

Programmatic Environmental Assessment

Renovation, Expansion, New Construction and Improvements to Existing Medical Center Facilities (Nationwide)

Prepared for:

Health Resources and Services Administration

5600 Fishers Lane

Rockville, Maryland 20857

November 2010



U.S. Department of Health and Human Services
Health Resources and Services Administration



List of Acronyms

ABFE	Advisory Base Flood Elevation
ACHP	Advisory Council on Historic Preservation
ARRA	American Recovery and Reinvestment Act
BFE	base flood elevation
BMP	best management practice
CAA	Clean Air Act
CIP	Capital Improvement Program
CWA	Clean Water Act
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CBU	Coastal Barrier Resources System Unit
CFR	Code of Federal Regulations
CMD	Coastal Management Division
CMP	Coastal Management Program
CUP	Coastal Use Permit
CZMA	Coastal Zone Management Act
DFIRM	digital Flood Insurance Rate Map
EA	environmental assessment
EFH	Essential Fish Habitat
EHR	electronic health record
EHP	environmental and historic preservation
E.O.	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impacts
FWS	U.S. Fish and Wildlife Service
FPPA	Floodplain Protection Policy Act
FY	fiscal year
GCR	General Conformity Rule
GIS	geographic information system

List of Acronyms

HHS	Health and Human Services
HIT	Health information technology
HRSA	Health Resources and Services Administration
HUD	Housing and Urban Development
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NEPA	National Environmental Policy Act
NGA	Notice of grant award
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTHP	National Trust for Historic Preservation
OMB	Office of Management and Budget
PA	Programmatic Agreement
PEA	programmatic environmental assessment
POV	privately owned vehicle
SBA	Small Business Administration
SHPO	State Historic Preservation Office
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Office
USACE	U.S. Army Corps of Engineers

Table of Contents

- 1 Introduction..... 1-1
 - 1.1 The Programmatic Environmental Assessment (PEA) 1-1
 - 1.2 Background 1-2
 - 1.3 Purpose and Need for Action 1-2
- 2 Alternatives Including the Proposed Action 2-1
 - 2.1 Comparison of Alternatives 2-3
- 3 Environmental Analysis..... 3-1
 - 3.1 Geology and Soils 3-1
 - 3.1.1 Affected Environment..... 3-1
 - 3.1.2 Environmental Consequences and Mitigation Measures 3-2
 - 3.2 Air Quality..... 3-4
 - 3.2.1 Affected Environment..... 3-4
 - 3.2.2 Environmental Consequences and Mitigation Measures 3-5
 - 3.3 Water Quality 3-7
 - 3.3.1 Affected Environment..... 3-7
 - 3.4 Floodplains 3-10
 - 3.4.1 Affected Environment..... 3-10
 - 3.4.2 Environmental Consequences and Mitigation Measures 3-11
 - 3.5 Wetlands..... 3-12
 - 3.5.1 Affected Environment..... 3-12
 - 3.5.2 Environmental Consequences and Mitigation Measures 3-13
 - 3.6 Coastal Zone Management..... 3-14
 - 3.6.1 Affected Environment..... 3-14
 - 3.7 Environmental Consequences and Mitigation Measures 3-15
 - 3.8 Biological Resources..... 3-17
 - 3.8.1 Affected Environment..... 3-17
 - 3.8.2 Environmental Consequences and Mitigation Measures 3-18
 - 3.9 Cultural Resources 3-19
 - 3.9.1 Affected Environment..... 3-19
 - 3.9.2 Environmental Consequences and Mitigation Measures 3-20
 - 3.10 Socioeconomics 3-22

List of Acronyms

3.10.1	Affected Environment.....	3-22
3.10.2	Environmental Consequences and Mitigation Measures.....	3-22
3.11	Traffic and Transportation.....	3-23
3.11.1	Affected Environment.....	3-23
3.11.2	Environmental Consequences and Mitigation Measures.....	3-24
3.12	Hazardous Materials and Waste.....	3-25
3.12.1	Affected Environment.....	3-25
3.12.2	Environmental Consequences and Mitigation Measures.....	3-26
3.13	Noise.....	3-27
3.13.1	Affected Environment.....	3-27
3.13.2	Environmental Consequences and Mitigation Measures.....	3-28
3.14	Land Use.....	3-29
3.14.1	Affected Environment.....	3-29
3.14.2	Environmental Consequences and Mitigation Measures.....	3-29
4	Cumulative Impacts.....	4-1
5	Conclusion.....	5-1
6	Mitigation Summary.....	6-1
7	References.....	7-1
8	List of Preparers.....	8-1
9	Glossary.....	9-1
10	Environmental Information and Documentation Form (EID).....	10-1

1 Introduction

1.1 The Programmatic Environmental Assessment (PEA)

This Programmatic Environmental Assessment (PEA) documents the results of the evaluation of the potential environmental impacts of actions proposed by the Health Resources and Services Administration (HRSA) of the Department of Health and Human Services (HHS). HRSA proposes to make funds available through a wide range of grant programs and future legislative funding actions that support health centers to expand their capacity to provide primary and preventive health care services to medically underserved populations nationwide (to be described below). These funds are made available for existing Health Center Program grantees under a number of HRSA grant programs to address pressing capital improvement needs in health centers, such as construction, repair, renovation, and equipment purchases, including health information technology systems.

PEAs assess the environmental effects of multiple actions and their impact in a given geographic area in order to determine the additive, synergistic, and cumulative effects of discrete activities in a development context. They may also be applied when the environmental impacts are generic or common to a class of actions, or to other activities that are not location specific. The PEA can serve as a reference document from which Supplemental or individual Environmental Assessments, which can be done more efficiently or with a better foundation because of the PEA, are spawned, typically called tiering.

This PEA incorporates and supersedes two previously issued PEAs for Alternative/Renovation/Repair and for the Expansion of Existing Medical Center Facilities (Nationwide), issued on September 2, 2009, and reflects evaluation of over 3,000 facility improvement grants between July 2009 and October 2010 and the resultant environmental impacts and issues of those environmental reviews. Consequently, after reviewing these projects, it was determined that the existing Programmatic EAs completed in 2009 (for Alteration and Expansion) could be combined into one document with some expansion of the scope of actions covered due to little or no environmental impacts being documented from these activities. Fundamentally, the additional actions covered include revising and expanding the allowable ground disturbance of a building addition from 5,000 to 8,000 square feet (SF), and allowing construction of structures up to 8,000 SF (this includes medical centers, parking structures, infrastructure improvements, generators and their housing, and other support buildings).

This PEA has been specifically designed to evaluate the majority of the facility construction and modification actions to be funded through HRSA grants, encompassing the renovation and rehabilitation of buildings and facilities and limited new construction to support improved services in the nation's health centers. With the PEA in place, the environmental review process required by the National Environmental Policy Act (NEPA) and its associated environmental laws will be streamlined, allowing grantees to submit an Environmental Information and Documentation Form (EID) as part of their application process. This project level environmental review will ensure there are no extraordinary actions that exist that are beyond the issues identified and evaluated within this document. All grant applications will be reviewed to ensure they fall within the scope of this PEA. If there are extraordinary conditions identified in the EID, a Supplemental Environmental Assessment (SEA) will be required for that action.

1 – Introduction

Other actions funded under HRSA grant programs (primarily equipment purchases and other administrative actions) will be covered under agency categorical exclusions (CATEXs) and will not require any additional environmental review (unless extraordinary circumstances are identified in the EID).

Finally, those projects that encompass actions beyond those covered in the PEA and which are not included as a CATEX will require an individual EA for each action. In rare cases, an Environmental Impact Statement (EIS) may be required if the scope and complexity of an action has potential to create significant environmental impacts.

This PEA has been prepared pursuant to:

- The National Environmental Policy Act (NEPA) of 1969 (42 United States Code (USC) 4321 et seq.), which requires an environmental analysis for major federal Actions having the potential to impact the quality of the human environment;
- Council of Environmental Quality in 40 Code of Federal Regulations (CFR) 1500- 1508, which implement the requirements of NEPA; and
- HHS General Administration Manual Part 30, Environmental Protection

1.2 Background

Established in 1982, HRSA was created by merging the Health Services Administration and the Health Resources Administration. An agency of the HHS, HRSA's mission is to provide national leadership, program resources and services needed to improve access to culturally competent and quality health care. HRSA is the principal Federal Agency charged with increasing access to health care for those who are medically underserved. HRSA's programmatic portfolio includes a range of programs or initiatives designed to increase access to care, improve quality, and safeguard the health and well-being of the Nation's most vulnerable populations.

1.3 Purpose and Need for Action

The need to provide care for medically underserved populations is greater than ever, spurring the need for grant programs to improve health care and medical facilities as well as their equipment that will allow them to provide care to these underserved populations. The continued provision of federal grants to many of the nation's health centers will continue to create positive externalities that will affect a far greater scope than just the health centers.

It is expected that ongoing and future HRSA grants will be used to support the Administration's objectives, as stated above, and to support the mission of the Health Center Program, which is to improve the health of the Nation's underserved communities and vulnerable populations by assuring access to comprehensive, culturally competent, quality primary health care services.

Beyond the ongoing American Recovery and Reinvestment Act which was the focus of the 2009 HRSA PEAs and includes funding provided through the Capital Improvement Program - American Recovery and Reinvestment Act of 2009 (P.L. 111-5), the Facility Investment Program - American Recovery and Reinvestment Act of 2009 (P.L. 111-5), and the Capital Development program (mirrors FIP) Patient Protection and Affordable Care Act (P.L. 111-148), the following programs are the major funding mechanisms for actions to be reviewed under this PEA:

Health Center Program under Section 330 of the Public Health Service Act (42 USCS § 254b) - This grant program has multiple components, and multiple grants offered under its authority, but there has been full construction authority, including land acquisition and mortgage, and currently the program has minor alternative and renovation (A&R) authority (A&R up to \$500,000 total). There is some effort to reinstate full construction authority to the program.

Health Center Cluster Program (New Access Points (NAP)) - The purpose of the New Access Points opportunity is to establish health service delivery sites to improve the health of the Nation's underserved communities and vulnerable populations by assuring access to comprehensive, culturally competent, quality primary health care services. An important element of HRSA's commitment to improving and expanding access to needed primary health care services is the support of NAPs for the delivery of primary health care services for underserved and vulnerable populations under the Health Center Program. Authorized under section 330 of the Public Health Service (PHS) Act, as amended (i.e., Community Health Centers (CHC), Migrant Health Centers (MHC), Health Care for the Homeless (HCH) centers, and Public Housing Primary Care (PHPC) centers), health centers provide care to more than 19 million people nationwide.

Health Care and other Facilities (HCOF) - This Congressional Special Initiative is a non-competitive program announcement that is funded through the Healthcare Systems Bureau's Health Care and Other Facilities (HCOF) awards.

School-Based Health Centers Capital Program Patient Protection and Affordable Care Act (P.L. 111-148) - HRSA administers the SBHC Capital Program, as authorized by the Patient Protection and Affordable Care Act (Affordable Care Act) ((P.L. 111-148), Title IV, Section 4101(a)). SBHC are a major component of the nation's health care safety net. SBHCs not only enable children with acute or chronic illnesses to attend school, but also improve their overall health and wellness through health screenings, health promotion, and disease prevention activities.

Where authorized, HRSA grantees may submit a request for financial assistance to support one or more capital improvements in health center facilities such as:

- alteration/repair/renovation (may include equipment);
- construction of a new site or expansion of an existing site (may include equipment); and/or
- information technology (IT)/equipment purchase, including health information technology (HIT) systems and Electronic Health Record (EHR) related enhancements that are certified by an organization recognized by the Secretary of Health and Human Services (HHS).

In addition, HRSA encourages sustainable construction, facility operations and maintenance practices including incorporation of energy efficient design, selection of environmentally preferred products and commitment to pollution prevention, electronic stewardship and green procurement as part of its financial assistance to grantees.

1 – Introduction

Table 1-1 provides a description of the full range of eligible actions based on the list of funding authorities described above. Some of these actions may be categorically excluded from NEPA review.

Table 1-1. HRSA Project Types

Project Types	Definition	Examples
Alteration/repair/ renovation (existing facility)	<ul style="list-style-type: none"> • Work required to change the interior arrangements or other physical characteristics of an existing facility or installed equipment (does not increase square footage) • May also include equipment purchase 	<ul style="list-style-type: none"> • Renovation of medical exam rooms • Installation of built-in sterilizers • Installation of uninterruptible power supply
Construction (new site, or expansion of existing site)	<ul style="list-style-type: none"> • Adding a new structure to an existing site that increases the total square footage of the facility • Adding structure to real property (i.e., land) • May also include equipment purchase 	<ul style="list-style-type: none"> • Addition of a new wing to the health center • Building a new facility at a new site
IT/Equipment purchase	<ul style="list-style-type: none"> • Is an article of tangible nonexpendable personal property that has a useful life of more than 1 year and an acquisition cost of \$5,000 or more per unit or the capitalization threshold established by the recipient, whichever is less • For the purpose of the CIP grant, this type of project includes nonexpendable supplies costing less than \$5,000 (e.g., personal computer) 	<ul style="list-style-type: none"> • Purchase of generator • Purchase of computers • Telecommunication system upgrades • Upgrade or purchase of mobile van • Purchase of dental x-ray equipment • Practice management system enhancements
HIT purchase	<ul style="list-style-type: none"> • Includes hardware, software, integrated technologies or related licenses, intellectual property, upgrades, or packaged solutions sold as services that are designed for or support the use by health care entities or patients for the electronic creation, maintenance, access, or exchange of health information. 	<ul style="list-style-type: none"> • Telehealth-related equipment • Registries • Electronic prescribing • Enhancements necessary to interface between HIT/EHR and other electronic systems
Certified EHR-related purchase	<ul style="list-style-type: none"> • This term refers to computer software that providers use to track all aspects of patient care. • For CIP, allowable costs include pre-implementation and readiness, software, IT infrastructure/clinical facility, data center infrastructure, and implementation staffing. 	<ul style="list-style-type: none"> • Certified EHR software costs: her application costs, maintenance, computer-based training • Infrastructure clinical facility costs: wireless LAN infrastructure, LAN switches, tablets, desktop PCs, cameras, printers • Data infrastructure costs: servers, routers, switches, back-up software, fire suppression, cooling/HVAC, physical security, power upgrades • Implementation staffing: core team training, vendor project management, data migration, paper chart conversion, CIO, network administration

2 Alternatives Including the Proposed Action

In order to streamline review and approval of HRSA grant projects, the following seven alternatives have been identified for analysis in this PEA:

Alternative 1 – Building Interiors

Alternative 1 includes alteration/repair/ renovation (existing facility) that entails physical alteration to *interior* portions of buildings/facilities without regard to square footage of the existing building. This may include: reconfiguration of space for new uses and rehabilitation of aging spaces (including replacement of flooring, drywall and structural components); addition or enhancement of HVAC systems; upgrade of building areas to meet special use (such as laboratories, computer equipment rooms, etc.); installation or upgrade of power systems to meet increased capacity or to ensure uninterrupted power sources; and other interior improvements.

These actions may take place in all areas of the United States and its territories where eligible applicants for HRSA grants exist. All local, state, and federal requirements must be met in the design, construction, and operation of these facilities, including building permits, floodplain ordinances, and permits required for use and disposal of hazardous materials.

Alternative 2 – Building Exteriors

Alternative 2 includes alteration/repair/renovation (existing facility) that entails physical alteration to *exterior* portions of buildings/facilities regardless of the size (square footage) of the existing building. This may include the replacement of exterior doors and windows; repair and replacement of roofs and roofing systems; improvement to sidewalks and parking lots, including resurfacing of existing paved areas; exterior improvements to power, water, and HVAC systems; structural improvements to buildings/facilities that include exterior modifications. This category of actions does not include additions or expansions to existing structures.

These actions may take place in all areas of the United States and its territories where eligible applicants for HRSA grants exist. All local, state, and federal requirements must be met in the design, construction, and operation of these facilities, including building permits, floodplain ordinances, and permits required for use and disposal of hazardous materials.

Alternative 3 – Additions to Existing Buildings (and associated infrastructure improvements)

Alternative 3 includes construction of building additions that are limited to 8,000 square feet (SF) of first floor ground area disturbance or less and which are physically connected to an existing structure. The addition may be multi-story as long as the total ground floor disturbance is less than or equal to the 8,000 square-foot limitation.

This alternative includes the construction or upgrade of infrastructure and utilities necessary to complete the addition within all applicable building codes and zoning

2 – Alternatives Including the Proposed Action

requirements and as necessary for the addition to serve its purpose as a medical center or related support facility.

Alternative 4 – New Permanent Buildings (new construction) under 8000 SF of Ground Disturbance or Temporary Buildings of Any Size (and associated infrastructure improvements)

Alternative 4 includes the construction of new permanent buildings and associated improvements (such as parking or paved areas) that entail 8,000 SF or less of ground disturbance or temporary buildings of any size. (Temporary buildings generally include modular or mobile structures that are provided as a temporary solution ofr increased capacity or operational needs.

This alternative is intended to include new buildings and structures and could include utility or maintenance-related structures, clinic or administrative space, or other buildings necessary to support the mission of a medical center. The alternative also includes the construction or upgrade of infrastructure and utilities necessary for the temporary building to function within the requirements of local building codes and zoning requirements and as necessary for the building to serve its purpose as a medical center or related support facility.

Alternative 5 – The Placement of Temporary Buildings of Any Size on Existing, Pre-Disturbed Sites

Alternative 5 includes the placement of temporary buildings on existing sites (such as parking lots, tennis courts, and existing concrete pads) where creation of a permanent foundation is not required. This generally includes modular or mobile structures that are provided as a temporary solution for increased capacity or operational needs.

This alternative includes the construction or upgrade of infrastructure and utilities necessary for the temporary building to function within the requirements of local building codes and zoning requirements and as necessary for the building to serve its purpose as a medical center or related support facility. There is no size limit for this category of buildings.

Alternative 6 – Infrastructure Improvements

Alternative 6 includes infrastructure improvements necessary to improve or upgrade a building or facility's effectiveness in provision of its medical and related services, to meet energy efficiency or safety goals, or to meet increases in demand for services. Action under this alternative would require no ground disturbance except for foundations.

In addition this alternative includes site improvements to enhance or improve operations on that site. These can include resurfacing or repaving of parking lots, expansions of parking lots that disturb less than or equal to 8,000 square-feet, landscaping and drainage improvements, and replacement or creation of new exterior signage.

Alternative 7 – No Action Alternative

This alternative reflects no funding being provided to buildings/facilities through HRSA grants, with no subsequent interior or exterior building alteration/repair/renovation or new construction occurring that would require federal review of NEPA and related environmental requirements.

2.1 Comparison of Alternatives

Table 2-2 illustrates a summary of the impacts resulting from each of the seven alternatives. Alternatives 3, 4, and 6 (existing building additions, new buildings, and infrastructure improvements) are evaluated together since the actual physical impacts of these three actions are similar. This table was constructed using broad, programmatic impacts and is subsequently very general in its assessment of the impacts. Site-specific details will determine the extent and severity of the localized impacts in each resource area and will be identified by each grant applicant in the EID, an individual environmental review checklist required for each action

2 – Alternatives Including the Proposed Action

Table 2-2. Comparison of Environmental Impacts of Alternatives

Alternatives Considered					
Resource	Alternative 1 – Interior Renovation	Alternative 2 – Exterior Renovation	Alternatives 3,4 and 6 – Addition, New Construction and Infrastructure Improvements	Alternative 5 – Temporary Buildings	Alternative 7 – No Action Alternative
Geology and Soils	Minimal potential for soils impact due to interior construction	Minor and short term potential for increase in erosion during construction	Minor and short term potential for increase in erosion during construction	No impacts to soils anticipated	No impacts to soils
Air Quality	Minimal emissions from construction	Short term increase in emissions during construction	Short term increase in emissions during construction	No impacts to air quality anticipated	No impacts to air quality
Water Quality	Minimal impact to water quality due to interior containment	Minimal increases in erosion; minimal exposure to hazardous materials	Minor increases in erosion potential	No impacts to water quality anticipated	No impacts to water quality
Floodplains	No new construction in floodplain anticipated	No new construction in floodplain anticipated	No construction in floodplain anticipated	No construction in floodplain anticipated	No impact to floodplains
Wetlands	Unlikely to impact wetlands	Minor impacts to wetlands possible during construction	Minor impacts to wetlands possible during construction	No impacts to wetlands anticipated	No impacts to wetlands
Coastal Zone Management	No direct long-term impact to coastal zone	Minimal impacts to coastal zone due to erosion	Construction would not impact sensitive resources of the coastal zone and would comply with all applicable federal, state, and local requirements. Minor impacts to the coastal zone would occur and it would be consistent with the State's coastal program. A consistency determination is required.	No impacts to coastal zone anticipated	No impacts to coastal zone

2 – Alternatives Including the Proposed Action

Alternatives Considered					
Resource	Alternative 1 – Interior Renovation	Alternative 2 – Exterior Renovation	Alternatives 3,4 and 6 – Addition, New Construction and Infrastructure Improvements	Alternative 5 – Temporary Buildings	Alternative 7 – No Action Alternative
Vegetation and Wildlife	Unlikely to impact biota	Short-term impacts to biota possible during construction	Short-term impacts to biota possible during construction	No impacts to vegetation and wildlife anticipated	No impacts to vegetation and wildlife
Cultural Resources	Minor impacts possible if building is historic. Mitigation may be required	Moderate impacts possible if building is historic. Mitigation would be required.	Moderate impacts possible if building is historic or if there are surrounding historic buildings. Mitigation would be required.	Minor impacts possible if surrounding historic buildings. Mitigation may be required.	No impact to cultural resources
Socioeconomics/Environmental Justice	Positive impacts likely	Positive impacts likely	Positive impacts likely	Positive impacts likely	Impacts could include continued shortage of medical services
Traffic/Transportation	Increased traffic during construction	Increased traffic during construction	Increased traffic during construction	Increased traffic during construction	No potential for increase in traffic
Hazardous Materials/Waste Management	Small increase in generation of construction and operational waster	Small increase in generation of construction and operational waster	Small increase in generation of construction and operational waste	Small increase in generation of construction and operational waste	No increase in waste generated
Noise	Increased noise during construction	Short-term increase in noise during construction	Short-term increase in noise during construction	Short-term increase in noise during construction	No increase in noise
Land Use	No conflict due to continuation of existing use	No conflict due to continuation of existing use	No impact if in conformance with zoning regulations	No impact if in conformance with zoning regulations	No potential impact to land use

2 – Alternatives Including the Proposed Action

This page intentionally left blank.

3 Environmental Analysis

Physical improvements to medical centers, and related facilities may be undertaken in a wide variety of environments: urban areas, rural areas, tribal lands, coastal areas, mountainous areas, and so forth. It is unnecessary to discuss the programmatic impacts in such detail, as this would greatly increase the volume of the document without adding an equivalent amount of detailed impact analysis. In addition, site-specific environmental information will be evaluated at each site for each project, allowing for evaluation of unique environmental conditions or impacts.

The impact analyses have been conducted by gathering general data of the affected resource areas in relation to the implementation of the Proposed Alternatives. In addition, records of the projects reviewed under the existing PEAs over the past year have been analyzed to identify repetitive areas of environmental impact. Using this data, potential impacts and the significance levels have been assessed. Potential mitigation measures have also been identified to minimize impact levels. The text of this PEA presents the results of this process with each resource area following the following structure:

- Geology and Soils
- Air Quality
- Water Quality
- Floodplains
- Wetlands
- Biological Resources
- Cultural Resources
- Socioeconomics
- Traffic
- Hazardous Materials and Wastes
- Noise
- Land Use

This discussion is broad and regional in nature. It does not include a complete inventory of each resource, but does provide information to characterize those resources. This section also describes the potential impacts that each alternative could have on the identified resources. When mitigation is appropriate to avoid or reduce adverse impacts, these measures are also described

3.1 Geology and Soils

3.1.1 Affected Environment

3.1.1.1 Regulatory Setting

Soil resources provide a foundation for both plant and animal communities by establishing a substrate for plant growth and vegetative cover, for forestation, impervious ground cover, and for animal habitat and feeding. These resources are equally important in both terrestrial and aquatic environments. While there are few applicable regulations

3 – Environmental Analysis

regarding soils, proper conservation principles can reduce erosion, decrease turbidity, and generally improve water quality.

One of the main tools for evaluating impacts to soils is the Farmland Protection Policy Act (FPPA) which requires Federal agencies to evaluate the effects (direct and indirect) of their activities before taking any action that could result in converting designated prime or unique farmland soils, or farmland soils of statewide and local importance for non-agricultural purposes. If an action would adversely affect farmland preservation, alternative actions that could avoid or lessen adverse effects must be considered.

Determination of the level of impact on prime and unique farmland soils or farmland soils of statewide and local importance is done by the lead Federal agency (proponent), which inventories farmlands affected by the proposed action and scores the land as part of a Farmland Conversion Impact Rating (AD 1006 Form), for each alternative. In consultation with the proponent, Natural Resources Conservation Service (NRCS) completes the AD 1006 Form and determines the level of consideration for protection of farmlands that needs to occur under the FPPA (NRCS 2008).

3.1.2 Environmental Consequences and Mitigation Measures

Alternative 1 – Interior Alteration/repair/ renovation (existing facility)

The renovation of medical facilities within existing building foundations and existing footprints does not have the potential to affect geology. Area soils would likely be disturbed during construction activities within the immediate vicinity of the building.

Soil loss would occur directly from disturbance or indirectly via wind or water. To minimize soil loss, construction management would implement Best Management Practices (BMP), such as developing and implementing an erosion and sedimentation control plan, using silt fences or hay bales, re-vegetating disturbed soils, and maintaining site soil stockpiles, to prevent soils from eroding and dispersing off-site.

As sites identified for renovation have been previously disturbed and converted for medical use; this alternative is not anticipated to impact prime, unique, or important farmlands. Additionally, the renovation of medical facilities would not be expected to impact more than 1 acre of soil. Should a specific action have the potential to impact prime or unique farmland, HRSA and the applicant would determine if the proposed site is within the limits of an incorporated city or if the site contains state-listed prime, unique, or important soils. If the site is within incorporated city limits or does not contain prime, unique, or important soils, the action complies with FPPA and no further documentation is required.

Alternative 2 – Exterior Alteration/repair/renovation (existing facility)

The renovation of exterior areas of a medical center would not result in significant impacts to soils. If the existing center is inadequately vegetated or drained, mitigating measures should be employed upon construction activities. Construction and renovation would create soil impacts mitigated through local regulations requiring measures such as sediment fencing, detention and retention ponds, ground meshing cover, and vegetated drainage swales. Impacts to soils from erosion and compaction will vary between regions throughout the U.S., dependent largely upon the types of soils and rainfall amounts. State

and local regulations in various regions will be best tailored to the climatic requirements. Thus, after employing local mitigation measures, impacts would be non-significant. Post-construction water quality and quantity impacts are also important elements when evaluating external alterations. Storm water Best Management Practices (BMPS) and Low Impact Development (LID) technologies may be incorporated in building updates allowing for reduced impervious surfaces and opportunities for reducing long-term runoff and related erosion impacts.

Alternative 3, 4 and 6 – Addition, new construction, and infrastructure improvements.

The construction of new space as described in this alternative has the potential to affect geology and soils. However, the impact would be localized and generally within pre-disturbed and substantially developed sites since this alternative includes construction of building additions and site disturbance that is limited to 8,000 SF of first floor ground area disturbance.

Soils may be impacted during the construction or upgrade of infrastructure and utilities necessary to complete a building within all applicable building codes and zoning requirements due to trenching and other ground disturbing activities.

Most specifically, area soils would likely be disturbed during construction activities within the immediate vicinity of existing buildings and the areas of new construction and machinery/equipment staging. Soil loss would occur directly from disturbance or indirectly via wind or water. To minimize soil loss, construction management would implement BMPs, such as developing and implementing an erosion and sedimentation control plan, using silt fences or hay bales, re-vegetating disturbed soils, and maintaining site soil stockpiles, to prevent soils from eroding and dispersing off-site.

As sites identified for building expansion and construction have often been previously disturbed and converted for medical or related use, this alternative is not anticipated to impact prime, unique, or important farmlands. Additionally, the expansion through building addition or construction of structures with less than 8,000 SF of ground disturbance would not be expected to impact more than one acre of soil. Should a specific action have the potential to impact prime or unique farmland, HRSA and the applicant would determine if the proposed site is within the limits of an incorporated city or if the site contains State-listed prime, unique, or important soils. If the site is within incorporated city limits or does not contain prime, unique, or important soils, the action complies with FPPA and no further documentation is required.

Appropriate geotechnical studies would be required for new construction and to determine foundation requirements and any soil stabilization that may be necessary to allow for safe construction.

Alternative 5 – Temporary buildings

The placement of temporary buildings and their associated infrastructure and utility improvement would have a low probability of impacting geological or soil resources. This is primarily due to the fact that these actions would be limited to the placement of temporary structures onto pre-existing paved or hardened areas (such as parking lots, concrete pads, tennis courts, etc.). Consequently, the construction of a permanent

3 – Environmental Analysis

foundation would not be included in this project type limiting any potential for soil disturbance.

Installation of utilities related to a temporary building would create soil impacts mitigated through local regulations requiring measures such as sediment fencing, detention and retention ponds, ground meshing cover, and vegetated drainage swales. Impacts to soils from erosion and compaction will vary between regions throughout the U.S., dependent largely upon the types of soils and rainfall amounts. State and local regulations in various regions will be best tailored to the climatic requirements. Thus, after employing local mitigation measures, impacts would be non-significant. Post-construction water quality and quantity impacts are also important elements when evaluating external alterations. Storm water BMPs) and Low Impact Development (LID) technologies may be incorporated in building updates allowing for reduced impervious surfaces and opportunities for reducing long-term runoff and related erosion impacts.

Alternative 7 – No Action

This alternative does not include any HRSA funding action. Therefore, applicants would not be required to comply with the FPPA. Alternative 7 does not have the potential to affect geology or soils within the program area.

3.2 Air Quality

3.2.1 Affected Environment

3.2.1.1 Regulatory Setting

The Clean Air Act (CAA) requires that the U.S. Environmental Protection Agency (USEPA) establish primary and secondary National Ambient Air Quality Standards (NAAQS) for air pollutants that are considered harmful to the public and environment. Primary NAAQS are established at levels necessary, with an adequate margin of safety, to protect the public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Similarly, secondary NAAQS specify the levels of air quality determined appropriate to protect the public welfare from any known or anticipated adverse effects associated with air contaminants. The pollutants for which USEPA has established ambient concentration standards are called criteria pollutants, and include ozone (O₃), particulates that have aerodynamic diameters of 10 micrometers or less (PM-10), fine particles with aerodynamic diameters less than 2.5 micrometers, (PM-2.5); carbon monoxide (CO); nitrogen dioxide (NO₂); sulfur dioxide (SO₂); and lead (Pb).

The CAA also requires USEPA to assign a designation to each area of the nation regarding compliance with the NAAQS. The USEPA categorizes the level of compliance or noncompliance as follows: attainment (area currently meets the NAAQS), maintenance (area currently meets the NAAQS but has previously been out of compliance), and nonattainment (area currently does not meet the NAAQS) (USEPA 2008a).

For this Proposed Action, the relevant regulatory requirement under the conformity provisions of section 176(c) of the CAA, as amended in 1990, under which federal

agencies are prohibited from engaging in, supporting in any way or providing financial assistance for, licensing or permitting, or approving, any activity which does not conform to an applicable state implementation plan under the CAA. Federal actions must be "in conformity" with whatever restrictions or limitations the state has established for air emissions necessary to attain compliance with NAAQS. Federal activities that are transit-related must meet EPA's transportation conformity rule, and all other federal activities are subject to EPA's general conformity rule. This proposed action would come under the general conformity rule, 58 FR 63214.

Since the alternatives evaluated do not fall within the categories of an advisory, emergency, or excluded activity, screening techniques are used to evaluate a project. EPA has established the protocols for a screening process to verify whether a conformity determination is necessary for both non-attainment and maintenance areas (areas which were non-attainment but are now attaining the standard).

The thresholds are referred to as de minimis criteria, and vary depending upon the pollutant. For these purposes, the term de minimis refers to, among other things, emissions that are "so small as to be negligible or insignificant." If an action is below the de minimis emission threshold, then a conformity determination is not required under the general conformity rule. The thresholds established under the general conformity rule for nonattainment and maintenance areas are 100 tons per year or less for each pollutant in order to qualify for de minimis. If the de minimis criteria are exceeded, then a conformity determination must be made pursuant to the requirements of the general conformity rule.

Modern building standards have progressed to the point where materials and design requirements address energy use. Renovation and alterations of older spaces can create substantial improvements in energy efficiency and related reduction in emissions through energy efficient design standards

3.2.2 Environmental Consequences and Mitigation Measures

Alternative 1 – Interior Alteration/repair/ renovation (existing facility)

The renovation of medical facilities within existing building foundations and existing footprints does not have the potential to affect air quality. For the construction activities grantees should ensure that all applicable state, local, and tribal regulations are followed. Based on the emissions calculated as part of these activities, it is highly unlikely that either construction or operations will approach de minimis levels and are therefore very likely to be minimal impacts to air quality. Indoor air quality is a concern, especially with sensitive populations at risk to exposure to poor air quality. Implementation of low volatile organic compounds (VOC) and other sustainable building practices serves to improve indoor air quality.

Some emissions will be generated during construction, but these impacts are short-term. Normal operations and the associated traffic increases will also led to some effects, but these are likely to be minimal. Lead is unlikely to be a significant impact with the virtual elimination of leaded gasoline in this country. In areas of severe ozone nonattainment, VOCs and NO_x, which are ozone precursors, are limited to de minimus levels 25 tons per year for each. (40 CFR 50).

3 – Environmental Analysis

For long-term air quality, improvements are expected through the incorporation of energy efficient design as part of interior alterations.

Alternative 2 – Exterior Alteration/repair/renovation (existing facility)

The renovation of exterior areas of a medical center should not result in impacts to air quality. For the construction phase and daily operation of the facility, grantees should ensure that all applicable state, local, and tribal regulations are followed. It is highly unlikely that either construction or operations will approach de minimis levels and are therefore very likely to be minimal impacts to air quality. Some emissions will be generated during construction, but these impacts are short-term. Normal operations and the associated traffic increases will also lead to some effects, but these are likely to be minimal. Lead is unlikely to be a significant impact with the virtual elimination of leaded gasoline in this country. In areas of severe ozone nonattainment, VOCs and nitrogen oxide (NO_x), which are ozone precursors, are limited to de minimus levels of 25 tons per year for each. (40 CFR 50).

Renovations and alterations may include upgrades to certain mechanical systems and equipment, such as emergency generators, boiler plants, cooling towers, and incinerators. All permitting requirements must be followed in the design, construction and operations of these systems.

Alternative 3, 4 and 6 – Addition, new construction and infrastructure improvements

The construction of new space as described in this alternative has the potential to affect air quality. However, the impacts would be localized and generally short-term since they are primarily related to construction activities and not long-term generation of pollutants.

For the construction phase and daily operation of the facility, grantees should ensure that all applicable State, local, and tribal regulations are followed. It is highly unlikely that either construction or operations will approach de minimis levels and are; therefore, very likely to be minimal impacts to air quality. Some emissions will be generated during construction, but these impacts are short-term. Normal operations and the associated traffic increases will also lead to some effects, but these are likely to be minimal. Lead is unlikely to be a significant impact with the virtual elimination of leaded gasoline in this country. In areas of severe ozone nonattainment, VOCs and NO_x, which are ozone precursors, are limited to de minimus levels 25 tons per year for each. (40 CFR 50).

These construction activities may include upgrades to certain infrastructure and utilities and could also include mechanical systems and equipment, such as emergency generators, boiler plants, cooling towers, and incinerators. All permitting requirements must be followed in the design, construction and operations of these systems.

Some emissions will be generated during construction, but these impacts are short-term. Normal operations and the associated traffic increases will also led to some effects, but these are likely to be minimal. Lead is unlikely to be a significant impact with the virtual elimination of leaded gasoline in this country. In areas of severe ozone nonattainment, VOCs and NO_x, which are ozone precursors, are limited to de minimus levels of 25 tons per year for each. (40 CFR 50).

For long term air quality, improvements are expected through the incorporation of energy efficient design as part of new construction and building improvements.

Alternative 5 – Temporary buildings

The placement of temporary buildings and their associated infrastructure and utility improvement would have a low probability of impacting air quality. This is primarily due to the fact that these actions would be limited to the placement of temporary structures onto pre-existing paved or hardened areas (such as parking lots, concrete pads, tennis courts, etc.). Consequently, the construction of a permanent foundation would not be included in this project type limiting any potential for soil disturbance, limiting extent and duration of emission generating construction activities.

For the daily operation of the temporary building, grantees should ensure that all applicable State, local, and tribal regulations are followed. It is highly unlikely that either construction or operations will approach de minimis levels and are; therefore, very likely to be minimal impacts to air quality. Some emissions will be generated during construction, but these impacts are short-term. Normal operations and the associated traffic increases will also lead to some effects, but these are likely to be minimal. Lead is unlikely to be a significant impact with the virtual elimination of leaded gasoline in this country. In areas of severe ozone nonattainment, VOCs and NOx, which are ozone precursors, are limited to de minimus levels of 25 tons per year for each. (40 CFR 50).

Alternative 7 – No Action

This alternative does not include any HRSA funding actions. Under the No Action Alternative, traffic volumes and air quality would continue at current levels. No localized or regional effects to air quality are expected. Therefore, applicants would not be required to comply with Clean Air Act requirements.

3.3 Water Quality

3.3.1 Affected Environment

3.3.1.1 Regulatory Setting

Water is a central component of any community for both the natural and human inhabitants. The availability of water, including surface water and groundwater, and the quality of those waters, play a critical role in determining the natural community structure and in supporting human activity.

Both during construction and in post-construction facility operations, water quality and quantity impacts should be carefully evaluated and impacts mitigated where possible. Stormwater Best Management Practices (BMPS) and Low Impact Development (LID) technologies should be incorporated as part of building design and construction to reduce the impervious surfaces and associated runoff that may occur when facilities increase their footprint.

The Clean Water Act (CWA) establishes the basic structure for regulating pollutant discharges to navigable waters of the U.S. It sets forth procedures for effluent

3 – Environmental Analysis

limitations, water quality standards and implementation plans, national performance standards, and point source (e.g., municipal wastewater discharges) and nonpoint source programs (e.g., stormwater). The CWA also establishes the National Pollutant Discharge Elimination System (NPDES) under Section 402 and permits for dredged or fill material under Section 404 (USEPA 2008b).

The U.S. Army Corps of Engineers (USACE) is charged with regulating the disposal of dredged and fill materials under Section 404 of the CWA. A Section 404 permit from the USACE must be obtained for any dredge or fill activities within jurisdictional waters of the U.S. During the permit review process, the USACE determines the type of permit appropriate for the proposed action. Two types of permits are issued by the USACE: (1) General Permits, issued on a state, regional, and nationwide basis and covering a variety of activities, including minimal individual and cumulative adverse affects, and (2) Individual Permits, issued for a case-specific activity (USACE 1998).

Section 401 of the CWA specifies that states must certify that any activity subject to a permit issued by a Federal agency, such as a CWA Section 404 permit, meets all state water quality standards. Water quality certification is also necessary when a project qualifies for a General Permit, even if the activity does not need to be reported to the USACE.

The Wild and Scenic Rivers Act (WSRA) preserves selected rivers in a free-flowing condition and protects their local environments. These rivers possess outstanding scenic, recreational, geologic, fish and wildlife, historic, or cultural values.

Alternative 1: Interior Alteration/repair/ renovation (existing facility)

Because the scope of activities for Alternative 1 occur primarily within the footprint of an existing structure, only activities such as minor vegetation clearing and soil disturbances, which may occur during the physical renovation and equipment staging in the vicinity of a medical center, could result in temporary and minor localized negative impacts to water quality from runoff associated with these activities. Clearing and vegetation removal makes soils more vulnerable to erosion, potentially affecting sediment levels in nearby water. Soil compaction from the use of heavy equipment reduces the rate of infiltration of rainwater, creating greater overland flows and increasing erosion.

Most localities will have requirements for mitigation activities during construction. The extent and type of mitigations will vary across the country, but most will be likely to contain provisions for preserving water quality. The use of filter fencing or similar best management practices including planting grasses or spreading hay on erodible surfaces and soil piles, as well as erecting fences to contain runoff and sediment would reduce or eliminate these impacts.

It is not anticipated that streams or other water bodies would be impacted in the long-term by any actions related to interior renovation of medical centers.

Alternative 2 – Exterior Alteration/repair/ renovation (existing facility)

Minor, short-term impacts to the downstream surface waters may occur during the construction activities related to Alternative 2 due to soil erosion to the same extent as described for Alternative 1. Existing storm water drains and ditches located within or adjacent to the proposed project site could be removed or reconfigured to provide improved drainage (including modifications to roof design and related drainage as part of the renovation of a medical center).

It is anticipated that the alteration or exterior renovation of a medical center would impact less than 1 acre; however, should a construction site be greater than 1 acre, the site would then require a Stormwater Pollution Prevention Plan (SWPPP) as part of the NPDES permit process. The NPDES permit would identify BMPs for protection of water quality within ephemeral and perennial streams.

As with Alternative 1, to reduce impacts to the downstream surface waters, state and local authorities could implement appropriate BMPs, such as installing silt fences and revegetating bare soils as part of the permitting process. BMPs and LID technologies should be incorporated as part of building design and construction to reduce the impervious surfaces and associated runoff that may occur when facilities increase their footprint.

Alternative 3, 4, and 6 – Addition, new construction and infrastructure improvements

The construction of new space as described in this alternative has the potential to affect water quality. However, the impact would be localized and generally short-term since this alternative includes construction that is limited to 8,000 SF of first floor ground area disturbance.

Because the scope of activities for Alternatives 3, 4, and 6 occur primarily within pre-disturbed areas that are adjacent to existing buildings and facilities, only activities such as minor vegetation clearing and soil disturbances could result in temporary and minor localized negative impacts to water quality from runoff associated with these activities. For projects which are constructing buildings on undisturbed sites, clearing and vegetation removal makes soils more vulnerable to erosion, potentially affecting sediment levels in nearby water. Soil compaction from the use of heavy equipment reduces the rate of infiltration of rainwater, creating greater overland flows and increasing erosion.

Most localities will have requirements for mitigation activities during construction. The extent and type of mitigations will vary across the country, but most will be likely to contain provisions for preserving water quality. The use of filter fencing or similar best management practices including planting grasses or spreading hay on erodible surfaces and soil piles, as well as erecting fences to contain runoff and sediment would reduce or eliminate these impacts.

It is anticipated that the expansion of a medical center's space, or new construction and infrastructure improvements under this alternative would impact less than one acre; however, should a construction site disturbance be greater than one acre, the site would

3 – Environmental Analysis

then require a Stormwater Pollution Prevention Plan (SWPPP) as part of the NPDES permit process. The NPDES permit would identify BMPs for protection of water quality within ephemeral and perennial streams.

Alternative 5 – Temporary buildings

The placement of temporary buildings and their associated infrastructure and utility improvement would have a low probability of impacting water quality. This is primarily due to the fact that these actions would be limited to the placement of temporary structures onto pre-existing paved or hardened areas (such as parking lots, concrete pads, tennis courts, etc.). Consequently, the construction of a permanent foundation would not be included in this project type limiting any potential for soil disturbance and vegetation removal and the subsequent deterioration of water quality from increased runoff.

As with Alternative 1, to reduce impacts to the downstream surface waters, State and local authorities could implement appropriate BMPs, such as installing silt fences and revegetating bare soils as part of the permitting process. BMPs and LID technologies should be incorporated as part of building design and construction to reduce the impervious surfaces and associated runoff that may occur when facilities increase their footprint.

Alternative 7 – No Action

This alternative does not include any HRSA action. Therefore, the applicant would not be required to comply with the CWA or WSRA. Alternative 7 does not have the potential to affect water quality.

3.4 Floodplains

3.4.1 Affected Environment

3.4.1.1 Regulatory Setting

Executive Order (EO) 11988 (Floodplain Management) requires Federal agencies to avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative. A floodplain is defined as the lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, and including, at a minimum, that area subject to a 1 percent or greater chance of flooding in any given year. The critical action floodplain is defined as the 500-year floodplain (0.2 percent chance floodplain) (USEPA 1979). The 500-year floodplain as defined by 40 CFR 9 is an area, including the base floodplain, which is subject to inundation from a flood having a 0.2 percent chance of being equaled or exceeded in any given year.

Flood zones are land areas identified by FEMA that describe the land area in terms of its risk of flooding. A flood insurance rate map (FIRM) is a map created by the National Flood Insurance program (NFIP) for floodplain management and insurance purposes. Digital versions of these maps are called DFIRMs. A FIRM would generally show a community's base flood elevation (BFE), flood zones, and floodplain boundaries. However, maps are constantly being updated due to changes in geography, construction and mitigation activities, and meteorological events.

EO 11988 requires that Federal agencies proposing activities in a 100-year floodplain must consider alternatives to avoid adverse effects and incompatible development in the floodplain. In accordance with 44 CFR Part 9, critical actions, such as the development of hazardous waste facilities, hospitals, or utility plants, must be undertaken outside of a 500-year floodplain. If no practicable alternatives exist to locating an action in the floodplain, the action must be designed to minimize potential harm to or within the floodplain. Furthermore, a notice must be publicly circulated explaining the action and the reasons for locating in the floodplain. When evaluating actions in the floodplain, FEMA applies the decision process described in 44 CFR Part 9, referred to as the Eight-Step Planning Process, to ensure that its actions are consistent with EO 11988. By its nature, the NEPA compliance process involves the same basic decision-making process as the Eight-Step Planning Process.

3.4.1.2 Existing Conditions

FEMA has developed flood maps based on a flood frequency analysis completed by FEMA that update the flood risk data with information on storms that have occurred in the past 25+ years. FEMA currently uses FIRMs to determine elevation requirements for planning and redevelopment projects. FEMA requires that communities adhere to the elevation requirements established by BFE. There are more than 19,000 communities nationwide that participate in the NFIP.

3.4.2 Environmental Consequences and Mitigation Measures

Alternative 1: Interior Alteration/repair/ renovation (existing facility)

Under this alternative, interior renovation would occur within the footprint of existing medical centers. No new construction would be occurring within the floodplain.

Compliance with local floodplain ordinances would occur as part of the building permitting process.

Alternative 2 – Exterior Alteration/repair/ renovation (existing facility)

Under this alternative, exterior renovation would occur within the footprint of existing medical centers. No new construction would be occurring within the floodplain.

Compliance with local floodplain ordinances would occur as part of the building permitting process.

Alternative 3, 4 and 6 – Addition, new construction, and infrastructure improvements

Because the scope of construction activities for Alternatives 3, 4, and 6 occur primarily within pre-disturbed areas that are adjacent or near to existing buildings and facilities, the primary means of compliance with applicable Executive Orders and related Federal floodplain regulations would be through the evaluation of the site to determine if it is located in a floodplain and the corresponding compliance with local floodplain ordinances. If it is determined that the building construction would occur within a floodplain it must be determined that no practicable alternative to that site exists. Any building must be built to the local floodplain ordinance that establishes the first floor elevation requirements of the new building, or expansion/addition of an existing building.

3 – Environmental Analysis

Alternative 5– Temporary buildings (and associated infrastructure improvements in keeping with Alternative 3)

The placement of temporary buildings and their associated infrastructure and utility improvement would have a low probability of impacting floodplains, since no ground or soil disturbance would occur.

Because of the scope of activities for Alternative 5 occur primarily within pre-disturbed areas that are adjacent or near to existing buildings and facilities, the primary means of compliance with applicable Executive Orders and related Federal floodplain regulations would be through the evaluation of the site to determine if it is located in a floodplain and the corresponding compliance with local floodplain ordinances. If it is determined that the temporary building would occur within a floodplain it must be determined that no practicable alternative to that site exists. Any building must be built to the local floodplain ordinance that establishes the first floor elevation requirements of the temporary building.

However, the nature of temporary buildings make them particularly vulnerable to flooding, especially in areas where floodwaters move at a high velocity (subsequently shifting the temporary structures and their contents). If there are no alternatives to locating a temporary building in a flood hazard area, appropriate engineering and construction techniques must be incorporated to anchor and protect the temporary structure.

Alternative 7– No Action

This Alternative does not include any HRSA actions. Therefore, HRSA and the applicant would not be required to comply with EO 11998 or local floodplain ordinances. The No Action Alternative does not have the potential to affect floodplains.

3.5 Wetlands

3.5.1 Affected Environment

3.5.1.1 Regulatory Setting

Wetlands are an important component of ecosystem function and historically have been threatened by development. The US Army Corps of Engineers (USACE) is charged with protecting wetlands through the Clean Water Act (CWA) and is empowered to issue permits under the CWA for activities that may affect wetlands.

Wetlands are protected by the Clean Water Act and regulated by USACE. While development of wetlands is certainly possible, grantees should avoid sites where filling or draining of wetlands or other activities would be required. The permitting process to fill a wetland could be lengthy and is best to be avoided, assuming equivalent sites are readily available.

EO 11990 (Protection of Wetlands) requires Federal agencies to follow avoidance, mitigation, and preservation procedures with public input before proposing new construction in wetlands. As with EO 11988, the same Eight-Step Planning Process is used to evaluate the potential effects of an action on wetlands. Formal legal protection of

jurisdictional wetlands is promulgated through Section 404 of the CWA. A permit from the USACE may be required if an action has the potential to affect wetlands.

There are three different types of impacts associated with wetlands:

Direct impacts result from disturbances that occur within the wetland. Common direct impacts to wetlands include filling, grading, removal of vegetation, building construction and changes in water levels and drainage patterns. Most disturbances that result in direct impacts to wetlands are controlled by State and Federal wetland regulatory programs.

Indirect impacts result from disturbances that occur in areas outside of the wetland, such as uplands, other wetlands or waterways. Common indirect impacts include influx of surface water and sediments, fragmentation of a wetland from a contiguous wetland complex, loss of recharge area, or changes in local drainage patterns. Given that most indirect impacts are beyond the authority of State and Federal wetland regulatory programs, wetland protection can be provided by a watershed management plan under local implementation.

Cumulative impacts are those impacts resulting from combined direct and indirect impacts to the wetland over time.

3.5.1.2 Existing Conditions

The National Wetlands Inventory (NWI) is a resource provided by the USFWS which provides wetland information by digital data files to allow for identification of mapped wetland areas. Field surveys may also be necessary if areas exist which have not been mapped or which have been recently created by hydrologic changes.

3.5.2 Environmental Consequences and Mitigation Measures

Alternative 1: Interior Alteration/repair/ renovation (existing facility)

Existing facilities would undergo minor, interior renovations, with minimal external impacts to wetlands. Care would need to be taken in the storage and parking of equipment and materials uses in the interior renovation to ensure no impacts occur to wetlands near or adjacent to a project site.

Alternative 2 – Exterior Alteration/repair/ renovation (existing facility)

Impacts under this alternative are likely to be minimal due to isolated construction. Any external ground disturbance (paving or installation of new underground utilities) and related land clearing and preparation will need to avoid any wetlands areas.

An action would cause a significant impact if the soil structure, hydrology (the water related features) or the vegetation of more than ¼ acre (1/10 ha) of a wetland would be altered, or a floodplain area is altered enough to present a reasonable flood danger to the area, causes the degradation or loss of habitat for populations indigenous to the floodplain area, or prohibits farming activities.

3 – Environmental Analysis

Alternative 3, 4 and 6 – Addition, new construction, and infrastructure improvements

The construction activities described in this alternative have the potential to affect wetlands due to potential ground disturbing activities. However, the impact would be localized and generally within pre-disturbed and substantially developed sites since this alternative includes construction actions that are limited to 8,000 SF of first floor ground area disturbance.

Wetlands may be impacted during the construction or upgrade of infrastructure and utilities necessary to complete a building within all applicable building codes and zoning requirements due to trenching and other ground disturbing activities. Care would need to be taken in the storage and parking of equipment and materials used during construction to ensure no impacts occur to wetlands near or adjacent to a project site.

If wetlands are present on a site and likely to be disturbed, design provisions should be made to avoid or minimize impacts to those resources. An action would cause a substantial impact if the soil structure, hydrology (the water related features) or the vegetation of more than ¼ acre (1/10 ha) of a wetland would be altered.

Alternative 5 – Temporary buildings

The placement of temporary buildings and their associated infrastructure and utility improvement would have a low probability of impacting wetlands resources. This is primarily due to the fact that these actions would be limited to the placement of temporary structures onto pre-existing paved or hardened areas (such as parking lots, concrete pads, tennis courts, etc.). Consequently, the construction of a permanent foundation would not be included in this project type limiting any potential for soil disturbance.

Alternative 7 – No Action

The No Action alternative does not include any HRSA actions. Therefore this alternative does not have the potential to affect wetlands or waters of the U.S.

3.6 Coastal Zone Management

3.6.1 Affected Environment

3.6.1.1 Regulatory Setting

The Federal Coastal zone Management Act of 1972 (CZMA) encourages states to “preserve, protect, develop, and where possible, restore or enhance the resources of the nation’s coastal zone” (16 U.S.C. § 1456). All federal development projects inside the coastal zone must comply with Section 307 of the CZMA, which require federal agencies to determine whether construction and operational activities would affect any coastal use or resources, and require a consistency determination. The federal consistency provision of the CZMA requires federal agency activities that have been identified as having a direct effect on coastal uses and resources to be consistent to the maximum extent practicable with enforceable policies of state coastal management programs approved by National Oceanic and Atmospheric Administration (NOAA). Activities by non-federal applicants for federal authorizations and funding must be fully consistent with these policies.

3.6.1.2 Existing Conditions

The coastal zone is regulated in all states “in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. For the purposes of this chapter, the term also includes Puerto Rico, the Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands, and the Trust Territories of the Pacific Islands, and American Samoa.” NOAA provides a list of the coastal states and Great Lakes states that make up our Nation’s coastal zone, along with each state’s point of contact. Each coastal state, except for Illinois has an approved Coastal Management Program, which guides federal consistency compliance in that state.

3.7 Environmental Consequences and Mitigation Measures

Alternative 1: Interior Alternative/repair/renovation (existing facility)

Because the scope of activities for Alternative 1 occur primarily within the footprint of an existing structure, only activities such as minor vegetation clearing and soil disturbances which may occur during the physical renovation and equipment staging in the vicinity of a medical center, could result in temporary and minor localized negative impacts to the coastal zone due to runoff associated with these activities. Clearing and vegetation removal make soils more vulnerable to erosion, potentially affecting sediment levels in nearby water. Soil compaction from the use of heavy equipment reduces the rate of infiltration of rainwater, creating greater overland flows and increasing erosion.

Most localities will have requirements for mitigation activities during construction to minimize stormwater runoff. The extent and type of mitigations will vary across the country, but most will be likely to contain provisions for preserving water quality. The use of filter fencing or similar best management practices including planting grasses or spreading hay on erodible surfaces and soil piles, as well as erecting fences to contain runoff and sediment would reduce or eliminate these impacts.

It is not anticipated that the coastal zone would be impacted, long-term, by any actions related to interior renovation of medical centers.

Alternative 2 – Exterior Alteration/repair/renovation (existing facility)

Minor, short-term impacts to the coastal zone may occur during construction activities related to Alternative 2 due to soil erosion to the same extent as described for Alternative 1. Existing storm water drains and ditches located within or adjacent to the proposed project site could be removed or reconfigured to provide improved drainage (including modifications to roof design and related drainage as part of the renovation of a medical center).

As with Alternative 1, to reduce impacts to the coastal zone, state and local authorities could implement appropriate BMPs, such as installing silt fences and revegetating bare soils as part of the permitting process. BMPs and LID technologies should be incorporated as part of building design and construction to reduce the impervious surfaces and associated runoff that may occur when facilities increase their footprint.

It is not anticipated that the coastal zone would be impacted, long-term, by any actions related to exterior renovation of medical centers.

3 – Environmental Analysis

Alternative 3, 4, and 6 – Addition, new construction and infrastructure improvements

The construction of new space as described in this alternative has the potential to affect the coastal zone. However, the impact would be localized since this alternative includes construction that is limited to 8,000 SF of first floor ground area disturbance.

Because the scope of activities for Alternatives 3, 4, and 6 occur primarily within pre-disturbed areas that are adjacent to existing buildings and facilities, activities such as vegetation clearing and soil disturbances could result in minor localized negative impacts to water quality from runoff associated with these activities which may affect the coastal zone. For projects which are constructing buildings on undisturbed sites, clearing and vegetation removal makes soils more vulnerable to erosion, potentially affecting sediment levels in nearby water. Soil compaction from the use of heavy equipment reduces the rate of infiltration of rainwater, creating greater overland flows and increasing erosion. Construction would not impact sensitive resources of the coastal zone and would comply with all applicable federal, state, and local requirements. Therefore minor impacts to the coastal zone would occur and it would be consistent with the State's coastal program.

Furthermore, for these types of activities, the applicant would be required to submit a consistency determination to the state for their review prior to implementing their action and provide HRSA with a copy of the consistency determination and state concurrence letter. (Additional information on consistency determinations is provided in HRSA's factsheet on the Coastal Zone Management Act.)

Most localities will have requirements for mitigation activities during construction to minimize stormwater runoff and impacts to the coastal zone. The extent and type of mitigations will vary across the country, but most will be likely to contain provisions for preserving water quality. The applicant would be required to develop the site to meet all applicable State and local regulations. The use of filter fencing or similar best management practices including planting grasses or spreading hay on erodible surfaces and soil piles, as well as erecting fences to contain runoff and sediment would reduce or eliminate these impacts.

Alternative 5 – Temporary buildings

The placement of temporary buildings and their associated infrastructure and utility improvement would have a low probability of impacting water quality and the coastal zone. This is primarily due to the fact that these actions would be limited to the placement of temporary structures onto pre-existing paved or hardened areas (such as parking lots, concrete pads, tennis courts, etc.). Consequently, the construction of a permanent foundation would not be included in this project type limiting any potential for soil disturbance and vegetation removal and the subsequent deterioration of water quality from increased runoff.

As with Alternative 1, to reduce impacts to the coastal zone, State and local authorities could implement appropriate BMPs, such as installing silt fences and revegetating bare soils as part of the permitting process. BMPs and LID technologies should be

incorporated as part of building design and construction to reduce the impervious surfaces and associated runoff that may occur when facilities increase their footprint.

Alternative 7– No Action

This alternative does not include any HRSA action. Therefore, the applicant would not be required to comply with the CZMA. Alternative 7 does not have the potential to affect water quality.

3.8 Biological Resources

3.8.1 Affected Environment

3.8.1.1 Regulatory Setting

Biological resources comprise naturally occurring and cultivated vegetative species and domestic and wild animal species and their habitats. Sensitive biological resources include plant and animal species listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act (ESA) or by a state agency pursuant to state law or regulation. Sensitive species also include species identified by the USFWS as candidates for possible listing as threatened or endangered pursuant to the ESA. Biological resources also include wetlands, which are important because they provide essential breeding, spawning, nesting, and wintering habitats for a major portion of the nation’s fish and wildlife species.

The Endangered Species Act (ESA) establishes a Federal mandate to conserve, protect, and restore threatened and endangered plants and animals and their habitats. Section 7 of the ESA mandates that all Federal agencies must ensure that any action authorized, funded, or implemented is not likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction of critical habitat for these species. To accomplish this, Federal agencies must consult with the USFWS or the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NOAA Fisheries) when taking action that has the potential to affect species listed as endangered or threatened or proposed for threatened or endangered listing.

The Migratory Bird Treaty Act (MBTA) makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird species listed in 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Disturbance that causes nest abandonment and/or loss of reproductive effort (*e.g.*, killing or abandoning eggs or young) may be considered a take, and is potentially punishable by fines and/or imprisonment. If an action is determined to cause a potential take of migratory birds, as described above, then a consultation process with the USFWS needs to be initiated to determine measures to minimize or avoid these impacts. This consultation should start as an informal process.

The Magnuson-Stevens Fishery Conservation and Management Act (as amended), also known as the Sustainable Fisheries Act, requires all Federal agencies to consult with the NOAA Fisheries on activities or proposed activities authorized, funded, or undertaken by that agency that may adversely affect Essential Fish Habitat (EFH). The EFH provisions

3 – Environmental Analysis

of the Sustainable Fisheries Act are designed to protect fisheries habitat from being lost due to disturbance and degradation.

3.8.1.2 Existing Conditions

Plant and animal communities are an integral part of any ecosystem. Beginning with lower organisms and building upwards through the food chain, humans depend on these communities for resources such as food, shelter, and aesthetic values. There can be numerous regulatory requirements involved when a Proposed Action has impacts upon vegetation and wildlife, including The Endangered Species Act (ESA) of 1973 and The Fish and Wildlife Coordination Act (FWCA) of 1934. These laws provide a framework for conservation of vegetative and wildlife resources and can be supplemented with sound conservation principles to minimize impacts to these communities.

3.8.2 Environmental Consequences and Mitigation Measures

Alternative 1 – Interior Alteration/repair/ renovation (existing facility)

Renovating interior portions of medical centers on an existing building's footprint does not have the potential to affect sensitive biological resources.

Alternative 2 – Exterior Alteration/repair/ renovation (existing facility)

Renovating exterior portions of medical centers on the previous building's footprint does not have the potential to affect sensitive biological resources. However, where possible, creative landscaping can provide habitat to local species.

Alternative 3, 4 and 6 – Addition, new construction, and infrastructure improvements

The construction activities described in this alternative have the potential to affect biological resources. However, the impact would be localized and generally within pre-disturbed and substantially developed sites. Actions under this alternative include construction of building additions and facility improvements that are limited to 8,000 SF of first floor ground area disturbance.

Habitat and soils may be impacted during the construction or upgrade of infrastructure and utilities necessary to complete a building within all applicable building codes and zoning requirements due to trenching and other ground disturbing activities.

Alternative 5 – Temporary buildings

The placement of temporary buildings and their associated infrastructure and utility improvement would have a low probability of impacting biological resources. This is primarily due to the fact that these actions would be limited to the placement of temporary structures onto pre-existing paved or hardened areas (such as parking lots, concrete pads, tennis courts, etc.). Consequently, the construction of a permanent foundation would not be included in this project type limiting any potential for impact to sensitive habitat or biological resources.

Alternative 7 – No Action

This alternative does not include any HRSA funding action. Therefore, HRSA and the applicant would not be required to consult with USFWS, NOAA Fisheries, or state

resource agencies to comply with the ESA, MBTA, or the Sustainable Fisheries Act. The No Action Alternative does not have the potential to affect sensitive biological resources.

3.9 Cultural Resources

3.9.1 Affected Environment

Cultural resources include evidence of the past activities and accomplishments of people. They include buildings, objects, locations, and structures that have scientific, historic or cultural value. Cultural resources provide cultural, educational, aesthetic, inspirational, and/or economic value and give a sense of orientation to the nation. Cultural resources are protected under a number of federal laws and regulations, as well as numerous specific state statutes.

3.9.1.1 Regulatory Setting

Section 106 of the National Historic Preservation Act (NHPA), as amended, and implemented by 36 CFR Part 800, requires Federal agencies to consider the effects of their actions on historic properties, and provide the State Historic Preservation Officer(s) (SHPO) and the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on Federal projects that would have an effect on historic properties prior to implementation. Historic properties are defined as archaeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places (NRHP).

Under the Council's regulations, applicants for funding may initiate the Section 106 compliance consultations when authorized to do so by the federal agency by a Programmatic Agreement between ACHP, Agency, and SHPO. The federal agency must notify the involved SHPO's and Tribal Historic Preservation Officers (THPOs), and other consulting parties that the applicant will be so authorized. The federal agency remains legally responsible for all findings and determinations made on its behalf. HRSA has coordinated with the ACHP to authorize applicants to initiate consultation with SHPO as part of its project review process. When historic resources are identified in the project's Area of Potential Effect (APE), consultation should also occur with any persons or organizations that could be interested in the cultural resources that could be impacted by the project (such as local community groups or historic preservation organizations, or tribes with historic association with the cultural resources).

The consultative process required under the regulations aims at resolving two key issues. The first is whether the proposed project has an effect on historic properties. The term effect is defined under 36 CFR 800.16(i) as an "alteration to the characteristics of historic property qualifying it for inclusion in, or eligibility for the National Register (of Historic Places)." The project's impact on the property's use, character, location, and setting are to be considered when determining its effect on the historic property. The other issue is whether any effect on the historic property is adverse. An effect is considered adverse under 36 CFR 800.5(a)(I) when it will endanger those qualities that make the property eligible for inclusion in the National Register of Historic Places.

Where it is determined that the an action on a building to be renovated using HRSA grant monies will have an adverse effect on a historic property, HRSA staff will continue the

3 – Environmental Analysis

consultation process as provided under 36 CFR 800.6 and seek to develop either a Memorandum of Agreement or a Programmatic Agreement on the steps necessary to avoid, minimize or mitigate adverse effects. In cases where the consultation is terminated without an agreement to resolve adverse effects, HRSA will follow the applicable requirements of 36 CFR 800.

The renovation of medical centers on tribal lands would require consultation with tribal entities such as the THPO, if one has been appointed. On tribal lands, additional concerns arise including protection of burial sites, and the protection of traditional cultural places.

3.9.2 Environmental Consequences and Mitigation Measures

Alternative 1 – Interior Alteration/repair/ renovation (existing facility)

An impact would be adverse if an effect on a historic property may directly or indirectly alter any of the characteristics of the property that qualify it for inclusion in the National Register in a manner that would diminish the integrity of the property: location, design, setting, materials, workmanship, feeling or association (as set forth in 36 CFR 800.5(a)(1)).

The applicant will do an initial screening and consultation with the SHPO/THPO and other parties with interest in cultural resources to determine if the proposed undertaking would have an adverse effect on a historic property if the building is greater than 50 years old. The screening of the property by the applicant will include key information such as the date of construction, whether the building is listed on national or state historic registers, and any other issues that may determine that the building is historic.

Since all renovation work for this alternative is taking place within the existing building, this alternative would not involve ground-disturbing activities below previously disturbed soil depths. Thus, there is minimal potential to affect subsurface cultural resources.

Alternative 2 – Exterior Alteration/repair/renovation (existing facility)

Impacts under this Alternative are more likely since the alterations and renovations of the building will be to the exterior of the buildings and would be more likely to adversely affect a historic resource. As with Alternative 1, the applicant will do an initial screening and consultation with the SHPO/ THPO and other parties with interest in cultural resources to determine if the proposed undertaking would have an adverse effect on a historic property. The screening of the property by the applicant will include key information such as the date of construction, whether the building is listed on national or state historic registers, and any other issues that may determine that the building is historic. The applicant would be required to submit the SHPO/THPO's concurrence letter to HRSA for review.

Since some renovation work may include improvements to exterior areas such as paved parking lots and utility connections, this alternative could involve ground-disturbing activities below previously disturbed soil depths. Thus, there is some potential to affect subsurface cultural resources. Descriptions of these actions should be included in consultation with the SHPO/THPO and other parties with interest in cultural resources to ensure there is no presence of below ground archaeological resources.

Alternative 3,4 and 6 – Addition, new construction, and infrastructure improvements

An impact would be adverse if a proposed action may directly or indirectly alter any of the characteristics of a historic property that qualify it for inclusion in the National Register in a manner that would diminish the integrity of the property: location, design, setting, materials, workmanship, feeling or association (as set forth in 36 CFR 800.5(a)(1)).

Additions to existing buildings or new construction in the vicinity (and viewshed) of existing buildings may affect historic properties if the existing building is eligible for or listed on the National Register of Historic Places or if the addition would have visual impacts to surrounding historic properties. Under this alternative, ground disturbance up to 8,000 square feet may occur and has the potential to impact archeological resources.

The grant applicant will do an initial screening and consultation with the SHPO/THPO and other parties with interest in cultural resources to determine if the proposed undertaking would have an adverse effect on a historic property. The screening of the property by the applicant will include key information such as the date of construction, whether the building is listed on and national or State historic registers, and any other issues that may determine that the building is historic. In addition, the grant applicant will consult with the SHPO/THPO to determine the potential for impacts to archeological resources. The applicant is required to submit the SHPO/THPO concurrence letter to HRSA for review.

Alternative 5 – Temporary buildings

Temporary buildings may impact the surroundings and views of historic properties, if present. However, by definition these buildings may be removed and therefore, would not have permanent impacts to historic properties. As no ground excavation or construction of new foundations would occur under this alternative, there would be little potential for impacts to archeological resources.

As with Alternative 1, the applicant will do an initial screening and consultation with the SHPO/THPO and other parties with interest in cultural resources to determine if the proposed undertaking would have an adverse effect on a historic property. The screening of the property by the applicant will include key information such as the date of construction, whether the building is listed on national or State historic registers, and any other issues that may determine that the building is historic. The applicant is required to submit the SHPO/THPO concurrence letter to HRSA for review.

Alternative 7 – No Action

This alternative does not include any HRSA undertaking. Therefore, no cultural resource review would be required of HRSA or the applicant under Section 106 of the NHPA.

3 – Environmental Analysis

3.10 Socioeconomics

3.10.1 Affected Environment

3.10.1.1 Regulatory Setting

One of the key federal mechanisms for evaluating socioeconomic impacts of its actions is through EO 12898 (Federal Actions to Address Environmental Justice in Minority and Low- Income Populations) that requires Federal lead agencies to ensure rights established under Title VI of the Civil Rights Act of 1964 when analyzing environmental effects.

HRSA and most Federal lead agencies determine impacts on low-income and minority communities as part of the NEPA compliance process. Agencies are required to identify and correct programs, policies, and activities that have disproportionately high and adverse human health or environmental effects on minority or low-income populations. EO 12898 also tasks Federal agencies with ensuring that public notifications regarding environmental issues are concise, understandable, and readily accessible.

EO 13045 (Protection of Children from Environmental Health Risks and Safety Risks) requires Federal agencies to identify and assess health risks and safety risks that may disproportionately affect children. As with EO 12898, HRSA and most Federal lead agencies determine impacts on children as part of the NEPA compliance process.

3.10.1.2 Existing Conditions

By its very nature, the HRSA grants described and evaluated within this programmatic EA serve to provide additional medical services to individuals and families in need. The grant criteria reflect an evaluation of the populations served through physical and program improvements provided by these grants. Subsequently, the medical centers receiving grant funds are often located in areas predominantly made up of low-income and minority populations to more effectively serve their needs.

3.10.2 Environmental Consequences and Mitigation Measures

Alternative 1 – Interior Alteration/repair/ renovation (existing facility)

Implementation of Alternative 1 would result in beneficial impacts to both individuals requiring medical services and local contractors that perform site work and construction services for the grantee.

Short-term impacts that may occur would include loss/reduction of services during the period of construction. Temporary services provision should be establish to minimize this impact

Alternative 2 – Exterior Alteration/repair/ renovation (existing facility)

Similar to Alternative 1, implementation of Alternative 2 would result in beneficial impacts to both individuals requiring medical services and local contractors that perform site work/construction services for the grantee.

Short-term impacts that may occur would include loss/reduction of services during the period of construction. Temporary services provision should be establish to minimize this impact

Alternative 3,4 and 6 – Addition, new constructions and infrastructure improvements

Implementation of Alternatives 3,4 and 6 would result in beneficial impacts to both individuals requiring medical services and local contractors that perform site work and construction services for the grantee. New construction, addition of space and adding supporting structures to existing medical facilities will allow health service provides to expand or improve their services.

Short-term impacts that may occur would include disruption of some services during the period of construction. Temporary services provision should be established to minimize this impact.

Alternative 5 – Temporary buildings

Similar to Alternatives 1, 2, 3, 4, and 6, implementation of Alternative 5 would result in beneficial impacts to both individuals requiring medical services and local contractors that perform site work/construction services for the grantee. Placement of temporary buildings will allow health service provides to expand services or provide services in areas not currently served (e.g. at schools).

Short-term impacts that may occur would include loss/reduction of services during the period of construction. Temporary services provision should be establish to minimize this impact

Alternative 7 – No Action

Although there is no requirement for compliance with EOs 12898 and 13045 when there are no Federal actions, the No Action Alternative would likely result in disproportionate health and safety risks to low-income and minority persons and to children, as these groups would be most likely to be affected by the lack of improved medical services.

3.11 Traffic and Transportation

3.11.1 Affected Environment

3.11.1.1 Regulatory Setting

State Departments of Transportation are generally responsible for the design, construction, and maintenance of their state highway systems, as well as the portion of the Federal highways and interstates within their boundaries. Arterials, connectors, rural roads, and local roads are constructed and maintained by county or city governments.

3.11.1.2 Existing Conditions

Potential impacts could occur where program-related traffic is introduced onto roads not previously experiencing its associated volumes. Whether a medical center has been renovated or newly constructed, the traffic generated from the operation of the center could impact the local road network. However, the level of impact will differ. Centers relying upon primarily single automobile transportation of patients in the mornings and afternoons may experience heavier volumes and waiting times on roads surrounding the center. Centers in urban areas, where public transportation or walking are more feasible

3 – Environmental Analysis

options, would experience less potential congestion or delays from automobile traffic. Similar to this scenario is a center that utilizes bus transportation for its patients. The lack of automobiles would result in less delay around the center. While these levels would differ, they would be likely to remain negligible and non-significant.

3.11.2 Environmental Consequences and Mitigation Measures

Alternative 1 – Interior Alteration/repair/ renovation (existing facility)

Refurbishing existing facilities could result in short-term increased traffic volumes associated with site preparation, and renovation of interior spaces. To minimize adverse impacts on traffic resulting from construction equipment, traffic along adjacent roadways would be temporarily rerouted as necessary during construction, traffic lane closures would be coordinated with the appropriate local government, equipment staging and worker POV would be sited to hinder the traffic flow as little as possible in the areas where the actions are implemented, and adjacent residential neighborhoods and commercial/industrial areas would be notified in advance of construction activities and any rerouting of local traffic.

Alternative 2 – Exterior Alteration/repair/ renovation (existing facility)

As with Alternative 1, Refurbishing existing facilities could result in short-term increased traffic volumes associated with site preparation, and renovation of exterior portions of the facility (including parking and entrance areas). To minimize adverse impacts on traffic resulting from construction equipment, traffic along adjacent roadways would be temporarily rerouted as necessary during construction, traffic lane closures would be coordinated with the appropriate local government, equipment staging and worker privately owned vehicles (POV) would be sited to hinder the traffic flow as little as possible in the areas where the actions are implemented, and adjacent residential neighborhoods and commercial/industrial areas would be notified in advance of construction activities and any rerouting of local traffic. For long-term impacts, consideration should occur due to potential long-term traffic and parking requirements resulting from increased employees and patients. This should be evaluated as part of the information addressed in the EID.

Alternative 3, 4 and 6 – Addition, new construction, and infrastructure improvements

Construction activities could result in short-term increased traffic volumes associated with construction vehicles entering and leaving the site. To minimize adverse impacts on traffic resulting from construction equipment, traffic along adjacent roadways would be temporarily rerouted as necessary during construction, traffic lane closures would be coordinated with the appropriate local government, equipment staging and worker personally-owned vehicles would be sited to hinder the traffic flow as little as possible in the areas where the actions are implemented, and adjacent residential neighborhoods and commercial/industrial areas would be notified in advance of construction activities and any rerouting of local traffic.

New and expanded facilities could accommodate additional patients resulting in traffic increases on the surrounding roadway network. However, unlike an office building

where large numbers of employees arrive at and leave the building during peak traffic hours, medical facilities have fewer employees per square foot and patients arrive and leave the facility throughout the day. Therefore, additions to existing medical facilities would not have substantial impacts to traffic during peak traffic hours when traffic is the heaviest.

For long-term impacts, consideration should occur due to potential long-term traffic and parking requirements resulting from increased employees and patients. This should be evaluated as part of the information addressed in the EID.

Alternative 5 – Temporary Buildings

Placement of temporary buildings on a site could result in short-term increased traffic volumes associated with site preparation and installation of the temporary structure. To minimize adverse impacts on traffic resulting from construction equipment, traffic along adjacent roadways would be temporarily rerouted as necessary during construction, traffic lane closures would be coordinated with the appropriate local government, equipment staging and worker personally-owned vehicles would be sited to hinder the traffic flow as little as possible in the areas where the actions are implemented, and adjacent residential neighborhoods and commercial/industrial areas would be notified in advance of construction activities and any rerouting of local traffic.

Placement of temporary buildings could accommodate additional patients resulting in traffic increases on the surrounding roadway network. However, due to the small size of most temporary buildings it is unlikely that there would be substantial impacts to traffic during peak traffic hours when traffic is the heaviest.

For long-term impacts, consideration should occur due to potential long-term traffic and parking requirements resulting from increased employees and patients. This should be evaluated as part of the information addressed in the EID.

Alternative 7 – No Action

Under this alternative, traffic volumes would not change since there would be no increase in construction activities.

3.12 Hazardous Materials and Waste

3.12.1 Affected Environment

3.12.1.1 Regulatory Setting

Hazardous materials and wastes are regulated in the U.S. under a variety of Federal and state laws. Federal laws and subsequent regulations governing the assessment, transportation, and disposal of hazardous wastes and materials include the Resource Conservation and Recovery Act (RCRA); the RCRA Hazardous and Solid Waste Amendments; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Solid Waste Act; the Toxic Substances Control Act (TSCA); and the CAA. RCRA is the Federal law that regulates hazardous waste from “cradle to grave,” that is, from the time the waste is generated through its management, storage, transport, treatment, and final disposal. USEPA is responsible for implementing this law

3 – Environmental Analysis

RCRA also sets forth a framework for the management of non-hazardous wastes. The 1986 amendments to RCRA enable the USEPA through relevant state agencies to address the environmental problems that can result from underground tanks storing petroleum and hazardous substances. RCRA focuses only on active and proposed facilities, and does not address abandoned or historical sites.

Previous uses of a medical center site may have included activities that generated hazardous materials. Some key examples may include the presence of underground fuel or chemical storage tanks, abandoned chemicals (from laboratory/photo processing/industrial cleaning), medical waste and sharps or residuals from hazmat incidents such as mercury spills in plumbing and under flooring and casework, lamp ballast, mercury lamp disposal and potential PCB contaminated areas. These type of environmental site issues would require a thorough review by an assessment professional and the completion of appropriate Environmental Site Assessments (ESAs).

It is anticipated that for buildings constructed generally before 1978, materials such as asbestos and lead based paint may be present. For renovations and alternations that occur to older buildings, all permitting requirements must be followed in the removal, abatement, and disposal of these materials to ensure exposure is minimized. If the proper procedures are followed during construction, it is not anticipated that additional reviews under NEPA would be required.

3.12.2 Environmental Consequences and Mitigation Measures

Alternative 1 – Interior Alteration/repair/ renovation (existing facility)

During interior renovations there is potential to expose or otherwise affect hazardous wastes or materials typically found in buildings. This may depend on the date of construction and condition of the existing facility; any hazardous materials discovered, generated, or used during renovation would be disposed of and handled in accordance with applicable local, state, and Federal regulations. The applicant would conduct a site investigation in project areas where hazardous materials are suspected or known to be existing on or adjacent to the proposed project area. HRSA and the applicant would coordinate with state and local agencies, and USEPA, on any findings, as appropriate, with results documented in the project's administrative record.

Alternative 2 – Exterior Alteration/repair/ renovation (existing facility)

During exterior renovations, minor ground disturbing activities could expose or otherwise affect subsurface hazardous wastes or materials; any hazardous materials discovered, generated, or used during renovation would be disposed of and handled in accordance with applicable local, state, and Federal regulations. The applicant would conduct a site investigation on project areas where hazardous materials are suspected or known to be existing on or adjacent to the proposed project area. HRSA and the applicant would coordinate with state and local agencies, and USEPA, on any findings, as appropriate, and results would be documented in the project's administrative record.

Alternative 3, 4 and 6 – Addition, new construction, and infrastructure improvements

Additions to existing buildings and new site construction have the potential to generate solid waste through removal of structural and finish building components. Reuse and recycling of solid waste will reduce the impact associated with disposal of wastes generated during construction.

In attaching additions to existing structures or building on locations that were previously used, there is potential to expose or otherwise affect hazardous wastes or materials typically found in the existing building. This may depend on the date of construction and condition of the existing facility. Any hazardous materials discovered, generated, or used during renovation would be disposed of and handled in accordance with applicable local, State, and Federal regulations.

The applicant would need to conduct a site investigation in project areas where hazardous materials are suspected or known to be existing on or adjacent to the proposed project area. HRSA and the applicant would coordinate with State and local agencies, and USEPA, on any findings, as appropriate, with results documented in the project's administrative record.

Alternative 5 – Temporary buildings

There is minimal risk of impacts to hazardous materials or waste from the placement of a temporary building on a site. As defined under this alternative, temporary buildings do not require ground disturbance or construction of a new foundation. Placement of a temporary building on an existing slab, parking lot or other surface should not result in any issues related to hazardous materials or waste.

Alternative 7 – No Action

Alternative 7 would not actively use hazardous materials or generate hazardous wastes, so no impact to this resource is anticipated.

3.13 Noise

3.13.1 Affected Environment

3.13.1.1 Regulatory Setting

Noise can be disruptive to normal activities for people and wildlife. In extreme cases, it can have adverse health effects, such as hearing loss. The location, duration, timing, and frequency of activity give rise to a pattern of noise. The loudness is measured in units called decibels (dB). The loudness of sound as heard by the human ear is measured on the A-weighted decibel (dBA) scale.

Certain land uses, facilities, and the people associated with them are more sensitive to a given level of noise than other uses. Such "sensitive receptors" include schools, churches, hospitals, retirement homes, campgrounds, wilderness areas, hiking trails, and some species of threatened or endangered wildlife.

3 – Environmental Analysis

Machinery and activities during construction and renovation can generate noise. However, construction sites of this size typically do not generate noise levels greater than 90 dBA, and elevated noise levels would be likely to be of short duration. Heavy equipment use tends to be the noisiest phase of construction, but lasts only a short time.

State, local, and tribal regulations will be likely to govern noise levels for normal, day-to-day operations. Traffic generated by the facility and routine machinery or procedures such as lawn mowing may generate noise. Grantees should ensure compliance with any applicable statutes.

3.13.2 Environmental Consequences and Mitigation Measures

Alternative 1 – Interior Alteration/repair/ renovation (existing facility)

Impacts under Alternative 1 are likely to be short term and minor in duration and associated primarily with the physical renovation work. Since construction activity will be more highly restricted to internal areas, noise generation will be minimized to potential sensitive receptors.

Alternative 2 – Exterior Alteration/repair/ renovation (existing facility)

Impacts under Alternative 2 are likely to be short term and minor in duration and associated primarily with the physical renovation work as in Alternative 1, but may be more intense by the nature of construction and renovations occurring in outdoor areas. All work will need to strictly follow local noise ordinances to minimize potential impacts to local areas.

Alternative 3, 4 and 6 – Addition, new construction, and infrastructure improvements

Impacts under Alternative 3, 4 and 6 are likely to be short term and minor in duration and associated primarily with the construction of new structures or building additions and associated site construction and improvements. These impacts may be negatively impact nearby sensitive receptors including the existing medical facility or other close buildings by the nature of the construction and because it would occur in outdoor areas. All work will need to strictly follow local noise ordinances to minimize potential impacts to local areas.

No long-term impacts to noise levels are anticipated from occupation and use of building additions or associated new construction.

Alternative 5 – Temporary buildings

Impacts under Alternative 5 are likely to be short term and minor in duration and associated primarily with the minor construction needed to place a temporary structure on a site. All work will need to strictly follow local noise ordinances to minimize potential impacts to local areas.

No long-term impacts to noise levels are anticipated from occupation and use of temporary buildings.

Alternative 7 – No Action

There will be no physical actions occurring with Alternative 7, so no noise generation will occur.

3.14 Land Use

3.14.1 Affected Environment

3.14.1.1 Regulatory Setting

Land use patterns within communities aid in forming the structure of our built environment. The relationships of land uses to one another can result in community harmony or discord. Local, state, and tribal land use plans exist in many areas of the country, guiding future land use patterns based upon the vision of the local community and leaders. Federal plans govern uses of federal lands and do not have jurisdiction over local decisions.

3.14.2 Environmental Consequences and Mitigation Measures

Alternative 1 – Interior Alteration/repair/ renovation (existing facility)

Alteration of existing medical centers for continued medical use would be consistent with current land use plans in place in communities and with other applicable planning and zoning requirements. With no change in land use, no impacts are anticipated in this area from Alternative 1.

Any zoning changes that would be necessary for the implementation of a project must be reviewed for consistency with existing and surrounding zoning and land-use requirements.

Alternative 2 – Exterior Alteration/repair/ renovation (existing facility)

As with Alternative 1, alteration of existing medical centers for continued medical use would be consistent with current land use plans in place in communities and with other applicable planning and zoning requirements. With no change in land use, no impacts are anticipated in this area from Alternative 2.

Any zoning changes that would be necessary for the implementation of a project must be reviewed for consistency with existing and surrounding zoning and land-use requirements.

Alternative 3, 4 and 6 – Addition, new construction, infrastructure improvements

Additions and site construction projects should be consistent with current land use plans and with other applicable planning and zoning requirements. With no change in land use, no impacts are anticipated in this area from Alternatives 3, 4 or 6.

Any zoning changes that would be necessary for the implementation of a project must be reviewed for consistency with existing zoning and land-use regulations.

3 – Environmental Analysis

Alternative 5 – Temporary buildings

Placement of temporary buildings would not have permanent impacts to land-use or zoning. However, applicants will need to confirm that temporary buildings are allowable under existing zoning and land-use regulations.

Alternative 7 – No Action

The No Action Alternative would provide no funding for renovation or construction, with no potential for changing or impacting land use.

4 Cumulative Impacts

The Council on Environmental Quality's (CEQ) Regulations (40 CFR 1500-1508) implementing the procedural provisions of the National Environmental Policy Act (NEPA) of 1969, as amended (42 USC 4321) defines cumulative effects as:

"the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other action (40 CFR 1508.7)"

Incorporating the principles of cumulative effect analysis into the environmental impact assessment of an action, the following should be addressed:

- Include past, present, and future actions.
- Include all federal, nonfederal, and private actions.
- Focus on each affected resource, ecosystem, and human community.
- Focus on truly meaningful effects.

HRSA has determined that it was not feasible to evaluate program impacts in every community where facilities may be located that would be receiving funding for renovation of medical centers. It is difficult to ascertain potential impacts caused by past, present or future actions when the affected environment is not well defined, such as in this PEA. The diversity of the program funding locations and the dependence upon national level guidance and state, local, and tribal regulations makes characterizing the affected environment problematic, as conditions at any particular medical facility site can vary greatly.

4 – Cumulative Impacts

This page left intentionally blank.

5 Conclusion

This PEA analyzes the environmental impacts of implementing proposed renovation and rehabilitation of buildings and facilities and limited new construction for medical centers in locations throughout the United States

As illustrated in Section 3, the impacts resulting from these changes are likely to be minimal. The six Action Alternatives will generally involve some minor and typically short-term impacts relating to site design and preparation, and construction as part of their scope. These impacts will be generally mitigated by restricting the scope of any ground disturbance not to exceed 8,000 SF without a site specific Environmental Assessment being required. Implementation of State, local, and tribal requirements will mitigate many of these impacts. Additionally, many facilities where projects are implemented will be in neighborhoods or communities where development has already taken place or is taking place, minimizing some of the impacts associated with construction, effects to ecological resources, land use planning, and other resources areas. Finally, HRSA encourages all grantees to employ sustainable design practices that serve to enhance “community sustainability”. This means that where applicable, sustainable construction, facility operations and maintenance practices including incorporation of energy efficient design, selection of environmentally preferred products and commitment to pollution prevention, electronic stewardship and green procurement are encouraged as part of the project design and implementation. These sustainable design components will further reduce long-term cumulative impacts.

As described above, activities relating to the implementation of any of the alternatives will have minimal adverse impacts, largely due to mitigation measures required by state, local, and tribal regulations. Activities examined under each alternative in the Programmatic EA are virtually identical to activities resulting from public and private actions occurring on a regular basis throughout the country. Considering these impacts on a nationwide scale, the cumulative effects of the medical center renovations, both internal and external, will be minimal.

5 – Conclusion

This page left intentionally blank.

6 Mitigation Summary

Table 6-1 outlines mitigation measures that may be required in the process of renovating internal and external portions of medical centers:

Table 6-1.Mitigation Summary

Potential Impact	Mitigation Measure
Impacts to Geology and Soils	Follow all state, local, and tribal regulations related to soil conservation and runoff (such as implementation of BMPS to reduce erosion during construction).
Impacts to Air Quality	Follow all state, local, and tribal regulations regarding construction and operational emissions. Incorporate green technology such as Low VOC materials and energy efficient design.
Impacts to Water Quality	Follow all state, local, and tribal regulations regarding runoff, erosion, and construction management (BMPs) employ Low Impact Development design, focus on landscape solutions
Impacts to Floodplains	Any building must be built to the local floodplain ordinance
Impacts to Wetlands	Avoid any disturbance to wetlands or waters of the U.S.
Impacts to Coastal Zone	State and local authorities could implement appropriate BMPs, such as installing silt fences and revegetating bare soils as part of the permitting process. BMPs and LID technologies should be incorporated as part of building design and construction to reduce the impervious surfaces and associated runoff that may occur when facilities increase their footprint.
Impacts to Vegetation and Wildlife	Most medical centers are located in developed areas, so impacts to critical habitat are unlikely. Impacts to any undisturbed natural areas are to be avoided.
Impact on Historic Qualities or setting of site and/or adjacent site	Ensure compliance with Section 106 requirements for any buildings greater than 50 years old, or buildings less than 50 years old where significant events may have taken place i.e. first successful heart transplant or a former President was treated here, etc.). Identify potential for below ground cultural resources prior to ground disturbing activities.
Impacts to Socioeconomics/Environmental Justice	Outreach will be specifically targeted to any identified affected vulnerable, minority or low income populations to ensure an opportunity for early and meaningful engagement. Impacts for the action alternatives are expected to be positive.
Traffic Delays and Congestion During Construction and Operation	Utilize flaggers on busy roads during construction. Carefully stage equipment and construction worker's cars during construction.
Impacts to Solid and Hazardous Materials and Wastes	If hazardous materials are present or likely, ensure appropriate studies are undertaken to identify location, type, and extent of hazard. Based on results of studies, ensure hazardous materials are dealt with in accordance with federal, state, and local requirements.
Increased Noise Generation	Maintain normal daylight hours for construction. Noise restrictions are generally more stringent at night and on weekends. Comply with state, local, and tribal noise regulations.

6 – Mitigation Summary

Potential Impact	Mitigation Measure
Impact on Surrounding Land Uses	Ensure compliance with local land use, zoning and comprehensive plans, as well as related permit processes and ordinances. Incorporate sustainable design components into project planning and design process.

7 References

HRSA – Capital Improvement Program Announcement Number:HRSA-09-244 Program Guide:URL:<http://www.alphca.com/uploadedFiles/Capital%20Improvement%20Program%20Guidance.pdf>

Center for Environmental Informatics. (CEI). 1998. Soil Information for Environmental Modeling and Ecosystem Management. Internet URL: <http://www.soilinfo.psu.edu>

Federal Emergency Management Agency (FEMA). 2008. FEMA Map Service Center. Internet URL: <http://msc.fema.gov>

NOAA. 1999. Essential Fish Habitat: New Marine Fish Habitat Conservation Mandate for Federal Agencies. Internet URL:<http://www.safmc.net/Portals/0/EFH/EFHMandate.pdf>.

National Park Service. 2007. Internet URL:<http://www.nps.gov/>

National Resource Conservation Service (NRCS). 2008. Farmland Protection Policy Act. Internet URL: <http://www.nrcs.usda.gov/programs/fppa>.

Advisory Council on Historic Preservation. Internet URL: <http://www.achp.gov>.

(EPA 1986) Environmental Protection Agency. "Noise and Your Hearing" pamphlet. 1986.

7 – References

This page intentionally left blank.

8 List of Preparers

Colin Vissering, AICP, CFM
Senior Planner
Masters of Community Planning
University of Maryland

Elizabeth Edelen Estes
Senior Project Manager
M.S., Environmental Management
University of Maryland, University College

Julie Liptak
Graphic Artist
B.S. Graphic Design
University of Cincinnati

8 – List of Preparers

This page intentionally left blank.

9 Glossary

Affected Environment – The region of the impact area. Can include: society as a whole, the public health or safety, and the affected interests; the environment; ecologically critical areas; endangered or threatened species; cultural/historical resources; cumulative impacts; objects listed on the National Register of Historic Places.

Building Permit – A written authorization to an applicant for a specific project allowing him to proceed with construction; granted by the authorized agency, a tribe, or local municipality, having jurisdiction after plans have been filed and reviewed.

Building Restoration – The accurate reestablishment of the form and details of a building, its artifacts, and the site on which it is located, usually as it appeared at a particular time.

Community – People having common rights, privileges, or interests, or living in the same place under the same laws and regulations.

Construction – All the on-site work done in building or altering structures, from land clearance through completion, including excavation, erection, and the assembly and installation of components and equipment.

Cultural Resource – Remains or records of districts, sites, structures, buildings, neighborhoods, objects, and events from the past; may be historic, prehistoric, archeological, or architectural in nature; cultural resources include historic properties as defined by the National Historic Preservation Act, but also include other tangible and intangible resources such as traditional cultural places and practices, folkways, traditions, landscapes, etc.

Cumulative Impacts – Impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Effects resulting from individually minor but collectively significant actions taking place over a period of time.

Design – To compose a plan for a building. The architectural concept of a building as represented by plans, elevations, renderings, and other drawings.

Environmental Assessment (EA) – A document which provides sufficient information on potential environmental effects of the proposed action and, if appropriate, its alternatives, for determining whether to prepare an Environmental Impact Statement or a Finding of No Significance (40 CFR 1508.9).

Environmental Justice – Fair treatment of all races, cultures, incomes, and educational levels with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies, fair treatment implies that no population of people should be forced to shoulder a disproportionate share of the negative environmental impacts of pollution or environmental hazards due to a lack of political or economic strength levels.

Erosion – The wearing down or washing away of soil and land surface by the action of water, wind, or ice.

9 – Glossary

Facility – An individual, grass-roots level Head Start program in a locality or neighborhood.

Finding of No Significant Impact (FONSI) – A brief summary document prepared for a proposed action, not categorically excluded, for which an Environmental Impact Statement will not be prepared (40 CFR 1508.13).

Grantee – An applicant, often a non-profit and community action agency, requesting entry to the Head Start program.

Hydrology – The applied science concerned with the waters of the earth, their occurrences, distribution, and circulation through the unending hydrologic cycle (precipitation, consequent runoff, infiltration, and storage; evaporation; and condensation). In the context of this document, it refers to the overland and subsurface movement of water.

Land Use – The way in which real property is utilized. Examples of land uses include commercial, industrial, residential, or wilderness designations.

Mitigation Measures – Methods or actions to reduce or eliminate adverse program impacts.

No Action Alternative – An alternative to a proposed action that would maintain the status quo.

Ordinance – A law or rule adopted by a local governmental authority.

Programmatic Environmental Assessment (PEA) – An Environmental Assessment describing a large scale (often regional or nationwide) program or activity. A programmatic document frequently will not address site-specific details about the Proposed Action, as the level of detail is considerable.

Property – Any asset, real or personal.

Proposed Action – A desired activity that could potentially change the existing characteristics of the affected environment.

Significant – A measure of the context and intensity of an impact. Context analysis refers to society as a whole, the affected region (of the impact area), the affected interests, and the locality. Intensity refers to the severity of impact. Intensity can be based on: benefit to the environment; effects to public health or safety; proximity to cultural/historical resources, or other ecologically critical areas; public controversy; risk to humans; connection to future project impacts; connection with cumulative impacts; effects to objects listed on the National Register of Historic Places; threat to endangered or threatened species; or violation of a State or local environmental protection law.

Site – An area or plot of ground with defined limits on which a building or project is located or proposed to be located.

Wetland – Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and other similar areas.

10 Environmental Information and Documentation Form (EID)

10 – Environmental Information and Documentation Form

This page intentionally left blank.