or the promotion of commercial and recreational fisheries.

Subaqueous Lands Management. The construction of the Fitness Center at either location would not involve encroachment into, on or over state-owned subaqueous lands.

Dunes Management. There are no sand covered beaches or sand dunes in the vicinity of either location considered for the Fitness Center.

Shoreline Sanitation. The construction of the Fitness Center at either location would include interconnections to the base sanitary sewer system. No septic systems, regulated by this program would be proposed.

## 3.5.2 Transportation

Access to Langley AFB is provided from Interstate 64 (I-64) via Armistead Avenue to the west of the base and from Mercury Boulevard (United States Route 258/Virginia State Route [SR] 32), via LaSalle Avenue (SR 167) or King Street (SR 278). LaSalle Avenue is a four-lane roadway that provides direct access to the Main Gate with an annual average daily traffic volume of 11,370 vehicles. Traffic volumes on King Street between the gate and Lamington Road are 7,800 vehicles. Armistead Avenue, a four-lane roadway, provides access to the base through the West Gate at the intersection with Sweeney Boulevard.

### Circulation at Langley AFB

Traffic flow on base generally operates well, with the greatest congestion occurring during the morning rush hour. Parking in some areas is a constraint. Parking lot utilization studies and a

traffic engineering study for the Community Center and Community South Small Planning Areas were conducted by the Military Transportation Management Command (MTMC) to address areas where congestion was observed. The traffic engineering study recommended new signal controllers at Sweeney Boulevard and Elm Street and at Sweeney Boulevard and Nealy/Hammond Avenues (MTMC 1996). A new traffic signal was also recommended at the intersection of Sweeney Boulevard and Holly Street with additional right-turn lanes both east and westbound. A 12-foot-wide center left-turn lane was also recommended for Holly Street between Sweeney Boulevard and Ash Avenue (MTMC 1996). In a more recent evaluation of traffic conditions along Sweeney Boulevard, traffic flow at the signalized intersection with Elm Street was observed to be operating at slightly less than optimum condition during peak hours. Traffic entering Sweeney Boulevard at Holly Street during evening peak hours experiences a significant wait time (Air Force 2000b). A recently conducted traffic study recommended a right-turn lane be constructed on eastbound Sweeney Boulevard at Elm Street since 33 to 50 percent of the traffic travels in that direction (Air Force 2000b).

## 3.6 HAZARDOUS MATERIALS AND WASTE MANAGEMENT

Hazardous materials are identified and regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Occupational Safety and Health Act (OSHA); and the Emergency Planning and Community Right-to-Know Act (EPCRA). Hazardous materials have been defined in AFI 32-7086, *Hazardous Materials Management*, to include any substance with special characteristics that could harm people, plants, or animals. Hazardous waste is defined in the Resource Conservation and Recovery Act as any solid, liquid, contained gaseous or semisolid waste, or any combination of wastes that could or do pose a substantial hazard to human health or the environment. Waste may be classified as hazardous because of its toxicity, reactivity, ignitibility, or corrosivity. In addition, certain types of waste are "listed" or identified as hazardous in 40 CFR 263.

### Hazardous Materials

The majority of hazardous materials used by Air Force and contractor personnel at Langley AFB are controlled through an Air Force pollution prevention process called HAZMAT. This process provides centralized management of the procurement, handling, storage, and issuing of hazardous materials and turn-in, recovery, reuse, recycling, or disposal of hazardous wastes. The HAZMAT process includes review and approval by Air Force personnel to ensure users are aware of exposure and safety risks.

### Hazardous Waste

Langley AFB is a large-quantity hazardous waste generator. Hazardous wastes generated during operations and maintenance activities include solvents, metal-contaminated spent acids, and sludge from wash racks. Langley AFB recycles all lubricating fluids, batteries, oil filters, and shop rags. Hazardous wastes are managed in accordance with the *Langley AFB Hazardous Waste Management Plan*, dated 31 July 1997.

### Environmental Restoration Program

The Department of Defense (DoD) developed the Environmental Restoration Program (ERP) to identify, investigate, and remediate potentially hazardous material disposal sites that existed on DoD property prior to 1984. Forty-eight ERP sites, including one at Bethel Manor Housing, have been identified since the ERP began at Langley AFB. Twenty-nine of the sites have been closed. The remaining 19 sites are regulated under CERCLA and will be subject to a Federal Facility Agreement that is being negotiated with USEPA Region III. The *Langley AFB Management Action Plan* (MAP) (Air Force 2000c) summarizes the current status of the base environmental programs and presents a comprehensive strategy for implementing actions necessary to protect human health and the environment. This strategy integrates activities under the ERP and the associated environmental compliance programs that support full restoration of the base.

ACC policy requires that any project on or near a Langley AFB ERP site be coordinated through the Langley ERP Manager. Most of the proposed action would be constructed to the east of ERP Site LF-07, an abandoned landfill covering approximately 13 acres, on the southwest corner of Sweeney Boulevard and Elm Street. The right-turn lane, from Sweeney Boulevard to Elm Street, would be installed on the edge of this site. Also identified as an ERP site is the base's silver-contaminated storm water sewer (OT-56), including tidal ditches, which would be disturbed by construction activities. The Burrell Street Alternative location is on a portion of the ERP Site OT-06 Annex, where soils samples taken in 1995 contained various contaminants. In September 2000, a Record of Decision was issued for the site requiring no further action at that time (Air Force 2000d).

### Solid Waste Management

Solid waste generated on Langley AFB is removed by contract services to either the City of Hampton's Bethel Sanitary Landfill or to the Hampton Waste-to-Energy facility for incineration. In FY00 the base generated 7,179 tons of solid waste and diverted 1,879 tons through recycling and composting activities. The base also generated 1,113 tons of construction and demolition debris. The existing Fitness Center generates less than 5 cubic yards of solid waste a week, primarily as a result of refreshments sold in the center.

## 3.7 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

### Socioeconomics

The socioeconomic resources of the potentially affected region are characterized in terms of population, economic activity, and infrastructure. Because these resources would be interrelated in their response to the proposed action at Langley AFB, their current condition is assessed in order to provide a basis for analyzing potential socioeconomic impacts. A change in employment, for example, may lead to population movements into or out of a region and, in turn, lead to changes in demand for housing and public services. The significance of these estimated impacts is then evaluated by comparing their characteristics to the baseline conditions described in this section. The ROI for this analysis includes York County/Poquoson; James City County/Williamsburg; Newport News; Hampton; and Norfolk, which are the areas surrounding Langley AFB. It is expected that potential socioeconomic

impacts of the proposed action would be concentrated in this region. The proposed action involves the construction of a new Fitness Center with a value of approximately $12 million dollars.

## Employment and Earnings

Information regarding employment and earnings is presented for the following jurisdictions whose economies are closely associated with activities at Langley AFB: York County/Poquoson; James City County/Williamsburg; Newport News; Hampton; and Norfolk. Comparisons are also presented with conditions for the Commonwealth of Virginia.

Total full- and part-time employment in the region decreased from 501,950 jobs in 1990 to 498,938 in 1997, at an average rate of –0.1 percent annually. The largest contributions to employment in 1997 were made by services (27.0 percent); military (16.6 percent); and retail trade (14.4 percent). For the years 1980, 1990, and 1997, the contribution of the military decreased from 21.7 percent to 21.0 percent and 16.6 percent, respectively. The sectors of the economy exhibiting the greatest addition of jobs over the period 1990-1997 were services and state and local government.

Military employment in the Commonwealth of Virginia declined from 6.5 percent of total employment in 1980 to 5.7 percent in 1990 and 4.2 percent in 1997. The sectors of the economy exhibiting the greatest addition of jobs in the state over the period 1990-1997 were services and retail trade. The number of personnel stationed at Langley AFB stood at about 8,250 active-duty military and 2,440 civilian workers in 1999.

Non-farm earnings in the region totaled more than $14.1 billion in 1997. The major contributions were made by services (23.0 percent); military (18.4 percent); and manufacturing (14.1 percent). In the Commonwealth of Virginia, non-farm earnings totaled over $129 billion in 1997, with the major contributions made by services (28.5 percent); manufacturing (12.3 percent); and state and local government (10.9 percent).

In addition to economic effects associated with payroll expenditures by Langley AFB personnel, the installation also purchases significant quantities of goods and services from local and regional firms. In 1999, annual expenditures by the base totaled over $266 million. Further, the Air Force estimates that the economic stimulus of Langley AFB created approximately 5,750 secondary jobs in the civilian economy.

## Population

The population of the region increased by less than 1 percent between 1990-1999, reaching 670,650 persons in 1999. By comparison, the population of the Commonwealth of Virginia increased by almost 11 percent during the same period, reaching 6,872,912 in 1999 at an average annual rate of 1 percent.

Approximately 85 percent of the 1999 population of the region resides in cities and towns that range in size from Poquoson (with a population of 11,571) to Norfolk (with a population of 225,875). The largest include Norfolk, Newport News (179,138 persons), and Hampton (137,193 persons).

The combined regional population is projected to increase from about 679,700 in 2000 to 712,013 by the year 2010 at an average annual growth rate of 0.5 percent.

Based on information provided by Langley AFB concerning the place of residence (by Zip Code area) of personnel assigned to the installation, it is possible to derive an estimate of the number of personnel residing in each of a number of communities in the vicinity of the base. The largest numbers of off-base military personnel reside in Hampton and Newport News.

## Infrastructure

**Potable Water.** Langley AFB's primary potable water source is Big Bethel Water Treatment Plant. The city of Newport News serves as a backup source for Langley AFB. The two sources are currently operating at 43 and 73 percent of their capacities (City of Newport News 2000). The total active storage capacity of the Langley AFB system is 3.25 million gallons (Ecology and Environment 1999).

**Wastewater Treatment.** Wastewater generated at the base is discharged through the sanitary sewer system to the Hampton Roads Sanitation District (HRSD). The base has an HRSD Industrial Wastewater Discharge Permit (No. 0011) effective through 1 October 2003 that regulates the amount of pollutants that can be discharged to the wastewater treatment plant. A recent assessment of the base's sanitary system indicated that the system is being upgraded and would be adequate to handle existing and projected needs (Air Force 1998b).

**Electric Power & Natural Gas.** Electric power is provided from the Back River substation to the base by Dominion Virginia Power. Natural gas is provided by Virginia Natural Gas through an underground main that extends along Sweeney Boulevard. Both are adequate to meet existing and projected demand.

## Environmental Justice

Executive Order (EO) 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations),* was issued by the President on February 11, 1994. Objectives of the EO as it pertains to this document include identification of disproportionately high and adverse health and environmental effects on low-income populations or minority populations that would be caused by a proposed federal action. Accompanying EO 12898 was a Presidential Transmittal Memorandum that referenced existing federal statutes and regulations, including NEPA to be used in conjunction with EO 12898. EO 13045, *(Protection of Children),* issued in 1997, includes identification and assessment of environmental health risks and safety risks caused by a federal action that may disproportionately affect children.

Environmental justice concerns the disproportionate effect of a federal action on low-income or minority populations. The existence of disproportionately high and adverse impacts depends on the nature and magnitude of the effects identified for each of the individual resources. If implementation of the proposed action were to have the potential to significantly affect people, these effects would have to be evaluated for how they adversely or disproportionately affect low-income or minority communities. Since no adverse effects occur because of the proposed action, or the Burrell Street alternative, neither minority nor low-income groups would be affected disproportionately. Likewise, there would be no environmental health risks or safety

risks that may disproportionately affect children associated with the proposed action or the Burrell Street alternative. Therefore environmental justice and protection of children issues were eliminated from further analysis.

## 3.8 NOISE

Noise is defined, as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise annoying. Human response to noise varies according to the type and characteristics of the noise source, distance between source and receptor, receptor sensitivity, and time of day. The ROI for includes the area surrounding each proposed Fitness Center location.

Sound is measured with instruments that record instantaneous sound levels in decibels (dB). A-weighted sound level measurements (often denoted dBA) are used to characterize sound levels that are heard especially well by the human ear. All sound levels analyzed in this EA are A-weighted; thus, the term dB implies dBA unless otherwise noted.

At Langley AFB, noise contributions from aircraft operations and ground engine run-ups at the airfield have been calculated using the NOISEMAP model, the standard noise estimation methodology used for military airfields. NOISEMAP uses the following data to develop noise contours: aircraft types, runway utilization patterns, engine power settings, airspeeds, altitude profiles, flight track locations, number of operations per flight track, engine run-ups, and time of day. Examination of the *Community Center Area Development Plan* indicates that the Fitness Center site along Sweeney Boulevard is located in the 80-85 dB noise zone, while dormitories to the south of the site are in the 75-80 dB noise zone. These dormitories were constructed with noise reduction measures, only one percent of bases land uses (aging military family housing units) lacks sound attenuation in the 75-80 dB noise zone (Air Force, 1997b). According to the *Community Center South Area Development Plan,* the Burrell Street alternative location is located in the 65-70 dB noise zone.

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# 4.0 ENVIRONMENTAL CONSEQUENCES

Chapter 4.0 presents the environmental consequences of the proposed action and alternatives at Langley AFB for each of the resource areas discussed in Chapter 3.0. To define the consequences, this chapter evaluates the project elements described in Chapter 2.0 against the affected environment provided in Chapter 3.0. Cumulative effects of the proposed action with other foreseeable future actions are presented in Chapter 5.0.

## 4.1 AIR QUALITY

### 4.1.1 Proposed Action

The air quality analysis for the proposed action at Langley AFB quantifies the changes due to the construction and operation of the proposed Fitness Center. The CAA prohibits federal agencies from supporting activities that do not conform to a SIP approved by the USEPA. To assess the affects of the proposed action, analysis must include direct and indirect emissions from all activities that would affect the regional air quality. Emissions from the proposed action are either "presumed to conform" (based on emissions levels that are considered insignificant in the context of overall regional emissions) or must demonstrate conformity with approved SIP provisions.

While construction activities are of short duration, emissions during the construction period were quantified to determine their impacts on regional air quality. The construction phase would span a 2-year period from 2001 to 2002. These emissions were compared to existing baseline emissions and federal conformity *de minimis* thresholds for $O_3$ precursors (VOCs and $NO_x$). Emissions of VOC, $NO_x$, CO, and $PM_{10}$ from construction activities were calculated using emission factors from the *CEQA (California Environmental Quality Act) Air Quality Handbook* (SCAQMD, 1993). The emission factors included contributions from exhaust emissions (i.e., on-site construction equipment, material handling, and workers' travel) and fugitive dust emissions (e.g., from grading activities). Emissions from trucks making eighty 60-mile round trips for 30 days to bring fill material to the facility were calculated using emission factors for heavy duty diesel vehicles from *Calculation Methods for Criteria Pollutant Air Pollutant Emission Inventories* (Jagelski and O'Brien, 1994). Wind erosion emissions were calculated using emission factors from *EPA's AP-42 document, Section 11.9* (EPA, 1998). The emissions, in tons per construction period, from construction and demolition projects under the proposed action are presented in Table 4-1.

Total construction emissions generated on base and within the Hampton Roads AQCR are less than one percent when compared to regional emissions and are below the 100 tons per year *de minimis* federal conformity thresholds for $NO_x$ and VOCs. Emissions generated by construction projects are temporary in nature and would end when construction is complete. The emissions from fugitive dust ($PM_{10}$) would be significantly less due to the implementation of control measures in accordance with standard construction practices. For instance, frequent spraying of water on exposed soil during construction, proper soil stockpiling methods, and prompt replacement of ground cover or pavement are standard landscaping procedures that could be used to minimize the amount of dust generated during construction. Using efficient grading practices and avoiding long periods where engines are running at idle may reduce combustion

emissions from construction equipment. Vehicular combustion emissions from construction worker commuting may be reduced by carpooling.

Table 4-1. Project Emissions

| *Criteria Pollutants* | *Langley AFB Baseline Emissions (tons per year)* | *Hampton Roads AQCR (tons per year)* | *Temporary Construction Emissions (tons)* | *Percent of Regional Contribution* | *Operational Emissions (tons per year)* | *Percent of Current Langley AFB Baseline*[1] |
|---|---|---|---|---|---|---|
| CO | 775.4 | 257,325 | 8.2 | <0.01 | 1.0 | 7.0 |
| VOCs | 137.6 | 79,750 | 2.5 | <0.01 | 0.1 | 0.2 |
| $NO_X$ | 271.0 | 83,560 | 29.8 | <0.01 | 0.6 | 2.0 |
| $SO_2$ | 6.6 | 110,220 | 0.2 | <0.01 | <0.1 | 0.8 |
| $PM_{10}$ | 12.7 | 49,860 | 10.0 | <0.01 | 0.1 | 2.0 |

*Note*: 1. Baseline includes stationary sources only. See Table 3-1.

Direct operational emissions from the Fitness Center would be associated with operation of two natural gas-fired boilers that provide heat and hot water to the building and pool. No additional emissions are anticipated from personnel traveling to the Fitness Center, since some portion already travel to the existing fitness center and many personnel would now be able to walk from their dormitories. Operational emissions from the water heater and pool heater were calculated based on the assumption that each device would run at 85 percent load on an average of 16 hours per day, 365 days per year. Relative to overall base emissions, the proposed Fitness Center would result in minor increases in criteria pollutants, as shown in Table 4-1.

General conformity regulations set forth in 40 CFR 51 Subpart W, and adopted in the Virginia Administrative Code (9 VAC 5 Chapter 160), outline *de minimis* levels of emissions, below which it is presumed that the action conforms to the SIP. The *de minimis* levels for $O_3$ precursors in a maintenance area outside of an $O_3$ transport region (i.e., Hampton Roads AQCR) are 100 tons per year of VOCs emissions and 100 tons per year of $NO_x$. In addition, the proposed action's emissions (both direct and indirect) must be compared to the regional inventory to determine if the emissions are "regionally significant." Emission increases of $O_3$ precursors ($NO_x$ and VOCs) are well below the threshold thus demonstrating compliance with CAA conformity requirements. In addition, the proposed action emissions are well below the regional significance threshold defined by 10 percent of the regional emissions (i.e., 836 tons per year of $NO_x$ and 797 tons per year of VOCs).

### 4.1.2 Burrell Street Alternative

Construction emissions for this alternative are projected to be quite similar to those anticipated under the proposed action. In comparison to the proposed action, there is a slightly longer haul distance (approximately 2,000 feet per trip) for trucks delivering fill and supplies, but the quantity of fill is slightly less (approximately 16 percent). Direct emissions from the operation of the natural gas-fired boilers would be the same as the proposed action. Relative to overall base emissions, the proposed Fitness Center would result in negligible increases in criteria

pollutants. These changes would not measurably change base air quality or affect attainment status.

### 4.1.3 No-Action Alternative

Under the No-Action Alternative, a new Fitness Center would not be constructed and the physical fitness needs of base personnel would continue to be met by existing facilities. There would be no environmental consequences to this resource.

## 4.2 WATER RESOURCES

### 4.2.1 Proposed Action

Construction of the new Fitness Center would be in the 100-year floodplain and would disturb 8 acres of developed or landscaped areas. The first floor elevation of the Fitness Center would be raised to 9.0 feet NGVD, above the level of the 100-year flood. Filtration and detention would control storm water runoff and soil erosion from the site. Prior to the start of construction, silt fences, storm drain inlet and outlet protection and other appropriate standard construction practices would be instituted in accordance with the Langley SWPPP (Air Force 2000a). To control sediment and other pollutants that enter storm runoff from parking lots, a rotational storm water filter system would be installed as part of the project. A detention pond would also be constructed to detain storm water generated from impervious surfaces, such as the building and parking lot.

Since more than 5 acres would be disturbed by construction of Fitness Center facilities, a Virginia Pollutant Discharge Elimination System (VPDES) Stormwater General Permit would be required. Under the permit, the construction contractor would obtain the permit and provide a SWPPP that describes standard construction practices to be implemented to eliminate or reduce sediment and non-storm water discharges. These control measures are outlined in Erosion and Sediment Control Handbook administered by the Virginia Department of Conservation and Recreation. With the implementation of the SWPPP and the standard practices, environmental consequences from erosion and sedimentation would be negligible. There would be no impacts to water resources from point source or non-point sources with implementation of the proposed action, and the proposed action would not conflict with coastal zone management objectives associated with the Virginia Coastal Zone Management Program.

### 4.2.2 Burrell Street Alternative

Construction of the new Fitness Center at the alternative site would also be in the 100-year floodplain and would disturb 7.5 acres of open space or recreational areas. The first floor elevation of the Fitness Center would be raised to 9.0 feet NGVD, above the level of the 100-year flood. Prior to construction, silt fences, storm drain inlet and outlet protection and other appropriate standard construction practices would be instituted in accordance with the *Langley SWPPP* (Air Force 2000a). To control sediment and other pollutants that enter storm runoff from parking lots, a rotational storm water filter system would be installed as part of the project, however no detention basin would be provided.

Since more than 5 acres would be disturbed, a VPDES Stormwater General Permit would be required and standard construction practices implemented to eliminate or reduce sediment and non-storm water discharges. Under the permit, the construction contractor would obtain the permit and provide a SWPPP that describes standard construction practices to be implemented to eliminate or reduce sediment and non-storm water discharges. These control measures are outlined in Erosion and Sediment Control Handbook administered by the Virginia Department of Conservation and Recreation. With the implementation of the SWPPP and the standard construction techniques, environmental consequences from erosion and sedimentation would be minor, but not adverse and would not conflict with coastal zone management objectives associated with the Virginia Coastal Zone Management Program.

### 4.2.3 No-Action Alternative

Under the No-Action Alternative, a new Fitness Center would not be constructed and the physical fitness needs of base personnel would continue to be met by existing facilities. There would be no environmental consequences to this resource.

## 4.3 BIOLOGICAL RESOURCES

### 4.3.1 Proposed Action

#### TERRESTRIAL COMMUNITIES

Under the proposed action, construction would disturb approximately 8 acres of land between Building 222 and Building 226 along Sweeney Boulevard. The majority of this area is previously developed or landscaped, currently experiences high levels of continual human activity, lacks native terrestrial habitat, and exhibits a low level of biodiversity. The only plant or animal species likely to be displaced from this marginal habitat are individuals of common and locally abundant species. The overall ecological effect would therefore be insignificant.

#### WETLAND AND FRESHWATER AQUATIC COMMUNITIES

Approximately 0.18 acre of jurisdictional wetlands would be affected by the proposed action and a permit has been issued by the USACOE Regulatory Branch (see Appendix B) on 27 June 2001. Southeast of the corner of Elm Street and Sweeney Boulevard, there is a wetland mosaic area that measures approximately 160 feet by 160 feet that is connected to a tidal drainage swale running parallel to Sweeney Boulevard. The ditch, vegetated by saltmarsh cordgrass *(Spartina alterniflora)*, saltmeadow hay *(Spartina patens)* and saltgrass *(Distichlis spicata)*, is connected the wetland mosaic area by several shallow swales. Construction of the proposed Fitness Center would fill approximately 0.18 acre (7,663 SF) of this wetland. Since 0.09 acres of this wetland is considered upland and requires no mitigation (see Appendix B) the remaining acreage (0.09) would be replaced at a ½-to-1 ratio by the widening of an existing tidal ditch on the south side of the project area. A second wetland area associated with a tidal ditch extending from Tide Mill Creek east under Holly Street would be affected. Widening of Holly Street is anticipated to affect approximately 0.02 acre (870 SF). This wetland would be replaced at a ratio of 1 to 1 at the same location noted above.

Standard construction practices would be applied to control sedimentation and erosion during construction, thereby avoiding secondary impacts to wetlands. With the implementation of these practices during construction and the mitigation of the affected wetlands, no adverse environmental consequences are anticipated.

#### THREATENED, ENDANGERED, AND SPECIAL STATUS SPECIES/COMMUNITIES

Species listed, proposed for listing, or candidates for listing as threatened and endangered in accordance with the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) are not likely to be adversely affected by the proposed action. Critical habitat for the bald eagle does not exist on base. Incidentally occurring federally listed, proposed, or candidate species are not likely to be adversely affected by the proposed action because their temporal exposure is short, no critical habitat exists on base, and the area to be disturbed is of low ecological value, and the bald eagle does not use Langley AFB for nesting or other critical life cycle functions.

State-protected species would also not be adversely affected by the proposed action because their habitat will not be altered and because changes in base activities are not expected to be biologically significant. At Langley AFB, no special species or sensitive habitats are expected to be impacted.

### 4.3.2 Burrell Street Alternative

#### TERRESTRIAL COMMUNITIES

Construction of the new Fitness Center at the alternative site would have very similar environmental consequences as associated with the proposed action. Therefore, adverse effects to individual species or native plants or animals are expected to be negligible.

#### WETLAND AND FRESHWATER AQUATIC COMMUNITIES

Approximately a total of 0.45 acre of jurisdictional wetlands would be affected with the construction of the Fitness Center at this location. An oblong area measuring approximately 120 feet by 190 feet along the northwest side of the existing softball field has been identified as a palustrine wetland. This area is connected to estuarine, intertidal wetlands that extend into Southwest Branch of the Back River. Construction of the proposed Fitness Center would fill this wetland. This area would be replaced at a 1 to 1 ratio by the widening of an existing wetland on the south side of the project area.

Standard construction practices would be applied to control sedimentation and erosion during construction, thereby avoiding secondary impacts to wetlands. Prior to any ground-disturbing activities, a delineation of potential wetlands in the construction area would be performed, and a Section 404, CWA permit would be obtained.

#### THREATENED, ENDANGERED, AND SPECIAL STATUS SPECIES/COMMUNITIES

Construction of the new Fitness Center at the alternative site would have very similar environmental consequences as those associated with the proposed action. No special species

or sensitive habitats are expected to be impacted.

### 4.3.3 No-Action Alternative

Under the No-Action Alternative, a new Fitness Center would not be constructed and the physical fitness needs of base personnel would continue to be met by existing facilities. There would be no environmental consequences to this resource.

## 4.4 CULTURAL RESOURCES

### 4.4.1 Proposed Action

No impacts to archaeological resources are expected under the proposed action. No significant archaeological resources have been identified in Planning Area 3, in which most of the proposed action is located (Air Force 1996b). Most of this planning area has been assessed as disturbed, with a low potential for intact archaeological deposits (Wheaton et al 1992). A small part of the proposed action, construction of a turn lane, would take place within Planning Area 7 immediately to the west. Although portions of Planning Area 7 are considered to have a high potential for archaeological resources, intact archaeological deposits are not expected in this area because it is immediately adjacent to existing road development and Area 3. The Virginia Department of Historic Resources (DHR) has concurred that archaeological survey would not be required for areas covered by existing runways, roads, parking lots, and certain existing buildings. They indicated, however, that additional survey of locations identified as having moderate or low archaeological potential might be necessary in the future (Air Force 1996b).

No impacts to architectural resources are expected under the proposed action. Historic architectural resources have not been identified within the area of affected environment of the proposed action (NPS 1992; Air Force 1996b).

Unsurveyed portions of the area of affected environment would be addressed in compliance with Section 106 of the National Historic Preservation Act (NHPA) for both archaeological and architectural resources prior to construction. If unanticipated archaeological discoveries occur during construction, the contractor and Langley AFB would follow the guidance provided in AFI 32-7065, Cultural Resources Management as to treatment of such discoveries.

No impacts to traditional resources are likely under the proposed action. No traditional resources have been identified at Langley AFB. There are no federally recognized Indian lands or resources at Langley AFB, and no issues have been identified by federally recognized or other Indian groups in Virginia.

### 4.4.2 Burrell Street Alternative

The Burrell Street Alternative lies within an area of high potential for both prehistoric and historic archaeological resources identified for Planning Area 5 (Air Force 1996b). There is a potential for impacts to unidentified archaeological resources under this alternative. No impacts to architectural resources are expected. No significant architectural resources have been identified within the area of affected environment, and no facility construction would take place within the boundaries of the Langley Field Historic District.

Unsurveyed portions of the area of affected environment would be addressed in compliance with Section 106 of the NHPA for both archaeological and architectural resources prior to construction. If unanticipated archaeological discoveries occur during construction, the contractor and Langley AFB would follow the guidance provided in AFI 32-7065, Cultural Resources Management as to treatment of such discoveries.

No impacts to traditional resources are likely under this Alternative. No traditional resources have been identified at Langley AFB. There are no federally recognized Indian lands or resources at Langley AFB, and no issues have been identified by federally recognized or other Indian groups in Virginia.

### 4.4.3 No-Action Alternative

Under the No-Action Alternative, a new Fitness Center would not be constructed and the physical fitness needs of base personnel would continue to be met by existing facilities. There would be no environmental consequences to this resource.

## 4.5 LAND USE AND TRANSPORTATION

### 4.5.1 Proposed Action

#### LAND USE

Construction of the Fitness Center at the location identified in Figure 2-2 is in accordance with the *Langley 2000 Base Development and Facility Improvement Plan 1987-88* (Air Force 1988), and with the *Community Center Area Development Plan* (Air Force 1997a). These plans have identified this location for the Fitness Center because it meets the need of being close to a large number of users, takes advantage of existing recreation facilities (Racquetball Court–Building 226) and provides the opportunity to develop a previously developed site on base instead of constructing in a undisturbed area.

Fitness Center would be in accordance with the Enforceable Regulatory Programs of the Virginia Coastal Resources Management Program. This project would not have any component that would affect any of the following sections of the Enforceable Regulatory Program: Fisheries Management, Subaqueous Lands Management, Dunes Management, Point Source Pollution Control, and Shoreline Sanitation. Through the USACOE, impacts to wetlands would be mitigated and through the implementation of erosion and sediment control (rotational storm water filters and detention pond), non-point source pollution would be minimized. The project area also lies within the Chesapeake Bay Preservation Area. A 30-foot landscaped buffer would be enhanced with native plantings along the existing tidal ditch to assist in preserving the Chesapeake Bay Preservation boundaries.

#### TRANSPORTATION

Construction of the Fitness Center at the proposed action location on Sweeney Boulevard would require the movement of 44,000 cubic yards of fill material to the site. According to the proposed construction schedule, this activity would take place over a 30-day period. Assuming a mix of 15 and 30 cubic-yard truckloads, approximately 80 truckloads a day would be brought

on base during the 30-day period. A specific haul route though the West Gate along Sweeney Boulevard to the site has been identified. Currently this section of Sweeney Boulevard is operating at slightly less than desired conditions during peak hours (Air Force 2000b). The addition of this traffic would reduce the level of service slightly during those 30 days. By scheduling the delivery of fill materials during non-peak traffic conditions on-base, this short-term effect may be minimized. Once the Fitness Center is operating there is the potential for a reduction of overall traffic on base, since many airmen would be able to walk to the new facility. No long-term adverse environmental consequences are anticipated.

### 4.5.2 Burrell Street Alternative

#### LAND USE

Construction of the Fitness Center at the location identified in Figure 2-3 is not in accordance with the *Community Center South Area Development Plan* (Air Force 1998d). According to that plan, the Burrell Street location would be developed in the future with two additional Visiting Officers Quarters and playgrounds that would be associated with the future construction of a Youth Center to the east.

Fitness Center would be in accordance with the Enforceable Regulatory Programs of the Virginia Coastal Resources Management Program. This project would not have any component that would affect any of the following sections of the Enforceable Regulatory Program: Fisheries Management, Subaqueous Lands Management, Dunes Management, Point Source Pollution Control, and Shoreline Sanitation. The project area also lies within the Chesapeake Bay Preservation Area. A portion of the site would encroach on the Chesapeake Bay Preservation Act buffer. During construction, standard construction practices would be instituted to control sedimentation and erosion into the wetland area, however no detention pond is proposed at this location to control sedimentation and storm water flows. No long-term adverse environmental consequences are anticipated as a result of construction of the Fitness Center, however a 100-foot buffer would not be available at this location.

#### TRANSPORTATION

Construction of the Fitness Center at the Burrell Street location would require the movement of 37,000 cubic yards of fill material to the site. This activity would take place over a 30-day period. Assuming a mix of 15 and 30-cubic yard truckloads, approximately 70 truckloads a day would be brought on base during the 30-day period. A specific haul route though the West Gate along Sweeney Boulevard, Elm Street, and Nealy Avenue to the site has been identified. The addition of this traffic would reduce the level of service slightly during those 30 days. By scheduling the delivery of fill materials during non-peak traffic conditions on base, this short-term effect may be minimized. With the location of the Fitness Center south of Nealy Avenue most users of the facility would continue to drive to a facility to conduct physical fitness training.

### 4.5.3 No-Action Alternative

Under the No-Action Alternative, a new Fitness Center would not be constructed and the physical fitness needs of base personnel would continue to be met by existing facilities. There

would be no environmental consequences to this resource.

## 4.6 HAZARDOUS MATERIALS AND WASTE MANAGEMENT

### 4.6.1 Proposed Action

#### HAZARDOUS MATERIALS

Construction of the new Fitness Center may require the use of hazardous materials by contractor personnel. In accordance with the base's HAZMART procedure, copies of Material Safety Data Sheets must be provided to the base and maintained on the construction site. Disinfection of the pool water would use a calcium hypochloride system. The base would maintain any hazardous materials used by base personnel in the operation of the Fitness Center and no adverse environmental consequences are anticipated.

#### HAZARDOUS WASTE

Hazardous waste, such as paints, adhesives and batteries, may be generated by contractor personnel during the construction of the Fitness Center. Storage and disposal of these wastes would be the responsibility of the site contractor and the base's hazardous waste program. Hazardous wastes are not anticipated to be generated by base personnel during the operation and maintenance of the Fitness Center and no adverse environmental consequences are expected.

#### ENVIRONMENTAL RESTORATION PROGRAM

At the proposed action location, the right-turn lane from Sweeney Boulevard on to Elm Street would be constructed on the edge of ERP site LF-07. Also the base's storm drainage system ERP site OT-56, in particular the existing tidal ditch along the south side of the project area, would be disturbed as part of the wetland mitigation effort. Both components of the project would require a waiver from the Langley AFB ERP Manager in accordance with ACC ERP policy. Each of these actions would result in a minor disturbance to the ERP site and therefore no adverse environmental consequences would result from the implementation of the proposed action.

#### SOLID WASTE MANAGEMENT

During site preparation, demolition of the existing basketball courts, portions of the existing racquetball building, and curbing from Sweeney Boulevard and Holly Street would generate some construction debris. As possible, concrete, asphalt and metal debris would be recycled, with all other materials being disposed of as solid waste. Operation of the Fitness Center would generate minimal amounts of solid waste. No adverse environmental consequences would be expected with the implementation of the proposed action.

### 4.6.2 Burrell Street Alternative

#### HAZARDOUS MATERIALS/HAZARDOUS WASTES

Hazardous material/hazardous waste use or generation associated with the construction of this alternative would be similar to that of the proposed action. No adverse environmental consequences would be expected.

#### ENVIRONMENTAL RESTORATION PROGRAM

Portions of this alternative site where the proposed Fitness Center building would be constructed are located over an area that has been identified as ERP site OT-06 Annex. Prior to 1960 this site consisted of open space. During the 1960s, this area was the location of an antenna field, since removed. During pre-construction activities for another structure in 1995, soil samples were shown to contain elevated levels of pesticides, polynuclear aromatic hydrocarbons, and metals (Air Force 2000d). As required by ACC policy, development of the site would be coordinated through the Langley ERP manager. By placing fill and constructing a parking lot near Burrell Street, the soil contamination would be capped. Workers removing existing pavement and conducting fill and grading operations may be required to take certain precautions based on the potential for exposure to the contaminants. These requirements would be developed by the ERP manager in conjunction with base civil engineers. Construction of the Fitness Center building itself at the location shown in Figure 2-3 would not affect the ERP site. Therefore no adverse environmental consequences would result from the implementation of this alternative.

#### SOLID WASTE MANAGEMENT

Preparation of the alternative site for construction of the Fitness Center would generate a small amount of construction debris from the removal of old parking lots and concrete anchors. Fencing and lighting fixtures associated with the softball fields would be stockpiled for future use. Operation of the Fitness Center would generate minimal amounts of solid waste. No adverse environmental consequences would be expected with the implementation of this alternative.

### 4.6.3 No-Action Alternative

Under the No-Action Alternative, a new Fitness Center would not be constructed and the physical fitness needs of base personnel would continue to be met by existing facilities. There would be no environmental consequences to this resource.

## 4.7 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

### 4.7.1 Proposed Action

#### EMPLOYMENT AND EARNINGS

Construction activity associated with the Fitness Center would peak in FY02 with the expenditure of approximately $12 million. It is estimated that these expenditures would

support approximately 170 construction jobs and 135 secondary jobs, for a total employment effect of 305. This number of jobs comprises 0.1 percent of the 1997 level of regional employment. It is estimated that a total of 30 workers could temporarily relocate and take up residency in the region in conjunction with these construction activities. If regional growth occurred as projected at 0.5 percent annually, the change from the Fitness Center would result in a slightly higher rate of growth in the FY01 to FY02 construction period. No adverse environmental consequences would be expected.

#### INFRASTRUCTURE

Interconnections to the exiting Langley AFB utility infrastructure are available to support the construction of the new Fitness Center. Consumption of potable water, electricity, and natural gas would increase with the operation of the facility, however these demands can be met through the existing utility infrastructure without any additional upgrades. No adverse environmental consequences are anticipated with the construction of the Fitness Center at this location.

### 4.7.2 Burrell Street Alternative

#### EMPLOYMENT AND EARNINGS

Construction activity and earnings associated with this alternative would be very similar to that of the proposed action. No adverse environmental consequences would be expected.

#### INFRASTRUCTURE

Interconnections to the exiting Langley AFB utility infrastructure are available to support the construction of the new Fitness Center. Consumption of potable water, electricity, and natural gas would increase with the operation of the facility, but these demands can be met through the existing utility infrastructure without any additional upgrades. No adverse environmental consequences are anticipated with the construction of the Fitness Center at this alternative location.

### 4.7.3 No-Action Alternative

Under the No-Action Alternative, a new Fitness Center would not be constructed and the physical fitness needs of base personnel would continue to be met by existing facilities. There would be no environmental consequences to this resource.

## 4.8 NOISE

Noise impact analyses typically evaluate potential changes to existing noise environments that would result from implementation of a proposal. Potential changes in the noise environment can be (1) beneficial (i.e., if they reduce the number of sensitive receptors exposed to unacceptable noise levels); (2) negligible (i.e., if the total area exposed to unacceptable noise levels is essentially unchanged); or (3) adverse (i.e., if they result in increased exposure to unacceptable levels).

### 4.8.1 Proposed Action

Implementation of the proposed action would have minor, temporary increases in localized noise levels in the vicinity of the project area during construction. The base is an active military facility that typically experiences high noise levels from daily flight operations. The proposed action location is located in the 80-85 dB noise zone, while dormitories to the south of the site are in the 75-80 dB noise zone. Use of heavy equipment for site preparation and development (i.e., grading, fill, and construction) would generate noise. However, noise would be similar to typical construction noise, last only the duration of the specific construction activities, and could be reduced by the use of equipment sound mufflers and restricting construction activity to normal working hours (i.e., between 7:00 a.m. and 5:00 p.m.). Compared with aircraft noise, noise produced by construction would generally be more impulsive, relatively lower in magnitude, and spread out during the day. These localized noise increases may disrupt residents in the existing dormitories located approximately 400 feet south of the site. Noise from truck traffic hauling fill to the site would not affect on-base housing units because of the haul route to be used. The noise disruptions would be temporary and would be limited to daytime hours; therefore, impacts are considered insignificant.

### 4.8.2 Burrell Street Alternative

Construction of the Fitness Center at this location would involve noise levels similar to those identified under the proposed action. These localized noise increases may disrupt residents in the existing Visiting Officers Quarters and Transient Living Facilities located approximately 100-400 feet north and west of the building site. Noise from truck traffic hauling fill to the site would not affect on-base housing units because of the haul route to be used. The noise disruptions would be temporary and would be limited to daytime hours; therefore, impacts are considered insignificant.

### 4.8.3 No-Action Alternative

Under the No-Action Alternative, a new Fitness Center would not be constructed and the physical fitness needs of base personnel would continue to be met by existing facilities. Noise levels would remain the same as they are currently.

# 5.0 CUMULATIVE EFFECTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

## 5.1 CUMULATIVE EFFECTS

This section provides (1) a definition of cumulative effects, (2) a description of past, present, and reasonably foreseeable actions relevant to cumulative effects, and (3) an evaluation of cumulative effects potentially resulting from these interactions.

### 5.1.1 Definition of Cumulative Effects

CEQ regulations stipulate that the cumulative effects analysis within an EA should consider the potential environmental impacts resulting from "the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR 1508.7). Recent CEQ guidance in *Considering Cumulative Effects* affirms this requirement, stating that the first steps in assessing cumulative effects involve defining the scope of the other actions and their interrelationship with the proposed action. The scope must consider geographic and temporal overlaps among the proposed action and other actions. It must also evaluate the nature of interactions among these actions.

Cumulative effects are most likely to arise when a relationship or synergism exists between a proposed action and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with or in close proximity to the proposed action would be expected to have more potential for a relationship than actions that may be geographically separated. Similarly, actions that coincide, even partially, in time would tend to offer a higher potential for cumulative effects.

To identify cumulative effects, this EA analysis addresses three questions:

1. Does a relationship exist such that elements of the proposed action might interact with elements of past, present, or reasonably foreseeable actions?

2. If one or more of the elements of the proposed action and another action could be expected to interact, would the proposed action affect or be affected by impacts of the other action?

3. If such a relationship exists, does an assessment reveal any potentially significant impacts not identified when the proposed action is considered alone?

In this EA, an effort has been made to identify all actions that are being considered and that are in the planning phase at this time. To the extent that details regarding such actions exist and the actions have a potential to interact with the proposed action in this EA, these actions are included in this cumulative analysis. This approach enables decisionmakers to have the most current information available so that they can evaluate the environmental consequences of the proposed action.

## 5.1.2 Past, Present, and Reasonably Foreseeable Actions

This EA applies a stepped approach to provide decisionmakers with not only the cumulative effects of the proposed action but also the incremental contribution of past, present, and reasonably foreseeable actions.

### PAST AND PRESENT ACTIONS RELEVANT TO THE PROPOSED ACTION

Langley AFB is an active military installation that undergoes continuous change in mission and in training requirements. This process of change is consistent with the United States defense policy that the Air Force must be ready to respond to threats to American interests throughout the world. In 1998, the Air Force implemented a force structure change that added 12 F-15C aircraft and 134 personnel to Langley AFB, increasing the total number of F-15C aircraft to 66. The base, like any other major institution, also requires new occasional construction, facility improvements, and infrastructure upgrades. Langley AFB is currently upgrading portions of its water and wastewater system and has recently completed a new library.

### INCREMENTAL IMPACTS OF THE PROPOSED ACTION WITH REASONABLY FORESEEABLE FUTURE ACTIONS

During the timeframe FY01 to FY05 Langley AFB has proposed a number of actions that are independent of the proposed action and would be implemented irrespective of a decision on the proposed Fitness Center. These actions include establishing a Combined Air Operations Center-Experimental and the beddown of the Aerospace Expeditionary Force Center. Construction programs include a new water tower, a dormitory and family housing ($24.8 million in 2002), family housing ($5.6 million in 2003), privatizing family housing ($17 million in 2003), a new housing office ($1.2 million in 2003), and replacement of water and sanitary mains in a portion of the base. The base also plans demolition of the Langley Tow Tank in FY01.

In addition to these ongoing infrastructure improvements, Langley AFB has been identified as the preferred alternative for the beddown of the Initial Operational Wing of the new F-22 aircraft. The majority of the proposed projects associated with the F-22 beddown at Langley AFB would be constructed along the flightline and have the potential to disturb 16 acres.

## 5.1.3 Analysis of Cumulative Impacts

The following analysis examines how the impacts of these other actions might be affected by those resulting from the proposed action at Langley AFB and whether such a relationship would result in potentially significant impacts not identified when the proposed action is considered alone.

A previous EA for the implementation of a force structure change at Langley AFB and the construction of the new water tower did not identify any significant environmental consequences (Air Force 1998, 2001). The result of the force structure change left Langley AFB operating at levels below those occurring in the early 1990s. The establishment of a Combined Air Operations Center-Experimental and the beddown of the Aerospace Expeditionary Force

Center while adding a total of 122 new personnel, qualified for categorical exclusions because no new construction was required to support the actions.

Although not fully analyzed at this time in separate environmental analysis, none of the future infrastructure actions would be expected to result in more than negligible impacts either individually or cumulatively. All actions affect very specific, circumscribed areas, and the magnitude of the actions is minimal. Given that the proposed action would likewise have a minimal effect within the base, the combined impacts of these actions would remain well below the threshold of significance for any resource category. The demolition of the Langley Tow Tank has been evaluated and would generate a considerable amount of truck traffic at the West Gate that might overlap with the truck traffic from the Fitness Center.

The beddown of the Initial Operational Wing of F-22 aircraft is being analyzed in an Environmental Impact Statement for five locations, including Langley AFB, Virginia; Eglin AFB, Florida; Elmendorf AFB, Alaska; Mountain Home AFB, Idaho; and Tyndall AFB, Florida. Construction at Langley AFB, the location of the Air Force's preferred alternative, would impact the architectural and visual aspects of the Langley Historic District. Given that the proposed F-22 construction would likewise have a minimal effect on noise, air quality, and traffic, the combined environmental consequences of these actions would remain well below the threshold of significance for all resources.

## 5.2 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA requires that environmental analysis include identification of "...any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented." Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects that the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action (e.g., extinction of a threatened or endangered species or the disturbance of a cultural site).

For the proposed action, most resource commitments are neither irreversible nor irretrievable. Most environmental consequences are short term and temporary (such as air emissions from construction) or longer lasting but negligible (e.g., utility increases). Those limited resources that may involve a possible irreversible or irretrievable commitment under the proposed action are discussed below.

Construction of the new Fitness Center would require consumption of limited amounts of materials typically associated with interior and exterior construction (e.g., concrete, wiring, insulation, and windows). The amount of these materials used is not expected to significantly decrease the availability of the resources. The Fitness Center would disturb 0.09 acres of wetlands that would be mitigated with the development of 0.065 acres of wetlands in accordance with USACOE. The base has taken other actions to restore other wetlands and shoreline along Memorial Park.

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**Persons and Agencies Contacted**

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Years of Experience: 25

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# APPENDIX A
# CONSULTATION LETTERS

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**Science Applications International Corporation**
*An Employee-Owned Company*

9 February 2001

Ms. Cindy Schultz
US Fish & Wildlife Service
Virginia Field Office
6669 Short Lane
PO Box 99
Gloucester, VA 23061

Dear Ms. Schultz:

I am writing in regards to a proposal to construct a new Fitness Center for base personnel at Langley Air Force Base in Hampton, Virginia. We are preparing an environmental assessment for the base and I am requesting that after your review of the information below, you provide me with a list of federal threatened or endangered species, if any, that have the potential to occur in the project areas.

Two locations are being evaluated for the construction of the 66,700 square foot fitness center. Both sites are within the main portion of the base and have been previously disturbed (See attached figure).

We will be preparing an EA under NEPA for this proposed construction project and sensitive species you identify as potentially occurring at or near the sites will be assessed in the EA and correspondence we receive from you will be included in this document. In addition, the EA will include an analysis of any state sensitive species and other biological resources that could be affected by this project.

A letter has also been sent to Virginia Department of Agriculture and Consumer Services-Plant Protection, the Virginia Department of Game and Inland Fisheries-Environmental Services Section and the Virginia Department of Conservation and Recreation-Division of Natural Heritage per your guidance on similar projects. .

We appreciate the opportunity to work with the U.S. Fish and Wildlife Service in the conservation of our sensitive species and if you have any questions or would like additional information, please call me at (757) 223-1065.

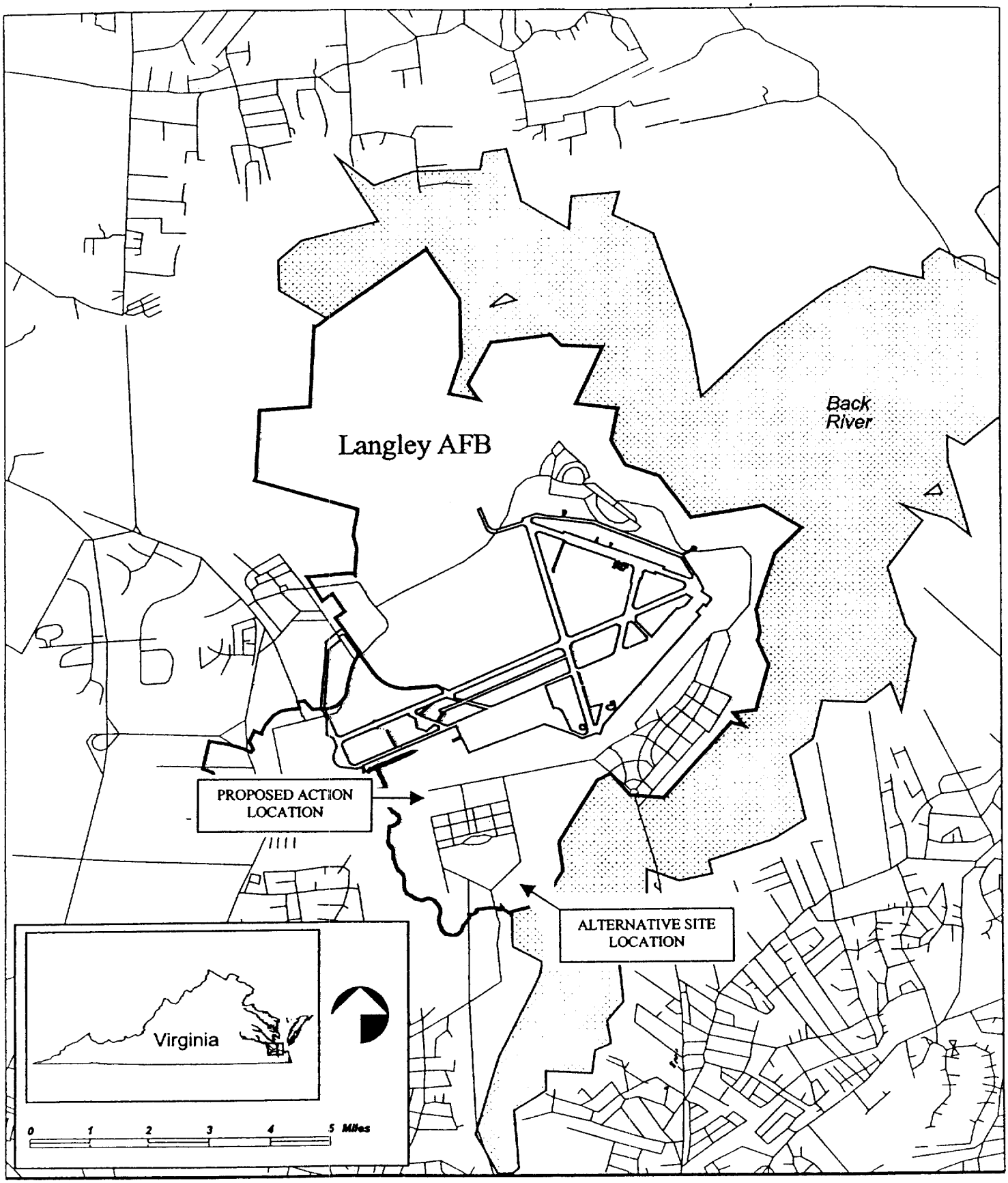
Sincerely,

Science Applications International Corporation

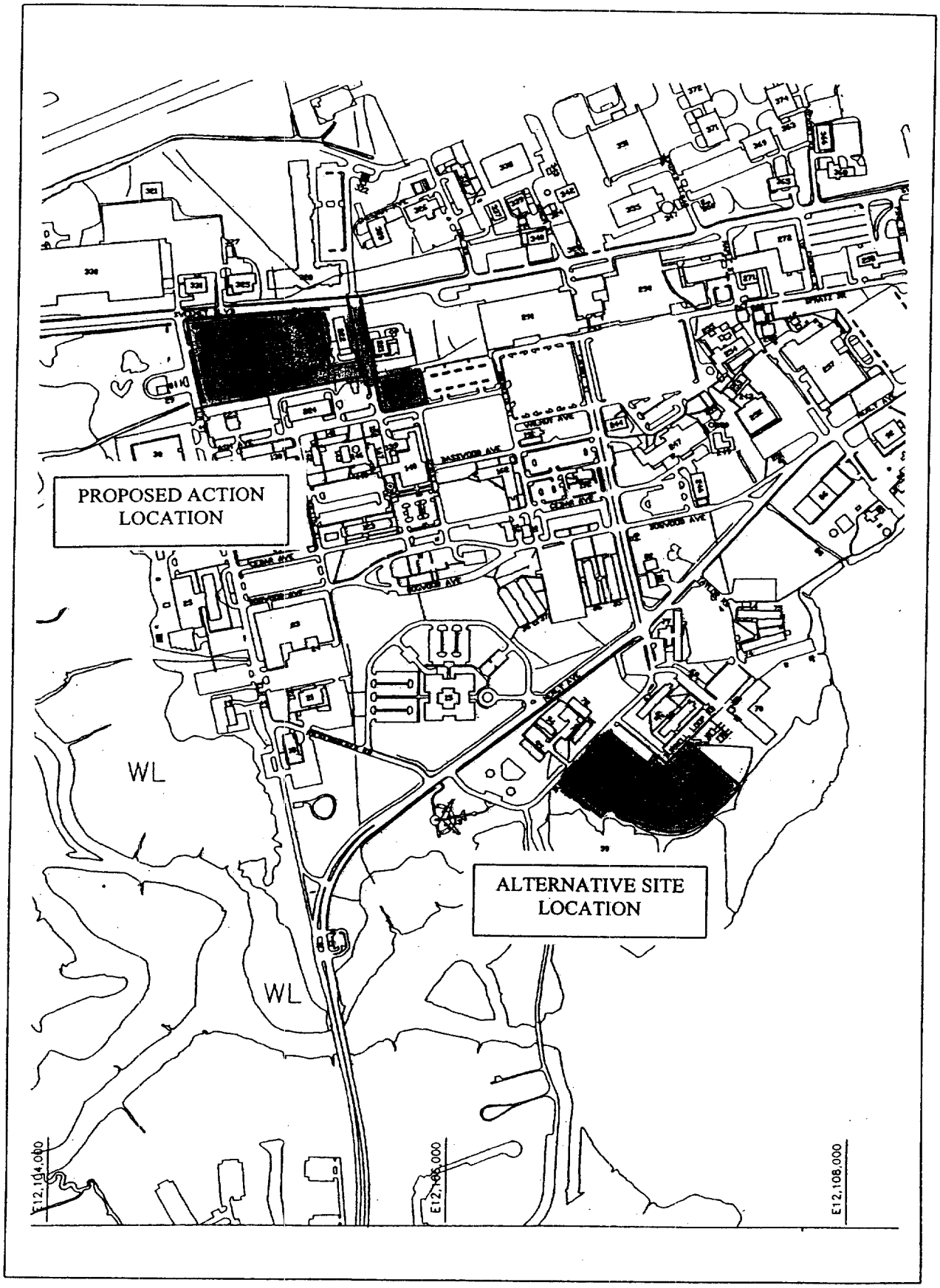
David Dischner
Project Manager

Enclosure: Site Map

*22 Enterprise Parkway, Suite 200, Hampton, Virginia 23666 • (757) 825-6334 • FAX: (757) 825-9104*
*Other SAIC Offices: Albuquerque, Colorado Springs, Dayton, Falls Church, Huntsville, Las Vegas, Los Altos, Los Angeles, McLean, Oak Ridge, Orlando, San Diego, Seattle, Tucson*




**Map of Langley AFB, Virginia**


PROPOSED ACTION LOCATION
ALTERNATIVE SITE LOCATION
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E12,106,000
E12,108,000

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
6669 Short Lane
Gloucester, VA 23061

March 12, 2001

Mr. David Dischner
Science Applications International
22 Enterprise Parkway, Suite 200
Hampton, Virginia 23666

Re: Fitness Center at Langley Air Force Base, Hampton, Virginia

Dear Mr. Dischner:

This responds to your letter dated February 9, 2001 that we received on March 5, 2001. The U.S. Fish and Wildlife Service (Service) submits the following comments in accordance with provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

The Service concurs that your proposal to construct a fitness center at either of the two proposed locations will not affect federally listed species.

If you have any questions or need further assistance, please contact Mr. Eric Davis at (804) 693-6694, extension 104.

Sincerely,

Susan Lingerfelter

for Karen L. Mayne
Supervisor
Virginia Field Office

**Science Applications International Corporation**
*An Employee-Owned Company*

9 February 2001

Plant Protection
Virginia Department of Agriculture and Consumer Services
P.O. Box 1163
Richmond, VA 23218

Dear Sirs:

I am writing in regards to a proposal to construct a new Fitness Center for base personnel at Langley Air Force Base in Hampton, Virginia. We are preparing an environmental assessment for the base and I am requesting that after your review of the information below, you provide me with any list of federal or state threatened or endangered species, if any, that have the potential to occur in the project areas.

Two locations are being evaluated for the construction of the 66,700 square foot fitness center. Both sites are within the main portion of the base and have been previously disturbed (See attached figure).

We will be preparing an EA under NEPA for this proposed construction project and sensitive species you identify as potentially occurring at or near the sites will be assessed in the EA and correspondence we receive from you will be included in this document. In addition, the EA will include an analysis of any state sensitive species and other biological resources that could be affected by this project.

A letter has also been sent to the U.S. Fish & Wildlife, the Virginia Department of Game and Inland Fisheries-Environmental Services Section and the Virginia Department of Conservation and Recreation-Division of Natural Heritage per guidance on similar projects. .

We appreciate the opportunity to work with the Virginia Department of Agriculture and Consumer Services in the conservation of our sensitive species and if you have any questions or would like additional information, please call me at (757) 223-1065.

Sincerely,

Science Applications International Corporation

David Dischner
Project Manager

Enclosure: Site Map

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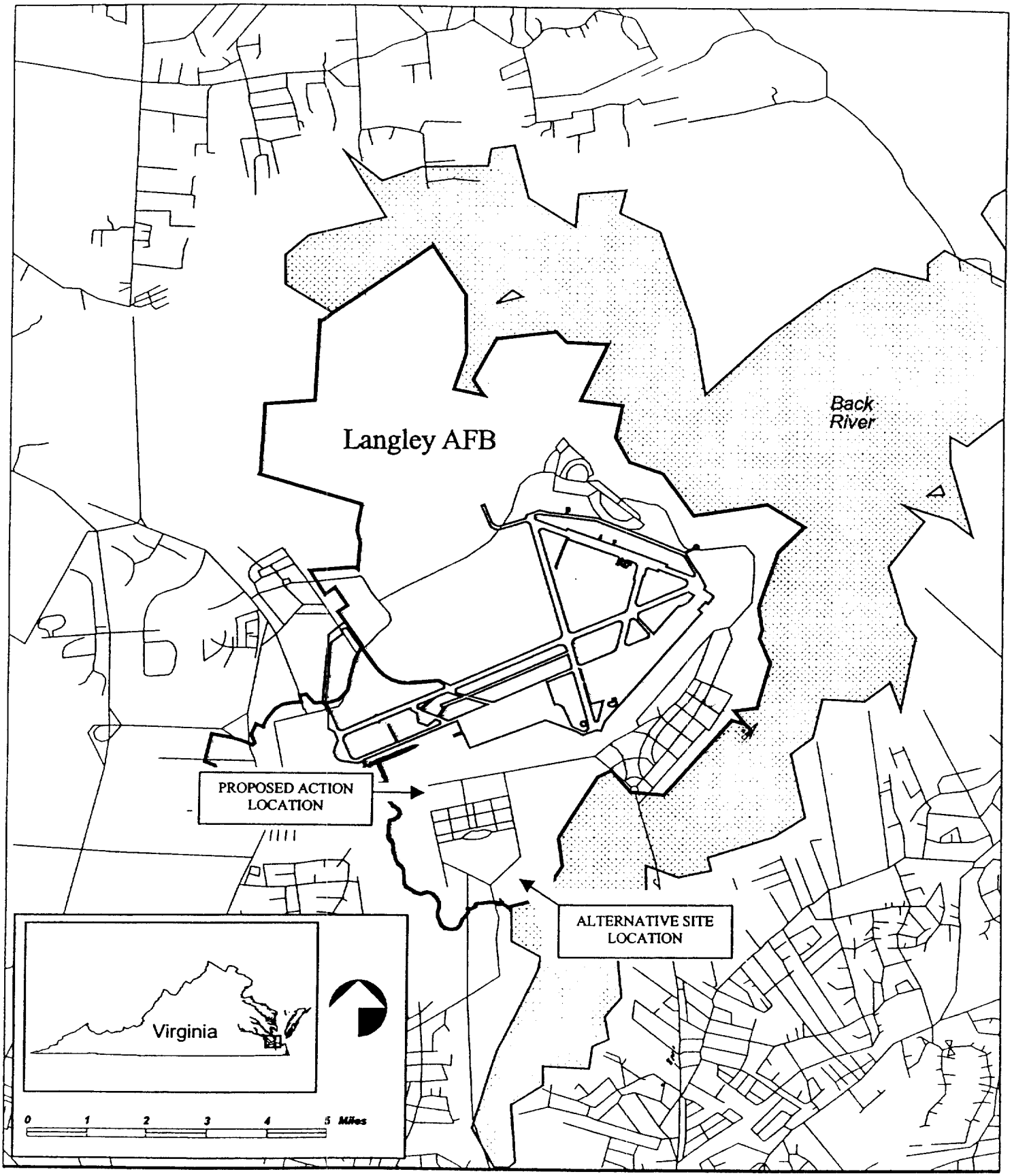
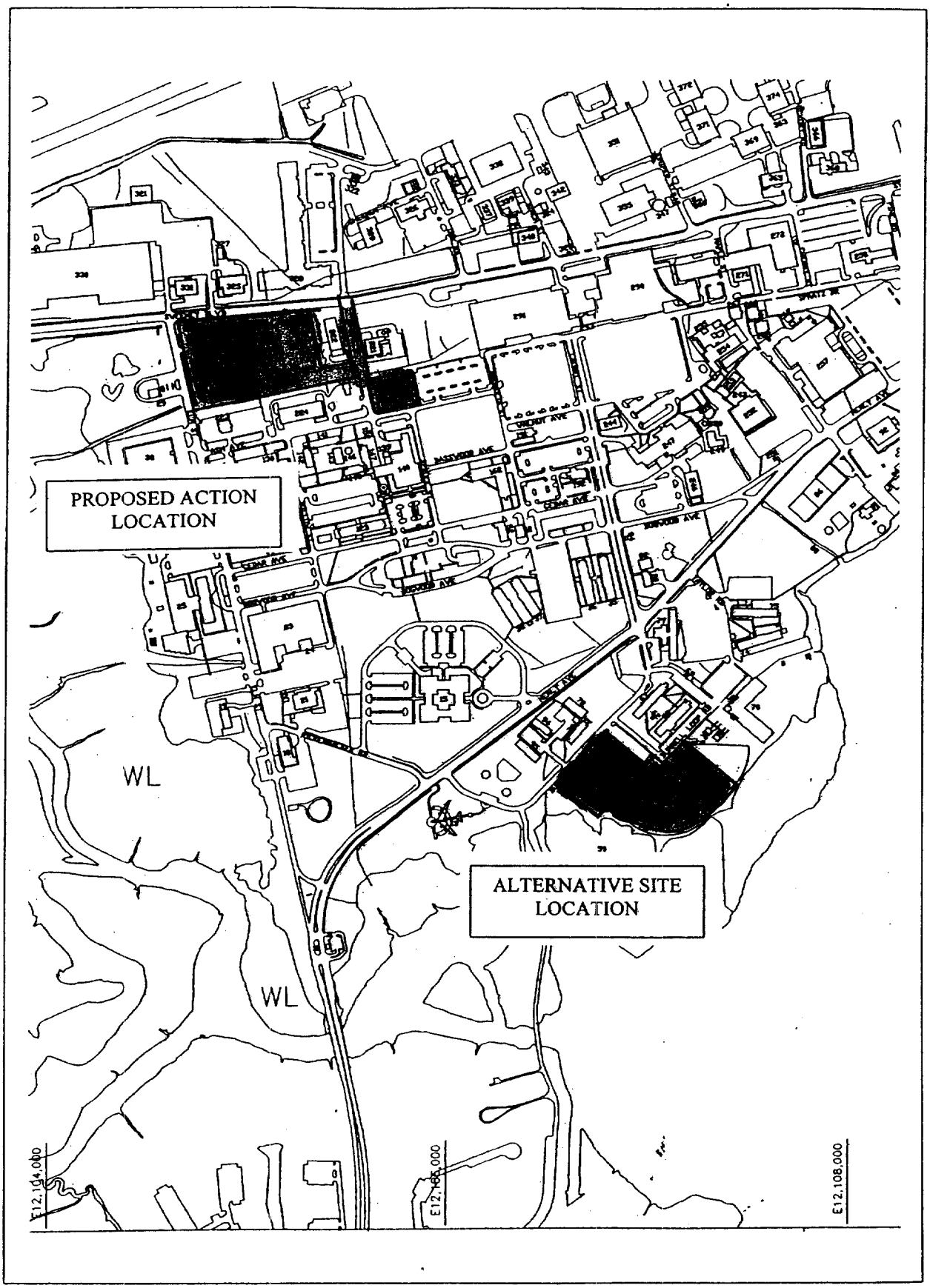
*Other SAIC Offices: Albuquerque, Colorado Springs, Dayton, Falls Church, Huntsville, Las Vegas, Los Altos, Los Angeles, McLean, Oak Ridge, Orlando, San Diego, Seattle, Tucson*




**Map of Langley AFB, Virginia**


PROPOSED ACTION LOCATION
ALTERNATIVE SITE LOCATION
WL
WL
E12,104,000
E12,106,000
E12,108,000

J. Carlton Courter, III
Commissioner

# COMMONWEALTH of VIRGINIA

**Department of Agriculture and Consumer Services**
**Division of Consumer Protection**
***Office of Plant & Pest Services***
PO Box 1163, Richmond,Virginia 23218
Phone: 804/786-3515 • Fax: 804/371-7793 • Hearing Impaired: 800/828-1120
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26 MAR 2001

March 12, 2001

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Suite 200
Hampton, VA 23666

RE: Langley Air Force Base, Hampton, VA

This letter is in response to your request concerning threatened or endangered plant or insects species in the vicinity of the proposed construction of a fitness center at the Langley Air Force Base in Hampton, VA. To date, Virginia Department of Agriculture and Consumer Services records indicate that no threatened or endangered plant or insect species have been documented in the area indicated in maps you provided. We do not anticipate significant adverse impacts upon plant or insect species under our jurisdiction to result from this project. However, the absence of data does not necessarily mean that no listed species occur in the area, but that our files do not currently contain information to document their presence.

The Virginia Department of Agriculture and Consumer Services has jurisdiction only over plant and insect species listed as threatened or endangered by the Commonwealth of Virginia. To better serve citizens and agencies of the Commonwealth, the Virginia Departments of Agriculture and Consumer Services and Conservation and Recreation have entered into an agreement for the review of projects within Virginia. **Future requests for information concerning endangered and threatened plants and insects should be directed to the Natural Heritage Division of the Department of Conservation and Recreation for initial evaluation.** Projects found to demonstrate potential impact on these species will be referred to the Department of Agriculture and Consumer Services for further review and possible mitigation. Additional information on unique geologic formations, rare or critical habitat, and rare and candidate species can be obtained from VDCR/NH. The Virginia Department of Game and Inland Fisheries has jurisdiction over similarly listed endangered and threatened animal species.

Sincerely,

Keith R. Tignor
Endangered Species Coordinator

**Science Applications International Corporation**
*An Employee-Owned Company*

9 February 2001

Ms. Ellie Irons
Virginia Department of Environmental Quality
PO Box 10009
629 East Main Street
Richmond, VA 23240

Dear Ms. Irons:

I am writing in regards to a proposal to construct a new Fitness Center for base personnel at Langley Air Force Base in Hampton, Virginia. We are preparing an environmental assessment for the base and I am requesting that after your review of the information below, you provide us with any written comments concerning interests within your agency's responsibilities, particularly the Coastal Zone Management Act of 1972.

Two locations are being evaluated for the construction of the 66,700 square foot fitness center. Both sites are within the main portion of the base and have been previously disturbed (See attached figure).

We will be preparing an EA under NEPA for this proposed construction project and sensitive species you identify as potentially occurring at or near the sites will be assessed in the EA and correspondence we receive from you will be included in this document. In addition, the EA will include an analysis of any state sensitive species and other biological resources that could be affected by this project.

A letter has also been sent to Virginia Department of Agriculture and Consumer Services-Plant Protection, the Virginia Department of Game and Inland Fisheries-Environmental Services Section and the Virginia Department of Conservation and Recreation-Division of Natural Heritage per guidance on similar projects. .

We appreciate the opportunity to work with the Virginia Department of Environmental Quality and if you have any questions or would like additional information, please call me at (757) 223-1065.

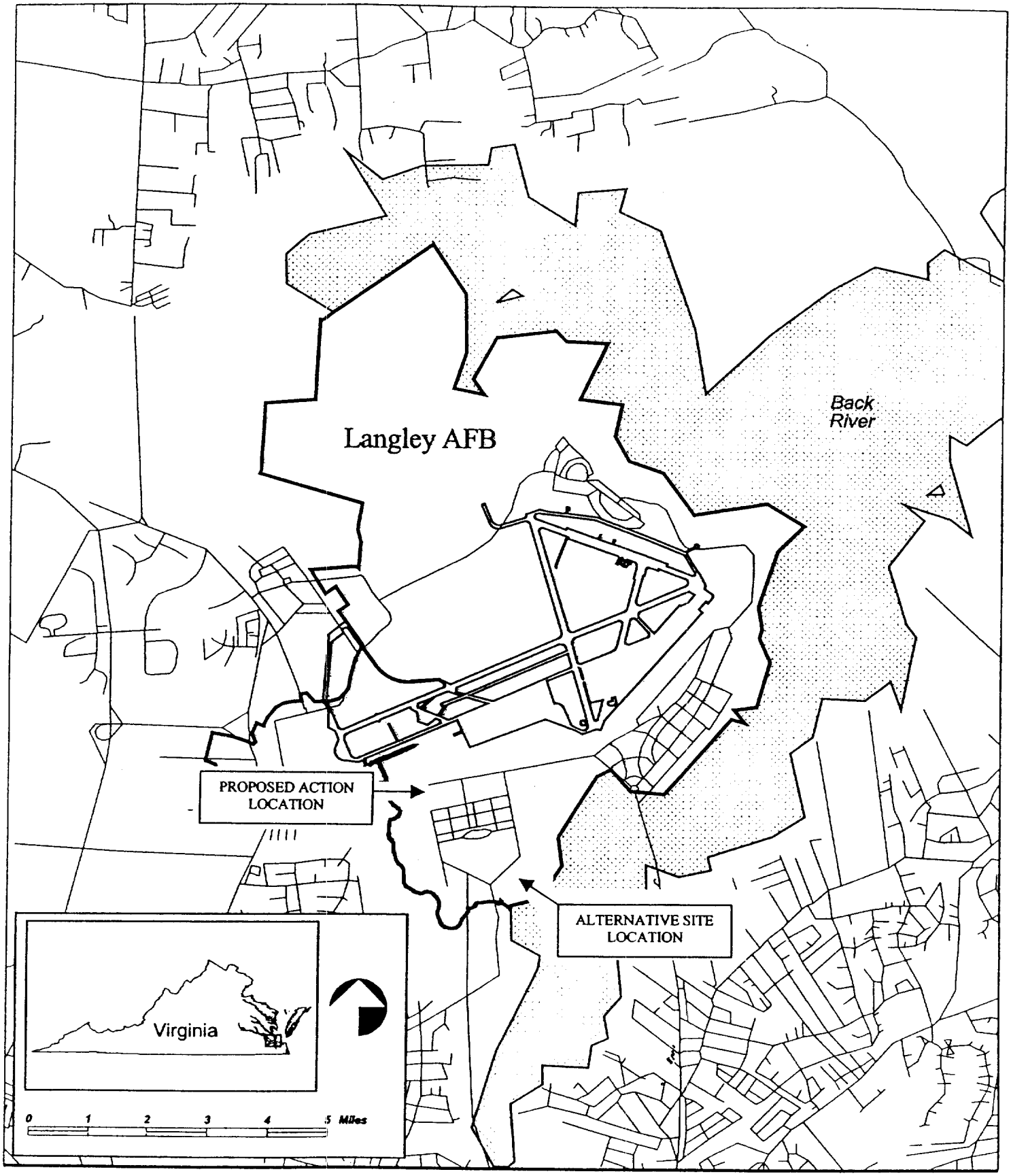
Sincerely,

Science Applications International Corporation

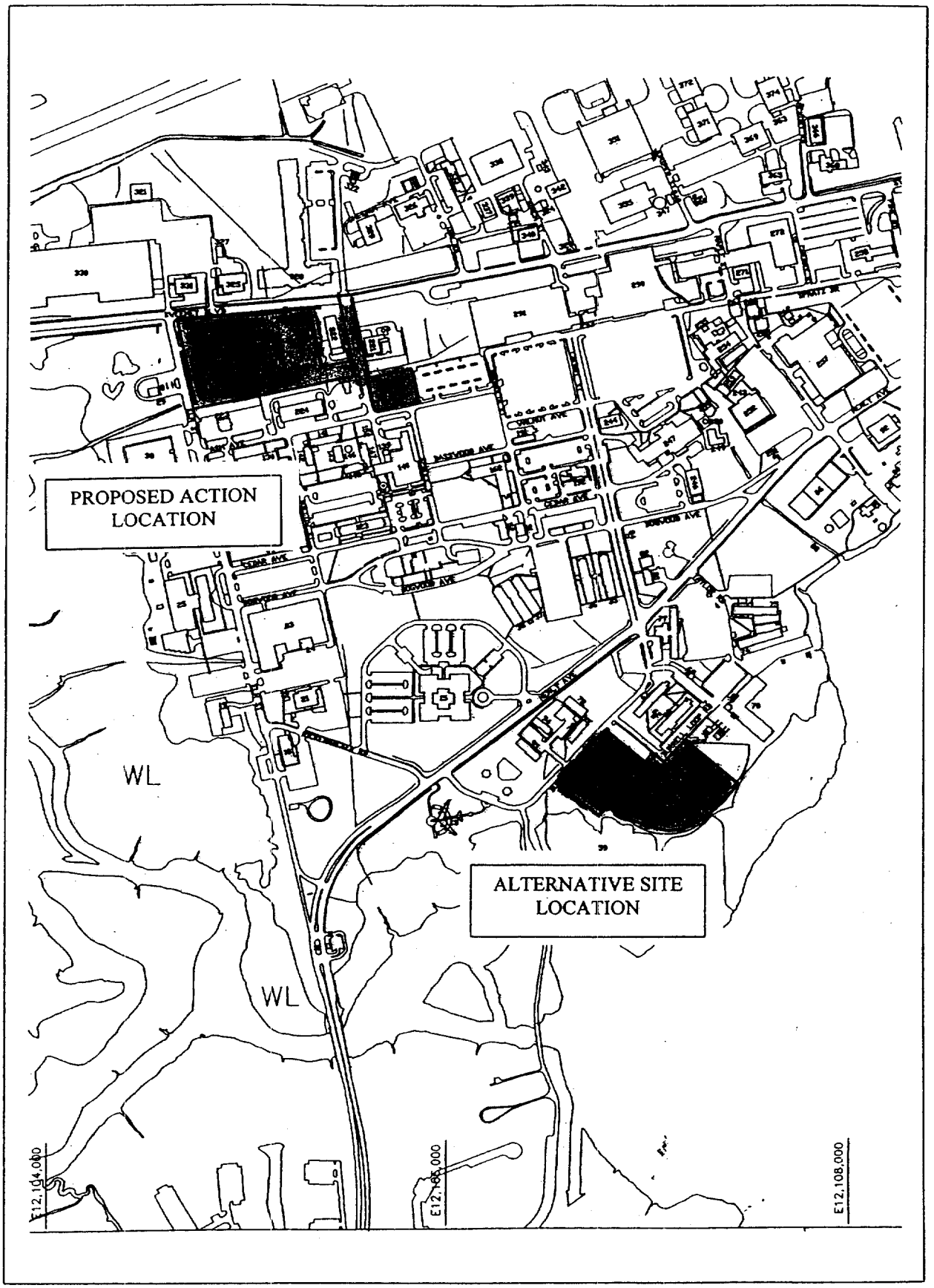
David Dischner
Project Manager

Enclosure: Site Map

*22 Enterprise Parkway, Suite 200, Hampton, Virginia 23666 • (757) 825-6334 • Fax: (757) 825-9104*
*Other SAIC Offices: Albuquerque, Colorado Springs, Dayton, Falls Church, Huntsville, Las Vegas, Los Altos, Los Angeles, McLean, Oak Ridge, Orlando, San Diego, Seattle, Tucson*




**Map of Langley AFB, Virginia**


PROPOSED ACTION LOCATION
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# COMMONWEALTH of VIRGINIA

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
*Street address:* 629 East Main Street, Richmond, Virginia 23219
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http://www.deq.state.va.us

Dennis H. Treacy
Director

(804) 698-4000
1-800-592-5482

29 MAR 2001

March 27, 2001

Mr. David Dischner
Science Application International Corporation
22 Enterprise Parkway, Suite 200
Hampton, Virginia 23666

RE: Proposed development of an Environmental Assessment (Scoping) for a Fitness Center at Langley Air Force Base, City of Hampton.

Dear Mr. Dischner:

In general, DEQ does not coordinate scoping comments. Agencies are expected to send comments directly to the sponsoring agency. By copy of this letter, several agencies are being notified of your inquiry. The attached comments, therefore, do not represent comments from other agencies. Any comments submitted by agencies concerning their area of expertise supersede DEQ's comments. These comments are provided solely as guidelines on issues that should be addressed in the EA.

The Department of Environmental Quality (DEQ) is responsible for reviewing federal consistency determinations/certifications and responding to appropriate agencies on behalf of the Commonwealth. Pursuant to the Coastal Zone Management Act of 1972, as amended, because these projects will be federally funded, they must be constructed and operated in a manner that is consistent with the Virginia Coastal Resources Management Program (VCP).

The project will involve the construction of a 66,700 square foot fitness center at the base. The projects discussed in your letter are consistent with Virginia's Coastal Resources Management Program (VCP) provided the Air Force receives all applicable permits or approvals listed under "Enforceable Programs of Virginia's Coastal Resources Management Program"

(Attachment 1) prior to implementation of the project.

If any of the enforceable programs are applicable, please contact the relevant agencies to obtain applicable permits or approvals. DEQ's Tidewater Regional Office administers the enforceable programs listed under DEQ's jurisdiction. Please contact the office at (757) 518-2000 for assistance in meeting the requirements of applicable programs. With respect to feder consistency, no further action is necessary if none of the enforceable programs of the VCRMP are applicable. However, the project must comply with all other applicable federal, state and local laws and regulations.

1. **Water Quality**. Although no long-term adverse impacts to water quality are anticipated, potential adverse impacts resulting from surface runoff must be minimized. This can be achieved by using Best Management Practices (BMP's). If construction disturbs five acres or more of land, a Virginia Pollutant Discharge Elimination System (VPDES) stormwater construction permit will be required from DEQ's Tidewater Regional Office, (757) 518-2000.

Impacts to streams and wetlands are regulated by federal and state government. The Virginia Marine Resources Commission (VMRC) serves as the clearing house for the Joint Permit Application (JPA) used by: (1) U.S. Army Corps of Engineers for issuing permits pursuant to *§404 of the Clean Water Act* and *§10 of the Rivers and Harbors Act;* (2) Department of Environmental Quality for issuance of a Virginia Water Protection Permit pursuant to *§401 of the Clean Water Act,* Virginia Code *§62.1-44.2 et seq.*, Virginia Code *§62.1-44.15:5,* and Virginia Administrative Code *9 VAC 25-210-10 et seq.*; (3) Virginia Marine Resources Commission regulates encroachments on or over state-owned subaqueous beds as well as tidal wetlands pursuant to Virginia Code *§28.2-1200* through *1400*; and (4) local wetlands board. If applicable, contact VMRC at (804) 247-2200 for a JPA. VMRC will distribute the application to the appropriate agencies. Each agency will conduct an independent review and respond directly.

In general, DEQ recommends that the number of stream and wetland impacts be avoided to the maximum extent practicable. For unavoidable impacts, DEQ encourages the following practices to minimize impacts to wetlands and waterways: operation of machinery and construction vehicles outside of stream-beds and wetlands; use of directional drilling from upland locations for the installation of utilities, the preservation and redistribution of the top 12 inches of trench material removed from a wetland for use as a wetland seed bank and root stock in the excavated area, and the use of synthetic mats when in-stream work is unavoidable.

2. **Air Quality**. The following sections of Virginia Administrative Code may be applicable: *9 VAC 5-50-80* and *-90*, governing abatement of visible emissions and fugitive dust emissions, *9 VAC 5-40-5620* and *-5630* addresses open burning, and *9 VAC 5-40-5490 et seq.* identifies cut back asphalt restrictions. For additional information, please contact DEQ's Tidewater Regional Office.

The project is located within an ozone maintenance area. Therefore, we recommend that precautionary measures be employed to reduce ground-level ozone concentrations especially during the ozone alert days. This can be done by minimizing the generation of ozone precursors such as volatile organic compounds and nitrogen oxides during operation of construction equipment and vehicles. Any access roads, parking lots/garage, ingress/egress, or interchanges/intersections should be designed and constructed so as to avoid or minimize traffic congestions and/or unnecessary localized vehicular idling. During construction, fugitive dust must be kept at a minimum. This requires, but is not limited to, measures such as the application of water to suppress dust and the washing down of construction vehicles and paved roadways immediately adjacent to the construction site.

3. **Chesapeake Bay Local Assistance Department**. The project must comply with the local ordinances governing the Chesapeake Bay Preservation Act. Contact the City of Hampton or the Chesapeake Bay Local Assistance Department with questions, 1-800-CHESBAY.

4. **Solid and Hazardous Wastes, and Hazardous Substances**. DEQ administers the Virginia Solid Waste Management Regulations and the Virginia Hazardous Waste Management Regulations. We recommend that all solid wastes generated at the site be reduced at the source, re-used, or recycled. All hazardous wastes should be minimized. Otherwise, all solid wastes, hazardous wastes, and hazardous material must be managed in accordance with all applicable federal, state, and local environmental regulations. Contact DEQ's Tidewater Regional Office concerning location and availability of waste management facilities in the project area.

5. **Pollution Prevention.** To the extent possible, recycled products, alternative fuels and energy sources, and environmentally friendly interior furnishings should be utilized. Areas for storage and management of hazardous materials and recycling operations should be properly designated. Pollution prevention techniques should be part of the facility maintenance and operation. Examples include: inventory control (record keeping and centralized storage for hazardous materials), product substitution (use of low toxic cleaners), and source reduction (fixing leaks, purchasing recycled and energy efficient products). Pollution prevention measures are likely to minimize chemical exposure to employees, potential environmental impacts, and will reduce the cost for material purchasing and waste disposal. For more information contact DEQ's Office of Pollution Prevention, Mr. Tom Griffin, at (804) 698-4545.

6. **Pesticides and Herbicides**. We recommend that the use of herbicides and pesticides during construction or for landscape maintenance be in accordance with the principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species should be used. Please contact the Department of Agriculture and Consumer Services at (804) 786-3501 for more information.

7. **Waterworks Operation and Sewerage Regulations**. Installation of new water and sewer lines and related facilities must comply with the State's Waterworks and Sewerage

Regulations. The Virginia Department of Health administers both federal and state laws governing waterworks operation and sewerage facilities. For more information, contact the Department of Health, Alan Weber at (804) 786-1752.

Thank you for your inquiry. We appreciate your interest in complying with the provisions of Virginia's Coastal Resources Management Program established pursuant to the Coastal Zone Management Act. If you have any further questions, please do not hesitate to call me at (804) 698-4337.

Sincerely,

Dawn McGrain
EIR Coordinator

Attachment
Sheri Kattan, DEQ-TRO
Catherine Harold, CBLAD
Alan Weber, VDH

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

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Dennis H. Treacy
Director

(804) 698-4000
1-800-592-5482

Attachment 1

**Enforceable Regulatory Programs comprising Virginia's Coastal Resources Management Program (VCP)**

a. Fisheries Management - The program stresses the conservation and enhancement of finfish and shellfish resources and the promotion of commercial and recreational fisheries to maximize food production and recreational opportunities. This program is administered by the Marine Resources Commission (VMRC); Virginia Code §28.2-200 to §28.2-713 and the Department of Game and Inland Fisheries (DGIF); Virginia Code §29.1-100 to §29.1-570.

The State Tributyltin (TBT) Regulatory Program has been added to the Fisheries Management program. The General Assembly amended the Virginia Pesticide Use and Application Act as it related to the possession, sale, or use of marine antifoulant paints containing TBT. The use of TBT in boat paint constitutes a serious threat to important marine animal species. The TBT program monitors boating activities and boat painting activities to ensure compliance with TBT regulations promulgated pursuant to the amendment. The VMRC, DGIF, and Virginia Department of Agriculture Consumer Services (VDACS) share enforcement responsibilities; Virginia Code §3.1-249.59 to §3.1-249.62.

b. Subaqueous Lands Management - The management program for subaqueous lands establishes conditions for granting or denying permits to use state-owned bottomlands based on considerations of potential effects on marine and fisheries resources, tidal wetlands, adjacent or nearby properties, anticipated public and private benefits, and water quality standards established by the Department of Environmental Quality (DEQ). The program is administered by the Marine Resources Commission; Virginia Code §28.2-1200 to §28.2-1213.

c. Wetlands Management - The purpose of the wetlands management program is to preserve wetlands, prevent their despoliation, and accommodate economic development in a manner consistent with wetlands preservation.

(1) The tidal wetlands program is administered by the Marine Resources Commission; Virginia Code §28.2 -1301 through §28.2 -1320.

(2) The Virginia Water Protection Permit program administered by DEQ includes protection of wetlands --both tidal and non-tidal; Virginia Code §62.1-44.15:5 and Water Quality Certification pursuant to Section 401 of the Clean Water Act.

d. Dunes Management - Dune protection is carried out pursuant to The Coastal Primary Sand Dune Protection Act and is intended to prevent destruction or alteration of primary dunes. This program is administered by the Marine Resources Commission; Virginia Code §28.2-1400 through §28.2-1420.

e. Non-point Source Pollution Control – (1) Virginia's Erosion and Sediment Control Law requires soil-disturbing projects to be designed to reduce soil erosion and to decrease inputs of chemical nutrients and sediments to the Chesapeake Bay, its tributaries, and other rivers and waters of the Commonwealth. This program is administered by the Department of Conservation and Recreation; Virginia Code §10.1-560 et.seq.).

(2) Coastal Lands Management is a state-local cooperative program administered by the Chesapeake Bay Local Assistance Department and 84 localities in Tidewater (see i) Virginia; Virginia Code §10.1-2100 –10.1-2114 and 9 VAC10-20 et seq.

f. Point Source Pollution Control - The point source program is administered by the State Water Control Board (DEQ) pursuant to Virginia Code §62.1-44.15. Point source pollution control is accomplished through the implementation of:

(1) the National Pollutant Discharge Elimination System (NPDES) permit program established pursuant to Section 402 of the federal Clean Water Act and administered in Virginia as the Virginia Pollutant Discharge Elimination System (VPDES) permit program.

(2) The Virginia Water Protection Permit (VWPP) program administered by DEQ; Virginia Code §62.1-44.15:5 and Water Quality Certification pursuant to Section 401 of the Clean Water Act.

g. Shoreline Sanitation - The purpose of this program is to regulate the installation of septic tanks, set standards concerning soil types suitable for septic tanks, and specify minimum distances that tanks must be placed away from streams, rivers, and other waters of the Commonwealth. This program is administered by the Department of Health (Virginia Code §32.1-164 through §32.1-165).

h. Air Pollution Control - The program implements the federal Clean Air Act to provide a legally enforceable State Implementation Plan for the attainment and maintenance of the National Ambient Air Quality Standards. This program is administered by the State Air Pollution Control Board (Virginia Code §10.1-1300 through §10.1- 1320).

(i) Coastal Lands Management is a state-local cooperative program administered by the Chesapeake Bay Local Assistance Department and 84 localities in Tidewater, Virginia established pursuant to the Chesapeake Bay Preservation Act; Virginia Code §10.1-2100 –10.1-2114 and Chesapeake Bay Preservation Area Designation and Management Regulations; Virginia Administrative Code 9 VAC10-20 et seq.

# COMMONWEALTH of VIRGINIA

## CHESAPEAKE BAY LOCAL ASSISTANCE DEPARTMENT

James S. Gilmore, III
Governor
John Paul Woodley, Jr.
Secretary of Natural Resources

**James Monroe Building**
**101 North 14th Street, 17th Floor**
**Richmond, Virginia 23219**
**FAX: (804) 225-3447**

Michael D. Clower
Executive Director

(804) 225-3440
1-800-243-7229 Voice/TDD

April 3, 2001

06 APR 2001

Mr. David Dischner, Project Manager
Science Applications International Corporation
22 Enterprise Parkway, Suite 200
Hampton, Virginia 23666

**RE: Langley AFB Proposed Fitness Center**
**CBLAD Project Review No. FSPR-USAF-01-01**

Dear Mr. Dischner:

Per your request to Ms. Ellie Irons at the Department of Environmental Quality, we have reviewed the information you provided for the proposed fitness center at Langley Air Force Base. The following are our comments and recommendations.

This agency has oversight responsibility of the Chesapeake Bay Preservation Act (Act), which is a cooperative program between state and local government designed to improve water quality by reducing nonpoint source pollution from land development. The Chesapeake Bay Preservation Area Designation and Management Regulations require that Chesapeake Bay Preservation Areas be identified and that development activities comply with the performance criteria in the Regulations (Regulations) as locally implemented.

Chesapeake Bay Preservation Areas include Resource Management Areas (RMAs) and Resource Protection Areas (RPAs). In Hampton, RPAs include tidal shores, tidal wetlands, nontidal wetlands that are contiguous to and connected by surface flow to tidal wetlands and perennial streams, and a 100-foot buffer located landward of these features. Development within RPAs is limited to water-dependent activities, redevelopment and specified exemptions. Many of the performance standards in the Regulations also apply to activities within RMAs, including stormwater quality control.

We recommend that RPAs and RMAs be delineated for each of the sites under consideration, as this could affect the site selection decision. The local ordinance

requires that these features be field delineated. As design proceeds on this project, the Army or its design consultant should consult the water quality calculation procedures of this agency's Local Assistance Manual (Appendix C) for further information on determining what pollution reductions requirements may apply to the site. The pollutant removal efficiency ratings in the Virginia Stormwater Management Handbook should be consulted to determine adequacy of the BMP selected.

The 1998 Federal Agencies' Chesapeake Ecosystem Unified Plan requires the signatories, including the Department of the Air Force, to fully cooperate with local and state governments in carrying out voluntary and mandatory actions to comply with the management of storm water. The agencies also committed to encouraging construction design that minimizes natural area loss, adopt low impact development and best management technologies for storm water, sediment and erosion control and reduces impervious surfaces.

We appreciate the opportunity to provide our comments on this project. Please do not hesitate to contact us at 1-800-CHESBAY should you have any questions.

Sincerely,

Catherine M. Harold
Environmental Engineer

Doug Wetmore
Principal Environmental Planner

Cc: Scott Crafton, CBLAD
Martha H. Little, CBLAD
Dawn McGrain, DEQ

**Science Applications International Corporation**
*An Employee-Owned Company*

9 February 2001

Environmental Services Section
Virginia Department of Game and Inland Fisheries
P.O. Box 11104
Richmond, VA 23230-1104

Dear Sirs:

I am writing in regards to a proposal to construct a new Fitness Center for base personnel at Langley Air Force Base in Hampton, Virginia. We are preparing an environmental assessment for the base and I am requesting that after your review of the information below, you provide me with any list of federal or state threatened or endangered species, if any, that have the potential to occur in the project areas.

Two locations are being evaluated for the construction of the 66,700 square foot fitness center. Both sites are within the main portion of the base and have been previously disturbed (See attached figure).

We will be preparing an EA under NEPA for this proposed construction project and sensitive species you identify as potentially occurring at or near the sites will be assessed in the EA and correspondence we receive from you will be included in this document. In addition, the EA will include an analysis of any state sensitive species and other biological resources that could be affected by this project.

A letter has also been sent to the U.S. Fish & Wildlife, Virginia Department of Agriculture and Consumer Services -Plant Protection, and the Virginia Department of Conservation and Recreation-Division of Natural Heritage per guidance on similar projects. .

We appreciate the opportunity to work with the Virginia Department of Game and Inland Fisheries in the conservation of our sensitive species and if you have any questions or would like additional information, please call me at (757) 223-1065.

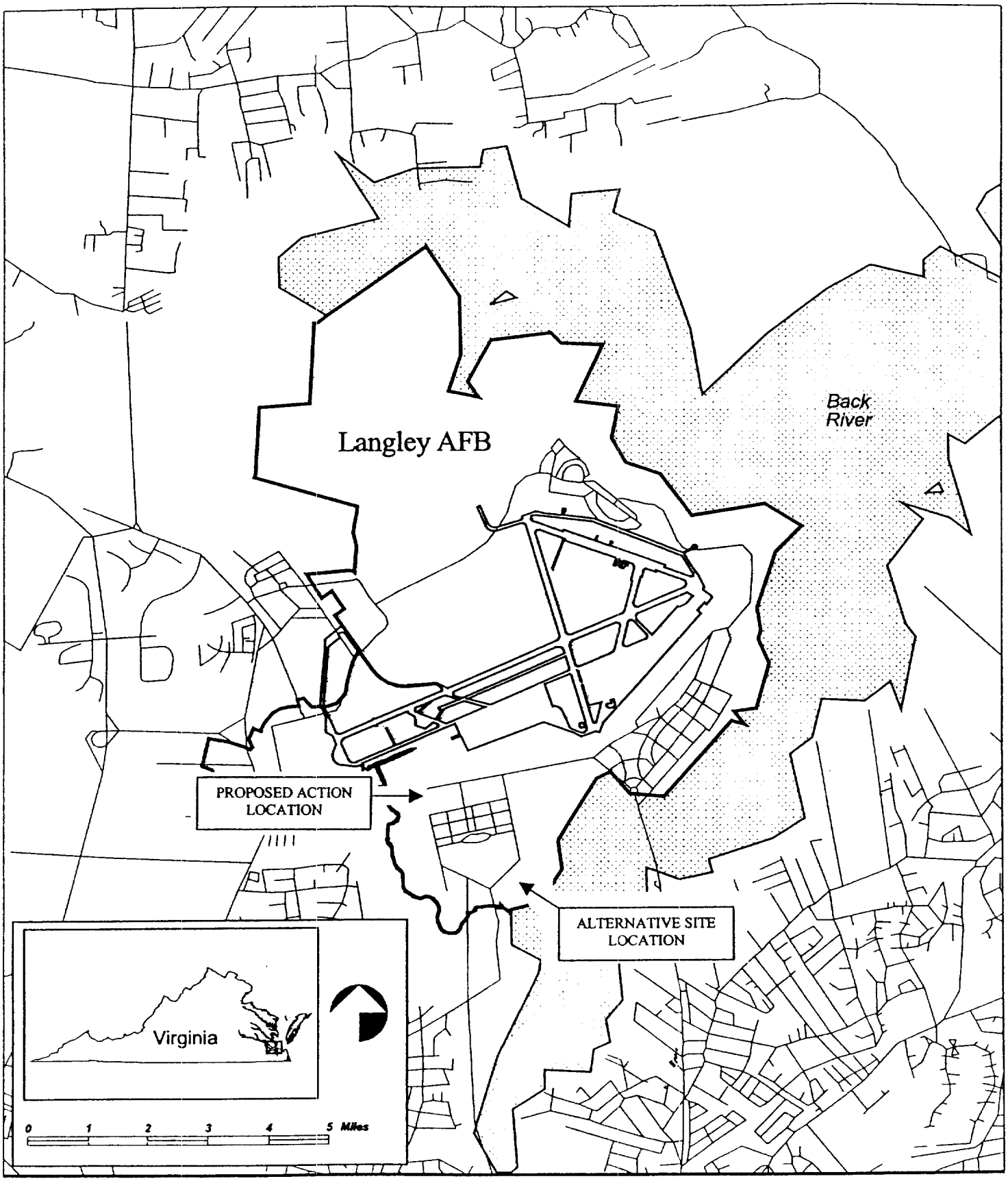
Sincerely,

Science Applications International Corporation

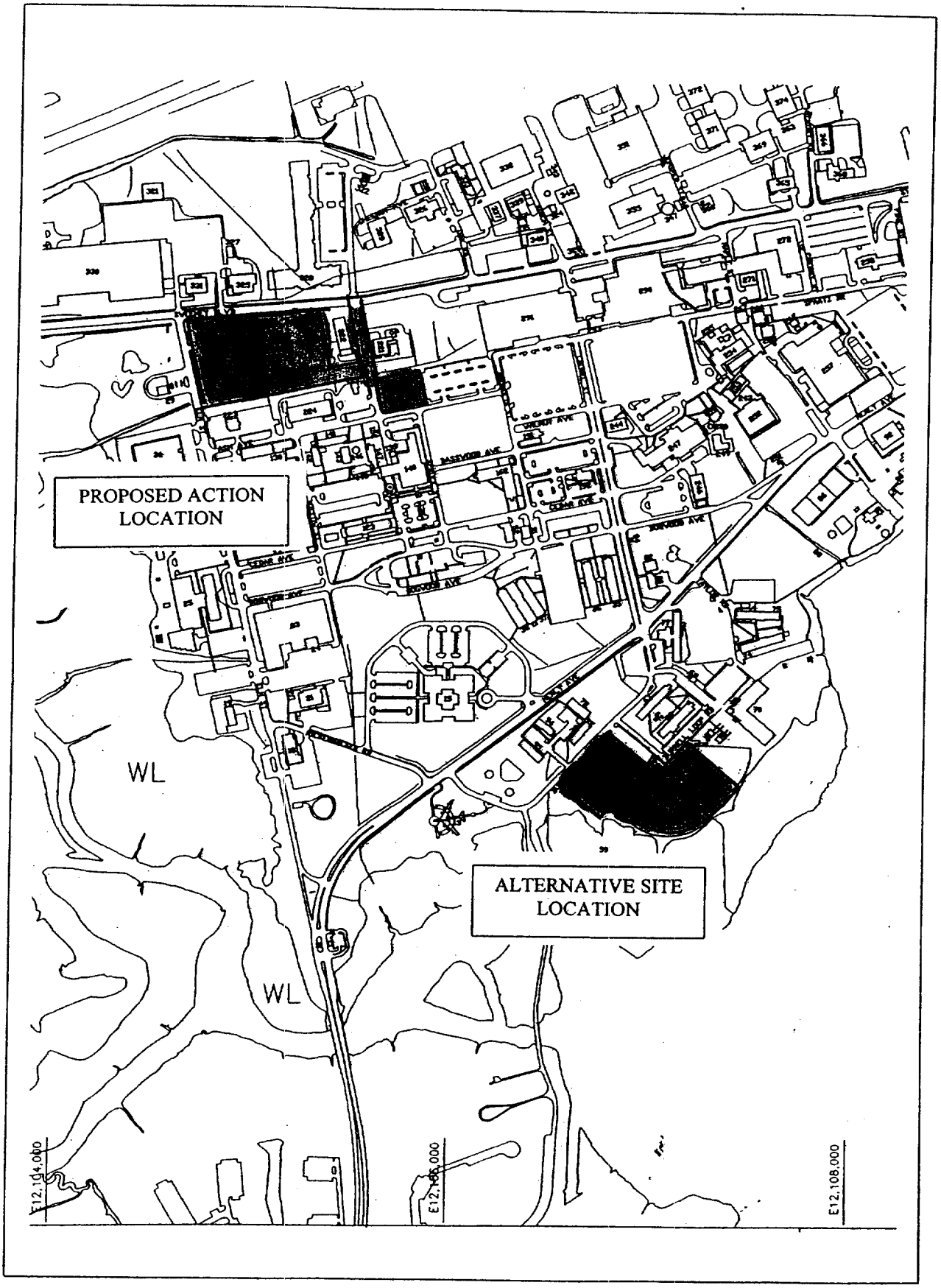
David Dischner
Project Manager

Enclosure: Site Map

*22 Enterprise Parkway, Suite 200, Hampton, Virginia 23666 • (757) 825-6334 • FAX: (757) 825-9104*
*Other SAIC Offices: Albuquerque, Colorado Springs, Dayton, Falls Church, Huntsville, Las Vegas, Los Altos, Los Angeles, McLean, Oak Ridge, Orlando, San Diego, Seattle, Tucson*




**Map of Langley AFB, Virginia**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James S. Gilmore, III
*Governor*
John Paul Woodley, Jr.
*Secretary of Natural Resources*

# COMMONWEALTH of VIRGINIA

***Department of Game and Inland Fisheries***

William L. Woodfin, Jr.
*Director*

April 10, 2001

Dick Dischner
Science Applications International Corp.
22 Enterprise Parkway, Suite 200
Hampton, VA 23666

RE: ESSLOG 14564; Fitness Center at Langley AFB

Dear Mr. Dischner:

This letter is in response to your request for information related to the presence of threatened or endangered species in the vicinity of the above referenced project.

Information about fish and wildlife species was generated from our agency's computerized Fish and Wildlife Information System, which describes animals that are known or may occur in a particular geographic area. Field surveys may be necessary to determine the presence or absence of some of these species on or near the proposed area. Also, additional sensitive animal species may be present, but their presence has not been documented in our information system.

**I have enclosed a document produced by the VDGIF Online Service that lists the state and federal listed species known or expected to occur in a 2-mile radius around the propsed and alternative site locations. Highlighted records are those that have been confirmed at the site or within 1.5 miles of the site. This information should help you in the development of your EA. However, if you have additional questions in regard to data on threatened or endangered species in this area, please contact me at (804) 367-0909.**

Endangered plants and insects are under the jurisdiction of the Virginia Department of Agriculture and Consumer Services, Bureau of Plant Protection. Questions concerning sensitive plant and insect species occurring at the project site should be directed to Keith Tignor at (804) 786-3515.

Please note that this response does not address any other environmental concerns; theseissues are analyzed by our Environmental Services Section, in conjunction with interagency review of applications for state and federal permits. If you have any questions in this regard, please contact Ray Fernald or Tom Wilcox at (804) 367-8999.

There is a processing charge of $25.00 for our response. Please remit a check, made payable to **TREASURER OF VIRGINIA,** within 30 days to MaryBeth Murr at the address listed on the first page. Include a copy of this letter with your payment to ensure that your account is properly credited.

The Fish and Wildlife Information Service, the system of databases used to provide the information in this letter, can now be accessed via the Internet! The Service currently provides access to current and comprehensive information about all of Virginia's fish and wildlife resources, including those listed as threatened, endangered, or special concern; colonial birds; waterfowl; trout streams; and all wildlife. Users can choose a geographic location and generate a report of species known or likely to occur around that point. From our main web page, at www.dgif.state.va.us, choose the hyperlink to "Wildlife Information Online". For more information, please contact Kathy Quindlen, Online Service Coordinator, at (804) 367-9717.

Thank you for your interest in the wildlife resources of Virginia.

Sincerely,

Shelly A. Miller
FWIS Aquatic Biologist

cc: R.T. Fernald, VDGIF

**45 Threatened or Endangered Species** ("click" on a Confirmed "Yes" to view observation records)

| Code | Status | Confirmed | Common Name | Scientific Name | Databases |
|---|---|---|---|---|---|
| 030074 | FE | No | Turtle, Kemp's Ridley sea | *Lepidochelys kempii* | BOVA |
| 030075 | FE | No | Turtle, leatherback sea | *Dermochelys coriacea* | BOVA |
| 040228 | FE | Yes | Woodpecker, red-cockaded | *Picoides borealis borealis* | CBC(1986) |
| 040093 | FTSE | Yes | Eagle, bald | *Haliaeetus leucocephalus leucocephalus* | CBC(1981),BOVA |
| 030072 | FT | No | Turtle, green | *Chelonia mydas* | BOVA |
| 030071 | FT | No | Turtle, loggerhead sea | *Caretta caretta caretta* | BOVA |
| 040120 | FT | Yes | Plover, piping | *Charadrius melodus melodus* | CBC(1980),BOVA |
| 040292 | FSST | No | Shrike, migrant loggerhead | *Lanius ludovicianus migrans* | BOVA |
| 030067 | FS | Yes | Terrapin, northern diamond-backed | *Malaclemys terrapin terrapin* | COLLECTIONS(1994),BOVA |
| 040110 | FS | No | Rail, black | *Laterallus jamaicensis* | BOVA |
| 040320 | FS | No | Warbler, cerulean | *Dendroica cerulea* | BOVA |
| 020052 | SE | No | Salamander, eastern tiger | *Ambystoma tigrinum tigrinum* | BOVA |
| 030013 | SE | Yes | Rattlesnake, canebrake | *Crotalus horridus atricaudatus* | COLLECTIONS,BOVA |

| | | | | | |
|---|---|---|---|---|---|
| 040096 | SE | Yes | Falcon, peregrine | *Falco peregrinus* | CBC(1990),BOVA |
| 020044 | ST | No | Salamander, Mabee's | *Ambystoma mabeei* | BOVA |
| 020002 | ST | No | Treefrog, barking | *Hyla gratiosa* | BOVA |
| 040129 | ST | No | Sandpiper, upland | *Bartramia longicauda* | BOVA |
| 040293 | ST | Yes | Shrike, loggerhead | *Lanius ludovicianus ludovicianus* | CBC(1978),BOVA |
| 010032 | SS | No | Sturgeon, Atlantic | *Acipenser oxyrhynchus* | BOVA |
| 040264 | SS | Yes | Creeper, brown | *Certhia americana* | CBC(1990),BOVA |
| 040372 | SS | Yes | Crossbill, red | *Loxia curvirostra* | CBC(1976) |
| 040364 | SS | Yes | Dickcissel | *Spiza americana* | CBC(1968),BOVA |
| 040032 | SS | Yes | Egret, great | *Ardea alba egretta* | BBA(1989),CBC (1990),COLLECTIONS,CWB (1990),BOVA |
| 040366 | SS | Yes | Finch, purple | *Carpodacus purpureus* | CBC(1990),BOVA |
| 040094 | SS | Yes | Harrier, northern | *Circus cyaneus* | CBC (1990),COLLECTIONS,BOVA |
| 040029 | SS | No | Heron, little blue | *Egretta caerulea caerulea* | BOVA |
| 040034 | SS | Yes | Heron, tricolored | *Egretta tricolor* | CBC(1977),BOVA |
| 040040 | SS | Yes | Ibis, glossy | *Plegadis falcinellus* | COLLECTIONS,BOVA |
| 040285 | SS | Yes | Kinglet, golden-crowned | *Regulus satrapa* | CBC(1990),BOVA |
| 040112 | SS | No | Moorhen, common | *Gallinula chloropus cachinnans* | BOVA |

| | | | | | |
|---|---|---|---|---|---|
| 040036 | SS | Yes | Night-heron, yellow-crowned | *Nyctanassa violacea violacea* | BBA(1989),CBC (1989),COLLECTIONS,CWB (1993),BOVA |
| 040262 | SS | Yes | Nuthatch, red-breasted | *Sitta canadensis* | CBC(1990),BOVA |
| 040204 | SS | Yes | Owl, barn | *Tyto alba pratincola* | CBC(1968),BOVA |
| 040020 | SS | No | Pelican, brown | *Pelecanus occidentalis carolinensis* | BOVA |
| 040381 | SS | Yes | Sparrow, saltmarsh sharp-tailed | *Ammodramus caudacutus diversus* | BBA(1989),CBC(1990),BOVA |
| 040189 | SS | Yes | Tern, Caspian | *Sterna caspia* | BBA (1986),COLLECTIONS,BOVA |
| 040180 | SS | Yes | Tern, Forster's | *Sterna forsteri* | BBA(1986),CBC (1988),COLLECTIONS,BOVA |
| 040186 | SS | Yes | Tern, least | *Sterna antillarum* | BBA (1986),COLLECTIONS,BOVA |
| 040188 | SS | No | Tern, sandwich | *Sterna sandvicensis acuflavidus* | BOVA |
| 040278 | SS | Yes | Thrush, hermit | *Catharus guttatus* | CBC(1990),BOVA |
| 040270 | SS | Yes | Wren, sedge | *Cistothorus platensis* | CBC(1980),BOVA |
| 040266 | SS | Yes | Wren, winter | *Troglodytes troglodytes* | CBC(1990),BOVA |
| 050110 | SS | No | Mole, small star-nosed | *Condylura cristata parva* | BOVA |
| 050045 | SS | No | Otter, river | *Lontra canadensis lataxina* | BOVA |
| 050107 | SS | No | Rabbit, marsh | *Sylvilagus palustris palustris* | BOVA |

**5 Anadromous Fish Species** ("click" on a Confirmed "Yes" to view observation records)

| Code | Status | Confirmed | Common Name | Scientific Name | Databases |
|---|---|---|---|---|---|
| 010032 | SS | No | Sturgeon, Atlantic | *Acipenser oxyrhynchus* | BOVA |
| 010038 | | No | Alewife | *Alosa pseudoharengus* | BOVA |
| 010168 | | No | Bass, striped | *Morone saxatilis* | BOVA |
| 010002 | | No | Lamprey, sea | *Petromyzon marinus* | BOVA |
| 010040 | | Yes | Shad, American | *Alosa sapidissima* | COLLECTIONS (1998) |

**No Cold Water Stream Survey records are found within the search area.**

**^ 3 Colonial Water Bird Surveys** (Click here to view these site locations on a map)

**139 Hampton-Back Riverwith 1 species for 1 year**

| Species Code | Status | Common Name | Scientific Name | Latest Year | N Years |
|---|---|---|---|---|---|
| 040036 | SS | Night-heron, yellow-crowned | *Nyctanassa violacea violacea* | 1993 | 1 |

**136 Hampton-Herbert's Creekwith 2 species for 4 years**

| Species Code | Status | Common Name | Scientific Name | Latest Year | N Years |
|---|---|---|---|---|---|
| 040032 | SS | Egret, great | *Ardea alba egretta* | 1990 | 3 |
| 040036 | SS | Night-heron, yellow-crowned | *Nyctanassa violacea violacea* | 1993 | 1 |

**138 Hampton-Pine Grove Courtwith 1 species for 1 year**

| Species Code | Status | Common Name | Scientific Name | Latest Year | N Years |
|---|---|---|---|---|---|
| 040036 | SS | Night-heron, yellow-crowned | *Nyctanassa violacea violacea* | 1993 | 1 |

***Options Menu*** ***Species Information*** ***Species Lists*** ***Geographic Search*** ***Database*** ***Last Location Map***

***Disclaimer***



***VDGIF Home***

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System Operator Reply 497475 compiled 10 April 2001 for MILLER
Time to service request 00:00:05 --- Service idle before request 00:01:06 --- Ready for request 86%
VaFWIS version 6 April 2001

**Science Applications International Corporation**
*An Employee-Owned Company*

9 February 2001

Division of Natural Heritage
Virginia Department of Conservation and Recreation
217 Governor's Street, 3rd Floor
Richmond, VA 23219

Dear Sirs:

I am writing in regards to a proposal to construct a new Fitness Center for base personnel at Langley Air Force Base in Hampton, Virginia. We are preparing an environmental assessment for the base and I am requesting that after your review of the information below, you provide me with any list of federal or state threatened or endangered species, if any, that have the potential to occur in the project areas.

Two locations are being evaluated for the construction of the 66,700 square foot fitness center. Both sites are within the main portion of the base and have been previously disturbed (See attached figure).

We will be preparing an EA under NEPA for this proposed construction project and sensitive species you identify as potentially occurring at or near the sites will be assessed in the EA and correspondence we receive from you will be included in this document. In addition, the EA will include an analysis of any state sensitive species and other biological resources that could be affected by this project.

A letter has also been sent to the U.S. Fish & Wildlife, Virginia Department of Agriculture and Consumer Services -Plant Protection, and the Virginia Department of Game and Inland Fisheries - Environmental Services Section per guidance on similar projects.

We appreciate the opportunity to work with the Virginia Department of Conservation and Recreation-Division of Natural Heritage in the conservation of our sensitive species and if you have any questions or would like additional information, please call me at (757) 223-1065.

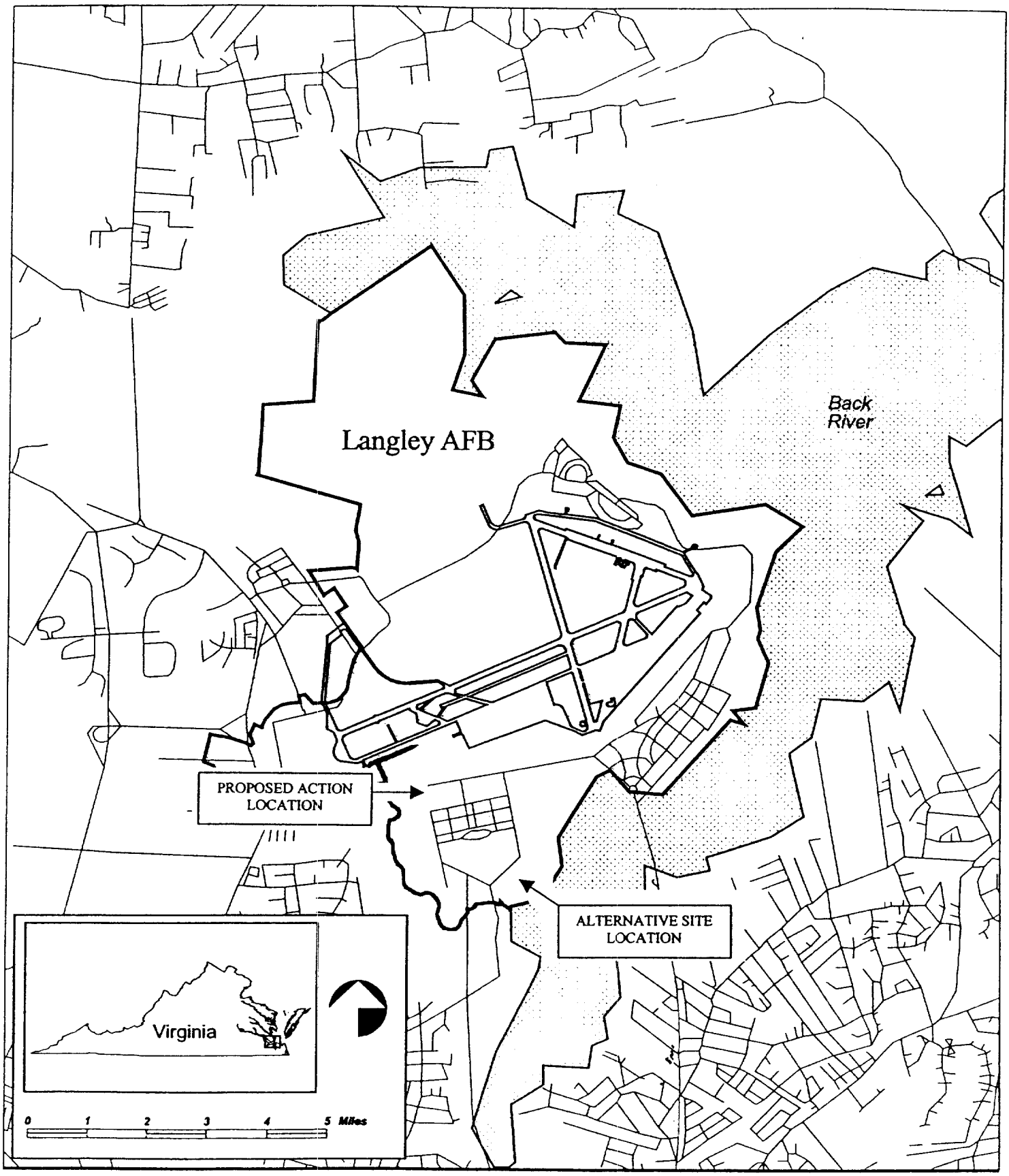
Sincerely,

Science Applications International Corporation

David Dischner
Project Manager

Enclosure: Site Map

*22 Enterprise Parkway, Suite 200, Hampton, Virginia 23666 • (757) 825-6334 • FAX: (757) 825-9104*
*Other SAIC Offices: Albuquerque, Colorado Springs, Dayton, Falls Church, Huntsville, Las Vegas, Los Altos, Los Angeles, McLean, Oak Ridge, Orlando, San Diego, Seattle, Tucson*




**Map of Langley AFB, Virginia**

# APPENDIX B
# PERMITS

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# COMMONWEALTH of VIRGINIA

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

*Marine Resources Commission*
*2600 Washington Avenue*
*Third Floor*
*Newport News, Virginia 23607*

William A. Pruitt
Commissioner

July 6, 2001

Langley Air Force Base
c/o Patsy Kerr & Thomas Wittkamp
1 CES/CEVA
37 Sweeney Boulevard
Langley AFB, VA 23665-2107

**RE: VMRC #01-1111**

Dear Sir or Madam:

We are in receipt of your application which seeks authorization to fill a tidal drainage ditch property situated along Tidemill Creek in Hampton.

Provided the proposed project does not extend channelward of the mean low water mark, authorization will not be required from the Marine Resources Commission.

For your information, however, you may need authorization from the U. S. Army Corps of Engineers, Norfolk District, 803 Front Street, Norfolk, Virginia 23510 and/or a permit from your local wetlands board. Your application is currently being processed by both of these agencies. If you wish, you may contact the Corps at (757) 441-7652.

If I may be of further assistance, please do not hesitate to contact me at (757)247-2256.

Sincerely,

Traycie L. West
Environmental Engineer

TLW:amn
HM
cc: Hampton Wetlands Board
Applicant

# COMMONWEALTH of VIRGINIA

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

*DEPARTMENT OF ENVIRONMENTAL QUALITY*

5636 Southern Boulevard
Virginia Beach, VA 23462
Tel# (757) 518-2000
http://www.deq.state.va.us

Dennis H. Treacy
Director

Francis L. Daniel
Tidewater Regional Director

June 27, 2001

Colonel Keith R. Bell
U.S. Langley Air Force Base
c/o Ms. Patsy Kerr & Mr. Thomas A. Wittkamp
1CES/CEVA
37 Sweeney Boulevard
Langley AFB, Virginia 23665-2107

RE: **Joint Permit Application No.01-1111**
U.S. Air Force- Langley Air Force Base-Fitness Center

Dear Colonel Bell:

This letter is in response to your application to fill wetlands and to create a wetlands mitigation site near the proposed Fitness Center along Tidemill Creek of the Back River in Hampton, Virginia.

Because the water quality impacts should be minimal and temporary in nature, a Virginia Water Protection Permit will not be required by the Department of Environmental Quality for this project. Should the size and scope of the project change so that one acre or more of wetlands are impacted, a permit may be required. You are advised that this does not give you the authority to violate the State Water Quality Standards (9 VAC 25-260, formerly VR 680-21-01). Other agencies that may require permits are the Virginia Marine Resources Commission and the U.S. Army Corps of Engineers.

If you have any questions, please do not hesitate to contact me at (757)518-2126.

Sincerely,

LeAnn Moran

LeAnn Moran
Environmental Engineer
Planning & Permit Support/VWPP

cc: U.S. Army Corps of Engineers
Virginia Marine Resources Commission
File

U.S. Army Corps of Engineers
Norfolk District, Western Virginia Regulatory Section
803 Front Street
Norfolk, Virginia 23510-1096

June 22, 2001

Project Number: 01-V1111

Waterway: Tidemill Creek

1. Participant:
Langley Air Force Base
1 SPTG/CC
45 Nealy Ave
Langley AFB, Virginia 23665-2107

2. Authorized Agent:
Langley Air Force Base
1 CES/CEVA, Ms. Patsy Kerr
37 Sweeney Blvd
Langley AFB, Virginia 23665-2107

3. Address of Job Site:
Langley Air Force Base (AFB) Fitness Center, on land bordered by Sweeney Blvd, Elm St, and Holly St; between building #226 and #222.

4. Project Description:
Langley Air Force Base (AFB) Fitness Center. Fill 7663 square feet area that is a Corps verified a mix of significantly degraded wetland and 50% upland area so that the wetland fill is actually 3,832 square feet or 0.09 acres. Mitigate by on-site creation of 0.65 acres emergent wetland.

5. Findings

This is regarding your request to perform work in the waters of the United States, as described in part 4 above. This activity has been reviewed and found to satisfy the criteria contained in the Corps Nationwide Permit (18 and 27), attached. (The Corps Nationwide Permits were published in the Federal Register (61 FR 65874) on December 13, 1996 and the regulations governing their use can be found in 33 CFR 330 published in Volume 56, Number 226 of the Federal Register dated November 22, 1991.) The permitee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

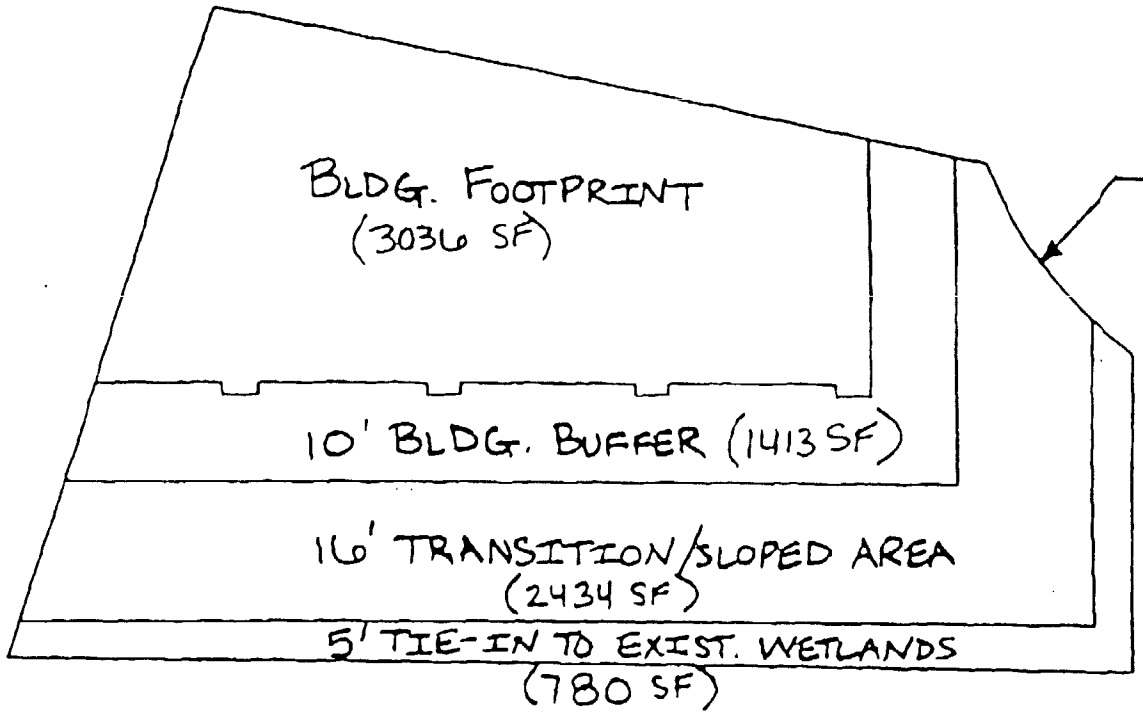
Provided the enclosed conditions are met, an individual Department of the Army Permit will not be required. In addition, the Virginia Department of Environmental Quality has waived 401 certification for Nationwide Permit Number 18. However, a permit may be required from the Virginia Marine Resources Commission and/or your local wetlands board, and this verification is not valid until you obtain their approval, if necessary. You may contact the Virginia Marine Resources Commission at (757) 247-2200 for further information concerning their permit requirements. This authorization does not relieve your responsibility to comply with local requirements pursuant to the Chesapeake Bay Preservation Act (CBPA), nor does it supersede local government authority and responsibilities pursuant to the Act. You should contact your local government before you begin work to find out how the CBPA applies to your project.

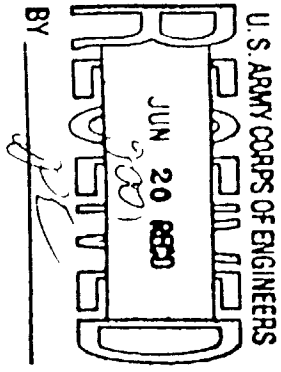
Enclosed is a "compliance certification" form, which must be signed and returned within 30 days of completion of the project, including any required mitigation (see nationwide permit condition number 14). Your signature on this form certifies that you have completed the work in accordance with the nationwide permit terms and conditions. This verification is valid for three years from the date of this letter, unless the Norfolk District Engineer uses discretionary authority to modify, suspend or revoke this verification. The Chief of Engineers will periodically review the nationwide permits and their conditions and will decide to either modify, reissue or revoke the permits. The existing nationwides are scheduled to expire on February 11, 2002. If the nationwide permit(s) verified in this letter are reissued without modification or if your activity complies with any subsequent nationwide permit, the expiration date of this verification will not change. However, if the nationwide permit(s) verified in the letter are modified or revoked so that the activity listed above would no longer be authorized and you have commenced or are under contract to commence the work, you will have twelve months from the date of that permit change to complete the activity.

Activities completed under the authorization of a nationwide permit which was in effect at the time the activity was completed continue to be authorized by that nationwide permit. It is your responsibility to remain informed of changes to the nationwide permits. We will issue a special public notice announcing any changes to the nationwide permits when they occur.

6. Corps Contact: John Evans at (757) 441-7794.

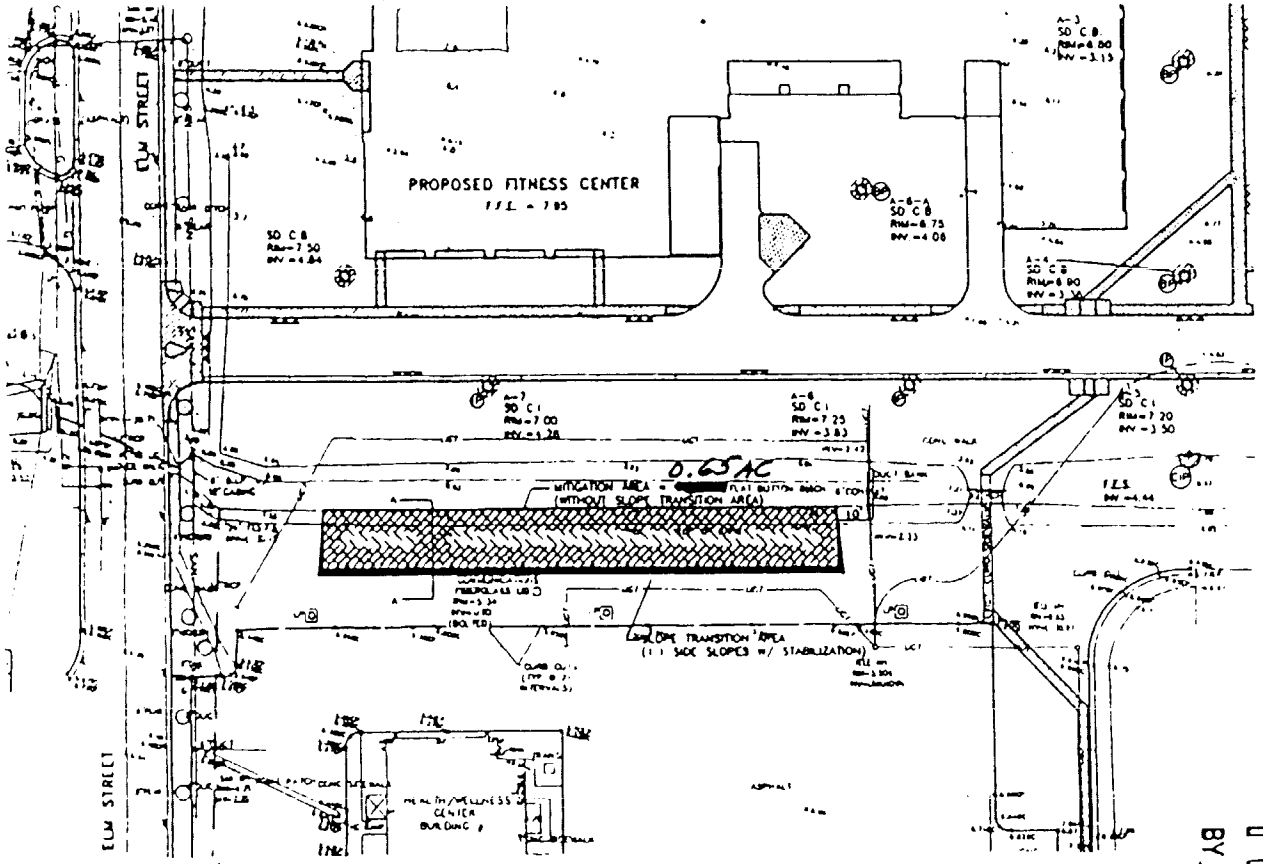
Bruce F. Williams
Acting Chief, Western Va Regulatory Section



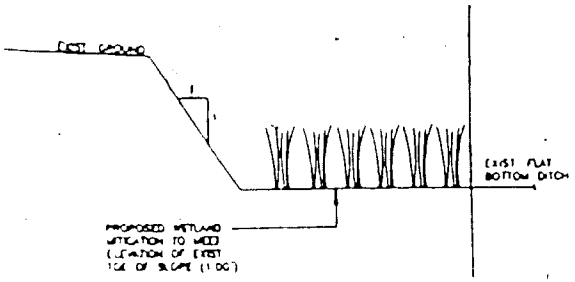




## WETLAND IMPACT AREA

LAFB FITNESS CENTER ..... SCALE: 1"=20'




IGATION PLAN



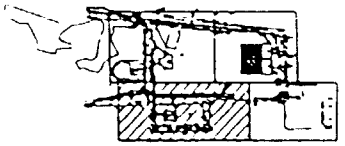

IGATION SECTION A–A

NOTES:

1. PROPOSED WETLAND PLANTS SHALL BE OF SAME SPECIES AS ADJACENT WETLANDS IN EXISTING DITCH
2. WETLAND MITIGATION SHALL BE IN CONCURRENCE OR IN ADVANCE OF THE DEMOLITION/REMOVAL OF EXISTING WETLANDS AREAS
3. SIDE SLOPE OF 1:1 (H:V) SHALL BE ESTABLISHED WITH PROPER STABILIZATION IF RECOMMENDED IS NOT CONSTRUCTABLE, CONTACT ENGINEER

NOTES:

1. DRAWING IS DRAWN IN ENGLISH UNITS
2. FOR LEGEND, GENERAL NOTES, AND ABBREVIATIONS, SEE SHEET C-2
3. FOR WETLAND IMPACT AREAS, SEE SHEETS C-5 AND C-6



KEY PLAN:
NOT TO SCALE

U.S. ARMY CORPS OF ENGINEERS
RECEIVED
JUN 20 2001
BY

DEPARTMENT OF THE ARMY
NORFOLK DISTRICT CORPS OF ENGINEERS
NORFOLK, VIRGINIA

FITNESS CENTER
LANGLEY AIR FORCE BASE, VA

90%
SUBMITTAL
14 MAY 01

WETLANDS
MITIGATION PLAN

GRAPHIC SCALE

U.S. Army Corps
Of Engineers
Norfolk District

# CERTIFICATE OF COMPLIANCE WITH ARMY CORPS OF ENGINEERS PERMIT

Permit Number: 01-V1111 (Evans)

Name of Permittee: Langley Air Force Base
1 SPTG/CC
45 Nealy Ave
Langley AFB, Virginia 23665-2107

Langley Air Force Base
1 CES/CEVA, Ms. Patsy Kerr
37 Sweeney Blvd
Langley AFB, Virginia 23665-2107

Date of Issuance: June 22, 2001

Permit Type: Nationwide 18 for minor discharge and 27 for tidal creation..

Within 30 days of completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

Norfolk District Corps of Engineers
Regulatory Branch, Attn: John Evans
803 Front Street
Norfolk, Va. 23510-1096

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation has been completed in accordance with the permit conditions.

_____ _____

Signature of Permittee Date

## Nationwide Permit (18) Minor Discharges

**Minor discharges of dredged or fill material into all waters of the United States provided that the activity meets all of the following criteria:**

**a. The quantity of discharged material and the volume of excavated area does not exceed 25 cubic yards below the plane of the ordinary high water mark or the high tide line;**

**b. The discharge, including any excavated area, will not cause the loss of more than 1/10 acre of a special aquatic site, including wetlands. For the purposes of this nationwide permit, the acreage limitation includes the filled area plus special aquatic sites that are adversely affected by flooding and special aquatic sites that are drained so that they would no longer be a water of the United States as a result of the project;**

**c. If the discharge, including any excavated area, exceeds 10 cubic yards below the plane of the ordinary high water mark or the high tide line or if the discharge is in a special aquatic site, including wetlands, the permittee notifies the District Engineer in accordance with the "Notification" general condition. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands. (Also see 33 CFR 330.1(e)); and**

**d. The discharge, including all attendant features, both temporary and permanent, is part of a single and complete project and is not placed for the purpose of stream diversion.**

**e. This NWP can not be used in conjunction with NWP 26 for any single and complete project. (Sections 10 and 404)**

### GENERAL CONDITIONS:

The following general conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. No activity may cause more than a minimal adverse effect on navigation.
2. Proper Maintenance. Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.
3. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.
4. Aquatic Life Movements. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.
5. Equipment. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.
6. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions which may have been added by the division engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the State or tribe in its Section 401 water quality certification and Coastal Zone Management Act consistency determination.
7. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).
8. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.
9. Water Quality. (a) In certain States and tribal lands an individual 401 water quality certification must be obtained or waived (See 33 CFR 330.4(c)).
   (b) For NWPs 12, 14, 17, 18, 32, 39, 40, 42, 43, and 44, where the State or tribal 401 certification (either generically or individually) does not require or approve a water quality management plan, the permittee must include design criteria and techniques that will ensure that the authorized work does not result in more than minimal degradation of water quality. An important component of a water quality management plan includes stormwater management that minimizes degradation of the downstream aquatic system, including water quality. Refer to General Condition 21 for stormwater management requirements. Another important component of a water quality management plan is the establishment and maintenance of vegetated buffers next to open waters, including streams. Refer to General Condition 19 for vegetated buffer requirements for the NWPs.
10. Coastal Zone Management. In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (see Section 330.4(d)).
11. Endangered Species. (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which will destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or is located in the designated critical habitat and shall not begin work on the activity until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized. For activities that may affect Federally-listed endangered or threatened species or designated critical habitat, the notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. As a result of formal or informal consultation with the FWS or NMFS, the District Engineer may add species-specific regional endangered species conditions to the NWPs.
    (b) Authorization of an activity by a nationwide permit does not authorize the "take" of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal "takes" of protected species are in violation of the Endangered Species Act. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. Fish and Wildlife Service and National Marine Fisheries Service or their world wide web pages at http://www.fws.gov/r9endspp/endspp.html and http://www.nfms.gov/prot_res/esahome.html, respectively.
12. Historic Properties. No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR Part 325, Appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)). For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the notification must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.
13. Notification.
    (a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the District Engineer with a preconstruction notification (PCN) as early as possible. The District Engineer must determine if the PCN is complete within 30 days of the date of receipt and can request the additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the District Engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the District Engineer. The prospective permittee shall not begin the activity:

(1) Until notified in writing by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer, or
(2) If notified in writing by the District or Division Engineer that an individual permit is required, or
(3) Unless 45 days have passed from the District Engineer's receipt of the complete notification and the prospective permittee has not received written notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Notification. The notification must be in writing and include the following information:
(1) Name, address, and telephone numbers of the prospective permittee;
(2) Location of the proposed project;
(3) Brief description of the proposed project, the project's purpose, direct and indirect adverse environmental effects the project would cause, any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, and
(4) For NWPs 7, 12, 14, 18, 21, 34, 38, 39, 40, 41, 42, and 43, the PCN must also include a delineation of affected special aquatic sites, including wetlands, vegetated shallows (e.g., submerged aquatic vegetation, seagrass beds), and riffle and pool complexes (see paragraph 13(f)),
(5) For NWP 7, Outfall Structures and Maintenance, the PCN must include information regarding the original design capacities and configurations of those areas of the facility where maintenance dredging or excavation is proposed.
(6) For NWP 14, Linear Transportation Crossings, the PCN must include a compensatory mitigation proposal to offset permanent losses of waters of the United States and a statement describing how temporary losses of waters of the United States will be minimized to the maximum extent practicable.
(7) For NWP 21, Surface Coal Mining Activities, the PCN must include an Office of Surface Mining (OSM) or state-approved mitigation plan.
(8) For NWP 27, Stream and Wetland Restoration, the PCN must include documentation of the prior condition of the site that will be reverted by the permittee.
(9) For NWP 29, Single-Family Housing, the PCN must also include:
(i) Any past use of this NWP by the individual permittee and/or the permittee's spouse;
(ii) A statement that the single-family housing activity is for a personal residence of the permittee;
(iii) A description of the entire parcel, including its size, and a delineation of wetlands. For the purpose of this NWP, parcels of land measuring ½ acre or less will not require a formal on-site delineation. However, the applicant shall provide an indication of where the wetlands are and the amount of wetlands that exists on the property. For parcels greater than ½ acre in size, a formal wetland delineation must be prepared in accordance with the current method required by the Corps. (See paragraph 13(f));
(iv) A written description of all land (including, if available, legal descriptions) owned by the prospective permittee and/or the prospective permittee's spouse, within a one mile radius of the parcel, in any form of ownership (including any land owned as a partner, corporation, joint tenant, co-tenant, or as a tenant-by-the-entirety) and any land on which a purchase and sale agreement or other contract for sale or purchase has been executed;.
(10) For NWP 31, Maintenance of Existing Flood Control Projects, the prospective permittee must either notify the District Engineer with a PCN prior to each maintenance activity or submit a five year (or less) maintenance plan. In addition, the PCN must include all of the following:
(i) Sufficient baseline information so as to identify the approved channel depths and configurations and existing facilities. Minor deviations are authorized, provided the approved flood control protection or drainage is not increased;
(ii) A delineation of any affected special aquatic sites, including wetlands; and,
(iii) Location of the dredged material disposal site.
(11) For NWP 33, Temporary Construction, Access, and Dewatering, the PCN must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources.
(12) For NWPs 39, 43, and 44, the PCN must also include a written statement to the District Engineer explaining how avoidance and minimization of losses of waters of the United States were achieved on the project site.
(13) For NWP 39, Residential, Commercial, and Institutional Developments, and NWP 42, Recreational Facilities, the PCN must include a compensatory mitigation proposal that offsets unavoidable losses of waters of the United States or justification explaining why compensatory mitigation should not be required.
(14) For NWP 40, Agricultural Activities, the PCN must include a compensatory mitigation proposal to offset losses of waters of the United States.
(15) For NWP 43, Stormwater Management Facilities, the PCN must include, for the construction of new stormwater management facilities, a maintenance plan (in accordance with State and local requirements, if applicable) and a compensatory mitigation proposal to offset losses of waters of the United States.
(16) For NWP 44, Mining Activities, the PCN must include a description of all waters of the United States adversely affected by the project, a description of measures taken to minimize adverse effects to waters of the United States, a description of measures taken to comply with the criteria of the NWP, and a reclamation plan (for aggregate mining activities in isolated waters and non-tidal wetlands adjacent to headwaters and any hard rock/mineral mining activities).
(17) For activities that may adversely affect Federally-listed endangered or threatened species, the PCN must include the name(s) of those endangered or threatened species that may be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work.
(18) For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.
(19) For NWPs 12, 14, 29, 39, 40, 42, 43, and 44, where the proposed work involves discharges of dredged or fill material into waters of the United States resulting in permanent, above-grade fills within 100-year floodplains (as identified on FEMA's Flood Insurance Rate Maps or FEMA-approved local floodplain maps), the notification must include documentation demonstrating that the proposed work complies with the appropriate FEMA or FEMA-approved local floodplain construction requirements.

(c) Form of Notification. The standard individual permit application form (Form ENG 4345) may be used as the notification but must clearly indicate that it is a PCN and must include all of the information required in (b)(1)-(19) of General Condition 13. A letter containing the requisite information may also be used.

(d) District Engineer's Decision. In reviewing the PCN for the proposed activity, the District Engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The prospective permittee may, optionally, submit a proposed mitigation plan with the PCN to expedite the process and the District Engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. If the District Engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, the District Engineer will notify the permittee and include any conditions the District Engineer deems necessary.
Any compensatory mitigation proposal must be approved by the District Engineer prior to commencing work. If the prospective permittee is required to submit a compensatory mitigation proposal with the PCN, the proposal may be either conceptual or detailed. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the District Engineer will expeditiously review the proposed compensatory mitigation plan. The District Engineer must review the plan within 45 days of receiving a complete PCN and determine whether the conceptual or specific proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the District Engineer to be minimal, the District Engineer will provide a timely written response to the applicant stating that the project can proceed under the terms and conditions of the nationwide permit.

If the District Engineer determines that the adverse effects of the proposed work are more than minimal, then he will notify the applicant either: (1) that the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level, or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the District Engineer determines that mitigation is required in order to ensure no more than minimal adverse effects on the aquatic environment, the activity will be authorized within the 45-day PCN period, including the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level. When conceptual mitigation is included, or a mitigation plan is required under item (2) above, no work in waters of the United States will occur until the District Engineer has approved a specific mitigation plan.

(e) Agency Coordination. The District Engineer will consider any comments from Federal and State agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse effects on the aquatic environment to a minimal level.

For activities requiring notification to the District Engineer that result in the loss of greater than ½ acre of waters of the United States, the District Engineer will, upon receipt of a notification, provide immediately (e.g., via facsimile transmission, overnight mail, or other expeditious manner), a copy to the appropriate offices of the Fish and Wildlife Service, State natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO), and, if appropriate, the National Marine Fisheries Service. With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the District Engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the District Engineer will wait an additional 15 calendar days before making a decision on the notification. The District Engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The District Engineer will indicate in the administrative record associated with each notification that the resource agencies' concerns were considered. As required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act, the District Engineer will provide a response to National Marine Fisheries Service within 30 days of receipt of any Essential Fish Habitat conservation recommendations. Applicants are encouraged to provide the Corps multiple copies of notifications to expedite agency notification.

(f) Wetlands Delineations. Wetland delineations must be prepared in accordance with the current method required by the Corps. For NWP 29 see paragraph (b)(9)(iii) for parcels less than ¼ acre in size. The permittee may ask the Corps to delineate the special aquatic site. There may be some delay if the Corps does the delineation. Furthermore, the 45-day period will not start until the wetland delineation has been completed and submitted to the Corps, where appropriate.

14. Compliance Certification. Every permittee who has received a Nationwide permit verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter. The certification will include: a.) A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions; b.) A statement that any required mitigation was completed in accordance with the permit conditions; and c.) The signature of the permittee certifying the completion of the work and mitigation.

15. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3 acre.

16. Water Supply Intakes. No activity, including structures and work in navigable waters of the United States or discharges of dredged or fill material, may occur in the proximity of a public water supply intake except where the activity is for repair of the public water supply intake structures or adjacent bank stabilization.

17. Shellfish Beds. No activity, including structures and work in navigable waters of the United States or discharges of dredged or fill material, may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4.

18. Suitable Material. No activity, including structures and work in navigable waters of the United States or discharges of dredged or fill material, may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.) and material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

19. Mitigation. The project must be designed and constructed to avoid and minimize adverse effects to waters of the United States to the maximum extent practicable at the project site (i.e., on site). Mitigation will be required when necessary to ensure that the adverse effects to the aquatic environment are minimal. The District Engineer will consider the factors discussed below when determining the acceptability of appropriate and practicable mitigation necessary to offset adverse effects on the aquatic environment that are more than minimal.

(a) Compensatory mitigation at a minimum 1:1 ratio will be required for all wetland impacts requiring a PCN. Consistent with National policy, the District Engineer will establish a preference for restoration of wetlands to meet the minimum compensatory mitigation ratio, with preservation used only in exceptional circumstances.

(b) To be practicable, the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of the overall project purposes. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project, establishing and maintaining wetland or upland vegetated buffers to protect open waters such as streams, and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferably in the same watershed.

(c) The District Engineer will require restoration, creation, enhancement, or preservation of other aquatic resources in order to offset the authorized impacts to the extent necessary to ensure that the adverse effects on the aquatic environment are minimal. An important element of any compensatory mitigation plan for projects in or near streams or other open waters is the establishment and maintenance, to the maximum extent practicable, of vegetated buffers next to open waters on the project site. The vegetated buffer should consist of native species. The District Engineer will determine the appropriate width of the vegetated buffer and in which cases it will be required. Normally, the vegetated buffer will be 25 to 50 feet wide on each side of the stream, but the District Engineer may require wider vegetated buffers to address documented water quality concerns. If there are open waters on the project site and the District Engineer requires compensatory mitigation for wetland impacts to ensure that the net adverse effects on the aquatic environment are minimal, any vegetated buffer will comprise no more than 1/3 of the remaining compensatory mitigation acreage after the permanently filled wetlands have been replaced on a one-to-one acreage basis. In addition, compensatory mitigation must address adverse effects on wetland functions and values and cannot be used to offset the acreage of wetland losses that would occur in order to meet the acreage limits of some of the NWPs (e.g., for NWP 39, ¼ acre of wetlands cannot be created to change a ½ acre loss of wetlands to a ¼ acre loss; however, ½ acre of created wetlands can be used to reduce the impacts of a 1/3 acre loss of wetlands). If the prospective permittee is required to submit a compensatory mitigation proposal with the PCN, the proposal may be either conceptual or detailed.

(d) To the extent appropriate, permittees should consider mitigation banking and other appropriate forms of compensatory mitigation. If the District Engineer determines that compensatory mitigation is necessary to offset losses of waters of the United States and ensure that the net adverse effects of the authorized work on the aquatic environment are minimal, consolidated mitigation approaches, such as mitigation banks, will be the preferred method of providing compensatory mitigation, unless the District Engineer determines that activity-specific compensatory mitigation is more appropriate, based on which is best for the aquatic environment. These types of mitigation are preferred because they involve larger blocks of protected aquatic environment, are more likely to meet the mitigation goals, and are more easily checked for compliance. If a mitigation bank or other consolidated mitigation approach is not available in the watershed, the District Engineer will consider other appropriate forms of compensatory mitigation to offset the losses of waters of the United States to ensure that the net adverse effects of the authorized work on the aquatic environment are minimal.

20. Spawning Areas. Activities, including structures and work in navigable waters of the United States

avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., excavate, fill, or smother downstream by substantial turbidity) of an important spawning area are not authorized.

21. Management of Water Flows. To the maximum extent practicable, the activity must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters) and the structure or discharge of dredged or fill material must withstand expected high flows. The activity must, to the maximum extent practicable, provide for retaining excess flows from the site, provide for maintaining surface flow rates from the site similar to preconstruction conditions, and must not increase water flows from the project site, relocate water, or redirect water flow beyond preconstruction conditions. In addition, the activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site, unless the activity is part of a larger system designed to manage water flows.

22. Adverse Effects From Impoundments. If the activity, including structures and work in navigable waters of the United States or discharge of dredged or fill material, creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.

23. Waterfowl Breeding Areas. Activities, including structures and work in navigable waters of the United States or discharges of dredged or fill material, into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

24. Removal of Temporary Fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

25. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, National Wild and Scenic Rivers, critical habitat for Federally listed threatened and endangered species, coral reefs, State natural heritage sites, and outstanding national resource waters or other waters officially designated by a State as having particular environmental or ecological significance and identified by the District Engineer after notice and opportunity for public comment. The District Engineer may also designate additional critical resource waters after notice and opportunity for comment.

    (a) Except as noted below, discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, and 44 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. Discharges of dredged or fill materials into waters of the United States may be authorized by the above NWPs in National Wild and Scenic Rivers if the activity complies with General Condition 7. Further, such discharges may be authorized in designated critical habitat for Federally listed threatened or endangered species if the activity complies with General Condition 11 and the U.S. Fish and Wildlife Service or the National Marine Fisheries Service has concurred in a determination of compliance with this condition.

    (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with General Condition 13, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The District Engineer may authorize activities under these NWPs only after he determines that the impacts to the critical resource waters will be no more than minimal.

26. Fills Within 100-Year Floodplains. For purposes of this general condition, 100-year floodplains will be identified through the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or FEMA-approved local floodplain maps.

    (a) Discharges Below Headwaters. Discharges of dredged or fill material into waters of the United States resulting in permanent, above-grade fills within the 100-year floodplain at or below the point on a stream where the average annual flow is five cubic feet per second (i.e., below headwaters) are not authorized by NWPs 29, 39, 40, 42, 43, and 44. For NWPs 12 and 14, the prospective permittee must notify the District Engineer in accordance with General Condition 13 and the notification must include documentation that any permanent, above-grade fills in waters of the United States within the 100-year floodplain below headwaters comply with FEMA or FEMA-approved local floodplain construction requirements.

    (b) Discharges in Headwaters (i.e., above the point on a stream where the average annual flow is five cubic feet per second).

        (1) Flood Fringe. Discharges of dredged or fill material into waters of the United States resulting in permanent, above-grade fills within the flood fringe of the 100-year floodplain are not authorized by NWPs 29, 39, 40, 42, 43, and 44 unless the prospective permittee notifies the District Engineer in accordance with General Condition 13. The notification must include documentation that such discharges comply with FEMA or FEMA-approved local floodplain construction requirements.

        (2) Floodway. Discharges of dredged or fill material into waters of the United States resulting in permanent, above-grade fills within the floodway of the 100-year floodplain of headwaters are not authorized by NWPs 29, 39, 40, 42, 43, and 44. For NWPs 12 and 14, the permittee must notify the District Engineer in accordance with General Condition 13 and the notification must include documentation that any permanent, above grade fills proposed in the floodway comply with FEMA or FEMA-approved local floodplain construction requirements.

Further Information:

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other Federal, State, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

## Nationwide Permit (27) Stream and Wetland Restoration Activities

**Activities in waters of the United States associated with the restoration of former waters, the enhancement of degraded tidal and non-tidal wetlands and riparian areas, the creation of tidal and non-tidal wetlands and riparian areas, and the restoration and enhancement of non-tidal streams and non-tidal open water areas as follows:**

**(a) The activity is conducted on:**

**(1) Non-Federal public lands and private lands, in accordance with the terms and conditions of a binding wetland enhancement, restoration, or creation agreement between the landowner and the U.S. Fish and Wildlife Service (FWS) or the Natural Resources Conservation Service (NRCS) or voluntary wetland restoration, enhancement, and creation actions documented by the NRCS pursuant to NRCS regulations; or**

**(2) Any Federal land; or**

**(3) Reclaimed surface coal mined lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining or the applicable state agency (the future reversion does not apply to streams or wetlands created, restored, or enhanced as mitigation for the mining impacts, nor naturally due to hydrologic or topographic features, nor for a mitigation bank); or**

**(4) Any private or public land;**

**(b) Notification: For activities on any private or public land that are not described by paragraphs (a)(1), (a)(2), or (a)(3) above, the permittee must notify the District Engineer in accordance with General Condition 13; and**

**(c) Only native plant species should be planted at the site, if permittee is vegetating the project site.**

**Activities authorized by this NWP include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms; the installation of current deflectors; the enhancement, restoration, or creation of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or create stream meanders; the backfilling of artificial channels and drainage ditches; the removal of existing drainage structures; the construction of small nesting islands; the construction of open water areas; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation; mechanized landclearing to remove undesirable vegetation; and other related activities.**

**This NWP does not authorize the conversion of a stream to another aquatic use, such as the creation of an impoundment for waterfowl habitat. This NWP does not authorize stream channelization. This NWP does not authorize the conversion of natural wetlands to another aquatic use, such as creation of waterfowl impoundments where a forested wetland previously existed. However, this NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands, on the project site provided there are net gains in aquatic resource functions and values. For example, this NWP may authorize the creation of an open water impoundment in a non-tidal emergent wetland, provided the non-tidal emergent wetland is replaced by creating that wetland type on the project site. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.**

**Reversion. For enhancement, restoration, and creation projects conducted under paragraphs (a)(2) and (a)(4), this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion. For restoration, enhancement, and creation projects conducted under paragraphs (a)(1) and (a)(3), this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or creation activities) within five years after expiration of a limited term wetland restoration or creation agreement or permit, even if the discharge occurs after this NWP expires. This NWP also authorizes the reversion of wetlands that were restored, enhanced, or created on prior-converted cropland that has not been abandoned, in accordance with a binding agreement between the landowner and NRCS or FWS (even though the restoration, enhancement, or creation activity did not require a Section 404 permit). The five-year reversion limit does not apply to agreements without time limits reached under paragraph (a)(1). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate State agency executing the agreement or permit. Prior to any reversion activity, the permittee or the appropriate Federal or State agency must notify the District Engineer and include the documentation of the prior condition. Once an area has reverted back to its prior physical condition, it will be subject to whatever the Corps regulatory requirements will be at that future date. (Sections 10 and 404)**

**Note: Compensatory mitigation is not required for activities authorized by this NWP, provided the authorized work results in a net increase in aquatic resource functions and values in the project area. This NWP can be used to authorize compensatory mitigation projects, including mitigation banks, provided the permittee notifies the District Engineer in accordance with General Condition 13, and the project includes compensatory mitigation for impacts to waters of the United States caused by the authorized work. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition. NWP 27 can be used to authorize impacts at a mitigation bank, but only in circumstances where it has been approved under the Interagency Federal Mitigation Banks Guidelines.**

## General Conditions:

The following general conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. No activity may cause more than a minimal adverse effect on navigation.
2. Proper Maintenance. Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.
3. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.
4. Aquatic Life Movements. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species which normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.
5. Equipment. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.
6. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions which may have been added by the division engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the State or tribe in its Section 401 water quality certification and Coastal Zone Management Act consistency determination.
7. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service)

8. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. Water Quality. (a) In certain States and tribal lands an individual 401 water quality certification must be obtained or waived (See 33 CFR 330.4(c)).
(b) For NWPs 12, 14, 17, 18, 32, 39, 40, 42, 43, and 44, where the State or tribal 401 certification (either generically or individually) does not require or approve a water quality management plan, the permittee must include design criteria and techniques that will ensure that the authorized work does not result in more than minimal degradation of water quality. An important component of a water quality management plan includes stormwater management that minimizes degradation of the downstream aquatic system, including water quality. Refer to General Condition 21 for stormwater management requirements. Another important component of a water quality management plan is the establishment and maintenance of vegetated buffers next to open waters, including streams. Refer to General Condition 19 for vegetated buffer requirements for the NWPs.

10. Coastal Zone Management. In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (see Section 330.4(d)).

11. Endangered Species. (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which will destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or is located in the designated critical habitat and shall not begin work on the activity until notified by the District Engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized. For activities that may affect Federally-listed endangered or threatened species or designated critical habitat, the notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. As a result of formal or informal consultation with the FWS or NMFS, the District Engineer may add species-specific regional endangered species conditions to the NWPs.
(b) Authorization of an activity by a nationwide permit does not authorize the "take" of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal "takes" of protected species are in violation of the Endangered Species Act. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. Fish and Wildlife Service and National Marine Fisheries Service or their world wide web pages at http://www.fws.gov/r9endspp/endspp.html and http://www.nfms.gov/prot_res/esahome.html, respectively.

12. Historic Properties. No activity which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR Part 325, Appendix C. The prospective permittee must notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)). For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the notification must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.

13. Notification.
(a) Timing: Where required by the terms of the NWP, the prospective permittee must notify the District Engineer with a preconstruction notification (PCN) as early as possible. The District Engineer must determine if the PCN is complete within 30 days of the date of receipt and can request the additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the District Engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the District Engineer. The prospective permittee shall not begin the activity:
(1) Until notified in writing by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or
(2) If notified in writing by the District or Division Engineer that an individual permit is required, or
(3) Unless 45 days have passed from the District Engineer's receipt of the complete notification and the prospective permittee has not received written notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Notification: The notification must be in writing and include the following information:
(1) Name, address, and telephone numbers of the prospective permittee;
(2) Location of the proposed project;
(3) Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity; and
(4) For NWPs 7, 12, 14, 18, 21, 34, 38, 39, 40, 41, 42, and 43, the PCN must also include a delineation of affected special aquatic sites, including wetlands, vegetated shallows (e.g., submerged aquatic vegetation, seagrass beds), and riffle and pool complexes (see paragraph 13(f));
(5) For NWP 7, Outfall Structures and Maintenance, the PCN must include information regarding the original design capacities and configurations of those areas of the facility where maintenance dredging or excavation is proposed.
(6) For NWP 14, Linear Transportation Crossings, the PCN must include a compensatory mitigation proposal to offset permanent losses of waters of the United States and a statement describing how temporary losses of waters of the United States will be minimized to the maximum extent practicable.
(7) For NWP 21, Surface Coal Mining Activities, the PCN must include an Office of Surface Mining (OSM) or state-approved mitigation plan.
(8) For NWP 27, Stream and Wetland Restoration, the PCN must include documentation of the prior condition of the site that will be reverted by the permittee.
(9) For NWP 29, Single-Family Housing, the PCN must also include:
(i)Any past use of this NWP by the individual permittee and/or the permittee's spouse;
(ii)A statement that the single-family housing activity is for a personal residence of the permittee;
(iii)A description of the entire parcel, including its size, and a delineation of wetlands. For the purpose of this NWP, parcels of land measuring ¼ acre or less will not require a formal on-site delineation. However, the applicant shall provide an indication of where the wetlands are and the amount of wetlands that exists on the property. For parcels greater than ¼ acre in size, a formal wetland delineation must be prepared in accordance with the current method required by the Corps (See paragraph 13(f));
(iv)A written description of all land (including, if available, legal descriptions) owned by the prospective permittee and/or the prospective permittee's spouse, within a one mile radius of the parcel, in any form of ownership (including any land owned as a partner, corporation, joint tenant, co-tenant, or as a tenant-by-the-entirety) and any land on which a purchase and sale agreement or other contract for sale or purchase has been executed;
(10) For NWP 31, Maintenance of Existing Flood Control Projects, the prospective permittee must either notify the District Engineer with a PCN prior to each maintenance activity or submit a five year (or less) maintenance plan. In addition, the PCN must include all of the following:
(i) Sufficient baseline information so as to identify the approved channel depths and configurations and existing facilities. Minor deviations are authorized, provided the approved flood control protection or drainage is not increased;
(ii) A delineation of any affected special aquatic sites, including wetlands; and,
(iii) Location of the dredged material disposal site.
(11) For NWP 33, Temporary Construction, Access, and Dewatering, the PCN must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources.
(12) For NWPs 39, 43, and 44, the PCN must also include a written statement to the District Engineer explaining how avoidance and minimization of losses of waters of the United States were achieved on the project site.
(13) For NWP 39, Residential, Commercial, and Institutional Developments, and NWP 42, Recreational Facilities, the PCN must include a compensatory mitigation proposal that offsets unavoidable losses of waters of the United States or justification explaining why compensatory mitigation should not be required.
(14) For NWP 40, Agricultural Activities, the PCN must include a compensatory mitigation proposal to offset losses of waters of the United States.
(15) For NWP 43, Stormwater Management Facilities, the PCN must include, for the construction of new stormwater management facilities, a maintenance plan (in accordance with State and local

-----Original Message-----
**From:** Evans, John D NAO02 [mailto:John.D.Evans@NAO02.USACE.ARMY.MIL]
**Sent:** Tuesday, July 17, 2001 11:03 AM
**To:** Wittkamp Thomas A Civ 1 CES/CEVA
**Cc:** Campbell Dale M Civ 1CES/CECN; Gogel, George A NAO02; Walker Kenneth H Civ 1 CES/CEV; robert.verser@langley.af.mil
**Subject:** RE: Fitness Center, Langley AFB

Ref: Corps permit# 01-V1111.

I understand that the actual desired mitigation is 0.065 acres, and that is the amount required to mitigate for the project impacts, that is .09 acres, divided by 2, is 0.045 acres, plus 0.02 acres at the road crossing equals 0.065 acres required mitigation. With that understanding, and to expedite this correction, please attach this email as a correction to the permit documents, to show that the required mitigation is 0.065 acres.

This email becomes an official part of the administrative record. No other document will be sent for this correction.

Please let me know if you have any further questions about this permit correction.

John Evans
757.441.7794
Regulatory Branch
Norfolk District Army Corps of Engineers

-----Original Message-----
**From:** Wittkamp Thomas A Civ 1 CES/CEVA [mailto:thomas.wittkamp@langley.af.mil]
**Sent:** Tuesday, July 17, 2001 10:37 AM
**To:** 'Evans, John'; 'John D Evans'
**Cc:** Campbell Dale M Civ 1CES/CECN; 'Gogel, George'; 'Gogel, George A NAO02'; Walker Kenneth H Civ 1 CES/CEV
**Subject:** FW: Fitness Center, Langley AFB

FYI on the amount of mitigated wetlands on the Fitness Center. The amount of mitigated wetland to be created was inadvertently stated as .65 acres on the Engineering Drawings and we transferred this amount to the permit application.

Please process this as soon as possible. As always, this is a HOT project.

may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferably in the same watershed;

(c) The District Engineer will require restoration, creation, enhancement, or preservation of other aquatic resources in order to offset the authorized impacts to the extent necessary to ensure that the adverse effects on the aquatic environment are minimal. An important element of any compensatory mitigation plan for projects in or near streams or other open waters is the establishment and maintenance, to the maximum extent practicable, of vegetated buffers next to open waters on the project site. The vegetated buffer should consist of native species. The District Engineer will determine the appropriate width of the vegetated buffer and in which cases it will be required. Normally, the vegetated buffer will be 25 to 50 feet wide on each side of the stream, but the District Engineer may require wider vegetated buffers to address documented water quality concerns. If there are open waters on the project site and the District Engineer requires compensatory mitigation for wetland impacts to ensure that the net adverse effects on the aquatic environment are minimal, any vegetated buffer will comprise no more than 1/3 of the remaining compensatory mitigation acreage after the permanently filled wetlands have been replaced on a one-to-one acreage basis. In addition, compensatory mitigation must address adverse effects on wetland functions and values and cannot be used to offset the acreage of wetland losses that would occur in order to meet the acreage limits of some of the NWPs (e.g., for NWP 39, ¼ acre of wetlands cannot be created to change a ½ acre loss of wetlands to a ¼ acre loss; however, ½ acre of created wetlands can be used to reduce the impacts of a 1/3 acre loss of wetlands). If the prospective permittee is required to submit a compensatory mitigation proposal with the PCN, the proposal may be either conceptual or detailed.

(d) To the extent appropriate, permittees should consider mitigation banking and other appropriate forms of compensatory mitigation. If the District Engineer determines that compensatory mitigation is necessary to offset losses of waters of the United States and ensure that the net adverse effects of the authorized work on the aquatic environment are minimal, consolidated mitigation approaches, such as mitigation banks, will be the preferred method of providing compensatory mitigation, unless the District Engineer determines that activity-specific compensatory mitigation is more appropriate, based on which is best for the aquatic environment. These types of mitigation are preferred because they involve larger blocks of protected aquatic environment, are more likely to meet the mitigation goals, and are more easily checked for compliance. If a mitigation bank or other consolidated mitigation approach is not available in the watershed, the District Engineer will consider other appropriate forms of compensatory mitigation to offset the losses of waters of the United States to ensure that the net adverse effects of the authorized work on the aquatic environment are minimal.

20. Spawning Areas. Activities, including structures and work in navigable waters of the United States or discharges of dredged or fill material, in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., excavate, fill, or smother downstream by substantial turbidity) of an important spawning area are not authorized.

21. Management of Water Flows. To the maximum extent practicable, the activity must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters) and the structure or discharge of dredged or fill material must withstand expected high flows. The activity must, to the maximum extent practicable, provide for retaining excess flows from the site, provide for maintaining surface flow rates from the site similar to preconstruction conditions, and must not increase water flows from the project site, relocate water, or redirect water flow beyond preconstruction conditions. In addition, the activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site, unless the activity is part of a larger system designed to manage water flows.

22. Adverse Effects From Impoundments. If the activity, including structures and work in navigable waters of the United States or discharge of dredged or fill material, creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.

23. Waterfowl Breeding Areas. Activities, including structures and work in navigable waters of the United States or discharges of dredged or fill material, into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

24. Removal of Temporary Fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

25. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, National Wild and Scenic Rivers, critical habitat for Federally listed threatened and endangered species, coral reefs, State natural heritage sites, and outstanding national resource waters or other waters officially designated by a State as having particular environmental or ecological significance and identified by the District Engineer after notice and opportunity for public comment. The District Engineer may also designate additional critical resource waters after notice and opportunity for comment.

(a) Except as noted below, discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, and 44 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. Discharges of dredged or fill materials into waters of the United States may be authorized by the above NWPs in National Wild and Scenic Rivers if the activity complies with General Condition 7. Further, such discharges may be authorized in designated critical habitat for Federally listed threatened or endangered species if the activity complies with General Condition 11 and the U.S. Fish and Wildlife Service or the National Marine Fisheries Service has concurred in a determination of compliance with this condition.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with General Condition 13, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The District Engineer may authorize activities under these NWPs only after he determines that the impacts to the critical resource waters will be no more than minimal.

26. Fills Within 100-Year Floodplains. For purposes of this general condition, 100-year floodplains will be identified through the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or FEMA-approved local floodplain maps.

(a) Discharges Below Headwaters. Discharges of dredged or fill material into waters of the United States resulting in permanent, above-grade fills within the 100-year floodplain at or below the point on a stream where the average annual flow is five cubic feet per second (i.e., below headwaters) are not authorized by NWPs 29, 39, 40, 42, 43, and 44. For NWPs 12 and 14, the prospective permittee must notify the District Engineer in accordance with General Condition 13 and the notification must include documentation that any permanent, above-grade fills in waters of the United States within the 100-year floodplain below headwaters comply with FEMA or FEMA-approved local floodplain construction requirements.

(b) Discharges in Headwaters (i.e., above the point on a stream where the average annual flow is five cubic feet per second).

(1) Flood Fringe. Discharges of dredged or fill material into waters of the United States resulting in permanent, above-grade fills within the flood fringe of the 100-year floodplain of headwaters are not authorized by NWPs 12, 14, 29, 39, 40, 42, 43, and 44, unless the prospective permittee notifies the District Engineer in accordance with General Condition 13. The notification must include documentation that such discharges comply with FEMA or FEMA-approved local floodplain construction requirements.

(2) Floodway. Discharges of dredged or fill material into waters of the United States resulting in permanent, above-grade fills within the floodway of the 100-year floodplain of headwaters are not authorized by NWPs 29, 39, 40, 42, 43, and 44. For NWPs 12 and 14, the permittee must notify the District Engineer in accordance with General Condition 13 and the notification must include documentation that any permanent, above grade fills proposed in the floodway comply with FEMA or FEMA-approved local floodplain construction requirements.

Further Information:

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other Federal, State, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.