

# U.S. FOOD AND DRUG ADMINISTRATION MUIRKIRK ROAD CAMPUS MASTER PLAN

# Final Environmental Impact Statement

March 2023

Prepared by:

GSA

In cooperation with:



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### FDA Muirkirk Road Campus Master Plan

### **Final Environmental Impact Statement**

Responsible Agency: U.S. General Services Administration National Capital Region 1800 F Street, NW Washington, DC 20405

# In cooperation with the U.S. Food and Drug Administration

The U.S. General Services Administration (GSA) and the U.S. Food and Drug Administration (FDA) are studying the potential impacts that would result from the implementation of a Master Plan to accommodate future growth and further consolidate FDA operations at the Muirkirk Road Campus (MRC) in Laurel, Maryland. The Master Plan would provide a framework for development at the MRC to accommodate up to 1,800 FDA employees and support staff. This Final Environmental Impact Statement (EIS) analyzes the impacts of the No-Action Alternative and three Action Alternatives.

Questions or comments on the Final EIS should be addressed to:

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Written comments on the Final EIS must be postmarked by May 8, 2023.

If you wish to comment on the Final EIS, you may submit comments via electronic mail (email) or directly by mail. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made public at any time. While you may request in your comment that your personal identifying information be withheld from public review, we cannot guarantee that we will be able to do so.

GSA on behalf of FDA has prepared this Final EIS to assess impacts of the proposed Master Plan at the MRC. The No-Action Alternative and three Action Alternatives are studied in detail in this Final EIS. The EIS has been prepared pursuant to:

- The National Environmental Policy Act of 1969 (NEPA);
- Council on Environmental Quality (CEQ) regulations to implement NEPA contained in 49 Code of Federal Regulations (CFR) §§ 1500 to 1508; and
- Public Buildings Service National Environmental Policy Act (PBS) NEPA Desk Guide (GSA, October 1999).

# PURPOSE OF THE PROPOSED ACTION

The purpose of the proposed Master Plan is to provide FDA with a structured framework for developing the MRC West Parcel over the next 20 years in a manner that maximizes the site's development potential and accommodates all relevant physical, cultural, environmental, historic, transportation, and regulatory considerations in a cost-effective way. FDA is projecting an increase in employees and campus support staff at the MRC West Parcel and will need additional office/laboratory space and shared use space in order to conduct complex research and comprehensive reviews. There are currently 300 FDA employees at the MRC West Parcel. The Master Plan is being prepared to guide the development to accommodate a total of 1,800 employees. Over the next five years, the existing population of 300 employees is expected to remain the same. The projected population growth for FDA is an additional 1,332 employees during future development phases. The growth includes funded staff vacancies, existing employees currently in other leased spaces in suburban Maryland outside the MRC West Parcel, FDA support staff, and future expansion.

The proposed action assessed in this document is the implementation of a Master Plan for FDA, to include the following:

- Development of up to approximately 438,000 gross square feet (gsf), which includes up to approximately 375,000 gsf of additional office and laboratory space and up to 63,000 gsf of special use space to support FDA's mission for a total of up to 918,000 gsf at the MRC West Parcel
- Parking would be provided at a ratio of one space for every two employees (1:2) for a total of 900 parking spaces for FDA employees and campus support staff
- 80 surface parking spaces for visitors

# NEED FOR THE PROPOSED ACTION

A Master Plan is needed to accommodate projected growth and to continue to support FDA's consolidation in order to conduct complex and comprehensive research and reviews. The MRC Master Plan will steer the planning, design, and construction of new buildings; improvements to roadways, utilities, and other infrastructure; and the protection of natural areas. To accommodate this increase in personnel, GSA and FDA are studying ways to expand office space at the MRC West Parcel. Comments received on the Draft and Final EIS and through consultation with Federal, state, and county agencies will help to inform consolidation decisions and how future development will occur at the MRC West

Parcel. This decision would be documented in a Record of Decision (ROD). The ROD would outline the selected alternative for the Master Plan and describe measures the Government would take to reduce impacts from implementation of the Master Plan.

## ALTERNATIVES ANALYZED

### **NO-ACTION ALTERNATIVE**

NEPA requires GSA and FDA to consider the No-Action Alternative because it provides a baseline for evaluating the environmental impacts of the Master Plan Alternatives. The No-Action Alternative provides a comparison of each of the Master Plan Alternatives in relation to current operations.

Under the No-Action Alternative, a new MRC Master Plan would not be adopted, and FDA would continue its current operations at the MRC West Parcel. The site would continue to be occupied by the Center for Veterinary Medicine (CVM) and Center for Food Safety and Applied Nutrition (CFSAN) support staff. No new office, laboratory, or special use facilities would be constructed, and the number of employees and support staff would remain at 300.

At present, the MRC West Parcel is home to:

- 480,000 gsf office and laboratory space
- 300 assigned personnel to the MRC West Parcel
- Approximately 40 visitors per day
- 32 acres of pastures
- 320 parking spaces for employees, support staff, and visitors (all surface parking)

FDA would continue to operate at several locations within the region to accommodate its employees and support staff to continue to fulfill its mission. Any additional FDA employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The housing of employees outside the MRC West Parcel would continue to result in inefficiencies in coordination of work products and in use of administrative, management, and technical support functions. It should be noted that the No-Action Alternative does not meet the purpose and need of the proposed Master Plan.

### **ACTION ALTERNATIVES**

Each of the MRC Master Plan Action Alternatives would provide up to a total of 918,000 gsf of building space **(Table E- 1)**. The existing Module 1 (MOD 1) and Module 2 (MOD 2) buildings totaling 480,000 gsf would be retained, and up to 438,000 gsf of new office/laboratory buildings and special use space would be constructed. Special use space would include cafeterias, fitness centers and conference spaces. Ancillary structures would include a guard booth, visitor center, truck screening facility, structured parking garages, and a storage/maintenance building. Each of the Master Plan Action Alternatives would add 1,500 new employees and support staff and approximately 207 visitors per day would be anticipated. The Master Plan includes 900 parking spaces for employees and support staff), and 80 parking spaces for visitors, for a total of 980

### NO-ACTION ALTERNATIVE SUMMARY

- 480,000 gsf of office and laboratory space
- 300 assigned personnel
- Approximately 40 visitors per day
- 32 acres of pastures
- 320 surface parking spaces for employees, support staff, and visitors

parking spaces. Each of the Action Alternatives would add a new entry gate at Odell Road and assumes the back road entrance for emergency and special access would remain. Each Action Alternative emphasizes connectivity and walkability and envisions underground service corridors and skybridges between existing and new buildings. Tree cover would be maintained, and environmental disturbances would be minimized to include a 100-foot vegetation buffer along the perimeter and a 300-foot buffer along the western perimeter. Bioswales, green roofs, and green façades adjacent to parking garages would be provided.

Impacts for each alternative are summarized in Table E-2.

|   | No-Action<br>Alternative | Action Alternatives<br>A & C | Action Alternative<br>B |
|---|--------------------------|------------------------------|-------------------------|
| Existing Office/Laboratory Space to be retained (gsf) | 480,000                  | 480,000                      | 480,000                 |
| Proposed Office Space (gsf)                           |                          | 375,000                      | 184,500                 |
| Proposed Laboratory Space (gsf)                       |                          | 0                            | 168,000                 |
| Special Use Space (gsf)                               |                          | 63,000                       | 30,800                  |
| Employees   | 300                      | 1,800                        | 1,800                   |
| Total Employee Parking*                               | 320**                    | 900                          | 900                     |
| Total Visitor Parking*                                |                          | 80                           | 80                      |

\*New parking includes replacement of existing parking displaced by new buildings.

\*\* Includes both employee and visitor parking

### Alternative A – Compact Campus

Development would be concentrated near the MOD 1 and MOD 2 buildings, and new buildings would be placed to the north and west of the MOD 1 and MOD 2 buildings under Alternative A. A strategically positioned atrium would allow for a view from the main entry, through the new building, into the forested stream valley at the center of the campus.

Alternative A would include two new office buildings up to five to six stories tall adjacent to the existing MOD 1 and MOD 2 buildings (**Figure E-1**). The existing surface parking lot west of MOD 1 would be replaced with a new building. The new building north of MOD 1 would be visible from the main entrance at Muirkirk Road. However, most of the building volume would be screened by forested areas that form the perimeter landscape buffer. Two new three-story parking garages would be located at the BRF portion of the site, east of MOD 1, and would contain 900 parking spaces. Eighty surface parking spaces would be provided for visitors north of MOD 1. An elevated boardwalk

### **ALTERNATIVE A SUMMARY**

- 375,000 gsf of office space in two new buildings
- Office buildings up to 5- to 6-stories tall
- 63,000 gsf of new special use spaces
- Two new 3-story parking garages with 900 spaces
- 80 surface parking spaces for visitors
- Elevated boardwalk & skybridge bridges



would be constructed within the natural landscape amenity space east of the MOD 1 and MOD 2 buildings. Two pedestrian skybridges would connect MOD 1 to the new buildings to the north and west.

### Figure E-1. Alternative A – Compact Campus

### Alternative B – Dual Campus (Preferred Alternative)

Due to HHS's new workplace strategy – 21st Century Workplace Space Planning Policy (FDA, 2022) and the additional need for laboratory space, the Design Team refined Alternative B which considered siting, massing, and conceptual design of the new buildings. While the program is different than in the Draft EIS, the development under this Alternative is relatively the same as analyzed in the Draft EIS. Development would continue to be distributed between the MOD 1 and MOD 2 buildings and the BRF site. A four-story laboratory building has been included and the building has been split into two to create a view corridor into the woodlands as you enter the site off Muirkirk Road.

With Alternative B, a new two-story annex building would be constructed adjacent to the MOD 2 building. The annex building

### **ALTERNATIVE B SUMMARY**

184,500 square feet of office space to 5-stories tall

168,000 square feet of laboratory space up to 4-stories tall

30,800 sf of new special use spaces

10,000 sf of maintenance/ storage space (shared space)

Two new parking garages with 900 spaces & 80 surface parking spaces for visitors

**Elevated boardwalk** 

would be used to accommodate both staff from the BRF and from the renovation occurring within MOD 2. This alternative includes the removal of the existing surface parking lot next to MOD 1 and the construction of a small parking structure with 235 spaces. A maintenance/storage building adjacent to the new parking garage would also be constructed. Two new laboratory buildings up to four stories tall would be constructed to the northeast of MOD 1 (**Figure E-2**). The BRF buildings would be demolished after the new laboratory buildings are completed. Two new office buildings up to five-stories tall would be constructed on the BRF site. A skybridge would connect the laboratory buildings with the office buildings. A second parking garage with 665 spaces would be constructed at the BRF site. Eighty surface parking spaces would also be provided for visitors. An elevated boardwalk would be constructed within the natural landscape amenity space east of the MOD 1 building. Alternative B would also include space for shared use including a conference center, cafeteria, and fitness center.

Similar to Alternative A, the new laboratory building north of MOD 1 would be visible from the main entrance at Muirkirk Road. However, most of the building volume would be screened by forested areas that form the perimeter landscape buffer.



Figure E-2. Alternative B – Dual Campus (Preferred Alternative)

### Alternative C – Northeast Campus

Development under Alternative C would be distributed at the BRF. The new buildings would barely be visible from the main entrance at Muirkirk Road as most of the building volume would be screened by forested areas that form the perimeter landscape buffer. The forested stream valley at the center of the campus would be visible.

With Alternative C, the MOD 1 and MOD 2 buildings would remain. Alternative C includes two new connected office buildings that would be up to five stories tall at the BRF (**Figure E-3**). Two new parking garages up to three stories tall would be constructed to the east of the new buildings at the BRF. The three-story parking garages would contain a total of 750 parking spaces and 230 surface parking spaces would also be provided. Of the 230 surface parking spaces, the surface parking adjacent to MOD 1 and MOD 2 include 150 spaces and 80 surface parking spaces would be

#### **ALTERNATIVE C SUMMARY**

- 375,000 square feet of office space up to 5-stories tall
- 63,000 sf of new special use spaces
- Two new 3-story parking garages with 750 spaces
- 230 surface parking spaces for employees and visitors
- Elevated boardwalk and skybridge

provided adjacent to the repurposed BRF building. A portion of the existing surface parking lot adjacent to the MOD 1 and MOD 2 buildings would be returned to natural landscape. An elevated boardwalk would be constructed within the natural landscape amenity space east of the MOD 1 and MOD 2 buildings. A skybridge would connect the two new buildings. Alternative C would repurpose the existing BRF building for a security screening area.



Figure E-3. Alternative C - Northeast Campus

# SUMMARY OF ENVIRONMENTAL IMPACTS

Potential impacts associated with each of the alternatives are assessed in this Final EIS. A comparison of these impacts for each alternative is provided below. Detailed information on impacts is located in Chapter 4, Affected Environment and Environmental Consequences.

### Table E- 2. Comparison of Impacts

| Resource                                    | No-Action<br>Alternative   | Alternative A –<br>Compact Campus   | Alternative B – Dual Campus<br>(Preferred Alternative)  | Alternative C – Northeast<br>Campus   |
|---|--|---|---|---|
| Soils and Topography<br>(Section 4.3)       | No site grading or<br>construction<br>Negligible, short-<br>term, adverse<br>impacts from soils<br>disturbance | Moderate, long-term,<br>adverse impacts to<br>topography<br>Moderate long-term,<br>adverse impacts to soils<br>Disturbance of 7.8 acres of<br>soil by demolition<br>Excavation of 22.7 acres of<br>soils.<br>Removal of 48,000 cubic<br>yards of soil for below-<br>grade construction<br>Total steep slopes<br>impacted is 1.5 acres | Moderate, long-term, adverse impacts<br>to topography<br>Moderate, long-term, adverse impacts<br>to soils<br>Disturbance of 7.9 acres of soils by<br>demolition<br>Excavation of 21.2 acres of soils<br>Removal of 76,000 cubic yards of soils<br>for below-grade construction<br>Total steep slopes impacted is 1.4<br>acres | Moderate, long-term,<br>adverse impacts to<br>topography<br>Moderate long-term,<br>adverse impacts to soils<br>Disturbance of 5.2 acres of<br>soil by demolition<br>Excavation of 20.2 acres of<br>soils.<br>Removal of 23,000 cubic<br>yards of soil for below-<br>grade construction<br>Total steep slopes<br>impacted is 1.2 acres |
| Groundwater &<br>Hydrology (Section<br>4.4) | No increase in<br>impervious surface<br>No additional<br>impacts from<br>groundwater<br>intrusion              | Minor, short-term, adverse<br>impact from the potential<br>to intercept the<br>groundwater table from<br>construction of buildings<br>Minor, long-term, adverse<br>impact from groundwater<br>infiltration  | Minor, short-term, adverse impact<br>from the potential to intercept the<br>groundwater table from construction<br>of buildings<br>Minor, long-term adverse impact from<br>groundwater infiltration<br>Minor, long-term impact from<br>increase in impervious surfaces  | Minor, short-term, adverse<br>impact from the potential<br>to intercept the<br>groundwater table from<br>construction of buildings<br>Minor, long-term, adverse<br>impact from groundwater<br>infiltration  |

| Resource                         | No-Action<br>Alternative | Alternative A –<br>Compact Campus   | Alternative B – Dual Campus<br>(Preferred Alternative)  | Alternative C – Northeast<br>Campus   |
|----------------------------------|--------------------------|---|---|---|
|                                  |                          | Minor, long-term, adverse<br>impact from increase in<br>impervious surfaces<br>Increase in impervious<br>surface by 9.7 acres<br>Net increase of 2.8 acres of<br>impervious surfaces which<br>creates a 2.6% increase in<br>impervious surfaces   | Increase in impervious surface by 7.2<br>acres<br>Net increase of 4.7 acres of<br>impervious surfaces which creates 4.4<br>% increase in impervious surface   | Minor, long-term, adverse<br>impact from increase in<br>impervious surfaces<br>Increase in impervious<br>surface by 9.5 acres<br>Net increase of 4.8 acres<br>of impervious surfaces<br>which creates a 4.5 %<br>increase in impervious<br>surfaces   |
| Water Resources<br>(Section 4.5) | No impacts               | Moderate, short-term,<br>adverse impacts to<br>wetlands<br>Moderate, long-term,<br>adverse impacts to water<br>resources from elevated<br>boardwalk<br>0.06 acres wetlands, 0.25<br>acres of wetland buffers,<br>246 linear feet of streams,<br>and 0.59 acres of SVBs<br>impacted during<br>construction<br>0.05 acres of permanent<br>impacts to wetlands and<br>wetland buffers, 0 If of<br>permanent stream, and<br>0.11 acres of permanent<br>SVBs and impacts | No impacts to wetlands<br>No impacts to water resources from<br>elevated boardwalk<br>0.0 acres of wetlands and 0.05 acres<br>of wetland buffer, and 0.04 acres of<br>SBVs impacted during construction<br>Permanent impacts to 0.01 acres of<br>wetland buffers and 0.02 acres SVBs,<br>and 0.0 impacts to wetlands and<br>streams | Moderate, short-term,<br>adverse impacts to<br>wetlands<br>Minor, long-term, adverse<br>impacts to water resources<br>from elevated boardwalk<br>0.17 acres wetlands, 0.18<br>acres of wetland buffers,<br>68 linear feet of streams,<br>and 0.40 acres of SVBs<br>impacted during<br>construction<br>Permanent impacts to 0.05<br>acres of wetlands, 0.04<br>acres wetland buffers, 68 lf<br>of streams, and 0.08 acres<br>of SVBs |

| Resource                    | No-Action<br>Alternative  | Alternative A –<br>Compact Campus   | Alternative B – Dual Campus<br>(Preferred Alternative)  | Alternative C – Northeast<br>Campus  |
|-----------------------------|---|---|---|--|
| Stormwater (Section<br>4.6) | Stormwater quantity<br>provided by 4<br>stormwater<br>detention ponds<br>10.7 acres of<br>impervious surface<br>Drainage<br>improvements would<br>minimize stormwater<br>runoff | Addition of 9.7 acres of<br>impervious surface<br>Removal of 6.9 acres of<br>existing impervious surface<br>Net increase of 2.8 acres of<br>impervious surface<br>2.6 % increase in total<br>impervious surface at the<br>MRC West Parcel<br>Minor, long-term, adverse<br>impact from increase in<br>impervious surface<br>Minor, long-term, adverse<br>impacts from stormwater | Addition of 7.2 acres of impervious<br>surface<br>Removal of 2.5 acres of existing<br>impervious surface<br>Net increase of 4.7 acres of<br>impervious surface<br>4.4% increase in total impervious<br>surface at the MRC West Parcel<br>Minor, long-term, adverse impact<br>from increase in impervious surface<br>Minor, long-term adverse impacts<br>from stormwater<br>Minor, short-term adverse impacts<br>from construction         | Addition of 9.5 acres of<br>impervious surface<br>Removal of 4.7 acres of<br>existing impervious surface<br>Net increase of 4.8 acres<br>of impervious surface<br>4.5 % increase in total<br>impervious surface at the<br>MRC West Parcel<br>Minor, long-term, adverse<br>impact from increase in<br>impervious surface<br>Minor, long-term, adverse<br>impacts from stormwater      |
|                             |   | Minor, short-term, adverse impacts from construction  |   | Minor, short-term, adverse impacts from construction   |
| Vegetation (Section<br>4.7) | No impacts to<br>vegetation   | Temporary impacts to 5.3<br>acres of lawn and 0.9 acres<br>to primary management<br>areas (PMA)<br>Permanent impacts to 3.5<br>acres of lawn, 4.8 acres of<br>forest, 40 specimen trees,<br>and 0.2 acres of PMAs<br>Moderate, short-term,<br>adverse impacts during<br>construction<br>Minor, long-term, adverse<br>impacts from the elevated<br>boardwalk                     | Temporary impacts to 4.8 acres of<br>lawn and 0.1 acres to PMAs<br>Permanent impacts to 4.4 acres of<br>lawn, 5.2 acres of forest, 38 specimen<br>trees and less than 0.1 acres of PMAs<br>28 specimen trees to be removed and<br>replaced<br>Moderate, short-term, adverse<br>impacts during construction<br>Negligible, long-term, adverse impacts<br>from the elevated boardwalk<br>Minor, long-term, adverse impacts to<br>vegetation | Temporary impacts to 4.4<br>acres of lawn and 0.6 acres<br>to PMAs<br>Permanent impacts to 4.1<br>acres of lawn, 4.8 acres of<br>forest, 47 specimen trees,<br>and 0.1 acres of PMAs<br>Moderate, short-term,<br>adverse impacts during<br>construction<br>Minor, long-term, adverse<br>impacts from the elevated<br>boardwalk<br>Minor, long-term, adverse<br>impacts to vegetation |

| Resource                                     | No-Action<br>Alternative  | Alternative A –<br>Compact Campus   | Alternative B – Dual Campus<br>(Preferred Alternative)   | Alternative C – Northeast<br>Campus   |
|--|---|---|--|---|
|  |   | Minor, long-term, adverse impacts vegetation  |  |   |
| Wildlife (Section 4.8)                       | No impacts to<br>wildlife or wildlife<br>habitat                            | Minor, short-term, adverse i<br>Minor, long-term, adverse in<br>Minor, short- and long-term,<br>Minor, short- and long-term,<br>Minor, long-term, adverse in                                | mpacts to wildlife during construction<br>npact to wildlife<br>adverse impacts to migratory birds<br>adverse impacts to aquatic wildlife<br>npacts from loss of habitat                                  |   |
| Coastal Zone<br>Management (Section<br>4.9)  | Consistent with<br>Maryland's coastal<br>zone management<br>policies        | Negligible, long-term, advers<br>Consistent with Maryland's o   | e impact to the coastal zone<br>coastal zone management policies   |   |
| Cultural Resources<br>(Section 4.10)         | No impacts to cultural  | resources   |  |   |
| Viewsheds (Section<br>4.11)                  | No impacts to<br>viewsheds  | New building north of<br>MOD 1 would be visible<br>from main entrance<br>Most building volume<br>would be screened by<br>forested areas<br>Minor, long-term, adverse<br>impact to viewsheds | New laboratory buildings north of<br>MOD 1 would be visible from the<br>main entrance<br>Most building volume would be<br>screened by forested areas<br>Minor, long-term, adverse impact to<br>viewsheds | No discernable changes to<br>viewsheds<br>New buildings would be<br>visible from main entrance<br>Building heights would be<br>taller than existing BRF<br>Negligible, long-term,<br>adverse impact to<br>viewsheds |
| Land Use Planning &<br>Zoning (Section 4.12) | Negligible, long-term,<br>adverse impact to<br>Federal land use<br>planning | No impacts land use planning<br>Action Alternatives would be<br>Action Alternatives would su  | g and zoning<br>e consistent with NCPC's <i>Comprehensive F</i><br>pport Prince George's County's Subregion  | Plan for the National Capital<br>n 1 Master Plan  |
| Community Facilities<br>(Section 4.13)       | No impacts to community facilities  | Negligible, long-term, advers   | e impacts  |   |

| Resource                                    | No-Action<br>Alternative  | Alternative A –<br>Compact Campus   | Alternative B – Dual Campus<br>(Preferred Alternative)  | Alternative C – Northeast<br>Campus  |
|---|---|---|---|--|
| Safety and Security<br>(Section 4.14)       | No impacts to safety<br>and security of the<br>MRC West Parcel<br>No increases in<br>demand in calls for<br>police, fire, and EMS   | Negligible, long-term, advers<br>response that would not be o<br>Enhanced security measures<br>visitors   | e impacts from a non-discernable increas<br>discernable<br>would provide beneficial impacts to emp  | e in number of calls for police<br>loyees, support staff, and                  |
| Economy and<br>Employment (Section<br>4.15) | Minor, long-term,<br>adverse impacts to<br>the local or regional<br>economy<br>Minor, long-term,<br>adverse impacts to<br>employment<br>No impacts to taxes<br>and revenue  | Short- and long-term benefic<br>Short- and long-term benefic<br>Short- and long-term benefic  | ial impacts to the regional economy<br>ial impacts from an increase in employm<br>ial impacts from an increase in taxes   | ent and personal income  |
| Environmental Justice<br>(Section 4.16)     | No adverse impacts<br>to environmental<br>justice communities   | No disproportionate adverse   | impacts to low-income, minority, resider  | nts, elderly, or children  |
| Air Quality (Section<br>4.17)               | Moderate, long-<br>term, adverse<br>impacts from traffic<br>Conforms to the<br>Washington<br>Metropolitan Region<br>SIP<br>Replacement of<br>existing air handling<br>units would<br>beneficially impact<br>air quality | Negligible, short- and long-te<br>Negligible, short-term, adver<br>Negligible, long-term, advers<br>No exceedance of the 1-hour<br>Minor, long-term, adverse im<br>regulations designed to redu<br>Minor, long-term, adverse im | rrm, adverse impacts to air quality<br>se impacts to air quality from constructio<br>e impact from an increase in natural gas<br>or 8-hour National Ambient Air Quality S<br>apact from Mobile Air Source Toxic (MSA<br>ce MSAT emissions<br>apacts from an increase in stationary sour | n<br>use<br>Standards for carbon monoxide<br>T) emissions due to USEPA<br>rces |

| Resource   | No-Action<br>Alternative  | Alternative A –<br>Compact Campus  | Alternative B – Dual Campus<br>(Preferred Alternative)  | Alternative C – Northeast<br>Campus                       |
|--|---|--|---|---|
|  | Mobile source air<br>emissions would<br>remain at current<br>levels   |  |   |   |
| Greenhouse Gas and<br>Climate Change<br>(Section 4.18) | No new increases to<br>greenhouse gas<br>(GHG) emissions  | GHG emissions would result<br>Minor, long-term, adverse in<br>Natural gas heating and sma<br>slightly discernable                | in negligible, short-term, adverse impacts<br>npacts as a result of GHG emissions<br>I boilers/generators would contribute to             | s<br>climate change that would be                         |
| Noise (Section 4.19)                                   | Negligible, long-term,<br>adverse impact from<br>an increase in noise<br>levels that would not<br>be discernable  | Minor, short-term, adverse in<br>Negligible, long-term, advers<br>West Parcel  | mpact during construction from an increa<br>e impacts from an increase in traffic and   | ase in noise levels<br>operation of facilities at the MRC |
| Traffic and<br>Transportation<br>(Section 4.20)        | Minor, long-term,<br>adverse impacts from<br>traffic in the vicinity<br>of the MRC West<br>Parcel<br>No impacts to the<br>local transit network   | Moderate, long-term, advers<br>Moderate, long-term, impact<br>Negligible, long-term, advers<br>Beneficial impacts to pedest      | e impacts after the implementation of Pł<br>: after implementation of Phase 3 Master<br>e impact to local transit<br>·ian and bicyclists  | nase 2 of the Master Plan<br><sup>-</sup> Plan            |
| Utilities (Section 4.21)                               | Beneficial impacts<br>from the<br>replacement of the<br>substation, cooling<br>towers, air handling<br>units, generators,<br>and the back-flow<br>preventer at Muirkirk<br>Road; and upgrade to<br>the Building | Negligible, short-term, adver<br>Negligible, long-term, advers<br>Negligible, long-term, advers<br>Negligible, long-term, advers | se impacts to utility services<br>e impacts to water service<br>e impacts to sewer service<br>e impacts to electrical, natural gas, and t | elecom services   |

| Resource   | No-Action<br>Alternative  | Alternative A –<br>Compact Campus  | Alternative B – Dual Campus<br>(Preferred Alternative)                                  | Alternative C – Northeast<br>Campus |
|--|---|--|---|-------------------------------------|
|  | Automation System at MOD 2.   |  |   |                                     |
| Environmental<br>Contamination<br>(Section 4.22) | Beneficial impacts<br>from the<br>replacement of the<br>substation, air<br>handling units, and<br>generators  | Minor, long-term, adverse in<br>landfills<br>Beneficial, long-term impacts | npact for a slight detectable increase of e<br>s from the removal of hazardous material | nvironmental contaminants to        |
| Waste Management<br>(Secton 4.23)                | Minor, short-term,<br>adverse impact from<br>construction for new<br>and ongoing projects<br>at the MRC West<br>Parcel<br>Minor, long-term,<br>adverse impact | Minor, short-term, adverse in<br>Minor, long-term, adverse in              | mpact from construction<br>npact from an increase in waste generate                     | d at the MRC West Parcel            |

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- Appendix E Transportation Impact Study
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| Acronym | Full Name   |
|---------|---|
| µg/m³   | Micrograms per cubic meter of air                                     |
| AADT    | Annual Average Daily Traffic  |
| AAI     | All Appropriate Inquiries   |
| AAWDT   | Annual Average Weekday Traffic  |
| Ac      | Acre  |
| АСНР    | Advisory Council on Historic Preservation                             |
| ACM     | Asbestos Containing Material  |
| AHU     | Air Handling Unit   |
| APE     | Area of Potential Effect  |
| AST     | Above-ground Storage Tank   |
| BARC    | Beltsville Agricultural Research Center                               |
| BEP     | Bureau of Engraving and Printing                                      |
| BER     | Business Environmental Risks  |
| BG      | Block Group   |
| BMP     | Best Management Practice  |
| BRF     | Beltsville Research Facility  |
| CAA     | Clean Air Act   |
| CAC     | Critical Area Commission  |
| CcC     | Christiana-Downer complex   |
| CERCLA  | Comprehensive Environmental Response, Compensation, and Liability Act |
| CEQ     | Council on Environmental Quality                                      |
| CFR     | Code of Federal Regulations   |

| Acronym  | Full Name   |
|----------|---|
| CFSAN    | Center for Food Safety and Applied Nutrition          |
| СМР      | Corrugated Metal Pipe                                 |
| СО       | Carbon Monoxide                                       |
| COMAR    | Code of Maryland Regulation                           |
| СТ       | Census Tract  |
| CVM      | Center for Veterinary Medicine                        |
| CWA      | Clean Water Act                                       |
| су       | Cubic yard  |
| CZMA     | Coastal Zone Management Act                           |
| dB       | Decibel   |
| dB(A)    | A-weighted Decibel                                    |
| DIP      | Ductile Iron Pipe                                     |
| DoC      | Downer- Hamonton Complex                              |
| DOT      | Department of Transportation                          |
| DPIE     | Department of Permitting, Inspections and Enforcement |
| DPW      | Department of Public Works                            |
| EDR      | Environmental Data Resources                          |
| EIS      | Environmental Impact Statement                        |
| EISA     | Energy Independence and Security Act                  |
| EJ IWG   | Environmental Justice Interagency Working Group       |
| EJSCREEN | Environmental Justice Screening and Mapping Tool      |
| EMS      | Emergency Medical Services                            |
| EO       | Executive Order                                       |
| ESA      | Environmental Site Assessment                         |

| Acronym | Full Name  |
|---------|--|
| ESC     | Erosion and Sediment Control                         |
| ESD     | Environmental Site Design                            |
| EwB     | Evesboro-Downer complex, 0 to 5 percent slopes       |
| EwC     | Evesboro-Downer complex, 5 to 10 percent slopes      |
| EwD     | Evesboro-Downer complex, 10 to 15 percent slopes     |
| EwE     | Evesboro-Downer complex, 15 – 25 percent slopes      |
| FDA     | U.S. Food and Drug Administration                    |
| FEMA    | Federal Emergency Management Agency                  |
| FHWA    | Federal Highway Administration                       |
| FIRM    | Flood Insurance Rate Map                             |
| FPS     | Federal Protective Service                           |
| FRC     | Federal Research Center                              |
| FY      | Fiscal Year  |
| GbD     | Galestown-Urban Land complex, 5 to 15 percent slopes |
| GbG     | Galestown-Urban Land complex, 0 to 5 percent slopes  |
| GHG     | Greenhouse Gas                                       |
| GIS     | Geographic Information Systems                       |
| GSA     | U.S. General Services Administration                 |
| gsf     | Gross square feet                                    |
| HDPE    | High-Density Polyethylene                            |
| HREC    | Historical Recognized Environmental Concerns         |
| HVAC    | Heating, Ventilation, Air Conditioning               |
| ICC     | Intercounty Connector                                |
| IPaC    | Information for Planning and Consultation            |

| Acronym           | Full Name  |
|-------------------|--|
| ISC               | Interagency Security Committee   |
| ITE               | Institute of Transportation Engineers  |
| I-TMS             | Internet Traffic Monitoring System   |
| Кν                | Kilovolt   |
| kW                | Kilowatt   |
| LBP               | Lead-based Paint   |
| LEED <sup>®</sup> | Leadership in Energy and Environmental Design                                |
| lf                | Linear feet  |
| LID               | Low Impact Development   |
| LOF               | Letter of Findings   |
| LOS               | Level of Service   |
| LUFS              | Land Use Feasibility Study   |
| MAGLEV            | Magnetic Levitation Train  |
| MARC              | Maryland Area Regional Commuter  |
| MDE               | Maryland Department of the Environment                                       |
| MDNR              | Maryland Department of Natural Resources                                     |
| MDOT              | Maryland Department of Transportation  |
| MDOT SHA          | Maryland Department of Transportation State Highway<br>Administration        |
| MDOT TDSD         | Maryland Department of Transportation Traffic Development & Support Division |
| MDSPGP-5          | Maryland State Programmatic General Permit – 5                               |
| MGS               | Maryland Geological Survey   |
| МНТ               | Maryland Historical Trust  |
| MMT               | Million Metric Tons  |
|                   | FINAL ENVIRONMENTAL IMPACT STATEMENT   FDA MUIRKIRK ROAD CAMPUS MASTER PLAN  |

| Acronym               | Full Name                                       |
|-----------------------|---|
| M-NCPPC               | Maryland-National Capital Park and Planning     |
| MOD 1                 | Module 1  |
| MOD 2                 | Module 2  |
| MRC                   | Muirkirk Road Campus                            |
| MSAT                  | Mobile Source Air Toxic                         |
| msl                   | Mean Sea Level                                  |
| MS4                   | Municipal Separate Storm Sewer System           |
| ΜΤΑ                   | Maryland Transit Administration                 |
| MWCOG                 | Metropolitan Washington Council of Governments  |
| NAC                   | Noise Abatement Criteria                        |
| NAAQS                 | National Ambient Air Quality Standards          |
| NCPC                  | National Capital Planning Commission            |
| NCR                   | National Capital Region                         |
| NEPA                  | National Environmental Policy Act               |
| NHPA                  | National Historic Preservation Act              |
| NO <sub>2</sub>       | Nitrogen Dioxide                                |
| NOI                   | Notice of Intent                                |
| NPDES                 | National Pollutant Discharge Elimination System |
| NRHP                  | National Register of Historic Places            |
| <b>O</b> <sub>3</sub> | Ozone   |
| ОСР                   | Oil Control Program                             |
| ОМВ                   | Office of Management and Budget                 |
| OSHA                  | Occupational Safety and Health Administration   |
| Pb                    | Lead  |

| Acronym           | Full Name  |
|-------------------|--|
| PBS               | Public Buildings Service   |
| РСВ               | Polychlorinated Biphenyls  |
| PEM               | Palustrine Emergent  |
| PEPCO             | Potomac Electric Power Company                                       |
| PFO               | Palustrine Forested  |
| PGCPS             | Prince George's County Public Schools                                |
| PM <sub>2.5</sub> | Particulate Matter – particles in diameter less than 2.5 micrometers |
| PM <sub>10</sub>  | Particulate Matter – particles in diameter less than 10 micrometers  |
| РМА               | Primary Management Area  |
| POR               | Program of Requirements  |
| POW               | Palustrine Open Water  |
| ppb               | parts per billion  |
| ррт               | parts per million  |
| PVC               | Polyvinyl Chloride   |
| RCP               | Reinforced Concrete Pipe   |
| RCRA              | Resource Conservation and Recovery Act                               |
| REC               | Recognized Environmental Concern                                     |
| RMP               | Risk Management Plan   |
| ROD               | Record of Decision   |
| ROS               | Reserved Open Space  |
| RTA               | Regional Transportation Agency of Central Maryland                   |
| RuB               | Russett-Christiana-Urban Land complex, 0 to 5 percent slopes         |
| sf                | square feet  |
| SHPO              | State Historic Preservation Office                                   |
### ACRONYMS

| Acronym         | Full Name   |  |  |  |  |
|-----------------|---|--|--|--|--|
| SIP             | State Implementation Plan                                 |  |  |  |  |
| SITES™          | Sustainable Sites Initiative™                             |  |  |  |  |
| SO <sub>2</sub> | Sulfur Dioxide  |  |  |  |  |
| SOD             | Sassafras and Croom soils, 10 to 15 percent slopes        |  |  |  |  |
| SOV             | Single Occupancy Vehicle                                  |  |  |  |  |
| SPAL            | Special Pharmacological Animal Lab                        |  |  |  |  |
| SPF             | System Planning Forecast                                  |  |  |  |  |
| STP             | Shovel Test Pit   |  |  |  |  |
| SVB             | Stream Valley Buffer                                      |  |  |  |  |
| SWM             | Stormwater Management                                     |  |  |  |  |
| TDM             | Transportation Demand Management                          |  |  |  |  |
| TIS             | Traffic Impact Study                                      |  |  |  |  |
| ТМР             | Transportation Management Plan                            |  |  |  |  |
| TMDL            | Total Maximum Daily Load                                  |  |  |  |  |
| tpy             | tons per year   |  |  |  |  |
| UdgB            | Udorthents, reclaimed gravel pits, 0 to 5 percent slopes  |  |  |  |  |
| UdgD            | Udorthents, reclaimed gravel pits, 5 to 15 percent slopes |  |  |  |  |
| UruB            | Urban land-Udorthents complex, 0 to 5 percent slopes      |  |  |  |  |
| USACE           | U.S. Army Corps of Engineers                              |  |  |  |  |
| U.S.C.          | United States Code  |  |  |  |  |
| USDA            | U.S. Department of Agriculture                            |  |  |  |  |
| USEPA           | U.S. Environmental Protection Agency                      |  |  |  |  |
| USFWS           | U.S. Fish and Wildlife Service                            |  |  |  |  |
| USGS            | U.S. Geological Survey                                    |  |  |  |  |

FINAL ENVIRONMENTAL IMPACT STATEMENT | FDA MUIRKIRK ROAD CAMPUS MASTER PLAN

### ACRONYMS

| Acronym | Full Name   |
|---------|---|
| UST     | Underground Storage Tanks                             |
| v/c     | volume to capacity                                    |
| WCO     | Wildlife Conservation Ordinance                       |
| WET     | Wetland   |
| WMATA   | Washington Metropolitan Area Transportation Authority |
| WSSC    | Washington Suburban Sanitary Commission               |
| WOUS    | Waters of the U.S.                                    |

## **1 INTRODUCTION**

### **RESOURCE TOPICS**

Natural Resources Soils\* Topography\* Geology Coastal Zone Management\* Water Resources – Groundwater, Surface Waters\*, Wetlands\*, & Floodplains Stormwater\* Vegetation\* Wildlife\* Protected Species

Social Resources Land Use Planning\* Zoning\* Population and Housing Community Services and Facilities\* Environmental Justice\* Economy and Employment\* Safety and Security\*

Cultural Resources Historic Structures \* Archaeological Resources\* Viewsheds\* Air Quality\* Noise\* Greenhouse Gases and Climate Change\* Environmental Contamination\* Traffic and Transportation\* Utilities\* Waste Management\*

\*topics carried through for analysis

This Final Environmental Impact Statement (EIS) has been prepared by the U.S. General Services Administration (GSA), on behalf of the U.S. Food and Drug Administration (FDA), to assess and report potential impacts that would result from the implementation of the FDA Muirkirk Road Campus (MRC) Master Plan for the continued consolidation of FDA's facilities in Prince George's County, Maryland in the city of Laurel.

The National Environmental Policy Act (NEPA) requires Federal agencies to prepare an EIS for actions that may significantly affect the quality of the human environment, which is defined as "the natural and physical environment, and the relations of people to that environment" (Section 1.4.1, PBS NEPA Desk Guide, 1999). GSA has prepared this Final EIS to ensure GSA considers the environmental impacts of its actions on the environment, including natural resources, social resources, and cultural resources that are likely to occur prior to implementing the MRC Master Plan. Part of the decision-making process is to provide information and solicit public review and comment on those impacts. The resources considered in this Final EIS are listed on this page.

GSA is using this EIS to provide information on cultural resources affected by the proposed Master Plan as required by Section 106 of the National Historic Preservation Act (NHPA). The evaluation includes cultural resources outside of the MRC that could be affected by views of the new buildings, noise, or traffic. More information on other laws and regulations with which GSA must comply is provided in Section 2.8, Relevant Laws and Regulations.

The public is encouraged to review this document to learn more about the MRC Master Plan and its potential impacts. The public is also encouraged to provide comments on the Final EIS and the Master Plan.

### INTRODUCTION

Written comments on the Final EIS may be sent to: Ms. Lindsey Veas U.S. General Services Administration National Capital Region 1800 F Street, NW Room 4400 Washington, DC 20407 <u>lindsey.veas@gsa.gov</u>

Written comments on the Final EIS must be postmarked by May 8, 2023.

# 2 PURPOSE OF AND NEED FOR THE MASTER PLAN

# <sup>2.1</sup> WHAT IS THE PURPOSE OF AND THE NEED FOR A NEW MRC MASTER PLAN?

The purpose of the proposed Master Plan is to provide FDA with a structured framework for developing the MRC over the next 20 years in a manner that maximizes the site's development potential and accommodates all relevant physical, cultural, environmental, historic, transportation, and regulatory considerations in a cost-effective way. There are currently 300 FDA employees and support staff at the MRC. The Master Plan is being prepared to guide the development to accommodate a total of 1,800 employees. The projected growth for FDA is an additional 168 employees to the MRC proposed for implementation within the first phase of development, and an additional 1,332 employees during future development phases. The growth includes funded staff vacancies, existing employees currently in other leased spaces in suburban Maryland outside the MRC, FDA support staff, and future expansion.

A Master Plan is needed to accommodate projected growth and to continue to support FDA's consolidation in order to conduct complex and comprehensive research and reviews. The MRC Master Plan will steer the planning, design, and construction of new buildings; improvements to roadways, utilities, and other infrastructure; and the protection of natural areas. Up to an approximate 438,000 gross square feet (gsf), which includes up to 375,000 gsf of additional office and laboratory space and up to 63,000 gsf of special use space is needed to support FDA's mission at the MRC.

# 2.2 WHAT IS GSA'S ROLE IN THE MRC MASTER PLAN DEVELOPMENT?

GSA, in its mission to "deliver value and savings in real estate, acquisition, technology, and other missionsupport services across Government," assists Federal agencies in building and acquiring office space, products, and other workspace services (GSA, 2021). GSA is assisting FDA by preparing the MRC Master Plan and is the lead Federal agency in the preparation of this EIS. To support these efforts, GSA is providing project management; architectural, engineering, and environmental expertise; and contracting services.

# 2.3 WHAT ROLE DOES FDA PLAY IN THE MRC MASTER PLAN DEVELOPMENT?

FDA owns the land that makes up the MRC, Modular (MOD) 1, and the Beltsville Research Facility (BRF)<sup>1</sup>. FDA also manages the MRC and is responsible for development and maintenance of the property. FDA will be responsible for implementation of the MRC Master Plan and therefore will work closely with GSA to ensure that the FDA's vision for the property, as well as its existing and future needs, is addressed. As the property owner, FDA is a cooperating agency for the preparation of this EIS. A cooperating agency is a Federal agency other than the lead agency (i.e., GSA), which has jurisdiction by law or special expertise with respect to any environmental impact. FDA is also responsible for implementing the MRC Transportation

<sup>&</sup>lt;sup>1</sup> While FDA owns the land at the MRC, MOD 1, and the BRF, GSA owns and leases the MOD 2 building and the Animal Research Facility to FDA.

Management Plan (TMP) and ensuring transportation management strategies outlined in the TMP are carried out.

## 2.4 WHAT ROLE DOES THE NATIONAL CAPITAL PLANNING COMMISSION PLAY IN THE MRC MASTER PLAN DEVELOPMENT?

The Master Plan and EIS are subject to review by the National Capital Planning Commission (NCPC) to ensure the plan is consistent with the Federal Elements of the NCPC *Comprehensive Plan for the National Capital.* GSA and FDA will be submitting the Final Master Plan and Final EIS to NCPC in June 2023 for NCPC review and for the Commission to approve the Final Master Plan. A TMP has also been prepared for NCPC review and the parking ratio has been determined by NCPC's *Revised Federal Transportation Element 2020.* NCPC has advisory review authority over master plans for use by the Commission as a guide for future reviews of individual site and building projects pursuant to the National Capital Planning Act 40 U.S.C. § 8722(a) and (b)(1) and (d).

## 2.5 WHERE IS THE MRC LOCATED?

The MRC is in the City of Laurel in Prince George's County, Maryland between Washington, DC and Baltimore, MD (**Figure 2-1**). The main entrance to the MRC is at 8301 Muirkirk Road. The campus lies two miles east of the terminus of Maryland Route 200, 1.5 miles northwest of the Powder Mill Road/Baltimore-Washington Parkway interchange, and 11 driving miles from FDA's headquarters campus at the Federal Research Center (FRC). FDA owns 249 acres of land at Muirkirk Road, of which 197 acres is the West Parcel and is bounded to the north by Muirkirk Road and residential properties; to the east by Odell Road and the MRC East Parcel; to the south by Odell Road, the Beltsville Information Management Center, and the Special Collection Service; and to the west by Ellington Drive (**Figure 2-2**). The southern portion of the campus is dedicated to animal research and home to the Animal Research Facility operated by the Center for Veterinary Medicine (CVM), which occupies 113 acres. The southern portion also includes four pastures, referred to as Pasture A-D, which taken together cover about 32 acres. The total land area of the southern section (the Pastures and Animal Research Facility) is roughly 145 acres (**Table 2-1**). The existing FDA offices and laboratories are concentrated on the northern portion of the campus, which in total covers approximately 52 acres. To determine the environmental impact of future development, a 76-acre study area was determined (**Figure 2-3**).

| West Parcel                        | Acres |
|------------------------------------|-------|
| Existing FDA Office & Laboratories | 52    |
| Pastures (A through D)             | 32    |
| Animal Research Facility           | 113   |
| Total Acreage of MRC West Parcel   | 197   |

### Table 2-1. Existing MRC West Parcel Acreage

The MRC East Parcel has been divided into three smaller parcels. One parcel is occupied by the Maryland Army National Guard and another by the South Laurel Pumping Station. The third parcel is undeveloped forested land. The Maryland Army National Guard occupies approximately 23 acres. About 10 of the 23 acres have been developed. The South Laurel Pumping Station occupies approximately 4 acres. The remaining area of approximately 25 acres has not been built. For the purposes of this EIS, the woodlands immediately east of Odell Road are referred to as the undeveloped area of the East Parcel. See **Figure 2-2** for the area boundary of the East Parcel.



Figure 2-1. Regional Location



Figure 2-2. FDA MRC Area Boundaries



### Figure 2-3. MRC Master Plan EIS Study Area

## 2.6 WHAT IS THE BACKGROUND OF THE MRC MASTER PLAN?

In 1964, FDA acquired 197 acres on the northern boundary of the Beltsville Agricultural Research Center (BARC) through a transfer of land from the U.S. Department of Agriculture (USDA). FDA prepared a Site Development Plan to establish the MRC on the property, which was approved by NCPC on July 21, 1966 (FDA, 1966). The 1966 plan called for the construction of laboratories, kennels, and a research farm with 700,000 gsf of building space; 1,060 to 1,260 parking spaces; and 1,480 to 1,800 employees (Figure 2-4). Due to funding issues, only a small portion of those laboratories were built. These included the BRF Special Pharmacological Animal Laboratory (SPAL) Complex, BRF Service Building, and kennels; and several ancillary utility buildings were constructed west of Odell Road. The kennels were removed from the BRF in the early 2000s. Between 1972 and 1973, FDA began a site selection process for its headquarters laboratories, looking at 26 potential locations within a 50-mile radius of Washington, DC (FDA, 1981). In 1973, four of these sites: the MRC; and land in Columbia, Maryland; SE Washington, DC; and Reston, Virginia, were evaluated in some detail (FDA, 1973). Following the issuance of the final Council on Environmental Quality (CEQ) regulations in 1978, each of these sites was reevaluated in 1979 based upon then-current site selection practices, which analyzed land use, natural ecology; water and air quality; noise, social, economic, and transportation impacts; and aesthetics (FDA, 1981). In 1981, FDA proposed a phased development program for new facilities (Figure 2-5). When complete, the proposed phased development would have consolidated existing FDA activities at four facilities in the Washington, DC metro area and other sites in St. Louis, Missouri, and Cincinnati, Ohio.

As a result of this proposal, FDA prepared an EIS in 1981 that analyzed the impacts from construction of new office space at the four different locations within the DC metropolitan area (FDA, 1981)<sup>2</sup>. Upon completion of the 1981 EIS, the MOD 1 and MOD 2 buildings were constructed in phases from 1983 to 1996 on the northwestern portion of the MRC West Parcel. The Animal Research Facility was constructed on the southwest portion of the MRC West Parcel in the late 1990s.

The MRC West Parcel currently houses employees for the CVM and the Center for Food Safety and Applied Nutrition (CFSAN) and support staff. The main portions of the MRC West Parcel, west of Odell Road, contain 29 buildings totaling 480,000 gsf that accommodate office space, laboratories, animal research, and support facilities. The site has surface parking, internal service roads, pastures, stormwater management (SWM) ponds, tree conservation areas, and wetland preserves.

Currently, there are 300 employees on the MRC West Parcel, although the campus is approved for 1,800 employees. This population size was established in the 1966 Site Development Plan that was approved by Prince George's County and NCPC in July 1966 and was maintained in the 1981 development plan for construction of new laboratory space on the campus.

The implementation strategy has evolved throughout the master planning process that began in 2020. Initially, the Draft Master Plan included two phases of office buildings without any laboratories. The first phase was sized to accommodate a staff of 700, and the second phase 800, bringing the total campus population up to 1,800.

<sup>&</sup>lt;sup>2</sup> The National Environmental Policy Act was signed into law on January 1, 1970. Because the original MRC Site Development Plan was completed before NEPA was enacted, an EIS was not prepared. The Site Development Plan did include consideration of environmental conditions on the site.



Source: FDA, 1966

### Figure 2-4. 1966 MRC Site Development Plan



Source: FDA, 1981

### Figure 2-5. 1981 Site Development Plan

As a result of COVID pandemic, the workplace environment has gone through a fundamental change; a higher percentage of people work remotely. In response, FDA has adopted the United States Department of Health and Human Services' (HHS) new teleworking strategy:  $21^{st}$  Century Workplace Space and Planning Policy (FDA, 2022). Under this policy, a new workplace model based on increased telework provides efficient use of space and significantly reduces rent and rent related costs. Moving forward, it is HHS's policy to provide dedicated workstations and offices only for staff who report to an office more than six days or more per pay period. Shared workstations and offices will be made available for employees who predominately

telework but report to the office occasionally. Based on current trends in teleworking, FDA's White Oak campus has significant capacity to absorb future growth and the consolidation of FDA employees within the metropolitan DC area from leased space as the leases expire. For laboratory employees, remote work is not possible due to the nature of the work and the existing laboratories at FDA's White Oak campus are fully occupied. Therefore, FDA has shifted its focus for the MRC from mostly new office space to also increasing the amount of laboratory space.

# 2.7 WHAT ARE THE OBJECTIVE AND GOALS FOR THE MRC MASTER PLAN?

GSA and FDA established four objectives – each with a goal and a set of strategies to guide the development of the MRC Master Plan. As shown below, goals were defined for image and mission, economics, environmental stewardship, and transportation.

### Objective 1 Image and Mission

Goal: Reinforce FDA's image as a leading scientific institution and foster employee attraction and retention

- Foster employee retention and attraction
- Create a collegial environment to foster scientific interaction
- Provide a flexibility plan(s) which allows for a mixture of functions and operations; adapts to the sometimes unpredictable and everchanging nature and complexity of the products that the FDA regulates
- Be an environmental steward, preserve open space, and enhance the site's natural features
- Embody the highest principles of sustainable design

### Objective 2 Economics

Goal: Create a more efficient and cost-effective agency

- Reduce dependency on leased facilities
- Maximize onsite population to streamline operations
- Utilize shared facilities
- Reduce travel times to and from meetings and conferences

### Objective 3 Environmental Stewardship

**Goal:** Protect the site's tree canopy, maintain biodiversity, minimize runoff, and create a sustainable complex

- Minimize land coverage with manmade development
- Convert surface parking lots into building pad sites
- Create both zero net energy and zero net water facilities
- Utilize innovative stormwater practices

### **Objective 4** Transportation

**Goal:** Foster effective transportation solutions to minimize traffic and parking and reinforce innovative existing policies

- Welcome Metro Bus and Prince George's County TheBus onsite
- Create an onsite transit hub
- Continue to subsidize vanpools
- Phase future parking based on the impact of autonomous vehicles
- Coordinate a future shuttle service with other agencies

### 2.8 RELEVANT LAWS AND REGULATIONS

### 2.8.1 What is NEPA and the NEPA Process?

NEPA is the nation's legislative charter for protection of the environment. NEPA requires Federal agencies to consider environmental impacts of their projects during Federal agency planning and decision-making. NEPA requires Federal agencies to prepare an EIS for actions that may significantly affect the quality of the human environment, such as the MRC Master Plan.

### NEPA PUBLIC INVOLVEMENT

Scoping January 4 – February 11, 2021

Publication of the Draft EIS

June 4, 2021

**Public Review of Draft EIS** June 4 – July 19, 2021

Virtual Public Hearing June 23, 2021

NCPC Draft Master Plan/EIS Public Hearing September 2, 2021

Final EIS and Public Comment Period April 7, 2023 – May 8, 2023

Record of Decision June 2023 Public involvement is an important part of the NEPA process. By involving citizens, stakeholder groups, and local, state, and Federal agencies, the Federal government can make better informed decisions.

GSA issued a Notice of Intent (NOI) to prepare an EIS for the proposed MRC Master Plan on December 22, 2020. The NOI was published in the Federal Register, the *Washington Post*, and the *Prince George's Post*. NOI letters were mailed to 125 Federal, state, and local agencies; public officials; community groups; special interest groups; and area residents. The letters included information on public scoping and asked for the public's comments.

Through the NEPA process, the public has had, and will continue to have, opportunities to comment on the MRC Master Plan. "Scoping" is a tool for identifying the issues that should be addressed in the EIS and environmental compliance processes. Scoping allows the public to help define priorities and express stakeholder and community issues to the agency through oral and written comments. A critical element of the scoping process is the comments and concerns that are received from the public, agencies, and stakeholders. The public scoping period occurred from January 4 to February 11, 2021. Due to the COVID-19 pandemic, in lieu of an in-person public scoping meeting, GSA

and FDA conducted scoping virtually. A prerecorded virtual public scoping presentation was available on GSA's website throughout the duration of the public scoping period. A project phone line was also available for the duration of the public scoping period so that persons unable to view the presentation online could listen to the presentation over the phone and leave comments via voicemail.

GSA and FDA also consulted with Federal, state, and local agencies. GSA and FDA held informational briefings for NCPC and Prince George's County staff and presented preliminary alternatives that formed the basis of the Action Alternatives evaluated in this Final EIS. On February 4, 2021, GSA provided an information presentation to the Commission. Additional consultation was conducted with:

- U.S. Fish and Wildlife Service (USFWS)
- Maryland Department of Natural Resources (MDNR)
- Maryland Department of the Environment (MDE)
- Maryland Department of Transportation (MDOT)
- Maryland Department of Transportation State Highway Administration (MDOT SHA)
- Maryland-National Capital Park and Planning Commission (M-NCPPC) Prince George's County
- Prince George's County Department of Public Works (DPW) and Transportation
- Prince George's County Department of Permitting, Inspections and Enforcement (DPIE)
- Prince George's County Department of Economic Corporation
- Prince George's County Department of General Services
- Washington Metropolitan Area Transportation Authority (WMATA)
- Maryland Historical Trust (MHT) Maryland State Historic Preservation Office (MD SHPO)
- Major Property Owners, including Neighborhood and Homeowners Associations

Key issues identified during scoping included:

- Adverse impacts to minority communities
- Impact of more traffic on already congested roadways
- Development on the undeveloped East Parcel affecting property values
- Effects to viewsheds from residential communities
- Preservation of trees and other natural features
- Lack of stormwater management features
- Use of sustainable design features (green roofs, solar panels, permeable pavement)
- Adverse noise impacts from construction and operation of new facilities

GSA and FDA have considered impacts to resources based on these and other issues in this Final EIS and are now asking for the public, agencies, and other interested parties to comment on the analysis of impacts discussed in Chapter 4 – Affected Environment and Environmental Consequences. Under NEPA, individuals and agencies have 30 days to provide comments on the Final EIS.

Finally, FDA will decide whether to adopt the proposed MRC Master Plan to accommodate 1,800 employees and support staff. Comments received on the Draft and Final EIS and through consultation with Federal state, and county agencies will help inform FDA's decision. The decision will be documented in a Record of Decision (ROD) that will outline the selected alternative and describe measures the Government will take to reduce impacts from construction and operation at the MRC if FDA decides to adopt the Master Plan.

### 2.8.2 What is Section 106 of the NHPA?

Section 106 of the NHPA of 1966 requires that Federal agencies consider the effects of their actions on cultural resources. Under the NHPA, GSA and FDA must evaluate impacts to any district, site, building, structure, or object listed in or eligible for listing in the National Register of Historic Places (NRHP). Section 4.10 describes the impacts the proposed MRC Master Plan would have on cultural resources.

The Section 106 review process encourages historic preservation; however, there are times when impacts to cultural resources cannot be avoided. When the Government must impact cultural resources, it is required to consult with local citizens, groups with an interest in historic preservation, and local and Federal agencies responsible for historic preservation. For the proposed MRC Master Plan, GSA and FDA are required to conduct consultations with MHT, the designated MD SHPO, and other interested parties. The National Register of Historic Places is the nation's official list of cultural resources worthy of preservation. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

GSA and FDA are integrating the NEPA and Section 106 reviews per 36 CFR § 800.8(a)(1). GSA initiated Section 106 consultation with MHT on November 25, 2020. Throughout the project planning for the MRC Master Plan, GSA and FDA have been seeking input on potential effects to cultural resources and ways to avoid and minimize these effects. GSA and FDA have asked for input on historic preservation issues from the following Consulting Parties:

- MHT
- NCPC
- Advisory Council on Historic Preservation (ACHP)
- Maryland Commission on Indian Affairs
- Prince George's County Planning Department Historic Preservation Office
- Maryland Army-National Guard
- South Laurel Water Pumping Station
- Prince George's County Council District 1
- Rossville Community
- Laurel Historical Society
- Prince George's County Historical Society
- Montpelier Community Association
- Woodbridge Crossing Homeowners Association

A virtual Consulting Party meeting was held on March 24, 2021, which provided an overview of this MRC Master Plan to the Consulting Parties. This meeting also reviewed the background of planning at the MRC, identified the Area of Potential Effect (APE), reviewed the current Master Plan Alternatives, and outlined the next steps in the NHPA compliance process. Twenty-nine Consulting Parties attended this meeting.

A second Consulting Party meeting was held on April 28, 2021. During this meeting, GSA and FDA presented updated information on the Master Plan Alternatives, discussed potential effects to historic resources, and

outlined the next steps in the NHPA compliance process. Twenty-seven Consulting Parties attended this meeting.

An opportunity for the public to comment on historic preservation issues was also provided during scoping and during the public comment period for the Draft EIS. The public can also comment on historic preservation issues during the public review period of this Final EIS.

### 2.8.3 What Other Environmental Laws and Regulations are Relevant to this Project?

GSA and FDA must also comply with many statutes, regulations, plans, and Executive Orders (EO) when developing the MRC. GSA and FDA are incorporating compliance with these laws and regulations into their project planning and NEPA compliance.

### STATUES, REGULATIONS, PLANS, AND EXECUTIVE ORDERS

### Statutes

- Clean Air Act (CAA) of 1970 as amended (42 United States Code [U.S.C.] § 7401, et seq.)
- Clean Water Act (CWA) of 1977 as amended (33 U.S.C. § 1251, et seq.)
- Coastal Zone Management Act (CZMA) of 1972 (6 U.S.C. §§ 1451–1464)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. § 9601, et seq.)
- Archaeological Resources Protection Act of 1979 (16 U.S.C. §470aa-mm)
- Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544)
- Migratory Bird Treaty Act of 1918 (16 U.S.C. §§ 703-712)
- Bald and Golden Eagle Protection Act (16 U.S.C. §668-668d)
- Section 5 of the National Capital Planning Act of 1952 (82 P.L. 592; 66 Stat. 781, et seq.); (codified as amended at 40 U.S.C. §8722(b)(1))
- Resource Conservation and Recovery Act (RCRA) of 1976 (42 U.S.C. § 6901, et seq.)
- National Energy Conservation Policy Act (42 U.S.C. §8231, et seq.)
- Energy Independence and Security Act (EISA) (42 U.S.C. §17001, et seq.)
- National Historic Preservation Act of 1966 (16 U.S.C. § 470, et seq.) (89 P.L. 665 (1966)); (referred to herein as "Section 106")

### Regulations

- Council on Environmental Quality Regulations (40 CFR Parts 1500-1508)
- Protection of Historic Properties (36 CFR Part 800)
- Protection of Archaeological Resources: Uniform Regulations (32 CFR Part 229)
- Conformity of General Federal Actions to State or Federal Implementation Plans (40 CFR 6, 51, and 93)
- U.S. Army Corps of Engineers Regulations (33 CFR 320-332)
- Hazardous Substance Regulations (40 CFR Parts 300-399)
- Secretary of the Interior Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register 44716)

### Executive Orders

- EO 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability (December 8, 2021)
- EO 14008, Tackling the Climate Crisis at Home and Abroad (January 27, 2021)
- EO 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021)
- EO 13855, Promoting Active Management of America's Forests, Rangelands, and other Federal Lands to Improve Conditions and Reduce Wildfire Risk (December 21, 2018)
- EO 13604, Improving Performance of Federal Permitting and Review of Infrastructure Projects (March 22, 2012)
- EO 13274, Environmental Stewardship and Transportation Infrastructure Project Reviews (September 18, 2002), amended by EO 13286 (February 28, 2003)
- EO 13212, Actions to Expedite Energy-Related Projects (May 18, 2001), amended by EO 13286 (February 28, 2003) and EO 13302 (May 15, 2003)
- EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds (January 10, 2001)
- EO 13175, Consultation and Coordination with Indian Tribal Governments (November 6, 2000)
- EO 13112, Invasive Species (February 3, 1999), Amended by EO 13286 (February 28, 2003) and EO 13751 (December 5, 2016)
- EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994), Amended by EO 12948 (January 30, 1995)
- EO 11991, Relating to Protection and Enhancement of Environmental Quality (May 24, 1977), amending EO 11514 (March 5, 1970)
- EO 11990, Protection of Wetlands (May 24, 1977), as amended by EO 12608 (September 9, 1987)
- EO 11988, Floodplain Management (May 24, 1977), as amended by EO 12148 (July 20, 1979)
- EO 11514, Protection and Enhancement of Environmental Quality (March 5, 1970), as amended by EO 11991 (May 24, 1977)

### Code of Maryland Regulations (COMAR)

- Erosion and Sediment Control (COMAR 26.17.01.00)
- Maryland Nontidal Wetlands Protection Act of 1989
- Stormwater Management (COMAR 26.17.02)
- Floodplains (COMAR 26.17.03)
- Threatened and Endangered Species (COMAR 08.03.08)

# **3 ALTERNATIVES DEVELOPMENT**

GSA and FDA used a project team of urban planners, architects, architectural historians, environmental scientists, engineers, landscape architects, and economists to coordinate the development of feasible and distinct alternatives with stakeholders and, through review with the various agencies, have identified the following preliminary conditions for future growth at the MRC West Parcel:

- Encourage employees to use alternative means of transportation.
- Maintain a 100- to 300-foot natural landscape buffer at the perimeter of the site.
- Minimize impacts to vegetation and wildlife by maintaining areas of contiguous forest.
- Support conservation of natural resources through careful siting and configuration of new features.

# NO-ACTION ALTERNATIVE SUMMARY

- 480,000 gsf of office and laboratory space
- 300 assigned personnel
- Approximately 40 visitors per day
- 32 acres of pastures
- 320 surface parking spaces for employees, support staff, and visitors
- Minimize impacts to the Upper Beaverdam Creek Watershed.

The project team then considered ways to place new buildings on the MRC West Parcel to increase the amount of office space for FDA while trying to avoid major impacts and minimizing harm caused by the alternatives. After testing a range of options for each of the parcels, the options were narrowed down to the No-Action Alternative and three Action Alternatives that are considered in this Final EIS.

Overall, all of the Action Alternatives fit the overarching development framework because:

- New development is concentrated on the northern portion of the main campus (as was intended in the 1966 Site Development Plan).
- New development is organized around a central open space and landscape amenity.
- Pedestrian connections and walkways provide connectivity between the MOD 1 and MOD 2 buildings and the BRF.
- New development does not encroach on pastures and does not impact operations at the Animal Research Facility.

# 3.1 WHAT IS THE NO-ACTION ALTERNATIVE AND WHY IS IT CONSIDERED?

NEPA requires GSA and FDA to consider the No-Action Alternative because it provides a baseline for evaluating the environmental impacts of the Master Plan Alternatives. The No-Action Alternative provides a comparison of each of the Master Plan Alternatives in relation to current operations.

Under the No-Action Alternative, a new MRC Master Plan would not be adopted, and FDA would continue its current operations at the MRC. The site would continue to be occupied by CVM and CFSAN employees

and support staff. No new office, laboratory, or special use facilities would be constructed, and the number of employees and support staff would remain at 300 (Figure 3-1).



Figure 3-1. No-Action Alternative

At present, the MRC West Parcel is home to:

- 480,000 gsf office and laboratory space
- 300 personnel assigned to the MRC West Parcel
- Approximately 40 visitors per day
- 32 acres of pastures
- 320 parking spaces for employees, support staff, and visitors (all surface parking)

Present and future actions that are a part of the No-Action Alternative include:

 Laboratory Studies - Phase 1 Program of Requirements (POR) and Infrastructure Study/Survey Mechanical, Engineering, Plumbing: This project will assess the future laboratory needs, special requirements, and timeframes for the MRC; Phase 2 Lean Lab Assessment: This assessment will evaluate the effectiveness and efficiency of the existing laboratories, identify improved utilization (right-sizing), and determine whether new spaces are required beyond the existing building footprint.

- MRC substation replacement project This project will consist of replacing the 15 kilovolts (Kv) outdoor substation for the MRC. The two-primary medium-voltage conductors will be replaced from the substation to MOD 1. This project will be completed in 2023.
- Six original air handling units (AHU) from 1984 will be replaced on the roof of MOD 1. This project is currently underway.
- Backflow Preventer Replacement The MRC main backflow preventer off Muirkirk Road just outside the perimeter fence will be replaced. This is a single backflow preventer that was installed in 1997 and should have been a parallel assembly to provide redundancy. This project is scheduled for design and construction in fiscal year (FY) 2022.
- Replacement of exterior windows of MOD 1 in FY2022 or FY2023.
- Replacement of Generators at MOD 1 This project is to replace the generators in the east and west generator rooms of MOD 1. They will all be increased in size from current capacity. The west side generators will be replaced in the same location and increased in size from 650 kilowatt (KW) to 1,000 KW. The two east side generators will be relocated to the side of the building near the transformers and will be increased in size from 370 KW to 500 KW. The oil fuel tank for the two east side generators will be increased in capacity from the existing 1,000- gallon above ground storage tank (AST) to a 5,000-gallon AST. This project is currently at the 65 percent design phase.
- Building Automation System (BAS) upgrade for all the outbuildings at MOD-2 This project will remove the old outdated METASYS system and replace it with the Honeywell Tridium system. This project is scheduled to start in the fall of 2021.
- Replacement of Cooling Towers GSA's 5-year project plan consists of replacing the cooling towers and structural steel supports at MOD 2. This is scheduled to be done in FY2022 or FY2023.
- Improve grading/drainage at North Loop Road from Building 1 to C-3.

FDA would continue to operate at several locations within the region to accommodate its employees and support staff to continue to fulfill its mission. Any additional FDA employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The housing of employees outside the MRC would continue to result in inefficiencies in coordination of work products and in use of administrative, management, and technical support functions. It should be noted that the No-Action Alternative does not meet the purpose and need of the proposed Master Plan.

## 3.2 WHAT ARE THE COMPONENTS OF THE MRC MASTER PLAN ALTERNATIVES?

Each of the MRC Master Plan Action Alternatives A through C would provide a total of up to of 918,000 gsf of building space (**Table 3-1**). The existing MOD 1 and MOD 2 buildings totaling 480,000 gsf would be retained, and up to 438,000 gsf of new office/laboratory buildings, and special use space would be constructed. Special use space under all of the alternatives would include a truck screening facility, visitor/amenity center, maintenance and storage area, conference center, cafeteria, and fitness center. Each of the Master Plan Action Alternatives would add 1,500 new employees and support staff and approximately 207 visitors per day are anticipated. The Master Plan includes 900 parking spaces for employees and support staff (one parking space for every two employees and support staff), and 80 parking spaces for visitors, for a total of 980 parking spaces. The Action Alternatives would add a new entry gate at Odell Road and assumes the back road entrance for emergency and special access would remain.

Each Action Alternative emphasizes connectivity and walkability and envisions underground service corridors and skybridges between existing and new buildings. Each of the Action Alternatives would maintain tree cover and minimize environmental disturbances to include a 100-foot vegetation buffer along the perimeter and a 300-foot buffer along the western perimeter. Bioswales, green roofs, and green façades adjacent to parking garages would be provided.

| Table 3-1. | Summary | of MRC | Master | Plan | Compon | ents |
|------------|---------|--------|--------|------|--------|------|
|            |         |        |        |      |        |      |

|   | No-Action<br>Alternative | Action<br>Alternative A | Action<br>Alternative B | Action<br>Alternative C |
|---|--------------------------|-------------------------|-------------------------|-------------------------|
| Office/Laboratory Space – existing to be retained (gsf) | 480,000                  | 480,000                 | 480,000                 | 480,000                 |
| Proposed Office Space (gsf)                             |                          | 375,000                 | 184,500                 | 375,000                 |
| Proposed Laboratory Space (gsf)                         |                          | 0                       | 168,000                 | 0                       |
| Shared/Special Use Space (gsf)                          |                          | 63,000                  | 40,800                  | 63,000                  |
| Employees   | 300                      | 1,500                   | 1,500                   | 1,500                   |
| Total Employee Parking*                                 | 320**                    | 900                     | 900                     | 900                     |
| Total Visitor Parking*                                  |                          | 80                      | 80                      | 80                      |

\*New parking includes replacement of existing parking displaced by new buildings.

\*\* Includes both employee and visitor parking

### 3.2.1 What Action Alternatives are Considered in this EIS?<sup>3</sup>

### Alternative A – Compact Campus

Development would be concentrated to the north and west of the MOD 1 and MOD 2 buildings under Alternative A (**Figure 3-2**). A strategically positioned atrium would allow for a view from the main entry, through the new building, into the forested stream valley at the center of the campus.

Alternative A would include two new office buildings up to five to six stories tall adjacent to the existing MOD 1 and MOD 2 buildings. The existing surface parking lot west of MOD 1 would be replaced with a new building. The new building north of MOD 1 would be visible from the main entrance at Muirkirk Road. However, most of the building volume would be screened by forested areas that form the perimeter landscape buffer. Two new parking garages would be located at the BRF site that would contain 900 parking spaces, and 80 surface parking spaces would be provided for visitors. Facilities at the existing BRF site would be demolished to accommodate the new parking structures. An elevated boardwalk would be constructed within the natural landscape amenity space east of the MOD 1 and MOD 2

### **ALTERNATIVE A SUMMARY**

- 375,000 gsf of office space in two new buildings
- Office buildings up to 5- to 6stories tall
- 63,000 gsf of new special use spaces
- Two new parking garages with 900 spaces
- 80 surface parking spaces for visitors
- Elevated boardwalk & skybridges

<sup>&</sup>lt;sup>3</sup> While the Master Plan labels the Preferred Alternative as B3, the EIS labels it as Preferred Alternative B.

buildings. Two pedestrian skybridges would connect MOD 1 to the new buildings to the north and west. Alternative A would also include special use space for shared amenities including a conference center, cafeteria, and fitness center.



Figure 3-2. Alternative A – Compact Campus

### Alternative B – Dual Campus (Preferred Alternative)

Due to HHS's new workplace strategy, as outlined in Section 2.6, and the additional need for laboratory space, the Design Team refined Alternative B which considered siting, massing, and conceptual design of the new buildings. While the program is different than in the Draft Master Plan and EIS, the development under this Alternative is relatively the same as analyzed in the Draft EIS (**Figure 3-3**). Development within Alternative B would continue to be distributed between the MOD 1 and MOD 2 buildings and the BRF site. A four-story laboratory building within Alternative B includes a view corridor into the woodlands as you enter the site off Muirkirk Road. In addition, Alternative B has been broken out into three phases as opposed to two that are proposed in Alternatives A and C. These phases include:

• Phase 1 involves construction of an approximate 18,000square-foot annex to the MOD 2 building. Under this phase the population at the MRC West Parcel would remain at 300. The annex building would be used to accommodate both staff from the BRF and the renovation occurring within MOD 2.

### **ALTERNATIVE B SUMMARY**

184,500 square feet of office space to 5-stories tall

168,000 square feet of laboratory space up to 4-stories tall

30,800 sf of new special use spaces

10,000 sf of maintenance/ storage space (shared space)

Two new parking garages with 900 spaces

80 surface parking spaces for visitors

**Elevated boardwalk** 

- Phase 2 involves the construction of two laboratory buildings that would accommodate 168 scientists and support staff. The gross area would be approximately 168,000 gsf of office/lab space and 6,300 gsf of special use space. Phase 2 includes the removal of the surface parking lot adjacent to MOD 1 and the construction of a parking garage for 235 spaces. An approximate 10,000 gsf maintenance/storage building adjacent to the new parking garage would also be constructed. Phase 2 would also include maintaining the metal warehouse building and fitness center at the BRF; and creating a temporary surface lot on the BRF site, and new entrance to Odell Road for truck screening. The visitor parking lot would be constructed and the Muirkirk Road entrance would be rebuilt with shared drop-off.
- Phase 3 involves two office buildings that would accommodate a population of 1,332 and shared use space to support the campus. The two new office buildings would be constructed on the site of the BRF. The total gross area is approximately 166,500 gsf of office space and 24,5000 gsf of special use space. This phase would also include a four-level parking garage for 665 spaces. Additionally, Phase 3 activities involves the removal of temporary parking and all remaining existing buildings at the BRF site would be removed.

An elevated boardwalk would be constructed within the natural landscape that would connect the laboratory buildings with the office buildings. A skybridge between the laboratory and office buildings would encourage collaboration. Alternative B would also include space for shared amenities including a conference center, cafeteria, and fitness center.

#### ALTERNATIVES DEVELOPMENT



Figure 3-3. Alternative B – Dual Campus (Preferred Alternative)

### Alternative C – Northeast Campus

Development would primarily occur at the BRF except for a maintenance/storage building south of MOD 2. The new buildings would barely be visible from the main entrance at Muirkirk Road as most of the building volume would be screened by forested areas that form the perimeter landscape buffer. The forested stream valley at the center of the campus would be visible from both buildings.

With Alternative C, the MOD 1 and MOD 2 buildings would remain. Alternative C includes two new office buildings that would be up to five stories tall at the BRF connected by a covered walkway (**Figure 3-4**). Two new parking garages up to three stories tall would be constructed to the east of the new buildings at the BRF. The parking garages would contain a total of 750 parking spaces and 230 surface parking spaces would also be provided. A portion of the existing surface parking lot adjacent to the MOD 1 and MOD 2 buildings would be returned to natural landscape. Of the 283 surface parking spaces currently located there, only 150 would remain. Eighty surface parking spaces would be provided adjacent to the repurposed BRF building. An elevated boardwalk would be constructed within the natural landscape amenity space west of the MOD 1 and MOD 2

### **ALTERNATIVE C SUMMARY**

375,000 square feet of office space at two new connected buildings

Office buildings up to 5-stories tall

63,000 sf of new special use spaces

Two new parking garages with 750 spaces

230 surface parking spaces for employees and visitors

Elevated boardwalk

buildings. Alternative C would repurpose the existing BRF building for a visitor center/security screening area. Alternative C would also include space for shared amenities including a conference center, cafeteria, and fitness center.



Figure 3-4. Alternative C – Northeast Campus

### 3.3 WHAT IS GSA'S AND FDA'S PREFERRED ALTERNATIVE?

40 CFR 1502.14 requires that a preferred alternative be identified in the Final EIS. The 'preferred alternative' is the alternative GSA and FDA believe would best meet the purpose and need by providing a Master Plan that would guide future long-term development of the MRC. FDA and GSA chose Alternative B as the preferred alternative because it highlights views, improves connectivity and walkability, and conserves the natural landscape. Alternative B is in line with the Master Plan as the Master Plan aims to:

- maintain a 100-foot landscape buffer along the perimeter of the campus,
- set the buildings back at least 75 feet from the interior roadways,
- respect the woodlands as much as possible and make them assessable for employees,
- create new view corridors into the woodlands at the heart of the campus,
- avoid development and human interference in the pasture areas as these are being used by FDA for research and they preserve open space,

- connect the existing and Phase 2 buildings through a continuous service corridor,
- allow people to move between new buildings through a physical connection that protects them from the elements, and
- conserve the stream valleys and natural drainage patterns as much as possible.

# 3.4 WHAT OTHER ALTERNATIVES DID GSA AND FDA CONSIDER, BUT NOT STUDY IN DETAIL?

As previously discussed in Section 1.0, in order to meet the purpose of and need for the proposed Master Plan, the project team studied existing resources at the MRC to determine the most suitable development plan for the site. The following alternatives were considered, but they were not studied in further detail in this EIS.

### 3.4.1 2018 Land Use Feasibility Study

In 2018, the Master Plan team completed a Land Use Feasibility Study (LUFS) which evaluateed the feasibility of accommodating FDA's housing growth and consolidation strategy. Based upon a preliminary site analysis, a series of land development strategies and scenarios were developed. The LUFS provided three strategies for development on the MRC. These three strategies were assessed to determine if they were suitable for further development. These were dismissed from further analysis because they did not fully meet the purpose of and need for the Master Plan and did not fully meet the goals and aspirations that FDA has for the MRC. Also, the three strategies would include greater impacts to the forested areas and the forested viewshed looking towards the MRC would be compromised. The dismissed strategies are discussed below.

### Land Use Strategy 1: Low Intensity of New Build

Land Use Strategy 1 included low-intensity development at the BRF site. Under this strategy, a single new office building would be built in the northeast corner of the site (**Figure 3-5**). The former kennel grounds would be utilized for a new surface parking lot. The existing BRF buildings would be maintained, and the existing pasture lands would be preserved. This strategy would increase MRC capacity to 550 employees.



Figure 3-5. Land Use Strategy 1

### Land Use Strategy 2 – Medium Intensity of New Build

Land Use Strategy 2 included medium-intensity development in the area of the BRF (Figure 3-6). This would include the development of two new office buildings that would be in the northeast corner of the site. The former kennel grounds would be expanded for a new surface parking lot. The existing BRF buildings would be removed, and a new program would be relocated within new office buildings. The existing pasture lands would be preserved. This strategy would increase MRC capacity to 1,100 employees.



Figure 3-6. Land Use Strategy 2

### Land Use Strategy 3 – High Intensity of New Build

Land Use Strategy 3 included highintensity development in the area of the BRF and on the East Parcel (Figure 3-7). This would include development of multiple office buildings and new parking structures. The former kennel grounds would be expanded for a new surface parking lot. The existing BRF buildings would be removed and a new program would be relocated within new office buildings. The East Parcel would be utilized for new development. This strategy would increase MRC capacity to 1,650 to 3,850 employees.



Figure 3-7. Land Use Strategy 3

### 3.4.2 Development of the East Parcel

GSA and FDA considered developing the undeveloped land on the East Parcel. Development on the East Parcel was dismissed from further analysis because:

- Development on the East Parcel would significantly impact natural resources, including forested areas, wetlands, streams, and wildlife.
- Development in this area would impact archaeological resources.
- Distance between the MOD 1 and MOD 2 buildings and the East Parcel would not promote walkability throughout the site.
- There is a public roadway (Odell Road) bisecting the parcels.
- There is a lack of public transit along Odell Road. The distance from existing bus stops and Maryland Area Regional Commuter (MARC) stations along Muirkirk Road would not promote use of alternative modes of transportation.
- It was determined that the additional 1,500 employees could fit on the currently developed land at the MOD 1 and MOD 2 buildings and the BRF site.

While FDA may consider development east of Odell Road in the future, the East Parcel is not part of this Master Plan. Therefore, development on the East Parcel has been dismissed from further consideration in this EIS.

### 3.4.3 Development of the Southern Portion of the MRC West Parcel

The southern portion of the MRC West Parcel houses the CVM. This portion of the campus is dedicated to the Animal Research Facility and consists of a series of small structures that are connected by paved roads to the pastures. The southern portion was withdrawn from further consideration due to bio-security requirements associated with the research that restricts access to authorized personnel only. Furthermore, part of this complex is an animal quarantine building, which is located at the gated entrance at Odell Road south of its intersection with Springfield Road. In addition, development on the southern portion of the MRC West Parcel would impact the pasture areas that are used for the operations of the CVM and their ongoing needs in the future. These areas are needed to corral livestock in case of a food safety issue or outbreak of infectious disease. Therefore, development of the southern portion of the MRC West Parcel has been dismissed from further consideration in this EIS.

# 4 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The CEQ regulations require that the EIS "succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration, including the reasonably foreseeable environmental trends and planned actions in the area(s)..." (40 CFR 1502.15). This chapter of the Final EIS describes the affected environment (existing conditions) that may be impacted by this Master Plan and presents the impacts that may occur on the MRC West Parcel and the surrounding area if the proposed MRC Master Plan were implemented. The affected environment varies depending on the resource under consideration (**Table 4-1**). To determine the environmental impact of future development at the MRC West Parcel, a study area was determined. The EIS Study Area is approximately 76 acres (**Figure 4-1**).

| Affected Environment                                   | Resource Area                 |  |  |
|--|-------------------------------|--|--|
| The Study Area – specifically the northern part of the | Natural Resources             |  |  |
| MRC West Parcel that includes the MOD 1 and MOD 2      | Cultural Resources            |  |  |
| buildings and the BRF ( <b>Figure 4-1</b> )            | Social and Economic Resources |  |  |
|  | Air Quality                   |  |  |
|  | Noise                         |  |  |
|  | Transportation                |  |  |
|  | Utilities                     |  |  |
|  | Environmental Contamination   |  |  |
| The MRC West Parcel – specifically the 197 acres west  | Cultural Resources            |  |  |
| of Odell Road  | Air Quality                   |  |  |
|  | Noise                         |  |  |
|  | Transportation                |  |  |
|  | Utilities                     |  |  |
| Adjacent Communities                                   | Cultural Resources            |  |  |
|  | Social and Economic Resources |  |  |
|  | Air Quality                   |  |  |
|  | Noise                         |  |  |
|  | Transportation                |  |  |
|  | Utilities                     |  |  |
| NCR– specifically, jurisdictions as far north, south,  | Cultural Resources            |  |  |
| east, and west as Washington, DC, the counties of      | Social and Economic Resources |  |  |
| Charles, Frederick, Montgomery, and Prince George's    | Air Quality                   |  |  |
| In the state of Maryland, and the counties of          | Noise                         |  |  |
| Commonwealth of Virginia (MWCOG, 2021).                | Transportation                |  |  |

### Table 4-1. Resources Areas and the Affected Environment



### Figure 4-1. MRC Master Plan Study Area Map

Each of the Action Alternatives described in Section 3.4 would have varying impacts to natural resources, the social and economic environment, cultural resources, and infrastructure. Impacts can occur from construction (i.e., temporary or short-term impacts), as well as operation of the MRC West Parcel once construction is complete (i.e., permanent or long-term impacts). Potential impacts are described in terms of intensity, type, duration, and context (**Table 4-2**). Definitions for intensity thresholds for specific resources are provided in each section of this chapter. At the end of each resource area impact analysis, there is a discussion of measures that GSA and FDA would implement to minimize and mitigate impacts.

| Impact<br>Description | Definition   |  |  |  |  |
|-----------------------|--|--|--|--|--|
| Intensity             | Negligible: The impact is not measurable or discernable from current conditions  |  |  |  |  |
|                       | Minor: The impact is slight but detectable   |  |  |  |  |
|                       | <b>Moderate:</b> The impact is readily apparent, and there would be a noticeable change from current conditions                |  |  |  |  |
|                       | <b>Major:</b> The impact is severe, significant, and highly noticeable. Major impacts may be above a threshold of significance |  |  |  |  |

#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Impact<br>Description | Definition   |  |  |  |
|-----------------------|--|--|--|--|
| Geographic<br>Context | Site-specific: Impacts are limited to the MRC West Parcel  |  |  |  |
|                       | <b>Local</b> : Impacts extend beyond the MRC and affect the area within the general vicinity of the MRC  |  |  |  |
|                       | <b>Regional:</b> Impacts affect a larger area such as the Anacostia area or the National Capital Region  |  |  |  |
| Duration              | Short-term: Temporary, lasting less than 1 year<br>Long-term: Lasting 1 or more years after construction |  |  |  |

The effects on the human environment were assessed using best available scientific studies, guidance documents, and information. Resources used to analyze the impacts were obtained from Federal, state, and local agencies. These include, but are not limited to:

- U.S. Environmental Protection Agency (USEPA) analyses and reports
- U.S. Geological Survey (USGS) Soil Surveys
- U.S. Army Corps of Engineers (USACE) wetland manuals
- Federal Emergency Management Agency (FEMA) floodplain maps
- USFWS threatened and endangered species lists
- MDNR threatened and endangered species lists
- Hazardous waste studies
- Federal Highway Administration (FHWA) traffic guidance
- MWCOG reports
- Prince George's County and M-NCPPC plans and guidelines

## 4.1 WHAT IMPACT TOPICS ARE BEING DISMISSED FROM FURTHER REVIEW IN THIS EIS?

GSA and FDA have dismissed several resource topics from further analysis because implementation of the proposed MRC Master Plan would result in negligible impacts. Negligible impacts are localized and immeasurable at the lowest level of detection. Resource topics eliminated from further analysis and the rationale for dismissing them are discussed in the following section.

### 4.1.1 Geology

The MRC West Parcel is located within the Coastal Plain physiographic province near the fall line of the Piedmont Plateau. The Coastal Plain is underlain by a wedge of unconsolidated sediments including gravel, sand, silt, and clay (MGS, 2021). Based on information available in the *USGS Earthquake Catalog* there have been no earthquakes recorded within the past 30 years within 50 miles of the MRC West Parcel that registered on the Richter scale (USGS, 2021a). The MRC West Parcel is in a low hazard area and there is a low probability for a ground shaking event over a 50-year period (USGS, 2018). The MRC West Parcel is in a

low confidence area for landslides based (USGS, 2021b). According to Maryland Geological Survey (MGS), measurements are being taken yearly throughout Southern Maryland to assess the potential of land subsidence and to make a record of land-surface-elevation change (MGS, 2016). None of the MRC Master Plan Action Alternatives would require deep excavations for underground basements or parking that would result in changes to the geology of the MRC West Parcel. Therefore, geology has been dismissed from further analysis in this EIS.

### 4.1.2 Floodplains

Floodplains are mapped by FEMA to identify flood hazards, assess flood risks, and guide mitigation actions. Floodplain mapping involves delineation of the 1-percent-annual-chance (100-year) flood; a flood that has a 1-percent chance of being equaled or exceeded in any given year; and the 500-year floodplain which is the area of minimal flood hazard.

The MRC West Parcel is mapped on *FEMA Flood Insurance Rate Map (FIRM) Panel 24033C0065E*, effective September 16, 2016 and is located in Zone X, an area of minimal flood hazard (FEMA, 2016). Based on the FEMA map, there are no 100- or 500-year floodplains located within or adjacent to the MRC West Parcel (**Figure 4-2**).

Prince George's County has recently issued requirements for 100-year stormwater quantity control for areas included in the County's 100-year flood control map. While the MRC West Parcel is not located within the FEMA mapped 100- and 500-year floodplain, it is within the area identified on the County's 100-year flood control map. A downstream analysis is required to determine whether Overbank Flood Protection (10-year storm) or Extreme Flood Protection (100-year storm) would need to be addressed (see Section 4.6.4 for additional details). Because the MRC West Parcel is not located within the 100- or 500-year floodplain, floodplains have been dismissed from further analysis in this EIS.

### 4.1.3 Protected Species

In accordance with the Endangered Species Act of 1973, coordination was conducted with USFWS and the MDNR. A review of the *USFWS Information for Planning and Consultation (IPaC)* website determined that the federally threatened northern long-eared bat (*Myotis septentrionalis*) potentially exists within the study area (USFWS, 2021)<sup>4</sup>. In a letter dated January 27, 2021, MDNR responded that there are no official state or Federal records for listed plant or animal species within the study area (**Appendix A**).

The Master Plan Action Alternatives would maintain the large, forested areas on the site that may provide habitat for the northern long-eared bat. However, forested areas within the MRC West Parcel would be removed. Forest clearing would occur outside the roosting periods for the northern long-eared bat. The forested areas, along with the large pastures on the MRC West Parcel, may also provide habitat for migratory birds which are protected under the Migratory Bird Treaty Act. A pre-construction survey would be performed as a best practice to determine the presence of nests of migratory birds that have the potential to occur in the study area. If nests are identified, FDA would avoid vegetative clearing during the nesting period for those species. Trees removed for construction would be replaced to provide long-term mitigation for impacts to migratory bird habitat (See Section 4.8.3 and 4.8.4 for additional information). As

<sup>&</sup>lt;sup>4</sup> On November 22, 2022, the USFWS reclassified the northern long-eared bat endangered, but at the time of analysis, the species was listed as threatened. GSA has applied Section 4(d) of the Endangered Species Act during its analysis of impacts to threatened and endangered species. Section 4(d) of the Endangered Species Act prohibits the purposeful take (harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting) inside the bat's range.

development would occur outside the roosting periods for the northern long-eared bat and nesting periods for migratory birds, protected species have been dismissed from further analysis.



Source: FEMA, 2016

### Figure 4-2. Floodplain Boundaries Near the MRC West Parcel

### 4.1.4 Population and Housing

**Table 4-3** displays comparative housing statistics for Prince George's County and the census tracts (CT) in the vicinity of the MRC West Parcel. The CTs and Block Groups (BG) are shown on **Figure 4-3**. According to 2020 Census estimates, there are 359,957 housing units in Prince George's County, of which 95.1 percent are estimated to be occupied. According to 2020 American Community Survey estimates, the five BGs including, or adjacent to, the MRC West Parcel have a combined total of 3,875 housing units, of which 95.7 percent are occupied (U.S. Census Bureau, 2020e).

|                               | Number of Housing<br>Units | Percent Occupied | Median House Value<br>(\$) | Median Rent (\$) |
|-------------------------------|----------------------------|------------------|----------------------------|------------------|
| Prince George's<br>County     | 359,957                    | 95.1%            | 319,600                    | 1,391            |
| Study Area <sup>a</sup>       | 3,875                      | 95.7%            | 339,480                    | 1,630            |
| CT 8002.16, BG 1              | 1,147                      | 93.0%            | 419,000                    | 1,841            |
| CT 8002.16, BG 2              | 543                        | 95.2%            | 384,300                    | **               |
| CT 8002.17, BG 2              | 591                        | 98.6%            | 357,900                    | **               |
| CT 8074.08, BG 1 <sup>b</sup> | 910                        | 97.5%            | 221,200                    | 1,419            |
| CT 8074.08, BG 3              | 984                        | 95.9%            | 315,000                    | **               |

**Table 4-3. Selected Housing Characteristics** 

Sources: U.S. Census Bureau, 2020d; U.S. Census Bureau, 2020e; U.S. Census Bureau, 2020l; and U.S. Census Bureau, 2020m.

a – includes all Census BGs including or adjacent to the MRC West Parcel

b – Census BGs that include the MRC West Parcel

\*\* data unavailable



Sources: U.S. Census Bureau, 2020d; U.S. Census Bureau, 2020e; U.S. Census Bureau, 2020l; and U.S. Census Bureau, 2020m.

### Figure 4-3. Census Tracts and Block Groups Adjacent and Including the MRC West Parcel
In Prince George's County, the median house value is \$319,600, and the median rental rate is \$1,391 per month (U.S. Census Bureau, 2020d). The median house value in the vicinity of the MRC West Parcel is \$339,480 and the median rental rate is \$1,630 per month (U.S. Census Bureau, 2020l, U.S. Census Bureau, 2020m). The median house value and the median rent in the vicinity of the MRC West Parcel is slightly higher than the county average.

Residential development in the vicinity of the MRC West Parcel includes single-family dwellings along Ellington Drive to the west, Snowden Woods at Blue Ponds to the north, Woodbridge Crossing to the east of the MRC West Parcel, and multi-family apartments east and west of the MRC West Parcel. There are several new residential communities, such as the Brick Yard, that are either recently completed or under construction in the vicinity of the MRC West Parcel, which include single-family and multi-family units.

Implementation of the MRC Master Plan is not anticipated to affect population levels or housing availability. While vacant positions may be filled from applicants that may have to relocate closer to the MRC West Parcel, there are numerous residential areas in which they could purchase or rent property. FDA estimates that most FDA employees who may work at the MRC West Parcel already live in the Washington, DC metropolitan region and would not have to move their residence if their offices relocate to the MRC West Parcel. Therefore, population and housing have been dismissed as a topic for detailed study.

# 4.2 WHAT ENVIRONMENTAL RESOURCES WOULD BE IMPACTED BY THE PROPOSED ACTION?

The following sections describe the environmental resources that would be impacted by implementation of the MRC Master Plan. Measures to minimize or mitigate impacts are also described where appropriate.

The following resources are studied in detail:

- Topography & Soils
- Groundwater Quality & Hydrology
- Water Resources Surface Waters & Wetlands
- Stormwater
- Vegetation
- Wildlife
- Coastal Zone Management
- Cultural Resources
- Viewsheds
- Land Use, Planning, and Zoning
- Community Facilities

- Safety and Security
- Economy and Employment
- Environmental Justice
- Air Quality
- Greenhouse Gases & Climate Change
- Noise
- Traffic and Transportation
- Environmental Contamination
- Utilities
- Waste Management

# 4.3 TOPOGRAPHY AND SOILS

# 4.3.1 Assessment Methodology

Impacts to topography and soils were analyzed based on the soil characteristics and current conditions of the study area in comparison with site conditions to be expected following construction. Ground disturbance and soil excavation were estimated using geographic information systems (GIS) to measure the footprint of proposed demolition and new construction.

The impact thresholds for topography and soils are provided in Table 4-4.

| Effect                | Impact Level   |   |  |  |  |
|-----------------------|--|---|--|--|--|
| Characteristics       | Negligible   | Minor   | Moderate   | Major  |  |
| Intensity             | Non-discernable<br>changes to<br>topography or soils<br>from clearing,<br>grading, and<br>excavation | Slight but detectable<br>changes to<br>topography from site<br>grading<br>Slight but detectable<br>soil disturbance from<br>clearing, grading, and<br>excavation<br>Risk of soil erosion<br>during construction<br>that could be<br>controlled with<br>sediment and erosion<br>control measures<br>Minimal risk of slope<br>failure or erosion<br>from disturbance of<br>steep slopes | Effect that is<br>potentially major but<br>with best practices<br>and mitigation<br>measures is reduced<br>below major   | Highly<br>noticeable/severe<br>damage to or<br>destruction of<br>geologic formations<br>Widespread and<br>permanent alteration<br>of topography<br>Highly noticeable<br>excavation of soils<br>that would have<br>severe effects on<br>natural ecosystems<br>Severe risk of slope<br>failure or erosion<br>from disturbance of<br>steep slopes |  |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites)  | Localized (i.e.,<br>confined to the<br>project sites)   | Localized (i.e.,<br>confined to the<br>project sites) with<br>high probability of<br>Campus-wide or<br>Regional (i.e., beyond<br>the MRC West Parcel)<br>impacts | Localized (i.e.,<br>confined to the<br>project sites) with<br>high probability of<br>Campus-wide or<br>Regional (i.e., beyond<br>the MRC West Parcel)<br>impacts   |  |
| Duration              | Temporary, lasting<br>only through<br>construction   | Temporary, lasting<br>only through<br>construction  | Lasting 1+ years after<br>construction   | Lasting 1+ years after construction  |  |

 Table 4-4. Impact Intensity Thresholds for Topography and Soils

# 4.3.2 What are the Topographic and Soil Conditions at the MRC West Parcel?

The topography of the MRC West Parcel is generally rolling with elevations ranging from 100 to 300 feet above mean sea level (msl) (Figure 4-4). In the northern portion of the MRC West Parcel, elevation is 250

feet above msl with steep slopes along the unnamed tributary of Beaverdam Creek. The area between the MOD 1 and MOD 2 buildings and the BRF has elevations around 200 feet above msl.

Slopes on the site range between 15 to 25 percent. Slopes of greater than 15 percent are considered to have severe hazard of erosion, which renders large portions of the site unsuitable for construction (USDA, 2020) (**Figure 4-5**). Steep slopes exist around the edge of the MOD 1 and MOD 2 buildings and the BRF, most likely due to grading during construction.

There are 13 soil types within the study area (**Figure 4-6**). The most abundant soil type is Downer-Hamonton complex, 5 to 10 percent slopes (DoC), which accounts for 39.3 percent of the soils and can be found running through the center of the study area and between the MOD 1 and MOD 2 buildings and the BRF. The next most abundant soil type is classified as Galestown-Urban land complex, 0 to 5 percent slopes (GbB), which accounts for 17.7 percent and is located primarily beneath portions of the MOD 1 and MOD 2 buildings and the BRF. The study area is comprised of 4.1 percent of Urban land-Udorthents (0 to 5 percent slopes complex), which includes asphalt, buildings, or other structures. This soil unit is located beneath the BRF. Evesboro-Downer complex, 15 to 25 percent slopes (EwE) accounts for 2.4 percent of the study area and has the potential for severe hazard erosion (USDA, 2020). This soil unit is found within the study area to the southwest of the MOD 1 and MOD 2 buildings. Other soil units within the site that are listed in **Table 4-5** are rated to have a slight to moderate hazard for erosion (Maryland iMap, 2018).

Soils formed under conditions of saturation, flooding, or ponding long enough to develop anaerobic conditions are considered hydric. Hydric soils that are saturated or inundated for a long enough period support hydrophytic vegetation under natural conditions. Only one soil unit within the study area, the Christiana-Downer Complex, 5 to 10 percent slopes (CcC), is considered hydric based on the five percent inclusion of Fallsington soils (USDA, 2020). This soil unit is in the southernmost portion of the study area where wetlands have been identified and comprise 6.7 percent of the soils.

Prime farmland soils are soils that have the best combination of characteristics for producing crops such as food, feed, forage, fiber, and oilseed crops. Evesboro-Downer complex, 0 to 5 percent slopes (EwB) is considered prime farmland soils if irrigated. The Christiana-Downer complex with 5 to 10 percent slopes and Downer-Hamonton complex, 5 to 10 percent slopes are classified as farmland soils of statewide importance and account for 46 percent of the soils within the project area (USDA, 2020). Although there are prime farmland soils within the MRC West Parcel, the land is classified as urban or built-up and is therefore exempt from the Farmland Protection Policy Act (7 U.S.C. § 4201 et seq).



Source: Maryland iMap, 2018

Figure 4-4. Site Topography within the Study Area



Source: USDA, 2020

Figure 4-5. Steep Slopes within the Study Area



Sources: USDA, 2020 and Maryland iMap, 2018.

Figure 4-6. Soils Within the Study Area

| Soil<br>Map<br>Unit | Map Unit Name  | Acres in<br>Study Area<br>(%) | Hydric | Prime Farmland Status               | Erosion<br>Hazard |
|---------------------|--|-------------------------------|--------|-------------------------------------|-------------------|
| CcC                 | Christiana-Downer complex,<br>5 to 10 percent slopes | 5.1<br>(6.7%)                 | Yes    | Farmland of Statewide<br>Importance | Moderate          |
| DoC                 | Downer-Hamonton complex, 5 to<br>10 percent slopes   | 29.9<br>(39.3%)               | No     | Farmland of Statewide<br>Importance | Moderate          |
| EwB                 | Evesboro-Downer complex, 0 to 5 percent slopes       | 4.0<br>(5.3%)                 | No     | Prime Farmland if Irrigated         | Slight            |
| EwC                 | Evesboro-Downer complex, 5 to<br>10 percent slopes   | 8.4<br>(11.0%)                | No     | Not Prime Farmland                  | Moderate          |

#### Table 4-5. Soil Map Units Within the Study Area

| Soil<br>Map<br>Unit | Map Unit Name  | Acres in<br>Study Area<br>(%) | Hydric | Prime Farmland Status | Erosion<br>Hazard |
|---------------------|--|-------------------------------|--------|-----------------------|-------------------|
| EwD                 | Evesboro-Downer complex, 10 to<br>15 percent slopes          | 0.1<br>(0.2%)                 | No     | Not Prime Farmland    | Moderate          |
| EwE                 | Evesboro-Downer complex, 15 to<br>25 percent slopes          | 1.8<br>(2.4%)                 | No     | Not Prime Farmland    | Severe            |
| GbB                 | Galestown-Urban land complex, 0<br>to 5 percent slopes       | 13.5<br>(17.7%)               | No     | Not Prime Farmland    | Slight            |
| GbD                 | Galestown-Urban land complex, 5<br>to 15 percent slopes      | 1.2<br>(1.5%)                 | No     | Not Prime Farmland    | Moderate          |
| RuB                 | Russett-Christiana-Urban land complex, 0 to 5 percent slopes | 4.4<br>(5.8%)                 | No     | Not Prime Farmland    | Moderate          |
| SOD                 | Sassafras and Croom soils, 10 to<br>15 percent slopes        | 0.5<br>(0.6%)                 | No     | Not Prime Farmland    | Moderate          |
| UdgB                | Udorthents, reclaimed gravel pits,<br>0 to 5 percent slopes  | 1.7<br>(2.2%)                 | No     | Not Prime Farmland    | Slight            |
| UdgD                | Udorthents, reclaimed gravel pits,<br>5 to 15 percent slopes | 2.4<br>(3.2%)                 | No     | Not Prime Farmland    | Moderate          |
| UruB                | Urban land-Udorthents, 0 to 5 percent slopes complex         | 3.1<br>(4.1%)                 | No     | Not Prime Farmland    | Not rated         |

Sources: USDA, 2020 and Maryland iMap, 2018.

# 4.3.3 How would the Topography and Soils Change Under Each Alternative At The Site?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The No-Action Alternative would not result in site grading or construction of new buildings. Drainage improvements along the North Loop Road would temporarily disturb soils, but there would be no change to topography, and soil impacts would be negligible, short-term, and adverse.

#### Alternatives A, B, and C (Action Alternatives)

Implementation of the Master Plan under any of the Action Alternatives would require clearing and grading for the construction of new buildings, parking garages, bike paths, walking paths, and utilities that would impact soils and the existing topography. Grading for the new facilities would require leveling of the existing rolling topography and coverage of soils by buildings and other infrastructure. Trenching of soils would be required to install underground power, communications, water, and sewer lines.

Demolition of buildings and roads would expose approximately 7.8 acres of soils under Alternative A, 7.9 acres under Alternative B, and 5.2 acres under Alternative C. Excavation for the construction of the buildings, parking garages, bike paths, walking paths, and utilities would permanently remove 22.7 acres of soils from the MRC West Parcel under Alternative A, 21.2 acres under Alternative B, and 20.2 acres under Alternative C (**Table 4-6**) (**Figure 4-7**, Error! Reference source not found., **Figure 4-8**, **Figure 4-9**). Alternative C is the least impactful to soils, as new buildings are proposed to the greatest extent within the existing footprint of the BRF. Under Alternatives A, B, and C, below-grade construction would result in the removal approximately 48,000 cubic yards (cy) of soil under Alternative A; 76,000 cy of soil under Alternative B, and 23,000 cy of soil under Alternative C. As noted in Sections 4.4, 4.5, and 4.6 removal of soils is not anticipated to have severe adverse impacts on ecosystem functions.

|               | Additional Acres<br>Impacted | Acres of Steep Slopes<br>Impacted | Total Acres Impacted |
|---------------|------------------------------|-----------------------------------|----------------------|
| Alternative A | 22.7                         | 1.5                               | 24.2                 |
| Alternative B | 21.2                         | 1.4                               | 22.6                 |
| Alternative C | 20.2                         | 1.2                               | 21.4                 |

#### Table 4-6. Acreage and Steep Slopes Impacted by the Action Alternatives

Construction of new buildings, parking garages, bike paths, walking paths, and utilities would impact 1.5 acres of steep slopes under Alternative A, 1.4 acres under Alternative B, and 1.2 acres under Alternative C, resulting in possible soil erosion (**Table 4-6**). Alternative C is the least impactful to steep slopes, as new buildings are proposed to the greatest extent within the existing footprint of the BRF. Mitigation measures, such as retaining walls, would be required to stabilize slopes during construction. After construction, the new buildings and retaining walls, if needed, would minimize the potential for future erosion and slope failure. Prior to construction, site-specific geotechnical investigations would be assessed for their potential to impact the below-grade construction from shrinking or swelling. Additional soils may need to be removed to construct a stable foundation and to provide appropriate soil stability.

A construction plan would be developed and would incorporate the necessary measures to stabilize steep slopes. Construction could also result in erosion of soils and sedimentation into local streams and stormwater networks. Erosion and sediment control best management practices (BMPs) would be utilized to contain erodible materials within construction sites until vegetation can be re-established to stabilize soils. With implementation of mitigation measures for construction on steep slopes and in areas containing soils with a severe erosion hazard, there would be moderate, long-term, adverse impacts due to the risk of soil erosion and slope failure.



Figure 4-7. Soil Impacts Under Alternative A



Figure 4-8. Soil Impacts Under Alternative B



Figure 4-9. Soil Impacts Under Alternative C

# 4.3.4 What Measures Will Be Taken To Ensure That Erosion And Sedimentation Are Controlled?

Geotechnical engineering studies would be undertaken prior to design and construction to ensure that sound construction practices are followed. Suitability of soils for construction would be determined during final design, and appropriate building foundation specifications would be developed. In addition, soil stabilization measures would be designed, as necessary, to account for construction in areas with severe erosion potential. An erosion and sediment control plan would be developed in accordance with MDE and Prince George's County requirements and would be submitted to these agencies for approval. This plan would be implemented during construction to minimize sediment transport offsite. BMPs, such as silt fencing, construction sequencing, and seeding of exposed soil areas with grass seed would be used to control and minimize sedimentation into the streams, wetlands, and buffers. Any soils that cannot be used onsite would be trucked to an approved facility designed to receive construction soil.

Prior to construction, FDA would follow best practices by obtaining all necessary permits and complying with the requirements and guidelines set forth in those permits to minimize adverse impacts. Construction contractors would be required to implement and maintain these erosion and sediment control measures

until construction is complete and vegetation has been established. Additional information on BMPs is provided in Section 4.6 – Stormwater.

# 4.4 GROUNDWATER QUALITY AND HYDROLOGY

# 4.4.1 Assessment Methodology

Impacts to groundwater were analyzed based on the groundwater characteristics and current conditions of the study area in comparison with site conditions to be expected following construction. The existing depth of naturally occurring groundwater was compared to the proposed depth of new construction. Lastly, the change in impervious surface was calculated using GIS to measure the footprint of existing impervious surface and the footprint of proposed demolition and new construction.

The impact thresholds for groundwater are provided in **Table 4-7**.

| Effect                | Impact Level  |  |  |  |  |  |  |
|-----------------------|---|--|--|--|--|--|--|
| Characteristics       | Negligible  | Minor  | Moderate   | Major  |  |  |  |
| Intensity             | Non-discernable<br>potential for<br>perched<br>groundwater<br>intrusion into<br>building<br>Non-discernable<br>changes to<br>groundwater levels | Slight, but detectable<br>potential for perched<br>groundwater intrusion<br>into buildings that<br>could be mitigated<br>through building<br>design<br>Slight, but detectable<br>impacts to<br>groundwater levels<br>No violations of water<br>regulations | Effect that is<br>potentially major but<br>with best practices<br>and mitigation<br>measures is reduced<br>below major | Measurable/severe<br>increases in the potential<br>for perched groundwater<br>intrusion into buildings that<br>cannot be mitigated<br>through building design<br>Measurable/severe impacts<br>to groundwater levels that<br>are widespread and or long-<br>term<br>Violation of water<br>regulations |  |  |  |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites)   | Watershed or<br>subwatershed   | Watershed or<br>multiple watersheds  | Watershed or multiple<br>watersheds  |  |  |  |
| Duration              | Temporary, lasting<br>only through<br>construction  | Temporary, lasting<br>only through<br>construction   | Lasting 1+ years after construction  | Lasting 1+ years after construction  |  |  |  |

#### Table 4-7. Impact Intensity Thresholds for Groundwater Quality and Hydrology

## 4.4.2 What Groundwater Resources Are Located at the MRC West Parcel?

Groundwater on the MRC West Parcel is available from two principal aquifer systems – the Northern Atlantic Coastal Plain aquifer system and the Piedmont crystalline-rock aquifer (fractured rock region). The Northern Atlantic Coastal Plain aquifer is primarily underlain by semi-consolidated to unconsolidated sediments consisting of silt, clay, and sand and is primarily fed by surface water infiltration. The sediments form a wedge shape, beginning at the Fall Line as a thin layer and becoming thicker as they near the coast. Groundwater in the aquifer is found in pore spaces between sediments and is unconfined near the surface, becoming confined deeper below a clay layer. The Piedmont aquifer is underlain by dense bedrock and is also primarily fed through surface water infiltration. Groundwater occurs in rock fractures under unconfined conditions (MGS, 2021).

Water for nearly all residential and commercial consumers in Prince George's County (including the MRC West Parcel) is provided by the Washington Suburban Sanitary Commission (WSSC) and is obtained from either the Potomac or Patuxent Rivers (WSSC, 2021 and MDE, 2021). Groundwater is not used for potable purposes at the MRC West Parcel. Based on the soils present on the site, most groundwater is over 80 inches below the surface around the MOD 1 and MOD 2 buildings and the BRF. However, around the stream on the most southern portion of the MRC West Parcel study area the groundwater is closer to the surface, about 10- 40 inches deep (USDA, 2020). Groundwater intrusion has caused floor damage in the MOD 1 building (personal communication, 2021a).

There is one groundwater well that CVM uses solely for animal research purposes. The well is inspected by MDE to assess wastewater. CVM has a state discharge permit (17-DP-3215) and *National Pollutant Discharge Elimination System (NPDES) permit (MD3215Q03)* for the groundwater well. The outfall location for the well is an unnamed tributary to Beaverdam Creek. FDA is responsible for reporting when toxic pollutant levels (that are not specifically limited by the permit) have been discharged in excess of notification levels (MDE, 2020).

# 4.4.3 How Would the Master Plan Affect Groundwater and Hydrology?

### No-Action Alternative

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Ongoing projects at the MRC West Parcel are not expected to intercept the groundwater table or cause potential groundwater contamination. There would be no increase in impervious surface as a result of these projects that would reduce groundwater recharge at the site. Groundwater intrusion at the MOD 1 building is managed sufficiently by a sump system (personal communication, 2021a). Therefore, there would be no impacts to groundwater under the No-Action Alternative, and no additional impacts to facilities at the MRC West Parcel as a result of groundwater intrusion.

### Alternatives A, B, and C (Action Alternatives)

Demolition of buildings would not directly impact groundwater under the Action Alternatives. Construction of the proposed office buildings and parking garages could intercept the groundwater table resulting in minor, short-term, adverse impacts. If the water table is intercepted, it may result in a release of groundwater and a reduction in groundwater levels; however, it would not affect the overall groundwater table in the region. There would be the potential for intrusion of groundwater from the groundwater table into the underground areas of the buildings which could affect building operations. With implementation of appropriate building design and construction as described in Section 4.3.4, there would be minor, long-term, adverse impacts to buildings from potential groundwater infiltration.

Construction would require clearing and grading for the construction of new buildings, parking garages, bike paths, walking paths, and utilities, which would increase the impervious area within at the MRC West Parcel (**Table 4-8** and **Table 4-9**, **Figure 4-10** through **Figure 4-12**).

|   | No-Action<br>Alternative | Alternative<br>A | Alternative<br>B | Alternative<br>C |
|---|--------------------------|------------------|------------------|------------------|
| Additional Impervious Cover (Acres [ac])              | 0.0                      | 9.7              | 7.2              | 9.5              |
| Existing Impervious Surface to be Removed (ac)        | 0.0                      | 6.9              | 2.5              | 4.7              |
| Net Increase of Impervious Surface                    | 0.0                      | 2.8              | 4.7              | 4.8              |
| Total Impervious Cover (ac)                           | 10.7                     | 22.5             | 15.4             | 24.4             |
| Percentage Increase for the Entire MRC West<br>Parcel | 0.0%                     | 2.6%             | 4.4%             | 4.5%             |
| Total Percentage of Impervious Surface                | <10%                     | 29.6%            | 20.3%            | 32.1%            |

#### Table 4-8. Impervious Surface by Alternative

#### Table 4-9. Total Impervious Areas within the Study Area by Alternative

|               | Structures<br>(ac) | Pedestrian<br>Paths/Elevated<br>Boardwalks<br>(ac) | Roads/Parking<br>(ac) | Total (ac) |
|---------------|--------------------|--|-----------------------|------------|
| Alternative A | 6.6                | 1.6  | 4.7                   | 12.9       |
| Alternative B | 8.2                | 1.8  | 5.4                   | 15.4       |
| Alternative C | 6.9                | 1.4  | 6.1                   | 14.4       |

Increasing impervious surface at the MRC West Parcel would reduce the available area for groundwater recharge; however, the increase would be a small percentage of the impervious surfaces in the Upper Beaverdam Creek River Watershed and would not noticeably affect the overall groundwater recharge within the subwatershed. The Action Alternatives would include the installation of landscaped areas and reforestation that would provide pervious surface within the MRC West Parcel (see Section 4.7.4).

The Action Alternatives would result in minor, long-term, adverse impacts to groundwater as the increase in impervious surfaces would account for a small percentage of the impervious surface in the watershed and would have a slight, but detectable effect on groundwater recharge.



Figure 4-10. Pervious and Impervious Areas - Alternative A



Figure 4-11. Pervious and Impervious Areas - Alternative B



Figure 4-12. Pervious and Impervious Surface - Alternative C

## 4.4.4 What Measures Would Be Taken To Protect Groundwater?

Under the Action Alternatives, the increase in impervious area could be mitigated with the use of infiltration devices. Infiltration devices capture stormwater before it flows into storm sewers or streams and allow it to soak into the ground. See Section 4.6.4 for additional information on stormwater quality and quantity control measures that would occur.

Several of the proposed buildings under the Action Alternatives would be partially below ground. The underground portions of these buildings could reach a zone of groundwater, leading to the potential intrusion of groundwater into the buildings. As part of the building design process, geotechnical engineering would be undertaken as mitigation to verify stormwater and groundwater conditions on the building site, and buildings would be designed and constructed to mitigate for potential groundwater intrusion.

# 4.5 WATER RESOURCES

## 4.5.1 Assessment Methodology

Impacts to water resources, including wetlands and streams were analyzed based on the characteristics and current conditions of the study area in comparison with site conditions to be expected following construction. The locations of wetlands, wetland buffers, and streams in relation to proposed construction; and changes in impervious surfaces were assessed.

The impact thresholds for surface water are provided in Table 4-10.

| Effect                | Impact Level   |   |  |   |  |  |
|-----------------------|--|---|--|---|--|--|
| Characteristics       | Negligible   | Minor   | Moderate   | Major   |  |  |
| Intensity             | Non-discernable<br>changes to water<br>quality of streams or<br>wetlands from<br>construction related<br>activities<br>Non-discernable<br>changes to stream<br>stability or aquatic<br>habitats from<br>stormwater runoff<br>from construction<br>related activities | Slight, but detectable<br>impacts to water<br>quality from<br>construction-related<br>activities or operation<br>of facilities<br>Slight, but detectable<br>stream instability or<br>degradation from<br>stormwater runoff<br>from construction<br>related activities or<br>from increases in<br>impervious surface | Effect that is<br>potentially<br>major but with<br>best practices<br>and mitigation<br>measures is<br>reduced below<br>major       | Severe degradation of<br>water quality of streams<br>and wetlands from<br>sediment and pollutants<br>from construction related<br>activities or operation of<br>facilities<br>Severe stream instability or<br>degradation from increased<br>volumes of stormwater<br>runoff from construction<br>related activities or from<br>increases in impervious<br>surface |  |  |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites)  | Localized (i.e., low<br>probability of impacts<br>to the greater<br>watershed)  | Localized (i.e.,<br>confined to the<br>project sites)<br>with moderate<br>probability of<br>impacts to the<br>greater<br>watershed | Localized (i.e., confined to<br>the project sites) with high<br>probability of impacts to<br>the greater watershed  |  |  |
| Duration              | Temporary, lasting<br>only through<br>construction   | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction   | Lasting 1+ years<br>after<br>construction  | Permanent impacts after construction  |  |  |

 Table 4-10. Impact Intensity Thresholds for Water Resources

# 4.5.2 What Streams and Wetlands Are Located on the MRC West Parcel?

The MRC West Parcel is within the Anacostia River Watershed (MD DNR 8-digit Watershed 02140205) and more specifically within the Upper Beaverdam Creek Watershed (MD DNR 12-digit Watershed 021402050823), which is a Tier II watershed.<sup>5</sup>

Three natural stream valleys originate in the north, northwest, and west areas of the campus and run south and west to the low point on Odell Road in the south. A wooded riparian area is maintained along each of these streams. Several small natural water bodies are located along the stream valleys, and three large ponds created by former gravel pits occupy the western edge of the campus. Perennial and intermittent streams on the MRC West Parcel are subject to Prince George's County Stream Valley Buffers (SVBs) and require a 125 feet minimum buffer, which may be expanded up to 150 feet to include steep slopes equal to or greater than 25 percent. No buildings, structures, impervious surfaces, or activities requiring clearing or grading are permitted within SVBs, except for unavoidable road, trail, or utility crossings. A minimum wetland buffer of 25 feet is required for all wetlands.

Field investigations were conducted in October and November 2020 to determine the presence, extent, location, and classification of any waters of the U.S. (WOUS), including streams and wetlands, or waters of the State located within or adjacent to the MRC West Parcel. Perennial and intermittent waterways were delineated, and wetlands were delineated following the procedures detailed in the *Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual*: *Atlantic and Gulf Coastal Plain Region Version 2.0* (USACE, 2010), and all subsequent guidance and clarifications. A total of five streams (WOUS1 through WOUS5) and 11 wetlands (WET1 through WET11) were identified. The locations of the waterways and wetlands identified in the field and their associated buffers within the MRC West Parcel are described below and shown on **Figure 4-13**. **Table 4-11** provides a summary of the streams delineated in the field, and **Table 4-12** provides a summary of the wetlands.

| Stream ID | Name              | Classification | 8-digit Watershed ID | Length Flagged (If) |
|-----------|-------------------|----------------|----------------------|---------------------|
| WOUS1     | Unnamed Tributary | Intermittent   | Anacostia River      | 158                 |
| WOUS2     | Unnamed Tributary | Intermittent   | Anacostia River      | 47                  |
| WOUS3     | Unnamed Tributary | Intermittent   | Anacostia River      | 115                 |
| WOUS4     | Unnamed Tributary | Intermittent   | Anacostia River      | 221                 |
| WOUS4     | Unnamed Tributary | Perennial      | Anacostia River      | 704                 |
| WOUS5     | Unnamed Tributary | Intermittent   | Anacostia River      | 140                 |

#### Table 4-11. Streams on the MRC West Parcel

<sup>&</sup>lt;sup>5</sup> Tier II waters are high quality and better than the minimum water quality requirements (MDE, 2021b). As such, these waters are afforded additional protections under Federal and state antidegradation regulations (40 CFR §131.12 and COMAR 26.08.02.04, respectively).

| Stream ID | Classification | 8-digit Watershed | Area Flagged (sf) | Continues Outside<br>Study Area? |
|-----------|----------------|-------------------|-------------------|----------------------------------|
| WET1      | PFO            | Anacostia River   | 7,441             | No                               |
| WET2      | PFO            | Anacostia River   | 3,292             | Yes                              |
| WET3      | PFO            | Anacostia River   | 16,542            | Yes                              |
| WET4      | POW            | Anacostia River   | 151               | Yes                              |
| WET4      | PFO            | Anacostia River   | 11,707            | No                               |
| WET5      | PFO            | Anacostia River   | 19                | No                               |
| WET6      | PFO            | Anacostia River   | 3,393             | No                               |
| WET7      | PFO            | Anacostia River   | 13,523            | Yes                              |
| WET8      | POW            | Anacostia River   | 9,024             | Yes                              |
| WET9      | PFO            | Anacostia River   | 26,096            | Yes                              |
| WET9      | POW            | Anacostia River   | 5,212             | Yes                              |
| WET9      | PEM            | Anacostia River   | 2,476             | No                               |
| WET10     | PFO            | Anacostia River   | 10,027            | Yes                              |
| WET11     | PFO            | Anacostia River   | 26,628            | No                               |

Table 4-12. Wetlands on the MRC West Parcel



Figure 4-13. Existing Waterways and Wetlands

# 4.5.3 How Would Streams and Wetlands Be Affected by the Project?

#### **No-Action Alternative**

Under the No-Action Alternative, no site grading, construction of buildings, pedestrian walkways, elevated boardwalks, roads, and parking garages would occur; therefore, no wetlands or stream systems on the MRC West Parcel would be impacted. The ongoing projects that are occurring at the MRC West Parcel would not impact waterways or wetlands or streams.

### Alternatives A, B, and C (Action Alternatives)

Under the Action Alternatives, vegetation clearing, site grading, and other construction activities would impact water resources. Construction activities would temporarily impact 0.06 acres of wetlands, 0.25 acres of wetland buffers, 246 lf of streams, and 0.59 acres of SVBs under Alternative A; 0.05 acres of wetland buffers and 0.04 acres of SVBs under impacts Alternative B; and 0.17 acres of wetlands, 0.18 acres of wetland buffers, 68 lf of streams, and 0.40 of SVBs impacts under Alternative C (**Table 4-13** and **Figure 4-15** through **Figure 4-17**). Because Alternative C has greater than 0.1 acres of temporary wetland impacts, construction under this alternative would result in a moderate, short-term, adverse impact. Alternative A would result in minor, short-term, adverse impacts to wetlands. There would be no short-term impacts to

wetlands under Alternative B. Similarly, moderate, short-term, impacts to SVBs would occur under Alternative A due to tree clearing for construction. Alternatives B and C would result in minor, short-term, adverse impacts to SVBs from tree clearing. During construction, BMPs such as silt fence, erosion matting, sediment traps, sediment basins, and revegetation of exposed sediment would be implemented to minimize soil erosion and stormwater pollution into adjacent streams or wetlands. Stormwater management plans and erosion and sediment control plans would be prepared and submitted to MDE for review and approval prior to construction. Authorization under Section 404/ 401 of the CWA would be required for temporary impacts to wetlands, wetland buffers, and waterways and would require authorization under Maryland's Wetland and Waterway Regulations. Review and apporvall by M-NCPPC would be required for temporary impacts to SVBs.

After construction is complete, Alternative A would result in permanent impacts to 0.05 acres of wetlands

and wetland buffers; Alternative B would result in impacts to 0.01 acres of wetland buffers, and Alternative C would result in impacts to 0.05 acres of wetlands and 0.04 acres of wetland buffers and 68 lf of streams (Table 4-13 and Figure 4-15 through Figure 4-17). Impacts would be created by the addition of the elevated boardwalks under the Alternatives A and C. The elevated boardwalks proposed under Alternatives A and C would meander through the forested area between the MOD 1 and MOD 2 buildings and the BRF (Figure 4-14). The permanent impacts from the addition of an elevated boardwalk in Alternative A would be moderate, long-term, and adverse, and minor, long-term, and adverse in Alternative C. This is a result of piles driven into the wetlands, wetland buffers, and SVBs. The elevated boardwalk would be constructed above any water resources and would not affect water infiltration, thereby limiting the long-term impacts. There would be no impacts to water resources as a result of the elevated boardwalk under Alternative B. Authorization under Section 404/ 401 of the CWA would be required for permanent impacts to wetlands and waterways. Permanent impacts to wetlands, wetland buffers, and waterways would



Figure 4-14. Example of Proposed Elevated Boardwalk

require authorization under Maryland's Wetlands and Waterways Regulations. Permanent impacts to SVBs subject to review and approval by M-NCPPC under Prince George's County Forest Conservation regulations.

All disturbed areas where no buildings, walkways, roads, or parking garages would be located would be permanently revegetated and stabilized following construction to prevent further erosion of soils and runoff into streams, wetlands, and SVBs. Streams and wetlands would be restored to pre-construction conditions to the maximum extent practicable following construction, including contour and elevation restoration, revegetated with native species, streambank stabilization, and stream substrate replacement. SVBs would be revegetated with native trees, shrub and herbaceous species to restore the filtering effects of thse vegetated buffers; thereby reducing runoff to streams and wetlands.

Implementation of the Master Plan would increase the amount of impervious surface at the MRC West Parcel and increase the amount and temperature of stormwater runoff, which could increase peak discharges, temperatures, and pollutant load in the receiving stream(s) or wetland(s), thereby reducing water quality and degrading the biological integrity of streams and wetlands both on and offsite. These longterm, adverse impacts would be minimized using BMPs, such as silt fencing, stabilized construction entrances, erosion matting, and sediment traps, and vegetative stabilizations and appropriate stormwater management.

|               | Wetland Ir | mpacts (ac) | Wetland Buffer Impacts<br>(ac) |           | Streams (WOUS) (If) |           | SVB (ac)  |           |
|---------------|------------|-------------|--------------------------------|-----------|---------------------|-----------|-----------|-----------|
|               | Temporary  | Permanent   | Temporary                      | Permanent | Temporary           | Permanent | Temporary | Permanent |
| Alternative A | 0.06       | 0.05        | 0.25                           | 0.05      | 246                 | 0         | 0.59      | 0.11      |
| Alternative B | 0          | 0           | 0.05                           | 0.01      | 0                   | 0         | 0.04      | 0.02      |
| Alternative C | 0.17       | 0.05        | 0.18                           | 0.04      | 68                  | 0         | 0.40      | 0.08      |

#### Table 4-13. Impact for Wetlands, Wetland Buffers, and Streams



Figure 4-15. Water Resource Impacts Under Alternative A



Figure 4-16. Water Resource Impacts Under Alternative B



#### Figure 4-17. Water Resource Impacts Under Alternative C

## 4.5.4 What Measures Would Be Taken To Protect Streams And Wetlands?

During construction, BMPs such as silt fence, erosion matting, sediment traps, sediment basins, and revegetation of exposed sediment would be implemented to minimize soil erosion and stormwater pollution. Stormwater management plans and erosion and sediment control plans would be prepared and submitted to MDE for review and approval prior to construction of each phase. All disturbed areas where no buildings, walkways, roads, or parking garages would be located would be permanently revegetated and stabilized following construction to prevent further erosion of soils and runoff into streams and wetlands. Streams and wetlands would be restored to pre-construction conditions to the maximum extent practicable following construction, including contour and elevation restoration, revegetation with native species, streambank stabilization, and stream substrate replacement.

Authorization under Section 404/401 of the CWA would be required for permanent and temporary impacts to wetlands and waterways. Temporary and permanent impacts to wetlands, wetland buffers, and waterways would require authorization under Maryland's Wetland and Waterway Regulations. Compensatory mitigation is required for permanent wetland impacts of 5,000 square feet (sf) (0.11 ac.) or greater and 200 lf of stream or more. A restoration plan that outlines measures to be implemented for temporary impacts to streams and wetlands would be developed.

Additional information from stormwater impacts to streams and wetlands can be found in Section 4.6.3.

# 4.6 STORMWATER

# 4.6.1 Assessment Methodology

Impacts from stormwater were analyzed based on the characteristics and current conditions of the study area in comparison with site conditions to be expected following construction. The location of stormwater features in relation to proposed demolition and new construction, and changes in impervious surfaces were assessed.

The impact thresholds for surface water are provided in **Table 4-14**.

| Effect                | Impact Level  |   |  |   |  |  |
|-----------------------|---|---|--|---|--|--|
| Characteristics       | Negligible  | Minor   | Moderate   | Major   |  |  |
| Intensity             | Non-discernable<br>changes to stream<br>stability or aquatic<br>habitats from<br>stormwater runoff<br>from construction<br>related activities | Slight, but detectable<br>stream instability or<br>degradation from<br>stormwater runoff<br>from construction<br>related activities or<br>from increases in<br>impervious surface | Effect that is<br>potentially<br>major but with<br>best practices<br>and mitigation<br>measures is<br>reduced below<br>major   | Severe stream instability or<br>degradation from increased<br>volumes of stormwater<br>runoff from construction<br>related activities or from<br>increases in impervious<br>surface |  |  |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites)   | Localized (i.e.,<br>confined to the<br>project sites)   | Localized (i.e.,<br>confined to the<br>project sites)<br>with high<br>probability of<br>impacts to the<br>greater<br>watershed | Localized (i.e., confined to<br>the project sites) with high<br>probability of impacts to<br>the greater watershed  |  |  |
| Duration              | Temporary, lasting<br>only through<br>construction  | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction   | Lasting 1+ years<br>after<br>construction  | Lasting 1+ years after<br>construction  |  |  |

 Table 4-14. Impact Intensity Thresholds for Stormwater

## 4.6.2 What Stormwater Practices are Located at the MRC West Parcel?

There are four existing detention ponds on the MRC West Parcel that provide stormwater quantity control. One of the ponds is within the study area (**Figure 4-18**). The ponds were built prior to MDE stormwater management requirements, so there is no indication that the ponds were built with the intention to manage stormwater quality. It is possible that these ponds could be retrofitted to provide some water quality benefit to the site. Within the campus there are building rooftops that are disconnected and discharge stormwater into forested areas, which then provide water quality treatment. There are also some roads that sheet-flow directly onto vegetated areas that provide water quality treatment.



#### Figure 4-18. Existing Stormwater Ponds Within the Study Area

Currently, the MRC West Parcel consists of less than 10 percent impervious land cover, including buildings, parking lots, and roadways. Therefore, a NPDES Municipal Separate Stormwater System (MS4) permit waiver was granted by MDE and restoration efforts have not been required. Any new development at the MRC West Parcel would increase the impervious area above the 10 percent requirement. The campus would then be subject to NPDES MS4 permit requirements, including providing water quality treatment for 20 percent of the existing impervious areas around the MRC West Parcel site, outside the limits of the new development.

The MRC West Parcel is in the Upper Beaverdam Creek Watershed, which is categorized as a Tier II watershed. Beaverdam Creek is a tributary to the Anacostia River, which is an impaired stream and has an USEPA Total Maximum Daily Load<sup>6</sup> (TMDL) for sediment. As of 2018, the MRC West Parcel became subject to NPDES State and Federal Small MS4 Discharge Permit (General Permit) requirements due to the campus exceeding the permit's five-acre coverage threshold. The emphasis of this permit is to help achieve the Chesapeake Bay TMDL goals established under the authority of the CWA. The permit requirements include implementation of the following:

<sup>&</sup>lt;sup>6</sup> A TMDL establishes a target for the total load of pollutant the water body can assimilate.

- Public education and outreach,
- Public involvement and participation,
- Illicit discharge detection and elimination,
- Construction site stormwater runoff control (i.e., erosion and sediment control),
- Post-construction runoff control (i.e., stormwater management),
- Pollution prevention and good housekeeping, and
- Development of a baseline impervious area assessment.

#### **Prince George's County Required Quantity Control**

In 2019, Prince George's County issued requirements that 100-year stormwater quantity control for development in the County's 100-year flood control map would be required unless otherwise determined by the Prince George's County DPIE on a case-by-case basis (DPIE, 2019). While the MRC West Parcel is not located within the FEMA mapped 100- and 500-year floodplain, it is within the area identified on the County's 100-year flood control map and is located at the outer edge of the Anacostia Watershed drainage basin. While there are known flooding issues along the Anacostia River and many of its more urban tributaries, these issues are far downstream from the MRC West Parcel.

# 4.6.3 How Would the Master Plan Affect Stormwater Management at the MRC West Parcel?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Stormwater quantity would continue to be provided by the four existing ponds. No additional impervious areas would be constructed. Stormwater would continue to be discharged into forested areas. Ongoing projects at the MRC West Parcel are not expected to impact stormwater management. Drainage improvements proposed along the North Loop Road would minimize stormwater runoff.

#### Alternative A: Compact Campus

Alternative A would add 9.7 acres of impervious surface from the addition of proposed buildings, roads, parking structures, bike paths, walking paths, and utilities (**Table 4-15**). This number includes 2.4 acres of buildings that could have green roofs. Alternative A would also remove 6.9 acres of existing impervious surface, mainly through the reduction of roads and surface parking, resulting in a net increase of 2.8 acres of impervious cover. This represents a 2.6 percent increase in impervious surface on the MRC West Parcel, for a total of 29.6 percent total impervious cover, which includes 6.6 acres of structures, 1.6 acres of pedestrian paths, and 4.7 acres of roads/parking within the study area (**Table 4-16**). This increase in impervious surfaces could result in increased stormwater flows, soil erosion, and water quality degradation, resulting in a minor, long-term, adverse impacts. Implementation of permanent stormwater controls, as described in the mitigation measures section below, would minimize stormwater runoff and potential water quality degradation of the stream from implementation of the Master Plan. Specific stormwater controls may be needed to reduce runoff potential for slope failure as well as water infiltration into buildings (**Figure 4-19**).

With mitigation, the impacts to stormwater from construction activities would be slightly detectible; therefore, Alternative A would result in minor, short-term, adverse impacts from stormwater.

Permanent BMPs and Environmental Site Design (ESD) strategies are proposed to reduce the amount of stormwater, sediments, and pollutants entering streams and wetlands. The proposed MD ESD treatment area includes 50 percent of green roofs (1.2 acres) and 36,500 sf of micro-bioretention and bioswales. The increase in impervious surface that would occur under Alternative A would result in a minor, long-term, adverse impact.

|  | No-Action<br>Alternative | Alternative<br>A | Alternative<br>B | Alternative<br>C |
|--|--------------------------|------------------|------------------|------------------|
| Additional Impervious Cover (Acres<br>[Ac])                          | 0.0                      | 9.7              | 7.2              | 9.5              |
| Existing Impervious Surface to be<br>Removed (Ac)                    | 0.0                      | 6.9              | 2.5              | 4.7              |
| Net Increase of Impervious Surface<br>(Ac)                           | 0.0                      | 2.8              | 4.7              | 4.8              |
| Total Impervious Cover for entire<br>MRC West Parcel (Ac)            | 10.7                     | 22.5             | 15.4             | 24.4             |
| Percentage Increase for the Entire<br>MRC West Parcel                | 0.0%                     | 2.6%             | 4.4%             | 4.5%             |
| Total Percentage of Impervious<br>Surface for Entire MRC West Parcel | <10%                     | 29.6%            | 20.3%            | 32.1%            |

#### Table 4-15. Impervious Surface by Alternative

#### Table 4-16. Impervious Surface within the Study Area by Alternative

|               | Structures<br>(Ac) | Pedestrian<br>Paths/Elevated<br>Boardwalks<br>(Ac) | Roads/Parking<br>(Ac) | Total (Ac) |
|---------------|--------------------|--|-----------------------|------------|
| Alternative A | 6.6                | 1.6  | 4.7                   | 12.9       |
| Alternative B | 8.2                | 1.8  | 5.4                   | 15.4       |
| Alternative C | 6.9                | 1.4  | 6.1                   | 14.4       |



Figure 4-19. Proposed Stormwater Management Under Alternative A

#### Alternative B: Dual Campus (Preferred Alternative)

Alternative B would add 7.2 acres of impervious surface due to the additional proposed buildings, roads, and parking structures (**Table 4-15**). However, this number includes 3.7 acres of buildings that could have green roofs. Alternative B would also remove 2.5 acres of existing impervious surface, mainly through the reduction of roads and surface parking, resulting in a net increase of 4.7 acres of impervious cover. This represents a 4.4 percent increase in impervious surface on the MRC West Parcel, for a total of 20.3 percent impervious cover, which includes 8.2 acres of structures, 1.8 acres of pedestrian paths, and 5.4 acres of roads/parking within the study area (**Table 4-16**). This increase in impervious surfaces could result in increased stormwater flows, soil erosion, and water quality degradation. This would result in minor, long-term, adverse impacts. Implementation of permanent stormwater controls, as described in the mitigation measures section below, would minimize stormwater runoff and potential water quality degradation of the stream from implementation of the Master Plan. Specific stormwater controls may be needed to reduce runoff potential for slope failure as well as water infiltration into buildings (**Figure 4-20**). Therefore, with mitigation, the impacts to stormwater from construction activities would be slightly detectible; therefore, Alternative B would result in minor, short-term, adverse impacts from stormwater.

Permanent BMPs and Environmental Site Design (ESD) strategies are proposed to reduce the amount of stormwater, sediments, and pollutants entering streams and wetlands. The proposed MD ESD treatment area includes 50 percent of green roofs (1.2 acres) and 36,500 sf of micro-bioretention and bioswales. The increase in impervious surface that would occur under Alternative B would result in a minor, long-term, adverse impact.



Figure 4-20. Proposed Stormwater Management Under Alternative B (Preferred Alternative)

#### **Alternative C: Northeast Campus**

Alternative C would add 9.5 acres of impervious surface due to the additional proposed buildings, roads, and parking structures (**Table 4-15**). However, this number includes 2.4 acres of buildings that could have green roofs. Alternative C would also remove 4.7 acres of existing impervious surface, mainly through the reduction of roads and surface parking, resulting in a net increase of 4.8 acres of impervious cover. This represents a 4.5 percent increase in impervious surface on the MRC West Parcel, for a total of 32.1 percent impervious cover, which includes 6.8 acres of structures, 1.2 acres of pedestrian paths, and 6.2 acres of roads/parking within the study area (**Table 4-16**). This increase in impervious surfaces could result in increased stormwater flows, soil erosion, and water quality degradation. This would result in minor, long-term, adverse impacts. Implementation of permanent stormwater controls, as described in the mitigation measures section below, would minimize stormwater runoff and potential water quality degradation of the stream from implementation of the Master Plan. Specific stormwater controls may be needed to reduce runoff potential for slope failure as well as water infiltration into buildings (**Figure 4-21**). Therefore, with mitigation, the impacts to stormwater from construction activities would be slightly detectible; therefore, Alternative C would result in minor, short-term, adverse impacts from stormwater.

Permanent BMPs and Environmental Site Design (ESD) strategies are proposed to reduce the amount of stormwater, sediments, and pollutants entering streams and wetlands. The proposed MD ESD treatment area includes 50 percent of green roofs (1.2 acres) and 47,600 sf of micro-bioretention and bioswales. The increase in impervious surface that would occur under Alternative C would result in a minor, long-term, adverse impact.



Figure 4-21. Proposed Stormwater Management Under Alternative C

# 4.6.4 What Types of Stormwater Quantity and Quality Control Measures Would Be Implemented

Stormwater quantity and quality control measures would be designed and implemented in accordance with the regulations, permits and guidance documents found in **Table 4-17**.

| Regulation, Permit, or Guidance   | Applicable Requirements   |  |
|---|---|--|
| COMAR 26.17.01 Erosion and Sediment Control   | Erosion and sediment control plans would be<br>prepared and submitted to MDE for review and<br>approval prior to construction. During construction,<br>BMPs such as silt fence, erosion matting, inlet<br>protection, sediment traps, sediment basins, and<br>revegetation of exposed sediment would be<br>implemented to minimize soil erosion and<br>stormwater pollution.                    |  |
| COMAR 26.17.02 Stormwater Management  | Stormwater management plans would be prepared<br>and submitted to MDE for review and approval prior<br>to construction. Within the limits of the new<br>development, Maryland Environmental Site Design<br>(ESD) strategies would be implemented to the<br>maximum extent practicable (MEP). MDE will only<br>allow a maximum of 20 acres of ground be in a<br>disturbed condition at any time. |  |
| Maryland Standards and Specifications for Soil<br>Erosion and Sediment Control (MDE, 2011a)                                 | Erosion and sediment control plans would be prepared in accordance with these standards.  |  |
| Maryland Stormwater Management and Erosion<br>& Sediment Control Guidelines for State and<br>Federal projects (MDE, 2015)   | Stormwater management plans would be prepared in accordance with these standards.   |  |
| Maryland Stormwater Design Manual, Volumes I<br>& II and Supplement 1 (MDE, 2009)   | Stormwater management plans would be prepared in accordance with these standards.   |  |
| Section 438 of the Energy Independence and Security Act of 2007 (EISA)  | Low Impact Development (LID) strategies would be<br>employed in accordance with the Technical<br>Guidance on Implementing the Stormwater Runoff<br>requirements for Federal Projects under Section 438<br>of the EISA.  |  |
| Technical Guidance on Implementing the<br>Stormwater Runoff Requirements for Federal<br>Projects under EISA 438 (EPA, 2009) | Stormwater management design would have to comply with these requirements.  |  |
| NPDES General Permit for Stormwater Associated with Construction Activity, administered by MDE                              | Once plan approval is received from MDE, a Notice<br>of Intent (NOI) must be filed, and this general<br>permit would be obtained from MDE.  |  |

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| Regulation, Permit, or Guidance   | Applicable Requirements   |  |
|---|---|--|
| NPDES General Permit for Discharges from State<br>and Federal Small Municipal Separate Storm<br>Sewer Systems (MS4s), administered by MDE                     | Permit requires the development and<br>implementation of an impervious area restoration<br>work plan on sites where impervious area makes up<br>10 percent of the site or more. Expanded campus<br>would be subject to complying with the permit's<br>many requirements including providing water<br>quality treatment for 20% of the existing untreated<br>impervious areas around the MRC West Parcel site,<br>outside the limits of the new development. |  |
| Prince George's County "Techno-Gram" (002-<br>2019), 2019   | 100-year stormwater quantity control would be<br>required, unless otherwise determined by the<br>Prince George's County Department of Permitting,<br>Inspections and Enforcement (DPIE) on a case-by-<br>case basis.  |  |
| NCPC's Federal Elements of the Comprehensive<br>Plan for the National Capital, SECTION C: Policies<br>Related to Water Resources and Stormwater<br>Management | Federal government should reduce the amount of<br>stormwater that flows into the sewer system and<br>rivers; clean the stormwater that does flow into<br>streams and rivers; increase regional infiltration<br>rates and aquifer recharge; and reduce water<br>consumption by reusing stormwater.   |  |

Per the MDE NPDES MS4 permit, sites where impervious area makes up 10 percent of the site or more, the development and implementation of an impervious area restoration work plan is required. FDA would be required to reduce or treat 20 percent of its existing impervious area on the MRC West Parcel, outside of the limits of the new development.

Within the limits of the new development, State of Maryland ESD strategies would be implemented to the maximum extent practicable and structural practices would be used only where necessary. Once ESD requirements are met, the project would also be in compliance with water quality volume, groundwater recharge, and channel protection volume requirements. Leadership in Energy & Environmental Design (LEED®) and the Sustainable Sites Initiative™ (SITES™) points for stormwater management would be pursued for each building. Low Impact Development (LID) strategies would be employed in accordance with the Technical Guidance on Implementing the Stormwater Runoff requirements for Federal Projects under Section 438 of the EISA. LID and ESD methods both utilize the same BMPs; however, slightly different calculations are used during design in order to verify compliance with standards.

Strategies to incorporate stormwater management into the site as amenities and spatial drivers would be pursued, as well as exploring the potential to integrate the design into the natural systems at the MRC West Parcel. Stormwater runoff would be conveyed to new non-structural ESD/LID/BMP facilities. Once ESD measures have been implemented to the maximum extent practicable, then structural BMP facilities may be utilized. Stormwater management would mostly be provided in the form of bioswales along the roads, micro-bioretention facilities scattered throughout the site, and walled micro-bioretention areas around the garages, in areas where standard micro-bioretention would not work. Pervious pavements may also be utilized in some locations such as fire lanes, sidewalks, paths, and other hardscape areas. Steep slopes adjacent to the proposed development may limit the use of micro-bioretention and structural BMPs may have to be utilized instead.
Office buildings would maximize the use of rooftop rainwater harvesting as well as green roofs. A green roof with 4-inch media, for example, provides 38 percent of the required MDE Environmental Site Design Volume (ESDv). It is recommended that rooftop rainwater capture and reuse be utilized where feasible. Typical reuse methods are toilet flushing and cooling tower makeup water. FDA may have other possible uses for captured rainwater onsite. Roadways would maximize use of bioswales. Pervious pavements may also be utilities in some locations as fire lanes, sidewalks, paths, and other hardscape areas.

The stormwater management facilities would drain to new storm pipe systems that would in turn outfall to existing tributaries of Beaverdam Creek. Outfalls would be required to be non-erosive. Storm drain piping would be reinforced concrete (RCP) or high-density polyethylene (HDPE) pipe. Due to space limitations, it is anticipated that any necessary quantity control would be provided by underground stormwater management. This underground facility could be provided utilizing one of the following:

- Pipes (Corrugated Metal Pipe (CMP) or HDPE)
- Perforated pipes (CMP or HDPE) in a gravel bed
- Box culverts
- Concrete vaults
- Many different available manufactured products

A NOI would be filed and NPDES General Permits for construction would be required for all new work. During construction, BMPs such as silt fence, erosion matting, inlet protection, sediment traps, sediment basins, and revegetation of exposed sediment would be implemented to minimize soil erosion and stormwater pollution. Stormwater management plans and sediment and erosion control plans would be prepared for all the new work on site and submitted to MDE for review and approval prior to the construction of each phase. Per MDE requirements only 20 acres of ground would be disturbed at any time. All disturbed areas would be permanently revegetated and stabilized following construction. Temporary impacts to streams and wetlands would be restored to pre-construction conditions to the maximum extent practicable following construction, including contour and elevation restoration, revegetation with native species, streambank stabilization, and stream substrate replacement.

A downstream analysis would be required to determine whether Overbank Flood Protection (10-year storm) or Extreme Flood Protection (100-year storm) needs to be addressed. Initial research and analysis indicate that providing attenuation at the MRC West Parcel would not provide benefits as far downstream as the current areas of flooding.

Construction contractors would be required to implement and maintain these erosion and sediment control measures until construction is complete, vegetation has been established, and permanent stormwater controls are in place. Upon completion of the project, and with the permission of the Sediment Control Inspector, the temporary erosion control measures would be removed and the site fully stabilized.

# 4.7 VEGETATION

# 4.7.1 Assessment Methodology

Impacts to vegetation were analyzed based on the characteristics and current conditions of the study areas in comparison with site conditions to be expected following construction. Vegetation removal was assessed

using GIS to overlay proposed new construction with mapping of existing trees, defined as trees with a diameter at breast height of 30 inches or more, and existing forested and landscaped areas. Trees, woodlands, and wildlife habitat are protected by the *Prince George's County Woodland* and *Wildlife Conservation Ordinance* (WCO), the State of Maryland's *Forest Conservation Act*, and NCPC's *Tree Preservation and Replacement Policies*. The WCO limits the clearing of trees and forest to a threshold acreage that is calculated based on zoning, property size, acreage of existing woodland, and other site-specific factors, and requires that priority areas for woodland conservation be considered during site design. Primary Management Area<sup>7</sup> (PMA) impacts were assessed in relation to construction activities and tree clearing throughout the site. The State of Maryland *Forest Conservation Act* identifies the amount and location of forest to be conserved and the areas to be planted with trees. NCPC prioritizes tree preservation and offers alternatives to mitigate tree canopy loss if preservation is not possible.

The impact thresholds for vegetation are provided in Table 4-18.

| Effect          |   | Impac   | t Level   |  |
|-----------------|---|---|---|--|
| Characteristics | Negligible  | Minor   | Moderate  | Major  |
| Intensity       | Non-discernable<br>changes to<br>vegetation<br>No specimen trees<br>would be removed<br>Habitat levels<br>would remain<br>consistent with<br>current conditions<br>Vegetative<br>disturbance would<br>not result in the<br>proliferation of<br>invasive species<br>Fragmentation of<br>vegetative cover<br>types would not<br>occur | Vegetation removal<br>from the sites would be<br>slight, but detectable<br>and would consist<br>largely of mowed lawn<br>areas and minimal<br>natural habitat<br>A small percentage of<br>trees would be removed<br>but most of the large<br>trees and contiguous<br>woodland on the site<br>would remain with no<br>loss of existing natural<br>processes and<br>ecosystem functions<br>Establishment of<br>invasive species that<br>would be slight, but<br>detectable<br>Fragmentation of<br>vegetative cover types<br>would not occur | Removal of small<br>areas of natural<br>forest, specimen<br>trees, or open<br>space that is<br>potentially major<br>but with best<br>practices and<br>mitigation<br>measures is<br>reduced below<br>major | Removal of natural forest<br>or open space would be<br>severe, resulting in a<br>highly noticeable<br>diminishment of existing<br>natural processes and<br>ecosystem functions<br>Removal of specimen<br>trees would result in a<br>highly noticeable change<br>to existing natural<br>processes and ecosystem<br>functions<br>High probability to result<br>in the proliferation of<br>invasive species<br>throughout the sites<br>Fragmentation of<br>vegetative cover types<br>would occur that would<br>inhibit existing natural<br>processes and ecosystem<br>functions |

#### Table 4-18. Impact Intensity Thresholds for Vegetation

<sup>&</sup>lt;sup>7</sup> A Primary Management Area (PMA) is a vegetated buffer along perennial and intermittent streams that encompasses the stream buffer, adjacent wetlands and wetland buffers, and steep slopes outside the Chesapeake Bay Critical Area Overlay Zones. If the PMA is not vegetated at the time of plan review, the planting of trees in this area is a high priority for woodland conservation (M-NCPPC, 2010a).

#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Effect<br>Characteristics | Impact Level  |   |   |   |
|---------------------------|---|---|---|---|
|                           | Negligible  | Minor   | Moderate  | Major   |
| Geographic<br>Context     | Localized (i.e.,<br>confined to the<br>project sites) | Localized (i.e., confined to the project sites) | Localized (i.e.,<br>confined to the<br>project sites) with<br>high probability of<br>Campus-wide<br>impacts | Localized (i.e., confined<br>to the project sites) with<br>high probability of<br>Campus-wide impacts |
| Duration                  | Temporary, lasting<br>only through<br>construction    | Lasting 1 to 5 years after construction         | Lasting 5+ years<br>after construction<br>and are not likely<br>to be reversible                            | Lasting 5+ years after<br>construction and are not<br>likely to be reversible                         |

# 4.7.2 What Types of Vegetation are Located on the MRC West Parcel?

Vegetation on the MRC West Parcel is a mixture of large areas of dense deciduous forest (trees that lose their leaves at the end of the frost-free season) and individual shade trees, and some invasive cover. Plant communities were classified using the Anderson land-cover classification system (Anderson et al., 1976). **Table 4-19** contains plant species that were identified during field investigations within the study area. Land cover found within the MRC West Parcel includes:

<u>Urban or Built-up Land</u> –Urban land within the MRC West Parcel includes a green buffer zone, FDA development, roads, and parking lots. Landscaped areas comprise most of the vegetation within the urban and developed land of the MRC West Parcel.

**Mixed Forest Land** – Forested areas within the MRC West Parcel have a mix of deciduous trees and coniferous trees (trees that retain needles throughout the entire year). There are 57.8 acres of forest within the study area, delineated into nine forest stands. Most of the forests within the study area are defined as early mid-successional<sup>8</sup> (USFWS, 2014).

Throughout the MRC West Parcel is a mixture of maintained grass and natural forest (**Table 4-19**). In the study area, forest stands exist along the edge of the MRC West Parcel and in the area between the MOD 1 and MOD 2 buildings and the BRF. The forest stands are dominated by overstory and understory trees and typically lack herbaceous vegetation. However, the most common herbaceous species in the forest stands was greenbrier (*Smilax sp.*). The most common overstory tree species were Virginia pine (*Pinus virginiana*), loblolly pine (*Pinus taeda*), and chestnut oak (*Quercus montana*). The most common understory tree species were American holly (*Ilex opaca*), sweetgum (*Liquidambar styraciflua*), and black gum (*Nyssa sylvatica*). Invasive herbaceous cover does exist throughout the MRC West Parcel in relatively low amounts. The common invasive species were Japanese honeysuckle (*Lonicera japonica*), Japanese barberry (*Berberis thunbergii*), and Japanese stiltgrass (*Microstegium vimineum*).

<sup>&</sup>lt;sup>8</sup> An early mid-successional forest is a transitional stage between a young and mature forest.

|            | Common Name          | Scientific Name         |
|------------|----------------------|-------------------------|
|            | Virginia pine        | Pinus virginiana        |
|            | Sassafras            | Sassafras albidum       |
|            | Sweetgum             | Liquidambar styraciflua |
|            | Eastern white pine   | Pinus strobus           |
|            | Red oak              | Quercus rubra           |
|            | Chestnut oak         | Quercus montana         |
|            | Loblolly pine        | Pinus taeda             |
|            | White oak            | Quercus alba            |
|            | Red maple            | Acer rubrum             |
| Overstory  | Hickory              | Carya tomentosa         |
|            | Willow oak           | Quercus phellos         |
|            | Beech                | Fagus grandifolia       |
|            | Slippery elm         | Ulmus rubra             |
|            | Tulip poplar         | Liriodendron tulipifera |
|            | Black gum            | Nyssa sylvatica         |
|            | Pin oak              | Quercus palustris       |
|            | Black willow         | Salix nigra             |
|            | Sycamore             | Platanus occidentalis   |
|            | Black oak            | Quercus velutina        |
|            | Red maple            | Acer rubrum             |
|            | Holly                | llex opaca              |
|            | Black cherry         | Prunus serotina         |
|            | Red osier dogwood    | Cornus sericea          |
|            | Sassafras            | Sassafras albidum       |
|            | Chestnut oak         | Quercus montana         |
|            | Red oak              | Quercus rubra           |
| Understein | Sweetgum             | Liquidambar styraciflua |
| Onderstory | Beech                | Fagus grandifolia       |
|            | Slippery elm         | Ulmus rubra             |
|            | American hornbeam    | Carpinus caroliniana    |
|            | Black gum            | Nyssa sylvatica         |
|            | Highbush blueberry   | Vaccinium corymbosum    |
|            | Sweetbay magnolia    | Magnolia virginiana     |
|            | Hickory              | Carya tomentosa         |
|            | Black willow         | Salix nigra             |
|            | Japanese honeysuckle | Lonicera japonica       |
| Invasive   | Japanese barberry    | Berberis thunbergii     |
|            | Japanese siltgrass   | Microstegium vimineum   |

#### Table 4-19. Vegetation Observed During 2020 Field Studies

Source: Stantec, 2021



Figure 4-22. Existing Vegetation

## 4.7.3 How Would Vegetation Be Affected By The Project?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Ongoing projects at the MRC West Parcel would not affect existing vegetation. There would be no impacts to vegetation as a result of the No-Action Alternative.

#### Alternatives A, B, and C (Action Alternatives)

**Table 4-20** provides the amount of temporary and permanent lawn, canopy, and PMA impacts per ActionAlternative.

|               | Temporary<br>Lawn<br>Impacts<br>(ac) | Permanent<br>Lawn<br>Impacts (ac) | Permanent<br>Canopy<br>Impacts (ac) | Number<br>of<br>Specimen<br>Trees<br>Removed | Temporary<br>PMA<br>Impacts (ac) | Permanent<br>PMA<br>Impacts (ac) |
|---------------|--------------------------------------|-----------------------------------|-------------------------------------|--|----------------------------------|----------------------------------|
| Alternative A | 5.3                                  | 3.5                               | 4.8                                 | 40   | 0.9                              | 0.2                              |
| Alternative B | 4.8                                  | 4.4                               | 5.2                                 | 38   | 0.1                              | 0.1                              |
| Alternative C | 4.4                                  | 4.1                               | 4.8                                 | 47   | 0.6                              | 0.1                              |

Table 4-20. Vegetation Impacts by Alternative

Under all the Action Alternatives, most development activity would occur within areas designated as Urban or Built-Up Land and would be compatible with this designation. Construction of buildings, parking garages, roadways, bike paths, walking paths, and utilities under Alternative A would result in permanent impacts to 4.8 acres of forest, 3.5 acres of maintained lawn, and 0.2 acres of PMA; 5.2 acres of forest, 4.4 acres of maintained lawn, 0.1 acres of PMA under Alternative B; and 4.8 acres of forest, 4.1 acres of maintained lawn, and 0.1 acres of PMA under Alternative C (**Table 4-20**).

Construction activities would be limited to the areas where buildings, roadways, utilities, parking garages, surface parking, and elevated boardwalks are to be constructed. If any additional clearing or grading is required for construction activities outside of these areas, the affected areas would be restored to preconstruction conditions, including replanting of trees in accordance with local and State requirements and revegetation with appropriate seed mixes; and would replace invasive species with native ones to the greatest extent possible. Clearing needed for construction would result in moderate, short-term, adverse impacts and would be minimized as much as possible by implementing BMPs during construction, such as tree protection fencing, matting to prevent soil compaction, and protection of root zones of trees not to be removed.

The elevated boardwalk under Alternatives A and C would meander through the forested area between the MOD 1 and MOD 2 buildings and the BRF (**Figure 4-14**). Elevating the boardwalk would reduce the long-term impacts. The boardwalk would be designed to minimize tree removal, but some trees would need to be removed to accommodate the boardwalk. The elevated boardwalk under Alternative B would meander through the forested area connecting the new laboratories to the new office buildings on the BRF site. The long-term adverse impacts to vegetation as a result of the Action Alternatives would be moderate because there would be a noticeable change in vegetation, but with mitigation the impact would not rise to a significant level.

Most of the other impacts under Alternatives A and B would occur in existing lawn areas at the MOD 1 and MOD 2 buildings and the BRF; and Alternative C would occur in existing lawn areas at the BRF. Some impacts would occur at the forest edge and portions of the forest would be removed. Although the Action Alternatives would result in the removal of vegetation, there would not be a fragmentation of forested areas. As seen in **Figure 4-23** through **Figure 4-25**, there would still be large, contiguous areas of vegetation remaining under the Action Alternatives. These minor, long term, adverse impacts would be minimized using tree protection to reduce root zone impacts, stabilized construction entrances, and using elevated boardwalks, which is a pervious system that allows canopy cover, even if some trees are removed. FDA and GSA have developed a Tree Preservation and Conservation/ Forest Management Plan to outline minimization and mitigation measures for tree and forest loss (**Appendix G**). Any trees removed would be replaced according to NCPC, State of Maryland, and Prince George's County requirements.



Figure 4-23. Vegetation Impacts Under Alternative A



Figure 4-24. Vegetation Impacts Under Alternative B



Figure 4-25. Vegetation Impacts Under Alternative C

# 4.7.4 What Efforts Would Be Made To Protect Vegetation?

BMPs for tree protection would be used to help preserve trees in the forested areas; these include tree protection fencing and root pruning for trees with critical root zones within the construction area. A Forest Conservation Plan has been developed to comply with the NCPC's *Tree Preservation and Replacement Policy*, the *Prince George's County Woodland and Wildlife Habitat Conservation Ordinance*, and the *Maryland Forest Conservation Act* (COMAR 8.19). The plan outlines compensatory mitigation, to offset the loss of vegetation.

NCPC prioritizes tree preservation and focuses on transplanting or replacing existing trees when they are impacted by development. Based on NCPC replacement requirements, trees less than 10-inches in diameter need to be replaced at a 1:1 ratio (one tree planted for every one tree removed) (NCPC, 2020). The *Prince George's County Woodland and Wildlife Habitat Conservation Ordinance* and the *Maryland Forest Conservation Act* both require replacement of trees based on a conservation threshold acreage. This is a benchmark percent of the total area of the site (forested and non-forested) by which replanting acreage is calculated. The replacement requirements are that 0.25 acres would be replaced for each acre cleared onsite above the conservation threshold acreage (1/4:1) and 2 acres for each acre cleared below the

conservation threshold acreage (2:1) (Prince George's County – Planning Department, 2021 and MDNR, 2021c).

Construction activities would only impact areas that are to be cleared for structural components. All areas that are impacted would be protected with construction fencing and matting to prevent soil compaction. Areas that are not to be developed would not be used for equipment, parking, and other construction related activities unless no other alternatives are feasible. In the areas affected by the Master Plan, invasive species would be removed and replanted with native species.

# 4.8 WILDLIFE

# 4.8.1 Assessment Methodology

Impacts to wildlife were analyzed based on the characteristics and current conditions of the study area, compared to site conditions anticipated following construction including changes in vegetation/wildlife habitat, increased site occupation, and increased traffic.

The impact thresholds for wildlife are provided in **Table 4-21**.

| Effect                |  | Impact  | Level  |   |
|-----------------------|--|---|--|---|
| Characteristics       | Negligible   | Minor   | Moderate   | Major   |
| Intensity             | Non-discernable<br>changes to native<br>wildlife species,<br>their habitat, or the<br>natural processes<br>sustaining them | Slight, but detectable<br>effect on wildlife from<br>temporary displacement<br>during construction<br>Habitat loss would be<br>slight, but detectable and<br>would not stress wildlife<br>populations due to<br>sufficient remaining<br>habitat | Effect that is<br>potentially major but<br>with best practices<br>and mitigation<br>measures is reduced<br>below major | Highly noticeable<br>mortality of wildlife or<br>interference with<br>activities necessary<br>for their survival<br>would occur<br>Habitat loss would<br>result in severe stress<br>to wildlife populations |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites)  | Localized (i.e., confined to the project sites)   | Campus-wide or<br>Regional (i.e.,<br>beyond the MRC<br>West Parcel) impacts  | Campus-wide or<br>Regional (i.e., beyond<br>the MRC West Parcel)<br>impacts   |
| Duration              | Temporary, lasting<br>only through<br>construction   | Temporary, lasting<br>through construction or<br>lasting 1+ years after<br>construction   | Lasting 1+ years after<br>construction   | Lasting 1+ years after<br>construction  |

Table 4-21. Impact Intensity Thresholds for Wildlife

# 4.8.2 What Wildlife Are Located At The MRC West Parcel?

The large, wooded land areas and open pasture on the MRC West Parcel support numerous wildlife species. **Table 4-22** shows the mammal, amphibians, and avian species which are potentially found on the MRC West Parcel (MDNR, 2021a). The MRC West Parcel has a high potential to support the mammal species listed in **Table 4-22**. The MRC West Parcel has a mix of forest and maintained grass, which provides habitat and food sources to all the species. During onsite investigations, evidence was seen of white-tailed deer (*Odocoileus*)

virginianus), squirrels (Sciurius carolinensis), rabbits (Leporidae sylvilagus), and groundhogs (Marmota monax).

| Species                      | Common Name                   | Scientific Name             |
|------------------------------|-------------------------------|-----------------------------|
|                              | White-tailed deer             | Odocoileus virginianus      |
|                              | Raccoon                       | Procyon lotor               |
|                              | Gray fox                      | Urocyon cinereoargenteus    |
|                              | Red fox                       | Vulpes                      |
|                              | Eastern cottontail            | Sylvilagus floridanus       |
|                              | Groundhog                     | Marmota monax               |
|                              | Virginia opossum              | Didelphis virginiana        |
|                              | Striped skunk                 | Mephitis                    |
|                              | Gray squirrel                 | Sciurus carolinensis        |
| Mammal Species               | Eastern chipmunk              | Tamias striatus             |
|                              | Southern flying squirrel      | Glaucomys volans            |
|                              | Coyote                        | Canis latrans               |
|                              | Eastern mole                  | Scalopus aquaticus          |
|                              | Beaver                        | Castor canadensis           |
|                              | White-footed deermouse        | Peromyscus leucopus         |
|                              | Little brown bat              | Myotis lucifugus            |
|                              | Big brown bat                 | Eptesicus fuscus            |
|                              | Eastern red bat               | Lasiurus borealis           |
|                              | Northern short-tailed shrew   | Blarina brevicauda          |
|                              | Eastern gartersnake           | Thamnophis sirtalis         |
|                              | Eastern box turtle            | Terrapene carolina          |
| Amphibian & Dantila Chaption | Fowler's toad                 | Anaxyrus fowleri            |
| Amphibian & Reptile Species  | Eastern ratsnake              | Pantherophis alleghaniensis |
|                              | Common gartersnake            | Thamnophis sirtalis         |
|                              | Eastern red-backed salamander | Plethodon cinereus          |
|                              | American robin                | Turdus migratorius          |
|                              | Northern mockingbird          | Mimus polyglottos           |
|                              | Pileated woodpecker           | Dryocopus pileatus          |
|                              | Mourning dove                 | Zenaida macroura            |
|                              | European starling             | Sturnus vulgaris            |
| Avian Species                | Canada geese                  | Branta canadensis           |
|                              | Northern cardinal             | Cardinalis                  |
|                              | Dark-eyed junco               | Junco hyemalis              |
|                              | White-throated sparrow        | Zonotrichia albicollis      |
|                              | Tufted titmouse               | Baeolophus bicolor          |
|                              | Carolina wren                 | Thryothorus ludovicianus    |
|                              | American goldfinch            | Spinus tristis              |
|                              | Cutlips minnow                | Exoglossum maxillingua      |
|                              | Rosyside dace                 | Clinostomus funduloides     |
| Aquatic Species              | Swallowtail shiner            | Notropis procne             |
|                              | Common shiner                 | Luxilus cornutus            |
|                              | Blacknose dace                | Rhinichthys atratulus       |
|                              | Northern creek chub           | Semotilus atromaculatus     |
|                              | Tessellated darter            | Etheostoma olmstedi         |

| Table 4-22. Wildlife Sp | pecies Potentially | / Within the Study | y Area |
|-------------------------|--------------------|--------------------|--------|
|-------------------------|--------------------|--------------------|--------|

Source: MDNR, 2021a

Amphibian and reptile species have a high potential to occur at the MRC West Parcel due to the expansive wetlands and relatively undisturbed areas. Avian species were also observed during onsite investigations. Due to the forested areas, fields, and wetlands on the MRC West Parcel there is a potential for roosting, habitat, and nesting for avian species.

Aquatic species have a slight chance to occur, due to the stream and wetlands that are present within the study area. The aquatic species that could be found within the study area do not require large water systems; thus, they could possibly exist in the streams identified onsite. In addition to the potential for wildlife at the MRC West Parcel, the MRC West Parcel also supports grazing animals for CVM.

# 4.8.3 How Would Wildlife Be Affected By The Project?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Ongoing projects at the MRC West Parcel would not affect wildlife. The MRC West Parcel would remain unchanged from its current conditions; therefore, there would be no impacts to wildlife or wildlife habitat.

#### Alternatives A, B and C (Action Alternatives)

Vegetation and tree removal for construction of new buildings, parking garages, bike paths, walking paths, and utilities as described in Section 4.7.3 would result in a loss of habitat for terrestrial wildlife within the study area. Trenching for installation of utilities would similarly disturb habitat. Large wildlife species currently utilizing MRC West Parcel such as raccoons, groundhogs, and white-tailed deer would be excluded from construction zones by construction fencing; however, it should be noted that white-tailed deer could jump fences and may become trapped within the construction zones. Smaller species, like the eastern gray squirrel and birds, would move to other areas of the property during construction. In addition, development would occur outside the roosting periods for the northern long-eared bat. Noise generated during construction would disturb wildlife. Once construction is completed, impacts to wildlife from noise would decrease. There would be a slight, but detectable, effect on wildlife from noise and displacement during construction, resulting in minor, short-term, adverse impacts.

Once construction is complete, there would be permanent removal of habitat where the buildings, roads, and other improvements have been constructed. Large animals such as raccoons, groundhogs, and white-tailed deer would be impacted more than small animals by the reduction of habitat due to their need for greater resources; however, the impacts are not expected to affect the natural wildlife population levels. Smaller species could use the remaining habitat within the MRC West Parcel to meet their requirements. Additionally, landscaping included as part of design and tree replacement would provide habitat for smaller mammals and bird species. Although habitat loss would be measurable, construction and operation of new facilities and associated improvements would not affect the natural range of wildlife population levels. There would be sufficient remaining habitat in the surrounding areas to provide for displaced species after construction. Therefore, the Action Alternatives would result in minor, long-term, adverse impacts to wildlife from habitat loss.

Removal of forest could impact migratory birds that may be utilizing these areas for nesting or foraging. However, there is similar habitat on the outer perimeter and on the East Parcel that can be utilized by migratory birds. With the mitigation measures described below, the Action Alternatives would have minor, short- and long-term, adverse impacts on migratory birds.

Construction of new buildings, parking garages, bike paths, walking paths, and utilities as described in Section 4.7.3 would result in an increase in impervious surface as described in Sections 4.4.3 and 4.6.3. This increase in impervious surfaces could result in increased stormwater flows, soil erosion, and water quality degradation that could, in turn, affect aquatic wildlife. Implementation of permanent stormwater controls, as described in Section 4.6.4, would minimize stormwater runoff and potential water quality degradation of the stream. With mitigation measures, the Action Alternatives would have minor, short- and long-term, adverse impacts on aquatic wildlife.

Animals at the Animal Research Facility would continue to graze on pasture lands south of the study area. These animals would be protected from interaction with FDA employees by the existing 8-foot interior chain-link fence.

Overall, habitat loss may place stress on wildlife populations that would be slight, but detectable. Therefore, the Action Alternatives would result in minor, long-term, adverse impacts to wildlife.

# 4.8.4 What Efforts Would Be Made To Protect Wildlife?

Construction fencing would be used to protect wildlife from entering active construction areas. Larger wildlife species would be removed from the construction zone prior to installing fencing to prevent isolating animals within the fenced area. Landscaping with native species and with species that provide habitat and food sources such as sumac (*Rhus sp.*), serviceberry (*Amelanchier sp.*), and elderberry (*Sambucus canadensis*) could mitigate for habitat loss. Other plantings could include evergreen species to provide additional shelter for wildlife species. Deer-resistant landscaping should be considered to mitigate impacts from grazing white-tailed deer and compensatory mitigation would replace habitat lost over the long-term.

To minimize potential impacts to migratory birds, a pre-construction survey would be performed as a best practice to determine the presence of nests of migratory birds that have the potential to occur in the study area. If nests are identified, FDA would avoid vegetative clearing during the nesting period for those species. Trees removed for construction would be replaced to provide long-term mitigation for impacts to migratory bird habitat. GSA/FDA would consider impacts to birds in building design, such as reducing impacts from lighting and window strikes.

Compliance with the approved erosion and sediment control plan would minimize impacts to aquatic biota by controlling sedimentation. Areas of forest that provide habitat and movement corridors for wildlife would be maintained to minimize impacts to wildlife and any trees less than 10-inches in diameter that need to be removed would be replaced at a 1:1 acre ratio on the site.

# 4.9 COASTAL ZONE MANAGEMENT

## 4.9.1 Assessment Methodology

Impacts to the coastal zone were analyzed based on how implementation of the Master Plan would be consistent with the policies of the Maryland Coastal Zone Management Plan. The characteristics and current conditions of the study area in comparison with site conditions to be expected following construction.

The impact thresholds for coastal zone management are provided in **Table 4-23**.

| Effect                |  | Impac  | t Level  |  |
|-----------------------|--|--|--|--|
| Characteristics       | Negligible   | Minor  | Moderate   | Major  |
| Intensity             | Non-discernable<br>changes to Maryland's<br>Coastal Zone<br>Management Plan<br>from construction<br>related activities | Slight, but detectable<br>impacts to Maryland's<br>Coastal Zone<br>Management Plan<br>from construction-<br>related activities or<br>operation of facilities | Effect that is<br>potentially<br>major but with<br>best practices<br>and mitigation<br>measures is<br>reduced below<br>major | Severe impacts to<br>Maryland's Coastal Zone<br>Management Plan from<br>construction related<br>activities or operation of<br>facilities |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites)  | Localized (i.e.,<br>confined to the<br>project sites)  | Localized (i.e.,<br>confined to the<br>project sites)<br>with high<br>probability of<br>impacts to the<br>coastal zone       | Localized (i.e., confined to<br>the project sites) with high<br>probability of impacts to<br>the coastal zone                            |
| Duration              | Temporary, lasting<br>only through<br>construction   | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction  | Lasting 1+ years<br>after<br>construction  | Lasting 1+ years after construction  |

|--|

# 4.9.2 Is the MRC West Parcel Located Within the Coastal Zone?

The CZMA sets out requirements for the management of the nation's coastal resources. The CZMA sets forth the National Coastal Zone Management Program which "aims to balance competing land and water issues through state and territorial coastal management programs" (NOAA, 2021). Section 307 of the CZMA requires that Federal undertaking activities within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone, carry out those activities consistent, to the maximum extent practicable, with the enforceable policies of approved State management programs (16 U.S.C. § 1456).

The MRC West Parcel is located within Maryland's Coastal Zone. Maryland's Coastal Zone extends from three miles out in the Atlantic Ocean to the inland boundaries of 16 counties (including Prince George's County) and City of Baltimore that border the Atlantic Ocean, Chesapeake Bay, or the Potomac River (MDNR, 2021b).

# 4.9.3 What are the Policies of Maryland's Coastal Zone Management Program?

The Maryland Coastal Zone Management Program consists of enforceable coastal policies including general policies, coastal resource policies, and coastal use policies. Following is a description of each of the policies applicable to the MRC Master Plan (MDE, 2011).

## **General Policies**

**Core Policies** – The core policies of the *Maryland Coastal Zone Management Plan* stress the protection of the health, general welfare, and property of the people of the State. The core policies applicable to the MRC

Master Plan include policies for the protection of air resources; elimination of noise hazards; reasonable appropriation of water resources and protection of water resources; the consideration and protection of the natural character and scenic value of rivers and waterways; prevention of soil erosion; and control of hazardous substances.

#### Coastal Resources

**The Chesapeake and Atlantic Coastal Bays Critical Area** –The MRC West Parcel is not located within the Critical Area;<sup>9</sup> therefore, the policies of this program are not applicable.

**Tidal Wetlands** – There are not tidal wetlands within the project area, so the policies of this program are not applicable.

**Non-Tidal Wetlands** – The purpose of non-tidal wetlands management is to protect natural character in, on, or over non-tidal wetlands. Removal, excavation, grading, dredging, discharging of, or filling a non-tidal wetland with materials of any kind, changing existing drainage characteristics, disturbing water levels/table, and destroying plant life is prohibited unless the proposed project has no practicable alternative; adverse impacts are first avoided and minimized; comprehensive watershed management plans are considered; and the proposed project does not cause or contribute to an individual or cumulative effect that degrades aquatic diversity, public welfare, water quality, and recreational values.

**Forests** – The *Forest Conservation Act* and the other associated regulations are enforceable policies. Before developing an area larger than 40,000 sf, any forested and environmentally sensitive areas must be identified and preserved when possible. If preservation is not possible, then reforestation or other mitigation measures are required to replace values associated. This policy does not apply in critical areas.

**Historical and Archaeological Sites** – The purpose of this program is to protect historical and archaeological sites. Unless permission is granted from Maryland Historical Trust, activities such as excavation are prohibited.

**Living Aquatic Resources** – The Living Aquatic Resources program establishes conditions for granting or denying permits to collect or impact aquatic resources. The program is administered by MDNR and MDE.

#### **Coastal Uses**

Other polices included in the Maryland's enforceable coastal policies include coastal uses (e.g., mineral extraction, navigation, transportation, sewage treatment, and oil/natural gas facilities).

# 4.9.4 Is the MRC Master Plan Consistent with Maryland's Coastal Zone Management Plan?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The MRC West Parcel is being operated in a manner consistent with the polices of the Maryland Coastal Zone Management

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<sup>&</sup>lt;sup>9</sup> "The critical area is...land and water areas within 1,000 feet beyond the landward boundaries of tidal wetlands," (MDNR, 2021b).

Program. Under the No-Action Alternative there would be no new construction of buildings, pedestrian walkways, elevated boardwalks, roads, or parking garages. Ongoing projects at the MRC West Parcel would not affect the coastal zone. There would be no impacts as a result of the No-Action Alternative.

#### Alternatives A, B, and C (Action Alternatives)

The MRC Master Plan would be undertaken in a manner consistent with the policies of the Maryland Coastal Zone Management Program. A Federal consistency determination is being submitted to MDE and is included in **Appendix A**. A summary of the Master Plan's consistency with the applicable enforceable policies of the Maryland Coastal Zone Plan is provided in **Table 4-24** below. Approval and/or recommendation from the Maryland Coastal Zone Management Program would be incorporated into this section and correspondence will be provided in **Appendix A** in the Final EIS. Under the Action Alternatives there would be no discernable changes to Maryland's Coastal Zone; therefore there would be a negligible, long-term, adverse impact.

| Policy   | Consistency with Applicable Policies   |   |  |
|--|--|---|--|
|  | -  | General Policies  |  |
| Core Policy –<br>Quality of Life                 | Policy 1 – Air Quality   | Under the Action Alternatives, any impacts within the region from<br>the mobile sources would be offset by the advancement in<br>automobile technology and Federal emission regulations and<br>controls. Therefore, the Action Alternatives are consistent, to the<br>maximum extent practicable, with this policy.   |  |
|  | Policy 2 – Noise   | The Action Alternatives would result in barely perceptible or<br>imperceptible increases in noise. Therefore, MRC Master Plan is<br>consistent, to the maximum extent practicable, with this policy.  |  |
|  | Policy 5 – Natural<br>Character & Scenic<br>Value of Rivers and<br>Waterways | The project would result in impacts to a perennial stream. The project would have minimal effect to the natural character and scenic value of the stream; therefore, the Action Alternatives are consistent, to the maximum extent practicable, with this policy.   |  |
|  | Policy 9 – Public<br>Outreach  | Authorization under Section 404/401 of the CWA would be<br>required for temporary impacts to wetlands, wetland buffers, and<br>waterways and would require authorization under Maryland's<br>Wetland and Waterway Regulations. Implementation of the Master<br>Plan would follow the requirements of permits; therefore, the MRC<br>Master Plan is consistent with this policy. |  |
|  | Policy 10 – Erosion &<br>Sediment Control                                    | Stormwater management plans and erosion and sediment control<br>plans would be prepared and submitted to MDE for review and<br>approval prior to construction. Therefore, the Action Alternatives<br>are consistent with this policy.   |  |
| Core Policy –<br>Waste & Debris<br>Management    | Policy 1 – Hazardous<br>Waste Management                                     | Implementation of the MRC Master Plan may generate hazardous<br>materials. All outgoing waste, including hazardous and biological<br>wastes, would be collected in accordance with FDA's waste<br>diversion requirements and would be disposed of in accordance<br>with state and Federal laws. Therefore, the MRC Master Plan is<br>consistent with this policy.               |  |
| Core Policy –<br>Water Resources<br>Protection & | Policy 1 – Pollution<br>Discharge Permit                                     | FDA maintains a NPDES General Permit for Discharges from State<br>and Federal Small MS4s, administered by MDE. Additionally, FDA<br>would obtain a NPDES General Permit for Stormwater Associated<br>with Construction Activity, also administered by MDE, prior to   |  |

#### Table 4-24. Consistency with the Enforceable Policies of the Maryland Coastal Zone Management Program

#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Policy     |                         | Consistency with Applicable Policies                                  |
|------------|-------------------------|---|
| Waste      |                         | construction. No other discharges would occur to waters of the        |
| Management |                         | State; therefore, the MRC Master Plan is consistent with this policy. |
|            | Policy 2 – Protection   | The project would result in temporary stream impacts from the         |
|            | of Designated Uses      | construction of a pedestrian boardwalk or walkway but would not       |
|            |                         | affect the designated uses. Therefore, the MRC Master Plan is         |
|            | Delicy 2 Drotection     | consistent with this policy.  |
|            | of Designated Lises     | the State: therefore the MRC Master Plan is consistent with this      |
|            |                         | policy.   |
|            | Policy 4 – Pre-         | FDA would obtain a NPDES General Permit for Stormwater                |
|            | Development             | Associated with Construction Activity, administered by MDE, prior     |
|            | Discharge Permit        | to construction. No other discharges would occur to waters of the     |
|            | Delieu E - Llee of Deet | State; therefore, the MRC Master Plan is consistent with this policy. |
|            | Policy 5 – Use of Best  | Stormwater management plans and erosion and sediment control          |
|            | or Treat to Meet        | approval prior to construction. These plans would use techniques      |
|            | Standards               | and approaches to ensure compliance with applicable water             |
|            | Policy – Control of     | guality standards. Therefore, the MRC Master Plan is consistent, to   |
|            | Thermal Discharges      | the maximum extent practicable, with this policy.                     |
|            | Policy 7 – Pesticide    | Pesticides would be stored in accordance with MDE requirements        |
|            | Storage                 | and any approvals for secondary containment would be obtained.        |
|            | 5                       | Therefore, the MRC Master Plan is consistent with this policy.        |
|            | Policy 8 –              | Public involvement and outreach would be conducted as part of         |
|            | Stormwater              | the NEPA process and during implementation of the MRC Master          |
|            | Management              | Plan; therefore, the MRC Master Plan is consistent with this policy.  |
|            | Policy 11 – Public      |   |
|            | Outreach                |   |
|            | 1                       | Coastal Resources   |
| Non-tidal  | Policy 1 – Removal      | FDA would minimize impacts to wetlands to the extent practicable      |
| Wetlands   | or Alteration is        | and would obtain authorization to construct the walkway under         |
|            | Generally Prohibited    | Section 404/401 of the CWA and Maryland's Wetland and                 |
|            | Uniess There is No      | Waterway Regulations from MDE and the USACE. Additionally,            |
|            | Alternative in Which    | stormwater management plans and erosion and sediment control          |
|            | Case Impacts are        | plans would be prepared and submitted to MDE for review and           |
|            | First Minimized &       | approval prior to construction. Therefore, GSA has determined that    |
|            | Then Mitigated to       | the Action Alternatives are consistent, to the maximum extent         |
|            | Replace Ecological      | practicable, with this policy.  |
|            | Values Lost             |   |
| Forests    | Policy 1 – Projects     | A Forest Conservation Plan would be developed to comply with          |
|            | Impacting More          | Prince George's County Woodland Protection and Planning Law (PG       |
|            | Than 40,000 Square      | Co. Code Section 5B-119); the Maryland State Forest Conservation      |
|            | Feet Must Generally     | Act (COMAR 8.19); and NCPC's Tree Preservation and Replacement        |
|            | Identify & Protect      | Policies. Removed trees would be replaced in accordance with          |
|            | Habitat & Mitigate      | these policies. Therefore, Action Alternatives are consistent, to the |
|            | tor Impacts             | maximum extent practicable, with this policy.                         |
|            | Policy 2 – Maintain     | A Forest Conservation Plan would be developed to comply with          |
|            | Kesource                | Prince George's County woodland Protection and Planning Law (PG       |
|            | Prevent or Limit        | Act (COMAR 8 19): and NCPC's Tree Preservation and Penlacoment        |
|            |                         | Act (coman 0.13), and Net C 3 free freseivation and heplacement       |

#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Policy                      |  | Consistency with Applicable Policies  |
|-----------------------------|--|---|
|                             | Clear-Cutting to<br>Protect Watersheds   | Policies. Removed trees would be replaced in accordance with these policies. Therefore, Action Alternatives are consistent, to the maximum extent practicable, with this policy.  |
|                             | Policy 6 – Sediment<br>& Erosion Control in<br>Non-Tidal Wetlands  | Stormwater management plans and erosion and sediment control<br>plans would be prepared and submitted to MDE for review and<br>approval prior to construction that would minimize indirect<br>impacts to wetlands from potential sedimentation. Therefore, GSA<br>has determined that the Action Alternatives are consistent, to the<br>maximum extent practicable, with this policy.   |
| Living Aquatic<br>Resources | Policy 1 – Protection<br>of Rare, Threatened<br>or Endangered Fish<br>or Wildlife  | A review of the USFWS Information for Planning and Consultation<br>(IPaC) website determined that the federally threatened northern<br>long-eared bat ( <i>Myotis septentrionalis</i> ) potentially exists within the<br>study area (USFWS, 2021). In a letter dated January 27, 2021,<br>MDNR responded that there are no official state or Federal records<br>for listed plant or animal species within the study area.<br>development would occur outside the roosting periods for the<br>northern long-eared bat and nesting periods for migratory birds;<br>therefore, the Action Alternatives are consistent, to the maximum<br>extent practicable, with this policy. |
|                             | Policy 5 – Time-of-<br>Year Restrictions for<br>Construction in Non-<br>Tidal Waters   | The project would adhere to time-of-year restrictions, as required,<br>for any in-stream construction in non-tidal waters. Therefore, the<br>Action Alternatives are consistent with this policy.   |
|                             | Policy 7 – Non-Tidal<br>Habitat Protection &<br>Mitigation   | A Forest Conservation Plan would be developed to comply with<br>Prince George's County Woodland Protection and Planning Law (PG<br>Co. Code Section 5B-119); the Maryland State Forest Conservation<br>Act (COMAR 8.19); and NCPC's Tree Preservation and Replacement<br>Policies. Removed trees would be replaced in accordance with<br>these policies. Therefore, Action Alternatives are consistent, to the<br>maximum extent practicable, with this policy.   |
| Coastal Uses                |  |   |
| Development                 | Policy 1 – Sediment<br>& Erosion Control<br>Policy 2 – Erosion<br>and Sediment<br>Control Plan<br>Policy 3 –<br>Stormwater<br>Management                 | Stormwater management plans and erosion and sediment control<br>plans would be prepared and submitted to MDE for review and<br>approval prior to construction. Therefore, FDA has determined that<br>the Action Alternatives are consistent, to the maximum extent<br>practicable, with this policy.  |
|                             | Policy 4 – First Avoid<br>then Minimize<br>Wetland Impacts,<br>Minimize Water<br>Quality, Habitat &<br>Forest Damage &<br>Preserve Cultural<br>Resources | FDA would minimize impacts to wetlands to the extent practicable<br>and would obtain authorization to construct the walkway under<br>Section 404/401 of the CWA and Maryland's Wetland and<br>Waterway Regulations from MDE and the USACE. Additionally,<br>stormwater management plans and erosion and sediment control<br>plans would be prepared and submitted to MDE for review and<br>approval prior to construction. Therefore, GSA has determined that<br>the Action Alternatives are consistent, to the maximum extent<br>practicable, with this policy.  |
|                             | Policy 5 – Proposed<br>Development<br>Projects Must Be   | Coordination with local utilities and solid waste services has determined that adequate services and infrastructure are available   |

| Policy |  | Consistency with Applicable Policies   |
|--------|--|--|
|        | Sited Where<br>Adequate Water<br>Supply, Sewerage<br>and Solid Waste<br>Services &<br>Infrastructure Are<br>Available  | to meet existing and future development at the MRC West Parcel.<br>Therefore, the Action Alternatives are consistent with this policy.   |
|        | Policy 10 – Citizen<br>Engagement in<br>Planning &<br>Development  | Public involvement and outreach would be conducted as part of<br>the NEPA process and during implementation of the MRC Master<br>Plan. Therefore, the MRC Master Plan is consistent with this policy.  |
|        | Policy 14 –<br>Communities Must<br>Identify Adequate<br>Water Supply,<br>Stormwater &<br>Wastewater Services<br>& Infrastructure to<br>Meet Existing &<br>Future Development | Coordination with local utilities has determined that adequate<br>services and infrastructure are available to meet existing and<br>future development at the MRC West Parcel. Therefore, the MRC<br>Master Plan is consistent with this policy. |

#### 4.9.5 What Efforts Would Be Made to Protect Coastal Zone Resources?

Stormwater quantity and quality control measures would be designed and implemented in accordance with local, state, and Federal regulations. During construction, BMPs would be implemented to minimize soil erosion and stormwater pollution. SWM and ESC plans would be prepared and submitted to MDE for review and approval prior to construction. All disturbed areas would be permanently revegetated and stabilized following construction to prevent further erosion of soils and runoff into streams and wetlands. Temporary impacts to coastal zone resources would be restored to pre-construction conditions to the maximum extent practicable following construction, including contour and elevation restoration, revegetation with native species, streambank stabilization, and stream substrate replacement.

FDA and GSA have developed a *Tree Preservation and Conservation / Forest Management Plan* to outline minimization and mitigation measures for tree and forest loss (**Appendix G**). Approximately 4.33 acres of forest would be removed and replaced according to NCPC, State of Maryland, and Prince George's County requirements. Removed trees would be replaced following a ratio as outlined in local, state, and Federal regulations to mitigate coastal zone impacts to vegetation and habitat. Forest clearing would occur outside the roosting periods for the northern long-eared bat. A pre-construction survey would be performed as a best practice to determine the presence of nests of migratory birds that have the potential to occur in the study area. If nests are identified, FDA would avoid vegetative clearing during the nesting period for those species.

Any hazardous substances generated during construction or from the operation of new facilities would be disposed of at an MDE-permitted facility or a facility that provides and equivalent level of environmental protection.

# 4.10 CULTURAL RESOURCES

# 4.10.1 Assessment Methodology

The alternatives were assessed using Section 106 definitions of adverse effects to cultural resources. Adverse effects on cultural resources can include physically altering, damaging, or destroying all or part of a resource; altering characteristics of the surrounding environment that contribute to the resource's significance; introducing visual or audible elements that are out of character with the property or that alter its setting; neglecting the resource to the extent that it deteriorates or is destroyed; or the sale, transfer, or lease of the property out of Federal ownership (or control) without adequate legally enforceable restrictions or conditions to ensure preservation of the property's historic significance.

The impact thresholds for Cultural Resources are provided in Table 4-25.

| Effect                |  | Impac   | t Level  |  |
|-----------------------|--|---|--|--|
| Characteristics       | Negligible   | Minor   | Moderate   | Major  |
| Intensity             | Impacts to<br>contributing cultural<br>resources would not<br>be discernable and<br>would not rise to level<br>of adverse impact<br>under Section 106. | Impacts to<br>contributing cultural<br>resources would be<br>slight and detectable<br>but would not rise to<br>level of adverse<br>impact under Section<br>106. | Impacts to cultural<br>resources are potentially<br>major but with<br>minimization and<br>mitigation measures is<br>reduced below major.<br>Considered an adverse<br>impact under Section<br>106 | Permanent<br>alteration or<br>removal of<br>contributing<br>cultural resources.<br>Considered an<br>adverse impact<br>under Section 106. |
| Geographic<br>Context | Campus-wide  | Campus-wide   | Regional   | Regional   |
| Duration              | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction  | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction   | Lasting 1+ years after<br>construction   | Lasting 1+ years after construction  |

#### Table 4-25. Impact Intensity Thresholds for Cultural Resources

Section 101(b)(4) of the NEPA requires the Federal Government to coordinate and plan its actions to, among other goals, "preserve important historic, cultural, and natural aspects of our national heritage..." The CEQ implementing regulations require that impacts of Federal action on historic and cultural resources be included as part of the NEPA process.

Additionally, Section 106 of the NHPA of 1966 requires that Federal agencies consider the effects of their actions on historic resources. Under the NHPA, GSA and FDA must evaluate impacts to any district, site, building, structure, or object listed in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 review encourages preservation of historic properties; however, there are times when impacts to historic resources cannot be avoided. When the Government must impact historic resources, they are required to consult with local and Federal agencies responsible for historic preservation, local citizens, and groups with an interest in historic preservation. When the Government must impact historic resources, they are required to consult with local and Federal agencies responsible for historic preservation, local citizens, and groups with an interest in historic preservation. When the GSA and FDA completed the Section 106 process for the 1981 Master Plan update and for the construction of MOD 2 in 1995, various aspects of the proposed

Acton Alternatives under the Master Plan may have the potential to impact historic resources and views. For this reason, GSA and FDA are required to conduct additional consultations with the MHT and other interested parties.

For the proposed MRC Master Plan, GSA and FDA initiated consultation with the MHT in accordance with Section 106 of the NHPA on November 25, 2020. Throughout the project planning for the Master Plan, GSA and FDA have sought input on the impacts to cultural resources and ways to avoid and minimize these impacts. GSA has solicited input from:

- MHT (MD SHPO)
- NCPC
- ACHP
- Maryland Commission on Indian Affairs
- Prince George's County Planning Department
- Prince George's County Historic Preservation Office
- Maryland Army-National Guard
- WSSC
- Prince George's County Council
- Black History Program of the Maryland-National Capital Park and Planning Commission
- Laurel Historical Society
- Prince George's County Historical Society
- Neighborhood Homeowners and Community Associations

## 4.10.2 What is the Area of Potential Effect?

The APE is defined in 36 CFR 800.16 as "the geographic area or areas within which an undertaking may cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking."

The APE encompasses the resources visually (indirectly) or physically (directly) affected by the demolition and construction associated with implementation of the MRC Master Plan. The APE includes the 197-acre existing MRC West Parcel and the 52-acre East Parcel (**Figure 4-26**). The MRC West Parcel, bounded roughly by Muirkirk Road, Odell Road, and Ellington Drive, contains three developed areas: the MOD 1 and MOD 2 buildings, the BRF, and the Animal Research Facility. Portions of the East Parcel, which is east of Odell Road, are leased for facilities of the Maryland Army National Guard (23 acres) and the South Laurel Water Pumping Station (4 acres) while the remaining 25-acre area is undeveloped. The APE includes all resources that may be affected by the proposed undertaking.



Figure 4-26. Area of Potential Effect

## 4.10.3 What is the Historic Context for the MRC?

Human habitation of Maryland first occurred over 14,000 years ago. Early settlements consisted of small hunting camps associated with sources of high-quality lithic raw materials. Mobility was driven by seasonal availability of resources and weather patterns and sites were frequently reoccupied over several years. During the Archaic period (9000 to 1000 BC), settlement patterns in the region included riverine base camps and upland short-term hunting camps. The Woodland period (1000 BC to AD 1600) witnessed increased sedentism, with larger riverine-based sites occupied for longer periods of time. Small food-storage pits, ceramics, and formal hearths appeared for the first time. Increased sedentism coincided with agricultural practices. By the time Europeans arrived in Maryland, larger permanent villages with associated smaller, resource-extraction hamlets were the norm. Socio-political organization of groups in the region ranged from egalitarian to temporary hierarchies to chiefdoms (Stantec, 2021b).

Maryland was established as an English colony in 1634; however, the area near the MRC was not settled until a century later, when Captain Richard Snowden, Jr. discovered iron ore on his Birmingham Manor estate northwest of Laurel. Iron mining and industrial iron manufacturing proliferated in the area during the 19th century following the establishment of the Muirkirk Iron Furnace in 1846. The land that now makes up the MRC was only sparsely inhabited at the time, with much of the property leased for iron ore and clay mining by descendants of the Snowden family. A late 19th-century map depicts residences owned by Lester D. Moore and Mrs. Isaac Snowden on what is now the main MRC parcel. Moore married into the Snowden family. Historical research suggests no mining activities occurred on the East Parcel, which was instead used for agricultural and logging activities, possibly by J. Alonzo Barnes, whose residence is on the east side of Odell Road. Mining activities ceased by 1938 though agricultural and logging activities continued on the East Parcel until the mid-twentieth century (Quinn Evans, 2021). FDA acquired the MRC land in 1964 from the USDA. Prior to that, the property was part of the USDA's BARC, although the BARC facilities were located to the south of the campus. By the late 1950s, the campus area was largely covered by successional woodland. In 1961, it was declared as excess real property by the USDA and approved as the location of a new research facility for FDA. Initial development of the new facility took place between 1962 and 1963, with the construction of the SPAL, now known as the BRF, on the northeast corner of the campus. This consisted of a one-story laboratory building with five cross-shaped kennels connected by a covered walkway. A 1966 Site Development Plan envisioned the expansion of the facility with additional laboratory buildings to the west of the BRF and animal pastures at the southwest end of the property. However, budgetary issues delayed implementation of this plan. The MOD 1 building was constructed between 1983 and 1991, and the MOD 2 building and Animal Research Facility were constructed between 1994 and 1998. FDA stopped using the kennels at the BRF around 1993, and they were demolished between 1998 and 2002 (Quinn Evans, 2021).

FDA acquired the East Parcel in 1979 after the USDA declared the land as excess property. While FDA's updated master plan for the facility in 1981 envisioned expansion of the MRC onto the East Parcel, this did not take place. Around 1981, the WSSC built a water storage tank on a 4-acre area of the East Parcel along Odell Road (the South Laurel Water Pumping Station), leased from FDA. Around 1993, the Maryland Army National Guard constructed a two-building armory facility on another leased area of the East Parcel east of Odell Road and north of the South Laurel Water Pumping Station (Quinn Evans, 2021).

The area's general character comprises institutional complexes and residential subdivisions set on small open green spaces within larger wooded areas, consistent with the pastoral character of this area of Prince George's County. The MRC is characterized by clusters of buildings spatially oriented 45 degrees from the north-south axis and open pastures surrounded by deciduous trees. Three natural stream valleys originate in the high areas at the north, northwest, and west areas of the campus and run south and west to the low point on Odell Road. On the western end of the campus are three large ponds formed by mined iron ore pits. The building areas are connected by two-lane asphalt drives with no shoulders or sidewalks. The campus is surrounded by a security fence and a vegetative buffer (Quinn Evans, 2021).

#### 4.10.4 Are There Any Historic Structures or Landscapes at the MRC?

Prior to the current Master Plan, the MRC had not been formally evaluated by the MHT or Prince George's County for the presence of cultural resources. MRC structures date from the mid to late twentieth century and had not yet reached the 50-year threshold for significance under the NHPA.

As part of the planning of developing the MRC Master Plan, a Determination of Eligibility was conducted. While the BRF laboratory building is over 50 years old (constructed between 1962 and 1963), it was determined not eligible for the NRHP due to the extensive alterations to the building and the demolition of the attached kennels. The MOD 1, MOD 2, and Animal Research Facility buildings are all less than 50 years old and do not meet the criteria for exceptional significance under NRHP guidance.

The design of the campus landscape also dates to fewer than 50 years ago. Although the general spatial organization and some specific characteristics of the campus were established in the 1966 Site Development Plan, the design was considerably altered; first when the plan was updated in 1980, and later when the site designs for MOD 2 and the Animal Research Facility were finalized and carried out in the mid to late 1990s. There is no context within which the campus landscape design qualifies as exceptionally important under NRHP guidance.

The MHT concurred with the findings of the Determination of Eligibility on March 4, 2021. Please see **Appendix C** for MHT's letter of concurrence.

# 4.10.5 Are There Any Archaeological Resources Within or Adjacent to the MRC?

Three archaeological investigations have been conducted within the MRC. The first archaeological survey undertaken occurred in 1981 (McCarthy and Thomas, 1981). The survey focused on three areas of high probability for archaeological resources. Area 1 was located on the east side of Odell Road currently occupied by the Maryland National Guard facility on the East Parcel. Shovel test pit (STP) excavations in Area 1 yielded artifacts associated with the late 19th to early twentieth century J. Alonzo Barnes farmstead, and the cluster was recorded as site 18PR377. The site was determined ineligible for listing on the NRHP, and no further archaeological investigations were recommended at site 18PR377. The site was likely destroyed during construction of the National Guard facility. Area 2 was located south and west of the BRF, and Area 3 was located on the north side of Odell Road near the current quarantine facility and west pasture areas. No Native American or Historic period artifacts or deposits were identified in Areas 2 and 3, and no further archaeological investigations were recommended for the areas surveyed.

Archaeological investigations along proposed alignments for an Intercounty Connector (ICC) began in 1980. The archaeological survey conducted as part of the ICC project examined 45 miles of proposed alignment, one of which traversed through the northern portion of the Master Plan study area (Curry, 1983). A windshield and desktop survey concluded the Master Plan study area had a low potential for archaeological resources, and thus it was not included in the 29 tracts subject to further archaeological investigations.

A comprehensive archaeological study of the MRC Master Plan study area was completed in January 2021 (Stantec, 2021b). The study area, which was divided into 14 survey sections or areas and totaled 235 acres, included the entire 197-acre MRC West Parcel and the 38-acres of the 52-acre East Parcel. Eleven of the 14 survey areas were systematically tested with the excavation of 1,738 STPs, while two survey areas and four survey sections were judgmentally tested with the excavation of 43 hand-auger tests. The survey resulted in the identification of one archaeological site (18PR1198), a Middle Archaic to Early Woodland period lithic scatter on a wooded knoll near the center of the East Parcel that is potentially eligible under NRHP Criterion D and recommended for further testing prior to future development to confirm its eligibility for listing. No features were identified in association with site 18PR1198 and it has not been evaluated for listing in the NRHP. No evidence of the Moore or Snowden residences were uncovered during the archaeological survey of the MRC.

On March 4, 2021, the MHT concurred with these findings and noted that as no development actions are planned for the East Parcel, the current undertaking is unlikely to affect this archaeological site (**Appendix C**).

# 4.10.6 How Would Cultural Resources Off of the MRC Be Affected by Implementation of the Master Plan?

#### No-Action Alternative

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Ongoing projects would not affect cultural resources off the MRC West Parcel. Therefore, the cultural resources of the Rossville community and the BARC would not be affected by the No-Action Alternative.

#### Alternatives A, B, and C (Action Alternatives)

The MRC West Parcel contains three pits related to iron ore extraction in the 19th and/or early twentieth centuries. The closest iron producing facility was the Muirkirk Ironworks, several miles northwest of the MRC West Parcel. No extant above-ground resources associated with the Muirkirk Ironworks remain. The community of Rossville was historically settled by free Black people, many of whom worked at Muirkirk Ironworks (MNCPPC, 2012). The core of the community was located north of Muirkirk Road west of Ellington Drive, northwest of the MRC West Parcel. According to the 2003 MHT Determination of Eligibility Form, Rossville was surveyed in 1983 and 1987 (Curry, 1983 and Sorensen, 1990). The district was also documented in the 2007 *Rossville Community Survey* and in the 2012 context study *African American Historic and Cultural Resources in Prince George's County*. None of these surveys cite any Rossville-related sites within the MRC boundaries. The closest properties were the Muirkirk Rosenwald School (1922) (MNCPPC, 2012) on the south side of Muirkirk Road west of Ellington Drive, and the Edward Gross house, located southwest of the intersection of Ellington Drive and Odell Road (Hill et al., 2014 and Quinn Evans, 2021).

The BARC is located to the south of the MRC. The BARC was evaluated by the MHT in the 1970s and 1990s, and in 2017, an addendum provided an updated historic context for the property. The BARC's Central Farm, the largest of the farm clusters associated with the facility, lies to the south of the MRC.

These properties are outside the APE for the Master Plan. The perimeter of the MRC has a heavily wooded buffer, and new buildings proposed under the Master Plan would only be partially visible from the main entry points and through the trees during winter. Therefore, the cultural resources of the Rossville community and the BARC would not be affected by implementation of the MRC Master Plan.

# 4.10.7 Would Cultural Resources on the MRC West Parcel be Affected by Implementation of the Master Plan?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The Determination of Eligibility established that there are no historic structures or archaeological resources in the APE; therefore, no historic structures or archaeological resources would be affected under the No-Action Alternative.

#### Alternatives A, B, and C (Action Alternatives)

The Determination of Eligibility established that there are no historic structures or archaeological resources in the APE; therefore, no historic structures or archaeological resources would be affected by implementation of the Master Plan.

## 4.10.8 What Measures Would Be Taken To Reduce Impacts to Cultural Resources?

The Action Alternatives would have no effect on cultural resources, so no mitigation measures would be required for cultural resources.

# 4.11 VIEWSHEDS

## 4.11.1 Assessment Methodology

Implementation of the proposed Master Plan could affect the existing viewsheds to and from the MRC West Parcel. Impacts to viewsheds were analyzed based on the characteristics and current conditions of the study area in comparison with site conditions to be expected following construction. Viewsheds were assessed using GIS to overlay proposed new construction with mapping of existing forested and landscaped areas.

The impact thresholds for viewsheds are provided in Table 4-26.

| Effect                |  | Impac  | t Level   |  |
|-----------------------|--|--|---|--|
| Characteristics       | Negligible   | Minor  | Moderate  | Major  |
| Intensity             | No discernable<br>changes to<br>viewsheds.<br>Vegetative<br>disturbance would<br>not result in<br>changes to the<br>viewsheds. | Slight, but detectable<br>changes to viewsheds.<br>Vegetative disturbance<br>would be slight, but<br>detectable. | Effect that is<br>potentially major<br>but with best<br>practices and<br>mitigation<br>measures is<br>reduced below<br>major. | Highly noticeable changes<br>to viewsheds that affect<br>viewsheds to and from<br>the MRC West Parcel.<br>Vegetative disturbance<br>would be highly<br>noticeable changes to the<br>viewsheds. |
| Geographic<br>Context | Campus-wide  | Campus-wide  | Regional  | Regional   |
| Duration              | Temporary, lasting<br>only through<br>construction   | Lasting 1 to 5 years after construction  | Lasting 5+ years<br>after construction<br>and are not likely<br>to be reversible  | Lasting 5+ years after<br>construction and are not<br>likely to be reversible  |

Table 4-26. Impact Intensity Thresholds for Viewsheds

## 4.11.2 What Are the Existing Viewsheds at the MRC West Parcel?

Previous development on the site established and maintained a 100- to 300-foot landscape buffer to separate the campus from neighboring residential properties. The vegetative buffer consists of a mix of deciduous and coniferous trees with thick ground cover. Topography and vegetative cover limit views into and out of the campus, particularly in the summer. Portions of the campus are visible from entry points, including the main entry on Muirkirk Road, the entry to the BRF on Odell Road just south of Muirkirk Road, and the entry to the animal quarantine facility farther southwest on Odell Road south of Springfield Road. Developed areas are more visible through the trees in winter, although views are still somewhat screened. Buildings are not visible above the tree line. Within the campus, each of the three facilities, as well as the major circulation routes are also surrounded by vegetation, limiting views to other parts of campus. More expansive views are present within the BRF and the adjoining Pasture D, and within the Animal Research Facility and adjoining Pastures A and B.

# 4.11.3 How Would Implementation of the Master Plan Affect Viewsheds To and From the Site?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Ongoing projects at the MRC West Parcel would not affect viewsheds. The existing viewsheds would remain. Therefore, there would be no impacts to viewsheds.

#### Alternative A: Compact Campus

Under Alternative A, the new building north of MOD 1 would be visible from the main entrance at Muirkirk Road and would alter views. Most of the building volume would be screened by forested areas that form the perimeter landscape buffer (**Figure 4-27** through **Figure 4-29**). Because the new building north of MOD 1 would be visible, there would be discernable changes to the viewshed, resulting in a minor, long-term, adverse impact.



Figure 4-27. Alternative A View from Muirkirk Road Looking Southeast



Figure 4-28. Alternative A View from Muirkirk Road Looking East



Figure 4-29. Alternative A View from Westlock Place Looking South

#### Alternative B: Dual Campus (Preferred Alternative)

Under Alternative B, buildings heights would remain within the range of MOD 1. Like Alternatives A and B, the new laboratory building north of MOD 1 would be visible from the main entrance at Muirkirk Road. Most of the building volume would be screened by forested areas that form the perimeter landscape buffer (**Figure 4-30** through **Figure 4-32**). Because the new building north of MOD 1 would be visible, there would be discernable changes to the viewshed, resulting in a minor, long-term, adverse impact.



Figure 4-30. Alternative B View from Muirkirk Road Looking Southeast



Figure 4-31. Alternative B View from Muirkirk Road Looking East



Figure 4-32. Alternative B View from Westlock Place Looking South

#### **Alternative C: Northeast Campus**

Under Alternative C, the building heights would be higher than the existing one-story buildings at the BRF site. The new buildings would be barely visible from the main entrance at Muirkirk Road as most of the building volume would be screened by forested areas that form the perimeter landscape buffer (**Figure 4-33** through **Figure 4-35**). The forested stream valley buffer would be visible from the main entrance at Muirkirk Road. While the building heights would be taller than the existing BRF building, there would be no discernable changes to the viewshed. The forested area along Odell Road would help screen the new buildings, resulting in a negligible, long-term, adverse impact.



Figure 4-33. Alternative C View from Muirkirk Road Looking Southeast



Figure 4-34. Alternative C View from Muirkirk Road Looking East



Figure 4-35. Alternative C View from Westlock Place Looking South

# 4.11.4 What Measures Would Be Taken To Reduce Impacts to Viewsheds?

The existing forested areas that form the perimeter landscape buffer would remain, which would continue to screen the MRC West Parcel from the surrounding community; therefore, no mitigation measures are required.

# 4.12 LAND USE PLANNING AND ZONING

# 4.12.1 Assessment Methodology

The alternatives to the proposed action were compared to Federal and Prince George's County land use and zoning plans to determine if they are consistent with the goals and requirements of the individual plans.

The impact thresholds for land use planning and zoning are provided in **Table 4-27**.

| Effect                |  | Impac   | t Level  |   |
|-----------------------|--|---|--|---|
| Characteristics       | Negligible   | Minor   | Moderate   | Major   |
| Intensity             | Inconsistencies with<br>land use plans would<br>not result in<br>discernable effects on<br>the implementation of<br>the plans<br>The alternative would<br>be consistent with<br>zoning | Inconsistencies with<br>land use plans would<br>result in slight but<br>detectable effects on<br>the implementation of<br>land use plans<br>The alternative would<br>be consistent with<br>zoning | Effect that is<br>potentially<br>major but with<br>mitigation<br>measures is<br>reduced below<br>major | The alternative would be<br>inconsistent with land use<br>plans and would conflict<br>with the goals laid out in<br>the plans preventing the<br>implementation of the<br>plans<br>The alternative would<br>require a change in zoning,<br>and the change would not<br>be compatible with<br>surrounding land uses |
| Geographic<br>Context | Campus-wide  | Campus-wide   | Regional   | Regional  |
| Duration              | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction  | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction   | Lasting 1+ years<br>after<br>construction  | Lasting 1+ years after<br>construction  |

Table 4-27. Impact Intensity Thresholds for Land Use Planning and Zoning

# 4.12.2 What Land Use Plans are in Effect On and Surrounding the MRC West Parcel?

## Federal Land Use Planning

The MRC West Parcel is located within the National Capital Region (NCR). As such, the Master Plan will be reviewed by the NCPC for consistency with the Federal Elements of the *Comprehensive Plan for the National Capital*. The Federal Elements are driven by three guiding principles: to accommodate Federal and National Capital activities; to reinforce smart growth and sustainable development planning principles; and to support local and regional planning and development objectives. The eight Federal Elements include Urban Design; Federal Workplace; Foreign Missions & International Organizations; Transportation; Visitors &

Commemoration; Federal Environment; Historic Preservation; and Parks and Open Space. Of these, the following elements are applicable to the Master Plan:

**Urban Design** – This element promotes design and development in the NCR that reinforces its role as the capital and fosters a welcoming and livable environment. Specifically, Urban Design Policies C1 Inspiring Design: Individual Buildings and Campuses, C2 Integrating Federal Building and Campuses within the Surrounding Community, and C3 Urban Design and Security would apply to the MRC West Parcel.

**Federal Workplace** – The goal of this element is to locate the Federal workforce in a manner that enhances the Federal Government's efficiency, productivity, value, and public image.

**Transportation** – This element seeks to develop a multimodal regional transportation system and increase regional mobility while avoiding degradation of the environment. Parking proposed in the Master Plan would occur at a 1:2 ratio, one parking space per two employees. The MRC West Parcel is not located in areas that require a greater parking ratio as designated by the Transportation element.

**Federal Environment** – This element serves to promote the NCR as a leader in sustainability and environmental stewardship.

**Historic Preservation** – This element seeks to preserve, protect, and rehabilitate historic properties in the NCR.

**Parks & Open Space** – The Parks & Open Space element has the goal to protect and enhance parks and open spaces within the NCR for recreation, commemoration, and environmental and educational benefits.

#### Prince George's County Land Use Planning

The MRC West Parcel is located within Prince George's County in Planning Area 62 – South Laurel / Montpelier, which in turn is part of Subregion 1. The approved Prince George's County Master Plan for Subregion 1 (*Subregion 1 Master Plan*) does not discuss the MRC West Parcel or identify the study area for specific development (M-NCPPC, 2010b).

According to Prince George's County's 2035 Approved General Plan, the MRC West Parcel is an area with a land use designation of Institutional, which is defined by social, institutional, or public facilities (M-NCPPC, 2014).

Land surrounding the MRC West Parcel is designated by Prince George's County as primarily single-family residential to the north, west, and east (**Figure 4-36**). BARC is located to the south and is designated as Institutional. In addition, there is a small area to the northeast of the MRC West Parcel that is designated as Parks and Open Space.

## 4.12.3 What Zoning is in Effect On and Surrounding the MRC West Parcel?

The MRC West Parcel is currently zoned as Reserved Open Space (R-O-S). R-O-S zones encourage the preservation of agriculture, trees, and open space (**Figure 4-37**) (Prince George's County Planning Department, 2019). However, it should be noted that Federal properties are not subject to county land use or zoning regulations (M-NCPPC, 2010b).

Zoning in the immediate area around the MRC West Parcel includes R-O-S, Rural-Residential, Residential Single Family - 65, and Agricultural and Preservation. The proposed MRC Master Plan is not anticipated to affect the surrounding land use or zoning designations.



Source: M-NCPPC, 2014

Figure 4-36. Prince George's County Land Use Plan



Source: Prince George's County Planning Department, 2022

#### Figure 4-37. Zoning in the Vicinity of the MRC West Parcel

# 4.12.4 What Development is Planned Near the MRC West Parcel?

New developments are planned and under construction in the vicinity of the MRC West Parcel (**Table 4-28**). **Figure 4-38** shows their location in relation to the MRC West Parcel and the driving distance from the MRC West Parcel. These projects will continue the trend of new development in the area and will lead to changes in the land use and land cover in the area.

| Development Project   | Status                         | Land Use       | Description   |
|---|--------------------------------|----------------|---|
| FDA Federal Research<br>Center (FRC) Master<br>Plan                     | Planned/<br>Approved           | Institutional  | Master Plan that provides a framework for<br>development at the Federal Research Center<br>for up to 18,000 employees and up to an<br>additional 1.6 million gsf of office space and<br>377,382 gsf of special/shared use space. The<br>FRC is approximately 10.9 driving miles west<br>from the MRC West Parcel (GSA, 2018).   |
| Konterra Town Center  | Planned                        | Mixed-Use      | Mixed-use development on 2,200 acres of<br>retail, research, and technology campuses<br>including 1.4 million sf of building space,<br>more than 1,000 residential units, and 348<br>acres reserved for a governmental,<br>educational, or corporate facility. This site is<br>1.9 driving miles northwest of the MRC West<br>Parcel (KLNB, 2021).  |
| The Brick Yard  | Under<br>Construction          | Mixed-Use      | 125-acre development bordering U.S. 1<br>between Muirkirk Road and Contee Road.<br>The Urban Industrial space will include<br>700,000 sf of multi-purpose industrial<br>buildings on 70 acres. 50-acres of the site is<br>under construction for residential uses as<br>Brick Yard Station and the Mark at Brick Yard,<br>which includes 397 apartments. This site is<br>2.3 driving miles northwest of the MRC West<br>Parcel (JacksonShaw, 2021). |
| Bureau of Engraving & Printing (BEP)                                    | Planned/Under<br>Consideration | Institutional  | Construction of an approximate one million sf<br>Currency Production Facility on 100 acres at<br>the BARC. This site is 1.6 driving miles south<br>of the MRC West Parcel (USACE, 2020).  |
| BARC Demolition   | Planned                        | Institutional  | Demolition of 22 buildings and associated<br>infrastructure at BARC. This site is 4.3 driving<br>miles south of the MRC West Parcel (USDA-<br>ARS, 2020).   |
| High-Speed<br>Superconducting<br>Magnetic Levitation<br>(MAGLEV) System | Planned/Under<br>Consideration | Transportation | Highspeed train line between Baltimore, MD<br>and Washington, DC with a stop at the<br>Baltimore-Washington Thurgood Marshall<br>Airport. This would be located 1.1 driving<br>miles east of the MRC West Parcel (MDOT<br>MTA, 2021).   |
| Maryland Army<br>National Guard<br>Recruiting Center                    | Under<br>Construction          | Institutional  | The recruiting center located adjacent to the<br>MRC West Parcel east of Odell Road is<br>currently constructing an additional parking<br>lot. The Site is 0.5 driving miles east of the<br>MRC West Parcel.  |

|--|


Figure 4-38. Planned/Ongoing Developments Near the MRC West Parcel

# 4.12.5 Is the MRC West Parcel Master Plan Consistent with Land Use Plans and Zoning Regulations?

#### **No-Action Alternative**

Under the No-Action Alternative, the proposed Master Plan would not be implemented. Land use and zoning designations on the site would not change. The MRC West Parcel would continue to house 300 employees, and any additional employees would need to be housed by FDA at other facilities or leased properties. This would be inconsistent with the Federal Elements of the *Comprehensive Plan for the National Capital* – in particular, the Federal Workplace element, which seeks the use of existing Federal property over the development of new properties. In addition, existing space within the MRC West Parcel would remain underutilized. Therefore, the No-Action Alternative would result in no new impacts, resulting in a negligible, long-term, adverse impact.

#### Alternatives A, B, and C (Action Alternatives)

The Action Alternatives would be consistent with Prince George's County's land use designation and the applicable Federal Elements of the *Comprehensive Plan for the National Capital*. The applicable Federal

Elements are the Urban Design, Federal Workplace, Transportation, Federal Environment, Historic Preservation element, and Parks & Open Space elements.

The Master Plan is consistent with the Urban Design element by utilizing shared facilities, enhancing the site's natural features, minimizing land coverage, using surface parking lots as building pads, and fostering transportation solutions to minimize the need for parking. Specifically, Urban Design Policies C1: Inspiring Design – Individual Buildings and Campuses, C2: Integrating Federal Building and Campuses within the Surrounding Community, and C3: Urban Design and Security would apply to the MRC West Parcel. The Master Plan would reinforce the campus's image, preserve open space, and provide security measures that would match the context of the campus by enabling the landscape to perform necessary exterior security measures and strengthening the cohesion between existing and proposed structures within the landscape.

The Master Plan would be consistent with the Federal Workplace Element by increasing the number of Federal employees that can be housed at an existing property. The MRC West Parcel is an existing Federal property that would be further developed, therefore not requiring the purchase or leasing of additional land. One of the goals of the Master Plan is to foster FDA's image as a leading scientific institution, which complies with the Federal Workplace policy of promoting pride and purpose for the agency's mission. In addition, the security measures at the MRC West Parcel would not be altered in a way that would interrupt visual resources.

The Master Plan complies with the Transportation Element by fostering transportation solutions, such as subsidizing carpooling and allowing both metro and county bus access. A Transportation Management Plan (TMP) has been developed to provide transportation demand management strategies to lessen the use of single-occupancy vehicles. This would help alleviate congestion on area roadways and improve air quality, which is consistent with both the Transportation and Federal Environment elements.

The Master Plan is consistent with the Federal Environment element by fostering environmental stewardship through protecting the tree canopy, maintaining biodiversity, minimizing runoff through innovative stormwater practices, incorporating solar panels and green roofs, and minimizing land coverage. All Action Alternatives would be constructed and operated in an energy efficient and sustainable manner, meeting LEED<sup>®</sup> Gold certification and net zero energy and water usage, which is consistent with the Federal Environment element.

Since there are no historic resources within the study area, the Master Plan would be consistent with the Historic Preservation element.

The MRC Master Plan Goals include preserving open space, enhancing the site's natural features, and providing environmental stewardship. The future campus is envisioned as an eco-focused collaborative campus. Strategies to achieve this include utilizing the site's natural features as an amenity to preserve and protect the stream valley and creating a variety of exterior common spaces, including elevated boardwalk trails and overlooks. Therefore, the Master Plan complies with the policies of the Parks & Open Space element.

Development on the MRC West Parcel is not specifically discussed in the *Subregion 1 Master Plan*. However, the Action Alternatives would support the *Subregion 1 Master Plan*'s major goals by encouraging economic development and preserving the environment through the proposed stewardship at the MRC West Parcel.

The MRC West Parcel is currently designated under Institutional land use according to Prince George's County's 2035 Approved General Plan. Under the Action Alternatives, the MRC West Parcel would continue

its institutional use and would not require a change in land use designation. The proposed Master Plan would not alter the existing land use in the vicinity of the MRC West Parcel, which is primarily comprised of residential and commercial land uses. The MRC West Parcel has operated in congruence with surrounding land uses and would continue to do so under the Action Alternatives.

The MRC West Parcel is zoned as R-O-S, which is generally applied to Federal and State properties in Prince George's County (M-NCPPC, 2010b). There would be no change in the site's zoning designation as a result of the Action Alternatives, and the Action Alternatives would not impact zoning designations for properties surrounding the MRC West Parcel.

Since the Action Alternatives would comply with the relevant Federal Elements of the *Comprehensive Plan for the National Capital* and the goals of the *Subregion 1 Master Plan*, and because land use and zoning designations would not change, implementation of the proposed Master Plan would not impact land use planning and zoning.

## 4.12.6 What Measures Would Be Taken to Minimize Impacts on Federal and Local Planning and Zoning Ordinances?

No measures are proposed as the Action Alternatives would be consistent with Federal and local planning and zoning.

## **4.13 COMMUNITY FACILITIES**

## 4.13.1 Assessment Methodology

The alternatives were qualitatively assessed to determine if they would result in changes to community facilities through the increase or decrease in availability and use of these facilities.

The impact thresholds for community facilities are provided in **Table 4-29**.

| Effect                | Impact Level   |   |  |   |  |  |
|-----------------------|--|---|--|---|--|--|
| Characteristics       | Negligible   | Minor   | Moderate   | Major   |  |  |
| Intensity             | Non-discernable<br>increases in use of<br>community facilities | Slight, but detectable<br>increases in the use of<br>community facilities<br>may occur, but these<br>increases would not<br>affect access to the<br>facilities or their<br>programs | Effect that is<br>potentially major but<br>with mitigation<br>measures is reduced<br>below major | Significant increases<br>in the use of<br>community facilities<br>would occur, and<br>these increases would<br>result in lack of access<br>to the facilities or<br>their programs |  |  |
| Geographic<br>Context | Regional   | Regional  | Regional   | Regional  |  |  |
| Duration              | Lasting 1+ years after construction                            | Lasting 1+ years after construction   | Lasting 1+ years after<br>construction   | Lasting 1+ years after construction   |  |  |

 Table 4-29. Impact Intensity Thresholds for Community Facilities

## 4.13.2 What Community Facilities Are In The Vicinity Of The MRC West Parcel?

Community facilities located near the MRC West Parcel are shown on **Figure 4-39**. The distance of the community facilities from the MRC West Parcel are included in **Table 4-30**.



Figure 4-39. Community Facilities

| Community Facility                           | Distance from the MRC<br>West Parcel (miles) |  |  |  |
|--|--|--|--|--|
| Schools                                      |  |  |  |  |
| Montpelier Elementary School                 | 0.5  |  |  |  |
| Vansville Elementary School                  | 0.9  |  |  |  |
| James H. Harrison Elementary School          | 1.2  |  |  |  |
| Deerfield Run Elementary School              | 1.2  |  |  |  |
| Martin Luther King, Jr. Middle School        | 2.1  |  |  |  |
| Laurel High School                           | 2.6  |  |  |  |
| Parks, Recreation, and Open Space            |  |  |  |  |
| Bedford Park                                 | 0.1  |  |  |  |
| Blue Ponds Park                              | 0.3  |  |  |  |
| Snowden Oaks Park                            | 0.4  |  |  |  |
| Muirkirk West Park                           | 0.4  |  |  |  |
| Muirkirk South Park                          | 0.6  |  |  |  |
| Libraries                                    |  |  |  |  |
| John G. and Beverly A. Puente Library        | 0.2  |  |  |  |
| Patuxent Wildlife Research Center Library    | 2.0  |  |  |  |
| Childcare Centers                            |  |  |  |  |
| Vansville Recreation Center                  | 1.1  |  |  |  |
| Open Arms Christian Child Development Center | 1.6  |  |  |  |
| Kidsland Day Care Center                     | 1.7  |  |  |  |
| Laurel Community Center Preschool            | 1.9  |  |  |  |
| Kindercare                                   | 2.1  |  |  |  |
| Religious Institutions                       |  |  |  |  |
| Queens Chapel United Methodist               | 0.5  |  |  |  |
| Tabernacle Church                            | 1.0  |  |  |  |
| St. Nicholas Roman Catholic Church           | 1.2  |  |  |  |
| Touch of Love Bible Church                   | 1.4  |  |  |  |
| House of Prayer & Worship                    | 1.5  |  |  |  |
| Hope Christian Church                        | 1.5  |  |  |  |
| Emmanuel Baptist Church                      | 1.6  |  |  |  |
| Faith AME                                    | 1.7  |  |  |  |
| Crossover Christian Church                   | 1.8  |  |  |  |
| Islamic Community Center                     | 1.9  |  |  |  |
| Christ Destiny International Church          | 2.0  |  |  |  |
| Washington Deliverance Center                | 2.0  |  |  |  |

### Table 4-30. Community Facilities in the Vicinity of the MRC West Parcel

Source: PG Atlas, 2021

#### Parks, Recreation, and Open Space

There are over 27,000 acres of parkland in Prince George's County, which includes parks, picnic areas, fields, and recreation centers. There are five parks within two miles of the MRC West Parcel: Bedford Park, Snowden Oaks Park, Blue Ponds Park, Muirkirk West Park, and Muirkirk South Park (PG Atlas, 2021).

According to the Prince George's County Formula 2040 Functional Master Plan for Parks, Recreation, and Open Space, the region of Prince George's County where the MRC West Parcel is located has sufficient park space to meet the needs of the increase in population at the MRC West Parcel (PG Parks, 2021b).

#### PARKS, RECREATION AREAS, AND OPEN SPACE

- Bedford Park (8901 Horton Road, Laurel)
  - Walking trails
- Blue Ponds Park (Muirkirk Road, Laurel)
  - Nature preserve and pond
- Snowden Oaks Park (8301 Montpelier Drive, Laurel)
  - Basketball courts, playground, and tennis courts
- Muirkirk West Park (7410 Old Muirkirk Road, Beltsville)
  - Wooded with picnic tables
- Muirkirk South Park (7403 Muirkirk Road, Beltsville)
  - Provides a baseball/softball field, open space, playground, picnic tables, and grills

Source: PG Parks, 2021a

#### **Schools**

The Prince George's County Public Schools (PGCPS) system serves over 130,000 students and is the nation's 20<sup>th</sup> largest school district. There are 204 schools and centers in the Prince George's County public school system, including 123 elementary schools, 24 middle schools, 23 high schools, 12 academies, nine special centers, two vocational centers, three alternative schools, and eight public charter schools. The neighborhoods surrounding the MRC West Parcel are served by District 1 of the PGCPS. The schools that would serve the areas closest to the MRC West Parcel include Montpelier Elementary, Vansville Elementary, Deerfield Run Elementary, James H. Harrison Elementary, Martin Luther King, Jr. Middle, and Laurel High (PGCPS, 2021).

According to the PGCPS Approved Fiscal Year 2021 *Educational Facilities Master Plan*, all schools that serve the area around the MRC West Parcel will be over capacity by FY 2021, with the exception of Montpelier Elementary, Vansville Elementary, and James H. Harrison Elementary. To address these capacity issues, the PGCPS Approved FY 2021 *Educational Facilities Master Plan* proposes a new high school, two new middle schools, and one new elementary school in Prince George's County (PGCPS, 2021).

#### **Childcare Centers**

There are five childcare centers located near the MRC West Parcel – Vansville Recreation Center, Kidsland Day Care Center, Kindercare, Laurel Community Center Preschool, and Open Arms Christian Child Development Center. Additionally, several schools in the vicinity offer childcare services, including the Deerfield Run Community Center Kid's Care, the YMCA at Vansville Elementary, and Montpelier Elementary Before and After School Age Care (PG Atlas, 2021).

#### **Libraries**

Two libraries are near the MRC West Parcel: the John G. and Beverly A. Puente Library and the Patuxent Wildlife Research Center Library. The John G. and Beverly A. Puente Library is 0.25 miles southeast of the MRC West Parcel and is part of the Capitol Technology University system. The Patuxent Wildlife Research Center Library is associated with the USGS research center, approximately two miles to the east of the MRC West Parcel, and is open to the public (PG Atlas, 2021).

#### **Religious Institutions**

Two religious facilities are within a mile of the MRC West Parcel: Queen's Chapel United Methodist Church, located 0.4 miles northwest, and the Tabernacle Church of Laurel, Maryland, 1 mile to the east. There are ten additional religious institutions within 2 miles of the MRC West Parcel (PG Atlas, 2021).

## 4.13.3 How Would Implementation Of The Master Plan Affect Local Community Facilities?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. As there would be no increase in staffing, there would be no additional demand for community facilities in the area of the MRC West Parcel. FDA employees would continue to use community facilities at the same rate as they do currently; therefore, there would be no impact under the No-Action Alternative.

#### Alternatives A, B, and C (Action Alternatives)

Under the Action Alternatives, the MRC West Parcel would be developed and eventually house 1,800 employees and support staff. Some employees may relocate to the vicinity of the MRC West Parcel from outside of the region, and these employees may utilize community facilities, including schools, libraries, parks, medical facilities, childcare centers, and religious facilities. The libraries, parks, medical facilities, and religious facilities may see a slight increase in use, but it would not likely exceed the capacity of these facilities, as there are numerous within the area and would be sporadically accessed. Many of the current schools in the vicinity are expected to reach capacity by FY 2021; however, several new schools are currently planned in order to meet the growing needs of the region (PGCPS, 2021). Since there could be new employees at the MRC West Parcel that may have school-aged children, there would be a slight adverse impact from the increased demand for educational facilities. This impact would be lessened once the new schools are operational and able to meet the increasing need in the region. Similarly, there would be an increased demand for childcare from new employees at the MRC West Parcel who have children who are not yet school-aged. These employees may potentially require the use of the childcare centers in the area. These facilities would be able to meet the increased demand from the additional population at the MRC West Parcel; therefore the Action Alternatives would result in negligible, long-term, adverse to community facilities.

# 4.13.4 What Measures Would Be Taken To Reduce Impacts On Local Community Facilities?

No mitigation measures would be required for community facilities because these facilities would be able to meet the increased demand from the additional population at the MRC West Parcel.

## 4.14 SAFETY AND SECURITY

## 4.14.1 Assessment and Methodology

The alternatives were qualitatively assessed to determine if they would result in changes to the safety and security of the MRC West Parcel and surrounding areas through the increase or decrease in availability and use of these services.

The impact thresholds for safety and security are provided in **Table 4-31**.

| Effect                | Impact Level  |   |  |  |  |  |
|-----------------------|---|---|--|--|--|--|
| Characteristics       | Negligible  | Minor   | Moderate   | Major  |  |  |
| Intensity             | Non-discernable<br>increases in use of<br>services which would<br>not affect service<br>provider's ability to<br>provide services | Slight, but detectable<br>increases in use of<br>services may occur,<br>but these increases<br>would not affect<br>service provider's<br>ability to provide<br>services | Effect that is<br>potentially major but<br>with mitigation<br>measures is reduced<br>below major | Significant increases in<br>calls for service would<br>occur, and these<br>increases could result<br>in unacceptable<br>response times for<br>services |  |  |
| Geographic<br>Context | Regional  | Regional  | Regional   | Regional   |  |  |
| Duration              | Lasting 1+ years after construction   | Lasting 1+ years after construction   | Lasting 1+ years after construction  | Lasting 1+ years after construction  |  |  |

#### Table 4-31. Impact Intensity Thresholds for Safety and Security

# 4.14.2 What Fire and Emergency Medical Services, Police, and Medical Facilities Serve the MRC West Parcel?

The MRC West Parcel is served by local fire protection, emergency medical services (EMS), police stations, and medical facilities in Prince George's County (**Figure 4-40**).

#### Fire Protection and EMS

The Prince George's County Fire and EMS Department is comprised of 45 stations divided into seven battalions and responded to over 145,000 service calls in 2018 (PG County, 2021a and Office of Audits and Investigations, 2018a). The Prince George's County Fire and EMS that would serve the MRC West Parcel are part of Battalion 6, which serves all communities within the general vicinity of Laurel, Greenbelt, Beltsville, and Berwyn Heights. The nearest fire stations to the MRC West Parcel are Company 831 Beltsville Volunteer Fire Department and Company 849 Laurel Volunteer Rescue Squad (**Table 4-32**) (PG County, 2021a).



Figure 4-40. Emergency Services Within the Vicinity of the MRC West Parcel

|  | Address   | Distance to MRC<br>West Parcel (miles) |
|--|---|--|
| Fire/EMS Stations                                    |   |  |
| 831 Beltsville Volunteer Fire Department             | 4911 Prince Georges Ave                             | 4.4                                    |
| Company 849 Laurel Volunteer Rescue Squad            | 14910 Bowie Road<br>Laurel, MD 20707                | 3.7                                    |
| Police Stations                                      |   | ·                                      |
| District 6 Station – Beltsville                      | 4321 Sellman Road<br>Beltsville, MD 20705           | 5.0                                    |
| Maryland State Police at Barrack Q – College<br>Park | 10100 Rhode Island Avenue<br>College Park, MD 20740 | 5.3                                    |
| Medical Facilities                                   |   | ·                                      |
| University of Maryland Laurel Medical Center         | 7300 Van Dusen Rd<br>Laurel, MD 20707               | 4.0                                    |

#### Table 4-32. Fire/EMS, Police, and Medical Facilities Near the MRC West Parcel

#### Police

The Prince George's County Police Department employs over 1,450 police officers and 300 civilians. There are eight police districts within Prince George's County. The MRC West Parcel is served by the District 6 Station located at 4321 Sellman Road in Beltsville (PG County, 2021b). District 6 responded to 41,603 calls for service in 2019 (Office of Audits and Investigations, 2020). Additionally, Prince George's County is served by the Maryland State Police at Barrack Q – College Park.

Crime in Prince George's County has been increasing from 2019 to 2021 (PG County, 2022). The percentage of the crime within Prince George's County in 2021 in 10.4 percent and occurred within District 6 where the MRC West Parcel is located, which is a slight increase from 2020, in which 10.1 percent of the crime within Prince George's County occurred within District 6 (PG County, 2022). Crime statistics from Prince George's County and District 6 are provided in **Table 4-33**.

| Crime Type             | Number of Incidents in Prince George's<br>County (2019 – 2021) |        |        | Number of Incidents in District 6<br>(2019 – 2021) |         |         |         |       |
|------------------------|--|--------|--------|--|---------|---------|---------|-------|
|                        | 2019   | 2020   | 2021   | Trend  | 2019    | 2020    | 2021    | Trend |
| Homicide               | 80   | 95     | 137    | +  | 3       | 3       | 4       | \$    |
| Sex Offense            | 439  | 381    | 333    | +  | 21      | 38      | 36      | \$    |
| Robbery                | 1,067  | 1,311  | 1,422  | +  | 58      | 75      | 84      | +     |
| Assault                | 2,057  | 2,120  | 2,208  | +  | 108     | 193     | 202     | +     |
| Burglary               | 1,568  | 1,603  | 1,395  | +  | 102     | 110     | 105     | \$    |
| Larceny/Theft          | 11,994   | 12,450 | 12,018 | +  | 925     | 1,469   | 1,444   | +     |
| Motor Vehicle<br>Theft | 2,532  | 2,972  | 3,608  | +  | 150     | 218     | 333     | +     |
| Arson                  | 16   | 35     | 18     | +  | No data | No data | No Data |       |
| TOTAL                  | 19,758   | 20932  | 21139  | +  | 1,367   | 2,106   | 2,208   | +     |

#### Table 4-33. Crime Statistics by Category (2019 - 2021)

Source: PG County 2022; FB1 2022

#### Medical Facilities

In Prince George's County, there are seven hospitals (Luminis, 2021). The closest medical facility is the University of Maryland Laurel Medical Center which is located 4 miles from the site (**Figure 4-40**). The Medical Center provides 24/7 emergency care, along with short stay observation, outpatient surgery, outpatient behavioral health issues. In addition, to the services provided at the Medical Center, additional health care services are provided in the Medical Office Building on the campus (UMMS, 2021).

## 4.14.3 What Security Measures are Currently Provided at the MRC West Parcel?

The MRC West Parcel is currently fenced and monitored 24 hours per day, seven days per week by the Federal Protective Service (FPS). Access to the MRC West Parcel is provided off Muirkirk Road and a secondary access to the eastern portion of MRC West Parcel is available from Odell Road. Access to the MRC West Parcel is restricted to GSA and FDA personnel, support staff, and approved visitors.

The MRC West Parcel is surrounded by a 11-foot chain-link security fence topped with barbed wire and is monitored by the FPS and is restricted to FDA and GSA personnel and screened visitors. A screening facility for employees, visitors, and delivery trucks is located on the north side of the campus, along Muirkirk Road. An additional security gate is located on the east side of the campus along Odell Road. Employees and visitors entering the campus must go through a vehicle check point and provide identification. Once inside the campus, visitors must go through additional security screening. The MRC West Parcel has additional 8-foot chain-link fence topped with barbed wire throughout the interior of the campus.

# 4.14.4 Would Safety and Security in the Area of the MRC West Parcel be Affected by Implementation of the Master Plan?

### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. FPS campus security would remain the first emergency personnel to respond to incidents on the MRC West Parcel. Therefore, there would be no change in the volume of calls for fire, EMS, or police from outside the MRC West Parcel, and no increased demand for medical facilities under the No-Action Alternative.

#### Alternatives A, B, and C (Action Alternatives)

Under all Action Alternatives, there would be an increase in the commuter population to the area surrounding the MRC West Parcel, which could result in a potential increase in the number of calls for police response. Increased calls for service could create a potential need for additional deployment of officers from District 6, additional fire/EMS services, and medical facilities. As the Master Plan is implemented, FDA would coordinate with local fire/EMS and police to ensure that designs incorporate access for emergency vehicles for new facilities to accommodate tactical positioning during emergency events. Because the increases in calls as a result of the Action Alternatives would not be discernable, the Action Alternatives would have a negligible, long-term, adverse impact.

# 4.14.5 What Impact Would the Master Plan have on Safety and Security at the MRC West Parcel?

#### **No-Action Alternative**

Under the No-Action Alternative, the proposed Master Plan would not be implemented. The MRC West Parcel would continue to house 300 employees, and any additional employees and support staff would need to be housed by FDA at other facilities or leased properties. Current security measures and procedures would continue. Access to the MRC West Parcel would continue to be restricted to Federal employees and approved visitors. No impacts to safety and security at the MRC West Parcel are anticipated.

#### Alternatives A, B, and C (Action Alternatives)

During construction, a health and safety plan would be put in place to protect construction workers from potential construction hazards and any potential environmental contamination. Employees and visitors would not have access to construction zones to ensure their safety. This would protect visitors and employees at the MRC West Parcel.

Under all Action Alternatives, newly constructed buildings would be designed to achieve Interagency Security Committee (ISC) Level III requirements (**Figure 4-41 through Figure 4-43**). Access to the site is granted through the main entrance at Muirkirk Road and a secondary entrance at Odell Road. Both entrances would be gated, and employees and visitors would have to pass through a security check point to access the campus. Once inside the campus, everyone would be screened to gain access to the campus grounds and buildings. The campus security design for the Master Plan is based on establishing multiple tiers of security for both vehicles and pedestrians. Enhanced security measures described below would result in beneficial impacts to the safety and security of visitors and employees at the MRC West Parcel.

### 4.14.6 What Measures Would be Taken to Enhance Safety and Security?

A health and safety plan would be put in place to protect construction workers from potential construction hazards and any potential environmental contamination. Employees, support staff, and visitors would not have access to construction zones to ensure their safety. Measures that are taken to provide a secure campus include:

- A 50-foot security buffer between roads and buildings
- Extending and enhancing perimeter fencing to accommodate the new development
- Access control equipment
- Intrusion detection devices
- Site lighting
- Security controlled pathways



Figure 4-41. Security Design for Alternative A



Figure 4-42. Security Diagram for Alternative B



Figure 4-43. Security Design for Alternative C

## 4.15 ECONOMY AND EMPLOYMENT

## 4.15.1 Assessment Methodology

Implementation of the proposed Master Plan could affect economic conditions within Maryland. Impacts are based on additional spending infused into an economy as a result of construction and renovation expenditures. The expenditures are new dollars spent in the economy as a result of the construction and renovation only.

The impact thresholds for economy and employment are provided in Table 4-34.

| Effect<br>Characteristics | Impact Level   |   |  |  |  |  |
|---------------------------|--|---|--|--|--|--|
|                           | Negligible   | Minor   | Moderate   | Major  |  |  |
| Intensity                 | Non-discernable<br>decreases in<br>spending,<br>employment levels, or<br>personal income | Slight, but detectable<br>decreases in<br>spending,<br>employment levels, or<br>personal income | Effect that is<br>potentially major but<br>with mitigation<br>measures is reduced<br>below major | Substantial decreases<br>in spending,<br>employment levels or<br>personal income |  |  |
| Geographic<br>Context     | Regional   | Regional  | Regional   | Regional   |  |  |
| Duration                  | Temporary, lasting only through construction   | Temporary, lasting<br>only through<br>construction  | Lasting 1+ years after construction  | Lasting 1+ years after<br>construction   |  |  |

Table 4-34. Impact Intensity Thresholds for Economy and Employment

## 4.15.2 What is the Economic Make-Up of Prince George's County?

Industries contributing to the economic make-up of Prince George's County are listed in **Table 4-35**. The largest industry, on average, in these census BGs are Prince George's County educational services and health care and social services, accounting for employment of 22.0 percent of the working population (U.S. Census Bureau, 2020h). The public administration industry accounts for 13.6 percent of the workforce, and the professional, scientific, and management, and administrative and waste management services industry accounts for 15.3 percent of the workforce. Other prominent industries in Prince George's County include construction; retail trade; and arts, entertainment, and recreation, and accommodation and food services (U.S. Census Bureau, 2020h).

On average, the economic make-up of the census BGs including the MRC West Parcel or adjacent to the MRC West Parcel is comparable to that of the county (**Table 4-36**). The largest industry on average in the census BGs is the educational services and health care and social services industry, comprising 30.0 percent of the civilian employed workforce. The professional, scientific, and management, and administrative and waste management services industry is the second largest industry on average among the surveyed CTs, accounting for 13.7 percent of the workforce. Other prominent industries within the CTs include the public administration industry, which on average accounts for 13.6 percent of the working civilian population, and the retail industry, which averages 10.6 percent of the employed civilian population (U.S. Census Bureau, 2020n).

| Industry Type                                      | Prince<br>George's<br>County | Study Area <sup>a</sup> | CT<br>8002.16<br>BG 1 | CT<br>8002.16<br>BG 2 | CT<br>8002.17<br>BG 2 | CT<br>8074.08<br>BG 1 <sup>b</sup> | CT<br>8074.08<br>BG 3 |
|--|------------------------------|-------------------------|-----------------------|-----------------------|-----------------------|------------------------------------|-----------------------|
| Agriculture, forestry,<br>fishing and hunting, and | 0.2                          | 0.0                     | 0.0                   | 0.0                   | 0.0                   | 0.0                                | 0.0                   |
| mining   | 0.2                          | 0.0                     | 0.0                   | 0.0                   | 0.0                   | 0.0                                | 0.0                   |
| Construction                                       | 8.8                          | 6.2                     | 7.2                   | 4.3                   | 0.0                   | 11.3                               | 4.0                   |
| Manufacturing                                      | 2.2                          | 5.9                     | 3.4                   | 9.0                   | 2.2                   | 7.9                                | 6.6                   |
| Wholesale Trade                                    | 1.2                          | 0.7                     | 0.0                   | 3.5                   | 0.7                   | 0.0                                | 0.0                   |
| Retail Trade                                       | 8.5                          | 12.3                    | 15.9                  | 6.8                   | 17.0                  | 4.3                                | 18.8                  |
| Transportation and                                 |                              |                         |                       |                       |                       |                                    |                       |
| Warehousing, and                                   | 6.4                          | 3.8                     | 5.3                   | 1.8                   | 0.0                   | 7.7                                | 1.2                   |
| Utilities  |                              |                         |                       |                       |                       |                                    |                       |
| Information  | 2.1                          | 3.6                     | 0                     | 1.8                   | 4.0                   | 10.7                               | 2.8                   |
| Finance and Insurance,                             |                              |                         |                       |                       |                       |                                    |                       |
| and Real Estate and                                | 4.9                          | 5.6                     | 2.9                   | 1.6                   | 4.2                   | 3.2                                | 17.4                  |
| Rental and Leasing                                 |                              |                         |                       |                       |                       |                                    |                       |
| Professional, Scientific,                          |                              |                         |                       |                       |                       |                                    |                       |
| and Management, and                                |                              |                         |                       |                       |                       |                                    |                       |
| Administrative and                                 | 15.3                         | 13.7                    | 16.3                  | 16.0                  | 11.6                  | 13.4                               | 9.1                   |
| Waste Management                                   |                              |                         |                       |                       |                       |                                    |                       |
| Services   |                              |                         |                       |                       |                       |                                    |                       |
| Educational Services, and                          | 22.0                         | 20.0                    | 25.2                  | 20.4                  | 40.7                  | 24.0                               | 27.4                  |
| Health Care and Social                             | 22.0                         | 30.0                    | 25.3                  | 38.1                  | 42.7                  | 24.8                               | 27.4                  |
| Services   |                              |                         |                       |                       |                       |                                    |                       |
| Arts, Entertainment, and                           |                              |                         |                       |                       |                       |                                    |                       |
| Accommodation and                                  | 8.9                          | 4.1                     | 8.7                   | 3.8                   | 0.0                   | 4.0                                | 0.0                   |
|  |                              |                         |                       |                       |                       |                                    |                       |
| Ather Services excent                              |                              |                         |                       |                       |                       |                                    |                       |
| Public Administration                              | 5.9                          | 3.4                     | 4.5                   | 2.3                   | 1.6                   | 5.2                                | 1.6                   |
| Public Administration                              | 13.6                         | 10.6                    | 10.5                  | 10.9                  | 16.1                  | 7.5                                | 11.1                  |

Table 4-35. Employment by Industry (%)

Source: U.S Census Bureau, 2020h and U.S. Census Bureau, 2020n

<sup>a</sup> Census BGs that include or are adjacent to the MRC West Parcel

<sup>b</sup> Census BGs that include the MRC West Parcel

The largest employer in Prince George's County is the University System of Maryland, with 20,250 employees. In addition, Prince George's County has multiple Federal facilities due to its proximity to Washington, DC. Federal facilities in Prince George's County include the U.S Internal Revenue Service, the U.S. Census Bureau, and the NASA Goddard Space Flight Center. The largest Federal employer in the county is Joint Base Andrews Naval Air Facility Washington, which employs 17,500 employees (MDOC, 2019). In 2020, the unemployment rate in Prince George's County was 7.5 percent, which was slightly greater than the state of Maryland unemployment rate of 5.8 percent (**Table 4-36**) (Maryland State Archives, 2020). The census BG that contains the MRC West Parcel, CT 8074.08 BG 1, has roughly half the rate of unemployment than that of the state (U.S. Census Bureau, 2020j).

|                        | Unemployment Rate | Median Household<br>Income | Population Below<br>Poverty Level |
|------------------------|-------------------|----------------------------|-----------------------------------|
| Maryland               | 5.8%              | \$87,063                   | 9.0%                              |
| Prince George's County | 7.5%              | \$86,994                   | 8.6%                              |
| CT 8002.16, BG 1       | 0%                | \$120,125                  | 1.2%                              |
| CT 8002.16, BG 2       | 2.4%              | \$160,000                  | 2.6%                              |
| CT 8002.17, BG 2       | 8.1%              | \$88,611                   | 0%                                |
| CT 8074.08, BG 1       | 3.3%              | \$96,184                   | 6.5%                              |
| CT 8074.08, BG 3       | 2.3%              | \$105,417                  | 1.6%                              |

#### Table 4-36. Economic Characteristics

Sources: Maryland State Archives, 2020; U.S. Census Bureau, 2020f; U.S. Census Bureau, 2020g; U.S. Census Bureau 2020i; U.S. Census Bureau, 2020j; and U.S. Census Bureau, 2020c

The median household incomes in Prince George's County and Maryland are comparable, with median incomes of \$86,994 and \$87,063, respectively (U.S. Census Bureau, 2020d). Median household income varies among the census BGs that include or are adjacent to the MRC West Parcel, all of which are greater than the state of Maryland and Prince George's County. CT 8002.16 BG 2 has the highest median household income at \$160,000 (U.S. Census Bureau, 2020i). A total of 8.6 percent of the population is below the poverty level in Prince George's County, which is lower than that of the 9 percent found in the state of Maryland (U.S. Census Bureau, 2020e). The percentage of the population below the poverty level occurs at lower rates in the census BGs that include or are adjacent to the MRC West Parcel. CT 8002.17 BG 2 has no individuals estimated to be below the poverty level (U.S. Census Bureau, 2020c).

## 4.15.3 How Would Implementation of the Master Plan Impact the Local and Regional Economy?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Employees currently housed at the MRC West Parcel would contribute to the regional economy and support local businesses at current levels. As there would be no anticipated increase or decrease in business activity, the No-Action Alternative would result in minor, long-term, adverse impacts to the local or regional economy.

#### Alternatives A, B, and C (Action Alternatives)

Under the Action Alternatives, construction would increase economic activity in the region. During construction, materials and equipment may be purchased from local providers; additionally, construction personnel would likely patronize local businesses, such as gas stations and restaurants, through the duration of construction activities. Since construction personnel would spend a portion of their income at local businesses, and since construction materials, equipment, and supplies may be procured from local or regional suppliers, the Action Alternatives would provide temporary benefits to the local and regional economy. Construction would occur over a period of 20 years, and cost estimates for the Action Alternatives have not been developed, so these impacts cannot yet be quantified.

Once construction is complete, the MRC West Parcel would accommodate 1,800 employees and support staff. Employees and support staff would likely patronize local businesses in the vicinity of the MRC West Parcel. New businesses and services may be established to serve the increased population of employees. Furthermore, additional contractual obligations with vendors, such as maintenance and repair contracts, would be required to serve the expanded MRC West Parcel operations. The increased business activity required to serve the MRC West Parcel and the increased employee population would result in long term benefits to the regional economy under the Action Alternatives.

# 4.15.4 How Would Implementation Of The Master Plan Impact Employment Within The Area?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Vacancies would be filled with new employees. The need for additional employees under the No-Action Alternative would result in minor, long-term, adverse impacts to employment in the region.

#### Alternatives A, B, and C (Action Alternatives)

Implementation of the Master Plan under the Action Alternatives would result in direct employment opportunities in the construction industry in the region. These jobs would last the duration of construction. Therefore, the Action Alternatives would provide temporary benefits to employment in the region.

Under the Action Alternatives, the MRC West Parcel would support the anticipated growth of FDA and eventually accommodate 1,800 employees and support staff. While some of these employees may relocate from other FDA facilities, some may be new positions that would result in new employment opportunities in the region. Businesses in the area that would serve the increased population at the MRC West Parcel or that would fulfill contractual obligations would also likely hire more personnel to handle the additional business. The need for additional employees under the Action Alternatives would result in beneficial impacts to employment in the region.

### 4.15.5 How Would Implementation Of The Master Plan Affect Taxes And Revenue?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The MRC West Parcel is a Federal property, and, as such, is not subject to real property taxes. No additional employees would be located at the MRC West Parcel. The current personnel assigned to the campus would continue to provide tax revenue in the form of sales tax incurred when patronizing local businesses. Therefore, the No-Action Alternative would not result in new impacts to taxes and revenue.

#### Alternatives A, B, and C (Action Alternatives)

The MRC West Parcel is a Federal property, and, as such, is not subject to real property taxes. The Master Plan would not require the acquisition of new land and there would be no change in the amount of land exempt from property tax.

During construction of the Action Alternatives, sales tax revenue would be generated from the purchase of materials and equipment necessary for proposed construction activities. Construction personnel would also contribute to a temporary increase in sales tax revenue when patronizing local businesses. The construction workers that have been hired to construct the new facilities at the MRC West Parcel would also provide revenue to local, state, and Federal Governments through income taxes. These impacts under the Action Alternatives would be beneficial but would be limited to the duration of construction activities.

The Action Alternatives would all result in the eventual increase of the population at the MRC West Parcel of up to 1,800 employees and support staff. These employees would contribute to sales tax revenue by patronizing local businesses and services. Implementation of the Master Plan would additionally provide tax revenue when acquiring the services of contractors and vendors. Increased business activity in the area as a result of the Action Alternatives would create a beneficial impact on tax revenue within Prince George's County and the state of Maryland.

Some employees may choose to relocate to the area from outside of the NCR to fulfill employment opportunities at the MRC West Parcel. These new employees would be subject to income tax, generating local and state tax revenue. This increase in income tax revenue would result in a minor benefit to taxes and revenue in the region.

# 4.15.6 What Measures Would Be Taken To Reduce The Impact On The Local And Regional Economy?

The impacts to the local and regional economies are expected to be beneficial. The increased economic activity that would be stimulated by the proposed action is consistent with Prince George's County's goals and plans for economic development. Therefore, additional measures are not necessary to reduce impacts to the local and regional economy.

## **4.16 ENVIRONMENTAL JUSTICE**

### 4.16.1 Assessment Methodology

Impacts associated with the alternatives were assessed to determine if they would result in disproportionate impacts to low-income and minority populations compared to the general population. Impacts to environmental conditions affecting low-income and minority populations including the natural environment, social and economic conditions, air and noise quality, transportation, access to utilities, and environmental contamination were assessed to determine if they could affect the health and safety of these populations.

The impact thresholds for environmental justice are provided in Table 4-37.

| Effect                | Impact Level  |  |  |   |  |  |
|-----------------------|---|--|--|---|--|--|
| Characteristics       | Negligible  | Minor  | Moderate   | Major   |  |  |
| Intensity             | Non-discernable<br>impacts to minority<br>and low-income<br>populations | Minority and low-<br>income populations<br>may be impacted, but<br>impacts would not be<br>disproportionally<br>greater than impacts<br>to the general<br>population | Effect that is<br>potentially major but<br>with mitigation<br>measures is reduced<br>below major | Minority and low-<br>income populations<br>would be impacted,<br>and impacts would be<br>disproportionately<br>greater than impacts<br>to the general<br>population |  |  |
| Geographic<br>Context | Regional  | Regional   | Regional   | Regional  |  |  |
| Duration              | Temporary, lasting<br>only through<br>construction                      | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction  | Lasting 1+ years after construction  | Lasting 1+ years after construction   |  |  |

## 4.16.2 Are There Any Low-Income or Minority Populations Near the MRC West Parcel?

Executive Order (EO) 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, reinforced by EO 13985 Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, directs Federal agencies to identify and address, as appropriate, disproportionately high, and adverse human health impacts or environmental effects of their programs, policies, and activities on minority and low-income populations. According to the USEPA, "Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (EPA, 2019a). Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, commercial, and governmental operations or policies. Meaningful involvement means: (1) people have an opportunity to participate in decisions about activities that could affect their environment or health; (2) the public's contribution can influence the regulatory agency's decision; (3) the public's concerns will be considered in the decision-making process; and (4) the decision-makers seek out and facilitate the involvement of those potentially affected. To have an impact under EO 12898, the impact must have a high and adverse effect on human health or environment, and the impact must have a disproportionate impact on minority and low-income populations (EPA, 2019a).

A low-income individual is defined as any individual receiving a total family income below the applicable poverty threshold, as derived from the Office of Management and Budget's (OMB) Statistical Policy Directive 14. Information regarding poverty status of individuals is available from the U.S. Census Bureau at the CT level. A low-income population is defined as any CT with a higher percentage of low-income individuals than the county population as a whole. A minority individual is defined as any group of people living in a geographic proximity that is 50 percent minority or greater (CEQ, 1997).

GSA is a member of the Federal Interagency Working Group on Environmental Justice (EJ IWG). The EJ IWG connects Federal agencies in order to advance Environmental Justice. Each agency in the EJ IWG has

developed a strategy to address environmental justice. GSA's most recent strategy identified four major goals: (1) to enhance communication and coordination to improve the health, quality of life, and economic opportunities in overburdened communities; (2) to enhance multi-agency support of holistic, community-based solutions to provide assistance to address environmental justice issues; (3) to advance interagency strategies to identify and address environmental justice concerns in agency programs, policies, and activities; and (4) to develop partnerships with academic institutions to assist in providing long term technical assistance to overburdened communities (GSA, 2016).

Census BGs within the vicinity of the MRC West Parcel are shown on **Figure 4-3**. The MRC West Parcel is located within CT 8074.08 BG 1 and is adjacent to four additional census BGs. Minority and low-income population statistics for the census BGs in the vicinity of the MRC West Parcel; Prince George's County; the state of Maryland; and the U.S. are shown in **Table 4-38**. Age demographics for the census BGs, as well and the county, state, and nation, are provided in **Table 4-39**.

While the percentage of minority populations in the study area is greater than that of the state of Maryland and the U.S., it is comparable to the rate of Prince George's County. One exception is CT 8002.16 BG 1, which has a larger minority population percentage than the county. The percentage of low-income populations within the study area is lower than that of Prince George's County, Maryland, and the U.S. The percentages of the population over 65 years old in the census BGs that include or are adjacent to the MRC West Parcel are slightly lower than the surrounding geographic areas, except for CTs 8002.16 BG 2 and CT 8002.17 BG 2, in which the population over 65 years old is greater than the county, state, and nation.

| Location               | Total Population | Minority Population<br>(%) | % Living Below<br>Poverty Level |
|------------------------|------------------|----------------------------|---------------------------------|
| National               | 326,569,308      | 29.6                       | 12.9                            |
| State                  | 6,037,624        | 45.8                       | 9.0                             |
| Prince George's County | 910,551          | 83.9                       | 8.6                             |
| CT 8002.16, BG 1       | 2,120            | 94.5                       | 1.2                             |
| CT 8002.16, BG 2       | 1,891            | 57.2                       | 2.6                             |
| CT 8002.17, BG 2       | 1,492            | 69.2                       | 0                               |
| CT 8074.08, BG 1       | 2,472            | 52.5                       | 6.5                             |
| CT 8074.08, BG 3       | 1,780            | 79.4                       | 1.6                             |

#### Table 4-38. Minority and Low-Income Populations

Sources: U.S. Census Bureau, 2020a; U.S. Census Bureau, 2020b; and U.S. Census Bureau 2020c

| Location                  | Total<br>Population | Population Under<br>18 Years Old (%) | Population 18 to<br>64 Years Old (%) | Population 65<br>Years Old and Over<br>(%) |
|---------------------------|---------------------|--------------------------------------|--------------------------------------|--|
| National                  | 326,569,308         | 73,296,738 (22.5)                    | 200,909,753 (61.5)                   | 52,632,817 (16.0)                          |
| State                     | 6,037,624           | 1,340,766 (22.2)                     | 3,765,983 (62.4)                     | 930,875 (15.4)                             |
| Prince George's<br>County | 910,551             | 202,908 (22.3)                       | 586,435 (64.4)                       | 121,208 (13.3)                             |
| CT 8002.16, BG 1          | 2,120               | 398 (18.8)                           | 1,616 (76.2)                         | 107 (5.0)                                  |
| CT 8002.16, BG 2          | 1,891               | 533 (29.2)                           | 1,025 (54.2)                         | 313 (16.6)                                 |
| CT 8002.17, BG 2          | 1,492               | 302 (20.2)                           | 850 (57.0)                           | 340 (22.8)                                 |
| CT 8074.08, BG 1          | 2,472               | 651 (26.3)                           | 1,627 (65.8)                         | 194 (7.9)                                  |
| CT 8074.08, BG 3          | 1,780               | 553 (31.1)                           | 1,084 (60.9)                         | 143 (8.0)                                  |

#### Table 4-39. Age Demographics

Source: U.S. Census Bureau, 2020k and U.S. Census Bureau, 2020o

The USEPA's Environmental Justice Screening and Mapping Tool (EJSCREEN) was used to obtain information on demographic and environmental information for the area with regards to environmental justice communities. EJSCREEN compares a community's potential for exposure or risk to that of the state and the nation. According to EJSCREEN, the area surrounding the MRC West Parcel is in a higher percentile for several environmental indices compared to Maryland and the U.S. (EPA, 2020). The area within a 1-mile radius of the MRC West Parcel is in at least the 80<sup>th</sup> percentile for particulate matter (PM<sub>2.5</sub>), ozone (O<sub>3</sub>), diesel particulate matter, air toxics cancer risk, respiratory hazard index, proximity to superfund sites, proximity to risk management plan (RMP) facilities, proximity to hazardous waste, and wastewater discharge (EPA, 2020).

# 4.16.3 How Would the MRC Master Plan Impact Environmental Justice Populations?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Because there would be no changes to the existing conditions, there would be no human health or environmental impacts that would disproportionately affect the minority and low-income populations or specific age demographics.

#### Alternatives A, B, and C (Action Alternatives)

The area surrounding the MRC West Parcel includes CTs with greater percentages of minority populations than that of the state of Maryland and the U.S.; however, low-income and elderly populations in the vicinity of the MRC West Parcel occur at lower rates than in Prince George's County, Maryland, and the U.S. These Environmental Justice populations are susceptible to environmental impacts as noted in the EJSCREEN review. Air quality, noise, and traffic impacts would be mitigated as discussed in Section 4.29. There would be no impacts from environmental contamination. Public participation was solicited, and input was given equal consideration regardless of age, race, income, or other socioeconomic and demographic factors.

Although there are Environmental Justice populations located near the MRC West Parcel, there would be no human health or environmental impacts that would disproportionately affect these populations.

## 4.16.4 What Measures Would be Taken to Protect Environmental Justice Communities

The best practices to address air quality, noise, and traffic impacts during construction-related activities and facilities operations include the following:

- All construction equipment powered by an internal combustion engine should be equipped with a properly maintained muffler.
- Air compressors would meet current USEPA noise emission standards.
- Newer model construction equipment should be used as much as possible since it is generally quieter than older equipment.
- Nighttime construction activities should be minimized.
- Portable noise barriers within the equipment area and around stationary noise sources should be established.
- Tools and equipment should be selected to minimize noise
- Industrial silencers would be installed on stand-by generators
- During the construction period, fugitive dust and particulate emissions would be mitigated via water and other dust suppressants as necessary.
- Employees would be encouraged to use public transportation (see also the TMP located in **Appendix F** for additional ways GSA/FDA is encouraging use of public transit).
- Carpool, vanpool, bicycle-to-work; the use of alternative "clean" fuels and non-polluting sources of energy would be used whenever possible; minimizing power generation requirements; and using green building materials, construction methods, and building designs would be used to the maximum extent practicable.
- Measures taken to temporarily reduce the generation of emissions that contribute to O<sub>3</sub> formation would be taken.
- Natural gas heater usage would likely be limited during the summer months and when the weather is warmer.

## 4.17 AIR QUALITY

### 4.17.1 Assessment Methodology

The environmental impacts on local and regional air quality conditions near a proposed action are determined based on increases in regulated pollutant emissions compared to existing conditions and ambient air quality. General conformity applicability analysis requires quantification of direct and indirect construction and operation emissions for the project in tons per year (tpy) and comparison of those emission levels to baseline emission levels. An action is exempt from further general conformity analysis (i.e., the action is presumed to conform) if the total net project-related emissions (construction and operation) would be less than the de minimis thresholds provided in 40 CFR 93.153(b). If the net emissions increases associated with the project exceed the applicable general conformity de minimis levels for the peak year or any milestone year for attainment of National Ambient Air Quality Standards (NAAQS), a formal general conformity demonstration is required. An action that would produce emissions that exceed

conformity thresholds is required to demonstrate conformity with the SIP through mitigation or other accepted practices.

This section provides an analysis of potential air quality impacts associated with emissions from demolition, construction, facility operation, and traffic associated with the No-Action Alternative, and Action Alternatives A, B, and C. The analysis is summarized from the Air Quality Technical Report in **Appendix D**.

The impact thresholds for air quality are provided in Table 4-40.

| Effect                | Impact Level   |   |  |   |
|-----------------------|--|---|--|---|
| Characteristics       | Negligible   | Minor   | Moderate   | Major   |
| Intensity             | Non-discernable<br>impacts to air quality<br>from construction-<br>related emissions<br>Air quality impacts<br>would conform with<br>NAAQS | Slight, but detectable<br>impacts to air quality<br>from construction-<br>related emissions<br>Slight, but detectable<br>impacts to air quality<br>from stationary<br>and/or mobile source<br>emissions during<br>operation<br>Air quality impacts<br>would conform with<br>NAAQS | Effect that is<br>potentially major but<br>with best practices<br>and mitigation<br>measures is reduced<br>below major | Highly noticeable<br>impacts to air quality<br>from stationary<br>and/or mobile source<br>emissions during<br>operation<br>Air quality impacts<br>would result in<br>violation of NAAQS |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites)  | Localized (i.e.,<br>confined to the<br>project sites)   | Regional   | Regional  |
| Duration              | Temporary, lasting<br>only through<br>construction   | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction   | Lasting 1+ years after construction  | Lasting 1+ years after<br>construction  |

#### Table 4-40. Impact Intensity Thresholds for Air Quality

### 4.17.2 Are There Any Air Quality Issues in the DC-Metropolitan Area?

Air quality is regulated at the Federal level through the CAA. The USEPA adopted the CAA in 1970 and its amendments in 1977 and 1990. Pursuant to the CAA, USEPA has established nation-air quality standards to protect public health and welfare. These standards, known as NAAQS (40 CFR § 50), represent the maximum allowable concentrations of selected pollutants in ambient air. NAAQS were developed for six criteria pollutants (**Table 4-41**): O<sub>3</sub>, nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), particulate matter less than 10 microns in aerodynamic diameter (PM<sub>10</sub>) and particulate matter less than 2.5 microns in aerodynamic diameter (PM<sub>10</sub>), and lead (Pb). NAAQS include Primary Standards that protect public health, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly, and the Secondary Standards that protect public welfare including protection against decreased visibility and damage to animals, crops, vegetation, and buildings (EPA, 2019b).

The CAA requires USEPA to classify regions with respect to each criteria pollutant, depending on whether the area's monitored air quality meets the national standards. A region that is meeting the air quality standard for a given pollutant is designated as being in "attainment" for that pollutant. If the region does

not meet the air quality standard, it is designated as being in "nonattainment" for that pollutant. Ozone nonattainment areas are categorized based on the severity of pollution: marginal, moderate, serious, severe, or extreme. An area that was designated as nonattainment and has been re-designated to attainment and has a Federally approved maintenance plan is in "maintenance" for that pollutant. Areas may be designated as attainment for some standards and nonattainment or maintenance for others (40 CFR 93.125).

The Washington DC-MD-VA Region, which includes the MRC West Parcel, is designated as a marginal nonattainment area for O3 (area has a design value of 0.071 ppm up to, but not including 0.081 ppm) under the 2015 8-hour standard (MWCOG, 2020). From 2001-2003, the region had an ozone 8-hour design value of 0.099 ppb, which was designated as moderate nonattainment for the now-revoked 1997 NAAQS. The 2008 8-hour ozone (now revoked) was designated as marginal maintenance with a design value of 0.081 ppb from 2008-2010. On August 15, 2019, the region was redesignated by the USEPA regarding the 2008 8-hr ozone standard from marginal nonattainment to attainment maintenance (EPA, 2021). While the area still has ozone issues, precursor emissions such as volatile organic compounds, nitrogen oxides and particulate matter are reducing, therefore ozone concentrations are slowly declining. The District's Ambient Air Quality Trends Reports illustrates these trends (DOEE, 2020).

Similarly, from 2001-2003, the region had a PM2.5 annual design value of 15.8  $\mu$ g/m3, which exceeded the then standard of 15. However, the region was designated as a maintenance area for the now-revoked 1997 PM2.5 NAAQS as outlined in the final rule in the October 6, 2014, Federal Register (79 FR60081). As a result, the first of two 10 year maintenance plans were applied and is active through 2025. The status will be reassessed and likely institute the second 10-year plan. The current 3-year design value for the Maryland portion of the Washington DC-MD-VA region from 2018-2020 is 8.7  $\mu$ g/m3 (EPA 2021b). The Washington DC-MD-VA region is designated as in attainment of the NAAQS for all other criteria pollutants.

## 4.17.1 Will This Master Plan Impact Air Quality In The Area?

### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Air quality analyses for both mobile and stationary sources were conducted. Existing traffic conditions in the area have resulted in moderate, long-term, adverse impacts to air quality. The No-Action Alternative would not add to the impacts and would conform to the *Washington Metropolitan Region SIP*.

### Alternatives A, B, and C (Action Alternatives)

The Master Plan would affect air quality in the area on a very small scale. Fugitive dust would be produced during construction, but it would minimal and not permanent. The fugitive dust that would be produced is not expected to travel far from the MRC West Parcel site. Fugitive emissions would be mitigated using water sprays or other suppressants as needed. Because fugitive emissions would not be discernible, the Action Alternatives would result in a negligible, short-term, adverse impact.

Additionally, natural gas would be used to operate comfort heating within the new buildings. The combustion of natural gas does emit criteria pollutants, some toxic pollutants and greenhouse gases. However, if the assumed comfort heaters were used continually throughout the year, the total emissions would be less than 5.2 tons of any criteria pollutant (less than 1.0 ton per year for most) and only 5,516

metric tons of  $CO_2e^{10}$ . In practicality, the heaters would not be used continually; thus the actual emissions would be much lower. While there would be emissions from the Action Alternatives, the impact would not be discernable; therefore, a negligible, long-term, adverse impact would occur.

The Air Quality Technical Report in **Appendix D** provides additional technical information on the air quality analyses.

| Pollutant | Averaging Time                              | Primary<br>Standards                       | Secondary<br>Standards | Standard Form  |
|-----------|---|--|------------------------|--|
| 03        | 8 hours                                     | 0.070 ppm                                  | 0.070 ppma             | Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years  |
| PM10      | 24 hours                                    | 150 μg/m3                                  | 150 μg/m3              | Not to be exceeded more than once per year on average over 3 years   |
|           | Annual arithmetic mean                      | 12 μg/m3                                   | 15 μg/m3               | Annual mean, averaged over 3 years   |
| PIVIZ.5   | 24 hours                                    | 35 μg/m3                                   | 35 μg/m3               | 98th percentile, averaged over 3 years   |
| со        | 8 hours<br>1 hour                           | 9 ppm<br>35 ppm                            | _                      | Not to be exceeded more than once per year   |
| NO2       | Annual arithmetic mean<br>1 hour            | 0.053 ppm<br>100 ppb                       | 0.053 ppm<br>—         | Annual mean<br>98th percentile of 1-hour daily maximum<br>concentrations, averaged over 3 years                                |
| SO2       | 3 hours<br>1 hour                           | —<br>0.075 ppmb                            | 0.5 ppm<br>—           | Not to be exceeded more than once per year<br>99th percentile of 1-hour daily maximum<br>concentrations, averaged over 3 years |
| Pb        | Calendar quarter<br>Rolling 3-month average | 1.5 μg/m3<br>(certain areas)<br>0.15 μg/m3 | 1.5 µg/m3 с<br>—       | Not to be exceeded   |

|  | Table 4-41. | National | Ambient A | ir Quality | / Standards |
|--|-------------|----------|-----------|------------|-------------|
|--|-------------|----------|-----------|------------|-------------|

Source: EPA, 2019b

Notes: a. Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) ozone standards also remain in effect in some areas.

b. The previous SO<sub>2</sub> standards (0.14 ppm 24-hour and 0.03 ppm annual) will remain in effect in certain areas: a) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and b) any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO<sub>2</sub> standards or does not meet the requirements of a State Implementation Plan (SIP) call under the previous SO<sub>2</sub> standards (40 CFR 50.4(3)). A SIP call is an USEPA action requiring a state to resubmit all or part of its SIP to demonstrate attainment of the required NAAQS.

c. In areas designated nonattainment for the lead standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5  $\mu$ g/m<sup>3</sup> as a calendar quarter average) also remain in effect.

 $\mu g/m^3$  = micrograms per cubic meter

ppm = parts per million (by volume)

ppb = parts per billion (by volume)

<sup>&</sup>lt;sup>10</sup> CO<sub>2</sub>e is the carbon dioxide equivalent or the number of metric tons of carbon dioxide emissions with the same global warming potential as one metric ton of another greenhouse gas.

## 4.17.2 How Would Stationary Sources Impact Air Quality?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The replacement of existing AHUs would produce lower levels of air emissions. Therefore, there would be beneficial impacts to air quality.

#### Alternatives A, B, and C (Action Alternatives)

The only stationary sources associated with the proposed project are natural gas fired heaters to be installed within the new buildings. The implementation of the Master Plan would produce a lower level of emissions and have minor, long-term, adverse impacts to air quality. All other stationary sources are already operational at the MRC West Parcel and are permitted appropriately.

### 4.17.3 How Would Mobile Sources Impact Air Quality?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Existing traffic conditions in the area have resulted in moderate, long-term, adverse impacts to air quality. Air emissions from traffic in and surrounding the MRC West Parcel would generally remain at current levels. Therefore, the No-Action Alternative would not add to these impacts.

#### Alternatives A, B, and C (Action Alternatives)

In accordance with USEPA Guidance on CO Hot Spot Analysis (EPA, 1992), the potential for mobile source emissions to violate the NAAQS was evaluated by analyzing mobile CO emissions at a single intersection considered to be the worst-case scenario for potential emissions on nearby air quality sensitive receptors. The worst-case intersection was determined to be Muirkirk Drive and Laurel Bowie Road. Of the 13 intersections that were the focus of the 2021 Traffic Impact Study MRC Master Plan, this intersection was predicted to have the highest traffic volumes coupled with low levels-of-service (LOS). This intersection is anticipated to emit the highest CO concentrations. Intersection geometry, modeled future year traffic counts, and signalization characteristics of this intersection were input into USEPA's CAL3QHC pollutant dispersion model to estimate the worst-case, localized CO concentrations near locations likely to host air quality sensitive receptors, such as crosswalks and sidewalks. The mobile source analyses indicated that future traffic conditions at this intersection would not result in any exceedance of the 1-hour or 8-hour NAAQS for CO under any of the Action Alternatives.

The proposed action qualifies as a project that facilitates new development and may generate Mobile Air Source Toxic (MSAT) emissions from activities including new trips, truck deliveries, and parked idling vehicles (FHWA, 2016). However, these are activities that are attracted from elsewhere in the region. Thus, on a regional scale, there would be no net change in emissions. USEPA regulations for vehicle engines and fuels would cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with USEPA's MOVES2014 model forecasts a combined reduction of over 90 percent in the total annual emissions rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 45 percent. This would both reduce the background level of MSAT as well as the possibility of even minor, long-term, adverse impacts from MSAT emissions as a result of implementation of this Master Plan.

## 4.17.4 What Measures Would Be Taken To Reduce Impacts To Air Quality?

During the construction period, fugitive dust and particulate emissions would be mitigated via water and other dust suppressants as necessary. Under all Action Alternatives, any long-term impacts within the region from the mobile sources would be offset by the advancement in automobile technology and Federal emission regulations and controls. Employees would be encouraged to use public transportation (see also the Transportation Management Plan located in **Appendix F** for additional ways GSA/FDA are encouraging use of public transit). Carpool, vanpool, bicycle-to-work; the use of alternative "clean" fuels and non-polluting sources of energy would be used whenever possible; minimizing power generation requirements; and using green building materials, construction methods, and building designs would be used to the maximum extent practicable. In addition, in response to Air Quality Action Days, measures to temporarily reduce the generation of emissions that contribute to O<sub>3</sub> formation would be taken. Additionally, the natural gas heater usage would likely be limited during the summer months and when the weather is warmer.

## 4.18 GREENHOUSE GASES & CLIMATE CHANGE

## 4.18.1 Assessment Methodology

Greenhouse gases (GHG) were evaluated from both a numerical and regulatory standpoint. The potential sources of GHGs from both the implementation of the Master Plan and natural or anthropogenic sources were analyzed. The explicit project emission estimates were derived from EPA emissions factors for sources associated with the project. Additional information can be found in **Appendix D**.

The impact thresholds for greenhouse gas and climate change are provided in Table 4-42.

| Effect                | Impact Level  |   |  |   |  |
|-----------------------|---|---|--|---|--|
| Characteristics       | Negligible  | Minor   | Moderate   | Major   |  |
| Intensity             | Non-discernable<br>impacts GHG<br>emissions           | Slight, but detectable<br>impacts from GHG<br>emissions which<br>would slightly<br>increase climate<br>change | Effect that is<br>potentially major but<br>with best practices<br>and mitigation<br>measures is reduced<br>below major | Highly noticeable<br>impacts from GHG<br>emissions which<br>would significantly<br>increase climate<br>change |  |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites) | Localized (i.e.,<br>confined to the<br>project sites)   | Regional   | Regional  |  |
| Duration              | Temporary, lasting<br>only through<br>construction    | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction                       | Lasting 1+ years after construction  | Lasting 1+ years after construction   |  |

 Table 4-42. Impact Intensity Thresholds for Greenhouse Gas and Climate Change

### 4.18.2 What is the Current State of Greenhouse Gas Emissions in Maryland?

GHG emissions released from human activities are widely recognized as a contributing factor to climate change. While the economic sectors primarily responsible for the most manmade GHG emissions in the U.S. in 2017 were transportation (29 percent), electricity production (28 percent), and industry (22 percent), according to the USEPA, new commercial and residential developments also contribute to GHG emissions (EPA, 2019c).

USEPA's authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. USEPA*, U.S. 549 U.S. 497 (2007). The U.S. Supreme Court ruled that GHG meet the definition of air pollutants under the existing CAA and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. On December 7, 2009, USEPA signed the Final Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the CAA. The endangerment finding states that current and projected concentrations of the six key GHG in the atmosphere (carbon dioxide, methane, nitrous oxide, hydrochlorofluorocarbons, chlorofluorocarbons, sulfur hexafluoride) could threaten the public health and welfare of current and future generations. Furthermore, USEPA found that GHG from motor vehicles contributes to the GHG concentrations that threaten public health and welfare.

On June 26, 2019, CEQ published *Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions in the Federal Register* (84 FR 30097), and the public comment period ended on August 26, 2019. The draft guidance discusses how NEPA analysis and documentation should address GHG emissions. Pursuant to EO 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, CEQ rescinded its 2019 *Draft NEPA Guidance on Consideration of Greenhouse Gas Emissions* and is reviewing on January 20, 2021. The recission reverts back to the *2016 Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*. It also states that the guidance would be reviewed for potential revision and updates.

The State of Maryland passed the *Greenhouse Gas Emission Reduction Act* in 2009. The regulation, administered by the MDE, required the state to develop and implement a plan to reduce GHG emissions by 2020 to a point that is 25 percent below 2006 emissions. The plan, released in 2012 and updated in 2015, encouraged reductions in GHG emissions through a variety of incentive programs targeting the public and private sector. These programs focused on increasing energy efficiency using existing technologies, identifying ways to transition to new energy sources, and stimulating further technological development to reduce GHG emissions. In 2020, Governor Hogan reauthorized the *Greenhouse Gas Emissions Reduction Act*, requiring Maryland to reduce GHG emissions by 40 percent from the 2006 baseline by 2030 and to achieve net-zero statewide greenhouse gas emissions by 2045.

MDE published an inventory of GHG emissions in the State of Maryland for the year 2017, which stated that Maryland activities accounted for approximately 79.12 million metric tons (MMT) of gross carbon dioxide equivalent ( $CO_2e$ ) emissions, with net emissions of approximately 67.40 MMTCO<sub>2</sub>e once carbon sinks such as forest lands and agricultural soils were taken into account (MDE, 2017). This resulted in 26.21 percent reduction in the total gross GHG emissions in 2006. The three principal sources of GHG emissions in Maryland are electricity consumption; transportation; and residential, commercial, and industrial fossil fuel use, which account for 31 percent, 40 percent, and 18 percent of Maryland's 2017 gross emissions, respectively (MDE, 2017).

## 4.18.3 How Do GSA and FDA Currently Address Greenhouse Gas Emissions?

GHG reduction is one of GSA's ten sustainability goals. For GSA-owned buildings, GSA requires highperformance building design through compliance with the *Guiding Principles for Sustainable Federal Buildings* for all new construction through its *Facilities Standards for the Public Buildings Service* (P-100). GSA's sustainability plan focuses on improving building energy efficiency and installing advanced and renewable energy technologies. One of its major energy strategies requires all new construction to use 30 percent less energy than what the American National Standards Institute requires and to be LEED<sup>®</sup> Gold certified. GSA has also worked to reduce GHG emissions resulting from employee business travel, commuting, electrical transmission and distribution, and waste-related emissions, including from solid waste and wastewater management. GSA exceeded its goal of a 40-percent reduction of GHG emissions by the end of 2013 and seeks to reduce GHG emissions by 73 percent from 2008 levels by 2025 (GSA, 2019).

FDA is a component under the U.S. Department of Health and Human Services (HHS). HHS incorporates sustainability into its daily operations at campuses and facilities. From FY 2008 to FY 2019, HHS saw a 29.4 percent reduction in GHG emissions. In FY 2019 FDA had a decrease in energy use. Facility energy efficiency is accomplished through energy reduction projects, renovation and upgrade projects, and new construction. Onsite energy technologies are included in new design projects to the extent practicable and improving water efficiency through infrastructure upgrades, lead detection and prevention, metering, and implementing no-cost or low-cost water conservation measures. In addition, all new construction uses the *2016 Guiding Principles and Leadership in Energy and Environmental Design* standards. Lastly, HHS maximizes its efforts in waste management and diversion by encouraging staff and contractors to reduce waster generation, increase recycling, and reinforce the use, handling and disposal of hazardous materials (HHS, 2020).

# 4.18.4 What Types of Energy Efficiency Measures Are Currently Used at MRC West Parcel?

In FY 2020, FDA began upgrading the MRC West Parcel domestic water pipe insulation, heating, ventilation, and air conditioning (HVAC) pumps, and air handling units. This has created an annual energy savings of 993,787 kilowatt-hours (kWh), 16,566 therms, and \$95,567. In addition, at the MOD 1 building, two AHUs are being replaced with higher efficiency models, which equates to an estimated energy and water savings of 86,909 KWh, 69,600 gallons of water and \$21,573 annually. Other energy conservation measures planned for the MRC West Parcel include other AHU replacements; controls, cooling tower, boiler, pump systems, and valve improvements; lighting and controls retrofits; exterior window and joints caulking and repairs; and a solar PV system installation. Additional MRC West Parcel energy savings projects under design in FY 2020 include building vestibule upgrades, HVAC upgrades, LED lighting retrofit, and ventilation improvements (HHS, 2020).

## 4.18.5 Would Implementation of the Master Plan Contribute to GHG Emissions?

### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The majority of the GHG emissions associated with the MRC West Parcel operation are from the heating and energy demand as well as emissions from vehicle travel to and from the facility. While the MRC West Parcel does emit GHG emissions, the replacement of generators at MOD 1 would provide energy savings measures would help

reduce FDA's overall carbon footprint. Because the MRC West Parcel already provides energy savings measures and would replace older generators, the No-Action Alternative would not increase GHGs.

#### Alternatives A, B, and C (Action Alternatives)

Implementation of the Master Plan Action Alternatives would contribute a small level of GHG emissions, which could contribute to climate change. However, climate change is a long-term event. Construction would create some temporary GHG emissions, but these negligible, adverse impacts would be localized and temporary. Long-term, the use of natural gas heating for building comfort and operating of small boilers/generators has the potential to contribute to climate change as well, but the impact to the surrounding air quality over the long-term would only be slightly discernable, especially when compared to surrounding GHG sources within 10-miles of the MRC West Parcel. The estimated potential for the project is less than 6,000 MMT of CO<sub>2</sub>e annually, which is significantly less than the Prince George's County Landfill on Brown Station Road (58,430 metric tons CO<sub>2</sub>e), FDA FRC at White Oak (75,117 metric tons CO<sub>2</sub>e), and the University of Maryland (99,021 metric tons CO<sub>2</sub>e) (EPA, 2021). Overall a minor, long-term, adverse impact to climate change would occur.

## 4.18.6 What Measures Would be taken to Reduce the Contribution to Climate Change?

GSA and FDA would comply with BMPs outlined in Maryland regulations during construction, ensuring that there would be minimal temporary construction-related GHG impacts. FDA would also reduce their carbon footprint by limiting the total number of new parking spaces to one parking space for every two employees and by promoting use of mass transit and carpooling. According to the USEPA Carbon Footprint Calculator, the average annual CO<sub>2</sub>e emission per vehicle is 10,484 lb (EPA, 2021b). If approximately 820 vehicles (difference between 1800 new employees and 980 new parking spaces) did not commute that would eliminate on average 4.4557 tons CO<sub>2</sub>e per year. FDA would also continue to minimize power generation requirements; and use green building materials, construction methods, and building designs to the maximum extent practicable. FDA would continue to implement GSA's sustainability goals, including GHG reduction through improving building energy efficiency, and installing advanced and renewable energy technologies. By 2025, GSA has a goal to reduce GHG emissions by 73 percent from 2008 levels.

## 4.19NOISE

### 4.19.1 Assessment Methodology

Noise is defined by USEPA as "any unwanted or disturbing sound," and is regulated under the Noise Control Act of 1972. The degree of annoyance caused by noise depends primarily upon the amplitude of the sound, its frequency, and its duration. Sound amplitude is quantified in terms of levels having units of decibels (dB). Sound levels that are weighted to account for the non-uniform frequency sensitivity of the human ear are known as A-weighted sound levels and are given in units of A-weighted decibels (dBA).

To evaluate whether the noise would be altered as a result of the changes associated with the Master Plan, a qualitative noise analysis was conducted. This includes a comparison of noise-sensitive land uses, roadway configurations, and vehicle volumes/speeds/types. Additionally, changes in operational and construction noise were assessed. The extent to which individuals are affected by noise is controlled by several factors, including:

- duration and frequency of sound,
- distance between the sound source and the receptor,
- intervening natural or man-made barriers or structures, and
- ambient environment.

For the purpose of this noise analysis, the use of the

properties adjacent to construction areas and transportation improvements were classified according to the human activities that occur, or are expected to occur, within the property boundaries.

The impact thresholds for noise are provided in Table 4-43.

## TYPICAL NOISE SOURCES AND THEIR SOUND LEVELS

| Source   | Sound Level<br>(dB(A)) |  |  |  |
|--|------------------------|--|--|--|
| Near large jet at takeoff  | 140                    |  |  |  |
| Air-raid siren   | 130                    |  |  |  |
| Threshold of pain  | 120                    |  |  |  |
| Thunder of sonic boom  | 110                    |  |  |  |
| Garbage or trailer truck at roadside                                       | 100                    |  |  |  |
| Power lawnmower at 5 feet  | 90                     |  |  |  |
| Alarm clock or vacuum cleaner  | 80                     |  |  |  |
| Freeway traffic at 50 feet   | 70                     |  |  |  |
| Conversational speech  | 60                     |  |  |  |
| Average residence  | 50                     |  |  |  |
| Bedroom*   | 40                     |  |  |  |
| Soft whisper at 5 feet   | 30                     |  |  |  |
| Rustle of leaves   | 20                     |  |  |  |
| Breathing  | 10                     |  |  |  |
| Threshold of hearing   | 0                      |  |  |  |
| *includes HVAC system, conversation, walking, doors<br>opening and closing |                        |  |  |  |

| Effect                | Impact Level  |   |  |  |  |
|-----------------------|---|---|--|--|--|
| Characteristics       | Negligible  | Minor   | Moderate   | Major  |  |
| Intensity             | Non-discernable<br>increases in noise<br>levels from<br>construction related<br>activities or facilities<br>operations<br>Noise impacts would<br>conform with District<br>noise regulations | Slight, but detectable<br>increases in noise<br>levels from<br>construction related<br>activities or facilities<br>operations<br>Noise impacts would<br>conform with Prince<br>George's County noise<br>regulations | Effect that is<br>potentially major but<br>with best practices<br>and mitigation<br>measures is reduced<br>below major | Highly noticeable<br>increases in noise<br>levels from<br>construction related<br>activities or facilities<br>operations that affect<br>noise sensitive<br>receptors<br>Noise impacts would<br>violate District noise<br>regulations |  |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites)   | Localized (i.e.,<br>confined to the<br>project sites)   | Extending beyond the project site  | Extending beyond the project site  |  |
| Duration              | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction   | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction   | Lasting 1+ years after construction  | Lasting 1+ years after<br>construction   |  |

#### Table 4-43. Impact Intensity Thresholds for Noise

### 4.19.2 What Are the Existing Noise Sources In and Near the MRC West Parcel?

In the vicinity of the MRC West Parcel, land use/land cover in the study area is primarily low- and mediumdensity residential, interspersed with institutional land uses, parks, and forested area. There is also a large industrial area to the west of the study area. Noise-sensitive land uses surrounding the MRC West Parcel include residential and recreational areas.

Common sources of community noise in the area include airplanes, roadway traffic, sirens from emergency vehicles, and other human and animal activities. Located in a primarily residential area, the loudest and most pervasive source of noise is truck and automobile traffic volumes and speeds on freeways and arterial roads. The roadways surrounding the MRC West Parcel include:

- MD 295/Baltimore-Washington Parkway
- US Route 1
- MD 197/Laurel Bowie Road
- Muirkirk Road
- Odell Road
- Ellington Drive
- Cedarbrook Lane
- Springfield Road

**Noise-Sensitive Resources**. Existing noise-sensitive resources within the areas that would be affected by the Master Plan Alternatives (**Figure 4-44**) include:

- Snowden Woods at Blue Ponds Community to the north of Muirkirk Road
- Montpelier Community to the north of Muirkirk Road
- Snowden Oaks Community to the north of Muirkirk Road
- Woodbridge Crossing Community to the east of Odell Road
- Bedford Community to the east of Odell Road
- Montpelier Hills Community to the east of Odell Road
- Community on Westlock Place
- Residences on Ellington Drive
- Residences on Odell Road
- Residences on Gross Lane
- Residences on Old Muirkirk Road
- Residences on Orwood Lane
- Bedford Neighborhood Park to the east of Odell Road
- Blue Ponds Park to the east of Old Muirkirk Road
- Muirkirk West Neighborhood Park to the south of Old Muirkirk Road
- Snowden Oaks Community Park/Oxwell Park to the north of Muirkirk Road
- Montpelier Hills Recreational Association to the west of MD 295/Baltimore-Washington Parkway
- Playground to the east of Muirkirk Road at the intersection of Muirkirk Road and Sea Pearl Court
- Montpelier Community Association Recreation Center to the east of Cedarbrook Lane
- Montpelier Elementary School to the north of Muirkirk Road
- Capitol Technology University to the east of Odell Road
- Queens Chapel United Methodist Church to the north of Old Muirkirk Road



Figure 4-44. Sensitive Noise Resources in the Vicinity of the MRC West Parcel

### 4.19.3 How Would the Project Affect Noise Levels Near the MRC West Parcel?

Human ability to perceive change in noise levels varies widely from person to person, as do responses to perceived changes. Generally, a three dB(A) change in noise level would be barely perceptible to most listeners, whereas a ten dB(A) change is typically perceived as a doubling (or halving) of noise levels and is considered a substantial change. These thresholds, summarized in **Table 4-44**, permit direct estimation of an individual's probable perception of changes in noise levels. The Noise Abatement Criteria (NAC) for residential land uses is 67 dBA.

| Change in dB(A) | Perception                 |
|-----------------|----------------------------|
| 0               | Reference                  |
| 3               | Barely perceptible change  |
| 5               | Readily perceptible change |
| 10              | Twice or half as loud      |
| 20              | Four times or ¼ as loud    |
| 40              | Eight times or ¼ as loud   |

| Table 4-44.  | Percentions | of Changes | in | Noise | Levels |
|--------------|-------------|------------|----|-------|--------|
| 1 avie 4-44. | reiceptions | UI Changes |    | NOISE | LEVEIS |

Source: FHWA, 2011
#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The MRC West Parcel would remain unchanged from its current conditions and the property would not induce additional traffic volumes on study area roadways. Predicted general growth in the community would increase traffic, which could result in an associated increase in noise levels. Because there would no discernable increases in noise levels at the MRC West Parcel, the No-Action Alternative would have negligible, long-term, adverse impacts.

#### Alternatives A, B, and C (Action Alternatives)

Construction noise is composed of the noise generated by demolition as well as the construction of the proposed buildings. The noise associated with the operation of the buildings is also a component.

The construction noise impacts as a result of the Master Plan would be adverse during construction and would primarily be due to heavy equipment use. As with any major construction project, areas around the construction site would be likely to experience varied periods and degrees of noise. With multiple pieces of equipment operating concurrently, noise levels can be relatively high during daytime periods at locations within several hundred feet of the MRC West Parcel. Individual pieces of construction equipment typically generate noise levels of 80 to 90 dBA at a distance of 50 feet. **Table 4-45** presents typical noise levels that the FHWA uses in the Roadway Construction Noise Model for outdoor construction noise (FHWA, 2011). Construction activities would be confined primarily to daytime hours and would be subject to Prince George's County noise regulations. Noise at nearby sensitive receptors (**Figure 4-44**) might be clearly audible but would only be temporary. As part of the building permitting process, the applicant would ensure in writing that the planned construction activities would comply fully with the limitations established by the noise regulations. Overall, construction activities would increase noise levels resulting in a minor, short-term, adverse impact.

| Construction Phase    | Noise Level at 50 feet from Source dB(A) |
|-----------------------|--|
| Concrete Saw          | 90                                       |
| Drum Mixer            | 80                                       |
| Pneumatic Tools       | 85                                       |
| Mounted Impact Hammer | 90                                       |
| Slurry Plant          | 78                                       |

Source: FHWA, 2011

Implementation of the Master Plan would alter traffic volumes and patterns. The potential for these changes to exceed FHWA-established noise abatement criteria and MDOT SHA Noise Abatement Policy criteria was analyzed. Traffic volume data was compared for all roadway segments to determine if noise-sensitive (primarily residential) areas would experience the growth in traffic volumes significant enough to result in traffic noise increases. A doubling of existing traffic volumes, of the same vehicle mix composition, would be necessary to result in a three-decibel increase in noise levels, which is generally the smallest

increment of noise increase or decrease that can be perceived by the human ear (FHWA, 2011). The traffic increases anticipated with development under the MRC Master Plan would be much smaller than a doubling (or 200 percent increase) of traffic volumes at full build out (FHWA, 2011). Traffic as a result of implementation of the Master Plan is anticipated to cause barely perceptible or imperceptible increases in noise; therefore, there would be a negligible, long-term, adverse impact from noise as a result of an increase in traffic.

Operation of the new facilities at the MRC West Parcel would result in long-term increases in noise levels that would be imperceptible, or barely perceptible, to human ears, resulting in a negligible adverse impact.

# 4.19.4 What Efforts Would Be Made to Reduce Noise to the Community?

Construction would be limited to the MRC West Parcel and therefore, potential noise associated with the project would be limited to noise-sensitive areas adjacent to the campus. The BMPs to address noise impacts during construction-related activities and facilities operations include the following:

- All construction equipment powered by an internal combustion engine should be equipped with a properly maintained muffler.
- Air compressors would meet current USEPA noise emission standards.
- Newer model construction equipment should be used as much as possible since it is generally quieter than older equipment.
- Nighttime construction activities should be minimized.
- Portable noise barriers within the equipment area and around stationary noise sources should be established.
- Tools and equipment should be selected to minimize noise.
- Industrial silencers would be installed on stand-by generators.

# 4.20 TRAFFIC AND TRANSPORTATION

# 4.20.1 Assessment Methodology

A capacity analysis was performed to evaluate impacts to the local roadway network. **Table 4-46** lists the study area intersections that were evaluated. At the time of this analysis, the area was experiencing the effects of the COVID-19 pandemic, which significantly impacted typical traffic conditions. Due to this, a traditional traffic count data program was not possible. The project team reviewed historic traffic count data on the MDOT SHA Internet Traffic Monitoring System (I-TMS), as well as from other previous traffic studies. However, data was not available for all study area intersections, and some of the data exceeded ten years. Therefore, in coordination with Prince George's County, a data collection plan was developed. The plan consisted of collecting turning movement count data at all study intersections and then comparing a few of the intersection counts with data obtained from I-TMS. The comparison of volumes was then used to develop factors in which to increase the 2021 field data to reflect a scenario absent of COVID-19 (**Table 4-47**).

| Study Area Intersection   | Signalization |
|---|---------------|
| Konterra Drive & MD 200 On-Ramp                                   | Signalized    |
| Konterra Drive & MD 200 Off-Ramp                                  | Signalized    |
| Virginia Manor Road/ Konterra Drive & Muirkirk Road               | Signalized    |
| Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road      | Unsignalized  |
| Muirkirk Meadows Drive & Muirkirk Road                            | Unsignalized  |
| Brick Yard Boulevard/ Driveway & Muirkirk Road                    | Signalized    |
| Old Baltimore Pike/Cedarhurst Drive & Muirkirk Road               | Signalized    |
| Pasture Road/ Snowden Woods Road & Muirkirk Road                  | Unsignalized  |
| Odell Road/Cedarbrook Lane & Muirkirk Road                        | Signalized    |
| Laurel Bowie Road (MD 197) & Muirkirk Road/Crystal Plaza Driveway | Signalized    |
| Odell Road & Springfield Road                                     | Unsignalized  |
| Odell Road & Ellington Drive                                      | Unsignalized  |
| Powder Mill Road & Springfield Road                               | Unsignalized  |

#### Table 4-46. Study Area Intersections

#### Table 4-47. Intersection COVID-19 Factor

| Study Area Intersections  | AM Factor | PM Factor |
|---|-----------|-----------|
| Konterra Drive & MD 200 On-Ramp                                   | 2.2       | 1.4       |
| Konterra Drive & MD 200 Off-Ramp                                  | 2.2       | 1.4       |
| Virginia Manor Road/ Konterra Drive & Muirkirk Road               | 2.2       | 1.4       |
| Virginia Manor Road/ Ritz Way (MD 212) & Virginia Manor Road      | 2.2       | 1.4       |
| Muirkirk Meadows Drive & Muirkirk Road                            | 2.2       | 1.4       |
| Brick Yard Boulevard/Driveway & Muirkirk Road                     | 2.2       | 1.4       |
| Old Baltimore Pike/Cedarhurst Drive & Muirkirk Road               | 2.2       | 1.4       |
| Pasture Road/ Snowden Woods Road & Muirkirk Road                  | 2.5       | 1.8       |
| Odell Road/ Cedarbrook Lane & Muirkirk Road                       | 2.5       | 1.8       |
| Laurel Bowie Road (MD 197) & Muirkirk Road/Crystal Plaza Driveway | 1.8       | 1.4       |
| Odell Road & Springfield Road                                     | 2.5       | 1.8       |
| Odell Road & Ellington Drive                                      | 2.5       | 1.8       |
| Powder Mill Road & Springfield Road                               | 2.5       | 1.8       |

Furthermore, the COVID-19 pandemic also affected the ability for the project team to collect other existing conditions data, such as travel time runs and queue length measurements. However, based on anecdotal information obtained for the study area, the signalized intersection of Muirkirk Road and MD 197 was the only intersection that regularly experienced high delays in the existing condition, and delays exist primarily

on Muirkirk Road, as well as the northbound MD 197 left-turn lane to Muirkirk Road. In addition, the unsignalized intersections of Muirkirk Road and Muirkirk Meadows Drive, and Virginia Manor Road (MD 212/206) and Ritz Way (MD 212), were also noted to experience delay during the peak periods on the stop-controlled approaches. Therefore, the project team ensured that the capacity analysis results reflected these conditions.

Synchro 10 traffic analysis software was used to perform the capacity analyses for the signalized and unsignalized intersections in the study area. This software package provides average control delay, volume-to capacity ratio (v/c) queues, and LOS for each lane group and for the overall intersection.

The v/c ratio relates the demand at a particular intersection (traffic volume, v) to the available capacity (c). The available capacity for each movement varies depending on number of lanes, lane width, perception/reaction time, green time, and cycle length, among others. A v/c ratio of 1.0 indicates that the demand for a particular movement is equal to the capacity. A movement with a v/c ratio at or over 1.0 is considered undesirable because the movement volume exceeds the capacity, which results in queuing, indicating unmet demand along that approach.

LOS is an evaluation of the quality of operation of an intersection and is a measure of the average delay a driver experiences while traveling through the intersection. LOS is dependent on a range of defined operating conditions such as traffic c demand, lane geometry, and traffic signal timing and phasing.

LOS can range from A to F and is based on the average control delay per vehicle in seconds. For a signalized intersection, LOS A indicates operations with an average control delay less than 10 seconds per vehicle, while LOS F describes operations with an average control delay in excess of 80 seconds per vehicle. For an unsignalized intersection, LOS A indicates operations with an average control delay in excess of 50 seconds per vehicle. The delay criteria for signalized and unsignalized intersections are summarized in **Table 4-48**.

| Level of | Average Control Delay (seconds per vehicle) |   |  |  |  |
|----------|---|---|--|--|--|
| Service  | Signalized                                  | Unsignalized                              |  |  |  |
| А        | Less than or equal to 10.0                  | Less than or equal to 10.0                |  |  |  |
| В        | >10.0 and ≤20.0                             | >10.0 and ≤15.0                           |  |  |  |
| С        | >20.0 and ≤35.0                             | >15.0 and ≤25.0                           |  |  |  |
| D        | >35.0 and ≤55.0                             | >25.0 and ≤35.0                           |  |  |  |
| E        | >55.0 and ≤80.0                             | >35.0 and ≤50.0                           |  |  |  |
| F        | Greater than 80.0 or v/c greater than 1.0   | Greater than 50.0 or v/c greater than 1.0 |  |  |  |

#### Table 4-48. LOS Thresholds

Source: Highway Capacity Manual, 2016

The impact thresholds for traffic and transportation are provided in **Table 4-49**. The Traffic Technical Report can be found in **Appendix E**.

| Effect                | Impact Level   |   |  |   |  |
|-----------------------|--|---|--|---|--|
| Characteristics       | Negligible   | Minor   | Moderate   | Major   |  |
| Intensity             | Non-discernable<br>increases in<br>intersection, freeway,<br>and/or arterial<br>operational<br>performance from<br>construction or<br>projected for the<br>design year | Noticeable increases<br>in intersection,<br>freeway, and/or<br>arterial operational<br>performance<br>projected for the<br>design year that<br>would remain within<br>operationally<br>acceptable conditions. | Effect that is<br>potentially<br>major but with<br>mitigation<br>measures is<br>reduced below<br>major | Highly noticeable increases<br>in intersection, freeway,<br>and/or arterial operational<br>performance projected for<br>the design year that would<br>not be operationally<br>acceptable and would<br>potentially result in impacts<br>to regional traffic<br>conditions. |  |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites)  | Localized (i.e.,<br>confined to the<br>project sites)   | Regional   | Regional  |  |
| Duration              | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction  | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction   | Lasting 1+ years<br>after<br>construction  | Lasting 1+ years after construction   |  |

| Table 4-49. Im | pact Intensity | Thresholds for | Traffic and | Transportation         |
|----------------|----------------|----------------|-------------|------------------------|
|                | pace micensiey |                |             | i i u i i spoi tu tion |

# 4.20.2 What Makes Up the Local Roadway Network?

The transportation study area for the MRC Transportation Impact Study (TIS) is primarily in the City of Laurel in Prince George's County, Maryland. The transportation study area limits are defined as primarily bounded by Muirkirk Road to the north, Powder Mill Road to the south, Laurel Bowie Road (MD 197) to the east, and Virginia Manor Road (MD 206)/Konterra Drive to the west.

Characteristics of the major corridors within the study area were obtained from the Maryland Annual Average Daily Traffic (AADT) (SHA Statewide AADT Lines) map through the Maryland GIS Data Catalog, which denotes functional classification, 2018 AADT, 2018 Annual Average Weekday Traffic (AAWDT), 2018 Truck AADT, and number of lanes. This information is summarized in **Table 4-50**.

| Roadway                                       | Functional Class            | 2018 AADT<br>(1,000 vehicles<br>per day, vpd) | 2018 AAWDT<br>(1,000 vpd) | 2018<br>Truck<br>AADT<br>(vpd) | Number of<br>Lanes |
|---|-----------------------------|---|---------------------------|--------------------------------|--------------------|
| Muirkirk Road (east of<br>Old Baltimore Pike) | Minor Arterial              | 10.7  | 11.5                      | 297                            | Varies (2-4)       |
| Muirkirk Road (west of<br>Old Baltimore Pike) | Minor Arterial              | 23.1  | 24.7                      | 905                            | Varies (2-4)       |
| Virginia Manor Road                           | Major Collector             | 10.4  | 11.0                      | N/A                            | Varies (4-6)       |
| MD 212 (Ritz Way)                             | Minor Arterial              | 17.1  | 18.3                      | 531                            | 6                  |
| MD 197  | Principal Arterial<br>Other | 50.1  | 53.6                      | N/A                            | 6                  |

#### Table 4-50. Study Area Major Corridor Characteristics

| Roadway            | Functional Class                     | 2018 AADT<br>(1,000 vehicles<br>per day, vpd) | 2018 AAWDT<br>(1,000 vpd) | 2018<br>Truck<br>AADT<br>(vpd) | Number of<br>Lanes |
|--------------------|--------------------------------------|---|---------------------------|--------------------------------|--------------------|
| Konterra Drive     | Major Collector                      | 13.7  | 14.5                      | N/A                            | 4                  |
| WB MD 200 On-Ramp  | Principal Arterial<br>Other Freeways | 2.0   | 2.1                       | N/A                            | 2                  |
| EB MD 200 Off-Ramp | Principal Arterial<br>Other Freeways | 2.8   | 3.0                       | N/A                            | 2                  |
| Old Baltimore Pike | Minor Arterial                       | 16.0  | 17.1                      | 1,720                          | 2                  |
| Powder Mill Road   | Minor Arterial                       | 12.0  | 12.8                      | N/A                            | 2                  |

# 4.20.3 How Would the Local Roadway Network Be Affected by Implementation of the Master Plan?

### No-Action Alternative

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. Based on this, no new impacts would occur over existing conditions. Existing traffic in the vicinity of the MRC West Parcel results in minor, long-term, adverse impacts to the local roadway network.

### Alternatives A, B, and C (Action Alternatives)

Based on information provided by GSA and FDA, it was assumed that the Master Plan would be implemented in in three phases. The first phase would consist of the relocation of existing employees from an aging building on the site into a new building and is anticipated to be completed within the next three to five years. Since Phase 1 consists of internal relocations of employees and would not generate additional trips, it was not analyzed in this TIS.

Phase 2 is the first phase that would result in additional employees being consolidated on the campus. Under Alternatives A and C, Phase 2 would result in approximately 700 additional employees on campus for a total site population of 1,000. Under Alternative B, Phase 2 would result in an additional 168 employees on campus for a total site population of 468. Therefore, this TIS analyzes one 2030 Action Condition for Alternatives A, B, and C, and one 2030 Condition for Alternative B.

Phase 3 is anticipated to be the final phase of growth to reach an ultimate site population of 1,800 employees. All of the Master Plan action alternatives have a total site population of 1,800 in this phase. Therefore, only one 2040 Action Condition was analyzed in this TIS that would represent the potential impacts across all four of the Master Plan action alternatives.

#### **Trip Generation**

The Institute of Transportations Engineers (ITE) *Trip Generation Manual (*11<sup>th</sup> Edition) Land Use Code 710 (General Office Building) was utilized to estimate the number of AM peak hour, PM peak hour, and total daily trips that would be generated by the additional 1,500 and support staff to the MRC West Parcel (**Table 4-51**). These daily trips include both auto trips and non-auto trips.

Information obtained from a commuter survey conducted in November 2020 found that 98 percent of employees and support staff currently drive to the MRC West Parcel. However, NCPC parking guidance requires a parking ratio of one parking space per two employees, which would require that 50 percent of employees arrive via modes other than driving alone. Furthermore, NCPC requires the development of a TMP to provide transportation demand management (TDM) strategies, an implementation plan, and performance monitoring guidance to help reduce single-occupancy-vehicle (SOV) commute trips. A TMP has been developed in concert with this TIS as part of the master planning effort (**Appendix F**).

In accordance with the NCPC requirements, the Master Plan reflects a one space per two employee parking ratio in each phase. Therefore, a 50 percent non-single occupancy vehicle (SOV) trip credit was applied to the base trip generation rates in 2030 and 2040 to estimate the anticipated vehicular trip generation from the proposed growth.

|  | Number of | AN  | I Peak | Hour | PN  | /I Peak H | lour | Total |
|--|-----------|-----|--------|------|-----|-----------|------|-------|
|  | Employees | In  | Out    | Tot  | In  | Out       | Tot  | Daily |
| Existing (2021)                          | 300       | 159 | 22     | 181  | 28  | 138       | 166  | 1,182 |
| Phase 2: 2030 (Alternatives A and C)     | 1,000     | 399 | 55     | 454  | 69  | 335       | 404  | 2,951 |
| With 50% Non-SOV Mode Share              |           | 200 | 28     | 227  | 35  | 168       | 202  | 1,476 |
| Phase 2: 2030 (Alternative B)            | 468       | 217 | 30     | 247  | 39  | 191       | 230  | 1,657 |
| With 50% Non-SOV Mode                    | Share     | 109 | 15     | 124  | 20  | 96        | 115  | 829   |
| Phase 3: 2040 (Alternatives A, B, and C) | 1,800     | 674 | 92     | 766  | 106 | 518       | 624  | 4,613 |
| With 50% Non-SOV Mode Share              |           | 337 | 46     | 383  | 53  | 259       | 312  | 2,307 |

#### Table 4-51. Trip Generation Estimate

#### Site Trip Distribution

A trip distribution analysis was conducted to estimate how the new vehicle trips would travel to and from the site. Home ZIP codes for off-campus employees were obtained from a 2017 survey conducted for FDA FRC. Utilizing typical weekday traffic conditions from Google Maps, a preferred route from off-campus was established for each given zip code. The following network entrance/exit points were established:

- Virginia Manor Road
- MD 200
- MD 212
- Laurel Bowie Road (MD 197)
- Muirkirk Meadows Drive
- Old Baltimore Pike
- Powder Mill Road

The designated routes were grouped by direction of arrival and departure to the study area network for the employees at the MRC West Parcel. Utilizing the preferred routes of travel, percentages for each potential

arrival/departure route were created for off-campus employees moving to the MRC West Parcel. In general, most trips were oriented to/from I-95 via MD 200, MD 212, and Laurel Bowie Road (MD 197).

#### Phase 2 (2030) Action Alternative Capacity Analysis Results

#### Alternatives A and C (Action Alternatives)

The Phase 2 Alternatives A and C include the No-Action Alternative added to the Phase 2 Analysis. The results of the capacity analysis indicate that the proposed growth at the MRC West Parcel would have a moderate, long-term, adverse impact on the study area roadway network when compared to the No-Action Alternative. Overall intersection delay would increase by less than 10 seconds per vehicle at all intersections except for the intersections of:

- Konterra Drive and MD 200 Off-Ramp
- Virginia Manor Road/Konterra Drive and Muirkirk Road
- Virginia Manor Road and Ritz Way
- Muirkirk Meadows Drive & Muirkirk Road
- Muirkirk Road and Snowden Woods Road/Site Driveway (Pasture Road)
- Powder Mill Road and Springfield Road

**Table 4-52** below shows the lane groups at study intersections that would operate at an overall LOS of E or F (failing condition), as well as overall intersection LOS. However, it should be noted that many of the intersections that are impacted outside of the immediate area of the site already experience high delays under the No-Action Alternative. When traffic volume is added to already oversaturated intersection movements, Synchro-reported delay can increase exponentially. Therefore, it is likely that the existing traffic conditions are addressed through other projects, the increase in delay attributed to MRC West Parcel-generated traffic would be lower.

|  |              | 2030 No<br>Cond | o Action<br>lition | 2030 Action<br>Condition<br>(Alternatives A & C) |           |  |
|--|--------------|-----------------|--------------------|--|-----------|--|
| Intersection   | Lane Group   | AM              | PM                 | AM   | PM        |  |
| Konterra Drive & MD 200 On-Ramp                                | Intersection | A (8.0)         | A (5.6)            | A (8.2)  | A (7.0)   |  |
| Konterra Drive & MD 200 Off-Ramp                               | Intersection | C (22.0)        | B (19.9)           | C (29.9)   | C (21.1)  |  |
|  | WB-R         | -               | F (50.3)           | F (39.0)   | F (89.7)  |  |
| Virginia Manor Road/Konterra Drive                             | SB-L         | F (298.0)       | F (245.8)          | F (376.5)  | F (264.8) |  |
|  | Intersection | F (109.4)       | F (89.9)           | F (140.9)  | F (107.7) |  |
|  | SB-L         | F (*)           | F (*)              | F (*)  | F (*)     |  |
| Virginia Manor Road/Ritz Way (MD<br>212) & Virginia Manor Road | SB-R         | F (*)           | F (*)              | F (*)  | F (*)     |  |
|  | Intersection | F (*)           | F (*)              | F (*)  | F (*)     |  |
| Muirkirk Meadows Drive & Muirkirk                              | NB-LTR       | F (*)           | F (*)              | F (*)  | F (*)     |  |
| Road   | SB-LTR       | F (*)           | F (*)              | F (*)  | F (*)     |  |

#### Table 4-52. Phase 2 Alternatives A and C – Lane Groups Operating at Overall LOS E or F

|   |              | 2030 No<br>Cond | o Action<br>lition | n 2030 Action<br>Condition<br>(Alternatives A & C) |           |  |
|---|--------------|-----------------|--------------------|--|-----------|--|
| Intersection                                  | Lane Group   | AM PM           |                    | AM   | PM        |  |
|   | Intersection | F (*)           | F (*)              | F (*)  | F (*)     |  |
| Brickyard Boulevard/Driveway & Muirkirk Road  | Intersection | B (10.5)        | A (8.5)            | B (10.5)   | A (8.0)   |  |
|   | EB-TR        | -               | -                  | F (67.5)   | -         |  |
| Old Baltimore Pike/Cedarhurst Drive           | NB-L         | F (72.0)        | F (65.7)           | F (72.0)   | F (65.7)  |  |
|   | Intersection | C (30.4)        | C (32.3)           | D (52.6)   | C (32.3)  |  |
| Pasture Road/Snowden Woods Road               | NB-L         | -               | E (44.2)           | -  | F (332.3) |  |
| & Muirkirk Road                               | Intersection | A (1.1)         | A (1.4)            | A (1.6)  | D (31.2)  |  |
| Odell Road/Cedarbrook Lane &<br>Muirkirk Road | Intersection | B (13.9)        | C (20.8)           | B (14.0)   | C (22.1)  |  |
|   | EB-L         | E (79.0)        | F (83.6)           | E (79.1)   | F (83.8)  |  |
|   | EB-LT        | E (76.9)        | E (79.9)           | E (76.7)   | F (80.7)  |  |
| Laurel Bowie Road (MD 197) &                  | WB-LT        | F (86.2)        | F (104.5)          | F (86.2)   | F (104.5) |  |
| Driveway                                      | NB-L         | F (143.4)       | F (128.5)          | F (166.9)  | F (130.3) |  |
|   | SB-L         | E (76.9)        | F (84.1)           | E (76.9)   | F (84.1)  |  |
|   | Intersection | D (46.5)        | D (54.6)           | D (48.9)   | D (55.0)  |  |
| Odell Road & MRC Driveway                     | Intersection | -               | -                  | A (0.3)  | A (1.0)   |  |
| Odell Road & Springfield Road                 | Intersection | A (7.0)         | A (6.9)            | A (7.2)  | A (6.9)   |  |
| Odell Road & Ellington Drive                  | Intersection | A (4.6)         | A (3.5)            | A (4.6)  | A (3.5)   |  |
| Powder Mill Road & Springfield                | SB-LR        | F (453.3)       | F (529.6)          | F (462.6)  | F (558.7) |  |
| Road  | Intersection | F (62.6)        | F (93.6)           | F (63.7)   | F (100.8) |  |

\* Delay exceeds calculable values in HCM 6th Edition.

#### Alternative B – Preferred Alternative

The Phase 2 Alternative B includes the No-Action Alternative added to the Phase 2 Analysis. The results of the capacity analysis indicate that the proposed growth at the MRC West Parcel would have a moderate, long-term, adverse impact on the study area roadway network when compared to the No-Action Alternative. Overall intersection delay would increase by less than 10 seconds per vehicle at all intersections except for the intersections of:

- Konterra Drive and MD 200 Off-Ramp
- Virginia Manor Road/Konterra Drive and Muirkirk Road
- Virginia Manor Road and Ritz Way
- Muirkirk Meadows Drive & Muirkirk Road

- Muirkirk Road and Snowden Woods Road/Site Driveway (Pasture Road)
- Powder Mill Road and Springield Road

**Table 4-53** below shows the lane groups at study intersections that would operate at an overall LOS of E or F (failing condition), as well as overall intersection LOS. However, it should be noted that many of the intersections that are impacted outside of the immediate area of the site already experience high delays under the No-Action Alternative. When traffic volume is added to already oversaturated intersection movements, Synchro-reported delay can increase exponentially. Therefore, it is likely that the existing traffic conditions are addressed through other projects, the increase in delay attributed to MRC West Parcel-generated traffic would be lower.

| lute we cat in a                                    |              | 2030 Actio | on Condition | 2030 Acti | 2030 Action Condition |  |  |
|---|--------------|------------|--------------|-----------|-----------------------|--|--|
| intersection  | Lane Group   | AM         | PM           | AM        | РМ                    |  |  |
| Konterra Drive & MD 200<br>On-Ramp                  | Intersection | A (8.0)    | A (5.6)      | A (8.1)   | A (6.4)               |  |  |
| Konterra Drive & MD 200                             |              |            |              |           |                       |  |  |
| Off Ramp  | Intersection | C (22.0)   | B (19.9)     | C (25.1)  | C (20.6)              |  |  |
| Virginia Manor                                      | WB-R         | -          | F (50.3)     | -         | F (71.6)              |  |  |
| Road/Konterra Drive &                               | SB-L         | F (198.0)  | F (245.8)    | F (339.8) | F (257.0)             |  |  |
| Muirkirk Road                                       | Intersection | F (109.4)  | F (89.9)     | F (126.0) | F (99.6)              |  |  |
| Virginia Manor Road/Ritz                            | SB-R         | F (*)      | F (*)        | F (*)     | F ()                  |  |  |
| Way (MD 212) & Virginia<br>Manor Road               | Intersection | F (*)      | E (*)        | F (*)     | E (*)                 |  |  |
|   | NB-LTR       | F (*)      | F (*)        | F (*)     | F (*)                 |  |  |
| Muirkirk Meadows Drive &<br>Muirkirk Road           | SB-LTR       | F (*)      | F (*)        | F ()      | F (*)                 |  |  |
|   | Intersection | F (*)      | F (*)        | F (*)     | F (*)                 |  |  |
| Brick Yard<br>Boulevard/Driveway &<br>Muirkirk Road | Intersection | B (10.5)   | A (8.2)      | B (10.4)  | A (8.1)               |  |  |
| Old Baltimore                                       | EB-TR        | -          | -            | F (*)     | -                     |  |  |
| Pike/Cedarhurst Drive &                             | NB-L         | F(72.0)    | F (65.7)     | F (70.2)  | f (65.7)              |  |  |
| Muirkirk Road                                       | Intersection | C (30.4)   | C (32.2)     | D (36.1)  | C (32.3)              |  |  |
| Pasture Road/Snowden                                | NB-L         | -          | E (44.2)     | -         | F (135.8)             |  |  |
| Woods Road & Muirkirk<br>Road                       | Intersection | A (1.1)    | A (1.4)      | A (1.4)   | A (9.0)               |  |  |
| Odell Road/Cedarbrook<br>Lane & Muirkirk Road       | Intersection | B (13.9)   | C (20.8)     | B (13.9)  | C (21.6)              |  |  |
|   | EB-L         | E (79.0)   | F (83.6)     | E (79.0)  | F (83.8)              |  |  |

#### Table 4-53. Phase 2 Alternative B – Lane Groups Operating at Overall LOS E or F

#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| late we obtain                        |                                  | 2030 Actior              | Condition       | 2030 Action Condition |           |  |
|---------------------------------------|----------------------------------|--------------------------|-----------------|-----------------------|-----------|--|
| Intersection                          | Lane Group                       | AM                       | PM              | AM                    | РМ        |  |
|                                       | EB-LT                            | E (76.9)                 | E (79.9)        | E (76.9)              | F (80.7)  |  |
| Laurel Bowie Road (MD                 | WB-LT                            | F (86.2)                 | F (104.5)       | F (86.2)              | F (104.5) |  |
| 197) & Muirkirk<br>Road/Crystal Plaza | NB-L                             | F (143.4)                | F (128.5)       | F (155.9)             | F (130.3) |  |
| Driveway                              | SB-L                             | E (76.9)                 | F (84.1)        | E (76.9)              | F (84.1)  |  |
|                                       | Intersection                     | D (46.5)                 | D (54.6)        | D (47.8)              | D (55.0)  |  |
| Odell Road & MRC<br>Driveway          | Intersection                     | -                        | -               | A (0.2)               | A (0.6)   |  |
| Odell Road & Springfield<br>Road      | Intersection                     | A (7.0)                  | A (6.9)         | A (7.1)               | A (6.9)   |  |
| Odell Road & Ellington<br>Drive       | Intersection                     | A (4.6)                  | A (3.5)         | A (4.6)               | A (3.5)   |  |
| Powder Mill Road &                    | SB-LR                            | F (453.3)                | F (529.6)       | F (456.5)             | F (543.9) |  |
| Springfield Road                      | Intersection                     | F (62.6)                 | F (93.6)        | F (63.0)              | F (97.4)  |  |
| *Delay exceeds calculable values in   | HCM 6 <sup>th</sup> Edition, res | sulting in delays that a | e not realistic | •                     | •         |  |

#### Phase 3 (2040) Alternatives A, B and Capacity Analysis Results

The Phase 3 Action Alternative includes the analysis of the No-Action Alternative and Phase I Action Alternative added to the additional capacity that would occur at full build-out. The results of the capacity analysis indicate that the planned growth at the MRC West Parcel would have a moderate, long-term, adverse impact on the study area intersections. Overall intersection delay would increase by less than 10 seconds per vehicle at all intersections except for the intersections of:

- Konterra Drive and MD 200 Off-Ramp
- Virginia Manor Road/Konterra Drive and Muirkirk Road
- Virginia Manor Road and Ritz Way
- Muirkirk Meadows Drive & Muirkirk Road
- Muirkirk Road and Snowden Woods Road/Site Driveway (Pasture Road)
- Powder Mill Road and Springfield Road

Most intersections would operate at an overall LOS D or better except for the intersections of:

- Virginia Manor Road/Konterra Drive and Muirkirk Road
- Virginia Manor Road/Ritz Way (MD 212) and Virginia Manor Road
- Muirkirk Meadows Drive and Muirkirk Road
- Old Baltimore Pike/Cedarhurst Drive and Muirkirk Road,
- Muirkirk Road and Snowden Woods Road/Site Driveway (Pasture Road)
- Powder Mill Road and Springfield Road
- Laurel Bowie Road (MD 197) and Muirkirk Road/Crystal Plaza Driveway

These intersections would continue to operate at LOS E or F and experience an overall increase in delays. **Table 4-54** below indicates the lane groups at study intersections that would operate at an overall LOS of E or F (failing condition), as well as overall intersection LOS.

|  |              | 2040 No-Acti | on Condition | 2040 Action Condition |           |  |
|--|--------------|--------------|--------------|-----------------------|-----------|--|
| Intersection   | Lane Group   | AM           | PM           | AM                    | PM        |  |
| Konterra Drive & MD 200<br>On-Ramp                   | Intersection | A (8.8)      | A (6.2)      | A (9.4)               | A (8.7)   |  |
| Konterra Drive & MD 200                              | EB-R         | -            | -            | F (155.2)             | -         |  |
| Off Ramp   | Intersection | C (24.3)     | B (20.0)     | D (47.4)              | C (21.8)  |  |
| Virginia Manor Road/                                 | WB-R         | F (53.6)     | F (57.7)     | F (65.1)              | F (125.1) |  |
| Konterra Drive & Muirkirk                            | SB-L         | F (345.6)    | F (288.9)    | F (484.5)             | F (316.2) |  |
| Road   | Intersection | F (128.3)    | F (104.5)    | F (185.4)             | F (133.4) |  |
| Virginia Manor Poad/ Pitz                            | EB-L         | E (41.4)     | -            | F (105.0)             | -         |  |
| Way (MD 212) & Virginia                              | SB-L         | F (*-)       | F (*)        | F (*)                 | F (*)     |  |
| Manor Road   | SB-R         | F (*)        | F (*)        | F (*)                 | F (*)     |  |
|  | Intersection | F (*)        | F (*)        | F (*)                 | F (*)     |  |
|  | WB-L         | -            | -            | E (35.3)              | -         |  |
| Muirkirk Meadows Drive                               | NB-LTR       | F (*)        | F (*)        | F (*)                 | F (*)     |  |
| & Muirkirk Road                                      | SB-LTR       | F (*)        | F (*)        | F (*)                 | F (*)     |  |
|  | Intersection | F (*)        | F (*)        | F (*)                 | F (*)     |  |
| Brick Yard Boulevard/<br>Driveway & Muirkirk<br>Road | Intersection | В (10.9)     | A (8.3)      | B (11.3)              | A (8.2)   |  |
| Old Baltimore Pike/                                  | EB-TR        | -            | -            | F (159.6              | -         |  |
| Cedarhurst Drive &                                   | NB-L         | F (91.1)     | F (82.6)     | F (91.1)              | F (82.6)  |  |
| Muirkirk Road  | Intersection | D (35.7)     | D (37.6)     | F (98.9)              | D (37.4)  |  |
| Pasture Road/Snowden                                 | NB-L         | -            | F (50.7)     | E (39.3)              | F (787.6) |  |
| Woods Road & Muirkirk                                | SB-LTR       | -            | E (37.1)     | E (37.8)              | E (44.8)  |  |
| Road   | Intersection | A (1.2)      | A (1.6)      | A (2.2)               | F (97.7)  |  |
| Odell Road/Cedarbrook<br>Lane & Muirkirk Road        | Intersection | B (14.3)     | C (22.3)     | B (14.8)              | C (24.8)  |  |
|  | EB-L         | E (79.7)     | F (84.4)     | F (80.1)              | F (85.9)  |  |
|  | EB-LT        | E (77.4)     | F (81.3)     | E (77.4)              | F (82.6)  |  |
| Laurel Bowie Road (MD                                | WB-LT        | F (88.3)     | F (116.1)    | F (88.3)              | F (116.1) |  |
| 197) & Muirkirk                                      | NB-L         | F (162.4)    | F (144.5)    | F (203.6)             | F (148.4) |  |
| Road/Crystal Plaza<br>Driveway                       | SB-L         | E (76.7)     | F (86.6)     | E (76.7)              | F (86.6)  |  |
|  | SB-TR        | -            | E (59.9)     | -                     | E (61.6)  |  |
|  | Intersection | D (51.0)     | E (61.1)     | D (55.4)              | E (62.4)  |  |
| Odell Road & MRC<br>Driveway                         | Intersection | -            | -            | A (0.5)               | A (1.5)   |  |
| Odell Road & Springfield<br>Road                     | Intersection | A (7.3)      | A (7.0)      | A (7.4)               | A (7.1)   |  |

#### Table 4-54. Phase 3 Lane Groups Operating at Overall LOS E or F

|                                 |              | 2040 No-Actio | on Condition | 2040 Action Condition |           |  |
|---------------------------------|--------------|---------------|--------------|-----------------------|-----------|--|
| Intersection                    | AM           |               | PM           | AM                    | PM        |  |
| Odell Road & Ellington<br>Drive | Intersection | A (4.6)       | A (3.5)      | A (4.6)               | A (3.5)   |  |
| Powder Mill Road &              | SB-LR        | F (567.6)     | F (657.6)    | F (585.8)             | F (698.1) |  |
| Springfield Road                | Intersection | E (79.0)      | F (117.5)    | F (81.6)              | F (128.7) |  |

# 4.20.4 What Measures Would Be Taken To Reduce Impacts to the Roadway Network?

The analysis of the 2030 and 2040 No-Action and Action Alternatives indicate the need to provide intersection improvements to address deficiencies that would be present without the growth at the MRC West Parcel, as well as deficiencies that are directly related to the planned MRC West Parcel growth. The Phase 2 (2030) and Phase 3 (2040) Action with Mitigation Alternative analysis examines future anticipated volumes, taking into consideration traffic under the No-Action Alternative, as well as traffic that would be generated by the proposed growth of employees and support staff at the MRC West Parcel.

# Phase 2 (2030) Alternatives A, B, and C with Mitigation

Given the built-out nature of the transportation network within the study area, emphasis was placed on improving overall intersection operations through adjustments, such as constructing signalized intersections and additional lanes for movements that would experience an increase in delay of at least ten seconds per vehicle.

Recommended mitigation measures include signal timing and coordination adjustments at the signalized intersections, as well as the following physical improvements:

#### Alternatives A and C (Action Alternatives)

- Virginia Manor Road (MD 206)/Konterra Drive and Muirkirk Road:
  - Provide a second southbound left-turn lane from Konterra Drive onto eastbound Muirkirk Road.
  - Provide a second westbound left-turn lane from Muirkirk Road onto southbound Muirkirk Road and eliminate the split phasing for the Muirkirk Road approaches.
- Virginia Manor Road /Ritz Way (MD 212) and Virginia Manor Road (MD 206):
  - Install a traffic signal that is coordinated with the other signals along Virginia Manor Road/Konterra Drive (MD 206). A roundabout could also be considered at this intersection but would require further investigation.
- Muirkirk Road and Muirkirk Meadows Drive:
  - o Install a traffic signal that is coordinated with the other nearby traffic signals on Muirkirk Road.
- Muirkirk Road and Old Baltimore Pike/Cedarhurst Drive:

- Construct separate right-turn only lane from eastbound Muirkirk Road to southbound Old Baltimore Pike.
- Muirkirk Road and Pasture Road/Snowden Woods Road:
  - Install a traffic signal at the intersection. A roundabout could also be considered at this location.
    However, this would warrant further investigation as additional right-of-way (ROW) may be required.
- Powder Mill Road and Springfield Road:
  - Install a traffic signal at this intersection and provide separate right and left-turn lanes on westbound and eastbound Powder Mill Road, respectfully. This is also a recommendation contained in the *Bureau of Engraving and Printing Transportation Impact Study* (2020), prepared by Alliance Consulting Group. It is assumed that this signal would be implemented as part of the Bureau of Engraving and Printing project.
- Muirkirk Road/Crystal Plaza and Laurel Bowie Road (MD 197):
  - Provide two northbound and southbound left-turn lanes from MD 197 to Muirkirk Road/Crystal Plaza.
  - Provide a second eastbound left-turn lane from Muirkirk Road to northbound MD 197.

#### Alternative B (Preferred Alternative)

- Virginia Manor Road (MD 206)/Konterra Drive and Muirkirk Road:
  - Provide a second southbound left-turn lane from Konterra Drive onto eastbound Muirkirk Road.
  - Provide a second westbound left-turn lane from Muirkirk Road onto southbound Muirkirk Road and eliminate the split phasing for the Muirkirk Road approaches.
- Virginia Manor Road /Ritz Way (MD 212) and Virginia Manor Road (MD 206):
  - Install a traffic signal that is coordinated with the other signals along Virginia Manor Road/Konterra Drive (MD 206). A roundabout could also be considered at this intersection but would require further investigation.
- Muirkirk Road and Muirkirk Meadows Drive:
  - o Install a traffic signal that is coordinated with the other nearby traffic signals on Muirkirk Road.
- Muirkirk Road and Old Baltimore Pike/Cedarhurst Drive:
  - Restripe the eastbound Muirkirk Road approach to consist of one left-turn lane, one through lane, and one right-turn only lane.
- Muirkirk Road and Pasture Road/Snowden Woods Road:

- Install a traffic signal at the intersection. A roundabout could also be considered at this location.
  However, this would warrant further investigation as additional right-of-way (ROW) may be required.
- Powder Mill Road and Springfield Road:
  - Install a traffic signal at this intersection and provide separate right and left-turn lanes on westbound and eastbound Powder Mill Road, respectfully. This is also a recommendation contained in the *Bureau of Engraving and Printing Transportation Impact Study* (2020), prepared by Alliance Consulting Group. It is assumed that this signal would be implemented as part of the Bureau of Engraving and Printing project.

However, it should be noted that Phase 2 only minimally increases delay at most of the critical study area intersections. Most of the intersections for which mitigation has been developed, with the exception of the intersection of Muirkirk Road and the MRC site driveway (Pasture Road), would experience significant delay and queuing in the No Action conditions. Thus, the mitigation measures are used to demonstrate what types of enhancements could improve operations at these intersections. The cost and responsibility for the mitigation measures should not be solely placed on future projects associated with the MRC Master Plan. Therefore, it is recommended that the intersections identified as requiring mitigation be re-evaluated in the future at the time of permitting for the new office buildings proposed in the Master Plan, to determine if the mitigation recommendations are still applicable.

#### Phase 2 (2030) Alternatives A, B, and C with Mitigation Capacity Analysis Results

#### Alternatives A and C (Action Alternatives)

The proposed enhancements would result in intersections that operate at similar, or better, LOS when compared to the 2030 No-Action Alternative. There would be no intersections that would continue to operate at an overall LOS E or F. Lane groups that would operate at an overall LOS of E or F (failing condition) at study intersections, as well as overall intersection LOS are shown in **Table 4-55**.

|                                    | 2030 Action<br>2030 No Action<br>Condition<br>(Alternatives A-0 |           | 2030 No Action<br>Condition |          | Action<br>on with<br>ation<br>:ives A-C) |
|------------------------------------|---|-----------|-----------------------------|----------|--|
| Intersection                       | Lane Group  | AM        | PM                          | AM       | PM                                       |
| Konterra Drive & MD 200 On-Ramp    | Intersection  | A (8.0)   | A (5.6)                     | A (6.2)  | A (5.5)                                  |
| Konterra Drive & MD 200 Off-Ramp   | Intersection  | C (22.0)  | B (19.9)                    | C (26.0) | B (18.6)                                 |
|                                    | EB-LT   | -         | -                           | E (58.5) | -  |
|                                    | WB-L  | -         | -                           | -        | E (65.8)                                 |
| Virginia Manor Road/Konterra Drive | WB-R  | -         | F (50.3)                    | -        | -  |
| & Muirkirk Road                    | NB-T  | -         | -                           | E (58.8) | -  |
|                                    | SB-L  | F (298.0) | F (245.8)                   | -        | -  |
|                                    | Intersection  | F (109.4) | F (89.9)                    | D (35.7) | C (34.9)                                 |

#### Table 4-55. Phase 2 Alternatives A and C with Mitigation– Lane Groups Operating at Overall LOS E or F

|  |              | 2030 No Action<br>Condition |           | 2030 Action<br>Condition with<br>Mitigation<br>(Alternatives A-C) |          |
|--|--------------|-----------------------------|-----------|---|----------|
| Intersection   | Lane Group   | AM                          | PM        | AM  | PM       |
| Virginia Manor Road/Ritz Way (MD                     | SB-L         | F (*)                       | F (*)     | -   | -        |
| 212) & Virginia Manor Road                           | Intersection | F (*)                       | F (*)     | B (19.3)  | B (15.9) |
|  | NB-LTR       | F (*)                       | F (*)     | -   | -        |
| Muirkirk Meadows Drive & Muirkirk                    | SB-LTR       | F (*)                       | F (*)     | -   | -        |
|  | Intersection | F (*)                       | F (*)     | B (19.2)  | B (17.5) |
| Brickyard Boulevard/Driveway & Muirkirk Road         | Intersection | B (10.5)                    | A (8.5)   | B (12.4)  | A (8.0)  |
| Old Baltimore Pike/Cedarhurst Drive                  | NB-L         | F (72.0)                    | F (65.7)  | -   | -        |
| & Muirkirk Road                                      | Intersection | C (30.4)                    | C (32.3)  | C (29.6)  | C (27.6) |
| Pasture Road/Snowden Woods Road                      | NB-L         | -                           | E (44.2)  | -   | -        |
| & Muirkirk Road                                      | Intersection | A (1.1)                     | A (1.4)   | A (3.4)   | B (13.1) |
| Odell Road/ Cedarbrook Lane &<br>Muirkirk Road       | Intersection | B (13.9)                    | C (20.8)  | B (12.0)  | B (19.1) |
|  | EB-L         | E (79.0)                    | F (83.6)  | -   | E (67.3) |
|  | EB-LT        | E (76.9)                    | E (79.9)  | -   | E (74.5) |
| Laurel Bowie Road (MD 197) &                         | WB-LT        | F (86.2)                    | F (104.5) | -   | E (79.6) |
| Driveway   | NB-L         | F (143.4)                   | F (128.5) | -   | E (72.2) |
|  | SB-L         | E (76.9)                    | F (84.1)  | -   | E (74.1) |
|  | Intersection | D (46.5)                    | D (54.6)  | D (37.0)  | D (44.2) |
| Odell Road & MRC Driveway                            | Intersection | -                           | -         | A (0.3)   | A (1.0)  |
| Odell Road & Springfield Road                        | Intersection | A (7.0)                     | A (6.9)   | A (7.2)   | A (6.9)  |
| Odell Road & Ellington Drive                         | Intersection | A (4.6)                     | A (3.5)   | A (4.6)   | A (3.5)  |
| Powder Mill Road & Springfield                       | SB-LR        | F (453.3)                   | F (529.6) | -   | -        |
| Road   | Intersection | F (62.6)                    | F (93.6)  | B (14.6)  | B (19.8) |
| * Delay exceeds calculable values in HCM 6th Edition | ı.           |                             |           |   |          |

<u>Alternative B – Preferred Alternative</u>

The proposed enhancements would result in intersections that operate at similar, or better, LOS when compared to the 2030 No-Action Alternative. There would be no intersections that would continue to operate at an overall LOS E or F. Lane groups that would operate at an overall LOS of E or F (failing condition) at study intersections, as well as the overall intersection LOS, are shown in **Table 4-56**.

| Intersection   | Lane Group   | 2030 No-Act | ion Condition | 2030 Action Condition with<br>Mitigation |           |
|--|--------------|-------------|---------------|--|-----------|
|  |              | AM          | РМ            | AM                                       | РМ        |
| Konterra Drive & MD 200 On-<br>Ramp                    | Intersection | A (8.0)     | A (5.6)       | A (6.2)                                  | A (5.3)   |
| Konterra Drive & MD 200 Off-<br>Ramp                   | Intersection | C (22.0)    | B (19.9)      | C (23.0)                                 | B (21.1)  |
|  | EB-LT        | -           | -             | E (58.3)                                 | -         |
| Virginia Manor Road/Konterra                           | WB-R         | -           | F (50.3)      | -  | E (61.9)  |
| Drive & Muirkirk Road                                  | SB-L         | F (298.0)   | F (245.8)     | -  | -         |
|  | Intersection | F (109.4)   | F (89.9)      | C (33.9)                                 | D (37.9)  |
| Virginia Manor Road/Ritz Way                           | SB-L         | F (*)       | F (*)         | -  | -         |
| (MD 212) & Virginia Manor<br>Road                      | Intersection | F (*)       | F (*)         | B (16.5)                                 | B (14.1)  |
|  | NB-LTR       | F (*)       | F (*)         | -  | -         |
| Muirkirk Meadows Drive &                               | SB-LTR       | F (*)       | F (*)         | -  | -         |
| Muirkirk Road  | Intersection | F (*)       | F (*)         | B (17.4)                                 | B (15.4)  |
| Brick Yard Boulevard/Driveway<br>& Muirkirk Road       | Intersection | B (10.5)    | A (8.5)       | B (10.4)                                 | A (7.8)   |
|  | NB-L         | F (72.0)    | F (65.7)      | F (70.2)                                 | F (65.7)  |
| Did Baltimore Pike/Cedarhurst<br>Drive & Muirkirk Road | Intersection | C (30.4)    | C (32.3)      | D (39.4)                                 | C (32.6)  |
| Pacture Road (Snowdon Woods                            | NB-L         | -           | E (44.2)      | -  | -         |
| Road & Muirkirk Road                                   | Intersection | A (1.1)     | A (1.4)       | A (3.2)                                  | B (10.3)  |
| Odell Road/ Cedarbrook Lane &<br>Muirkirk Road         | Intersection | B (13.9)    | C (20.8)      | B (13.9)                                 | C (21.6)  |
|  | EB-L         | E (79.0)    | F (83.6)      | E (79.0)                                 | F (83.8)  |
|  | EB-LT        | E (76.9)    | E (79.9)      | E (76.9)                                 | F (80.7)  |
| Laurel Bowie Road (MD 197) &                           | WB-LT        | F (86.2)    | F (104.5)     | F (86.2)                                 | F(104.5)  |
| Muirkirk Road/Crystal Plaza                            | NB-L         | F (143.4)   | F (128.5)     | F (155.9)                                | F (130.3) |
| Driveway   | SB-L         | E (76.9)    | F (84.1)      | E (76.9)                                 | F (84.1)  |
|  | Intersection | D (46.5)    | D (54.6)      | D (47.8)                                 | D (55.0)  |
| Odell Road & MRC Driveway                              | Intersection | -           | -             | A (0.2)                                  | A (0.6)   |
| Odell Road & Springfield Road                          | Intersection | A (7.0)     | A (6.9)       | A (7.1)                                  | A (6.9)   |
| Odell Road & Ellington Drive                           | Intersection | A (4.6)     | A (3.5)       | A (4.6)                                  | A (3.5)   |
| Dowdor Mill Poad & Caringfield                         | SB-LR        | F (453.3)   | F (529.6)     | -  | -         |
| Road   | Intersection | F (62.6)    | F (93.6)      | B (14.7)                                 | B (19.7)  |

| Table 4-56 | Phase 2 Alternative  | R with Mitigation- | - Lane Grouns O | nerating at Overa | ILLOS For F |
|------------|----------------------|--------------------|-----------------|-------------------|-------------|
|            | I Hase Z Alternative | D with whitigation | Lanc Groups O   | perating at overa |             |

\* Delay exceeds calculable values in HCM 6th Edition, resulting in delays that are not realistic.

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#### Phase 3 (2040) Alternatives A, B, and C (Action Alternatives) with Mitigation

The 2040 Action Alternative with Mitigation includes the same improvements identified in the 2030 Action Alternative with Mitigation, as well as the following:

- Konterra Drive and MD 200 Off-Ramp:
  - Provide a second eastbound right-turn lane from the MD 200 ramp onto southbound Konterra Drive.
- Virginia Manor Road (MD 206)/Konterra Drive and Muirkirk Road:
  - Provide a third southbound left-turn lane from Konterra Drive onto eastbound Muirkirk
    Road and construct a third receiving lane on Muirkirk Road that would become a right-turn
    only lane at Muirkirk Meadows Drive.
- Muirkirk Road and Old Baltimore Pike/Cedarhurst Drive:
  - Modify the southbound Cedarhurst Drive approach to consist of one shared through-right lane and one shared through-left lane.
- Muirkirk Road/Crystal Plaza and Laurel Bowie Road (MD 197):
  - Provide two northbound and southbound left-turn lanes from MD 197 to Muirkirk Road/Crystal Plaza (if not already constructed in Phase 2).
  - Provide a second eastbound left-turn lane from Muirkirk Road to northbound MD 197 (if not already constructed in Phase 2).

#### Phase 3 (2040) Alternatives A, B, and C (Action Alternatives) with Mitigation Capacity Analysis Results

The proposed enhancements would result in intersections that operate at similar, or better, LOS when compared to the 2040 No-Action Alternative. There would be no intersections that would continue to operate at an overall LOS E or F. Lane groups that would operate at an overall LOS of E or F (failing condition) at study intersections, as well as overall intersection LOS are shown in **Table 4-57**.

| Intersection   | Lane Group   | 2040 No-Acti | on Condition | 2040 Action Condition<br>with Mitigation |          |
|--|--------------|--------------|--------------|--|----------|
|  |              | AM           | РМ           | AM                                       | РМ       |
| Konterra Drive & MD 200 On-<br>Ramp                    | Intersection | A (8.8)      | A (6.2)      | A (7.8)                                  | A (7.3)  |
| Konterra Drive & MD 200 Off-<br>Ramp                   | Intersection | C (24.3)     | в (20.0)     | B (17.4)                                 | B (17.1) |
|  | EB-LT        | -            | -            | E (55.1)                                 | -        |
|  | WB-L         | -            | -            | E (60.7)                                 | E (65.7) |
| Virginia Manor Road/ Konterra<br>Drive & Muirkirk Road | WB-R         | F (53.6)     | F (57.7)     | F (77.3)                                 | -        |
|  | NB-L         | -            | -            | E (56.4)                                 | -        |
|  | SB-L         | F (345.6)    | F (288.9)    | -  | -        |

| Tahla 4-57 Dhaca 2 Altornativos A            | B and C with Mitig    | gation Lang Groups Or | norating at Overall LOS F or F |
|--|-----------------------|-----------------------|--------------------------------|
| $A = 37 \cdot 1$ has $Z = A = 100 \cdot 100$ | , D, and C with whith | gation Lanc Groups Of |                                |

#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Intersection   | Lane Group   | 2040 No-Acti | on Condition | 2040 Action Condition<br>with Mitigation |              |
|--|--------------|--------------|--------------|--|--------------|
|  |              | AM           | РМ           | AM                                       | PM           |
|  | Intersection | F (128.3)    | F (104.5)    | D<br>(49.5)                              | D (42.0)     |
|  | SB-L         | F (*)        | F (*)        | -  | -            |
| Virginia Manor Road/Ritz Way<br>(MD 212) & Virginia Manor Road | SB-R         | F (*)        | F (*)        |  |              |
|  | Intersection | F (*)        | F (*)        | C (22.2)                                 | B (14.0)     |
|  | NB-LTR       | F (*)        | F (*)        | -  | -            |
| Muirkirk Meadows Drive &<br>Muirkirk Road                      | SB-LTR       | F (*)        | F (*)        | -  | -            |
|  | Intersection | F (*)        | F (*)        | C (29.2)                                 | C (20.9)     |
| Brick Yard Boulevard/ Driveway<br>& Muirkirk Road              | Intersection | B (10.9)     | A (8.3)      | B (16.2)                                 | B (10.2)     |
| Old Baltimore Pike/ Cedarhurst                                 | NB-L         | F (91.1)     | F (82.6)     | -  | -            |
| Drive & Muirkirk Road  | Intersection | D (35.7)     | D (37.6)     | C (32.0)                                 | C (33.2)     |
|  | NB-L         | -            | F (50.7)     | -  | -            |
| Pasture Road/Snowden Woods                                     | SB-LTR       | -            | E (37.1)     | -  | -            |
|  | Intersection | A (1.2)      | A (1.6)      | A (3.8)                                  | C (21.8)     |
| Odell Road/ Cedarbrook Lane &<br>Muirkirk Road                 | Intersection | B (14.3)     | C (22.3)     | B (12.4)                                 | C (21.3)     |
|  | EB-L         | E (79.7)     | F (84.4)     | E (70.4)                                 | E (67.5)     |
|  | EB-LT        | E (77.4)     | F (81.3)     | E (71.0)                                 | E (74.2)     |
|  | EB-R         | -            | -            | E (58.9)                                 | E (68.6)     |
| Laurel Bowie Road (MD 197) &                                   | WB-LT        | F (88.3)     | F (116.1)    | E (79.3)                                 | F<br>(104.1) |
| Driveway   | NB-L         | F (162.4)    | F (144.5)    | E (79.9)                                 | E (76.0)     |
|  | SB-L         | E (76.7)     | F (86.6)     | E (77.9)                                 | E (75.2)     |
|  | SB-TR        | -            | E (59.9)     | -  | -            |
|  | Intersection | D (51.0)     | E (61.1)     | D<br>(39.7)                              | D (47.2)     |
| Odell Road & MRC Driveway                                      | Intersection | -            | -            | A (0.5)                                  | A (1.5)      |
| Odell Road & Springfield Road                                  | Intersection | A (7.3)      | A (7.0)      | A (7.4)                                  | A (7.1)      |
| Odell Road & Ellington Drive                                   | Intersection | A (4.6)      | A (3.5)      | A (4.6)                                  | A (3.5)      |
|  | SB-LR        | F (567.6)    | F (657.6)    | -  | -            |

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#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Intersection                               | Lane Group  | 2040 No-Acti | on Condition | 2040 Action Condition<br>with Mitigation |          |  |  |
|--|---|--------------|--------------|--|----------|--|--|
|  |   | AM           | РМ           | AM                                       | РМ       |  |  |
| Powder Mill Road & Springfield<br>Road     | Intersection  | F (79.0)     | F (117.5)    | B (15.7)                                 | C (25.9) |  |  |
| * Delay exceeds calculable values in HCM 6 | * Delay exceeds calculable values in HCM 6th Edition, resulting in delays that are not realistic. |              |              |  |          |  |  |

In addition to roadway improvements, the TMP developed for the MRC West Parcel would help reduce SOV trips to and from the campus, as well as help FDA reach the NCPC required parking maximum of one parking space per two employees. The TMP includes several strategies to help encourage commuting via other modes. These strategies include, but are not limited to:

- Improving outreach and education to employees regarding their commute options.
- Providing onsite amenities, such as an onsite transportation hub, shower and locker room facilities, and services like banking and sundries, among others that may be desirable.
- Enhancing transit connectivity to the MRC West Parcel by exploring potential options for shuttle connections to the Muirkirk MARC Station, as well as the Greenbelt and/or College Park Metrorail stations.
- Working with other nearby agencies and campuses to advocate for improved transit services from agencies such as WMATA, MTA, and Regional Transportation Agency of Central Maryland (RTA).
- Establishing a carpooling and vanpooling program.
- Providing connections to the White Oak Campus.
- Reducing peak period travel demand through telecommuting and flexible/alternative work schedules.
- Establishing parking policies that encourage other commute modes.
- Enhancing pedestrian and bicycle connections.

# 4.20.5 What Transit Facilities And Services Are Available At And In The Vicinity Of The MRC West Parcel?

There is limited transit service in the vicinity of the MRC West Parcel. The only transit route that directly serves the MRC West Parcel is RTA Route 302. RTA Route 302 operates at approximately one-hour headways and provides local service that connects the Towne Centre at Laurel to the Greenbelt Metro Station. It should be noted that the MRC West Parcel acts like an end station on the route. Buses turn around on Muirkirk Road at the MRC West Parcel entrance and proceed back west to continue along the designated route.

WMATA Bus Route 89M services the overall study area with connections to the South Laurel Park-and-Ride Lot and to the Greenbelt Metrorail station. The bus stop is located within the study area on Ritz Way west of Baltimore Avenue. Buses arrive approximately every 30 minutes during peak times and approximately every hour during weekday off-peak times. There is no service on weekends. The nearest stop is approximately two miles from the MRC West Parcel. The Muirkirk Station on Maryland Area Regional Commuter's (MARC) Camden Line is located approximately 1.5 miles from the MRC West Parcel (**Figure 4-45**). The Camden Line service operates from 6:00 AM to 9:00 AM and from 3:30 PM to 9:00 PM on weekdays only. There is no weekend or off-peak service. Trains arrive approximately every 30 minutes. Bus service to the station is provided through RTA Route 302, which stops at the station every hour on weekdays, and also serves the MRC West Parcel.



Source: MDOT MTA, 2020

#### Figure 4-45. MARC System Map with Commuter Buses

The MRC West Parcel is approximately 6.5 miles from the Greenbelt Metro Station on Metrorail's Green Line. The Green Line operates between Branch Avenue and Greenbelt in Prince George's County and has 21 stations and three transfer points to other Metrorail lines (**Figure 4-46**). The line runs along the same path as the Yellow Line from L'Enfant Plaza to Fort Totten at all times, and from L'Enfant Plaza to Greenbelt only during rush hours. The line operates at an 8- to 12-minute headway during weekdays and Saturdays, a 15minute headway on Sundays, and 20-minute late-night headways. The Greenbelt Station, which is the closest station to the MRC West Parcel, has 3,875 parking spaces, 81 bike racks, 38 lockers, and numerous bus service connections, including RTA Bus Route 302 to Laurel, which stops at the MRC West Parcel driveway on Muirkirk Road (Figure 4-47).



Source: WMATA, 2022

Figure 4-46. Metro System Map



Source: RTA, 2021

#### Figure 4-47. Regional Transit Authority Route 302

# 4.20.6 How Would Local Transit Be Affected By Implementation Of The Master Plan?

### No-Action Alternative

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. There would be no changes to the existing local transit network. Therefore, there would be no new impacts to transit as a result of the No-Action Alternative.

# Alternatives A, B, and C (Action Alternatives)

The results of the commuter survey indicate that less than one percent of employees currently commute to the MRC West Parcel via transit. This is likely due to the very limited bus service currently provided and the distance to other regional transit connections on the MARC Camden Line and the Metrorail Green Line. The planned increase in employees at the MRC West Parcel is anticipated to have a negligible impact on the existing transit system, as the current transit options are not a viable option for most commuters.

# 4.20.7 How Do Bicycle Commuters Access The Site And How Would Access Be Affected By Implementation Of The Master Plan?

The results of the commuter survey reveal that no employees currently walk or bike to the MRC West Parcel. This is primarily due to the absence of bicycle and pedestrian facilities on the surrounding roadway network. Furthermore, there are no connecting pedestrian or bicycle facilities at the MRC West Parcel. The Master Plan, as well as the TMP, recommend providing onsite bicycle and pedestrian facilities that would eventually connect to planned pedestrian and bicycle infrastructure on Muirkirk Road and Odell Road. Therefore, access for bicycle and pedestrian commuters would be improved with the implementation of the Master Plan.

# 4.20.8 What Measures Would Be Taken To Enhance Access To Transit Facilities And Services, And Bicycle Routes?

The MRC TMP includes several recommendations for enhancing access to the MRC West Parcel for pedestrian, bicycle, and transit commuters. These recommendations include:

#### Pedestrian/Bicycle Enhancements

- Coordinate with Prince George's County to construct planned pedestrian and bicycle improvements on Muirkirk Road and Odell Road, such as bike lanes and sidewalks, or a multi-use pathway.
- Provide shower and locker facilities on campus that can be accessed by all employees.
- Provide sheltered bicycle racks near building entrances. Sheltered bicycle racks should also include tool and pump stations to allow employees to maintain their bicycles and/or electric bike charging capability.
- Design the site to be pedestrian and bicycle friendly by:
  - Providing bicycle and pedestrian connections to Muirkirk Road.
  - Providing bicycle and pedestrian connections between all buildings and parking areas.
  - Ensuring that all security entrances have pedestrian and bicycle access.

 Coordinating with Prince George's County to establish a bikeshare or scooter system along the proposed multi-use path and within the surrounding community with stations that include the MRC transportation hub, the Muirkirk MARC station, the Brick Yard, Konterra (future), and other nearby destinations.

#### **Transit Connections**

- Work with other nearby agencies and campuses to coordinate with WMATA, Maryland Transit Authority (MTA), and RTA to identify opportunities for new or improved transit service to the MRC West Parcel and surrounding agencies.
- Construct a transportation hub on campus that can accommodate buses, shuttles, transportation network companies, and future autonomous vehicles.
- Provide a shuttle connection to the Muirkirk Station.
- Explore the feasibility of providing a shuttle connection to the College Park Metrorail Station, and/or Greenbelt Metrorail Station.

# 4.21 UTILITIES

# 4.21.1 Assessment Methodology

Impacts to water service, the sanitary sewer system, electrical service, and natural gas service were analyzed based on the characteristics of the current systems and services and the requirements for construction and operation of the MRC West Parcel.

The impact thresholds for utilities are provided in Table 4-58.

| Effect<br>Characteristics | Impact Level   |  |  |  |
|---------------------------|--|--|--|--|
|                           | Negligible   | Minor  | Moderate   | Major  |
| Intensity                 | Non-discernable<br>impacts to utility<br>service from<br>construction<br>activities during<br>replacement or<br>extension of lines | Slight, but detectable<br>impacts to utility service<br>during replacement or<br>extension of lines<br>Slight, but detectable<br>increase in demand, but<br>service providers would<br>be able to meet the<br>demand | Effect that is<br>potentially major<br>but with best<br>practices and<br>mitigation<br>measures is<br>reduced below<br>major | Highly noticeable impacts<br>to utility service during<br>replacement or extension<br>of lines that would result<br>in severe service outages<br>Significant increase in<br>demand and service<br>providers would not be<br>able to meet that demand |
| Geographic<br>Context     | Localized (i.e.,<br>confined to the<br>project sites)  | Localized (i.e., confined to the project sites)  | Regional   | Regional   |
| Duration                  | Temporary, lasting<br>only through<br>construction   | Temporary, lasting<br>through construction or<br>lasting 1+ years after<br>construction  | Lasting 1+ years<br>after<br>construction  | Lasting 1+ years after<br>construction   |

#### Table 4-58. Impact Intensity Thresholds for Utilities

# 4.21.2 Who Provides Utility Service To The MRC West Parcel?

### **Domestic Water**

WSSC provides potable water to the MRC West Parcel. According to the 1994 design plans for the MOD 2 site, there is an existing 10-inch water line connecting to the 16-inch WSSC water main in Muirkirk Road<sup>11</sup> (**Figure 4-48**). This 10-inch line runs along Pasture Road, past the MOD 1 and MOD 2 buildings, and then down to the South Loop Road at the Animal Research Facility. The 10-inch line, and smaller branches off this line, provide service to the buildings and other facilities in that area, including down to the Animal Waste Area (located south of the loop road, near Odell Road). A well is located near Building H that appears to only serve the building. Building H also gets water from the 10-inch water line. A 3-inch branch off the 10-inch water line runs east along Service Road #4 to serve the pasture area.

In a Letter of Findings (LOF) to GSA, WSSC stated that a new water service connection to serve the new development at the MRC West Parcel site could be provided from the existing 16-inch WSSC water main running along Muirkirk Road, north of the site (WSSC, 2017). Portions of this pipe are made of cast iron and it is preferred that a new site water connection be made with ductile iron pipe (DIP). The existing pipe west of the main site entrance on Muirkirk Road is ductile iron, so a new water connection should be in that area.

There is also an existing 24-inch WSSC water main line running along Odell Road. The BRF gets water from a 6-inch connection to this 24-inch line.

### Sanitary Sewer

WSSC provides sanitary sewer service to the MRC West Parcel. Sewer service is provided to all the buildings by gravity lines that flow down to pumping stations (**Figure 4-48**). There is a pump station located in the Animal Research Facility area, one near Building F, and one in the BRF area. These on-site wastewater pumping facilities are owned and maintained by the Government. A gravity sewer line takes flows from the MOD 2 building and runs down to a sewer pump station near Building E in the Animal Research Facility area. This, and other sewer flow from the Animal Research Facility area, is pumped through a force main pipe which travels back up towards MOD 2, then eastward along the pasture service road, and then to the northeast to the BRF area, where it connects to a manhole on a gravity sewer line. This gravity sewer line runs to the northeast and out to Muirkirk Road (WSSC 8301 MOD 1 and 8501 BRF). There are two other force main pipes that discharge into this same manhole. One line comes from a pump station on the BRF site, and the other comes from the MOD 1 building. There is also a holding tank serving the Animal Waste Area in the Animal Research Facility area.

The MOD 1 building pretreats some of its wastewater; all drains from the laboratories are piped to an acid neutralization tank, monitored for acidity or alkalinity, and neutralized prior to being ejected to the WSSC sewer connection and are in conformance with the Industrial Discharge Control Program standards as specified within the WSSC Regulatory Services Code. Wastewater from cage, rack, and bottle washing is collected separately from other sanitary waste and is automatically monitored for pH and neutralized prior to being released to the WSSC sewer connection (GSA, 1995). MOD 2 has a pH treatment station on the ground floor that treats all Lab waste, autoclaves, and bottle washers (FDA, 2021).

WSSC confirmed that an existing WSSC 8-inch public sanitary sewer line is sufficient to provide service needed to implement the Master Plan. This sewer line is located southeast of the MRC West Parcel, at the intersection of Springfield Road and Lighthouse Drive and is part of the Parkway Sewer Watershed.

<sup>&</sup>lt;sup>11</sup> Information received from WSSC did not confirm this water connection point.



Figure 4-48. Existing Utility Infrastructure

# **Electrical Power and Gas and Telecom**

Electrical power on the MRC West Parcel is provided by Potomac Electric Power Company (PEPCO). There are existing power poles running down both sides of Muirkirk Road and on the west side of Odell Road. Two pole lines enter the MRC West Parcel site between Pasture Road and Westlock Place and run to a substation. There are two electric feeders that run from the substation to the BRF and to the MOD 1 and MOD 2 buildings. One of the feeders from the substation to MOD 1 was replaced January of 2021. The current plan is to replace the second feeder and the substation by the end of 2021. This existing underground electric and telecom duct bank runs along the south side of MOD 1 and MOD 2 and then down along Pasture Road to the Animal Research Facility. The duct bank branches out and provides electric and telecom service to the buildings and other facilities in that area, including the Animal Waste Area and the pasture areas, through underground and overhead lines.

Natural Gas on the MRC West Parcel is provided by Washington Gas. There is an existing high pressure main line adjacent to Muirkirk Road. Gas service enters along the main entrance road and then runs down to the ARF area. Gas service lines also come off Odell Road to service Building F as well as the BRF area. There is an

existing system of underground hot and chilled water lines serving the buildings in the Animal Research Facility.

# 4.21.3 How Would Implementation Of The Master Plan Impact Utilities?

# **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The No-Action Alternative would not result in additional staff being located at the MRC West Parcel. WSSC would continue to provide water and sanitary sewer services to the MRC West Parcel. Washington Gas would continue to provide natural gas, and PEPCO would continue to provide electrical power. No changes to utility demands would occur. Therefore, no adverse impacts to utilities would occur under the No-Action Alternative. The MRC West Parcel substation replacement project, replacement of AHUs, and replacement of generators at the MRC West Parcel would remove outdated systems, resulting in beneficial impacts to utilities.

### Alternatives A, B, and C (Action Alternatives)

Under all the Action Alternatives, construction of new utility lines both on and off the MRC West Parcel could result in temporary service disruptions both onsite and at adjacent properties. This impact would be temporary, and relocation of new connections of utility lines would be completed with the least amount of disruption possible to other users. Utility providers would be consulted prior to construction and any proposed relocations of utility lines would be coordinated to minimize disruption. Therefore, all Action Alternatives would result in negligible, short-term, adverse impacts to utility service on and adjacent to the MRC West Parcel.

#### **Domestic Water**

Implementation of the Master Plan would result in increased demand for water service. WSSC conducted a System Planning Forecast (SPF) to review the water and sewer demands for the proposed Master Plan development. The "Letter of Findings" for the SPF, issued on June 28, 2017, concluded that WSSC can provide water service to the expanded site and a new connection could be made to the existing water main in Muirkirk Road without requiring any new public water extension. This new connection to the Muirkirk Road water main would provide redundancy to the site for water service. It also concluded that pressure reducing valves would be required for buildings with first floor elevations below 233 feet, and booster pumps would be required for buildings with first floor levels above elevation 265 feet. The Letter of Findings further concluded that new connections to the 24-inch line in Odell Road are not recommended and may not be possible due to pipe integrity issues and because this 24-inch line connects the WSSC South Laurel reservoir and pumping station and may be shut down at times for operational purposes. Because the existing water supply would be able to accommodate the increased demand for water service on the MRC West Parcel, the impact to the regional water supply would be negligible, long term and adverse.

The existing 10-inch water line running along Pasture Road would provide water to some of the new buildings planned near MOD 2. A new 10-inch or 12-inch water service line would connect to the existing 16-inch WSSC water main line at Muirkirk Road just west of the existing main entrance. New onsite water lines would connect to the existing water lines and then run east to provide water service to the buildings planned in the BRF area.

The potable water system materials would be per local WSSC specifications. Distribution piping would be high-pressure Polyvinyl chloride (PVC) or DIP. The new buildings would be fitted with sprinkler systems and fire hydrants would be installed along the site water system to provide adequate fire protection coverage. Adequate emergency access would be provided around the buildings. Proposed water plans for the Action Alternatives can be found in **Figure 4-49** through **Figure 4-51**.



Figure 4-49. Alternative A Proposed Water Plan



Figure 4-50. Alternative B (Preferred Alternative) Proposed Water Plan



Figure 4-51. Alternative C Proposed Water Plan

#### Sanitary Sewer

Under all Action Alternatives, the proposed addition of employees and support staff on the MRC West Parcel would result in an increased demand for sanitary sewer service. Because the existing system can handle the new facilities, a negligible, long-term, adverse impact would occur. In the Letter of Findings for the SPF, WSSC concluded that the required sewer service is available to the expanded site and that an existing 8-inch public sewer line at Lighthouse Drive can provide sewer service to the new development at MRC West Parcel. However, FDA would need to construct a new offsite public sewer extension along Springfield Road, from Lighthouse Drive to the MRC West Parcel site boundary, to obtain expanded sewer service to the site.

Under each Alternative, new onsite sewer lines would run from the new buildings, across the site, down to the MRC West Parcel property boundary near Odell Road, then along the boundary and down to Springfield Road. The new sewer outfall pipe would go offsite (becoming a public line), cross Odell Road, run along Springfield Road, and ultimately connect to a WSSC sewer main at Lighthouse Drive (**Figure 4-52** through **Figure 4-54**).

Under Alternatives A and B sewer service from MOD 2 and the new buildings planned in that area would be conveyed to the southeast in a new gravity sewer line. This new sewer line would run across the stream valley buffer, and down to the new 8-inch sewer line along Springfield Road (described above). The sewer force main running from the Animal Research Facility could be tied into this new gravity sewer line or into the new gravity sewer line at the BRF area. The sewer force main coming from MOD 1 would be tied into the new gravity sewer line in the BRF area, and the pump station and force main in the BRF area would be removed.

Under Alternative C, a new gravity sewer line could serve the new Maintenance & Storage Building (near MOD 2) while also collecting the sewage from MOD 2 and the force main coming from the Animal Research Facility. The sewer flows would be conveyed down to Springfield Road in the new gravity sewer line (as described in Alternatives A and B above). As an option for Alternative C, sewage from the new Maintenance & Storage Building could go into the existing gravity line running to the Animal Research Facility pump station, and the existing force main from the Animal Research Facility to the BRF would be tied into the new gravity sewer line at the BRF site, which would in turn convey the flow down to Springfield Road. The first option increases construction cost but reduces the load on the pump station at the Animal Research Facility. New sanitary sewer piping would be made of PVC.



Figure 4-52. Proposed Sewer Service Plan for Alternative A



Figure 4-53. Proposed Sewer Service Plan for Alternative B (Preferred Alternative)



Figure 4-54. Proposed Sewer Service Plan for Alternative C

#### **Electrical Power, Gas, and Telcom**

Under all Action Alternatives, the proposed addition of employees and support staff on the MRC West Parcel results in an increased demand for electrical, HVAC, and telecom services. PEPCO would provide the additional power needed for the new development. As design commences, PEPCO would be engaged in the planning. The existing underground electric and telecom duct bank serving the MOD 1 and MOD 2 buildings would need to be relocated as it falls within the footprints of the proposed buildings for each of the Action Alternatives. Even though the existing systems would be able to handle the additional demand, a negligible, long-term, adverse impact would occur from an increase in demand.

# 4.21.4 How Would Impacts to Utilities Impacts Be Reduced?

The proposed new buildings and parking structures would include water-efficient landscaping and fixtures that would reduce potable water usage. Rooftop rainwater harvesting (i.e., green roofs) would be employed when possible, and rainwater would be reused for toilets and cooling towers, reducing the demand for potable water used for irrigation. Other sustainable design measures would include rooftop solar panels, active and passive solar techniques, high-efficiency lighting and occupancy sensors, modern and efficient heating and cooling equipment, natural ventilation systems, and ENERGY STAR® appliances. LEED® Gold certification and net zero energy usage would be achieved for all new buildings. A Hydraulic Planning Analysis would be conducted during the design phase of the project.

# 4.21.5 How Would Energy Conservation Measures Be Incorporated into the Redevelopment of the MRC West Parcel?

All Action Alternatives would be constructed and operated in accordance with the EISA of 2007, which require Government agencies to:

- Reduce energy consumption per square foot by 2.5 percent annually through 2025, relative to 2015 baseline;
- Improve and monitor the energy optimization, efficiency, and performance of new and existing data centers;
- Ensure that 25 percent of the total amount of building electric and thermal energy should come from clean energy sources by 2025;
- Reduce potable water consumption intensity by 2 percent annually through 2025, relative to 2007;
- Reduce industrial, landscaping, and agricultural water consumption by 2 percent annually through 2025, relative to 2010 baseline;
- Monitor and collect water balance data to improve water conservation and management;
- Install appropriate green infrastructure features on Federal property; and
- Reduce greenhouse gas emissions from agency-owned vehicles by 30 percent by the end of 2025, relative to 2014 baseline.

GSA's and FDA's goal is to achieve LEED<sup>®</sup> Gold certification and net zero energy and water usage for all new buildings on the MRC West Parcel. By achieving LEED<sup>®</sup> Gold certification and net zero energy and water usage, the new buildings under the Master Plan would minimize the adverse impact to utilities. Sustainable
design and energy conservation measures would include rooftop solar panels, active and passive solar techniques, high-efficiency lighting and occupancy sensors, modern and efficient heating and cooling equipment, natural ventilation systems, and ENERGY STAR<sup>®</sup> appliances.

## **4.22 ENVIRONMENTAL CONTAMINATION**

CERCLA was enacted by Congress in 1980. CERCLA provided authority to the Federal Government to respond directly to releases and threatened releases of hazardous substances which have the potential to endanger public health or the environment. Section 312 of CERCLA (40 CFR 312) provides standards and practices for EPA's "all appropriate inquiries" (AAI) for the purposes of CERCLA sections 101(35)(B)(i)(1), 101(35)(B)(ii), and 101(35)(B)(iii). An AAI is the process for evaluating the environmental conditions of a property and assessing who is potentially liable for any contamination. A Phase I Environmental Site Assessment (ESA) meets the requirements of an AAI. Various investigations have been performed to locate areas where hazardous materials may exist and characterize potential contaminants. These findings are documented in the Phase I ESA conducted in February 2021 (Stantec, 2021a). Key findings are presented below.

#### 4.22.1 Assessment Methodology

Impacts from environmental contamination were analyzed based on the characteristics of contamination within the MRC West Parcel with the requirements for demolition, construction, and operation of the alternatives.

| Effect<br>Characteristics | Impact Level  |  |   |   |  |  |
|---------------------------|---|--|---|---|--|--|
|                           | Negligible  | Minor  | Moderate  | Major   |  |  |
| Intensity                 | Non-discernable<br>increase in<br>environmental<br>contamination from<br>construction related<br>activities or operation<br>of facilities | Slight, but detectable<br>increase in<br>contamination from<br>construction related<br>activities or operation<br>of facilities; The<br>increases in<br>contamination would<br>not result in the<br>degradation of<br>environmental<br>conditions or human<br>health | Effect that is<br>potentially major but<br>with best practices and<br>mitigation measures is<br>reduced below major | Highly noticeable<br>increase in<br>contamination from<br>that would result in<br>the degradation of<br>environmental<br>conditions or human<br>health<br>Releases of<br>contaminants in<br>violation of the RCRA,<br>CWA, or CAA |  |  |

The impact thresholds for environmental contamination are provided in **Table 4-59**.

| Table 4-59, Im | nact Intensity | Thresholds for | <b>Environmental</b> | Contamination |
|----------------|----------------|----------------|----------------------|---------------|
|                | pace milensity |                | LINNOTHICHLA         | contamination |

#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Effect                | Impact Level  |   |   |   |  |
|-----------------------|---|---|---|---|--|
| Characteristics       | Negligible  | Minor   | Moderate  | Major   |  |
| Geographic<br>Context | Localized (i.e.,<br>confined to the project<br>sites)                                   | Localized (i.e.,<br>confined to the project<br>sites)                                   | Localized (i.e.,<br>confined to the project<br>sites) with high<br>probability to extend<br>beyond the MRC West<br>Parcel and effect the<br>area within the<br>general vicinity of the<br>MRC West Parcel | Localized (i.e.,<br>confined to the project<br>sites) with high<br>probability to extend<br>beyond the MRC West<br>Parcel and effect the<br>area within the<br>general vicinity of the<br>MRC West Parcel |  |
| Duration              | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction | Lasting 1+ years after<br>construction  | Lasting 1+ years after<br>construction  |  |

#### 4.22.2 What Hazardous Materials Are Located at the MRC West Parcel?

Previous activities on the MRC West Parcel have required the use, handling, or storage of hazardous materials. These activities included (but are not limited to): medical uses, laboratory testing, and heating. In order to power the main laboratory and related facilities at the MRC West Parcel, 10 emergency diesel-powered generators, multiple large-scale and step-down transformers, and one electrical substation are located at the MRC West Parcel. There are no polychlorinated biphenyls (PCBs) in onsite transformers.

Radioactive products are utilized in laboratory experiments in the MOD 1 and MOD 2 buildings. There are no elevated radiation levels at the property as a result of the licensed use of radioactive materials (personal communication, 2021b).

The following underground storage tanks (UST) were observed during the Phase I ESA:

- One 5000-gallon fiberglass-reinforced plastic diesel fuel UST, which was installed in March 1998. It is located immediately northeast of the BRF main building and provides backup fuel for the boilers in the BRF.
- Two 30,000-gallon fiberglass-reinforced plastic heating oil USTs were installed in January 1998 and are located in a landscaped area between the MOD 2 building and the main parking lot. They provide fuel for the generators and boilers in the MOD 1 and MOD 2 buildings.
- Two other USTS are located in the western part of the MRC West Parcel outside the study area.

The USTs appeared to be in good condition with no visible evidence of releases, other than the monitoring wells around the two 30,000-gallon USTs. There was no evidence of any former USTs, which were removed from the location where the current USTs are buried.

The following ASTs are currently in use at the MRC West Parcel.

• One 185-gallon diesel AST is located adjacent to the BRF main building to power an emergency generator, as needed. The AST is approximately seven years old (personal communication, 2021a).

- One approximately 500-gallon liquid nitrogen AST is located in a fenced enclosure adjacent to the north side of the MOD 2 building. This AST is used to store liquid nitrogen for use in laboratory experiments.
- One 825-gallon heating oil AST is located in a gated enclosure in concrete secondary containment tub at the basement level of the east corner of the MOD 1 building. This AST is used to fuel emergency generators.
- Two 500-gallon propane ASTs are located between the BRF main building and a large contractor shed. They appeared to be rusted and have been abandoned and empty for at least 15 years (personal communication, 2021a). Their previous function is unknown, but they may have been used to power additional research equipment in the BRF.
- Several small (approximately 10-gallon) heating oil day-tanks are located adjacent to the large generators in the MOD 1 and MOD 2 buildings to provide emergency fuel on short notice.
- 200-gallon or smaller plastic ASTs of sodium hydroxide and sulfuric acid solutions are located in each of the four pre-treatment rooms of the MOD 1 and MOD 2 basements.

Other than the worn propane tanks, the ASTs were observed to be in good condition, with no visible evidence of a release. No visible evidence of former ASTs (e.g., concrete pads, fill pipes, vent pipes, dispensers, surface stains) was observed during the Phase I ESA.

Additionally, in addition to the heating oil and diesel fuel USTs and ASTs, ten emergency diesel-powered generators, multiple large-scale and step-down transformers, and one electrical substation provide power to the main laboratory and related facilities in the study area. There are no polychlorinated biphenyls (PCBs) in onsite transformers (personal communication, 2021a).

The following hazardous substances and petroleum products are currently in use at the MRC West Parcel.

- 5-gallon diesel engine oil containers are staged near each generator for lubrication.
- 25 percent solutions of sulfuric acid and sodium hydroxide are staged in 55-gallon plastic drums in the four pre-treatment rooms in the basements of the MOD 1 and MOD 2 buildings for treatment of laboratory and other wastewater before discharge to the sewer system. Approximately 250 gallons or less of each are stored in the study area at any time. There was no evidence of release from these drums, and they are not considered to be RECs with respect to the study area.
- A variety of medicinal drugs, detergents, disinfectants, and other animal care products are stored and used in animal research in amounts ranging from 1 to 200 gallons throughout the MOD 1 and MOD 2 buildings, and BRF main building. Five-gallon or smaller containers of commercial-grade cleaning supplies are also staged in janitorial closets of these buildings. Lubricants, pH inhibitors, and industrial cleaning agents are staged and used in the mechanical (boiler, generator rooms) of these buildings. There was no apparent evidence of a release of any of these chemicals, which were stored in accordance with manufacturer recommendations.
- Flammable/ignitable/pressurized gas canisters (oxygen, carbon dioxide, nitrogen) used for experiments are stored in labeled, secured rooms near the loading racks of the MOD 1 and MOD 2 buildings.

- Empty 55-gallon drums are located on the loading dock on the south side of the MOD 1 building and near the northeast side of the BRF main building. These are intended for disposal after being exhausted of sulfuric acid and other chemicals used onsite and are not considered to be RECs with respect to the study area.
- Ride-on lawnmowers, paint cans, and 3- to 5-gallon gasoline canisters are located in locking sheds and cabinets on the east side of the BRF. There was no staining visible in the interior of the sheds; the cabinets and canisters appeared to be in good condition; and there was no evidence of disturbed vegetation around them.
- Diesel runabout vehicles are also stored and used throughout the study area where needed. They are fueled and maintained on a separate portion of the MRC West Parcel outside of the study area.
- Wastewater from animal care, washing out animal cages, decontamination from laboratory experiments, and mechanical room slop sinks are all discharged to the pre-treatment rooms in MOD 1 and MOD 2 before final discharge to the municipal sewer.
- There are sumps in four rooms of the basements of the MOD 1 and MOD 2 buildings to collect groundwater and wastewater from the laboratory spaces. The water in the sumps is tested and treated with either sulfuric acid or sodium hydroxide, depending on pH, and then discharged to the northeast to the municipal system via Muirkirk Road.
- Outside of the study area within the Animal Research Facility, an authorized aquaculture radiation laboratory is present. There are affluent collection containers designed to store potentially contaminated water until such time as the water is below acceptable levels or FDA acquires appropriate clearance before discharge.
- Three storage buildings behind the BRF were initially installed as radiation/mixed-use waste storage areas. Only one building has ever been used and the other two serve as non-radiation storage. The radiation storage building has been decommissioned and released for general use (personal communication, 2021c).

Based on the findings from the Phase I ESA, no Recognized Environmental Concerns (RECs<sup>12</sup>) or Controlled RECs<sup>13</sup> were identified within the study area during the Phase I ESA. Potential features of environmental concern can be found in **Figure 4-55**.

Historical Recognized Environmental Concerns<sup>14</sup> (HREC), described below, were identified in connection with the MRC West Parcel. Each of these HRECs have been addressed and conditions signed off by the MDE.

<sup>&</sup>lt;sup>12</sup> A Recognized Environmental Condition (REC) is the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to any release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

<sup>&</sup>lt;sup>13</sup> Controlled RECs are RECs resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), but with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls.

<sup>&</sup>lt;sup>14</sup> A Historic Recognized Environmental Condition is a REC that has occurred in connection with the property, but has been addressed to the satisfaction of the applicable regulatory authority and meets unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls.

- On November 19, 1990, a piping valve was speculated to have failed, overfilling one of two (since-removed) 30,000-gallon #2 heating oil USTs near MOD 2A. Case #91-1059PG was assigned to this release. Heating oil was observed to have traveled approximately 278 feet along a ditch to a security fence and approximately 100 feet beyond the fence. The estimated spill totaled between 2,500 and 3,000 gallons. Following a cleanup effort, the MDE closed the case on May 31, 1991 and stated that the property had returned to compliance in a June 27, 1991 Notice.
- On August 15, 2001, motor oil was reported released from the crank case of an emergency generator in MOD 2 due to piston failure and over-pressurization. Approximately 30 to 40 gallons of motor oil were estimated to have been lost, affecting an area of approximately 20 feet by 100 feet. MDE Case #02-0853PG was assigned to this release. Clean Venture excavated and properly disposed of approximately 15 tons of contaminated soil. Other administrative items were subsequently addressed. The case was closed by MDE on October 2, 2002 with no restrictions.
- According to an Environmental Data Resources (EDR) Radius Map Report listing, one MDE Oil Control Program (OCP) case was opened on January 4, 2002 for FDA due to dumping. The specific substance, amount, or location is not mentioned in the listing. A subsequent cleanup was conducted, and the case was closed by MDE on October 2, 2002.
- A release occurred and was reported on July 11, 2007 from one of the two extant 30,000-gallon heating oil USTs near MOD 2. The release was discovered when fuel surrounding a remote fill port was observed. The release may have occurred due to thermal expansion of fuel during the summer, causing overflow. MDE Case #08-0028PG2 was assigned to the release. Approximately 10 cubic yards of contaminated soil and pea gravel fill around the fill port was excavated and properly disposed of. Post-excavation soil samples were below laboratory detection limits for total petroleum hydrocarbons. Product was not detected during several tests of a temporary monitoring/recovery well installed in the excavation. A Phase II ESA was conducted by Geo-Technology Associates, Inc., in which additional soil and groundwater samples were collected. The Phase II ESA found no evidence of impact was detected, other than a fine sheen in one newly installed recovery well during the first gauging event. The case was closed by MDE on June 29, 2011, with residual contamination allowed to remain onsite because it appeared to pose no threat to human health or the environment.



Figure 4-55. Potential Areas of Environmental Concern

# 4.22.3 Will the MRC Master Plan Alternatives Impact Environmental Contamination?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The No-Action Alternative would not result in additional staff being located at the MRC West Parcel. Beneficial impacts from the MRC West Parcel substation replacement project, replacement of AHUs, and replacement of generators at the MRC West Parcel would remove outdated systems, which could have the potential for future releases of hazardous materials.

There are no RECs or HRECs under the No-Action Alternative; therefore, any ongoing or proposed projects are not expected to release any hazardous materials. No efforts to further evaluate RECs, BERs, or to conduct site remedial efforts would be necessary.

#### Alternatives A, B, and C (Action Alternatives)

The Phase I ESA did not identify any RECs or HRECs currently at the MRC West Parcel. Implementation of the Master Plan may generate hazardous materials as a result of the types of scientific studies that are conducted at the MRC West Parcel. The generation of hazardous materials may be greater under Alternative B due to the addition of new laboratories. All outgoing waste, including hazardous and biological wastes, would be collected in accordance with FDA's waste diversion requirements and would be disposed of in accordance with state and Federal laws. Therefore, the Action Alternatives would result in a minor, long-term, adverse impact from a slight, but detectable, increase of environmental contaminants sent to USEPA-approved landfills. It is anticipated that these landfills would accommodate this waste and that there would be no degradation of environmental conditions or human health.

Based on the age of construction of the BRF, there is a potential that the BRF may contain asbestos containing materials (ACM) or lead-based paint (LBP). The BRF did not show visible signs of flaking or ACMs during site reconnaissance for the Phase I ESA. The ACM was removed from the building in 1994 (personal communication, 2021a). It is recommended that LBP and ACM surveys be conducted prior to the demolition of the BRF. Potential for LBP and/or ACM within these buildings would be identified, removed prior to building demolition, and disposed of at an EPA-approved landfill.

The removal of any hazardous materials encountered during demolition and construction would improve environmental conditions and reduce the potential for human contact with contaminants. Therefore, the Action Alternatives would result in beneficial impacts. To ensure safety of construction contractors and employees and support staff, GSA and FDA would develop a plan for the proper handling and disposal of any unanticipated hazardous materials encountered.

# 4.22.4 What Efforts Would Be Made to Protect Employees and Contruction Contractors from Environmental Contamination?

To ensure safety of construction contractors, employees, support staff, visitors, and the environment, FDA would develop a plan for the proper handling and disposal of any unanticipated hazardous materials encountered including, but not limited to:

- The BRF main building may contain LBP.
- When spent materials such as batteries, aerosol cans, and fluorescent lights were observed throughout the MOD 1, MOD 2, and BRF. When spent, these materials are considered universal waste and should be disposed of properly.

### 4.23 WASTE MANAGEMENT

#### 4.23.1 Assessment Methodology

Impacts to waste management were analyzed based on the characteristics of current waste management with the requirements for demolition, construction, and operation of the alternatives.

The impact thresholds for waste management are provided in Table 4-60.

| Effect                | Impact Level  |   |  |  |  |
|-----------------------|---|---|--|--|--|
| Characteristics       | Negligible  | Minor   | Moderate   | Major  |  |
| Intensity             | Non-discernable<br>increase in solid waste<br>generated by<br>construction related<br>activities or by<br>operation of facilities | Slight, but detectable<br>increase in solid waste<br>generated by<br>construction related<br>activities or by operation<br>of facilities<br>The increase in solid<br>waste would not affect<br>waste haulers from<br>removing the waste and<br>it would not affect the<br>capacity of landfills | Effect that is<br>potentially major<br>but with best<br>practices and<br>mitigation<br>measures is<br>reduced below<br>major | Highly noticeable<br>increases in solid<br>waste generated by<br>construction related<br>activities or by<br>operation of facilities;<br>waste haulers and<br>landfills could not<br>accommodate the<br>increase |  |
| Geographic<br>Context | Localized (i.e.,<br>confined to the<br>project sites)   | Localized (i.e., confined to the project sites)   | Regional   | Regional   |  |
| Duration              | Temporary, lasting<br>through construction<br>or lasting 1+ years<br>after construction   | Temporary, lasting<br>through construction or<br>lasting 1+ years after<br>construction   | Lasting 1+ years after construction  | Lasting 1+ years after<br>construction   |  |

Table 4-60. Impact Intensity Thresholds for Waste Management

#### 4.23.2 How Is Waste Managed at the MRC West Parcel?

Waste generated by the MRC West Parcel includes non-hazardous solid waste, hazardous chemical waste, special medical waste, low-level radioactive and mixed waste, recyclable materials, and animal waste. Chemical waste is packaged and shipped off site by a qualified contractor using FDA's USEPA generator ID number. Medical waste is handled following procedures outlined by RCRA, Maryland state regulations, and Occupational Safety and Health Administration (OSHA) regulations. All packaging and transportation is performed by the contractor in accordance with DOT requirements. All hazardous waste material, such as batteries and light bulbs, is accumulated near the loading docks of the MOD 1 and MOD 2 buildings. These hazardous materials are hauled offsite by an approved local hazardous waste hauler. Non-hazardous solid

waste is kept onsite in dumpsters before being transported by a waste contractor to a sanitary landfill (Stantec, 2021a). In 2021, the MRC West Parcel disposed of 3.03 tons of municipal solid waste (FDA, 2021).

There is a trash compactor and a separate cardboard compactor at the MOD 1 loading dock. These get emptied twice a week and once every two months, respectively (personal communication, 2021d). The MRC West Parcel disposed of approximately 0.9 tons of cardboard in 2020 (FDA, 2021). All recyclable materials are separated and placed in a yellow 20-yard container with compartments for plastic bottles, cans, and paper (personal communication, 2021a). Based on the *LEED® Recycling Material Identification Report*, onehalf ton of material is hauled off site every four days (FDA, 2020). Additional dumpsters for small trash are in the parking lot north of MOD 2 and by the secondary (Odell Road) exit next to the BRF. Disposal of cardboard and waste generated at the MRC West Parcel gets disposed of at the Olive Street Processing Center, LLC, RecycleOne, or at a sanitary landfill.

Small animal feces from labs and cages are tested for radioactivity and transported by licensed haulers for landfilling or a radioactive treatment/storage facility, as applicable. Large animal feces from pasture areas are mixed with straw/hay and collected by USDA and transported for use at other facilities.

All liquid waste goes to one of two pre-treatment rooms in MOD 1 or MOD 2 buildings before discharging to the municipal sewer. The basements in the MOD 1 and MOD 2 buildings have sumps to collect groundwater and wastewater from the laboratories. Once the water has been treated, depending on the pH, the water is discharged to the municipal system.

#### 4.23.3 How Would Implementation of the Master Plan Affect Waste Management?

#### **No-Action Alternative**

Under the No-Action Alternative, no new facilities would be constructed, and the number of employees and support staff at the MRC West Parcel would remain at 300. Additional employees would need to be housed in other Government-owned or leased space in the Washington, DC metropolitan area. The number of employees and support staff at the MRC West Parcel would not increase under the No-Action Alternative. The MRC West Parcel substation replacement project, the replacement of AHUs, and the replacement of generators would increase the volume of waste requiring disposal from the MRC West Parcel. The waste generated would be slight, but detectable. Any LBP, ACM, or other contaminated wastes would be disposed of at licensed facilities. Disposal of waste generated would not overburden the capacity of the waste haulers or the capacity of landfills. Therefore, there would be a minor, short-term, adverse impact to waste management.

Over the long-term, wastes and recyclable materials would continue to be generated at the current rate. All waste types would continue to be handled by qualified contractors. The No-Action Alternative is not anticipated to affect the capacity of landfills or waste haulers from removing waste. Because the No-Action Alternative would contribute a slight, but detectable, amount to the waste streams at RecycleOne, Olive Street Processing, LLC, or a sanitary landfill, there would be a minor, long-term, adverse impact to waste management.

#### Alternative A, B, and C (Action Alternatives)

Under all Action Alternatives, solid waste would be generated from demolition, excavation, and construction. Construction waste could include building components and structures, concrete, asphalt, wood, metals, roofing, flooring, and piping. All new buildings on the campus would be, at a minimum, LEED<sup>®</sup>

Gold certified as required by GSA. In accordance with these requirements, a minimum of 50 percent of demolition and construction waste would be diverted from landfills during implementation of the Master Plan (GSA, 2020). Building materials, products, and supplies would be reused or recycled to the maximum extent practicable. All remaining construction waste would be disposed at a nearby landfill, which would result in temporary increases in construction waste at these facilities. Therefore, there would be a minor, short-term, adverse impact to solid waste management under the Action Alternatives.

The increase in population at the MRC West Parcel would generate additional solid waste, food waste, hazardous and chemical wastes, and recyclable materials at the MRC West Parcel. This would increase the amount of waste handled at waste-receiving facilities but is not anticipated to affect waste haulers or the capacity of landfills. General waste would be transported to the Brown Station Road Sanitary Landfill. Recyclable waste would be disposed of at RecycleOne and Olive Street Processing, LLC, or another facility that is authorized to receive recyclable waste. Hazardous and chemical wastes would be disposed of at an EPA-approved waste management facility such as the Annapolis Junction Recycling and Transfer Station. Due to an increase in waste generated at the MRC West Parcel, the Action Alternatives would result in minor, long-term, adverse impacts. Additional information on hazardous and biological wastes can be found in Section 4.22.3 Environmental Contamination.

# 4.23.4 What Measures Would Be Implemented to Reduce Waste Generated on the Site?

The Master Plan would be implemented in accordance with CEQ's *Guiding Principles for Sustainable Federal Buildings* (CEQ, 2020). All new buildings on the campus would also be at minimum LEED® Gold certified as required by GSA. In accordance with these requirements, a minimum of 50 percent of demolition and construction waste would be diverted from landfills during implementation of the Master Plan (GSA, 2020). Building materials, products, and supplies would be reused or recycled to the maximum extent practicable. Following construction, waste collection, recycling, and composting programs implemented by FDA would continue. At least 50 percent of non-hazardous waste would be diverted from landfills through reuse, recycling, and composting. To promote waste minimization and pollution prevention, FDA would follow GSA's Green Purchasing Plan, which requires the purchase of products/materials that are energy and water efficient, renewable energy technology, bio-based, non-ozone depleting, contain recycled content, and are non-toxic or less toxic alternatives (GSA, 2011).

# 4.24 WHAT ARE THE DEVELOPMENT TRENDS AND WHY ARE THEY DISCUSSED?

CEQ regulations require Federal agencies to assess the effects that "are later in time" from the proposed alternatives (See 40 CFR 1508.1(g)(2)). In other words, the CEQ regulations ask whether the proposed Federal project would add to or interact with the environmental effects of other present or future projects. The CEQ regulations also require that "[t]he environmental impact statement shall succinctly describe" the reasonably foreseeable environmental trends and planned actions in the area(s)" (See 40 CFR 1502.15). This section of the EIS provides a description of other reasonably foreseeable present or future projects and development trends in the area and discusses whether or not the MRC Master Plan would add to or interact with the environmental effects of future projects and development trends.

#### 4.24.1 What Past Actions Have Occurred in the Vicinity of the MRC West Parcel?

The area in the vicinity of the MRC West Parcel was first settled by the Snowden family who established the Patuxent Iron Works in the early 1800s. Nearby, members of the Ellicott family established the Muirkirk Manufacturing Company, later the Muirkirk Iron Furnace, in 1846. The community of Rossville was established north of the area that is now the MRC West Parcel by African-Americans in the late nineteenth century. As the communities of Laurel and Beltsville grew, the area was developed with commercial, industrial, and residential areas.

The MRC West Parcel was developed from 1964 through the late 1990s, when FDA acquired 197 acres on the northern boundary of the BARC through a transfer of land from the U.S. Department of Agriculture. Upon completion of the 1981 Beltsville Master Plan, the Modular 1 (MOD-1)/Modular 2 (MOD-2) Complex was constructed in phases from 1983 to 1996 on the western side of the MRC West Parcel. Around 1981, the WSSC built a water storage tank on a 5-acre area of the East Parcel along Odell Road (the South Laurel Water Pumping Station), leased from FDA. Around 1993, the Maryland Army National Guard constructed a two-building armory facility on another leased area of the East Parcel east of Odell Road and north of the South Laurel Water Pumping Station. The Animal Research Facility was constructed on the southwest portion of the MRC West Parcel in the late 1990s. Improvements continue to be made on the MRC West Parcel to support FDA employees and support staff.

#### 4.24.2 What Present and Future Projects Would Add to Environmental Trends?

Present and future improvements are shown in Table 4-61.

| MRC West Parcel Improvement Projects   | Status  |
|--|---------|
| Phase 1 POR and Infrastructure Study/Survey Mechanical, Engineering,<br>Plumbing: This project will assess the future laboratory needs, special<br>requirements, and timeframes for the MRC West Parcel.   |         |
| Phase 2 Lean Lab Assessment: This assessment will evaluate the effectiveness and efficiency of the existing laboratories; identify improved utilization (right-sizing); and determine whether new spaces are required beyond the existing building footprint.  | Ongoing |
| MRC West Parcel substation replacement project – This project will consist<br>of replacing the 15 kilovolts (Kv) outdoor substation for the MRC West<br>Parcel. The two-primary medium-voltage conductors will be replaced from<br>the substation to MOD 1. This project is currently at the 65 percent design<br>phase. | Ongoing |
| Six original AHUs from 1984 will be replaced on the roof of MOD 1.   | Ongoing |
| Backflow Preventer Replacement – The MRC West Parcel main backflow preventer off Muirkirk Road just outside the perimeter fence will be replaced. This is a single backflow preventer that was installed in 1997 and should have been a parallel assembly to provide redundancy.   | Future  |
| Replacement of exterior windows of MOD 1.  | Future  |

#### Table 4-61. Present and Future Projects at the MRC West Parcel

| MRC West Parcel Improvement Projects   | Status |
|--|--------|
| Replacement of Generators at MOD 1 – This project is to replace the generators in the east and west generator rooms of MOD 1. They will all be increased in size from current capacity. The west side generators will be replaced in the same location and increased in size from 650 kilowatt (KW) to 1,000 KW. The two east side generators will be relocated to the side of the building near the transformers and will be increased in size from 370 KW to 500 KW. The oil fuel tank for the two east side generators will be increased in capacity from the existing 1,000- gallon above ground storage tank (AST) to a 5,000-gallon AST. This project is currently at the 65 percent design phase. | Future |
| Building Automation System (BAS) upgrade for all the outbuildings at MOD-<br>2 – This project will remove the old outdated METASYS system and replace<br>it with the Honeywell Tridium system.   | Future |
| Replacement of Cooling Towers – GSA's 5-year project plan consists of replacing the cooling towers and structural steel supports at MOD 2.   | Future |
| Improve grading/drainage at North Loop Road from Building 1 to C-3.  | Future |

New development is either occurring or planned in the vicinity of the MRC West Parcel. Development that is planned or under construction as of June 2021 in the area surrounding the MRC West Parcel is shown in **Table 4-62** and **Figure 4-56**.

| Development Project                                 | Status                | Land Use      | Description  |
|---|-----------------------|---------------|--|
| FDA Federal Research<br>Center (FRC) Master<br>Plan | Planned/<br>Approved  | Institutional | Master Plan that provides a framework for<br>development at the Federal Research Center<br>for up to 18,000 employees and up to an<br>additional 1.6 million gsf of office space and<br>377,382 gsf of special/shared use space. The<br>FRC is approximately 10.9 driving miles west<br>from the MRC West Parcel (GSA, 2018).                      |
| Konterra Town Center                                | Planned               | Mixed-Use     | Mixed-use development on 2,200 acres of<br>retail, research, and technology campuses<br>including 1.4 million sf of building space,<br>more than 1,000 residential units, and 348<br>acres reserved for a governmental,<br>educational, or corporate facility. This site is<br>1.9 driving miles northwest of the MRC West<br>Parcel (KLNB, 2021). |
| The Brick Yard                                      | Under<br>Construction | Mixed-Use     | 125-acre development bordering U.S. 1<br>between Muirkirk Road and Contee Road.<br>The Urban Industrial space will include<br>700,000 sf of multi-purpose industrial<br>buildings on 70 acres. 50 acres of the site is<br>under construction for residential uses as<br>Brick Yard Station and the Mark at Brick Yard,                             |

Table 4-62. Planned/Ongoing Development Near the MRC West Parcel

#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Development Project   | Status        | Land Use       | Description                                      |
|-----------------------|---------------|----------------|--|
|                       |               |                | which includes 397 apartments. This site is      |
|                       |               |                | 2.3 driving miles northwest of the MRC West      |
|                       |               |                | Parcel (JacksonShaw, 2021).                      |
| Bureau of Engraving & | Planned/Under | Institutional  | Construction of an approximate one million sf    |
| Printing (BEP)        | Consideration |                | Currency Production Facility on 100 acres at     |
|                       |               |                | the BARC. This site is 1.6 driving miles south   |
|                       |               |                | of the MRC West Parcel (USACE, 2020).            |
| BARC Demolition       | Planned       | Institutional  | Demolition of 22 buildings and associated        |
|                       |               |                | infrastructure at BARC. This site is 4.3 driving |
|                       |               |                | miles south of the MRC West Parcel (USDA-        |
|                       |               |                | ARS, 2020).                                      |
| High-Speed            | Planned/Under | Transportation | Highspeed train line between Baltimore, MD       |
| Superconducting       | Consideration |                | and Washington, DC with a stop at the            |
| Magnetic Levitation   |               |                | Baltimore-Washington Thurgood Marshall           |
| (MAGLEV) System       |               |                | Airport. This would be located 1.1 driving       |
|                       |               |                | miles east of the MRC West Parcel at its         |
|                       |               |                | closest point to the study area (MDOT MTA,       |
|                       |               |                | 2021).   |
| Maryland Army         | Under         | Institutional  | The recruiting center located adjacent to the    |
| National Guard        | Construction  |                | MRC East of Odell Road is currently              |
| Recruiting Center     |               |                | constructing an additional parking lot. The      |
|                       |               |                | site is 0.5 driving miles east of the MRC West   |
|                       |               |                | Parcel.  |



#### Figure 4-56. Planned/Ongoing Development in the Vicinity of the MRC West Parcel

#### 4.24.3 How Are Development Trends Impacting the Environment?

#### **Topography and Soils**

Past development and construction activities on and in the vicinity of the MRC West Parcel may have required grading, ground disturbance, and excavation. These activities would have resulted in changes to topography and soils as land was converted from agricultural uses to commercial, industrial, residential, and transportation uses. Of the ongoing or future MRC West Parcel improvement projects, only improving grading/drainage at North Loop Road may impact topography or soils. Planned development in the vicinity of the MRC West Parcel, as described in Section 4.3.3, would require ground disturbance and subsurface activities. Construction, site grading, and excavation for National Guard parking lot expansion, FDA FRC, Konterra Town Center, the Brick Yard, the Bureau of Engraving and Printing, the MAGLEV, and other proposed projects at the MRC West Parcel would each result in impacts to soils and topography (FDA, 2021; GSA, 2018; KLNB, 2021; JacksonShaw, 2021; USACE, 2021; USDA-ARS, 2020; MDOT MTA, 2021; GSA, 2021). These planned activities could also lead to soil erosion and sedimentation, although future development would likely include erosion and sediment control plans in compliance with Maryland and Prince George's County laws and regulations. The Action Alternatives for the MRC Master Plan would add to the impacts to topography and soils from other development planned and underway in the region.

#### Groundwater Quality and Hydrology

Past development and construction activities converted land from agricultural uses to commercial, industrial, residential, and transportation use leading to an increase in impervious surface within the Anacostia Watershed where the MRC West Parcel is located. None of the ongoing or future MRC West Parcel improvement projects would impact groundwater or hydrology. Planned projects in the vicinity of the MRC West Parcel would also increase impervious surfaces which may in turn impact groundwater recharge. The planned National Guard parking lot expansion may increase impervious surfaces and have some impact on groundwater recharge. The BEP project would increase impervious surface cover 29.4 acres (USACE, 2020), while the BARC Demolition project may result in a small decrease in impervious surfaces. Development of the FDA and Konterra Town Center projects would convert undeveloped land to developed and, thus, increase impervious surfaces. The Brick Yard project is a redevelopment of previously developed land and would not be expected to have a substantial impact on groundwater recharge. The MAGLEV has the potential to impact groundwater through increases in impervious surfaces for rail lines and maintenance yards, as well as from tunneling which could come in direct contact with groundwater aquifers (MDOT MTA, 2021). These projects may be designed with stormwater facilities that use groundwater recharge to diminish stormwater runoff.

As described in Section 4.4.3, the Action Alternatives for the MRC Master Plan would have a slight increase impervious surfaces which would not have a discernable effect on groundwater recharge. Construction of underground portions of the buildings could intercept the groundwater table but would not affect naturally occurring groundwater levels. The Action Alternatives for the MRC Master Plan would add a small amount to the impacts to topography and soils from other development planned and underway in the region.

#### Surface Water and Wetlands

Past construction and development activities in the vicinity of the MRC West Parcel have resulted in direct and indirect adverse impacts to the surface water quality, including wetlands Upper Beaverdam Creek Watershed, a subwatershed of the Anacostia River Watershed. Suburban development has resulted in poor surface water quality from sediment deposition in runoff from construction zones and impervious surface, and Beaverdam Creek is considered an impaired creek. Development has resulted in filling of wetlands and increases in stormwater runoff, which contributes to poor surface and wetlands water quality (EPA, 2019).

None of the ongoing or future MRC West Parcel improvement projects would impact surface water or wetlands. Planned development of the FDA FRC would result in 270 feet of permanent impacts to streams, and additional temporary impacts and permanent modifications to stream valley buffers (GSA, 2018). Construction of the BEP would impact approximately 226 linear feet of stream (USACE, 2021). The MAGLEV would have permanently impact 20 to 76 acres of floodplains, 22 to 51 acres of wetlands, and 9,964 to 12,896 linear feet of streams (MDOT MTA, 2021). It is not known how much of these impacts would be in the vicinity of the MRC West Parcel. It is assumed that all planned developments would adhere to Federal, State, and County regulations on wetlands, water quality, and stormwater management. Adherence to these regulations would minimize or mitigate impacts to surface waters and wetlands.

As described in Section 4.5.3, the Action Alternatives would also increase impervious surfaces and impact water resources. Vegetation clearing, site grading, and other construction activities would impact water resources including impacts to wetlands, wetland buffers, and streams. The Action Alternatives for the MRC Master Plan would add to the impacts to surface waters and wetlands from other development planned and underway in the region.

#### Stormwater

Past development and construction activities have increased impervious surface within the Upper Beaverdam Creek and Anacostia watersheds as land was converted from agricultural uses to commercial, industrial, residential, and transportation uses. Increases in impervious surface results in increases in stormwater runoff.

Of the ongoing or future MRC West Parcel improvement projects, only improving grading/drainage at North Loop Road may impact stormwater. Development of the FDA FRC, BEP, Konterra Town Center, the Brick Yard, and MAGLEV would increase the amount of impervious surface in the area creating more stormwater runoff (GSA, 2018; KLNB, 2021; JacksonShaw, 2021; USACE, 2021; USDA-ARS, 2020; MDOT MTA, 2021; GSA, 2021). These projects would all be subject to Maryland, Prince George's County, or Montgomery County stormwater management regulations. Therefore, it is assumed that stormwater quality and quantity controls would be implemented during construction to manage the increase in stormwater flows from the individual sites. The Action Alternatives for the MRC Master Plan would also result in increases to impervious surfaces as described in Section 4.6.3, and the Action Alternatives would add to the impacts to stormwater from other development planned and underway in the region.

#### **Vegetation**

Past development and construction activities have resulted in the removal of native vegetation as land in the vicinity of the MRC West Parcel was converted to agricultural uses and then to commercial, industrial, residential, and transportation uses. None of the ongoing or future MRC West Parcel improvement projects would impact vegetation. Planned projects in the vicinity of the MRC West Parcel would also impact vegetation. Construction of the National Guard parking lot expansion may require the removal of vegetation. Construction of the FDA FRC would require the removal of 7.7 acres of vegetation including 3.2 acres of maintained lawn, and 4.5 acres of forest (GSA, 2018). Construction of the BEP would impact 83.6 acres of vegetation including forests, agricultural land, open meadows, and emergent wetlands (USACE, 2021). The BARC Demolition project would require removal of vegetation from building perimeters, from inside some abandon buildings, and from areas on each project site to facilitate infrastructure removal and support regrading of the site (USDA-ARS, 2020). The Konterra Town Center development would add commercial and residential structures, roads, and associated infrastructure in an area that is currently dominated by old fields and small forested areas. The Brick Yard development is a redevelopment of a previous industrial area. These projects are subject to the Prince George's County Woodland Conservation and Tree Preservation Ordinance and require Natural Resource Inventories (NRI). Clearing, grading, and land development for the proposed MAGLEV project would have permanent impacts to forests and ecologically sensitive areas on NPS, BARC, the Patuxent Research Refuge, and Fort George G. Meade (USACE, 2021).

As described in Section 4.7.3, the Action Alternatives would result in permanent removal of forest and maintained lawns. The Action Alternatives for the MRC Master Plan would add to the impacts to vegetation from other development planned and underway in the region.

#### Wildlife

Past development and construction activities in the vicinity of the MRC West Parcel have removed habitat and displaced native wildlife species as land was converted to agricultural uses and then to commercial, industrial, residential, and transportation uses. None of the ongoing or future MRC West Parcel improvement projects would impact wildlife. The FDA FRC, the BEP, the Konterra Town Center development, and the MAGLEV would all result in the removal of vegetation and wildlife habitat including forest interior dwelling birds and migratory birds, as well as habitat for sensitive and protected species such as the long-eared bat (GSA, 2018; KLNB, 2021; JacksonShaw, 2021; USACE, 2021; USDA-ARS, 2020; MDOT MTA, 2021). Construction activities, vehicles, and equipment associated with the planned development projects would increase noise levels, which may disturb wildlife and temporarily push the species to other areas. Like the MRC West Parcel, the BEP, Konterra Town Center, and the MAGLEV are subject to the ESA and the Migratory Bird Protection Act. Each of these projects are located in areas with large tracts of wildlife habitat that would minimize the impacts to displaced terrestrial wildlife. Impacts to streams and wetlands from these projects have the potential to degrade habitat for aquatic species.

The Action Alternatives for the MRC Master Plan, as described in Section 4.8.3, may also result in a loss of habitat for terrestrial wildlife due to tree removal for construction of new buildings, parking garages, bike paths, walking paths, and utilities. As with other planned projects, construction activities under any of the Action Alternatives would increase noise levels, which may disturb wildlife and temporarily push the species to other areas on and off of the MRC West Parcel. The Action Alternatives for the MRC Master Plan would add to the impacts to wildlife from other development planned and underway in the region.

#### **Coastal Zone**

Past development has adversely impacted the nation's coastal zones. In response to these adverse impacts, the Coastal Zone Management Act was enacted to "preserve, protect, develop, and where possible, restore or enhance the resources of the nation's coastal zone" (MDNR, 2021b). Like the proposed MRC West Parcel development, other Federal projects in the area are subject to the CZMA. Like the MRC Master Plan, the BEP projects is consistent with the CZMA (USACE, 2021). Consistency determinations are not available for the BARC Demolition and MAGLEV projects. The FDA FRC project is not in the Coastal Zone and not subject to the CZMA. As described in Section 4.9.4, the MRC Master Plan would be undertaken in a manner consistent with the policies of the Maryland Coastal Zone Management Program; therefore, no impacts to the coastal zone would occur. Therefore, the Action Alternatives for the MRC Master Plan would not add to impacts to the Coastal Zone.

#### **Cultural Resources**

Past development and construction activities have resulted in impacts to cultural resources as development resulted in the demolition of historic properties and changes to historic landscapes. Construction of proposed projects in the area may impact cultural resources. None of the ongoing or future MRC West Parcel improvement projects would impact cultural resources. The National Guard parking lot expansion, the FDA FRC, the BEP, Konterra Town Center, and the MAGLEV have the potential to impact unanticipated archaeological resources. The Brick Yard is under construction on a former Washington Brick Company manufacturing company and mine (JacksonShaw, 2021). The BEP construction "would diminish the integrity of the BARC Historic District's character-defining viewsheds and landscape design, setting, and feeling" (USACE, 2020). The MAGLEV may permanently change the views of historic properties along the rail line (MDOT MTA, 2021).

The Determination of Eligibility for the MRC Master Plan established that there are no historic structures or archaeological resources in the MRC APE (Quinn Evans, 2021). No historic structures or archaeological resources would be affected by Action Alternatives, and they would not add to impacts of other developments on cultural resources.

#### **Viewsheds**

Viewsheds in the vicinity of the MRC West Parcel have continually changed as land was converted to agricultural uses and then to commercial, industrial, residential, and transportation uses. None of the ongoing or future MRC West Parcel improvement projects would impact viewsheds. Planned developments in the area continue to change viewsheds. The FDA FRC development would add high-rise buildings which may be visible from outside the site (GSA, 2018). The BEP would change viewsheds and obstruct vistas and viewscapes from outside the project area (USACE, 2020). Konterra Town Center development would introduce commercial and residential structures, roads, and associated infrastructure in an area that is currently dominated by old fields and small forested areas. The Brick Yard development is a redevelopment of a previous industrial area. According to the MAGLEV EIS, rail viaduct and ancillary facilities "would be close and highly visible from ... the [Baltimore Washington] parkway in many areas. In these areas, MAGLEV System elements would intrude on the naturalized scenery that enhances the recreational use of the parkway" (MDOT MTA, 2021).

As described in Section 4.11.3, development on the MRC West Parcel under the Action Alternatives, would, for the most part, be hidden from surrounding communities by existing vegetation and topography. Under Alternatives A and B, the building proposed north of MOD 1 would be visible from the MRC West Parcel entrance on Muirkirk Road. Under Alternative C, the new buildings would be barely visible from the main entrance at Muirkirk Road. The Action Alternatives for the MRC Master Plan would add to the changes in viewsheds from other development planned and underway in the region.

#### Land Use Planning and Zoning

Past, present, and future development in the vicinity of the MRC West Parcel has been planned for and approved in accordance with Federal land use plans including the Federal Elements of the Comprehensive Plan for the National Capital, along with the Prince George's County Subregion 1 Master Plan, Prince George's County 2035 Approved General Plan, and other plans and regulations as outlined in Section 4.12.2. Land use planning and zoning changes for FDA FRC, Konterra Town Center, the Brick Yard, the Bureau of Engraving and Printing, and the MAGLEV would each result in changes to existing land uses (GSA, 2018; KLNB, 2021; JacksonShaw, 2021; USACE, 2021; USDA-ARS, 2020; MDOT MTA, 2021). The BEP would convert land previously set aside for agricultural preservation (USACE, 2021). The Brick Yard and Konterra Town Center developments would convert previously developed and disturbed lands to mixed use developments in accordance with the Prince George's County Subregion 1 Approved Master Plan (M-NCPPC, 2010b). The MAGLEV project would convert land on National Park Service (NPS) property, the BARC, the Patuxent Research Refuge, and Fort George G. Meade from undeveloped land to mass transit use (MDOT MTA, 2021). The BARC demolition project would not result in land use impacts (USDA-ARS, 2020).

As described in Section 4.12.5, the Action Alternatives for the MRC Master Plan would be consistent with land use plans and zoning but would result in new development and changes in land use. The Action Alternatives for the MRC Master Plan would add to the impacts to land use planning and zoning from other development planned and underway in the region.

#### **Community Facilities and Services**

Past development and construction activities have resulted in increased use and demand for community facilities and services. None of the ongoing or future MRC West Parcel improvement projects would impact community facilities and services. Like the MRC Master Plan, the FDA FRC and the BEP would increase employment in the area that could result in additional people utilizing community facilities. Konterra Town

Center and the Brick Yard are multi-use developments that would add to the growth in population in Prince George's County resulting in additional use of schools, parks and recreation areas, childcare centers, hospitals, and religious institutions. The Konterra Town Center project includes the construction of two new fire stations and parks, and the Brick Yard includes the construction of new recreational facilities (PGCPB, 2008 and M-NCPPC, 2010b). The USDA BARC demolition project and the MAGLEV are not expected to have an impact on community facilities.

As described in Section 4.13.3, under the MRC Master Plan Action Alternatives, some employees may relocate to the vicinity of the MRC West Parcel from outside of the region, and these employees may utilize community facilities, including schools, libraries, parks, medical facilities, childcare centers, and religious facilities. The Action Alternatives for the MRC Master Plan would add to the impacts to community facilities from other development planned and underway in the region. The libraries, parks, medical facilities, and religious facilities may see a slight increase in use, but it would not likely exceed the capacity of these facilities, as there are numerous within the area and would be sporadically accessed. Prince George's County's planned school development may help to meet the increasing need in the region and lessen the impact trends on these resources.

#### Safety and Security

Past development and construction activities have led to increased demand for police, fire, and EMS services. None of the ongoing or future MRC West Parcel improvement projects would impact safety and security. The FDA FRC and BEP projects would add additional buildings and employees that may require support from local police, fire, and EMS personnel. Both the FDA FRC and BEP would have onsite security that would respond to most incidents onsite (GSA, 2018; USACE, 2021). The Konterra Town Center and Brick Yard developments would require support from County police, fire, and EMS. Two fire stations are proposed as part of the Konterra Town Center development (M-NCPPC, 2010b). The USDA BARC demolition project and the MAGLEV are not expected to have an impact on safety and security.

As described in Section 4.14.5, under all MRC Master Plan Action Alternatives, there would be an increase in the commuter population to the area surrounding the MRC West Parcel, which could result in a potential increase in the number of calls for police response. Under all MRC Master Plan Action Alternatives, newly constructed buildings would be designed to achieve Interagency Security Committee (ISC) Level III requirements. The Action Alternatives for the MRC Master Plan would add to the impacts to safety and security from other development planned and underway in the region.

#### Economy and Employment

Past development and construction activities have resulted in beneficial impacts to the economy and employment through expenditures on construction and through long-term employment at commercial enterprises. The ongoing and planned improvements on the MRC West Parcel may have slight beneficial impacts to construction employment. Construction employment and construction spending for all planned projects in the region would temporarily add to the employment and economic benefits of the MRC Master Plan. The FDA FRC, the BEP, Konterra Town Center, and the Brick Yard would each provide opportunities for increased permanent employment in the area (GSA, 2018; USACE, 2021). The MAGLEV will increase employment, though it is uncertain if employees will be from the project area (MDOT MTA, 2021). Increases in long-term employment would generate economic benefits including secondary spending and increased local, State, and Federal tax revenues. As described in Section 4.15.3 and 4.15.4, under the MRC Master Plan Action Alternatives, construction would increase economic activity in the region through the purchase of materials and equipment and construction personnel patronizing local businesses. Once construction is complete, existing and new employees and support staff would likely patronize local businesses in the vicinity of the MRC West Parcel. The Action Alternatives for the MRC Master Plan would add to the beneficial regional employment and economic impacts from other development planned and underway in the region.

#### **Environmental Justice**

While the project area has a high percentage of environmental justice populations, most of the proposed development in the area would have either no impact or beneficial impacts to these populations. None of the ongoing or future MRC West Parcel improvement projects would impact environmental justice communities. The FDA FRC, the BEP, Konterra Town Center, and the Brick Yard would each provide opportunities for temporary and permanent employment in the area (GSA, 2018; USACE, 2021; KLNB, 2021; JacksonShaw, 2021). The MAGLEV would increase employment, though it is uncertain if employees would be from the project area (MDOT MTA, 2021). The Konterra Town Center and Brick Yard developments would increase housing availability to citizens in the area (KLNB, 2021; JacksonShaw, 2021). Each of these projects may increase traffic levels which could decrease the quality of life for environmental justice populations in the area. The MAGLEV project would have noise impacts along the rail line, and 99 percent of the impacted noise receptors are located with environmental justice population areas (MDOT MTA, 2021).

As described in Section 4.16.3, the impacts of the MRC Master Plan Action Alternatives would not disproportionately affect environmental Justice populations located near the MRC West Parcel and would not contribute to environmental justice impacts associated with other planned projects.

#### Air Quality

Past development within the vicinity of the MRC West Parcel has produced traffic and emission sources which have affected air quality. As discussed in Section 4.17.2, the Washington DC-MD-VA Region, which includes the MRC West Parcel, is designated as a marginal nonattainment area for  $O_3$  (area has a design value of 0.071 ppm up to, but not including 0.081 ppm) under the 2015 8-hour standard (MWCOG, 2020). The region is designated as in attainment of the NAAQS for all other criteria pollutants. In 2019, the region was redesignated by the USEPA regarding the 2008 8-hr ozone standard from marginal nonattainment to attainment maintenance (EPA, 2021). While the area still has ozone issues, precursor emissions such as volatile organic compounds, nitrogen oxides and particulate matter are reducing, therefore ozone concentrations are slowly declining.

The planned replacement of generators at MOD 1 with larger generators could result in greater air quality emissions. The increase in emissions may be offset by improved efficiency of newer equipment. Construction activities, including the use of heavy machinery, for the National Guard parking lot expansion, the FDA FRC, the Konterra Town Center, the Brick Yard, the Bureau of Engraving and Printing, the BARC demolition project, and the MAGLEV would result in temporary increases in air quality emissions. Operation of these facilities would have lower impacts to air quality emissions than existing facilities because it is assumed that they would be built with modern, energy efficient systems. The FDA FRC, the Konterra Town Center, the Bureau of Engraving and Printing, would increase traffic levels on area roadways which in turn would increase air emissions (GSA, 2018; KLNB, 2021; JacksonShaw, 2021; USACE, 2021; USDA-ARS, 2020; MDOT MTA, 2021). As described in Section 4.17.4 and 4.17.5, the Action Alternatives for the MRC Master Plan would impact air quality. Construction activities at the MRC West Parcel under the Action Alternatives would result in fugitive dust and emissions from construction

equipment, but these impacts would be minimized through dust suppression and use of modern, wellmaintained construction equipment. New buildings on the MRC West Parcel would be heated with natural gas, and modern, efficient HVAC equipment would have negligible impacts to air quality. Traffic generated by the MRC Master Plan would not result in any exceedance of the 1-hour or 8-hour NAAQS for CO. The Action Alternatives for the MRC Master Plan would add a small amount to the air quality impacts from other development planned and underway in the region.

#### **Greenhouse Gas and Climate Change**

As stated in Section 4.18.2, transportation, electricity production, and industry are primarily responsible for the most manmade GHG emissions in the U.S., while new commercial and residential developments also contribute to GHG emissions (EPA, 2019). The planned replacement of generators at MOD 1 with larger generators could result in greater GHG emissions. The increase in emissions may be offset by improved efficiency of newer equipment. Planned projects in the vicinity of the MRC West Parcel are anticipated to have negligible to minor impacts to the levels of greenhouse gas emissions. The BEP EIS states that the GHG emissions from project "would not have a perceptible impact on a regional level" and the FDA FRC EIS states that implementation of the project would result in a slight increase in stationary and mobile source GHG emissions (USACE, 2020; GSA, 2018). The planned BEP, FDA FRC, Konterra Town Center, and Brick Yard developments would result in increases in traffic which may increase GHG emissions. The MAGLEV system would operate entirely on electricity, with the exception of certain maintenance vehicles, and thus would not result in a perceptible increase in GHG emissions (MDOT MTA, 2021). The MAGLEV EIS does note that the MAGLEV system would result in an increase in power consumption in the region, and that increase may result in an increase in providing the necessary power (MDOT MTA, 2021).

As discussed in Section 4.18.5, implementation of the Master Plan Action Alternatives would contribute a small level of GHG emissions, which could contribute to climate change. Construction impacts on GHG emissions would be localized and temporary, and long-term impacts on GHG emissions would not be discernable. The Action Alternatives for the MRC Master Plan would add a small amount to the impacts to GHG emissions from other development planned and underway in the region.

#### <u>Noise</u>

Common sources of noise near the MRC West Parcel include roadway traffic, sirens from emergency vehicles, airplanes, and other human and animal activities. Construction activities for the ongoing and planned improvements at the MRC West Parcel may result in temporary increases in noise levels. Construction activities, including the use of heavy machinery, for the FDA FRC, Konterra Town Center, the Brick Yard, the Bureau of Engraving and Printing, the BARC demolition project, and the MAGLEV would result in temporary elevations to noise levels. Operation of the FDA FRC and BEP are not anticipated to impact noise levels (GSA, 2018; USACE, 2021). However, traffic generated by the FDA FRC, Konterra Town Center, the Brick Yard, the Bureau of Engraving and Printing may add to noise levels. Operation of the MAGLEV would result in increased noise levels along the trains' route (MDOT MTA, 2021).

As described in Section 4.19.3, construction noise impacts as a result of the MRC Master Plan Action Alternatives would be adverse during construction and would primarily be due to heavy equipment noise. The impacts of construction noise for the MRC Master Plan would contribute to the construction impacts to noise levels in the vicinity of the MRC West Parcel. Operation of new facilities at the MRC West Parcel and associated traffic is anticipated to cause imperceptible increases in noise and would not contribute to increased noise levels from other development planned and underway in the region.

#### **Traffic and Transportation**

Past development in the DC region and in the vicinity of the MRC West Parcel has led to extensive vehicular traffic as well as the creation of public transit systems. None of the ongoing or future MRC West Parcel improvement projects would impact traffic or transportation. Construction activities for planned projects in the area would result in temporary impacts to traffic levels from construction vehicles and construction workers accessing job sites. The FDA FRC, BEP, Konterra Town Center, and the Brick Yard would all result in increases in long-term employment that would lead to increases in traffic (GSA, 2018; USACE, 2021; KLNB, 2021; JacksonShaw, 2021). When the MAGLEV is operational, MTA projects slight decreases in vehicular traffic volumes within the regional roadway network (MDOT MTA, 2021).

As described in Section 4.20.3, implementation of the MRC Master Plan Action Alternatives would result in additional traffic that would affect operation of intersections in the vicinity of the MRC West Parcel. In addition, during construction activities, there would be traffic impacts from construction vehicles entering and exiting the site. The Action Alternatives for the MRC Master Plan would add to the traffic impacts from other development planned and underway in the region.

#### **Utilities**

Past development and construction activities have increased the demand for utilities as land was converted to commercial, residential, and transportation uses. Replacement of the substation and replacement of the backflow preventer on the MRC West Parcel may result in temporary construction impacts to utilities. Replacement of windows and the addition of two new electrical generators at MOD 1 may improve energy efficiency and have a beneficial impact on energy usage. Construction activities for planned projects in the area may result in temporary interruptions to utilities as new utility lines are installed and connections are made to existing lines. Long-term operation of the FDA FRC, the BEP, and businesses and residences at Konterra Town Center and the Brick Yard would lead to an increase in utility usage. It is assumed that these developments would be constructed with newer energy saving features to minimize utility usage.

As described in Section 4.21.3, under the MRC Master Plan Action Alternatives, the proposed addition of employees and support staff on the MRC West Parcel would result in an increased demand for water service, sewer, and electricity and new utility lines would be needed. The increase in utility demand under the Action Alternatives for the MRC Master Plan would add to the utility impacts from other development planned and underway in the region.

#### **Environmental Contamination**

Past development on and in the vicinity of the MRC West Parcel has resulted in environmental contamination. Areas such as the FDA FRC and the Brick Yard were formerly industrial and had instances of contamination (GSA, 2018; GTA, 2021). Remediation of these areas is ongoing. Past instance of contamination on the MRC West Parcel have been remediated (Stantec, 2021a).

None of the ongoing or future MRC West Parcel improvement projects would impact environmental contamination. Construction, excavation, and grading for the FDA FRC, Konterra Town Center, the Brick Yard, the Bureau of Engraving and Printing, the BARC demolition project, and the MAGLEV each have the potential to encounter existing environmental contamination. It is assumed that all contamination would be remediated in accordance with Federal, State, and local laws and regulations. Remediation of contaminants under any of these projects would have beneficial impacts to the environment. The BEP would utilize

hazardous materials in its operations (MDOT MTA, 2021). BEP would manage these materials in accordance with appropriate State and Federal regulations (MDOT MTA, 2021).

As described in Section 4.22.3, the Phase I ESA did not identify and RECs or HRECs currently at the MRC West Parcel. Due to the known environmental conditions at the MRC West Parcel, it is not expected that contamination would be encountered during construction, and none of the alternatives for the MRC Master Plan would contribute to the environmental contamination impacts from other development planned and underway in the region.

#### Waste Management

Past development and construction activities in the vicinity of the MRC West Parcel have led to increases in solid waste produced. The ongoing or future MRC West Parcel improvement projects may generate a small amount of construction waste. Construction activities for planned projects in the area would result in increases in construction waste. The BARC Demolition projects would create demolition waste (USDA-ARS, 2020). Long-term operation of the FDA FRC, the BEP, and businesses and residences at Konterra Town Center and the Brick Yard would generate solid waste. FDA FRC and BEP would have recycling programs to minimize waste entering landfills (GSA, 2018; USACE, 2021). It is anticipated that all projects and developments would dispose of waste in accordance with local and State regulations.

As described in Section 4.23.3, the MRC Master Plan Action Alternatives would generate solid waste from demolition, excavation, and construction, and from operations of the new facilities. A minimum of 50 percent of construction waste would be recycled, reused, or salvaged in accordance with Federal requirements. All remaining construction waste would be disposed at a nearby landfill, which would result in temporary increases in construction waste. The increase in solid waste generated at the MRC West Parcel under the Action Alternatives would add to the impacts from other development planned and underway in the region.

## 4.25 ARE THERE ANY ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED ASSOCIATED WITH THIS PROJECT?

Environmental impacts for all Action Alternatives have been described in detail in the previous sections of this chapter. In general, there would be unavoidable adverse effects due to the type of development proposed. There would be a loss of land to building space, which would include some forested land and maintained open lawn areas. While some space would remain open, some areas would be paved, restricting growth of vegetation. There would also be loss of wetlands and stream valley buffers. The loss of these areas would lead to an unavoidable loss of habitat for some animal species. There would also be an increase in traffic densities in the area surrounding the MRC West Parcel, due to commuting populations.

# 4.26 WHAT RELATIONSHIPS EXIST BETWEEN THE LOCAL SHORT-TERM USES OF THIS PROJECT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY?

The long-term benefits of the proposed action would occur at the expense of short-term impacts at the MRC West Parcel. These short-term effects would occur during the period of construction, and include localized

noise and air emissions, as well as traffic detours and delays. However, these impacts would be temporary and proper controls would be utilized to prevent them from having a lasting effect on the environment.

Short-term gains to the local economy would occur as local companies and workers are hired, and local businesses provide services and supplies during the construction of the facilities and required infrastructure. Upon completion of the project, gains to the local economy would evolve into a long-term benefit as FDA employees move into the facilities at the MRC West Parcel and provide consistent business to the surrounding merchants. With the completion of the project, the area could also see an increase in new businesses that would spur the economy.

## 4.27 ARE THERE ANY IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES ASSOCIATED WITH THIS PROJECT?

The Master Plan would require the commitment of land for construction of the additional FDA facilities and additional parking. The total commitment would include loss of wildlife habitat currently present onsite. While much of the habitat on the MRC West Parcel would be preserved, this would not be possible where development is proposed.

A commitment of fuel, including natural gas and energy, would be required to construct the additional facilities. Other resource commitments during the construction period would include construction materials and labor. There would be an additional long-term commitment of labor for the maintenance of the facilities and infrastructure. In addition, once the facilities are in place, there is a commitment of utilities, fuel, and power. All these resources relating to the construction and maintenance of the MRC West Parcel and its infrastructure are considered irretrievably committed.

While there would be the above commitment of resources, through conservation practices some of these resources, such as water supply and through energy net zero buildings, may be retrieved. In addition, the consolidation of FDA facilities to the MRC West Parcel would require a lower expenditure of funds, energy, and fuel than presently committed at other FDA facilities off site. The implementation of the Master Plan would reduce some of these expenditures at full build-out of the MRC West Parcel.

## 4.28 HOW DO THE ALTERNATIVES COMPARE WITH EACH OTHER?

For comparison purposes, **Table 4-63** presents a concise summary of each alternative's potential impacts by resource topic.

| Resource                                    | No-Action<br>Alternative   | Alternative A –<br>Compact Campus   | Alternative B – Dual Campus<br>(Preferred Alternative)  | Alternative C – Northeast<br>Campus   |
|---|--|---|---|---|
| Soils and Topography<br>(Section 4.3)       | No site grading or<br>construction<br>Negligible, short-<br>term, adverse<br>impacts from soils<br>disturbance | Moderate, long-term,<br>adverse impacts to<br>topography<br>Moderate long-term,<br>adverse impacts to soils<br>Disturbance of 7.8 acres of<br>soil by demolition<br>Excavation of 22.7 acres of<br>soils.<br>Removal of 48,000 cubic<br>yards of soil for below-<br>grade construction<br>Total steep slopes<br>impacted is 1.5 acres       | Moderate, long-term, adverse<br>impacts to topography<br>Moderate, long-term, adverse<br>impacts to soils<br>Disturbance of 7.9 acres of soils<br>by demolition<br>Excavation of 21.2 acres of soils<br>Removal of 76,000 cubic yards of<br>soils for below-grade<br>construction<br>Total steep slopes impacted is 1.4<br>acres  | Moderate, long-term,<br>adverse impacts to<br>topography<br>Moderate long-term,<br>adverse impacts to soils<br>Disturbance of 5.2 acres of<br>soil by demolition<br>Excavation of 20.2 acres of<br>soils.<br>Removal of 23,000 cubic<br>yards of soil for below-<br>grade construction<br>Total steep slopes<br>impacted is 1.2 acres       |
| Groundwater &<br>Hydrology (Section<br>4.4) | No increase in<br>impervious surface<br>No additional impacts<br>from groundwater<br>intrusion                 | Minor, short-term, adverse<br>impact from the potential<br>to intercept the<br>groundwater table from<br>construction of buildings<br>Minor, long-term, adverse<br>impact from groundwater<br>infiltration<br>Minor, long-term, adverse<br>impact from increase in<br>impervious surfaces<br>Increase in impervious<br>surface by 9.7 acres | Minor, short-term, adverse<br>impact from the potential to<br>intercept the groundwater table<br>from construction of buildings<br>Minor, long-term adverse impact<br>from groundwater infiltration<br>Minor, long-term impact from<br>increase in impervious surfaces<br>Increase in impervious surface by<br>7.2 acres<br>Net increase of 4.7 acres of<br>impervious surfaces which | Minor, short-term, adverse<br>impact from the potential<br>to intercept the<br>groundwater table from<br>construction of buildings<br>Minor, long-term, adverse<br>impact from groundwater<br>infiltration<br>Minor, long-term, adverse<br>impact from increase in<br>impervious surfaces<br>Increase in impervious<br>surface by 9.5 acres |

#### Table 4-63. Comparison of Impacts by Alternative

| Resource                         | No-Action           | Alternative A –   | Alternative B – Dual Campus  | Alternative C – Northeast   |
|----------------------------------|---------------------|---|--|---|
|                                  | Alternative         | Compact Campus  | (Preferred Alternative)  | Campus  |
|                                  |                     | Net increase of 2.8 acres of<br>impervious surfaces which<br>creates a 2.6% increase in<br>impervious surfaces  | creates 4.4 % increase in impervious surface   | Net increase of 4.8 acres<br>of impervious surfaces<br>which creates a 4.5 %<br>increase in impervious<br>surfaces  |
| Water Resources<br>(Section 4.5) | No impacts          | Moderate, short-term,<br>adverse impacts to<br>wetlands<br>Moderate, long-term,<br>adverse impacts to water<br>resources from elevated<br>boardwalk<br>0.06 acres wetlands, 0.25<br>acres of wetland buffers,<br>246 linear feet of streams,<br>and 0.59 acres of SVBs<br>impacted during<br>construction<br>0.05 acres of permanent<br>impacts to wetlands and<br>wetland buffers, 0 If of<br>permanent stream, and<br>0.11 acres of permanent<br>SVBs and impacts | No impacts to wetlands<br>No impacts to water resources<br>from elevated boardwalk<br>0.0 acres of wetlands and 0.05<br>acres of wetland buffer, and 0.04<br>acres of SBVs impacted during<br>construction<br>Permanent impacts to 0.01 acres<br>of wetland buffers and 0.02 acres<br>SVBs, and 0.0 impacts to<br>wetlands and streams | Moderate, short-term,<br>adverse impacts to<br>wetlands<br>Minor, long-term, adverse<br>impacts to water resources<br>from elevated boardwalk<br>0.17 acres wetlands, 0.18<br>acres of wetland buffers,<br>68 linear feet of streams,<br>and 0.40 acres of SVBs<br>impacted during<br>construction<br>Permanent impacts to 0.05<br>acres of wetlands, 0.04<br>acres wetland buffers, 68 lf<br>of streams, and 0.08 acres<br>of SVBs |
| Stormwater (Section 4.6)         | Stormwater quantity | Addition of 9.7 acres of  | Addition of 7.2 acres of   | Addition of 9.5 acres of  |
|                                  | provided by 4       | impervious surface  | impervious surface   | impervious surface  |
|                                  | stormwater          | Removal of 6.9 acres of   | Removal of 2.5 acres of existing   | Removal of 4.7 acres of   |
|                                  | detention ponds     | existing impervious surface   | impervious surface   | existing impervious surface   |
|                                  | 10.7 acres of       | Net increase of 2.8 acres of  | Net increase of 4.7 acres of   | Net increase of 4.8 acres   |
|                                  | impervious surface  | impervious surface  | impervious surface   | of impervious surface   |

| Resource                    | No-Action<br>Alternative  | Alternative A –<br>Compact Campus  | Alternative B – Dual Campus<br>(Preferred Alternative)  | Alternative C – Northeast<br>Campus  |
|-----------------------------|---|--|---|--|
|                             | Drainage<br>improvements would<br>minimize stormwater<br>runoff | 2.6 % increase in total<br>impervious surface at the<br>MRC West Parcel<br>Minor, long-term, adverse<br>impact from increase in<br>impervious surface<br>Minor, long-term, adverse<br>impacts from stormwater<br>Minor, short-term, adverse<br>impacts from construction   | 4.4% increase in total impervious<br>surface at the MRC West Parcel<br>Minor, long-term, adverse impact<br>from increase in impervious<br>surface<br>Minor, long-term adverse<br>impacts from stormwater<br>Minor, short-term adverse<br>impacts from construction  | 4.5 % increase in total<br>impervious surface at the<br>MRC West Parcel<br>Minor, long-term, adverse<br>impact from increase in<br>impervious surface<br>Minor, long-term, adverse<br>impacts from stormwater<br>Minor, short-term, adverse<br>impacts from construction   |
| Vegetation (Section<br>4.7) | No impacts to<br>vegetation                                     | Temporary impacts to 5.3<br>acres of lawn and 0.9 acres<br>to primary management<br>areas (PMA)<br>Permanent impacts to 3.5<br>acres of lawn, 4.8 acres of<br>forest, 40 specimen trees,<br>and 0.2 acres of PMAs<br>Moderate, short-term,<br>adverse impacts during<br>construction<br>Minor, long-term, adverse<br>impacts from the elevated<br>boardwalk<br>Minor, long-term, adverse<br>impacts vegetation | Temporary impacts to 4.8 acres<br>of lawn and 0.1 acres to PMAs<br>Permanent impacts to 4.4 acres<br>of lawn, 5.2 acres of forest, 38<br>specimen trees and less than 0.1<br>acres of PMAs<br>28 specimen trees to be removed<br>and replaced<br>Moderate, short-term, adverse<br>impacts during construction<br>Negligible, long-term, adverse<br>impacts from the elevated<br>boardwalk<br>Minor, long-term, adverse<br>impacts to vegetation | Temporary impacts to 4.4<br>acres of lawn and 0.6 acres<br>to PMAs<br>Permanent impacts to 4.1<br>acres of lawn, 4.8 acres of<br>forest, 47 specimen trees,<br>and 0.1 acres of PMAs<br>Moderate, short-term,<br>adverse impacts during<br>construction<br>Minor, long-term, adverse<br>impacts from the elevated<br>boardwalk<br>Minor, long-term, adverse<br>impacts to vegetation |
| Wildlife (Section 4.8)      | No impacts to wildlife<br>or wildlife habitat                   | Minor, short-term, adverse ir<br>Minor, long-term, adverse im<br>Minor, short- and long-term,<br>Minor, short- and long-term,  | npacts to wildlife during construction<br>pact to wildlife<br>adverse impacts to migratory birds<br>adverse impacts to aquatic wildlife   | ·  |

| Resource                                     | No-Action<br>Alternative  | Alternative A –<br>Compact Campus   | Alternative B – Dual Campus<br>(Preferred Alternative)   | Alternative C – Northeast<br>Campus   |  |
|--|---|---|--|---|--|
|  |   | Minor, long-term, adverse in  | ppacts from loss of habitat  |   |  |
| Coastal Zone<br>Management (Section<br>4.9)  | Consistent with<br>Maryland's coastal<br>zone management<br>policies  | Negligible, long-term, adverse impact to the coastal zone<br>Consistent with Maryland's coastal zone management policies  |  |   |  |
| (Section 4.10)                               |   | resources   |  |   |  |
| Viewsheds (Section<br>4.11)                  | No impacts to<br>viewsheds  | New building north of<br>MOD 1 would be visible<br>from main entrance<br>Most building volume<br>would be screened by<br>forested areas<br>Minor, long-term, adverse<br>impact to viewsheds   | New laboratory buildings north of<br>MOD 1 would be visible from the<br>main entrance<br>Most building volume would be<br>screened by forested areas<br>Minor, long-term, adverse impact<br>to viewsheds | No discernable changes to<br>viewsheds<br>New buildings would be<br>visible from main entrance<br>Building heights would be<br>taller than existing BRF<br>Negligible, long-term,<br>adverse impact to<br>viewsheds |  |
| Land Use Planning &<br>Zoning (Section 4.12) | Negligible, long-term,<br>adverse impact to<br>Federal land use<br>planning   | No impacts land use planning and zoning<br>Action Alternatives would be consistent with NCPC's <i>Comprehensive Plan for the National Capital</i><br>Action Alternatives would support Prince George's County's Subregion 1 Master Plan |  |   |  |
| Community Facilities<br>(Section 4.13)       | No impacts to community facilities  | Negligible, long-term, adverse impacts  |  |   |  |
| Safety and Security<br>(Section 4.14)        | No impacts to safety<br>and security of the<br>MRC West Parcel<br>No increases in<br>demand in calls for<br>police, fire, and EMS | Negligible, long-term, advers<br>response that would not be o<br>Enhanced security measures<br>visitors   | e impacts from a non-discernable increas<br>discernable<br>would provide beneficial impacts to emp   | e in number of calls for police<br>loyees, support staff, and   |  |

| Resource   | No-Action<br>Alternative  | Alternative A –<br>Compact Campus   | Alternative B – Dual Campus<br>(Preferred Alternative)   | Alternative C – Northeast<br>Campus |
|--|---|---|--|-------------------------------------|
| Economy and<br>Employment (Section<br>4.15)            | Minor, long-term,<br>adverse impacts to<br>the local or regional<br>economy<br>Minor, long-term,<br>adverse impacts to<br>employment<br>No impacts to taxes<br>and revenue  | Short- and long-term benefic<br>Short- and long-term benefic<br>Short- and long-term benefic  | ial impacts to the regional economy<br>ial impacts from an increase in employme<br>ial impacts from an increase in taxes | ent and personal income             |
| Environmental Justice<br>(Section 4.16)                | No adverse impacts<br>to environmental<br>justice communities   | No disproportionate adverse   | impacts to low-income, minority, resider   | nts, elderly, or children           |
| Air Quality (Section<br>4.17)                          | Moderate, long-term,<br>adverse impacts from<br>traffic<br>Conforms to the<br>Washington<br>Metropolitan Region<br>SIP<br>Replacement of<br>existing air handling<br>units would<br>beneficially impact<br>air quality<br>Mobile source air<br>emissions would<br>remain at current<br>levels | Negligible, short- and long-term, adverse impacts to air quality<br>Negligible, short-term, adverse impacts to air quality from construction<br>Negligible, long-term, adverse impact from an increase in natural gas use<br>No exceedance of the 1-hour or 8-hour National Ambient Air Quality Standards for carbon monoxide<br>Minor, long-term, adverse impact from Mobile Air Source Toxic (MSAT) emissions due to USEPA<br>regulations designed to reduce MSAT emissions<br>Minor, long-term, adverse impacts from an increase in stationary sources |  |                                     |
| Greenhouse Gas and<br>Climate Change<br>(Section 4.18) | No new increases to<br>greenhouse gas<br>(GHG) emissions  | GHG emissions would result<br>Minor, long-term, adverse in  | in negligible, short-term, adverse impacts apacts as a result of GHG emissions   | 5                                   |

| Resource   | No-Action<br>Alternative  | Alternative A –<br>Compact Campus  | Alternative B – Dual Campus<br>(Preferred Alternative)   | Alternative C – Northeast<br>Campus |
|--|---|--|--|-------------------------------------|
|  |   | Natural gas heating and sma<br>slightly discernable  | l boilers/generators would contribute to   | climate change that would be        |
| Noise (Section 4.19)                             | Negligible, long-term,<br>adverse impact from<br>an increase in noise<br>levels that would not<br>be discernable  | Minor, short-term, adverse impact during construction from an increase in noise levels<br>Negligible, long-term, adverse impacts from an increase in traffic and operation of facilities at the MRC<br>West Parcel   |  |                                     |
| Traffic and<br>Transportation<br>(Section 4.20)  | Minor, long-term,<br>adverse impacts from<br>traffic in the vicinity<br>of the MRC West<br>Parcel<br>No impacts to the<br>local transit network   | Moderate, long-term, advers<br>Moderate, long-term, impact<br>Negligible, long-term, advers<br>Beneficial impacts to pedest  | e impacts after the implementation of Ph<br>after implementation of Phase 3 Master<br>e impact to local transit<br>ian and bicyclists  | nase 2 of the Master Plan<br>Plan   |
| Utilities (Section 4.21)                         | Beneficial impacts<br>from the<br>replacement of the<br>substation, cooling<br>towers, air handling<br>units, generators, and<br>the back-flow<br>preventer at Muirkirk<br>Road; and upgrade to<br>the Building<br>Automation System<br>at MOD 2. | Negligible, short-term, adverse impacts to utility services<br>Negligible, long-term, adverse impacts to water service<br>Negligible, long-term, adverse impacts to sewer service<br>Negligible, long-term, adverse impacts to electrical, natural gas, and telecom services |  | elecom services                     |
| Environmental<br>Contamination<br>(Section 4.22) | Beneficial impacts<br>from the<br>replacement of the<br>substation, air<br>handling units, and<br>generators  | Minor, long-term, adverse in<br>landfills<br>Beneficial, long-term impacts   | npact for a slight detectable increase of ended of the second state of the second stat | nvironmental contaminants to        |

| Resource                          | No-Action   | Alternative A –   | Alternative B – Dual Campus   | Alternative C – Northeast |
|-----------------------------------|---|---|---|---------------------------|
|                                   | Alternative   | Compact Campus  | (Preferred Alternative)   | Campus                    |
| Waste Management<br>(Secton 4.23) | Minor, short-term,<br>adverse impact from<br>construction for new<br>and ongoing projects<br>at the MRC West<br>Parcel<br>Minor, long-term,<br>adverse impact | Minor, short-term, adverse in<br>Minor, long-term, adverse in | mpact from construction<br>npact from an increase in waste generate | d at the MRC West Parcel  |

# 4.29 WHAT MITIGATION MEASURES WOULD BE IMPLEMENTED UNDER EACH OF THE ALTERNATIVES?

Mitigation measures that would be implemented under each of the Action Alternatives are presented in **Table 4-64**.

#### Table 4-64. Mitigation Measures

| Resource Area                      | Mitigation Measures  |
|------------------------------------|--|
|                                    | Geotechnical Engineering Studies would be conducted prior to construction.   |
|                                    | Soil stabilization measures would be designed to account for erosion potential.  |
|                                    | Erosion and Sediment Control Plan would be developed.  |
| Topography & Soils                 | BMPs including, but not limited to silt fencing, construction sequencing and seeding of exposed soils would be<br>implemented.   |
|                                    | Construction contractor would be required to implement and maintain erosion and sediment control measures until construction is complete and vegetation is established.  |
|                                    | Soils that cannot be used on site would be trucked to an approved facility designed to receive construction soils.   |
|                                    | Any soils that cannot be used onsite would be trucked to an approved facility designed to receive construction soil.   |
|                                    | Implementation of infiltration devices to capture stormwater before it flows into storm sewers or streams.   |
| Groundwater Quality &<br>Hydrology | Geotechnical engineering studies would be conducted to verify stormwater and groundwater conditions at the site.   |
| nyurology                          | Building would be designed and construction to prevent groundwater intrusion.  |
|                                    | BMPs including silt fencing, erosion matting, sediment traps, sediment basins, and revegetation would be implemented.  |
|                                    | Stormwater Management and Erosion & Sediment Control Plans would be developed and submitted to MDE for approval at each Phase of development.  |
| water Resources                    | All disturbed areas would be revegetated, where possible.  |
|                                    | Streams and wetlands restored to preconstruction conditions to the maximum extent practicable including contour and elevation restoration, revegetation with native species, streambank stabilization, and stream substrate replacement. |

| Resource Area | Mitigation Measures   |  |  |
|---------------|---|--|--|
|               | Obtain authorization under Section 404/401 of the CWA.  |  |  |
|               | Obtain authorization under Maryland's Wetlands and Waterways Regulations.   |  |  |
|               | Provide for compensatory mitigation for permanent wetland impacts of 5,000 sf or greater and 200 lf or greater of streams.  |  |  |
|               | A restoration plan would be developed that outlines measures to be implemented for temporary impacts to streams<br>and wetlands.  |  |  |
|               | A restoration plan that outlines measures to be implemented for temporary impacts to streams and wetlands would be developed.   |  |  |
|               | Development of an Impervious Restoration Work Plan under the MDE NPDES MS4 permit.  |  |  |
|               | Reduce or treat 20 percent of existing impervious area, outside limits of new development.  |  |  |
|               | ESD strategies would be implemented.  |  |  |
|               | LEED <sup>®</sup> and SITES <sup>™</sup> points for stormwater management would be pursued for each building.   |  |  |
| Stormwater    | LID strategies would be employed in accordance with the Technical Guidance on Implementing the Stormwater Runoff requirements for Federal Projects under EISA.  |  |  |
|               | Stormwater management strategies would be incorporated into the site as amenities and spatial drivers would be pursued.   |  |  |
|               | Stormwater runoff would be conveyed to new non-structural ESD/LID/BMP facilities.   |  |  |
|               | Office buildings would maximize the use of rooftop rainwater harvesting as well as green roofs.   |  |  |
|               | Outfalls to Beaverdam Creek would be non-erosive.   |  |  |
|               | NOI would be filed and NPDES General Permits would be required for construction of all new work.  |  |  |
|               | BMPs such as silt fencing, erosion matting, inlet protection, sediment traps, sediment basins, and revegetation of exposed sediment would be implemented.   |  |  |
|               | Stormwater management plans and sediment and erosion control plans would be prepared for all the new work on site and submitted to MDE for review and approval prior to the construction of each phase. |  |  |

#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Resource Area | Mitigation Measures   |  |  |
|---------------|---|--|--|
|               | Per MDE requirements only 20 acres of ground would be disturbed at any time.  |  |  |
|               | All disturbed areas would be permanently revegetated and stabilized following construction.   |  |  |
|               | Temporary impacts to streams and wetlands would be restored to pre-construction conditions to the maximum extent practicable following construction, including contour and elevation restoration, revegetation with native species, streambank stabilization, and stream substrate replacement. |  |  |
|               | A downstream analysis would be required to determine whether Overbank Flood Protection (10-year storm) or Extreme Flood Protection (100-year storm) would be required.  |  |  |
|               | BMPs including, but not limited to tree protection fencing and root pruning for trees with critical root zones within the construction area would be utilized.  |  |  |
|               | A Woodland Forest Conservation Plan would be developed to comply with the Prince George's County <i>Woodland Protection and Planning Law</i> (PG Co. Code Section 5B-119).  |  |  |
| Vegetation    | NCPC's Tree Preservation and Replacement Policy, the Prince George's County Woodland and Wildlife Habitat Conservation Ordinance, and/or the Maryland Forest Conservation Act (COMAR 8.19) policies would be followed.  |  |  |
|               | Construction fencing and matting to prevent soil compaction would be utilized.  |  |  |
|               | Areas that are not to be developed would not be used for equipment, parking, and other construction related activities unless no other alternatives are feasible.   |  |  |
|               | Invasive species would be removed and replanted with native species.  |  |  |
|               | GSA/FDA would consider impacts to birds in building design, such as reducing impacts from lighting and window strikes.  |  |  |
| Wildlife      | Construction fencing would be used to protect wildlife from entering active construction areas.   |  |  |
|               | Larger wildlife species would be removed from the construction zone prior to installing fencing to prevent isolating animals within the fenced area.  |  |  |
|               | Landscaping with native species and with species that provide habitat and food sources.   |  |  |
|               | A pre-construction survey would be performed to determine the presence of nests of migratory birds that have the potential to occur in the study area. If nests are identified, FDA would avoid vegetative clearing during the nesting period for those species.                                |  |  |

| Resource Area              | Mitigation Measures  |  |
|----------------------------|--|--|
|                            | Trees removed for construction would be replaced.  |  |
|                            | Forest clearing would occur outside the roosting periods for the northern long-eared bat.  |  |
|                            | Stormwater quantity and quality control measures would be designed and implemented in accordance with local, state, and Federal regulations.   |  |
|                            | BMPs would be implemented to minimize soil erosion and stormwater pollution.   |  |
|                            | Stormwater management and Erosion and Sediment Control plans would be prepared and submitted to MDE for review and approval prior to construction.   |  |
|                            | All disturbed areas would be permanently revegetated and stabilized following construction to prevent further erosion.   |  |
| Coastal Zone Management    | A Forest Conservation Plan would be developed to comply with Prince George's County Woodland Protection and Planning Law (PG Co. Code Section 5B-119), and the Maryland State Forest Conservation Act (COMAR 8.19).            |  |
|                            | Removed trees would be replaced following a ratio as outlined in local, state, and Federal regulations to mitigate coastal zone impacts to vegetation and habitat.   |  |
|                            | Forest clearing would occur outside the roosting periods for the northern long-eared bat.  |  |
|                            | A pre-construction survey would be performed as a best practice to determine the presence of nests of migratory birds that have the potential to occur in the study area.  |  |
|                            | Any hazardous substances generated during construction or from the operation of new facilities would be disposed of at an MDE-permitted facility or a facility that provides and equivalent level of environmental protection. |  |
| Cultural Resources         | No mitigation measures required.   |  |
| Viewsheds                  | No mitigation measures required.   |  |
| Land Use Planning & Zoning | No mitigation measures required.   |  |
| Community Facilities       | No mitigation measures required.   |  |

#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Resource Area         | Mitigation Measures  |  |
|-----------------------|--|--|
|                       | A health and safety plan would be put in place to protect construction workers from potential construction hazards and any potential environmental contamination.  |  |
| Safety & Security     | Employees, support staff, and visitors would not have access to construction zones.  |  |
| Salety & Security     | Measures that are taken to provide a secure campus include: A 50-foot security buffer between roads and buildings, extending and enhancing perimeter fencing to accommodate the new development, access control equipment, intrusion detection devices, site lighting, and Security controlled pathways. |  |
| Economy & Employment  | No mitigation measures required.   |  |
|                       | All construction equipment powered by an internal combustion engine should be equipped with a properly maintained muffler.   |  |
|                       | Air compressors would meet current USEPA noise emission standards.   |  |
|                       | Newer model construction equipment should be used as much as possible since it is generally quieter than older equipment.  |  |
|                       | Nighttime construction activities should be minimized.   |  |
|                       | Portable noise barriers within the equipment area and around stationary noise sources should be established.   |  |
|                       | Tools and equipment should be selected to minimize noise.  |  |
| Environmental Justice | Industrial silencers would be installed on stand-by generators.  |  |
|                       | During the construction period, fugitive dust and particulate emissions would be mitigated via water and other dust suppressants as necessary.   |  |
|                       | Employees would be encouraged to use public transportation.  |  |
|                       | Carpool, vanpool, bicycle-to-work; the use of alternative "clean" fuels and non-polluting sources of energy would be<br>used whenever possible.  |  |
|                       | Use green building materials, construction methods, and building designs would be used to the maximum extent practicable.  |  |
|                       | Measures taken to temporarily reduce the generation of emissions that contribute to O <sub>3</sub> formation would be taken.   |  |
#### AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

| Resource Area                        | Mitigation Measures  |
|--------------------------------------|--|
|                                      | Natural gas heater usage would likely be limited during the summer months and when the weather is warmer.  |
| Air Quality                          | Water and other dust suppressants would be utilized to control fugitive dust.  |
|                                      | Carpool, vanpool, bicycle-to-work; the use of alternative "clean" fuels and non-polluting sources of energy would be<br>used whenever possible.  |
|                                      | In response to Air Quality Action Days, measures to temporarily reduce the generation of emissions that contribute to O₃ formation would be taken.   |
|                                      | Natural gas heater usage would likely be limited during the summer months and when the weather is warmer.  |
| Greenhouse Gases & Climate<br>Change | FDA would reduce their carbon footprint by limiting the total number of new parking spaces to approximately 50 percent of the total increase of employees and by promoting use of mass transit and carpooling. |
|                                      | FDA would minimize power generation requirements; and use green building materials, construction methods, and building designs to the maximum extent practicable.  |
|                                      | FDA would implement GSA's sustainability goals, including GHG reduction through improving building energy efficiency, and installing advanced and renewable energy technologies.                               |
| Noise                                | All construction equipment powered by an internal combustion engine should be equipped with a properly maintained muffler.   |
|                                      | Air compressors would meet current USEPA noise emission standards.   |
|                                      | Newer model construction equipment should be used as much as possible since it is generally quieter than older equipment.  |
|                                      | Nighttime construction activities should be minimized.   |
|                                      | Portable noise barriers within the equipment area and around stationary noise sources should be established.   |
|                                      | Tools and equipment should be selected to minimize noise.  |
|                                      | Industrial silencers would be installed on stand-by generators.  |

| Resource Area            | Mitigation Measures   |
|--------------------------|---|
|                          | Pedestrian/Bicycle Enhancements   |
|                          | Coordinate with Prince George's County to construct planned pedestrian and bicycle improvements on Muirkirk<br>Road and Odell Road, such as bike lanes and sidewalks, or a multi-use pathway.   |
|                          | Provide shower and locker facilities on campus that can be accessed by all employees.   |
| Traffic & Transportation | Provide sheltered bicycle racks near building entrances. Sheltered bicycle racks should also include tool and pump stations to allow employees to maintain their bicycles and/or electric bike charging capability.   |
|                          | Design the site to be pedestrian and bicycle friendly by:   |
|                          | Providing bicycle and pedestrian connections to Muirkirk Road.  |
|                          | Providing bicycle and pedestrian connections between all buildings and parking areas.   |
|                          | Ensuring that all security entrances have pedestrian and bicycle access.  |
|                          | Coordinating with Prince George's County to establish a bikeshare or scooter system along the proposed multi-<br>use path and within the surrounding community with stations that include the MRC West Parcel transportation<br>hub, the Muirkirk MARC station, the Brick Yard, Konterra (future), and other nearby destinations. |
|                          | Transit Connections   |
|                          | Work with other nearby agencies and campuses to coordinate with WMATA, Maryland Transit Authority (MTA), and RTA to identify opportunities for new or improved transit service to the MRC West Parcel and surrounding agencies.   |
|                          | Construct a transportation hub on campus that can accommodate buses, shuttles, transportation network companies, and future autonomous vehicles.  |
|                          | Provide a shuttle connection to the Muirkirk Station.   |
|                          | Explore the feasibility of providing a shuttle connection to the College Park Metrorail Station, and/or Greenbelt<br>Metrorail Station.   |
|                          | Keep and maintain a TMP, which would be updated every year.   |

| Resource Area               | Mitigation Measures  |
|-----------------------------|--|
|                             | Buildings would be constructed and operated in accordance with EISA.   |
| litilities                  | Goal to achieve LEED <sup>®</sup> Gold certification and net zero energy and water usage for all new buildings on the MRC West<br>Parcel.  |
|                             | Sustainable design and energy conservation measures would include rooftop solar panels, active and passive solar techniques, high-efficiency lighting and occupancy sensors, modern and efficient heating and cooling equipment, natural ventilation systems, and ENERGY STAR <sup>®</sup> appliances. |
| Environmental Contamination | FDA would develop a plan for the proper handling and disposal of any unanticipated hazardous materials encountered.  |
|                             | LBP and ACM surveys would be conducted prior to the demolition of the BRF.   |
|                             | Spent materials such as batteries, aerosol cans, and fluorescent lights would be disposed of properly.   |
|                             | The Master Plan would be implemented in accordance with CEQ's Guiding Principles for Sustainable Federal Buildings (CEQ, 2020).  |
| Waste Management            | Goal to achieve LEED <sup>®</sup> Gold certification and net zero energy and water usage for all new buildings on the MRC West<br>Parcel.  |
|                             | A minimum of 50 percent of demolition and construction waste would be diverted from landfills during implementation of the Master Plan.  |
|                             | Building materials, products, and supplies would be reused or recycled to the maximum extent practicable.  |
|                             | Waste collection, recycling, and composting programs implemented by GSA would continue.  |
|                             | At least 50 percent of non-hazardous waste would be diverted from landfills through reuse, recycling, and composting.<br>The MRC West Parcel would follow GSA's Green Purchasing Plan.   |
|                             | Hazardous and chemical wastes would be disposed of at an EPA-approved waste management facility such as the Annapolis Junction Recycling and Transfer Station.   |

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

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# 5 RESPONSES TO COMMENTS ON THE DRAFT EIS

The Draft EIS and the Master Plan for the MRC were released to the public and the Notice of Availability was published in the Federal Register on June 4, 2021. Written comments on the Draft EIS and Master Plan were accepted until July 19,2021. A virtual public hearing was held on the Draft EIS on June 23, 2021. No comments were received during the Public Hearing.

Comments on the Draft EIS and Master Plan were received from the following:

- U.S. Environmental Protection Agency
- National Capital Planning Commission
- Maryland Department of Planning
- Maryland Department of Environmental, Wetlands and Waterways Program
- Maryland Department of Transportation, State Highway Administration
- Maryland Department of Transportation, District 3 Engineering Systems Team
- Maryland-National Capital Planning Commission, Prince George's County Planning Department
- City of Laurel, Department of Economic and Community Development
- Washington Suburban Sanitation Commission

Specific letters from each of the above organizations can be found on the following pages. Responses to individual comment letters follow after each letter.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III 1650 Arch Street Philadelphia, Pennsylvania 19103-2029

July 19, 2021

Mr. Marshall Popkin U.S. General Services Administration National Capital Region 1800 F Street, NW Room 4400 Washington, DC 20405

RE: Environmental Impact Statement for the U.S. Food and Drug Administration Muirkirk Road Campus Master Plan; Laurel, MD, CEQ #20210064

Dear Mr. Popkin:

In accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act, and Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508), the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS or Study) to analyze the potential impacts from the proposed Master Plan for the U.S. Food and Drug Administration (FDA) Muirkirk Road Campus (MRC), in Prince George's County, Maryland. The DEIS was prepared by the U.S. General Services Administration (GSA) on behalf of the U.S. Food and Drug Administration (FDA). Thank you for providing the Study for EPA's review.

The Master Plan is being prepared to accommodate projected growth and to support FDA's consolidation. The FDA plans to add an additional 700 employees to the MRC over the next 5 to 6 years, and an additional 800 employees during future development phases over the next 20 years, for a total of 1,800 employees.

EPA supports the environmental stewardship principles integrated into the Master Plan goals at the MRC, including creation of a sustainable campus by preserving open space and tree canopy, minimizing land coverage with manmade development while enhancing the site's natural features, utilizing innovative stormwater practices to minimize runoff, and embodying the highest principles of sustainable design. We applaud the goals of zero net energy and water usage and LEED® Gold certification for all new buildings on the MRC.

Three Action Alternatives were presented; each would provide a total of 918,000 gross square feet of building space and 980 parking spaces at the MRC. As detailed in the DEIS, the proposed alternatives appear to have similar impacts to many resource areas, including air quality, traffic and transportation, and environmental justice. The most significant differences analyzed appear to be impacts relating to the construction footprint, including impervious area, soil removal, and water resources. Overall, we recommend selecting an alternative that minimizes direct and indirect impacts to aquatic resources, water quality, and habitat by minimizing disturbance and the construction of impervious surfaces.

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The aquatic resource impacts for each alternative appear to be associated with the pedestrian trail and boardwalk across the wetland and stream valley. For Alternatives A and C, the boardwalk meanders across the stream and wetland, increasing impacts. We suggest that the walking path design be evaluated independently of the building alternatives as it appears that the path is not linked to the specific building layout and could be constructed to avoid stream and wetland impacts. Regardless of the alternative selected, we recommend modifying the path to minimize and avoid impacts to streams, wetlands, and mature trees to help reduce the impacts of the additional site development.

For implementation of the Master Plan, we recommend further analysis of construction traffic and potential impacts to communities, including truck trips and traffic from demolition, soil removal, and construction of new facilities and impacts on traffic, noise, and air quality. We recommend further outreach and engagement with the surrounding communities to ensure that the impacts are minimized and mitigated appropriately.

Thank you for the opportunity to review this project and for your consideration of our comments in this letter and the attached enclosure. We would be happy to discuss these comments at your convenience. Please feel free to contact me at 215-814-3402 or <u>nevshehirlian stepan@epa.gov</u>. The Region 3 staff contact for this project is Carrie Traver; she can be reached at 215-814-2772.

Sincerely,

Stepan Nevshehirlian Environmental Assessment Branch Chief Office of Communities, Tribes & Environmental Assessment

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#### Enclosure

### U.S. Food and Drug Administration Muirkirk Road Campus Master Plan DEIS

#### Alternatives Analysis

Three alternatives were presented:

- Alternative A (Compact Campus) proposes the least increase in impervious surfaces, with a net increase of 2.8 acres of impervious surfaces for a total of 11.4% of the site. Alternative A has the most impact to steep slopes (1.5 acres), and most impact to streams (246 linear feet or lf), wetlands (0.17 acre temporary and 0.05 acres permanent) and wetland buffers associated with pedestrian paths and boardwalk.
- Alternative C (Northeast Campus) has the least impact to soil disturbance by demolition, excavation and removal for below-grade construction and steep slopes (1.2 acres). Wetland impacts are similar to A, but wetland buffer impacts are the greatest (0.18 acres temporary and 0.04 acres permanent.) Stream impacts would be 68 lf.
- Alterative B (Dual Campus) has the most impact to steep slopes (1.4 acres), and removal of soil
  for below-grade construction is substantially greater than the other two options. Alternative B
  would also have the largest net and total increase of impervious coverage (5.6 acres, a 2.8%
  increase) and the most impact to forests (5.2 acres), but has the least direct impact to water
  resources, with permanent impacts to 0.03 acres of wetlands and 0.01 acres wetland buffers and
  temporary impacts to 0.06 acres of wetlands and 0.07 acres of wetland buffers. This appears to
  be due to the boardwalk design associated with Alternative B.

EPA supports alternatives that avoid direct and indirect impacts to aquatic resources, habitat, and other natural resources. We appreciate the intent to integrate the stream valley as an amenity into the design of the campus. However, as discussed above, we recommend avoiding and reducing direct impacts to streams and wetlands to the extent practicable from the boardwalks and paths as well as other activities.

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Each alternative would increase impervious coverage at the site to exceed 10%. As stated in the DEIS, increasing the amount of impervious surface raises the amount and temperature of stormwater runoff, which could increase peak discharges, temperature, and pollutant load in the receiving stream and/or wetlands, thereby reducing water quality and degrading the biological integrity of on and offsite streams and wetlands. We recommend fully evaluating options, including modified or hybrid alternatives to keep the increase in impervious surface as minimal as possible.

#### **Resource Areas Dismissed from Further Review**

Population and housing were dismissed as a topic for detailed study. We recommend providing supporting information regarding the finding of negligible impacts. Section 4.1.4 states that the FDA expects that most current employees already live in the Washington, DC metropolitan region and would not relocate if their offices move to the MRC. As described in Section 4.13.3, some employees may relocate to the vicinity of the MRC, and the high residency rate (95% occupied) for block groups adjacent to the MRC suggests that housing in the vicinity may not be readily available.

#### Wetlands and Streams

In accordance with Section 404 of the Clean Water Act, impacts to aquatic resources should be avoided or minimized whenever possible. If permanent impacts are not fully avoided, we recommend evaluating the impacted wetland's functions and/or the stream's quality to document baseline conditions and to establish a point of reference for mitigation actions. For impacts that are assumed to be temporary, a restoration plan that outlines restoration measures should be developed.

Note that permanent conversion of wetland types (e.g. forested to emergent) should be evaluated as a permanent impact and may require compensatory mitigation. Mitigation measures outlined in in Section 4.29 indicate that compensatory mitigation will be provided for permanent wetland impacts of 5,000 square feet or greater and 200 lf or greater of streams. We recommend that GSA and FDA consult with the Maryland Department of the Environment and the US Army Corps of Engineers regarding appropriate compensatory mitigation.

#### Stormwater

As detailed in Sections 4.3.3 and Section 4.3.4, impacts to steep slopes would range from 1.2 to 1.5 acres. If necessary, slope and soil stabilization measures such as retaining walls would be designed for construction in areas with severe erosion potential. Maintaining erosion and sediment control best management practices (BMPs) would also be critical to protect water quality during construction. Given the construction on steep slopes and in areas containing soils with a severe erosion hazard, we recommend having an environmental monitor (EM) onsite during construction to inspect erosion and sediment control and slope protection measures and correct issues rapidly. The EM may also act as a contact for public concerns during construction.

The DEIS generally identified green roofs, micro-bioretention and bioswales as Environmental Site Design strategies for stormwater. Section 4.6.2 states that there are existing detention ponds on the MRC for stormwater quantity control and it may be possible to retrofit these ponds to provide some water quality benefit. As selection of the alternative and site design moves forward, we recommend providing further details on how the proposed stormwater management facilities will protect water quality.

#### Vegetation

Vegetation and tree removal are proposed for the construction of new buildings, parking garages, bike paths, walking paths, and utilities.

- We recommend clarifying the extent of tree clearing associated with each activity, including
  utilities and the walking and/or biking paths and minimizing each of these impacts as much as
  possible.
- Section 4.7.1 indicates that vegetation removal was estimated using GIS mapping of existing
  trees, defined as trees with a diameter at breast height of 30 inches or more, and existing forested
  and landscaped areas. We recommend clarifying whether surveys have been completed in
  compliance with the National Capital Planning Commission's (NCPC's) Tree Preservation and
  Replacement Policies, Prince George's County Woodland and Wildlife Habitat Conservation
  Ordinance, and Maryland's Forest Conservation Act (FCA). If these have not yet been
  conducted, we recommend indicating when they are planned.
- Section 4.7.4 states that invasive species would be removed and replanted with native species in
  the areas affected by the Master Plan. This is also listed as a mitigation measure in Section 4.29.
  We recommend that the extent of this effort be clarified. Consistent with the stated goal of
  maintaining biodiversity, we suggest that the commitment to use native species that provide
  habitat and food sources to wildlife in landscaping (as detailed in Section 4.8) and management
  of invasive species be ongoing efforts on the MRC campus that are integrated into a landscaping
  management plan for the facility.
- Section 4.8 indicates that trees removed for construction would be replaced to provide mitigation for impacts to migratory bird habitat. We recommend discussing the anticipated tree replacement

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and revegetation in accordance with the state and local requirements (NCPC, FCA, etc.) and indicating how it will offset the long-term loss to wildlife. Such a discussion would include potential locations identified for tree replacement, size of tree plantings, and habitat value.

#### Wildlife

We appreciate the commitment for a preconstruction survey to determine the nests of migratory birds and avoidance of clearing during nesting. We also recommend considering impacts to birds in building design, such as reducing impacts from lighting and window strikes.

The amphibian and reptile species listed in Table 4-22 are generally upland species. We recommend surveying for potential habitat for species that are dependent on aquatic habitats such as stream salamanders and frogs if the boardwalk will impact aquatic resources and buffers.

#### Viewsheds/Visual Impacts

The DEIS indicates that existing forested buffers would continue to screen the MRC from the surrounding community. We recommend that it be clarified if these buffers are sufficient to prevent visual impacts from the proposed security lighting at night.

#### **Environmental Justice**

Section 4.16.2 describes the demographics and states that while the percentage of minority populations in the study area is greater than that of the state and the U.S., it is comparable to the rate of Prince George's County, with the exception of CT 8074.08 BG 1, which has a smaller minority population percentage than the county. All of the census block groups in the study area are identified as having minority populations that exceed 50%. Therefore, we recommend that this section clearly identify each of the adjacent and surrounding block groups (CT 8002.08 BG 3, CT 8074.08 BG 1, CT 8074.08 BG 3, and CT 8002.08 BG 2) as areas of potential Environmental Justice (EJ) concern. Furthermore, the DEIS states that the area surrounding the MRC is in a higher percentile for several environmental indices based on the EJSCREEN tool. This demographic data and the EJ screen assessment can be used to provide additional information to better serve and understand the communities in the study area.

- The DEIS states that although there are EJ populations located near the MRC, there would be no
  human health or environmental impacts that would disproportionately affect these populations.
  We note that many of the environmental indices identified in the EJSCREEN tool suggest that
  stressors currently exist from traffic and other sources [i.e. particulate matter (PM2.5), ozone,
  diesel particulate matter, air toxics cancer risk, respiratory hazard index, proximity to superfund
  sites, proximity to hazardous waste, and wastewater discharge]; these may be exacerbated by
  additional traffic.
- Therefore, EPA recommends that the FDA give full consideration to EJ concerns where there
  may be impacts due to construction activities and traffic. The DEIS indicates that public
  participation was solicited; however, Section 4.16.4 does not include information regarding
  communication and outreach efforts to the impacted adjacent EJ communities. We encourage
  community engagement and involvement to address concerns that may arise from the proposal.
  We recommend a comprehensive communication plan for targeted engagement for those most
  affected by the proposed action, including routing of construction and commuter traffic.
- Evaluation of alternatives should take into consideration EJ community input, potential impacts
  to at-risk communities, and potential benefits or mitigations to populations in and around the

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study area. Where possible, we suggest making specific commitments to reduce potential impacts from the facility (e.g. no nighttime construction, routing/timing construction traffic to reduce impacts, etc.)

For future analyses, we encourage use of the available United States Census Bureau 2020 Decennial Census and the 2020 American Community Survey census data for more current data to identify minority and low-income populations.

#### Air Quality

General conformity is required under Clean Air Act (CAA) section 176(c)(4) and the related regulatory requirements under 40 CFR Part 93, Subpart B. Under the general conformity applicability requirements of 40 CFR 93.153, a conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the annualized de minimis emission rates in paragraphs 93.153(b)(1) or (2), dependent upon whether an area is nonattainment or maintenance for a National Ambient Air Quality Standard (NAAQS).

The EIS should discuss the nonattainment and maintenance status for each applicable NAAQS in the air quality overview. The general conformity applicability determination should also list the nonattainment and maintenance status of the area for each respective NAAQS (including prior NAAQS) and the relevant pollutant/precursor direct and indirect emissions of the respective pollutants as part of the general conformity applicability determination. Deminimis thresholds vary between nonattainment areas and maintenance areas by classification.

- Section 4.17.2 of the DEIS indicates that the Washington DC-MD-VA region is designated
  marginal nonattainment for the 2015 ozone NAAQS and as attainment for all other criteria
  pollutants. However, we note that the Washington, DC area is designated as a maintenance area
  for the 1997 fine particulate matter (PM2.5) NAAQS, as redesignated in a final rule published in
  the October 6, 2014 Federal Register (79 FR 60081), with the first of two required 10-year
  maintenance plans covering a period through 2025. For PM2.5, the applicability de minimis
  thresholds and subject pollutants and precursors vary from ozone.
- Additionally, the Washington, DC area is maintenance under the prior 2008 ozone NAAQS, which remains in effect, and was also classified as Moderate nonattainment under the revoked 1997 ozone NAAQS.

The EIS and accompanying air quality analysis present insufficient detail on the conformity applicability analysis with respect to total annualized direct and indirect emissions from all subject activities and sources (for all NAAQS pollutants and precursors) for the duration of the project. When determining general conformity applicability, the FEIS and air quality analysis should detail all direct and indirect emissions from the proposed Federal action.

This includes all emissions of conformity-subject pollutant and precursor emissions that are not
specifically excluded from general conformity, including not only transportation emissions not
accounted for in the transportation plan, but also emissions from all activities [e.g., such as
construction emissions (both pre-construction and construction) of parking lots, buildings, road
interchanges, etc.], as well as indirect emissions from the expanded campus post-construction.

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These emissions should be presented on an annualized basis for the entire duration of the project 24 and compared (on an annualized basis) to the general conformity de minimis thresholds.

# **Greenhouse Gas Emissions**

Section 4.18.2 states "On June 26, 2019, CEQ published Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions in the Federal Register (84 FR 30097)...If finalized, the guidance would replace the final guidance CEQ issued on August 1, 2016, entitled Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews." We note that the 2019 guidance has been rescinded and recommend updating the FEIS accordingly.

#### Noise

We recommend that construction noise impacts be minimized to sensitive receptors in the vicinity of MRC, including residential areas, schools, parks, and churches.

- The analysis indicates that traffic as a result of implementation of the Master Plan is expected to cause imperceptible or barely perceptible increases in noise in sensitive areas. The DEIS notes that doubling of existing traffic volumes of the same vehicle mix composition would result in a three-decibel increase in noise levels and the traffic increases anticipated with development under the MRC Master Plan would be substantially less. We recommend that the noise evaluation include construction traffic, which typically includes heavy trucks and larger vehicles, which tend to create more noise than commuter vehicles.
- Section 4.16.4 indicates that nighttime construction activities will be minimized. If nighttime or weekend construction is anticipated, we recommend further noise analysis to determine whether there may be impacts to nearby communities or other sensitive receptors based on the expected decibel level, distance, and shielding.

#### **Traffic and Transportation**

The addition of 1500 employees commuting to MRC is anticipated to have an adverse impact on the study area intersections. Traffic enhancements were identified that would result in intersections that operate at similar, or better, level of service when compared to the 2026 and 2040 No Action Alternatives. As indicated above, we also recommend working with the surrounding to communities to address traffic concerns. We suggest that commitments to traffic mitigation be made in the FEIS.

We support fully evaluating options to reduce single occupancy vehicle traffic.

- As described, there is a lack of bicycle and pedestrian facilities on the surrounding roadway network. We support working with partners on planned pedestrian and bicycle improvements on local roads to connect the MRC campus to transit and neighborhoods.
- We encourage working with other nearby agencies and campuses and coordinating with the Washington Metropolitan Area Transit Authority, Maryland Transit Authority, and the Regional Transportation Agency of Central Maryland to identify opportunities for new or improved transit service, including shuttle connections and bus accessibility.

#### Utilities

A new onsite water line and a new onsite and offsite sewer line will be constructed and the existing underground electric and telecom duct bank serving the MOD 1 and MOD 2 buildings will need to be cont

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relocated. We recommend the impacts specifically associated with utilities be clarified to the extent that they can be identified, including the areas of earth disturbance and vegetation clearing.

### Waste and Pollution Prevention

Under Alternatives A, B, and C, below-grade construction would result in the removal of approximately 48,000 cubic yards (cy) of soil under Alternative A, 67,000 cy of soil under Alternative B, or 23,000 cy of soil under Alternative C. We recommend indicating whether the removed soils will be used onsite or trucked offsite. If taken offsite, we recommend indicating where the fill will be taken and assessing the impacts on local traffic (i.e. truck trips and likely routes).

Section 4.23.3 states that under all Action Alternatives, solid waste would be generated from demolition, excavation, and construction and the increase in population at the MRC would generate additional solid waste, food waste, and recyclable materials. We recommend discussing whether any changes in wastes generated via operations (e.g. hazardous chemical waste, special medical waste, low-level radioactive and mixed waste, and animal waste) are anticipated.

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# Responses to comments from Stepan Nevshehirlian, U.S. EPA, Office of Communities, Tribes & Environmental Assessment

- 1. Comment noted.
- 2. Comment noted.
- 3. Impacts from the pedestrian trail and boardwalk have been reevaluated in the Final EIS as the Preferred Alternative, which has been refined during the Final Master Plan process. As the pedestrian trail and boardwalk were refined, the FDA has considered opportunities to avoid and minimize impacts to streams, wetlands, and mature trees.
- 4. Coordination with the local community has occurred through Scoping, Public Hearings, and direct mailings to the local communities. Language has been added to the Master Plan which recommends the FDA and their selected design team will coordinate with the County, MDOT SHA, and the surrounding communities to develop a management plan for construction-related traffic.
- 5. The impacts to aquatic resources, habitat, and other natural resources have been reevaluated in the Final EIS as the Preferred Alternative, which has been refined during the Final Master Plan process. The FDA would consider opportunities to avoid and minimize impacts to aquatic resources, habitat, and other natural resources to the extent practicable.
- 6. Impacts from impervious coverage have been reevaluated in the Final EIS as the Preferred Alternative, which has been refined during the Final Master Plan process. The FDA would ensure that increases in impervious surface are minimized to the extent practicable.
- 7. Housing appears to be readily available within the area surrounding the MRC West Parcel. Based on previous employee surveys conducted by the FDA, only 2.6% of the additional 1,500 employees are expected to relocate near the MRC West Parcel, which equates to approximately 39 employees. Furthermore, per information received from the City of Laurel, "The city should also be able to handle an increase in housing needs for the area as we have approved 600+ single family and townhouse units in the past 3 years that are starting to be built with more projects being proposed for housing."
- 8. Once the development moves to the design phase, GSA/FDA would consult with MDE and USACE regarding impacts to wetlands and appropriate mitigation.

A restoration plan that outlines restoration measures would be developed and implemented for temporary stream and wetland impacts. This commitment has been added to the Final EIS.

- 9. This is a master plan-level document. Final design of facilities would be conducted at a later date. Once the development moves to the design phase, GSA/FDA would consult with MDE and USACE regarding appropriate mitigation.
- 10. GSA/FDA would comply with all Federal and state regulations. GSA/FDA would ensure that construction on steep slopes is fully evaluated to determine appropriate soil stabilization measures. BMPs would be implemented during construction as required by Federal and state regulations.
- 11. GSA/FDA would design and implement stormwater quantity and quality control measures in accordance with applicable state and Federal regulations, permits, and guidance documents that are found in Table

4-17 of the Final EIS. Within the limits of the new development, State of Maryland ESD strategies would be implemented to the maximum extent practicable.

- 12. The Final EIS has been updated to clarify the extent of tree clearing for each alternative.
- 13. A Tree Preservation and Replacement Plan and a Forest Conservation Plan have been completed and have been included in the Final EIS.
- 14. This is a master plan-level document. Final design would be conducted at a later date. GSA/FDA would include a commitment to use native species that provide habitat and food sources to wildlife as an ongoing effort in their landscaping and management plans. The Final EIS has been updated to state that any invasive species that are to be removed would be replaced with native species.
- 15. A Tree Preservation and Replacement Plan and a Forest Conservation Plan have been completed and have been included in the Final EIS. These plans include potential locations identified for tree replacement, size of tree plantings and habitat value.
- 16. GSA/FDA would consider impacts to birds during final building design. This has been added to the mitigation in the Final EIS.
- 17. The impacts to aquatic resources, habitat, and other natural resources have been reevaluated and refined during the development of the Preferred Alternative. Impacts to aquatic resources, habitat, and other natural resources would be avoided to the extent practicable. Once the development moves to the design phase, GSA/FDA would conduct studies to determine the impact of construction on aquatic habitats.
- 18. Impacts on the viewsheds and the visual impact have been reevaluated and refined during development of the Preferred Alternative.
- 19. It is anticipated that only 15% of the total additional commuter traffic would pass through the area with EJ populations. Furthermore, a transportation management plan (TMP) is being developed to reduce the number of single occupancy vehicles (SOV) trips being generated by the facility. The outreach that has been conducted has been included in the Final EIS and the Design Team has reassessed potential negative impacts of construction and commuter traffic on EJ communities.
- 20. FDA would provide communications on construction related traffic and activities as well as the potential for increased commuter traffic that could affect the surrounding community as the MRC West Parcel adds population.
- 21. FDA would follow Prince George's County's noise ordinance found at: § 19-122.01, Noise level and noise disturbance standards for construction.
- 22. The Final EIS has been updated to reflect new Census data.
- 23. The EIS and the Air Quality Analysis have been revised to discuss nonattainment and maintenance status for each applicable NAAQS and the general conformity applicability determination.
- 24. The EIS and the Air Quality Analysis have been revised to reflect more detail on general conformity applicability determination.

- 25. The Final EIS has been updated with the most current Council on Environmental Quality (CEQ) guidance on greenhouse gas emissions.
- 26. Construction noise impacts are discussed in Section 4.19 of the Final EIS.
- 27. FDA would follow Prince George's County's noise ordinance found at: § 19-122.01, 'Noise level and noise disturbance standards for construction.
- 28. GSA/FDA has conducted community outreach during scoping, publication of the Draft EIS, and during Prince George's County Planning Hearings.

The project team would continue to coordinate with the community as part of the NEPA and master planning process. A transportation management plan (TMP) would be implemented to reduce single occupancy vehicle (SOV) commute trips to and from the MRC West Parcel. Furthermore, it should be noted that the MRC West Parcel is anticipated to contribute very little additional delay to many of the study area intersections, particularly those to the west as a result of their telework policy. Other existing (Brickyard) and proposed (Konterra) developments are anticipated to generate significant traffic impacts and are the primary contributors to the need for intersection improvements in the study area.

- 29. The TMP calls for ongoing coordination with Federal, State, and local agencies to enhance pedestrian/bicycle and transit access.
- 30. This is a master plan-level document. The EIS has identified areas that are to be affected to the extent practicable, but final design of facilities would be conducted at a later date. Once the development moves to the design phase, GSA/FDA would further identify the areas that would be disturbed due to utility construction. Note: Proposed storm and sanitary sewer lines are located along existing roadways with the goal of minimizing impacts to vegetation and habitat.
- 31. Section 4.23 of the EIS discusses construction waste. However, the Final EIS has been updated to reflect that any soils that cannot be used onsite would be trucked to an approved facility designed to receive soil.
- 32. This is a Master Plan level document. Actual programs and program requirements have not been planned at this time. As programs are planned, there could be potential changes in waste generated for the operation of the new facilities. Additional text has been added to the Final EIS. FDA would follow all Federal, state, and local requirements for disposal of wastes, including hazardous wastes.



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IN REPLY REFER TO: NCPC File No. MP8245

July 19, 2021

Mr. Marshall Popkin Office of Planning and Design Quality Public Buildings Service – National Capital Region US General Services Administration 1800 F Street, NW, Room 4400 Washington, DC 20405

RE: Food and Drug Administration (FDA) Muirkirk Road Campus (MRC) Master Plan, Draft Environmental Impact Statement (EIS) Comments

Dear Mr. Popkin:

Thank you for the opportunity to comment on the Draft EIS (DEIS) prepared by the U.S. General Services Administration (GSA) in coordination with the FDA for the MRC Master Plan located in Laurel, Maryland. As the federal government's central planning agency in the National Capital Region, the National Capital Planning Commission (NCPC) has advisory review authority over projects at the FDA MRC under the National Capital Planning Act ( $(40 \text{ USC } \S 8722 \text{ (b) } (1))^1$ . NCPC staff is providing comments as part of the forthcoming review of the draft Master Plan. The Commission will provide specific comments on the proposed development alternatives and the draft Transportation Management Plan (TMP) during its September 2, 2021 meeting.

NCPC staff provided a EIS scoping comment letter dated January 13, 2021. As part of the comments, staff requested that the DEIS assess the potential impacts of the project on the following topic areas: the built environment; travel and parking; site access and perimeter security; visual quality; housing demand and economic health; energy and potable water use; impervious surface area; stormwater runoff; and stream health, function, and water quality. In general, the DEIS responds to NCPC's scoping comments. In particular, the DEIS analyzes a reasonable range of alternatives for the proposed action that avoid or minimize adverse effects upon the quality of the human environment through evaluation of associated environmental impacts. NCPC staff encourages GSA and FDA to consider the following comments in preparation of the final EIS and future submissions to the Commission.

#### <u>Alternatives</u>

The DEIS analyzes the potential environmental consequences of three Proposed Action Alternatives and the No Action Alternative. NCPC staff finds that GSA considered a wide range of reasonable alternatives with a comparable degree of impacts ranging from negligible to moderate, short- and long-term adverse effects with no major impacts proposed. All three Proposed Action Alternatives propose a total of 438,000 gross square feet of new development, a total employee population of 1,800, and a total employee parking ratio of 11:2 (1 space for every 2 employees) to be met over a period of 20 years. In addition, the alternatives have the following similarities:

<sup>&</sup>lt;sup>1</sup> The Planning Act requires federal agencies to advise and consult with NCPC in the preparation of agency plans prior to preparation of construction plans.

- Maintains a 100-foot vegetative buffer along the perimeter of the campus, with a 300-foot vegetative buffer along the southwestern boundary.
- Treats the existing stream valley between the Module 1 and 2 and BRF sites as a central design element and amenity space.
- Adds one new, secure entrance gate at Odell Road.
- Assumes the existing back road will be used for emergency/special access.
- Integrates significant stormwater management features.
- Maintains tree cover through preservation and replacement.

Overall, staff commends GSA's commitment to environmental sustainability demonstrated in the alternatives by minimizing disturbance; incorporating green building design including passive solar orientation, vegetative walls and roofs, and solar panels; tree preservation and replacement; and stormwater management. In addition, the following pros and cons have been identified in review of the DEIS for each of the Proposed Action alternatives:

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#### Alternative A: Compact Campus

Pros

- The proposed increase in impervious surfaces is the least of the three alternatives, resulting in a net increase of 2.8 acres compared to the No Action Alternative.
- All employee parking is proposed within structured parking garages, with surface parking reserved only for visitors.
- The adjacency of new buildings to existing facilities (Modules 1 and 2) creates a compact campus character.

Cons

- New buildings would be visible from the main entrance but most building volume would be screened by the existing forested area.
- Some buildings do not have frontage on the central natural landscape space.
- The location of employee parking at the Beltsville Research Facility (BRF) site is secluded from the facilities that it serves at the Modules 1 and 2 site.

#### Alternative B: Dual Campus

Pros

- It is least impactful to water resources, resulting in permanent impacts of 0.03 acres of wetlands and 0.01 acres of wetland buffers.
- Existing and proposed buildings are oriented around a central natural landscape space in support
  of good campus planning principles.
- The location of employee parking is situated near the buildings that it serves.
- All employee parking is proposed within structured parking garages, with surface parking reserved
  only for visitors.

Cons

- It requires the most amount of excavation (22.5 acres), and disturbance to soils (7.4 acres) and steep slopes (1.4 acres) is highest when compared to the other two alternatives.
- The proposed increase in impervious surfaces is the highest of the three alternatives, resulting in a net increase of 5.6 acres compared to the No Action Alternative.
- It is the most impactful to existing vegetation with 5.2 acres of forest removal, as compared to the
  other two alternatives that equally impact 4.8 acres.

 New buildings would be visible from the main entrance but most of the building volume would be screened by existing forested area.

#### Alternative C: Northeast Campus

Pros

- It requires the least amount of excavation (20.2 acres), disturbance to soils (5.2 acres) and steep slopes (1.2 acres) when compared to the other two alternatives.
- There are no discernable changes to existing viewsheds, with only partial visibility of new buildings from the main entrance.

Cons

- Proposed development concentrated at the BRF site is isolated from the existing Module 1 and 2 buildings.
- It retains 150 surface parking spaces to serve employees that work in the Module 1 and 2 buildings.
- The truck screening facility is visible from the main entrance that is also used by visitors and employees and seen by passerby on Muirkirk Road.

#### Affected Environment and Environmental Consequences

Overall, staff generally concurs with the analysis of the environmental consequences for the 21 resource topics analyzed. We find that the DEIS indicates the three development alternatives have a comparable degree of environmental impacts ranging from negligible to moderate, short- and long-term adverse impacts with no major impacts proposed. However, it is currently unclear how the program placement will guide the final configuration of buildings. Therefore, the selection of a preferred alternative will likely result from development of other issues, such as programmatic needs and urban design.

In addition, we find the draft TMP is adequate with exception of the mid-term parking ratio goal of 1:1.35, or a 25 percent increase in non-SOV (single occupancy vehicle) mode share by 2030. As the project advances, staff requests that GSA evaluates how to meet the 1:2 parking ratio sooner. For example, achieving a 1:1.5 parking ratio with the first phase of employee consolidation, which is anticipated to occur in 2025 or 2026. This strategy will bring the TMP into better alignment with the policies in the *Federal Transportation Element of the Comprehensive Plan* and the Commission's commitment to creating sustainable federal workplaces.

NCPC appreciates the opportunity to provide these comments as part of this important project. We look forward to continued involvement in the NEPA process, and the review of the final master plan. If you have any questions, please contact Stephanie Free at (202) 482-7209 <u>stephanie.free@ncpc.gov</u>, or consult our agency website at <u>ncpc.gov/plans/compplan/</u> for further information about the Comprehensive Plan or <u>ncpc.gov/review/guidelines/</u> for information about the Submission Guidelines.

Sincerely,

Diane Sullivan

Diane Sullivan, Director Urban Design and Plan Review Division

FINAL ENVIRONMENTAL IMPACT STATEMENT | FDA MUIRKIRK ROAD CAMPUS MASTER PLAN

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## **Responses to Comments from Diane Sullivan, NCPC**

- 1. Comment noted.
- 2. Comment noted. In developing the preferred alternative, the Project Team considered impervious surfaces, the location of parking and the remoteness of parking at the BRF in Alternative A, building footprint, viewsheds, and proximity of parking to buildings.

Alternative B has been further developed into the preferred alternative. The Project Team has considered water resources, campus planning principles, the benefits of employee parking situated near the buildings, soil disturbance, impervious surfaces, existing vegetation, and viewsheds as part of that process.

Comment noted. In developing the preferred alternative, the Project Team has considered soil disturbance, viewsheds, the surface parking remaining in place, the distance between existing and new buildings and the truck-screening facility's visibility at the main entrance in Alternative C.

- 3. Comment noted. The preferred alternative has been developed based on the latest FDA program requirements including new lab space in addition to new office space.
- 4. FDA has concerns with establishing parking ratios that would result in a Non-Auto Driver Mode Share (NADMS) that would be difficult to achieve given the location of the MRC West Parcel in an area with very limited access to high-capacity transit and the relatively low population that makes it difficult to support high-cost measures like shuttles or improvements to bus services. FDA has adopted a new telework policy that reduces the number of employees that can be on the site at any given time.



Commission Action September 2, 2021

PROJECT U.S. Food and Drug Administration Muirkirk Road Campus Draft Master Plan 8301 Muirkirk Road Laurel, Maryland

SUBMITTED BY U.S. General Services Administration

REVIEW AUTHORITY Approval of Master Plans for use by the Commission per 40 U.S.C. § 8722(a) and (b)(1) NCPC FILE NUMBER MP8245

NCPC MAP FILE NUMBER 3212.31(05.00)45351

APPLICANT'S REQUEST Approval of comments on draft master plan

ACTION TAKEN Approved comments on draft master plan

The Commission:

Comments favorably on the goals and overall approach presented in the draft master plan.

Notes the draft master plan includes three potential development alternatives that consider future development on previously disturbed sites and preclude development of the densely forested East Parcel.

**Commends** the plan's commitment to environmental sustainability by minimizing disturbance; incorporating green building design; maximizing tree preservation and replacement; and implementing innovative stormwater management techniques.

**Provides** the following comments on the draft master plan organized by development alternatives, Transportation Management Plan, perimeter security, and additional coordination.

# **Development** Alternatives

**Notes** the Food and Drug Administration is currently conducting two phases of laboratory studies to determine the appropriate size of laboratory space for the campus, which may affect the development footprint and therefore has yet to identify a preferred alternative.

Notes that all development alternatives considered would comply with the Comprehensive Plan's tree preservation and replacement policies and also maintain an existing 300-foot vegetated buffer along the southwest boundary of the campus and a 100-foot buffer along the remaining perimeter.

Finds the Draft Environmental Impact Statement indicates the three potential development alternatives have a comparable degree of environmental impacts; therefore, the selection of a preferred alternative will likely result from development of other issues, such as programmatic needs and urban design.

Provides the following comments specific to each alternative:

- Alternative A: Compact Campus
  - Supports the compact configuration of the proposed buildings adjacent to the existing Module 1 and Module 2 buildings.
  - Finds the location of employee parking at the Beltsville Research Facility site secluded from the facilities that it serves.
- Alternative B: Dual Campus
  - Supports the orientation of the buildings on the central natural landscape space; however, the long sequence of interconnected buildings creates a hardened edge that conflicts with the site's unique natural character.
  - Finds the location of employee parking near the existing and proposed buildings better supports the facilities in which it serves.
- Alternative C: Northeast Campus
  - Finds the concentration of proposed development and structured parking at the Beltsville Research Facility site is isolated from the existing Module 1 and 2 buildings.
    - Notes this alternative retains 150 employee parking spaces in an existing surface 8 parking lot to serve those working in the Module 1 and 2 buildings.
    - Finds the main entrance approach from Muirkirk Road is enhanced by the . uninterrupted view of the campus' natural landscape.
    - Finds the truck screening facility located at the main entrance distracts from the sense of arrival to the campus and may appear unwelcoming to visitors and the neighboring residential community.

Provides the following additional comments for development of the preferred alternative:

| <ul> <li>Supports a formal entrance sequence from Muirkirk Road into the campus.</li> <li>Recommends the applicant studies how to maximize an uninterrupted view of the natural landscape from the campus' main entrance.</li> </ul> | 1 2       |
|--|-----------|
| <ul> <li>Requests a summary of the proposed program needs and allocation of spaces to understan<br/>how the program is affected by the location and configuration of the buildings and parkin</li> </ul>                             | g 3       |
| <ul> <li>Requests that employee parking is accommodated in structured garages and surfac parking is limited to visitor spaces only.</li> </ul>   | e   4     |
| <ul> <li>Recommends the elevated boardwalk configuration avoid permanent impacts to wetland<br/>and streams to the maximum extent possible.</li> </ul>   | s<br>5    |
| Transportation Management Plan (TMP)   | r         |
| Notes the current parking ratio is 1:0.94 and the applicant is proposing to meet the Comprehensiv<br>Plan's parking ratio for suburban facilities located beyond Metrorail of one parking space for even                             | re 6<br>y |

| NCPC File No. MP8245  |    |
|---|----|
| two employees (1:2) by 2040. The TMP includes Travel Demand Management (TDM) strategies consistent with the policies of the Federal Transportation Element to reduce single occupancy vehicle trips.  |    |
| Notes the results of an employee survey indicate that most employees anticipate returning to the campus once the pandemic subsides to access the laboratories and other resources on campus necessary to perform their work.  |    |
| Notes the amount of surface parking will not change until the first phase of employee consolidation in 2030.  |    |
| <b>Requests</b> the applicant return to the Commission two years after the FDA Muirkirk Road Campus' pandemic return to work plan is implemented with an update to the TMP identifying an improved interim parking ratio goal for the timeframe prior to the first phase of consolidation.  | 1  |
| Notes all three alternatives propose a parking garage with Phase I of employee consolidation that would result in a parking ratio of 1:1.35 by 2030 and a second parking garage with Phase II of consolidation to meet the 1:2 parking ratio by 2040.   |    |
| <b>Does not support</b> the construction of a parking garage 10 years from now that will only result in a 1:1.35 parking ratio.   |    |
| <b>Defers</b> approval of the number of parking spaces in both parking garages until such time that each phase is closer to being realized so there can be an assessment of the efforts to implement the TDM strategies in place, more certainty of the future population, and a better understanding of post-pandemic travel patterns.                 | 9  |
| Perimeter Security  |    |
| Notes that perimeter security for the Muirkirk Road Campus is governed by Interagency Security Committee (ISC) Level III requirements and final setback distances and building construction criteria will be established with a threat assessment once the preferred alternative is selected.   |    |
| Supports the plan's approach to integrate security design with the use of the natural topography, new landscape elements, outdoor spaces, and stormwater best management features.  |    |
| Requests sections and illustrative views that show the total height of any existing and proposed perimeter security elements such as fences, bollards, and anti-ram barriers that are determined to be necessary as a result of the completed threat assessment in relationship to the main entrance approach, pedestrian spaces, and internal roadways | 10 |

Commission Action NCPC File No. MP8245

#### Additional Coordination

**Recommends** the applicant consider the Maryland Department of the Environment's recommendation for all alternatives to implement deep energy retrofits for existing or repurposed buildings or spaces.

**Recommends** the applicant continue to work with Prince George's County to address the Planning Board's recommendations, including enhanced pedestrian and bicycle connections on Muirkirk Road and intersection improvements at Powder Mill Road and Springfield Road in coordination with the Bureau of Engraving and Printing.

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Koster n. 09/07/202

Julia A. Koster Secretary to the National Capital Planning Commission .

Page 4

## **Responses to Comments – EDR Commission Action, NCPC**

1. Comment noted. In developing the preferred alternative, the Project Team considered impervious surfaces, the location of parking and the remoteness of parking at the BRF in Alternative A, building footprint, viewsheds, and proximity of parking to buildings.

Comment noted. Alternative B has been further developed into the preferred alternative. The Project Team has considered water resources, campus planning principles, the benefits of employee parking situated near the buildings, soil disturbance, impervious surfaces, existing vegetation, and viewsheds as part of that process.

The Project Team reviewed the massing of the ne buildings in relation to the site's natural character.

Comments noted. In developing the preferred alternative, the Project Team has considered soil disturbance, viewsheds, the surface parking remaining in place, the distance between existing and new buildings and the truck-screening facility's visibility at the main entrance in Alternative C.

The Project Team acknowledges that the truck screening located at the main entrance "may appear unwelcoming". Therefore, in the Alternative B, the preferred alternative, the truck screening facility is located near the Phase 3 parking garage with access off of Odell Road.

- 2. The preferred alternative maintains the main entrance at the current Muirkirk Road location. Further studies have been undertaken to enhance uninterrupted views into the site.
- 3. The Final Master Plan includes a description of the latest FDA program requirements including new lab space in addition to new office space.
- 4. The EIS has been updated to reflect that surface parking would be limited to visitor parking, while structured garages would be for FDA employees.
- 5. The preferred alternative includes an adjusted elevated boardwalk configuration designed to avoid permanent impacts to wetlands and streams to the maximum extent possible.
- 6. Comment noted.
- 7. The TMP would be updated within 2 years of implementing the Master Plan Phase 1 to identify improved interim parking ratio goals.
- HHS has recently adopted a new telework policy which promotes a significant increase in teleworking. Doing so makes it more feasible to reach NCPC's parking ratio of 1:2 for the ultimate population of 1,800 at MRC West Parcel.
- 9. Comment noted.
- 10. The preferred alternative has considered the threat assessment for proposed perimeter security measures.
- 11. The Final Master Plan considers new buildings and spaces. FDA would consider implementing deep energy retrofits for existing or repurposed buildings or spaces.
- 12. GSA/FDA would continue to work with Federal, state, and local authorities as design progresses.

Larry Hogan, Governor Boyd Rutherford, Lt. Governor 2

Maryland

Robert S. McCord, Secretary Sandy Schrader, Deputy Secretary

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# DEPARTMENT OF PLANNING

July 21, 2021

Ms. Liz Estes Senior Associate, Environmental Planning Stantec 6110 Frost Pl Laurel, MD 20707

### STATE CLEARINGHOUSE RECOMMENDATION

State Application Identifier: MD20210607-0487
Applicant: Stantec
Project Description: Draft Environmental Impact Statement (DEIS): FDA Muirkirk Road Campus Master Plan. A 45 Day Public Review Period for the DEIS Began on Friday, 6/4/2021 and Ends on 7/19/2021. The DEIS and Associated Appendices may be Viewed on line at https://www.gsa.gov/ncrnepa
Project Address: 8401 Muirkirk Road, Laurel, MD 20708
Project Location: County(ies) of Prince George's
Approving Authority: U.S. General Services Administration GSA
Recommendation: Consistent with Qualifying Comments and Contingent Upon Certain Actions

Dear Ms. Estes:

In accordance with Presidential Executive Order 12372 and Code of Maryland Regulation 34.02.01.04-.06, the State Clearinghouse has coordinated the intergovernmental review of the referenced project. This letter constitutes the State process review and recommendation based upon comments received to date. This recommendation is valid for a period of three years from the date of this letter.

Review comments were requested from the <u>Maryland Department(s) of General Services</u>, <u>Natural Resources</u>, <u>Transportation</u>, the Environment; Prince George's County; and the Maryland Department of Planning, including the Maryland Historical Trust. The Maryland Department of General Services did not have comments.

Comments are pending from the Maryland Department of Transportation. Any comments received will be forwarded.

The Maryland Department of Natural Resources and the Maryland Department of Planning found this project to be consistent with their plans, programs, and objectives.

Our Department (Planning) noted that the property is adequately serviced by the Washington Suburban Sanitary Commission (WSSC) water and sewer (DEIS, page 61-62). These are Federally held lands Zoned R-O-S reserved open space. The property is not a Priority Funding Area designation.

301 West Preston Street - Suite 1101 - Baltimore - Maryland - 21201 Tel: 410.767.4500 - Toll Free: 1.877.767.6272 - TTY users: Maryland Relay - Planning Maryland.gov Ms. Liz Estes July 21, 2021 Page 2 State Application Identifier: MD20210607-0487

The Maryland Department of Environment and Prince George's County found this project to be generally consistent with their plans, programs, and objectives, but included certain qualifying comments summarized below.

The Maryland Department of Environment (MDE) offered the following:

 Any above ground or underground petroleum storage tanks, which may be utilized, must be installed and maintained in accordance with applicable State and federal laws and regulations. Underground storage tanks must be registered and the installation must be conducted and performed by a contractor certified to install underground storage tanks by the Land and Materials Administration in accordance with COMAR 26.10. Contact the Oil Control Program at (410) 537-3442 for additional information.

2. If the proposed project involves demolition – Any above ground or underground petroleum storage tanks that may be on site must have contents and tanks along with any contamination removed. Please contact the Oil Control Program at (410) 537-3442 for additional information.

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3. Any solid waste including construction, demolition and land clearing debris, generated from the subject project, must be properly disposed of at a permitted solid waste acceptance facility, or recycled if possible. Contact the Solid Waste Program at (410) 537-3315 for additional information regarding solid waste activities and contact the Resource Management Program at (410) 537-3314 for additional information regarding recycling activities.

4. The Resource Management Program should be contacted directly at (410) 537-3314 by those facilities which generate or propose to generate or handle hazardous wastes to ensure these activities are being conducted in compliance with applicable State and federal laws and regulations. The Program should also be contacted prior to construction activities to ensure that the treatment, storage or disposal of hazardous wastes and low-level radioactive wastes at the facility will be conducted in compliance with applicable State and federal laws and regulations.

5. Any contract specifying "lead paint abatement" must comply with Code of Maryland Regulations (COMAR) 26.16.01 - Accreditation and Training for Lead Paint Abatement Services. If a property was built before 1978 and will be used as rental housing, then compliance with COMAR 26.16.02 - Reduction of Lead Risk in Housing; and Environment Article Title 6, Subtitle 8, is required. Additional guidance regarding projects where lead paint may be encountered can be obtained by contacting the Environmental Lead Division at (410) 537-3825.

 The proposed project may involve rehabilitation, redevelopment, revitalization, or property acquisition of commercial, industrial property. Accordingly, MDE's Brownfields Site Assessment and Voluntary Cleanup Programs (VCP) may provide valuable assistance to you in this project. These programs involve environmental site assessment in accordance with accepted industry and financial institution standards for property transfer. For specific information about these programs and eligibility, please Land Restoration Program at (410) 537-3437.

7. Borrow areas used to provide clean earth back fill material may require a surface mine permit. Disposal of excess cut material at a surface mine may requires site approval. Contact the Mining Program at (410) 537-3557 for further details.

Additional comments are attached in a zipped file.

Ms. Liz Estes July 21, 2021 Page 3 State Application Identifier: MD20210607-0487

Prince George's County noted that, "all new developments are required to address surface runoff, and in addition to stormwater management controls, address water quality utilizing environmental sensitive design by installing best management practices to the maximum extent practicable. The site is out of the Special Flood Hazard Area (SFHA) shown on the effective Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), panel 24033C0065E dated September 16, 2016. The Storm Water Management Technical Group (SWMTG) Comprehensive Watershed Management Plans for the Anacostia River Watershed, dated September 1993, also show no floodplain impacts. The project as proposed would not encroach on an established floodplain."

The Maryland Historical Trust stated that their finding of consistency is/are contingent upon the applicant taking the action(s) summarized below.

GSA needs to complete the Section 106 review and consultation with the Maryland Historical Trust (MHT) for the FDA Muirkirk Road Campus Master Plan prior to finalizing the DEIS. MHT's consultation remains in progress and effects to historic properties are not anticipated (BC 202102447).

Any statement of consideration given to the comments should be submitted to the approving authority, with a copy to the State Clearinghouse. The State Application Identifier Number <u>must</u> be placed on any correspondence pertaining to this project. The State Clearinghouse must be kept informed if the approving authority cannot accommodate the recommendation.

Please remember, you must comply with all applicable state and local laws and regulations. If you need assistance or have questions, contact the State Clearinghouse staff person noted above at 410-767-4490 or through e-mail at myra barnes@maryland gov. Also please complete the attached form and return it to the State Clearinghouse as soon as the status of the project is known. Any substitutions of this form <u>must</u> include the State Application Identifier Number. This will ensure that our files are complete.

Thank you for your cooperation with the MIRC process.

Sincerely,

MURE & Theys

Myra Barnes, Lead Cleannghouse Coordinator

MB.MB Enclosure(s) cc: Stephanie Free Tony Redman - DNR Amanda Redmiles - MDE

Marshall Popkin Ian Beam - MDOT Tania Rucci - DGS

Kathleen Herbert - PGEO Joseph Griffiths - MDFL Beth Cole - MHT

21-0487 CRR CLS.docx

Tanja Rucci - DGS

FINAL ENVIRONMENTAL IMPACT STATEMENT | FDA MUIRKIRK ROAD CAMPUS MASTER PLAN

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# Responses to Comment from Myra Barnes, Maryland Department of Planning

- 1. Comment noted.
- 2. Comment noted.
- 3. Comment noted. GSA/FDA would comply with all Federal and State laws and regulations for USTs and ASTs.
- 4. Comment noted.
- 5. Comment noted.
- 6. Comment noted.
- 7. Comment noted.
- 8. A Phase I ESA was completed and is included as an Appendix to the EIS.
- 9. Comment noted.
- 10. Comment noted.
- 11. The Section 106 consultation process would be completed before the ROD is signed.



Larry Hogan. Covernor Boyd K. Rutherford, Lt. Covernor

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Ben Grumbles, Secretary Horacio Tablada, Deputy Secretary

July 19, 2021

Mr. Marshall Popkin Attn: FDA MRC Master Plan, Draft EIS Comment Office of Planning and Design Quality Public Building Service U.S. General Services Administration marshall.popkin@gsa.gov

Re: Maryland Department of the Environment's Wetlands and Waterways Program's Comments on the FDA MRC Master Plan, Draft EIS

#### Dear Popkin:

The Maryland Department of the Environment's Wetlands and Waterways Program (Program) has reviewed the U.S. Food and Drug Administration (FDA) Muirkirk Road Campus (MRC) Master Plan Draft Environmental Impact Statement (DEIS). The project involves the development of the MRC in order to accommodate the projected growth of the facility's work force. The DEIS outlines three action alternatives which propose varying amounts of permanent and temporary impacts to nontidal wetlands, the 25-foot nontidal wetland buffer and streams. If one of the three action alternatives is selected, the project will require a Nontidal Wetlands and Waterways Permit from the Program and the following comments will need to be addressed.

#### Project Purpose and Need

As stated in the DEIS, the purpose of the project is to provide for the projected workforce growth at the facility. Currently, there are 300 employees at MRC and over the next 20 years the workforce is expected to increase to 1,800 employees. The DEIS does not discuss whether post-COVID more employees will be teleworking than pre-COVID. If more employees will be teleworking on a regular basis, please explain whether or not a smaller development footprint may be possible.

#### Alternatives Analysis

The DEIS describes three action alternatives, all of which propose varying amounts of impact to nontidal wetlands, the 25-foot nontidal wetland buffer and streams. Alternative B, however, proposes the least amount of impact to nontidal wetlands and the 25-foot nontidal wetland buffer and no stream impact. If either Alternatives A or C are selected as the preferred alternative, thorough justification will need to be provided as to why the impact with the least amount of impact was selected.

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Avoidance and Minimization

As mentioned in the "Project Purpose and Need" section of this letter, please describe whether more employees are expected to telework post-COVID. If there is increased teleworking, it may be possible to reduce the development and, therefore, reduce impacts to resources. Additionally, the Muirkirk MARC station is located close to the MRC. Would it be possible to provide a shuttle service from the Murikirk MARC station to the MRC to encourage alternative forms of commuting as opposed to single-occupancy vehicles which could lead to both a reduction of the development footprint and resource impacts?

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#### Mitigation

Mitigation will be required for all permanent impacts to nontidal wetlands. Finding acceptable mitigation opportunities in the project area may be challenging. Please contact Ms. Kelly Neff of the Mitigation and Technical Assistance Section as soon as possible to begin discussing nontidal wetland mitigation for the project. Ms. Neff can be reached at 410-537- 4018, 443-463-9722 or at kelly.neff@maryland.gov.

Additionally, the FDA is strongly encouraged to present the project at a Joint Evaluation (JE) meeting. These meetings occur monthly and are a good venue to discuss larger impact projects. In addition to representatives of the Maryland Department of the Environment, representatives from other State agencies, (e.g., Maryland Department of Natural Resources, Maryland Historical Trust) and federal agencies (e.g. U.S. Army Corps of Engineers, Baltimore District, Regulatory Branch, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service) attend JE meetings and provide comments on the projects that are presented. Please visit the Program's website for more information about how to request being included on the JE meeting schedule:

https://mde.maryland.gov/programs/Water/WetlandsandWaterways/Pages/Joint Evaluation.aspx

Please feel free to contact me with any questions about these comments or about the regulatory review process. I can be reached at 410-537-3766, 443-829-8127 or <u>amanda.sigillito@maryland.gov</u>

Sincerely,

Joande Agella

Amanda Sigillito, Chief Nontidal Wetlands Division Wetlands and Waterways Program

C: Jeff Thompson (MDE – Central Region, Nontidal Wetlands Division, Wetlands and Waterways Program) Kelly Neff (MDE – Mitigation and Technical Assistance Section, Nontidal Wetlands Division, Wetlands and Waterways Program) William Seiger (MDE – Waterway Construction Division, Wetlands and Waterways Program)

### Responses to Comments from Amanda Sigillito, Wetlands and Waterways Program, MD DOE

- 1. Comment noted.
- HHS has established a telework policy as a result of the pandemic that would reduce the number of employees on campus on any given day. While there are 1,800 employees assigned to the MRC West Parcel, only 1,121 seats would be available for employees to utilize, leading to a reduction in 679 seats. Employees would be required to schedule times to work on campus. The Final EIS has been updated to reflect this change in teleworking.
- 3. Comment noted.
- 4. HHS has established a telework policy as a result of the pandemic that would reduce the amount of employees on campus on any given day. While there are 1,800 employees assigned to the MRC West Parcel, only 1,121 seats would be available for employees to utilize, leading to a reduction in 679 seats. Employees would be required to schedule times to work on campus. The Final EIS has been updated to reflect this change in teleworking.
- 5. Comment noted.
- 6. Comment noted.



Larry Hogan Governor Boyd K. Rutherford Lt. Governor Gregory Slater Secretary Tim Smith, P.E. Administrator

July 16, 2021

Mr. Marshall Popkin Senior NEPA Compliance Specialist Office of Planning and Design Quality Public Buildings Service - National Capital Region United States General Services Administration 1800 F Street, NW, Room 4400 Washington DC 20405

Attn: FDA MRC Master Plan, Draft EIS Comments

Dear Mr. Popkin:

Thank you for providing the Maryland Department of Transportation State Highway Administration (MDOT SHA) the opportunity to comment on the June 2021 United States Food and Drug Administration (FDA) Muirkirk Road Campus (MRC) Master Plan Draft Environmental Impact Statement (DEIS). The MDOT SHA looks forward to continuing to work with the General Services Administration (GSA), FDA, Prince George's County, and the Maryland-National Capital Park and Planning Commission to develop and implement transportation infrastructure to support the vision outlined in the plan for the accommodation of future growth and additional consolidation at the MRC. The MDOT SHA submits the following comments regarding the DEIS, Appendix E – Traffic Impact Study, and Appendix F – Transportation Management Plan.

FDA MRC Master Plan DEIS

MDOT SHA supports GSA's and FDA's focus on facilitating transit use, improving bicycle
and pedestrian accessibility and facility connectivity, and promoting transit-oriented
development. In general, the recommendations proposed in this DEIS are supported by
MDOT SHA's emphasis to provide transportation facilities that accommodate all users of all
modes. This emphasis led MDOT SHA to develop *Context Driven – Access & Mobility for
All Users*, a planning and design resource including guidance centered on establishing safe
and effective multimodal transportation systems. For additional information, please visit
https://www.roads.maryland.gov/contextdriven/.

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Mr. Marshall Popkin Page Two

The MRC and the study intersections are located within the general area of MDOT SHA's MD 201 Extended/US 1 Corridor study, which proposed a range of alternative improvements including the widening of MD 201 from Cherrywood Lane to Odell Road from two to four lanes, the widening of US 1 from four to six lanes, transportation systems management/ transportation demand management improvements and strategies, medians, bicycle lanes, and pedestrian accommodations where feasible. The MDOT SHA placed this study on hold in 2008 pending the identification of funding to complete planning and subsequent phases. The ramifications of these proposed improvements should be considered in the traffic demand analysis included in the DEIS and should be included in the general contextual discussion of the document.

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- pp. 147-148, section 4.20.3 MDOT SHA supports the National Capital Planning Commission's (NCPC) emphasis on decreasing single occupant vehicles via NCPC's guidance on parking spaces per employee, though also understands that the location of the MRC may make achieving NCPC's goals especially difficult. Consider explaining further whether the interim 25-percent goal in 2026 and ultimate 50-percent goal in 2040 are attainable and, if not, what alternative programs and initiatives might be implemented to help reach these thresholds.
- p. 152, section 4.20.4 The DEIS suggests consideration of a roundabout at the intersection
  of MD 212 (Virginia Manor Road/Ritz Way) and MD 206 (Virginia Manor Road) as a
  possible traffic mitigation measure, though one that would require further investigation.
  Considering the number of lanes at each intersection approach and its proximity to the
  MD 212 at US 1, MDOT SHA does not recommend a roundabout at this location. Instead,
  MDOT SHA recommends consideration of a traffic signal synchronized with the signal at
  US 1. Signal warrant studies and roundabout analyses will be necessary at such time either
  proposal advances.

# Appendix D - Traffic Impact Study (TIS) and Appendix E - Transportation Management Plan (TMP)

 Consolidated TIS and TMP comments are provided in the attached June 6, 2021, letter response from Mr. Kwesi Woodroffe, MDOT SHA District 3 Regional Engineer, to Ms. Liz Estes, Associate, Environmental Services, Stantec. Mr. Marshall Popkin Page Three

Thank you again for the opportunity to comment on the FDA MRC Master Plan DEIS. If you have any questions or concerns, please contact Mr. David Rodgers, MDOT SHA Regional Planner, at 410-545-5670 or via email at drodgers1@mdot.maryland.gov. Mr. Rodgers will be happy to assist you.

Sincerely,

Dalen

Matt Baker Chief Regional and Intermodal Planning Division (RIPD)

Attachment

- cc: Mr. Darren Blue, Public Buildings Service Regional Commissioner, National Capital Region, GSA
  - Mr. David Rodgers, Regional Planner, RIPD, MDOT SHA
  - Mr. Kwesi Woodroffe, Regional Engineer, District 3, MDOT SHA

# Responses to Comments from Matt Barker, Chief, Regional and Intermodal Division, MDOT SHA

- 1. Comment noted.
- 2. The Transportation Impact Study (TIS) has been revised to reference the potential for these future improvements and how they may impact the MRC West Parcel site as well as any recommendations in the TIS.
- 3. We concur that the location and site population, as well as the limited access to transit makes achieving SOV trip reduction goals challenging. However, NCPC requires Federal agencies to employ aggressive means to achieve the mode share goals and parking maximums. The TMP outlines the strategies that the FDA would employ at the MRC West Parcel to reach those goals. The TIS reflects the mode share reductions.
- 4. Comment noted. The TIS reflects a traffic signal. A warrant analysis would be conducted at the time of implementation of the planned development on the MRC West Parcel site.


Larry Hogan Governor Boyd K. Rutherford LL Governor Gregory Slater Secretary Tim Smith, P.E. Administrator

July 6, 2021

Ms. Liz Estes Stantec 6110 Frost Place Laurel, MD 20707

Dear Ms. Estes:

Thank you for the opportunity to review the **Traffic Impact Study** (**TIS**), prepared by Stantec and the General Services Administration, dated **May 17, 2021**, for the proposed **U.S. Food and Drug Administration Muirkirk Road Campus Master Plan** redevelopment – **21APPG010XX** located at 8301 Muirkirk Road, Laurel, MD in **Prince George's County**, Maryland. The Maryland Department of Transportation State Highway Administration (MDOT SHA) review is complete and we are pleased to respond.

- The Muirkirk Road Campus (MRC) is approximately 197 acres with approximately 300 employees. The Master Plan will include additional office and shared use spaces to support a total population of 1,800 employees by 2040.
- This TIS evaluated the potential transportation impacts resulting from the proposed additional employees at the MRC for the 2026 (1,000 total employees) and (1800 total) horizon years.
- The vehicle study area limits are primarily bounded by Muirkirk Road to the north, Powder Mill Road to the south, Laurel Bowie Road (MD 197) to the east, and Virginia Manor Road (MD 206)/Konterra Drive to the west.
- The following intersections were analyzed under existing, background, and future conditions:

| Signalization |
|---------------|
| Signalized    |
| Signalized    |
| Signalized    |
| Unsignalized  |
| Unsignalized  |
| Signalized    |
| Signalized    |
| Unsignalized  |
| Signalized    |
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|               |

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Ms. Liz Estes SHA Tracking No.: 21APPG010XX Page 2 of 5 July 6, 2021

Based on the information provided, please address the following comments in a point-by-point response:

## District 3 Engineering Systems Team (EST) Comments by (Ms. Dorey Uong):

The Engineering Systems Team has reviewed the SHA #21APPG010XX FDA Muirkirk Road Campus materials for conflict with any active or programmed projects managed by our office. Currently, our office has no active or programmed projects within the vicinity of this development.

In addition, we also would like to defer to D3 Traffic for further review and recommendation on traffic impact analysis to ensure there will be no adverse effects to US 1 by the proposed project.

## Regional and Intermodal Planning Division (RIPD) Comments by (Mr. David Rodgers):

| 1. | we offer no comment.  | 2  |
|----|---|----|
| 2. | We defer to Travel Forecasting and Analysis, OOTS, and District 3 Traffic for additional comments related to safety and traffic operations.   | 2  |
| Tr | affic Development & Support Division (TDSD) Comments by (Mr. Oscar Yen):  | ۰. |
| 1. | For all proposed new signals, please provide a full signal warrant analysis.  | 3  |
| 2. | We recommend analyzing the intersections that a roundabout can be implemented and compare<br>to a traffic signal to verify which alternative yields better results.   | 4  |
| 3, | Please provide the synchro files for this TIS.  | 5  |
| Di | strict 3 Traffic Comments by (Ms. Jasmine Smith):   |    |
| 1. | Provide dates for completion of approved but not yet built developments to confirm if the traffic data for the study captured the trips generated from these developments, as well as the impact of the future developments and background traffic. | 6  |
| 2. | Please provide the traffic counts - Appendix B: SHA Traffic Data. Please provide the assumptions behind the distribution of generated trips for both the site and approved  | 1  |

- developments.
  3. Please provide the necessary road improvements, bikeshare, sidewalks etc., for alternatives A, B and C, as the intersections LOS will all fall below D.
- Please provide signal warrant analyses at locations where a new signal is being proposed for mitigation.

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Ms. Liz Estes SHA Tracking No.: 21APPG010XX Page 3 of 5 July 6, 2021

## Travel Forecasting and Analysis Division (TFAD) Comments by (Mr. Rafey Subhani):

## TIS Comments

| 1.  | Peak hour traffic data contained in the report was collected in January 2021 and grown to "pre-<br>COVID" levels based upon unique COVID factors. Please provide background data and<br>calculations/example of how COVID factors were derived.  | 10 |
|-----|--|----|
| 2.  | TFAD generally concurs with the trip generation analysis based upon ITE land use code 710. Typically, a reduction in site trips is due to employees arriving by transit, bike or walking based on facilities serving the area so that they limit or eliminate vehicular trips on the network as the ITE LUC 710 already includes some cases of multiple persons arriving in single vehicle. We concur with the TDM document that acknowledges "this reliance on personal vehicles, in combination with the exurban locationpresents a significant challenge to achieving the 50% SOV goal" and recommend separating the parking goals from the site trips. | 11 |
| 3.  | We question the correlation between parking requirements and site trips. Given the exurban location, please clarify the parking ratio and trip reduction and whether half of employees will not have parking available on site in 2040.  | 12 |
| 4.  | For the Konterra Town Center background development (Exhibits 3 – 4 in Appendix A), please include background development's location and the trip distribution rates. The total peak hour volumes in Exhibits 3 & 4 do not consistently reflect the trip generation volumes included in the "Background Development" discussion in the report. For example, the report indicates that Konterra Town Center will have 2,585 AM trips in phase 1; however, Appendix A Exhibit 3 only includes 1,037 AM trips.  | 13 |
| 5.  | Please provide additional details regarding the development of the trip distribution rates, such as a map of survey results and explain why results from White Oak Campus reflect future trends at Muirkirk location. Are employees from White Oak being relocated to Muirkirk?  | 14 |
| 6.  | All of the Synchro files in the Appendix are labeled "existing" and no time of day (i.e. AM, PM) is specified. Please include appropriate title on each Synchro report. Further, please order Appendix Synchro results in the same order as displayed in Exhibits 26 & 27.   | 15 |
| 7.  | The unsignalized intersection Synchro results in the Appendix do not match results shown in Exhibit 26 & 27.   | 16 |
| 8.  | Prince George's County identifies the property as within its "developing tier" which has a standard level of service "D". While the study indicates that with proposed mitigation all intersections operate overall with a LOS D, there are multiple movements that continue to operate below this standard in both 2026 and 2040.   | 17 |
| 9.  | No approved scope or site plan with proposed site layout included with study. Please explain why Muirkirk Road & Ellington Drive were omitted from the study, as Ellington Drive connects to points southward via Odell Road.  | 18 |
| 10. | For mitigation scenarios, signal coding is inconsistent. All signals in corridor should either be actuated-coordinated or semi-actuated-coordinated, and all signals in a corridor should have the same cycle length unless a half-signal (cycle length) will work in coordination with the corridor. The cycle lengths vary from 70 seconds to 150 second which may lead to failed platooning and unnecessary delays along the corridor.  | 19 |

Ms. Liz Estes SHA Tracking No.: 21APPG010XX Page 4 of 5 July 6, 2021

TMP Comments:

- 11. Current employee population is 300 with an SOV of ~100%, with an ultimate population of 1800 employees; NCPC goals of 50% SOV would result in reduction from an assumed 1800 trips down to 900 trips for the ultimate buildout over the next 20 years – a reduction in 900 SOV.
- 12. MRC's exurban location makes SOV preferrable over transit; local roads have adequate LOS and there is relatively no transit service. SOV may still be vastly preferential over transit by 2040 unless travel times significantly deteriorate and transit service improves. Achieving a 50% non-SOV mode split will require extensive infrastructure investments in transit, shuttle service, physical infrastructure or employee incentives.
- 13. Given MRC's lack of internal, external sidewalk/path infrastructure, connecting to nearby lowdensity residential will be costly. A path from Muirkirk MARC station to MD 197 (page 61) is recommended to be included in all County planning documents and also future Priority Letters to MDOT. Such a path would connect the MRC to both MARC and the major adjacent community (Montpelier neighborhood).
- 14. The TMP noted that current transit options are impracticable given then long travel times and multiple-seat connections required, with the closest Metro Station (Greenbelt) being over 6 miles away and the closest MARC Station (Muirkirk) being 1.5 miles away. Bus service is only by RTA and has hour-long peak-hour headways, serving the City of Laurel, Greenbelt Metro and the MRC. Neither WMATA nor Prince George's The Bus serve MRC.
- 15. Incentives like Guaranteed Ride Home and on-site vehicle fleets are not likely to result in mode-shift, without substantial changes in transit service (headway and service reach), as indicated in the employee survey. Even with substantial investments in transit, mode shift resulting in 50% non-SOV is highly unlikely, since current Off-campus FDA employees (who have better transit service through Metro and multiple bus lines) still have only a 9% transit use. The off Campus employees who are potential candidates for consolidation have a current mode share of 86% and are generally located much further from the MRC than current MRC employees (page 31 and 32), would require substantially longer transit rides. Given the low non-SOV percentage for off-campus employees (Figure 18 on page 31 of TMP), it is unlikely that improving transit service at MRC will significantly increase non-SOV use.
- 16. All options for enhancing physical infrastructure improvements and transit service should be viewed holistically, to see how they will benefit other local institutions, as these are extremely costly if their only benefit is to mitigate 900 SOV MRC trips 20 years in the future. The area surrounding MRC is very low-density and mostly federally-owned land, meaning that increased transit will not provide little additional benefit beyond MRC staff.
- 17. Telecommuting seems to be the most cost-efficient means for SOV reduction and should begin during Phase 1 or before; with employee incentives to telecommute on non-Fridays, as page 25 of the TMP shows Friday to be the preferred telecommute day. Telecommuting is most beneficial when the days are spread across the workweek.

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Ms. Liz Estes SHA Tracking No.: 21APPG010XX Page 5 of 5 July 6, 2021

Please provide an Electronic Submission containing the traffic impact study, all supporting documentation, and a point-by-point response addressing the comments noted above to the Access Management Division. For electronic submissions create an account with our online system <a href="https://mdotsha.force.com/accesspermit">https://mdotsha.force.com/accesspermit</a>. Please reference the SHA tracking number on any future submissions. Please keep in mind that you can view the reviewer and project status via SHA Access Management Division web page at <a href="https://www.roads.marvland.gov/mdotsha/pages/amd.aspx">https://www.roads.marvland.gov/mdotsha/pages/amd.aspx</a>. If you have any questions, or require additional information, please contact Mr. Kwesi Woodroffe at 301-513-7347, by using our toll-free number in Maryland only at 1-800-876-4742 (x7347) or via email at <a href="https://www.roads.marvland.gov">kwoodroffe@mdot.marvland.gov</a> or <a href="https://www.roads.marvland.gov">shaamdpermits@mdot.marvland.gov</a>.

Sincerely,

for Erica Rigby, District Engineer, District 3, MDOT SHA

ER/cmh

cc:

- Ms. Obianuju Ani, MDOT SHA TDSD
- Mr. Matt Baker, MDOT SHA RIPD
- Ms. Danielle Black, MDOT SHA District 3 EST
- Mr. Glen Burton, M-NCPPC
- Mr. Peter Campanides, MDOT SHA District 3 Traffic
- Ms. Rola Daher, MDOT SHA TFAD
- Ms. Patrice Emezie, MDOT SHA District 3 Traffic
- Mr. Derek Gunn MDOT SHA Acting Deputy District Engineer
- Ms. Shelly Jones, GSA (shelly.jones@gsa.gov)
- Mr. Tom Masog, M-NCPPC
- Ms. Claudine Myers, MDOT SHA District 3 EST
- Mr. Marshall Popkin, GSA (marshall.popkin@gsa.gov)
- Mr. David Rodgers, MDOT SHA RIPD
- Ms. Thomasina Saxon, MDOT SHA RIPD
- Ms. Jasmine Smith, MDOT SHA District 3 Traffic
- Mr. William Stroud, MDOT SHA TDSD
- Mr. Rafey Subhani, MDOT SHA TFAD
- Ms. Dorey Uong, MDOT SHA District 3 EST
- Mr. Kwesi Woodroffe, MDOT SHA District 3 Regional Engineer
- Mr. Bryan Barnett-Woods, M-NCPPC
- Mr. Oscar Yen, MDOT SHA TDSD

## Responses to Comments from Erica Rigby, District Engineer, District 3, MDOT SHA

- 1. Comment noted.
- 2. Comment noted.
- 3. This is a master plan-level document. Final design would be conducted at a later date. Additional analysis, including signal warrants, would be conducted at the time of implementation.
- 4. This is a master plan-level document. Final design would be conducted at a later date. Additional analysis of additional options would be conducted at the time of implementation when future volumes can be collected.
- 5. The synchro files for the TIS have been provided to the MDOT TDSD as part of the Final EIS.
- 6. Future developments are discussed on pages 17 and 18 of the TIS. Anticipated dates of completion have been added.
- 7. Appendix B of the TIS has been provided as part of the Final EIS. See Page 23-24 of the TIS for a description of the trip distribution methodology, which is based off of home zip codes of FDA employees that could potentially be relocated to the MRC West Parcel.
- All Master Plan alternatives include the same number of additional FDA employees and site access. Therefore, the TIS analyzes one build condition which accounts for all of the master plan alternatives. Pages 26 – 34 identify which intersections would operate at LOS E or F, as well as recommended mitigation measures.
- 9. The TIS was conducted in support of the NEPA process associated with a master planning effort. No actual projects on the MRC West Parcel are proposed at this time. Additional analysis, including signal warrants, would be conducted at the time of implementation.
- 10. A discussion of calculation of the pre-covid factors has been added.
- 11. We recognize the challenges to achieving the stated mode share goals. However, NCPC requires Federal agencies to employ aggressive means to achieve the mode share goals and parking maximums. The TMP outlines the strategies that the FDA would employ at the MRC West Parcel to reach those goals. Therefore, the TIS reflects the mode share reductions.
- 12. The mode share goals are tied directly to the parking ratios set by NCPC, which states that a 1:2 parking ratio must be met. Therefore, only 900 parking spaces for employees would be available. FDA would be implementing "hotel" spaces at the MRC West Parcel. An FDA employee would need to register for a particular "hotel" desk in order to work on campus on any given day.
- 13. Exhibits in Appendix A and the report discussion have been clarified. The Konterra site is located to the north of the study area on Virginia Manor Road. Therefore, not all site-generated trips enter the MRC West Parcel TIS study area.
- 14. Additional details have been provided in the TIS.
- 15. Synchro files headers have been corrected.
- 16. Exhibits have been corrected to match.

- 17. Concur. However, as noted, the bulk of the additional delay in the study area is a result of other planned developments including the Brickyard and the proposed Konterra development. The project team was unable to identify reasonable mitigation measures to fully mitigate all No Build impacts, nor should it be the responsibility of the MRC West Parcel development to mitigate all of these off-site impacts that are the result of other planned developments.
- 18. This is a master planning level document. Prior to commencing the TIS, the Design Team coordinated with Prince George's County planning staff and MDOT SHA staff to confirm the study area. This coordination concluded that the Ellington Drive intersection did not need to be studied at that time.
- 19. Signal timing has been revised for the mitigation condition, as needed.
- 20. Comment noted.
- 21. Comment noted.
- 22. Comment noted.
- 23. Comment noted.
- 24. Comment noted.
- 25. Comment noted.
- 26. The TMP recommends methods to incentivize telecommuting on Tuesdays, Wednesdays, and Thursdays.

Agenda Item: 8 Agenda Date: 7/8/2021

## The Maryland-National Capital Park and Planning Commission Prince George's County Planning Department Countywide Planning Division 301-952-3650 Note: Staff reports can be accessed at www.pgplanning.org/planning.home.htm

## Mandatory Referral

# MR-2111F

| Application  | General Data                                      |                            |  |
|--|---|----------------------------|--|
| Project Name:<br>Food and Drug Administration (FDA)<br>Muirkirk Road Campus (MRC) Draft Master | Planning Board Hearing Date:                      | 7/8/2021                   |  |
| Plan   | Date Accepted:                                    | 5/25/2021                  |  |
| Location:<br>8301 Muirkirk Rd, Laurel, MD 20708  | 60-Day Mandatory Action<br>Timeframe:             | 7/8/2021                   |  |
|  | Acreage (total site):                             | 249 acres                  |  |
| Applicant/Address:<br>1800 F Street, NW, Suite 4400  | Zone:   | R-O-S Zone                 |  |
| Washington, DC20407  | Planning Area:                                    | 62                         |  |
| Property Owner:  | General Plan-Growth Policy Area:<br>(Main Campus) | Established<br>Communities |  |
| The United States Food and Drug<br>Administration (FDA)  | Council District:                                 | 1                          |  |
|  | Municipality:                                     | N/A                        |  |
|  | 200-Sheet Base Map:                               | 215NE07                    |  |

| Purpose of Application  | Notice Date                   |  |
|---|-------------------------------|--|
| The Food and Drug Administration (FDA)<br>Muirkirk Road Campus (MRC) Draft Master<br>Plan is a referral from the National Capital<br>Planning Commission (NCPC). The MRC Draft<br>Master Plan will update the 1966 Site<br>Development Plan and the 1981 Master Plan.<br>The 249-acre site is zoned R-O-S (Reserved<br>Open Space). | Acceptance Mailing: 5/25/2021 |  |

| Staff Recommendation  | Staff Reviewer: Christine A. Osei                                  |
|---|--|
| Transmit Staff Report to:<br>Mr. Marcel Acosta, Executive Director<br>National Capital Planning Commission<br>401 Ninth Street, NW North Lobby, Suite 500<br>Washington, DC 20004 | Phone Number: 301-952-3313<br>Email: Christine.Osei@ppd.mncppc.org |

Map 1 - Aerial View of MRC



Map 2 - General Project Location Map



# The Maryland-National Capital Park and Planning Commission PRINCE GEORGE'S COUNTY PLANNING BOARD STAFF REPORT

Subject:

## Mandatory Referral (MR-2111F)

Muirkirk Road Campus (MRC), Draft Master Plan for the United States Food and Drug Administration (FDA) Environmental Impact Statement (EIS), and the Transportation Impact Study (TIS).

The MRC Draft Master Plan is being reviewed according to the Land Use Article §§20-301 through 305 of the Maryland Annotated Code and the Prince George's County Planning Board's Adopted Uniform Standards for Mandatory Referral Review. The Land Use Article grants the Planning Board exclusive jurisdiction to review public construction projects for all federal, state, county, and municipal governments and publicly and privately-owned utilities through the Mandatory Referral (MR) review process. In addition, the Draft MRC Master Plan is a referral from the National Capital Planning Commission (NCPC) under the Procedures for Intergovernmental Cooperation in Federal Planning in the National Capital Region.

#### **PROJECT OVERVIEW**

#### SITE DESCRIPTION

The proposed Muirkirk Road Campus (MRC) Draft Master Plan covers approximately 197-acres in the Reserved Open Space Zone (R-O-S) on Parcel 119. The site is bounded to the north by Muirkirk Road and residential properties, to the east and south by Odell Road, and to the west by Ellington Drive and other residential properties. The main entrance is located on the northern property boundary at 8301 Muirkirk Road in Laurel, Maryland. The proposed improvements are located within the northeastern portion of Parcel 119, also known as the West Parcel. The East Parcel (Parcel 121) is located east of Parcel 119 and is approximately 52-acres in size.

The southern portion of the campus is dedicated to animal research and home to the Animal Research Facility operated by the Center for Veterinary Medicine (CVM), which occupies 113 acres. In addition, the area includes four pastures, referred to as Pasture A-D, approximately 32 acres out of a total area of 145 acres. Finally, the existing Food and Drug Administration (FDA) offices and laboratories are concentrated on the northern portion of the campus, approximately 52 acres.

The area surrounding the MRC is comprised of low-density residential areas to the north, west, and east of the site, and the Beltsville Agricultural Research Center (BARC) to the south (across Odell Road). The site is well-connected to existing regional freeway networks, including I-295, I-95, MD 200, U.S. 1, approximately 16 miles north of Washington, DC, and 24 miles from downtown Baltimore, MD. See Map 3: Regional Context

The primary access to the site is via Muirkirk Road, a two-lane road that connects U.S. 1 and MD 200 to the west, and connects to MD 197 and I-295 to the east. In addition, there are two secondary access driveways to the site at Odell Road: one across from the Maryland Army National Guard facility and the other at the intersection with Springfield Road.



The Campus is served by one bus route operated by the Regional Transportation Agency of Central Maryland (RTA), Route 302, which terminates at the MRC. The Muirkirk MARC Station is located approximately 1.5 miles from the site and not easily accessed from the MRC due to limited transit, pedestrian, and bicycle connections on Muirkirk Road. This station is on the MARC Camden Line, connecting Union Station in Washington, DC, with Camden Station in Baltimore, MD. In addition to the MARC, the Greenbelt stations are serviced by the Metrorail Green and Yellow Lines. The land owned by FDA is bisected by Odell Road, dividing the property into two parcels known as the West and East Parcels.

#### BACKGROUND

The FDA is projecting an increase in employees and campus support staff at the MRC and will need additional office space and shared use space to accommodate future needs. There are currently 300 FDA employees at the MRC, with a projected MRC population up to 1,800 people. This growth includes funded staff vacancies, existing employees currently in other leased spaces in suburban Maryland outside the MRC, FDA support staff, and future expansion.

To accommodate this future increase in personnel, the General Services Administration (GSA) and FDA are studying ways to expand office space at the MRC. Both agencies are also evaluating the potential impacts of implementing a master plan to accommodate future growth and the consolidation of FDA operations at the Muirkirk Road Campus. Other FDA operations in the area include a Headquarters at White Oak (approximately 10.9 miles east of the MRC) and a campus at College Park (approximately 7.9 miles north of the MRC).

A master plan is needed to accommodate projected growth and support the FDA's consolidation efforts at MRC. The MRC Draft Master Plan will steer the planning, design, and construction of new buildings; improvements to roadways, utilities, and other infrastructure; and the protection of natural areas.

GSA is responsible for preparing the MRC Draft Master Plan and is the lead Federal agency in preparing this EIS. In addition, GSA is providing project management, architectural, engineering, environmental expertise, and contracting services.

GSA and FDA used a project team of urban planners, architects, architectural historians, environmental scientists, engineers, landscape architects, and economists to coordinate the development of feasible and distinct alternatives with stakeholders and, through review with the various agencies, have identified the following preliminary conditions for future growth at the MRC:

- · Encourage employees to use alternative means of transportation.
- · Maintain a 100- to 300-foot natural landscape buffer at the perimeter of the site.
- · Minimize impacts to vegetation and wildlife by maintaining areas of contiguous forest.
- Support conservation of natural resources through careful siting and configuration of new features.
- · Minimize impacts to the Upper Beaverdam Creek Watershed.

The project team then considered ways to place new buildings on the MRC to increase the amount of office space for the FDA while avoiding significant impacts and minimizing the harm caused by the alternatives. After testing a range of options for each of the parcels, the options were narrowed down to the "No-Action" Alternative and three Action Alternatives considered in the Draft Environmental Impact Statement (EIS). Each of the Action Alternatives fit the overarching development framework as follows:

- New development is concentrated on the main campus's northern portion (as was intended in the 1966 Site Development Plan).
- · New development is organized around a central open space and landscape amenity.
- Pedestrian connections and walkways provide connectivity between the MOD 1 and MOD 2 buildings and the Beltsville Research Facility (BRF).
- New development does not infringe on pastures and does not impact operations at the Animal Research Facility

#### PROJECT DESCRIPTION

#### MRC Draft Master Plan

The Muirkirk Road Campus (MRC) Draft Master Plan proposes consolidating an additional 1500 FDA employees into the FDA-owned property in the next 20 years. As a result, the projected MRC population would increase to approximately 1,800 employees. Currently, the MRC houses 300 employees and proposes to consolidate an additional 700 employees to the MRC in Phase I over the next 5 to 6 years: and another 800 employees during future development phases in the next 20 years. The existing campus has 480,000 gross square feet of building area, 32-acres of pastures, and 320 surface parking spaces for employees and visitors. The MRC Draft Master Plans presents four alternatives: one No Action Alternative and three Development Alternatives.

Each Development Alternative proposes adding approximately 438,000 gross-square-feet of building area over the next 20 years and no additional pastures. As a result, the total projected MRC building area would increase to approximately 918,000 gross-square-feet. In addition, utilizing the proposed 1:2 parking ratio, each Development Alternative proposes 900 parking spaces (structured garages) for employees and 80 parking spaces (surface) for visitors for a total of 980 spaces.

The Plan will be implemented in two phases with a near-term (5-6 year) consolidation of FDA staff and the addition of 700 employees resulting in a total population of 1,000 employees. The second phase assumes a 20-year timeframe with an additional 800 employees reaching 1,800 employees at build-out.

The objective of the MRC Draft Master Plan is to provide a planning and development framework that enables sustainable and efficient development; supports FDA's mission and workforce success. There are eight MRC Draft Master Plan goals discussed below:

Image & Mission - Reinforce FDA's image as a leading scientific institution and to:

- Foster employee retention and attraction,
- Create a collegial environment to foster scientific interaction,
- Be an environmental steward, preserve open space, enhance site's natural features, and
- Embody the highest principles of sustainable design.

**Economics**- Create a more efficient and cost-effective agency:

- Reduce dependencies on leased facilities,
- Maximize onsite population to streamline operations,
- Utilize shared facilities, and
- · Reduce travel times to and from meetings and conferences.

**Environmental Stewardship** - Protect the site's tree canopy, maintain biodiversity, minimize runoff, and create a sustainable campus and to:

- Minimize land coverage,
- · Convert surface parking lots into building pads,
- · Create both zero net energy & zero net water facilities, and
- Utilize innovative stormwater practices.

Transportation - Foster adequate transportation

solutions to minimize traffic and parking, reinforce the innovative existing policies, and to:

- Welcome commuter bus services of public transportation authorities on site,
- Create an onsite transit hub,
- Continue to subsidize vanpools,
- Phase future parking based on the impact of autonomous vehicles, and
- Coordinate a future shuttle service with other agencies.

#### **Environmental Impact Statement and Transportation Management Plan**

There are two companion documents to the MRC Draft Master Plan: Draft Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act (NEPA) and the Draft Transportation Management Plan (TMP). The draft Environmental Impact Statement (EIS) is to assess and report potential impacts that would result from the implementation of the MRC Draft Master Plan alternatives. In addition, the Draft EIS is to guide the decision-making process on environmental impacts resulting from any of the Development Alternatives, including impacts on natural resources, social resources, and cultural resources that are likely to occur during the implementation of the MRC Draft Master Plan.

The draft Transportation Management Plan (TMP) is a required supporting document to the MRC Draft Master Plan. As an MRC Draft Master Plan element, the goals and phasing of the TMP are aligned with those of the MRC Draft Master Plan alternatives. In addition, The TMP is a guide to implementing transportation demand management and performance strategies/policies specific to the MRC. The TMP will be administered by the Employee Transportation Coordinator and will require regular updates and monitoring.

## **MRC Draft Master Plan Alternatives**

## **No-Action Alternative Consideration (NEPA):**

(NEPA) requires GSA and FDA to consider a No-Action Alternative as a baseline for evaluating the environmental impacts of the MRC Draft Master Plan alternatives. The No-Action Alternative provides a comparison of each of the MRC Draft Master Plan alternatives concerning current operations. Under the No-Action Alternative, a new MRC Master Plan would not be adopted, and FDA would continue its existing operations at the MRC. The site would continue to be occupied by the Center for Veterinary Medicine (CVM) and the Center for Food Safety and Applied Nutrition (CFSAN) employees and support staff. No new office, laboratory, or specialized use facilities would be constructed, and the number of employees and support staff would remain at 300. See Map 4: No-Action Alternative





## Alternative A - Compact Campus:

Development would be concentrated to the north and west of the MOD 1 and MOD 2 buildings under Alternative A. A strategically positioned atrium would allow for a view from the main entry, through the new building, into the forested stream valley at the center of the Campus.

Alternative A includes the following:

- a. Two new office buildings up to 5 and 6-stories tall adjacent to MOD 1 and MOD 2.
- b. The new building west of MOD 1 will replace the existing surface parking lot.
- c. Two new parking garages located at the Beltsville Research Facility (BRF) site.
- d. A pedestrian bridge between MOD 1 and the new building to the north.
- e. A programmable skybridge between the new buildings connecting the BRF site.

- f. Space for shared amenities such as conference center, cafeteria, and fitness center in the podium of the first new office building to be built.
- g. Total New Building Area: 438,000 square-foot. (Office and Special Use Spaces Only)
  - 1. Total Office: 375,000 square-feet
  - 2. Total Special Use and Shared Use: 63,000 square-feet
  - 3. Total New Parking: 980 Spaces (New parking includes replacement of existing parking displaced by new buildings, and assumes parking at one space per two employees)



## Map 5: Alternative A - Compact Campus

#### Alternative B - Dual Campus:

Development would be distributed between the MOD 1 and MOD 2 buildings and the Beltsville Research Facility (BRF) site. Similar to Alternative A, a strategically positioned atrium in Alternative B would allow for a view from the main entry, through the new building, into the forested stream valley at the center of the Campus.

Alternative B includes the following:

- a. Three new office buildings up to 5-stories tall
- b. Two new parking garages, one at MOD 1 and MOD 2 and one at the BRF site
- c. One of the new parking garages will replace the surface parking lot west of MOD 1 and MOD 2
- d. A pedestrian bridge between MOD 1 and the new building to the north
- e. A direct connection between MOD 2 and the new office building to the south of MOD 2
- f. Space for shared amenities like a conference center, cafeteria, and fitness center in the podium of the first new office building to be built
- g. A two-level (24,000 square-foot) skybridge is considered part of the Phase 2 building

- h. Total New Building Area: 438,000 square-feet (Office and Special Spaces Only)
   1. Total Office: 375,000 square-feet
  - 2. Total Special Use and Shared Use: 63,000 square-feet
  - 3. Total New Parking Spaces: 980 spaces (New parking includes replacement of existing parking displaced by new buildings, and assumes parking at 1 space per 2 employees)



## Map 6: Alternative B- Dual Campus

#### Alternative C - Northeast Campus:

Development would occur at the Beltsville Research Facility (BRF) except for a maintenance/storage building south of MOD 2. The new buildings would barely be visible from the main entrance at Muirkirk Road as most of the building would be screened by forested areas that form the perimeter landscape buffer. The forested stream valley at the center of the Campus would be visible from both buildings.

Alternative C includes the following:

- a. Two new, connected office buildings of 5-stories.
- b. Two new parking garages to the east of the new buildings at the BRF site.
- c. A significant portion of the existing surface parking lot adjacent to MOD 1 and MOD 2 will be returned to the natural landscape with a pervious surface. Of the 283 surface parking spaces currently located here, only 150 would remain. These remaining 150 spaces will be improved with bioswales for capturing stormwater and overhead solar panels.
- d. A space for shared amenities like a conference center, cafeteria, and fitness center in the podium of the first new office building to be built.
- e. Total New Building Area: 438,000 square-feet (Office and Special Spaces Only).
  - 1. Total Office: 375,000 square-feet
  - 2. Total Special and Shared Use: 63,000 square-feet
  - 3. Total New Parking: 750 Spaces (New parking includes replacement of existing parking displaced by new buildings, and assumes parking at one space per 2 employees)



## **Commonalities**:

The Action Alternatives would add a new entry gate at Odell Road and retain the back road entrance for emergency and special access. Each Action Alternative emphasizes connectivity, walkability, envisions underground service corridors and sky bridges between existing and new buildings. They would also maintain tree cover, minimize environmental disturbances, including a 100-foot vegetation buffer along the perimeter and a 300-foot buffer along the western boundary. In addition, they would install bioswales, green roofs, and green façades adjacent to parking garages.

#### OUTREACH & PUBLIC ENGAGEMENT Planning Department:

A letter was sent to the mayor of Laurel, and notices were mailed to abutting property owners.

Applicant's Stakeholder Coordination: 2020 Review Agency Stakeholder Early Coordination: October – November 2020:

- Project introduction to Prince George's County and M-NCPPC staff
- Initiated NHPA (National Historic Preservation Act) Section 106 Consultation (Maryland Historical Trust - MHT)
- Project introduction, MDOT SHA (Maryland Department of Transportation State Highway Administration)

## January-February 2021:

EIS Scoping Period

## February 2021 - April 2021:

- NCPC Commission Meeting Information Presentation
- MHT concurrence with Determination of Eligibility (DOE) findings
- NCPC staff coordination meetings: MRC Draft Master Plan and TIS and TMP Overview

#### May 2021:

- Prince George's Planning County staff and MDOT SHA staff TIS and TMP Overview
- NCPC, Prince George's Planning Department: submittal of early MRC Draft Master Plan, TMP, Draft EIS

June 1, 2021: Prince George's County staff – MRC Draft Master Plan - review coordination meeting June 4- July 19, 2021: FDA MRC Draft EIS 45-Day Public Comment Period June 23, 2021: Virtual Public Meeting on the MRC Draft EIS

#### September 2, 2021:

- NCPC Review of MRC Draft Master Plan and TMP
- NCPC Commission Meeting Review FDA MRC Draft Master Plan and TMP

#### **PROJECT ANALYSIS**

The Maryland-National Capital Park and Planning Commission, Prince George's County Planning Department staff has reviewed the MRC Draft Master Plan for FDA Muirkirk Road Campus, Environmental Impact Statement (EIS), and the Transportation Impact Study (TIS) and offered the following comments:

#### 1. CONSISTENCY WITH APPROVED PLANS

This application is consistent with the 2014 *Plan Prince George's 2035 Approved General Plan* (May 2014) which designates this site as being within the Established Communities Growth Policy Area. The proposed development is consistent with *Plan 2035* because its implementation will maintain and enhance existing public services, facilities, and infrastructure consistent with the intent of the Plan.

The 2010 Approved Subregion 1 Master Plan retained the Muirkirk Road Campus site in the R-O-S Zone. This application conforms with the institutional land use recommendations for the *Approved Master Plan and Sectional Map Amendment for Subregion 1* (June 2010) by adding office space to the existing development on the campus.

#### 2. CONSISTENCY WITH DEVELOPMENT/REGULATORY STANDARDS

As discussed previously, the MRC Draft Master Plan presents three Action Alternatives:

- Alternative A -Compact Campus, Integrating Old and New offers a compact development plan mainly on the existing MOD 1 and MOD 2 sites with a new parking garage on the BRF site;
- Alternative B-Dual Campus, Distributing Development Between Two Sites, presents a sprawl development pattern on both the existing MOD 1 and MOD 2 sites and the BRF sites by reducing the building heights and increasing the coverage of the building footprints; and,
- Alternative C-Northeast Campus, Reimaging the BRF, presents a leapfrog development pattern by locating all new development on the BRF site.

The Implementation Plan: Many implementation elements such as guidance on building design, treatment of perimeter security fence, and treatment of antennas and satellite dishes appear sensible to the proposed Campus and provides clear logic to support the Plan for replacing obsolete facilities, adding new buildings, and improving the overall function of the Muirkirk Road Campus. It is recommended that a separate chapter on implementation that includes all implementation draft elements in one place, design guidelines for building, signage, landscaping, etc., be added to the MRC Draft Master Plan.

**Healthy Building**: In the post-pandemic era, for those jobs that require physical presence, such as many laboratory assignments, the returning employees will find a very different office environment. Many sanitary types of equipment, including but not limited to ultraviolet cleanse portal, specialized air filter, air sanitizing troffer, unique virus sensor, and antimicrobial coating of surfaces, will have to be deployed to ensure a healthy office environment, in addition to masking and social distancing. As such, it is recommended that the MRC Draft Master Plan include guidelines on healthy building protocols.

#### 3. ENVIRONMENTAL ASSESSMENT

According to the Food and Drug Administration, Muirkirk Road Campus (MRC) Draft Master Plan Draft Environmental Impact Statement dated May 2021, a total of 57.8 acres of woodland exists onsite comprised of nine separate forest stands. A total of five regulated streams and 11 wetlands were identified within the project area. According to the report, the MRC is not mapped within the existing Federal Emergency Management Area (FEMA) 2016 Flood Insurance Rate Map (FIRM) 100-year or 500-year floodplain. The site is mapped within regulated and evaluation areas of the 2017 *Countywide Green Infrastructure Plan* of the *Approved Prince George's Resource Conservation Plan* (May 2017). Although Muirkirk Road is not mapped as a scenic or historic road, Odell Road has been designated a historic road.

The implementation of the three alternative MRC Draft Master Plans will result in the following total amounts of forest clearing (see table below):

|               | Woodland Clearing (Acres) |
|---------------|---------------------------|
| Alternative A | 4.8                       |
| Alternative B | 5.2                       |
| Alternative C | 4.8                       |

For each alternative, no impacts to threatened and endangered species or critical habitat are anticipated to occur within site installation areas, as none are mapped within them (although they are mapped elsewhere onsite per PGAtlas). Although the applicant is not subject to the 2018 *Environmental Technical Manual* (ETM), the applicant is encouraged to follow its requirements regarding on and off-site woodland requirements. Specifically, to provide any required forest conservation mitigation onsite to the extent practicable. Any off-site requirements should be met in the following order: within the sub-watershed, watershed, river basin, and lastly within Prince George's County.

**Preservation and Restoration of Regulated Environmental Features:** According to the May 2021 Draft Environmental Impact Statement, each of the proposed alternatives will impact varying amounts of Regulated Environmental Features (REF). These REF include areas of streams, wetlands, and their respective buffers that make up the Primary Management Area (PMA). The PMA area also contains areas of adjacent steep slopes to the REF. The applicant provided the following information regarding each of the three alternative layout impacts to REF and PMA:

|               | Wetland | Wetland        | Streams       | Stream        | PMA     |
|---------------|---------|----------------|---------------|---------------|---------|
|               | Impacts | Buffer Impacts | (Linear Feet) | Valley Buffer | impacts |
|               | (Acres) | (Acres)        |               | (Acres)       | (Acres) |
| Alternative A | 0.17    | 0.07           | 246           | Information   | 0.9     |
|               |         |                |               | Not Provided  |         |
| Alternative B | 0.06    | 0.07           | 0             | Information   | 0.3     |
|               |         |                |               | Not Provided  |         |
| Alternative C | 0.17    | 0.18           | 68            | Information   | 0.6     |
|               |         |                |               | Not Provided  |         |

## Short-Term Impacts During Construction

#### Long-Term Impacts Post Construction

|               | Wetland | Wetland        | Streams       | Stream        | PMA     |
|---------------|---------|----------------|---------------|---------------|---------|
|               | Impacts | Buffer Impacts | (Linear Feet) | Valley Buffer | impacts |
|               | (Acres) | (Acres)        | a 6           | (Acres)       | (Acres) |
| Alternative A | 0.05    | 0.05           | 246           | Information   | 0.2     |
| -             |         |                |               | Not Provided  |         |
| Alternative B | 0.03    | 0.01           | 0             | Information   | < 0.1   |
|               |         |                |               | Not Provided  |         |
| Alternative C | 0.05    | 0.04           | 68            | Information   | 0.1     |
|               |         |                |               | Not Provided  |         |

Based on the information provided, implementation of Alternative A will result in the most significant short-term and long-term impacts to REF and PMA, followed by Alternative C. Implementation of Alternative B would result in the least amount of short-term and long-term impacts to REF and PMA, with no direct impacts to regulated streams. It is unclear how much stream valley buffer will be impacted in the short-term or long-term for each proposal, as that information was not provided. Impacts on wetlands and streams and associated regulated buffers will be evaluated by the United States Army Corps of Engineers (USACOE) and the Maryland Department of the Environment (MDE) Nontidal Wetlands and Waterway Program.

**2017 Green Infrastructure Plan**: According to PGAtlas, the area of site improvements proposed by the MRC Draft Master Plan contain three mapped regulated areas. Per the 2017 *Countywide Green Infrastructure Plan* of the *Approved Prince George's County Resource Conservation Plan* each of these regulated areas are associated with streams.

**Soils:** As a large master plan campus project, some soil types associated with area of steep slopes have been identified on the 197-acre "Western Parcel" (Parcel 119). Marlboro Clay is not present; however, areas of unsafe soils containing Christiana complexes are mapped within the western portion of Parcel 119.

These areas of Christiana complex soils appear to be outside the limits of each of the three alternative MRC Draft Master Plans according to the Natural Resources Conservation Service (NRCS) Web Soil Survey. Therefore, staff recommends identifying these potentially unsafe soils wherever future proposed development will be situated on them to determine if any mitigation will be required at later stages of the design process.

**Stormwater Management:** All projects within the proposed MRC Draft Master Plan will be subject to a state-level MDE review for stormwater management (SWM) impacts.

## 4. TRANSPORTATION ASSESSMENT

All proposed MRC Draft Master Plan alternatives have the same access points. The primary site access is off Muirkirk Road onto a driveway, Pasture Road. There are currently two site access points along Odell Road; only one is in use and will continue. The MRC campus presently has a 1:1 ratio for parking spaces. As the Plan is implemented and development occurs within Campus, the aim is to reduce this ratio as employment grows. This will require the implementation of transportation demand management (TDM) strategies. These strategies will encourage employees to commute via modes other than driving alone, such as transit, car or vanpool, walking, and bicycling. In addition, a shuttle bus is proposed that will connect to various nearby transit stations.

The MRC currently has limited pedestrian facilities and no bicycle facilities on site. The pedestrian facilities mainly consist of sidewalks around buildings and between buildings and the parking areas. There are also no continuous sidewalks or bicycle facilities connecting the adjacent community to the Campus. There is no sidewalk to a nearby bus stop on Muirkirk Road. The lack of these facilities is a significant barrier to commuting by walking, bicycle, or transit. Although it should be noted that the Campus is relatively isolated and is not close to major transit or high-density areas, the Plan recommends specific improvements that could generate such trips.

The recommendations would require the applicant to work with the County to provide these facilities and consider a 10-foot-wide multi-use path along Muirkirk Road in place of on-street bicycle lanes. Other recommendations include coordinating with other agencies and campuses near the MRC to advocate for improved pedestrian and bicycle facilities connections to each other and throughout the area. Such improvements also envision a bike-share or scooter system, tool and pump stations, a bicycle and pedestrian commuter group, shower, and locker facilities. All new and improved infrastructure should meet the Americans with Disabilities Act (ADA) requirements.

The MRC has limited transit connections. It is approximately one and a half miles east of the Muirkirk Maryland Area Regional Commuter (MARC) station. Regional Transportation Agency (RTA) Route 302 runs along Muirkirk Road and has an end line stop at the Muirkirk Road entrance. The Plan recommends coordination with transit service providers to enhance area services in the future.

**Traffic:** The site is located approximately three miles east of I-95 and about two and a half miles west of the Baltimore-Washington Parkway. A traffic analysis was prepared as part of the EIS which assessed future conditions in the study area limits bounded by Muirkirk Road to the north, Powder Mill Road to the south, Laurel Bowie Road (MD 197) to the east, and Virginia Manor Road (MD 206) at Konterra Drive to the west.

A total of 13 intersections were included in the analysis. The analysis determined that future development of the site could be accommodated with all intersections operating acceptably or improved to meet the County's Level-Of-Service (LOS) standards.

The traffic analysis recommended improvements at eight intersections; these improvements should be reviewed and implemented, as needed:

- <u>Konterra Drive at MD 200 off-ramp</u>: Provide a second eastbound right-turn lane from the MD 200 ramp onto southbound Konterra Drive. This would be required in the 2040 future condition.
- <u>Virginia Manor Road/Konterra Drive at Muirkirk Road</u>: Provide a second southbound leftturn lane from Konterra Drive onto eastbound Muirkirk Road.
- <u>Virginia Manor Road/Ritz Way (MD 212) at Virginia Manor Road:</u> Install a coordinated traffic signal with the other signals along Virginia Manor Road/Konterra Drive (MD 206). A roundabout could also be considered at this intersection but would require further investigation.
- <u>Muirkirk Meadows Drive at Muirkirk Road</u>: Install a traffic signal coordinated with the other nearby traffic signals on Muirkirk Road.
- <u>Old Baltimore Pike/Cedarhurst Drive at Muirkirk Road:</u> Construct a separate right-turn-only lane from eastbound Muirkirk Road to southbound Old Baltimore Pike.
- <u>Pasture Road/Snowden Woods at Muirkirk Road:</u> Install a traffic signal at the intersection. A roundabout could also be considered at this location. However, this would warrant further investigation as additional right-of-way (ROW) may be required.
- <u>Powder Mill Road at Springfield Road:</u> Install a traffic signal at this intersection and provide the individual right and left-turn lanes on westbound and eastbound Powder Mill Road. This recommendation is also contained in the *Bureau of Engraving and Printing Transportation Impact Study* (2020) prepared by Alliance Consulting Group.
- Laurel Bowie Road (MD 197) at Muirkirk Road (Crystal Plaza Driveway): Provide two northbound and southbound left-turn lanes from MD 197 onto Muirkirk Road/Crystal Plaza.

The Powder Mill Road and Springfield Road intersection is also contained in the Bureau of Engraving and Printing (BEP) project's transportation impact study with improvement recommendations. As there is a strong likelihood that the BEP project will move forward ahead of this Plan, coordination will be required.

#### 5. HISTORIC PRESERVATION/ARCHEOLOGY

The subject property does not contain and is not adjacent to any designated Prince George's County Historic Sites or resources. Therefore, the Historic Preservation Section staff concur with the Maryland Historical Trust's determination that the project will have no effect on historic resources and recommend MR-2111F MRC Draft Master Plan and draft EIS with no conditions.

## 6. ECONOMIC ASSESSMENT

The MRC Draft Master Plan is consistent with the goals of the *Prince George's County's Subregion 1 Plan*, which calls for green design, sustainable development, and attracting new employment opportunities. The MRC Draft Master Plan is a long-term plan with a projected 20-year built-out timeframe. It assumes short- and long-term beneficial impacts on the economy, employment, and taxes within Prince George's County and Maryland. Construction of new buildings at the MRC would increase economic activity in the region through the purchasing of materials, services, and equipment; and by personnel patronizing local businesses.

#### 7. EXISTING PUBLIC FACILITIES

The 2018 Water and Sewer Plan placed this property in Water and Sewer Category 3, Community System. This site is Federal land, therefore security and emergency services for the property and the facility are coordinated by the Federal Government. It is recommended that before construction, the applicant shall contact the Prince George's County Police Department to request a pre-incident Plan for the employees. Additionally, it is recommended that before construction, the applicant shall contact the Prince George's County Fire/EMS Department to request a pre-incident Emergency Plan for the campus.

#### PERMITTING AGENCIES

The Mandatory Referral review process does not exempt any project from meeting any other entitlement process requirement. As a MRC Draft Master Plan, the project does not entitle the site to any physical development and therefore does not require any subsequent development permits. Development associated with implementing the MRC Draft Master Plan will be subject to all applicable reviews and development permits. Future development may be required to receive final approvals from the following:

- The Maryland Department of the Environment (MDE):
  - Site Development: Stormwater, Erosion Sediment: Joint MDE/USACE Regulatory Branch
  - o Demolition and Relocation of Existing Buildings
  - General discharge permit
- Washington Suburban Sanitary Commission (WSSC):
   Onsite water and sewer
- Prince George's County Department of Public Works & Transportation
   Access permits for Muirkirk Road and Odell Road.

## STAFF RECOMMENDATIONS:

Staff has reviewed the MRC Draft Master Plan for the FDA Muirkirk Road Campus, the Environmental Impact Statement (EIS), and the Transportation Management Plan (TMP), and offers the following recommendations:

- The applicant should expand discussion on the implementation of its healthy building policy at MRC.
- The applicant should work with the County to provide bicycle and pedestrian facilities recommended in the Approved Countywide Master Plan of Transportation (MPOT) (November 2009).
- The applicant should coordinate improvements at the Powder Mill Road and Springfield Road intersection with the Bureau of Engraving and Printing (BEP).

- 4. The applicant should coordinate Water and Sewer services with the Washington Suburban Sanitary Commission for the portion of the property in Category 3.
- 5. The Muirkirk MARC Station is located approximately 1.5 miles from the site but is not easily accessed from the MRC due to limited transit, pedestrian, and bicycle connections on Muirkirk Road. The applicant should improve pedestrian and bicycle connections along Muirkirk Road to facilitate employee and visitor commutes from the Muirkirk MARC Station to MRC.

## Responses to Comments from M-NCPPC, Prince George's County Planning Department

- 1. The Final EIS has been updated to include additional information on the government's healthy building policy.
- 2. FDA would continue to work with Prince George's County regarding bicycle and pedestrian facilities.
- 3. GSA/FDA would coordinate with the BEP on improvements to the Powder Mill Road/Springfield Road intersection.
- 4. GSA/FDA would coordinate with WSSC during the design phase of this project.
- 5. FDA would coordinate with Prince George's County, MDOT SHA, and WMATA to investigate ways to enhance connections between the MRC West Parcel and the Muirkirk MARC station. The TMP identifies several strategies including improved bus service, an employee shuttle, and pedestrian and bicycle paths to enhance the connection. However, it should be noted, with the implementation of the HHS teleworking policy more employees would be working remotely, which increases the difficulty of implementing some of these strategies.

 From:
 Marshall Popkin - WPD1D

 To:
 Estes, Liz; Shelly Jones - WPDBA

 Subject:
 Fwd: FDA MRC Master Plan Draft EIS Comment

 Date:
 Wednesday, June 9, 2021 1:20:38 PM

 Attachments:
 image001.png

Good afternoon, Liz,

Please see the below comments on the Draft FDA MRC EIS.

Thanks, Marshall

From: Robert Love <<u>rlove@laurel.md.us</u>> Date: Wed, Jun 9, 2021 at 11:12 AM Subject: FDA MRC Master Plan Draft EIS Comment To: <u>marshall.popkin@gsa.gov</u> <<u>marshall.popkin@gsa.gov</u>> Cc: LouAnn Crook <<u>LouAnnC@laurel.md.us</u>>, Christian Pulley <<u>CPulley@laurel.md.us</u>>

Mr. Popkin,

Thank you for reaching out to the City of Laurel. The city would expect to see an increase in traffic in the city, especially along Baltimore Ave. (Route 1) but not to the degree that can't be handled. The city should also be able to handle an increase in housing needs for the area as we have approved 600+ single family and townhouse units in the past 3 years that are starting to be built with more projects being proposed for housing. The city has no major concerns with this proposed expansion. If you have any further questions, please let me know.

1

Thank You,

Robert Love

Director

City of Laurel

Dept. of Economic and Community Development

Laurel Municipal Center

8103 Sandy Spring Road, Laurel, MD 20707

Office: 301-725-5300 x 2313 Fax: 301-725-6831

Responses to Comments from Robert Love, City of Laurel, Department of Economic and Community Development

1. Comment noted.

| From:        | Marshall Popkin - WPD1D  |
|--------------|--|
| To:          | Estes, Liz   |
| Ca:          | Shelly Jones - WPDBA   |
| Subject:     | Fwd: FDA Murkirk Road Campus Master Plan ETS - Public Comment Period         |
| Date:        | Monday, June 7, 2021 3:33:21 PM  |
| Attachments: | image006.png<br>image007.png<br>image008.png<br>image008.png<br>image010.png |

## Good afternoon, Liz,

Please see the comment below for the FDA MRC Draft EIS.

Thanks, Marshall

------ Forwarded message -------From: Hilton, Thomas C <<u>Thomas.Hilton@wsscwater.com</u>> Date: Mon, Jun 7, 2021 at 3:16 PM Subject: RE: FDA Muirkirk Road Campus Master Plan EIS - Public Comment Period To: <u>marshall.popkin@gsa.gov</u> <<u>marshall.popkin@gsa.gov</u>> Cc: Beach, Joseph F <<u>Joseph.Beach@wsscwater.com</u>>, Harmer, Michael <<u>Mike.Harmer@wsscwater.com</u>>, Price, James A <<u>James.Price@wsscwater.com</u>>, Chicca, Ray <<u>Ray.Chicca@wsscwater.com</u>>, Six, Kimberly <<u>Kimberly.Six@wsscwater.com</u>>

Mr. Popkin,

On behalf of WSSC Water, thank you for the opportunity to provide comments on the Draft EIS for the MRC Master Plan.

We offer the following comments with respect to the Utilities section of the report, Section 4.21.2:

## Domestic Water/Sanitary Sewer

 The GSA report references a Letter of Findings(LOF) which was submitted by WSSC Water in 2017 on the availability of water and sewer service to the Master Plan development scenarios within the MRC property. The report infers that water and sewer utilities are adequate to serve the development proposed in the Master Plan. Upon review of the information submitted and discussion with staff shows that the LOF clearly states that the project was reviewed but not approved for authorization. A detailed and thorough review of the water and sewer system capacity, both locally and regionally will be performed during the Hydraulic Planning Analysis (HPA) once more

specific details of the proposed development are known.

2. The report references several pumping stations within the MRC property. Within the same paragraph, the report notes that sewer service is provided by WSSC Water. Please revise the language to let all readers know that these on-site wastewater pumping stations are privately owned and maintained by the Federal Government.

2

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3. Reference is made to laboratory wastes and pH adjustments to the wastewater. The report shall state that all wastewater discharges to the WSSC Water sewer system shall be in conformance with the relevant Industrial Discharge Control Program standards as specified within the WSSC Regulatory Services Code.

Please let me know if you have any questions or comments.

Thank you

Tom Hilton



THOMAS C. HILTON, P.E. Planning Division Manager

Engineering and Construction Department

240.459.4928 (C)

thomas.hilton@wsscwater.com

From: Estes, Liz <<u>liz.estes@stantec.com</u>> Sent: Friday, June 4, 2021 5:18 AM To: Estes, Liz <<u>liz.estes@stantec.com</u>> Cc: Marshall Popkin - WPD1D <<u>marshall.popkin@gsa.gov</u>> Subject: FDA Muirkirk Road Campus Master Plan EIS - Public Comment Period

## **Responses to Comments from Thomas Hilton, WSSC**

- 1. Concur This is a master plan-level document. Final design would be conducted at a later date. A Hydraulic Planning Analysis would be conducted during the design phase of the project.
- 2. The Final EIS has been revised for clarity.
- 3. The Final EIS has been revised to include that all wastewater discharges to the WSSC Water sewer system would be in conformance with the relevant Industrial Discharge Control Program.

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