



## Continental United States (CONUS) Interceptor Site



### SECTION 3.6 – Summary of Environmental Consequences, Impacts, and Mitigation Options

### Environmental Impact Statement Final

Department of Defense  
Missile Defense Agency  
5700 18<sup>th</sup> Street  
Fort Belvoir, VA 22060-5573

DISTRIBUTION STATEMENT A.  
Approved for public release;  
distribution is unlimited.

February 2017

Approved for Public Release  
17-MDA-8984 (24 January 17)

This page intentionally left blank.

## Table of Contents

<b>1.0</b>	<b>Purpose and Need for Potential Continental United States Interceptor Site Deployment .....</b>	<b>1-1</b>
1.1	Introduction.....	1-1
1.2	Background.....	1-1
1.2.1	Threats .....	1-2
1.2.2	Ballistic Missile Defense System .....	1-2
1.3	Purpose and Need .....	1-4
1.4	Decisions to be Made .....	1-4
1.5	Scope of the Environmental Impact Statement.....	1-5
1.6	Cooperating Agencies.....	1-5
1.7	Summary of Public Participation.....	1-5
1.7.1	Scoping Process.....	1-6
1.7.2	Notice of Intent.....	1-6
1.7.3	Public Scoping Period and Meetings .....	1-6
1.7.4	Summary of Scoping.....	1-9
1.7.4.1	<i>Fort Custer Training Center, Fort Custer, Augusta, Michigan .....</i>	<i>1-9</i>
1.7.4.2	<i>Camp Ravenna Joint Military Training Center, Portage and Trumbull Counties, Ohio.....</i>	<i>1-10</i>
1.7.4.3	<i>Fort Drum, Fort Drum, New York.....</i>	<i>1-11</i>
1.7.4.4	<i>Center for Security Forces Detachment Kittery Survival, Evasion, Resistance and Escape Training Facility, Redington Township, Maine.....</i>	<i>1-11</i>
1.7.5	Coordination with Regulatory Agencies.....	1-12
1.7.6	Notice of Availability .....	1-13
1.7.7	Public Review and Comment Period for Draft EIS.....	1-13
1.7.8	Summary of Draft EIS Comments .....	1-15
1.8	Related Environmental Documentation.....	1-17
<b>2.0</b>	<b>Description of the Continental United States Interceptor Site Deployment Concept and Alternatives Considered .....</b>	<b>2-1</b>
2.1	Introduction.....	2-1
2.2	Objectives .....	2-1
2.3	Ground-Based Midcourse Defense (GMD).....	2-1
2.3.1	Ground-Based Interceptors.....	2-2
2.4	CONUS Interceptor Site Deployment Concept.....	2-3

2.4.1	CONUS Interceptor Site Facilities .....	2-3
2.4.1.1	<i>Mission Facilities</i> .....	2-4
2.4.1.2	<i>Mission Support Facilities</i> .....	2-6
2.4.1.3	<i>Non-Mission Facilities</i> .....	2-10
2.4.1.4	<i>Infrastructure</i> .....	2-11
2.4.2	Sustainable and Green Engineering Design Considerations for CIS Facilities.....	2-11
2.5	Construction .....	2-12
2.5.1	Baseline Construction Schedule .....	2-12
2.5.2	Expedited Construction Schedule .....	2-13
2.6	Transportation, Assembly, and Integration Activities (Construction and Operation) .....	2-14
2.6.1	Silo Interface Vault/Silo Transport.....	2-14
2.6.2	Ground-Based Interceptor Component Transport and Integration.....	2-15
2.7	CONUS Interceptor Site Day-to-Day Operations .....	2-15
2.7.1	Hazardous Materials and Hazardous Waste Management.....	2-16
2.7.2	Safety Systems .....	2-16
2.7.2.1	<i>Explosive Safety Quantity-Distances</i> .....	2-16
2.7.2.2	<i>Electromagnetic Radiation Safety Distances</i> .....	2-17
2.7.2.3	<i>Fire Protection</i> .....	2-17
2.7.3	Security .....	2-17
2.7.4	Snow Removal.....	2-18
2.8	Decommissioning and Disposal .....	2-18
2.9	CONUS Interceptor Site Deployment Alternatives .....	2-19
2.9.1	Fort Custer Training Center, Augusta, Michigan.....	2-21
2.9.2	Camp Ravenna Joint Military Training Center – Ohio Army National Guard, Portage and Trumbull Counties, Ohio.....	2-22
2.9.3	Fort Drum, New York.....	2-23
2.10	No Action Alternative – Preferred Alternative.....	2-24
2.11	Siting Study and Alternatives Considered But Not Carried Forward.....	2-24
2.11.1	Siting Study.....	2-24
2.11.2	SERE East Site .....	2-26
<b>3.0</b>	<b>Affected Environment, Environmental Consequences, and Mitigation .....</b>	<b>3-1</b>
3.1	Introduction.....	3-1
3.2	No Action Alternative – Preferred Alternative.....	3-4
3.2.1	Air Quality.....	3-4
3.2.2	Airspace .....	3-4

3.2.3	Biological Resources .....	3-4
3.2.4	Cultural Resources .....	3-4
3.2.5	Environmental Justice .....	3-4
3.2.6	Geology and Soils .....	3-5
3.2.7	Hazardous Materials and Hazardous Waste Management.....	3-5
3.2.8	Health and Safety .....	3-5
3.2.9	Land Use .....	3-5
3.2.10	Noise.....	3-5
3.2.11	Socioeconomics .....	3-5
3.2.12	Transportation.....	3-5
3.2.13	Utilities .....	3-6
3.2.14	Water Resources .....	3-6
3.2.15	Wetlands.....	3-6
3.2.16	Visual/Aesthetics.....	3-6
3.3	FCTC Sites, Augusta, Michigan.....	3-7
3.3.1	Air Quality – FCTC Sites .....	3-7
3.3.1.1	<i>Regulatory Framework – Air Quality – FCTC Sites .....</i>	<i>3-7</i>
3.3.1.2	<i>Affected Environment – Air Quality – FCTC Sites.....</i>	<i>3-11</i>
3.3.1.3	<i>Environmental Consequences and Mitigation – Air Quality – FCTC Sites.....</i>	<i>3-15</i>
3.3.2	Airspace – FCTC Sites.....	3-49
3.3.2.1	<i>Regulatory Framework – Airspace – FCTC Sites.....</i>	<i>3-49</i>
3.3.2.2	<i>Affected Environment – Airspace – FCTC Sites .....</i>	<i>3-49</i>
3.3.2.3	<i>Environmental Consequences and Mitigation – Airspace – FCTC Sites .....</i>	<i>3-52</i>
3.3.3	Biological Resources – FCTC Sites.....	3-59
3.3.3.1	<i>Regulatory Framework – Biological Resources – FCTC Sites.....</i>	<i>3-59</i>
3.3.3.2	<i>Affected Environment – Biological Resources – FCTC Sites FCTC Site 1 .....</i>	<i>3-60</i>
3.3.3.3	<i>Environmental Consequences and Mitigation – Biological Resources – FCTC Sites .....</i>	<i>3-80</i>
3.3.4	Cultural Resources – FCTC Sites .....	3-103
3.3.4.1	<i>Regulatory Framework – Cultural Resources – FCTC Sites.....</i>	<i>3-103</i>
3.3.4.2	<i>Prehistoric and Historic Background – FCTC Sites .....</i>	<i>3-106</i>
3.3.4.3	<i>Affected Environment – Cultural Resources – FCTC Sites.....</i>	<i>3-108</i>

3.3.4.4	<i>Environmental Consequences and Mitigation - Cultural Resources - FCTC Sites</i> .....	3-112
3.3.5	Environmental Justice – FCTC Sites.....	3-119
3.3.5.1	<i>Regulatory Framework – Environmental Justice – FCTC Sites</i> .....	3-119
3.3.5.2	<i>Affected Environment – Environmental Justice – FCTC Sites</i> .....	3-119
3.3.5.3	<i>Environmental Consequences and Mitigation – Environmental Justice – FCTC Sites</i> .....	3-125
3.3.6	Geology and Soils – FCTC Sites .....	3-131
3.3.6.1	<i>Regulatory Framework – Geology and Soils – FCTC Sites</i> .....	3-131
3.3.6.2	<i>Affected Environment – Geology and Soils – FCTC Sites</i> .....	3-131
3.3.6.3	<i>Environmental Consequences and Mitigation – Geology and Soils – FCTC Sites</i> .....	3-133
3.3.7	Hazardous Materials and Hazardous Waste Management – FCTC Sites .....	3-139
3.3.7.1	<i>Regulatory Framework – Hazardous Materials and Hazardous Waste Management – FCTC Sites</i> .....	3-139
3.3.7.2	<i>Affected Environment – Hazardous Materials and Hazardous Waste Management – FCTC Sites</i> .....	3-140
3.3.7.3	<i>Environmental Consequences and Mitigation – Hazard Materials and Hazardous Waste – FCTC Sites</i> .....	3-142
3.3.8	Health & Safety – FCTC Sites.....	3-147
3.3.8.1	<i>Regulatory Framework – Health &amp; Safety – FCTC Sites</i> .....	3-147
3.3.8.2	<i>Affected Environment – Health &amp; Safety – FCTC Sites</i> .....	3-147
3.3.8.3	<i>Environmental Consequences and Mitigation–Health &amp; Safety - FCTC Sites</i> .....	3-150
3.3.9	Land Use – FCTC Sites.....	3-157
3.3.9.1	<i>Regulatory Framework – Land Use – FCTC Sites</i> .....	3-157
3.3.9.2	<i>Affected Environment – FCTC Sites</i> .....	3-159
3.3.9.3	<i>Environmental Consequences and Mitigation – Land Use – FCTC Sites</i> .....	3-163
3.3.10	Noise – FCTC Sites .....	3-173
3.3.10.1	<i>Noise Regulations and Guidelines – FCTC Sites</i> .....	3-173
3.3.10.2	<i>Noise Introduction – FCTC Sites</i> .....	3-174
3.3.10.3	<i>Affected Environment – Noise – FCTC Sites</i> .....	3-176

3.3.10.4	<i>Environmental Consequences and Mitigation – Noise – FCTC Sites</i> .....	3-179
3.3.11	Socioeconomics – FCTC Sites.....	3-195
3.3.11.1	<i>Regulatory Framework – Socioeconomics – FCTC Sites</i> .....	3-195
3.3.11.2	<i>Affected Environment – Socioeconomics – FCTC Sites</i> .....	3-195
3.3.11.3	<i>Environmental Consequences and Mitigation – Socioeconomics – FCTC Sites</i> .....	3-207
3.3.12	Transportation – FCTC Sites .....	3-223
3.3.12.1	<i>Regulatory Framework – Transportation – FCTC Sites</i> .....	3-223
3.3.12.2	<i>Affected Environment – Transportation – FCTC Sites</i> .....	3-223
3.3.12.3	<i>Environmental Consequences and Mitigation – Transportation – FCTC Sites</i> .....	3-229
3.3.13	Utilities – FCTC Sites.....	3-249
3.3.13.1	<i>Regulatory Framework – Utilities – FCTC Sites</i> .....	3-249
3.3.13.2	<i>Affected Environment – Utilities – FCTC Sites</i> .....	3-249
3.3.13.3	<i>Environmental Consequences and Mitigation – Utilities – FCTC Sites</i> .....	3-253
3.3.14	Water Resources – FCTC Sites .....	3-263
3.3.14.1	<i>Regulatory Framework – Water Resources – FCTC Sites</i> .....	3-263
3.3.14.2	<i>Affected Environment – Water Resources – FCTC Sites</i> .....	3-264
3.3.14.3	<i>Environmental Consequences and Mitigation – Water Resources – FCTC Sites</i> .....	3-280
3.3.15	Wetlands – FCTC Sites .....	3-305
3.3.15.1	<i>Regulatory Framework – Wetlands – FCTC Sites</i> .....	3-305
3.3.15.2	<i>Affected Environment – Wetlands – FCTC Sites</i> .....	3-308
3.3.15.3	<i>Environmental Consequences and Mitigation – Wetlands – FCTC Sites</i> .....	3-315
3.3.16	Visual/Aesthetics – FCTC Sites .....	3-327
3.3.16.1	<i>Visual/Aesthetics – Regulatory Framework – FCTC Sites</i> .....	3-327
3.3.16.2	<i>Visual Impact Assessment Methodology</i> .....	3-327
3.3.16.3	<i>Affected Environment – FCTC Sites</i> .....	3-331
3.3.16.4	<i>Environmental Consequences and Mitigation – Visual/Aesthetics – FCTC Sites</i> .....	3-338
3.3.17	Cumulative Impacts – FCTC Sites .....	3-365
3.4	CRJMTC, Portage and Trumbull Counties, Ohio .....	3-367

3.4.1	Air Quality – CRJMTC .....	3-367
3.4.1.1	Regulatory Framework – Air Quality - CRJMTC .....	3-367
3.4.1.2	Affected Environment – Air Quality – CRJMTC.....	3-372
3.4.1.3	Environmental Consequences and Mitigation – Air Quality – CRJMTC.....	3-376
3.4.2	Airspace – CRJMTC.....	3-401
3.4.2.1	Regulatory Framework – Airspace – CRJMTC.....	3-401
3.4.2.2	Affected Environment – Airspace – CRJMTC .....	3-401
3.4.2.3	Environmental Consequences and Mitigation – Airspace – CRJMTC.....	3-403
3.4.3	Biological Resources – CRJMTC.....	3-409
3.4.3.1	Regulatory Framework - Biological Resources – CRJMTC.....	3-409
3.4.3.2	Affected Environment – Biological Resources – CRJMTC.....	3-410
3.4.3.3	Environmental Consequences and Mitigation – Biological Resources – CRJMTC .....	3-424
3.4.4	Cultural Resources – CRJMTC.....	3-441
3.4.4.1	Regulatory Framework – Cultural Resources – CRJMTC.....	3-441
3.4.4.2	Prehistoric and Historic Background – Cultural Resources - CRJMTC.....	3-444
3.4.4.3	Affected Environment – Cultural Resources – CRJMTC .....	3-449
3.4.4.4	Environmental Consequences and Mitigation – Cultural Resources – CRJMTC.....	3-457
3.4.5	Environmental Justice – CRJMTC.....	3-463
3.4.5.1	Regulatory Framework – Environmental Justice – CRJMTC.....	3-463
3.4.5.2	Affected Environment – Environmental Justice – CRJMTC.....	3-463
3.4.5.3	Environmental Consequences and Mitigation – Environmental Justice – CRJMTC .....	3-469
3.4.6	Geology and Soils – CRJMTC .....	3-477
3.4.6.1	Regulatory Framework – Geology and Soils - CRJMTC.....	3-477
3.4.6.2	Affected Environment – Geology and Soils – CRJMTC.....	3-477
3.4.6.3	Environmental Consequences and Mitigation - Geology and Soils - CRJMTC.....	3-481
3.4.7	Hazardous Materials and Hazardous Waste – CRJMTC .....	3-485
3.4.7.1	Regulatory Framework – Hazardous Materials and Hazardous Waste – CRJMTC .....	3-485

3.4.7.2	<i>Affected Environment – Hazardous Materials and Hazardous Waste Management – CRJMTC.....</i>	3-485
3.4.7.3	<i>Environmental Consequences and Mitigation – Hazardous Materials and Hazardous Waste – CRJMTC.....</i>	3-494
3.4.8	<i>Health &amp; Safety – CRJMTC.....</i>	3-501
3.4.8.1	<i>Regulatory Framework – Health &amp; Safety – CRJMTC.....</i>	3-501
3.4.8.2	<i>Affected Environment – Health &amp; Safety – CRJMTC.....</i>	3-501
3.4.8.3	<i>Environmental Consequences and Mitigation – Health &amp; Safety - CRJMTC.....</i>	3-503
3.4.9	<i>Land Use – CRJMTC.....</i>	3-509
3.4.9.1	<i>Regulatory Framework – Land Use – CRJMTC.....</i>	3-509
3.4.9.2	<i>Affected Environment – Land Use - CRJMTC.....</i>	3-513
3.4.9.3	<i>Environmental Consequences and Mitigations– Land Use – CRJMTC.....</i>	3-519
3.4.10	<i>Noise – CRJMTC.....</i>	3-535
3.4.10.1	<i>Noise Regulations and Guidelines - CRJMTC.....</i>	3-535
3.4.10.2	<i>Noise Introduction - CRJMTC.....</i>	3-535
3.4.10.3	<i>Affected Environment – Noise - CRJMTC.....</i>	3-538
3.4.10.4	<i>Environmental Consequences and Mitigation.....</i>	3-541
3.4.11	<i>Socioeconomics – CRJMTC.....</i>	3-555
3.4.11.1	<i>Regulatory Framework – Socioeconomics – CRJMTC.....</i>	3-555
3.4.11.2	<i>Affected Environment – Socioeconomics – CRJMTC.....</i>	3-555
3.4.11.3	<i>Environmental Consequences and Mitigation – Socioeconomics - CRJMTC.....</i>	3-568
3.4.12	<i>Transportation – CRJMTC.....</i>	3-583
3.4.12.1	<i>Regulatory Framework - Transportation – CRJMTC.....</i>	3-583
3.4.12.2	<i>Affected Environment - Transportation – CRJMTC.....</i>	3-583
3.4.12.3	<i>Environmental Consequences and Mitigation – Transportation - CRJMTC.....</i>	3-586
3.4.13	<i>Utilities – CRJMTC.....</i>	3-597
3.4.13.1	<i>Regulatory Framework – Utilities – CRJMTC.....</i>	3-597
3.4.13.2	<i>Affected Environment – Utilities – CRJMTC.....</i>	3-597
3.4.13.3	<i>Environmental Consequences and Mitigation – Utilities - CRJMTC.....</i>	3-600
3.4.14	<i>Water Resources – CRJMTC.....</i>	3-609
3.4.14.1	<i>Regulatory Framework –Water Resources – CRJMTC.....</i>	3-609
3.4.14.2	<i>Affected Environment – Water Resources – CRJMTC.....</i>	3-610

3.4.14.3	<i>Environmental Consequences and Mitigation – Water Resources - CRJMTC</i> .....	3-623
3.4.15	Wetlands – CRJMTC .....	3-635
3.4.15.1	<i>Regulatory Framework – Wetlands - CRJMTC</i> .....	3-635
3.4.15.2	<i>Affected Environment – Wetlands – CRJMTC</i> .....	3-639
3.4.15.3	<i>Environmental Consequences and Mitigation – Wetlands - CRJMTC</i> .....	3-655
3.4.16	Visual/Aesthetics – CRJMTC .....	3-669
3.4.16.1	<i>Regulatory Environment – Visual/Aesthetics – CRJMTC</i> .....	3-669
3.4.16.2	<i>Affected Environment – Visual/Aesthetics – CRJMTC</i> .....	3-669
3.4.16.3	<i>Environmental Consequences and Mitigation – Visual/Aesthetics - CRJMTC</i> .....	3-678
3.4.17	Cumulative Impacts – CRJMTC.....	3-697
3.5	FTD, Fort Drum, New York.....	3-699
3.5.1	Air Quality – FTD.....	3-699
3.5.1.1	<i>Regulatory Framework – Air Quality - FTD</i> .....	3-699
3.5.1.2	<i>Affected Environment – Air Quality – FTD</i> .....	3-704
3.5.1.3	<i>Environmental Consequences and Mitigation – Air Quality - FTD</i> .....	3-708
3.5.2	Airspace – FTD .....	3-733
3.5.2.1	<i>Regulatory Framework – Airspace - FTD</i> .....	3-733
3.5.2.2	<i>Affected Environment– Airspace - FTD</i> .....	3-733
3.5.2.3	<i>Environmental Consequences and Mitigation – Airspace – FTD</i> .....	3-735
3.5.3	Biological Resources – FTD .....	3-741
3.5.3.1	<i>Regulatory Framework – Biological Resources - FTD</i> .....	3-741
3.5.3.2	<i>Affected Environment – Biological Resources – FTD</i> .....	3-742
3.5.3.3	<i>Environmental Consequences and Mitigation – Biological Resources – FTD</i> .....	3-753
3.5.4	Cultural Resources – FTD.....	3-767
3.5.4.1	<i>Regulatory Framework – Cultural Resources - FTD</i> .....	3-767
3.5.4.2	<i>Affected Environment – Cultural Resources – FTD</i> .....	3-770
3.5.4.3	<i>Environmental Consequences and Mitigation – Cultural Resources – FTD</i> .....	3-776
3.5.5	Environmental Justice – FTD .....	3-781
3.5.5.1	<i>Regulatory Framework – Environmental Justice – FTD</i> .....	3-781
3.5.5.2	<i>Affected Environment – Environmental Justice – FTD</i> .....	3-781

3.5.5.3	<i>Environmental Consequences and Mitigation – Environmental Justice – FTD</i>	3-786
3.5.6	Geology and Soils – FTD	3-795
3.5.6.1	<i>Regulatory Framework – Geology and Soils – FTD</i>	3-795
3.5.6.2	<i>Affected Environment – Geology and Soils – FTD</i>	3-795
3.5.6.3	<i>Environmental Consequences and Mitigation – Geology and Soils – FTD</i>	3-797
3.5.7	Hazardous Materials and Hazardous Waste Management – FTD	3-801
3.5.7.1	<i>Regulatory Framework – Hazardous Materials and Hazardous Waste Management – FTD</i>	3-801
3.5.7.2	<i>Affected Environment – Hazardous Materials and Hazardous Waste Management – FTD</i>	3-801
3.5.7.3	<i>Environmental Consequences and Mitigation – Hazard Materials and Hazardous Waste Management – FTD</i>	3-803
3.5.8	Health & Safety – FTD	3-807
3.5.8.1	<i>Regulatory Framework – Health &amp; Safety - FTD</i>	3-807
3.5.8.2	<i>Affected Environment – Health &amp; Safety – FTD</i>	3-807
3.5.8.3	<i>Environmental Consequences and Mitigation – Health &amp; Safety - FTD</i>	3-809
3.5.9	Land Use – FTD	3-815
3.5.9.1	<i>Regulatory Framework – Land Use - FTD</i>	3-815
3.5.9.2	<i>Affected Environment – Land Use - FTD</i>	3-820
3.5.9.3	<i>Environmental Consequences and Mitigation – Land Use - FTD</i>	3-827
3.5.10	Noise – FTD	3-841
3.5.10.1	<i>Noise Regulations and Guidelines – Noise - FTD</i>	3-841
3.5.10.2	<i>Noise Introduction – Noise - FTD</i>	3-841
3.5.10.3	<i>Affected Environment – Noise – FTD</i>	3-844
3.5.10.4	<i>Environmental Consequences and Mitigation – Noise - FTD</i>	3-847
3.5.11	Socioeconomics – FTD	3-863
3.5.11.1	<i>Regulatory Framework – Socioeconomics – FTD</i>	3-863
3.5.11.2	<i>Affected Environment – Socioeconomics – FTD</i>	3-863
3.5.11.3	<i>Environmental Consequences and Mitigation – Socioeconomics – FTD</i>	3-874
3.5.12	Transportation – FTD	3-889
3.5.12.1	<i>Regulatory Framework – Transportation – FTD</i>	3-889
3.5.12.2	<i>Affected Environment – Transportation – FTD</i>	3-889

3.5.12.3	<i>Environmental Consequences and Mitigation – Transportation - FTD</i> .....	3-893
3.5.13	Utilities – FTD.....	3-907
3.5.13.1	<i>Regulatory Framework – Utilities – FTD</i> .....	3-907
3.5.13.2	<i>Affected Environment – Utilities – FTD</i> .....	3-907
3.5.13.3	<i>Environmental Consequences and Mitigation – Utilities - FTD</i> .....	3-909
3.5.14	Water Resources – FTD.....	3-917
3.5.14.1	<i>Regulatory Framework – Water Resources – FTD</i> .....	3-917
3.5.14.2	<i>Affected Environment – Water Resources – FTD</i> .....	3-918
3.5.14.3	<i>Environmental Consequences and Mitigation – Water Resources - FTD</i> .....	3-923
3.5.15	Wetlands – FTD .....	3-937
3.5.15.1	<i>Regulatory Framework – Wetlands – FTD</i> .....	3-937
3.5.15.2	<i>Affected Environment – Wetlands - FTD</i> .....	3-941
3.5.15.3	<i>Environmental Consequences and Mitigation – Wetlands - FTD</i> .....	3-948
3.5.16	Visual/Aesthetics– FTD .....	3-965
3.5.16.1	<i>Regulatory Environment – Visual/Aesthetics – FTD</i> .....	3-965
3.5.16.2	<i>Affected Environment – Visual/Aesthetics – FTD</i> .....	3-965
3.5.16.3	<i>Environmental Consequences and Mitigation– Visual/Aesthetics – FTD</i> .....	3-973
3.5.17	Cumulative Impacts - FTD .....	3-997
3.6	Summary of Environmental Consequences, Impacts, and Mitigation Options.....	3-999
<b>4.0</b>	<b>Consultation and Coordination .....</b>	<b>4-1</b>
4.1	Federal Agencies.....	4-1
4.2	State Agencies.....	4-1
4.2.1	Michigan .....	4-1
4.2.2	Ohio.....	4-1
4.2.3	New York.....	4-1
4.3	Local Agencies .....	4-2
4.3.1	Michigan .....	4-2
4.3.2	Ohio.....	4-2
4.3.3	New York.....	4-2
4.4	Private Agencies and Organizations .....	4-2
4.4.1	National.....	4-2
4.4.2	Michigan .....	4-3
4.4.3	Ohio.....	4-3

4.4.4	New York.....	4-3
4.5	Regionally Affiliated Cultural Groups.....	4-3
4.5.1	Michigan .....	4-3
4.5.2	Ohio.....	4-4
4.5.3	New York.....	4-5
<b>5.0</b>	<b>List of Preparers .....</b>	<b>5-1</b>
5.1	Government Preparers .....	5-1
5.1.1	Missile Defense Agency.....	5-1
5.1.2	Fort Custer Training Center .....	5-1
5.1.3	Camp Ravenna Joint Military Training Center .....	5-1
5.1.4	Michigan Air National Guard and Ohio Air National Guard .....	5-2
5.1.5	Fort Drum .....	5-2
5.2	Contractor Preparers.....	5-2
<b>6.0</b>	<b>References .....</b>	<b>6-1</b>

## Appendices

A	Acronyms and Abbreviations
B	Notice of Intent and Notice of Availability
C	SERE East – Alternative Considered, but Not Carried Forward
D	Air Quality Supporting Information
D.1	Construction Equipment Lists
D.2	FCTC Site 1 and FCTC Site 2 - Air Quality Calculations
D.3	CRJMTC - Air Quality Calculations
D.4	FTD - Air Quality Calculations
E	Cultural Resources Supporting Information
E.1	FCTC Sites - Cultural Resources – Documentation
E.2	CRJMTC - Cultural Resources – Documentation
F	Socioeconomics Supporting Information
F.1	FCTC Sites - Socioeconomics RIMS II Data Tables
F.2	CRJMTC - Socioeconomics RIMS II Data Tables
F.3	FTD - Socioeconomics RIMS II Data Tables
G	Transportation Supporting Information
G.1	FCTC Sites
G.2	CRJMTC Site
G.3	FTD Site
H	Comparison of CIS Footprints
I	Record of Comments Report

## List of Tables

Table 1.6-1	Cooperating Agencies and Initial Candidate Site Locations.....	1-5
Table 1.7-1	Summary of Public Scoping Meetings.....	1-8
Table 1.7-2	FCTC Scoping Comments by Subject Matter and Resource Area .....	1-9
Table 1.7-3	CRJMTC Scoping Comments by Subject Matter and Resource Area .....	1-10
Table 1.7-4	FTD Scoping Comments by Subject Matter and Resource Area.....	1-11
Table 1.7-5	SERE East Scoping Comments by Subject Matter and Resource Area.....	1-12
Table 1.7-6	Summary of Draft EIS Public Review Meetings .....	1-14
Table 1.7-7	Overall Number of Draft EIS Comment Documents Received by Method of Submission.....	1-15
Table 1.7-8	Draft EIS Documents with Comments to be Addressed by Commenter Type.....	1-16
Table 1.7-9	Draft EIS Comments to be Addressed by Commenter Type .....	1-16
Table 2.4-1	CONUS Interceptor Site Mission Facilities Summary.....	2-4
Table 2.4-2	CONUS Interceptor Site Mission-Support Facilities Summary.....	2-6
Table 2.4-3	Road Criteria .....	2-11
Table 2.5-1	Baseline Summary Level 5-Year Construction Schedule .....	2-12
Table 2.5-2	Expedited Summary Level 3-Year Construction Schedule.....	2-14
Table 2.6-1	Silo Interface Vaults/Silo Transportation Requirements.....	2-15
Table 2.11-1	Area Narrowing Summary Results.....	2-25
Table 2.11-2	Screening Criteria.....	2-25
Table 3.3.1-1	National and Michigan Ambient Air Quality Standards – FCTC .....	3-13
Table 3.3.1-2	Monitored Michigan Background Concentrations – FCTC .....	3-14
Table 3.3.1-3	Inventory of Existing Emission Sources at FCTC Site 1 .....	3-15
Table 3.3.1-4	Estimated Annual Emissions from Construction Activities – Baseline Schedule – FCTC Site 1 .....	3-20
Table 3.3.1-5	Comparison of Construction Emissions to Existing Kalamazoo and Calhoun Counties Annual Emissions – Baseline Schedule – FCTC Site 1 .....	3-22
Table 3.3.1-6	Estimated Annual Emissions from Construction Activities – Baseline Schedule – FCTC Site 2 .....	3-24
Table 3.3.1-7	Comparison of Construction Emissions to Existing Kalamazoo County Annual Emissions – Baseline Schedule – FCTC Site 2 .....	3-25
Table 3.3.1-8	Estimated Annual Emissions from Construction Activities – Expedited Schedule - FCTC Site 1.....	3-28
Table 3.3.1-9	Comparison of Construction Emissions to Existing Kalamazoo and Calhoun Counties Annual Emissions – Expedited Schedule – FCTC Site 1 .....	3-29
Table 3.3.1-10	Estimated Annual Emissions from Construction Activities – Expedited Schedule – FCTC Site 2.....	3-31

Table 3.3.1-11	Comparison of Construction Emissions to Existing Kalamazoo County Annual Emissions – Expedited Schedule – FCTC Site 2 .....	3-32
Table 3.3.1-12	Estimated Emissions from Operations – Baseline Schedule – FCTC Sites 1 and 2 .....	3-36
Table 3.3.1-13	Comparison of Operation Emissions to Existing Kalamazoo and Calhoun Counties Annual Emissions – Baseline Schedule – FCTC Sites 1 and 2 .....	3-38
Table 3.3.1-14	Estimated Emissions from Operations – Expedited Schedule – FCTC Sites 1 and 2 .....	3-40
Table 3.3.1-15	Comparison of Operation Emissions to Existing Kalamazoo and Calhoun Counties Annual Emissions – Expedited Schedule – FCTC Sites 1 and 2 .....	3-41
Table 3.3.1-16	Estimated Annual Emissions from Construction and Operation in Comparison to General Conformity Thresholds – Baseline Schedule – FCTC Site 1 .....	3-43
Table 3.3.1-17	Estimated Annual Emissions from Construction and Operation in Comparison to General Conformity Thresholds – Baseline Schedule – FCTC Site 2 .....	3-44
Table 3.3.1-18	Estimated Annual Emissions from Construction and Operation in Comparison to General Conformity Thresholds – Expedited Schedule – FCTC Site 1 .....	3-46
Table 3.3.1-19	Estimated Annual Emissions from Construction and Operation in Comparison to General Conformity Thresholds – Expedited Schedule – FCTC Site 2 .....	3-46
Table 3.3.3-1	Vegetation Alliances within the FCTC Site 1 Footprint .....	3-61
Table 3.3.3-2	Special Status Species Documented within FCTC Site 1 Footprint .....	3-65
Table 3.3.3-3	Federally-Listed Biological Resources with Potential for Occurrence within FCTC .....	3-66
Table 3.3.3-4	Latitude versus Peak Monarch Abundance – FCTC .....	3-69
Table 3.3.3-5	State-Listed Faunal Species in Vicinity of FCTC Site 1 Footprint .....	3-70
Table 3.3.3-6	Birds of Conservation Concern - FCTC Sites 1 and 2 .....	3-73
Table 3.3.3-7	Special Status Species Documented within FCTC Site 2 Footprint .....	3-74
Table 3.3.3-8	Vegetation Alliances within the FCTC Site 2 Footprint .....	3-75
Table 3.3.4-1	Cultural Resource Investigations Conducted at FCTC .....	3-109
Table 3.3.4-2	National Register of Historic Places-Listed Sites along Potential Transportation Route .....	3-111
Table 3.3.5-1	Summary of Environmental Justice Factors in FCTC Area .....	3-122
Table 3.3.5-2	Community Health Indicators for Kalamazoo and Calhoun Counties – FCTC Sites .....	3-123
Table 3.3.5-3	Estimated Health Risks for FCTC Region .....	3-124

Table 3.3.10-1	Human Reaction to Increases in Sound Pressure Level – FCTC .....	3-174
Table 3.3.10-2	Typical Sound Pressure Levels Associated with Common Noise Sources – FCTC .....	3-175
Table 3.3.10-3	Sound Level Measurement and Monitoring Equipment – FCTC Sites....	3-177
Table 3.3.10-4	Summary of Ambient Sound Level Environmental Noise Survey Results and Sound Level Design Criteria – FCTC Sites.....	3-179
Table 3.3.10-5	Combined List of Construction Equipment for All Phases – FCTC Sites .....	3-181
Table 3.3.10-6	Construction Noise Calculation Results – Baseline Schedule – FCTC Sites .....	3-182
Table 3.3.10-7	Construction Noise Calculation Results – Expedited Schedule – FCTC Sites .....	3-183
Table 3.3.10-8	Summary of Predicted Sound Levels and Predicted Future L <sub>dn</sub> Sound Levels: Operation – FCTC Sites .....	3-185
Table 3.3.10-9	Summary of Predicted Sound Levels and Potential Reactions at Residential Receptors: Operation – FCTC Sites .....	3-186
Table 3.3.11-1	Population of Kalamazoo County – FCTC Sites.....	3-196
Table 3.3.11-2	Population of Calhoun County – FCTC Sites .....	3-197
Table 3.3.11-3	Kalamazoo County Population by Race (2010) – FCTC Sites .....	3-197
Table 3.3.11-4	Calhoun County Population by Race (2010) – FCTC Sites.....	3-198
Table 3.3.11-5	Kalamazoo County Population by Age (2010) – FCTC Sites.....	3-198
Table 3.3.11-6	Calhoun County Population by Age (2010) – FCTC Sites .....	3-199
Table 3.3.11-7	Kalamazoo County Establishments, Employment, and Total Wages by Sector (2012) – FCTC Sites .....	3-200
Table 3.3.11-8	Calhoun County Establishments, Employment, and Total Wages by Sector (2012) – FCTC Sites .....	3-201
Table 3.3.11-9	Unemployment Rates and Number of Construction Workers for Study Area – FCTC Sites .....	3-202
Table 3.3.11-10	Kalamazoo County Housing Characteristics (2010) – FCTC Sites .....	3-203
Table 3.3.11-11	Calhoun County Housing Characteristics (2010) – FCTC Sites.....	3-203
Table 3.3.11-12	Kalamazoo County Educational Attainment (2013 ACS) – FCTC Sites .....	3-204
Table 3.3.11-13	Calhoun County Educational Attainment (2013 ACS) – FCTC Sites .....	3-204
Table 3.3.11-14	Estimated Sales Tax Revenue - Construction – FCTC Sites.....	3-208
Table 3.3.11-15	Estimated Sales Tax Revenue - Operation – FCTC Sites .....	3-217
Table 3.3.11-16	Kalamazoo and Calhoun Counties Student-to-Teacher Ratios during Operation – FCTC Sites .....	3-220
Table 3.3.12-1	Existing Traffic Volumes – FCTC Site 1 .....	3-226
Table 3.3.12-2	Existing Level of Service Results – FCTC Site 1 .....	3-226
Table 3.3.12-3	Existing Traffic Volumes – FCTC Site 2 .....	3-228

Table 3.3.12-4	Existing Level of Service Results – FCTC Site 2 .....	3-229
Table 3.3.12-5	Peak Construction Traffic Volumes – FCTC Site 1 .....	3-231
Table 3.3.12-6	Peak Construction Level of Service Results – FCTC Site 1 .....	3-231
Table 3.3.12-7	Peak Construction Traffic Volumes – FCTC Site 2 .....	3-235
Table 3.3.12-8	Peak Construction Level of Service Results – FCTC Site 2 .....	3-236
Table 3.3.12-9	Operations Traffic Volumes – FCTC Site 1 .....	3-239
Table 3.3.12-10	Operations Level of Service Results – FCTC Site 1 .....	3-239
Table 3.3.12-11	Comparison of Operations Level of Service Results – FCTC Site 1 .....	3-240
Table 3.3.12-12	Operations Traffic Volumes – FCTC Site 2 .....	3-242
Table 3.3.12-13	Operations Level of Service Results – FCTC Site 2 .....	3-242
Table 3.3.12-14	Comparison of Operations Level of Service Results – FCTC Site 2 .....	3-243
Table 3.3.14-1	Kalamazoo County Raw Water Quality Sampling Results – FCTC .....	3-274
Table 3.3.15-1	Wetland Summary – FCTC Site 1 .....	3-310
Table 3.3.15-2	Cowardin Classification Definition and Approximate Delineated Wetland Acreage Associated with FCTC Site 1 .....	3-311
Table 3.3.15-3	Wetland Summary – FCTC Site 2 .....	3-313
Table 3.3.15-4	Cowardin Classification Definition and Approximate Delineated Wetland Acreage Associated with FCTC Site 2 .....	3-313
Table 3.3.15-5	Summary of Direct, Permanent Impacts to Wetlands within FCTC Site 1 According to Cowardin Classification .....	3-316
Table 3.3.15-6	Summary of Direct, Permanent Impacts to Wetlands within FCTC Site 2 According to Cowardin Classification .....	3-317
Table 3.3.15-7	Summary of Permanent, Indirect Impacts to Wetlands within FCTC Site 2 According to Cowardin Classification .....	3-318
Table 3.3.16-1	Key Observation Points at FCTC (Both FCTC Sites) and Field Observations .....	3-329
Table 3.3.16-2	National Register of Historic Places-Listed and Eligible Resources near FCTC .....	3-333
Table 3.4.1-1	National and Ohio Ambient Air Quality Standards – CRJMTC .....	3-374
Table 3.4.1-2	Monitored Ohio Background Concentrations – CRJMTC .....	3-375
Table 3.4.1-3	Estimated Annual Emissions from Construction Activities – Baseline Schedule – CRJMTC .....	3-380
Table 3.4.1-4	Comparison of Construction Emissions to Existing Portage County Annual Emissions – Baseline Schedule – CRJMTC .....	3-382
Table 3.4.1-5	Estimated Annual Emissions from Construction Activities – Expedited Schedule – CRJMTC .....	3-385
Table 3.4.1-6	Comparison of Construction Emissions to Existing Portage County Annual Emissions – Expedited Schedule – CRJMTC .....	3-386
Table 3.4.1-7	Estimated Emissions from Operations – Baseline Schedule – CRJMTC .....	3-390

Table 3.4.1-8	Comparison of Operation Emissions to Existing Portage County Annual Emissions – Baseline Schedule – CRJMTC .....	3-391
Table 3.4.1-9	Estimated Emissions from Operation – Expedited Schedule – CRJMTC .....	3-394
Table 3.4.1-10	Comparison of Operation Emissions to Existing Portage County Annual Emissions – Expedited Schedule – CRJMTC .....	3-395
Table 3.4.1-11	Estimated Annual Emissions from Construction and Operation in Comparison to General Conformity Thresholds – Baseline Schedule – CRJMTC .....	3-397
Table 3.4.1-12	Estimated Annual Emissions from Construction and Operation in Comparison to General Conformity Thresholds – Expedited Schedule – CRJMTC .....	3-398
Table 3.4.3-1	Vegetative Community Alliances within the Site Footprint - CRJMTC .....	3-411
Table 3.4.3-2	Bat Species Study Data for CRJMTC .....	3-416
Table 3.4.3-3	Federally-Listed Biological Resources with Potential for Occurrence within CRJMTC .....	3-420
Table 3.4.3-4	Monarch Peak Abundance – CRJMTC .....	3-421
Table 3.4.3-5	State-Listed Mosses and Vascular Plant Species at CRJMTC .....	3-423
Table 3.4.3-6	State-Listed Wildlife Species at CRJMTC .....	3-425
Table 3.4.3-7	Migratory Bird Species of Conservation Concern at CRJMTC .....	3-428
Table 3.4.4-1	Cultural Resource Investigations Conducted at CRJMTC within the CIS APE and Relocated Facilities .....	3-451
Table 3.4.5-1	Summary of Environmental Justice Factors in CRJMTC Area .....	3-466
Table 3.4.5-2	Community Health Indicators for Portage and Trumbull Counties – CRJMTC .....	3-467
Table 3.4.5-3	Estimated Health Risks for CRJMTC Region .....	3-468
Table 3.4.7-1	Active Areas of Concern and Munitions Response Sites in Footprint - CRJMTC .....	3-490
Table 3.4.9-1	Designated Deer Hunting and Parking Areas in Site Footprint – CRJMTC .....	3-518
Table 3.4.9-2	Facilities and Buildings to be Relocated or Abandoned in Footprint – CRJMTC .....	3-522
Table 3.4.10-1	Human Reaction to Increases in Sound Pressure Level – CRJMTC .....	3-536
Table 3.4.10-2	Typical Sound Pressure Levels Associated with Common Noise Sources – CRJMTC .....	3-537
Table 3.4.10-3	Sound Level Measurement and Monitoring Equipment – CRJMTC .....	3-538
Table 3.4.10-4	Summary of Ambient Sound Level Environmental Noise Survey Results and Sound Level Design Criteria – CRJMTC .....	3-540
Table 3.4.10-5	Combined List of Construction Equipment for All Phases – CRJMTC ..	3-542

Table 3.4.10-6	Construction Noise Calculation Results – Baseline Schedule – CRJMTC .....	3-543
Table 3.4.10-7	Construction Noise Calculation Results – Expedited Schedule – CRJMTC .....	3-544
Table 3.4.10-8	Summary of Predicted Sound Levels and Predicted Future L <sub>dn</sub> Sound Levels - Operation – CRJMTC .....	3-546
Table 3.4.10-9	Summary of Predicted Sound Levels and Potential Reactions at Residential Receptors - Operation – CRJMTC .....	3-546
Table 3.4.11-1	Population of Portage County – CRJMTC .....	3-556
Table 3.4.11-2	Population of Trumbull County – CRJMTC .....	3-557
Table 3.4.11-3	Portage County Population by Race (2012) – CRJMTC .....	3-558
Table 3.4.11-4	Trumbull County Population by Race (2012) – CRJMTC .....	3-558
Table 3.4.11-5	Portage County Population by Age – CRJMTC .....	3-559
Table 3.4.11-6	Trumbull County Population by Age – CRJMTC .....	3-559
Table 3.4.11-7	Portage County Family Type by Employment Status – CRJMTC .....	3-560
Table 3.4.11-8	Trumbull County Family Type by Employment Status – CRJMTC .....	3-560
Table 3.4.11-9	Portage County Educational Attainment – CRJMTC .....	3-560
Table 3.4.11-10	Trumbull County Educational Attainment – CRJMTC .....	3-561
Table 3.4.11-11	Portage County Establishments, Employment, and Wages by Sector: 2012 – CRJMTC .....	3-562
Table 3.4.11-12	Trumbull County Establishments, Employment, and Wages by Sector: 2012 – CRJMTC .....	3-563
Table 3.4.11-13	Unemployment Rates and Number of Construction Workers for Surrounding Counties – CRJMTC .....	3-564
Table 3.4.11-14	Portage and Trumbull County Housing Characteristics (2008-2012) – CRJMTC .....	3-565
Table 3.4.11-15	Estimated Sales Tax Revenue - Construction – CRJMTC .....	3-569
Table 3.4.11-16	Estimated Sales Tax Revenue - Operation – CRJMTC .....	3-578
Table 3.4.11-17	Total Portage and Trumbull County Student-to-Teacher Ratios during Operation – CRJMTC .....	3-580
Table 3.4.12-1	Existing Traffic Volumes and Levels of Service – CRJMTC .....	3-585
Table 3.4.12-2	Peak Construction Levels of Service – CRJMTC .....	3-588
Table 3.4.12-3	Operations Levels of Service – CRJMTC .....	3-591
Table 3.4.12-4	Levels of Service Comparison – CRJMTC .....	3-592
Table 3.4.14-1	Tributaries within Footprint – CRJMTC .....	3-613
Table 3.4.15-1	Cowardin Classification Definition and Approximate Acreage within the 2,080-Acre Study Area on CRJMTC .....	3-642
Table 3.4.15-2	Summary of Ohio Rapid Assessment Method Categories within the 2,080-Acre Study Area on CRJMTC .....	3-647

Table 3.4.15-3	Summary of Direct, Permanent Impact to Wetlands within Footprint by Cowardin Classification – CRJMTC.....	3-656
Table 3.4.15-4	Summary of Direct, Permanent Impact to Wetlands within Footprint by Ohio Rapid Assessment Method Category – CRJMTC.....	3-656
Table 3.4.15-5	Summary of Indirect, Permanent Impact to Wetlands by Cowardin Classification – CRJMTC .....	3-656
Table 3.4.15-6	Summary of Indirect, Permanent Impact to Wetlands by Ohio Rapid Assessment Method Category – CRJMTC .....	3-657
Table 3.4.16-1	Key Observation Points at CRJMTC and Field Observations .....	3-671
Table 3.4.16-2	National Register of Historic Places - Listed and Eligible Resources near CRJMTC.....	3-675
Table 3.5.1-1	National and New York Ambient Air Quality Standards – FTD .....	3-706
Table 3.5.1-2	Monitored New York Background Concentrations – FTD.....	3-707
Table 3.5.1-3	Inventory of Existing Emission Sources at FTD.....	3-708
Table 3.5.1-4	Estimated Annual Emissions from Construction Activities – Baseline Schedule – FTD.....	3-712
Table 3.5.1-5	Comparison of Construction Emissions to Existing Jefferson County Annual Emissions – Baseline Schedule – FTD.....	3-714
Table 3.5.1-6	Estimated Annual Emissions from Construction Activities – Expedited Schedule – FTD.....	3-717
Table 3.5.1-7	Comparison of Construction Emissions for to Existing Jefferson County Annual Emissions – Expedited Schedule – FTD.....	3-718
Table 3.5.1-8	Estimated Emissions from Operation – Baseline Schedule – FTD.....	3-723
Table 3.5.1-9	Comparison Operation Emissions to Existing Jefferson County Annual Emissions – Baseline Schedule – FTD.....	3-724
Table 3.5.1-10	Estimated Emissions from Operation – Expedited Schedule – FTD .....	3-726
Table 3.5.1-11	Comparison of Operation Emissions to Existing Jefferson County Annual Emissions – Expedited Schedule – FTD .....	3-727
Table 3.5.1-12	Estimated Annual Emissions for Construction and Operation in Comparison to General Conformity Thresholds – Baseline Schedule – FTD .....	3-729
Table 3.5.1-13	Estimated Annual Emissions from Construction and Operation in Comparison to General Conformity Thresholds – Expedited Schedule – FTD .....	3-730
Table 3.5.3-1	Land Cover at FTD.....	3-743
Table 3.5.3.2	National Vegetation Classification Standard Vegetation Formations within the FTD Site Footprint .....	3-744
Table 3.5.3-3	Monarch Peak Abundance – FTD.....	3-748
Table 3.5.3-4	Listed Species Reported at FTD.....	3-750
Table 3.5.3-5	Migratory Birds of Conservation Concern at FTD .....	3-754

Table 3.5.4-1	Summary of Archaeological Sites Identified within FTD Site Footprint .....	3-775
Table 3.5.5-1	Summary of Environmental Justice Factors in FTD Area .....	3-784
Table 3.5.5-2	Community Health Indicators for Jefferson and Lewis Counties – FTD .....	3-785
Table 3.5.5-3	Estimated Health Risks for FTD Region.....	3-786
Table 3.5.9-1	Issued Recreation Permits, 2002-2016 – FTD .....	3-826
Table 3.5.10-1	Human Reaction to Increases in Sound Pressure Level – FTD .....	3-842
Table 3.5.10-2	Typical Sound Pressure Levels Associated with Common Noise Sources – FTD.....	3-843
Table 3.5.10-3	Sound Level Measurement and Monitoring Equipment – FTD.....	3-845
Table 3.5.10-4	Summary of Ambient Sound Level Environmental Noise Study Results and Sound Level Design Criteria – FTD .....	3-847
Table 3.5.10-5	Combined List of Construction Equipment for All Phases – FTD .....	3-849
Table 3.5.10-6	Construction Noise Calculation Results – Baseline Schedule – FTD.....	3-850
Table 3.5.10-7	Construction Noise Calculation Results – Expedited Schedule – FTD ..	3-851
Table 3.5.10-8	Summary of Predicted Sound Levels and Predicted Future L <sub>dn</sub> Sound Levels – Operation – FTD .....	3-854
Table 3.5.10-9	Summary of Predicted Sound Levels and Potential Reactions at Residential Receptors – Operation – FTD .....	3-854
Table 3.5.10-10	Summary of Predicted Operational Sound Levels Relative to New York State Department of Environmental Conservation Guidelines – FTD .....	3-855
Table 3.5.11-1	Population of Jefferson County – FTD .....	3-865
Table 3.5.11-2	Population Trends of Jefferson County – FTD .....	3-865
Table 3.5.11-3	Demographics of Jefferson County – FTD .....	3-866
Table 3.5.11-4	Jefferson County Educational Attainment – FTD.....	3-867
Table 3.5.11-5	Jefferson County Occupations – FTD .....	3-868
Table 3.5.11-6	Jefferson County Industries – FTD .....	3-869
Table 3.5.11-7	Jefferson County Housing Characteristics (2008-2012) – FTD.....	3-870
Table 3.5.11-8	Lewis and St. Lawrence County Housing Characteristics (2008-2012) – FTD .....	3-870
Table 3.5.11-9	Estimated Sales Tax Revenue – Construction – FTD .....	3-875
Table 3.5.11-10	Estimated Sales Tax Revenue – Operation – FTD.....	3-884
Table 3.5.11-11	County Student-to-Teacher Ratios during Operation – FTD .....	3-886
Table 3.5.12-1	Existing Traffic Volumes and Levels of Service – FTD.....	3-891
Table 3.5.12-2	Intersection of School Street and NY 3/126 (State Street) Existing Levels of Service – FTD .....	3-892
Table 3.5.12-3	Peak Construction Levels of Service – FTD .....	3-894

Table 3.5.12-4	Intersection of School Street and NY 3/126 (State Street) Peak Construction Levels of Service – FTD .....	3-895
Table 3.5.12-5	Operations Levels of Service – FTD .....	3-899
Table 3.5.12-6	Intersection of School Street and NY 3/126 (State Street) Operations Levels of Service – FTD .....	3-900
Table 3.5.12-7	Levels of Service Comparison (Two-Lane Highways) – FTD .....	3-901
Table 3.5.12-8	Levels of Service (Intersections) - FTD .....	3-901
Table 3.5.14-1	Onsite Tributaries – FTD .....	3-919
Table 3.5.15-1	Cowardin Classification Definition and Approximate Acreage within the 2,773-Acre Study Area on FTD .....	3-944
Table 3.5.15-2	Summary of Acres of Desktop Delineated Wetlands According to Cowardin Classification – FTD .....	3-948
Table 3.5.15-3	Summary of Permanent, Direct Impact to Wetlands within Cleared Footprint by Cowardin Classification – FTD .....	3-949
Table 3.5.15-4	Summary of Permanent, Indirect Impact to Wetlands According to Cowardin Classification – FTD.....	3-950
Table 3.5.16-1	Key Observation Points at FTD and Field Observations .....	3-967
Table 3.5.16-2	National Register of Historic Places - Listed and Eligible Resources near Footprint – FTD.....	3-970
Table 3.6-1	Comparative Summary of Environmental Impacts and Potential Mitigations for CIS Candidate Sites.....	3-1001

## List of Figures

Figure 1.2-1	Ballistic Missile Defense System .....	1-18
Figure 2.3-1	Notional Interceptor Schematic.....	2-29
Figure 2.4-1	Notional Generic Continental United States Interceptor Site Layout .....	2-30
Figure 2.6-1	Ground-Based Interceptor Deployment Process .....	2-31
Figure 2.9-1	Continental United States Interceptor Site Candidate Site Locations .....	2-32
Figure 2.9-2	Fort Custer Training Center Installation Map .....	2-33
Figure 2.9-3A	Fort Custer Training Center Site 1 Potential Continental United States Interceptor Site Footprint .....	2-34
Figure 2.9-3B	Fort Custer Training Center Site 2 Potential Continental United States Interceptor Site Footprint .....	2-35
Figure 2.9-4	Camp Ravenna Joint Military Training Center Installation Map.....	2-36
Figure 2.9-5	Camp Ravenna Joint Military Training Center Potential Continental United States Interceptor Site Footprint.....	2-37
Figure 2.9-6	Camp Ravenna Joint Military Training Center Potential Continental United States Interceptor Site Footprint and Areas for Relocated Facilities .....	2-38
Figure 2.9-7	Fort Drum Installation Map.....	2-39

Figure 2.9-8	Fort Drum Potential Continental United States Interceptor Site Footprint .....	2-40
Figure 2.11-1	Continental United States Interceptor Site Area of Consideration.....	2-41
Figure 3.3.1-1	Annual Wind Rose, Battle Creek, Michigan, 1994-2013 – FCTC.....	3-47
Figure 3.3.2-1	Low Altitude Airspace Routes – FCTC Sites .....	3-57
Figure 3.3.2-2	High Altitude Airspace Routes – FCTC Sites.....	3-58
Figure 3.3.3-1	Vegetation Community Alliances – FCTC Site 1 .....	3-101
Figure 3.3.3-2	Vegetation Community Alliances – FCTC Site 2 .....	3-102
Figure 3.3.4-1	Area of Potential Effects – FCTC Site 1 .....	3-116
Figure 3.3.4-2	Previous Cultural Resource Investigations – Study Areas at the FCTC Sites .....	3-117
Figure 3.3.4-3	Area of Potential Effects – FCTC Site 2 .....	3-118
Figure 3.3.5-1	Census Block Groups in the FCTC Vicinity .....	3-130
Figure 3.3.9-1	Regional Land Use – FCTC Sites .....	3-169
Figure 3.3.9-2	Regional Zoning – FCTC Sites .....	3-170
Figure 3.3.9-3	Site-Specific Land Use – FCTC Sites .....	3-171
Figure 3.3.9-4	Regional Recreational Resources – FCTC Sites .....	3-172
Figure 3.3.10-1	Noise Monitoring Locations – FCTC Sites .....	3-188
Figure 3.3.10-2	Meteorological Data for ENS Period – FCTC Sites .....	3-189
Figure 3.3.10-3	Measured Ambient Sound Levels at Noise Measurement Location 1 – FCTC Sites .....	3-190
Figure 3.3.10-4	Measured Sound Levels at Noise Measurement Location 2 – FCTC Sites .....	3-191
Figure 3.3.10-5	Measured Sound Levels at Noise Measurement Location 3 – FCTC Sites .....	3-192
Figure 3.3.10-6	Noise-Sensitive Receptors – FCTC Sites.....	3-193
Figure 3.3.11-1	Median Household Incomes – FCTC Sites.....	3-222
Figure 3.3.12-1	Regional Road Network – FCTC Sites .....	3-245
Figure 3.3.12-2	Road Network – FCTC Site 1 .....	3-246
Figure 3.3.12-3	Road Network – FCTC Site 2 .....	3-247
Figure 3.3.12-4	Route from Port of Burns Harbor, IN, to FCTC .....	3-248
Figure 3.3.14-1	Watersheds – FCTC Sites .....	3-294
Figure 3.3.14-2	Regional Groundwater Flow – FCTC Sites .....	3-295
Figure 3.3.14-3	Regional Surface Water Flow – FCTC Sites .....	3-296
Figure 3.3.14-4	Surface Waters – FCTC Sites .....	3-297
Figure 3.3.14-5	Impaired Rivers and Streams – FCTC Sites .....	3-298
Figure 3.3.14-6	Surface Water Sample Locations – Kellogg Biological Station and Michigan Department of Environmental Quality – FCTC Sites .....	3-299
Figure 3.3.14-7	Surface Water Sample Locations – URS, Black & Veatch and Snell Environmental Group – FCTC Sites .....	3-300

Figure 3.3.14-8	FCTC Homestead Wells Locations .....	3-301
Figure 3.3.14-9	Regional Groundwater Wells – FCTC Sites .....	3-302
Figure 3.3.14-10	FCTC Annual Groundwater Sampling Locations .....	3-303
Figure 3.3.15-1	National Wetlands Inventory and Michigan Department of Environmental Quality Wetland Inventory Map – FCTC Site 1 .....	3-321
Figure 3.3.15-2	Delineated Wetlands – FCTC Site 1 .....	3-322
Figure 3.3.15-3	Wetlands in Cleared Footprint – FCTC Site 1 .....	3-323
Figure 3.3.15-4	National Wetlands Inventory and Michigan Department of Environmental Quality Wetland Inventory Map – FCTC Site 2 .....	3-324
Figure 3.3.15-5	Delineated Wetlands – FCTC Site 2 .....	3-325
Figure 3.3.15-6	Wetlands in Cleared Footprint – FCTC Site 2 .....	3-326
Figure 3.3.16-1	Preliminary Viewshed Map – FCTC Site 1 .....	3-353
Figure 3.3.16-2	Preliminary Viewshed Map – FCTC Site 2 .....	3-354
Figure 3.3.16-3	Photo Locations – FCTC Sites .....	3-355
Figure 3.3.16-4	Representative View of Territorial Road – FCTC Site 1 .....	3-356
Figure 3.3.16-5	View of Convoy Reaction Course – FCTC Site 1 .....	3-356
Figure 3.3.16-6	Daytime View toward FCTC Installation Boundary from East Side .....	3-357
Figure 3.3.16-7	Nighttime View toward FCTC Installation Boundary from East Side .....	3-357
Figure 3.3.16-8	Representative View of FCTC Installation Boundary near FCTC Site 1 .....	3-358
Figure 3.3.16-9	Representative Interior View of Territorial Road near FCTC Site 2 .....	3-359
Figure 3.3.16-10	Representative Views – 44 <sup>th</sup> Street – FCTC Site 2 .....	3-360
Figure 3.3.16-11	Representative Interior View – 42 <sup>nd</sup> Street – FCTC Site 2 .....	3-360
Figure 3.3.16-12	Representative Public View – FCTC Boundary near FCTC Site 2 .....	3-361
Figure 3.3.16-13	Representative Public View from Fort Custer Recreation Area .....	3-361
Figure 3.3.16-14	Simulated View of Construction Traffic on FCTC Perimeter Road from I-94 .....	3-362
Figure 3.3.16-15	Simulated View of FCTC Site 1 Facilities from FCTC Existing Interior .....	3-363
Figure 3.3.16-16	Existing Nighttime View of Distant Skyglow and FCTC Interior .....	3-364
Figure 3.4.1-1	Annual Wind Rose, Youngstown, Ohio – CRJMTC .....	3-399
Figure 3.4.2-1	Low Altitude Airspace Routes – CRJMTC Site .....	3-407
Figure 3.4.2-2	High Altitude Airspace Routes – CRJMTC Site .....	3-408
Figure 3.4.3-1	Vegetative Communities and Alliances – CRJMTC .....	3-438
Figure 3.4.3-2	Biological and Water Quality Study Sampling Locations – CRJMTC .....	3-439
Figure 3.4.4-1	Area of Potential Effects – CRJMTC .....	3-460
Figure 3.4.4-2	Previous Cultural Resource Investigations – Study Areas within the CRJMTC Site Area of Potential Effects .....	3-461
Figure 3.4.5-1	Census Block Groups in CRJMTC Vicinity .....	3-475

Figure 3.4.7-1	Active Areas of Concern (AOCs) and Munitions Response Sites (MRSs) – CRJMTC .....	3-499
Figure 3.4.9-1	Regional Map – CRJMTC .....	3-527
Figure 3.4.9-2	Improved, Semi-Improved, and Unimproved Grounds – CRJMTC .....	3-528
Figure 3.4.9-3	Land Use – CRJMTC .....	3-529
Figure 3.4.9-4	Buildings to be Demolished – CRJMTC .....	3-530
Figure 3.4.9-5	Forest Management Areas – CRJMTC .....	3-531
Figure 3.4.9-6	Hunting Areas – CRJMTC .....	3-532
Figure 3.4.9-7	Fishing Areas – CRJMTC .....	3-533
Figure 3.4.9-8	Relocated Facilities – CRJMTC .....	3-534
Figure 3.4.10-1	Meteorological Data for Environmental Noise Survey Period – CRJMTC .....	3-548
Figure 3.4.10-2	Noise Monitoring Locations – CRJMTC .....	3-549
Figure 3.4.10-3	Measured Ambient Sound Levels at Noise Measurement Location 1 – CRJMTC .....	3-550
Figure 3.4.10-4	Measured Sound Levels at Noise Measurement Location 2 – CRJMTC – Showing Unidentified (Non-CRJMTTC) Tonal Source .....	3-551
Figure 3.4.10-5	Measured Sound Levels at Noise Measurement Location 2 – CRJMTC .....	3-552
Figure 3.4.10-6	Measured Sound Levels at Noise Measurement Location 3 – CRJMTC .....	3-553
Figure 3.4.10-7	Nearest Noise-Sensitive Receptors – CRJMTC .....	3-554
Figure 3.4.11-1	Median Household Incomes – CRJMTC .....	3-582
Figure 3.4.12-1	Regional Road Network – CRJMTC .....	3-594
Figure 3.4.12-2	CRJMTC Existing Road Network .....	3-595
Figure 3.4.12-3	Route from Port of Cleveland to CRJMTC .....	3-596
Figure 3.4.14-1	Watersheds (Hydrologic Unit Code 12) – CRJMTC .....	3-629
Figure 3.4.14-2	Surface Waters – CRJMTC .....	3-630
Figure 3.4.14-3	Tributaries within the Footprint– CRJMTC .....	3-631
Figure 3.4.14-4	Ohio Environmental Protection Agency Surface Water Sample Locations – CRJMTC .....	3-632
Figure 3.4.14-5	Investigation Locations within Footprint – CRJMTC .....	3-633
Figure 3.4.14-6	Federal Emergency Management Agency 100-Year Floodplain – CRJMTC .....	3-634
Figure 3.4.15-1	National Wetlands Inventory Wetlands – CRJMTC .....	3-660
Figure 3.4.15-2	Delineated Wetlands – CRJMTC .....	3-661
Figure 3.4.15-3	Delineated Wetlands by Cowardin Classification – CRJMTC .....	3-662
Figure 3.4.15-4	Delineated Wetlands by Ohio Rapid Assessment Method Category – CRJMTC .....	3-663
Figure 3.4.15-5	Wetlands for Relocated Facilities – CRJMTC .....	3-664

Figure 3.4.15-6	Wetlands in Cleared Footprint by Cowardin Classification – CRJMTC .....	3-665
Figure 3.4.15-7	Wetlands in Cleared Footprint by Ohio Rapid Assessment Method Category – CRJMTC.....	3-666
Figure 3.4.15-8	Wetlands Impacts Outside Cleared Footprint – CRJMTC .....	3-667
Figure 3.4.16-1	Preliminary Viewshed Map – CRMTC.....	3-690
Figure 3.4.16-2	Photo Locations – CRMTC .....	3-691
Figure 3.4.16-3	Representative View – CRJMTC Cantonment Area.....	3-692
Figure 3.4.16-4	View of Load Line 8 – CRJMTC.....	3-692
Figure 3.4.16-5	Representative View of CRJMTC Perimeter .....	3-693
Figure 3.4.16-6	Potentially Sensitive Viewpoint – CRJMTC.....	3-694
Figure 3.4.16-7	Potentially Sensitive Viewpoint – Daytime View - CRJMTC.....	3-695
Figure 3.4.16-8	Potentially Sensitive Viewpoint – Nighttime View – CRJMTC.....	3-695
Figure 3.4.16-9	Simulated Nighttime View from CRJMTC Entrance .....	3-696
Figure 3.5.1-1	Annual Wind Rose, Fort Drum, NY, 1994-2013 – FTD .....	3-731
Figure 3.5.2-1	Low Altitude Airspace Routes – FTD Site .....	3-739
Figure 3.5.2-2	High Altitude Airspace Routes.....	3-740
Figure 3.5.3-1	Vegetation Communities and Alliances – FTD .....	3-763
Figure 3.5.3-2	Indiana Bat Detections– FTD.....	3-764
Figure 3.5.3-3	Northern Long-Eared Bat Detections – FTD .....	3-765
Figure 3.5.4-1	Area of Potential Effects - FTD .....	3-779
Figure 3.5.4-2	Previous Cultural Resource Investigations – Study Areas within the FTD Site Area of Potential Effects.....	3-780
Figure 3.5.5-1	Census Block Groups in the FTD Vicinity .....	3-793
Figure 3.5.9-1	Army Compatible Use Buffer Priority Area Near Footprint – FTD .....	3-834
Figure 3.5.9-2	Regional Map - FTD .....	3-835
Figure 3.5.9-3	Recreational Areas Near FTD.....	3-836
Figure 3.5.9-4	Functional Areas - FTD.....	3-837
Figure 3.5.9-5	Land Use Classifications - FTD .....	3-838
Figure 3.5.9-6	Environmental Constraints - FTD .....	3-839
Figure 3.5.9-7	Recreational Use Map - FTD .....	3-840
Figure 3.5.10-1	Noise Monitoring Locations - FTD.....	3-856
Figure 3.5.10-2	Meteorological Data for Environmental Noise Survey Period - FTD.....	3-857
Figure 3.5.10-3	Measured Ambient Sound Levels at Noise Management Location 1 - FTD .....	3-858
Figure 3.5.10-4	Measured Sound Levels at Noise Measurement Location 2 - FTD .....	3-859
Figure 3.5.10-5	Measured Sound Levels at Noise Measurement Location 3 - FTD .....	3-860
Figure 3.5.10-6	Measured Sound Levels at Noise Measurement Location 4 - FTD .....	3-861
Figure 3.5.10-7	Noise-Sensitive Receptors - FTD.....	3-862
Figure 3.5.11-1	Median Household Income in Jefferson County, 2012 - FTD.....	3-888

Figure 3.5.12.1	Regional Road Network - FTD .....	3-904
Figure 3.5.12.2	Existing FTD Road Network.....	3-905
Figure 3.5.12-3	Route from Port of Ogdensburg to FTD .....	3-906
Figure 3.5.14-1	Watersheds - FTD .....	3-932
Figure 3.5.14-2	Surface Waters - FTD.....	3-933
Figure 3.5.14-3	Federal Emergency Management Agency 100-Year Floodplain - FTD ..	3-934
Figure 3.5.14-4	Groundwater Map - FTD.....	3-935
Figure 3.5.15-1	National Wetlands Inventory and New York State Department of Environmental Conservation Wetlands - FTD .....	3-955
Figure 3.5.15-2	Delineated Wetlands - FTD.....	3-956
Figure 3.5.15-3	Delineated Wetlands by Cowardin Classification – FTD .....	3-957
Figure 3.5.15-3a	Delineated Wetlands by Cowardin Classification Sheet 3a - FTD .....	3-958
Figure 3.5.15-3b	Delineated Wetlands by Cowardin Classification Sheet 3b - FTD .....	3-959
Figure 3.5.15-3c	Delineated Wetlands by Cowardin Classification Sheet 3c - FTD .....	3-960
Figure 3.5.15-3d	Delineated Wetlands by Cowardin Classification Sheet 3d - FTD .....	3-961
Figure 3.5.15-4	Cleared Footprint Wetland Impacts - FTD.....	3-962
Figure 3.5.15-5	Wetland Impacts Outside the Cleared Footprint - FTD .....	3-963
Figure 3.5.16-1	Preliminary Viewshed Map - FTD .....	3-988
Figure 3.5.16-2	Photo Locations - FTD .....	3-989
Figure 3.5.16-3	Representative View - Internal Loads - FTD .....	3-990
Figure 3.5.16-4	Representative Public View - FTD .....	3-990
Figure 3.5.16-5	Representative View from Highway 3A – Looking Southeast - FTD.....	3-991
Figure 3.5.16-6	Representative View from Highway 3A – Looking Southwest – FTD ...	3-991
Figure 3.5.16-7	Potentially Sensitive Public View – FTD .....	3-992
Figure 3.5.16-8	Potentially Sensitive Public View – Loop Road – FTD.....	3-992
Figure 3.5.16-9	Potentially Sensitive Public View – Biomass Plant Area - FTD .....	3-993
Figure 3.5.16-10	Potentially Sensitive Public View – Peck Road – FTD .....	3-993
Figure 3.5.16-11	Nighttime View – Natural Darkness – FTD.....	3-994
Figure 3.5.16-12	Nighttime View with Helicopter Skyglow – FTD .....	3-994
Figure 3.5.16-13	Existing View Over Western Portion of Site Footprint North of Highway 3A - FTD.....	3-995
Figure 3.5.16-14	Simulated Public Daytime Views – FTD .....	3-996
Figure 3.6.16-15	Simulated Public Nighttime View – FTD .....	3-996

**This page intentionally left blank.**

### **3.6 Summary of Environmental Consequences, Impacts, and Mitigation Options**

A comparative summary of the environmental consequences and impacts, along with potential mitigation options to address the impacts for the potential deployment of the CIS at FCTC, CRJMTC, and FTD is presented in Table 3.6-1. Due to the lack of impacts and mitigation options for the No Action Alternative (see Section 3.2) it is not included in the table.

**This page intentionally left blank.**

**Table 3.6-1 Comparative Summary of Environmental Impacts and Potential Mitigations for CIS Candidate Sites**

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTTC Site	FTD Site
<b>AIR QUALITY</b>				
<p><b>Construction: Baseline Schedule Impacts</b></p>	<p>Based on modelled results, minor and temporary impacts from fugitive dust, but small in comparison to those typically generated for Kalamazoo and Calhoun Counties, would be expected. Potential dust impacts would be reduced through dust control best management practices (BMPs).</p> <p>BMPs to reduce dust emissions during construction could consist of use of dust inhibitors; revegetating disturbed areas; proper maintenance of construction vehicles and equipment, use of clean fuels, and application of anti-idling procedures.</p> <p>The annual emissions of CO<sub>2</sub>e quantified for construction activities indicate the minor nature of the potential CIS deployment's GHG impacts.</p>	<p>Expected impacts would be similar to FCTC Site 1 (minor and temporary fugitive dust impacts and small in comparison to those typically generated for Kalamazoo County), but would be reduced through dust control BMPs.</p> <p>Similar to FCTC Site 1, the annual emissions of CO<sub>2</sub>e quantified for construction activities indicate the minor nature of the potential CIS deployment's GHG impacts.</p>	<p>Based on modelled results, minor and temporary impacts from fugitive dust, but small in comparison to those typically generated for Portage County, would be expected, but would be reduced through dust control BMPs.</p> <p>BMPs to reduce dust emissions during construction could consist of use of dust inhibitors; revegetating disturbed areas; proper maintenance of construction vehicles and equipment, use of clean fuels, and application of anti-idling procedures.</p> <p>The annual emissions of CO<sub>2</sub>e quantified for construction activities indicate the minor nature of the potential CIS deployment's GHG impacts.</p>	<p>Based on modelled results, minor and temporary impacts from fugitive dust, but small in comparison to those typically generated for Jefferson County, would be expected.</p> <p>BMPs to reduce dust emissions during construction could consist of use of dust inhibitors; revegetating disturbed areas; proper maintenance of construction vehicles and equipment, use of clean fuels, and application of anti-idling procedures.</p> <p>The annual emissions of CO<sub>2</sub>e quantified for construction activities indicate the minor nature of the potential CIS deployment's GHG impacts.</p>
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	No mitigation would be required.	No mitigation would be required.
<p><b>Construction: Expedited Schedule Impacts</b></p>	<p>The shorter construction time period would result in increased emissions. However, similar to the baseline schedule, only temporary and minor impacts would be expected. These emissions would be reduced through use of BMPs similar to those defined for the baseline schedule.</p>	<p>Similar to FCTC Site 1, only temporary and minor impacts would be expected that would be addressed through use of BMPs.</p>	<p>The shorter construction time period would result in increased emissions. However, similar to the baseline schedule, only temporary and minor impacts would be expected. These emissions would be reduced through use of BMPs similar to those defined for the baseline schedule.</p>	<p>The shorter construction time period would result in increased emissions. However, similar to the baseline schedule, only temporary and minor impacts would be expected. These emissions would be reduced through use of BMPs similar to those defined for the baseline schedule.</p>
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	No mitigation would be required.	No mitigation would be required.
<p><b>Operation: Baseline Schedule Impacts</b></p>	<p>Minor impacts to air quality emissions would be expected in comparison to typical Kalamazoo and Calhoun Counties emissions.</p> <p>The GHG emissions quantified for operation activities indicate the minor nature of the potential deployment's impacts.</p> <p>An operating permit would be required.</p>	<p>Impacts would be the same as those for FCTC Site 1 (minor emission impacts, minor GHG impacts, but operating permit required).</p>	<p>Minor impacts to air quality emissions would be expected in comparison to typical Portage County emissions.</p> <p>The GHG emissions quantified for operation activities indicate the minor nature of the potential deployment's impacts.</p> <p>An operating permit would be required.</p>	<p>Minor impacts to air quality emissions would be expected in comparison to typical Jefferson County emissions.</p> <p>The GHG emissions quantified for operation activities indicate the minor nature of the potential deployment's impacts.</p> <p>An operating permit would be required.</p>

<b>Impacts/ Potential Mitigation</b>	<b>FCTC Site 1</b>	<b>FCTC Site 2</b>	<b>CRJMTC Site</b>	<b>FTD Site</b>
<u>Potential Mitigation</u>	BMPs that would be implemented to reduce emissions during operations activities would consist of maintaining equipment in working order, limiting number of operation hours, and installation of air emission controls.  No mitigation would be required.	BMPs that would be implemented to reduce emissions during operations activities would consist of maintaining equipment in working order, limiting number of operation hours, and installation of air emission controls.  Similar to FCTC Site 1, no mitigation would be required.	BMPs that would be implemented to reduce emissions during operations activities would consist of maintaining equipment in working order, limiting number of operation hours, and installation of air emission controls.  No mitigation would be required.	BMPs that would be implemented to reduce emissions during operations activities would consist of maintaining equipment in working order, limiting number of operation hours, and installation of air emission controls.  No mitigation would be required.
<b>Operation: Expedited Schedule Impacts</b>	The shorter time period would result in slightly increased emissions during the initial operations. However, overall and similar to the baseline schedule, only temporary and minor impacts are expected for air quality and GHG emissions. Similar to the baseline schedule, these emissions would be reduced through use of BMPs. An operating permit would be required.	The impacts would be the same as those for FCTC Site 1 (minor impacts).	The impacts would be the similar (minor), but higher than the baseline schedule impacts, which would be reduced by BMPs. An operating permit would be required.	The impacts would be the similar (minor), but higher than the baseline schedule impacts, which would be reduced by BMPs. An operating permit would be required.
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	No mitigation would be required.	No mitigation would be required.
<b>General Conformity: Baseline Schedule Impacts</b>	Based on initial operation and construction activities, no general conformity thresholds would be exceeded, therefore, no general conformity determination would be required.	Similar to FCTC Site 1, no general conformity determination would be required.	Based on initial operation and construction activities, no general conformity thresholds would be exceeded, therefore no general conformity determination would be required.	Based on initial operation and construction activities, no general conformity thresholds would be exceeded, therefore no general conformity determination would be required.
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	No mitigation would be required.	No mitigation would be required.
<b>General Conformity: Expedited Schedule Impacts</b>	The estimated construction emission for NOx would exceed the general conformity threshold. In Year 3, this exceedance would trigger the need for a general conformity determination.	Similar to FCTC Site 1, a general conformity determination would be required.	The estimated construction emission for NOx would exceed the general conformity threshold. This exceedance would trigger the need for a general conformity determination.	The estimated construction emission for NOx would exceed the general conformity threshold. This exceedance would trigger the need for a general conformity determination.
<u>Potential Mitigation</u>	Based on results of the general conformity determination, mitigation or securing offsets could be required.	Similar to FCTC Site 1, the need for mitigation would be based on the general conformity determination.	Based on results of the general conformity determination, mitigation or securing offsets could be required.	Based on results of the general conformity determination, mitigation or securing offsets could be required.
<b>AIRSPACE</b>				
<b>Construction: Baseline Schedule Impacts</b>	Impacts would be negligible.	Similar to FCTC Site 1, impacts would be negligible.	Impacts would be negligible.	Impacts would be negligible.
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	No mitigation would be required.	No mitigation would be required.

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<b>Construction:</b> <i>Expedited Schedule Impacts</i>	Impacts would be negligible.	Similar to FCTC Site 1, impacts would be negligible.	Impacts would be negligible.	Impacts would be negligible.
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	No mitigation would be required.	No mitigation would be required.
<b>Operation:</b> <u>Impacts</u>	<p>Due to controlled airspace of adjacent airports and airfields, associated airspace impacts would be negligible to minor.</p> <p>Runway incursion with W.K. Kellogg has been identified as a potential safety concern that would need to be coordinated with the local air traffic control to determine appropriate mitigation.</p> <p>An avoidance area over the IDT and SATCOM facilities would need to be established. Impacts would be minor.</p> <p>Although not designated with specific airspace restrictions, negligible to minor impacts may occur to some current commercial and recreational activities that may require coordination to minimize impacts.</p> <p>Although there are numerous air traffic corridors from Michigan, Indiana, and Wisconsin in the vicinity of FCTC, negligible airspace related impacts would occur.</p>	<p>Due to controlled airspace of adjacent airports and airfields, associated airspace impacts would be negligible to minor.</p> <p>Runway incursion with W.K. Kellogg would be of less concern than FCTC Site 1, due to its further distance from W.K. Kellogg Airfield.</p> <p>An avoidance area over the IDT and SATCOM facilities would need to be established. Impacts would be minor.</p> <p>Although not designated with specific airspace restrictions, negligible impacts (less than FCTC Site 1) may occur to some current commercial and recreational activities that may require coordination to minimize impacts.</p> <p>Although there are numerous air traffic corridors from Michigan, Indiana, and Wisconsin in the vicinity of FCTC, negligible airspace related impacts would occur.</p>	<p>Airspace is not controlled by adjacent airports or airfields. Impacts that would interfere with controlled airspace would be negligible.</p> <p>An avoidance area over the IDT and SATCOM facilities would need to be established. Impacts would be minor.</p> <p>Although there are numerous air traffic corridors from Cleveland, OH to Pittsburg, PA in the vicinity of CRJMTC, negligible airspace related impacts would occur.</p>	<p>Due to existing controlled airspace over FTD and Wheeler-Sack Army Airfield, airspace issues would need to be coordinated with FTD. Impacts would be minor.</p> <p>An avoidance area over the IDT and SATCOM facilities would need to be established and coordinated with FTD. Impacts would be minor.</p> <p>Due to existing controlled airspace over FTD, there are no air traffic corridors in the airspace over FTD.</p>
<u>Potential Mitigation</u>	<p>Mitigation would need to be addressed for runway incursion with the adjacent airfield (W.K. Kellogg).</p> <p>All other impacts would be negligible to minor; therefore, no mitigation would be required.</p>	<p>Similar to FCTC Site 1, mitigation would need to be addressed for runway incursion with the adjacent airfield (W.K. Kellogg).</p> <p>All other impacts would be negligible to minor; therefore, no mitigation would be required.</p>	<p>Impacts would be negligible to minor; therefore, no mitigation would be required.</p>	<p>Impacts would be negligible to minor; therefore, no mitigation would be required.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<b>BIOLOGICAL RESOURCES</b>				
<p><b>Construction:</b> <b>Baseline Schedule</b> <u>Impacts:</u> <i>Threatened and Endangered (T&amp;E) Species</i></p> <p><u>Potential Mitigation:</u> <i>T&amp;E Species</i></p> <p><u>Impacts:</u> <i>Other Species</i></p>	<p>There are no T&amp;E species currently present in the FCTC Site 1 footprint, but loss of suitable habitats would occur for the northern long-eared bat (NLEB) and Indiana bat, Mitchell's satyr butterfly, copperbelly watersnake, and eastern massasauga rattlesnake. Therefore, impacts would be minor.</p> <p>A bald eagle nest is present at FCTC, but is not within the FCTC Site 1 CIS footprint or regulated buffer distances. Impacts would be negligible.</p> <p>Overall, the baseline construction schedule impacts may affect, but would not likely adversely affect the potential T&amp;E species.</p> <p>Although habitats may be lost, no T&amp;E species would be directly impacted. Therefore, because the baseline construction schedule impacts would be minor and may affect, but would not likely adversely affect the potential T&amp;E species, no mitigation would be required. However, due to the uncertainty of timing, if a deployment decision is made and this site is selected, consultations with applicable regulatory agencies (i.e., USFWS, USACE) would be held to discuss the need for and development of mitigation options, as appropriate.</p> <p>Vegetation: The FCTC Site 1 footprint consists of 1,147 acres; 961 acres would be cleared (83 forested acres, 3 shrubland acres, 231 herbaceous (grassland) acres, 643 woodland/shrubland acres, and 1 non-vegetated acre.</p> <p>Habitat loss and conversion: Loss of vegetation alliances from forested and grassland areas to maintained turf grass areas. Localized wetland and vegetation composition change from changes in hydrology/filling.</p> <p>Birds, Wildlife, Fish, and Reptiles: Direct impacts due to displacement, indirect impacts due to loss of breeding and foraging habitat.</p>	<p>There are no T&amp;E species currently present in the FCTC Site 2 footprint, but loss of suitable habitats would occur for the NLEB and Indiana bat, Mitchell's satyr butterfly, copperbelly watersnake, and eastern massasauga rattlesnake. Therefore, impacts would be minor.</p> <p>A bald eagle is present at FCTC, but is not within the FCTC Site 2 CIS footprint or regulated buffer distances. Impacts would be negligible.</p> <p>Overall, the baseline construction schedule impacts may affect, but would not likely adversely affect the potential T&amp;E species.</p> <p>Although habitats may be lost, no T&amp;E species would be directly impacted. Therefore, because the baseline construction schedule impacts would be minor and may affect, but would not likely adversely affect the potential T&amp;E species, no mitigation would be required. However, due to the uncertainty of timing, if a deployment decision is made and this site is selected, consultations with applicable regulatory agencies (i.e., USFWS, USACE) would be held to discuss the need for and development of mitigation options, as appropriate.</p> <p>Vegetation: The FCTC Site 2 footprint consists of 1,105 acres; 932 acres would be cleared (179 forested acres, 1 shrubland acre, 9 herbaceous (grassland) acres, 740 woodland/shrubland acres, and 3 non-vegetated acres). The quality of forest, fen habitat, and other vegetation community slightly higher than FCTC Site 1.</p> <p>Similar but slightly elevated impacts over those for FCTC Site 1 for habitat loss and conversion (habitat for FCTC Site 2 slightly higher quality than FCTC Site 1) and slightly elevated impacts to birds, wildlife, fish, and reptiles would occur.</p>	<p>The NLEB has been identified at the CRJMTC CIS footprint. Impacts would include loss of roost trees and foraging habitat. To reduce impacts, seasonal restrictions on tree removal would be implemented to the practical extent possible. Therefore, impacts would be minor.</p> <p>Loss of suitable habitat for the Indiana bat, Mitchell's Satyr butterfly, eastern massasauga rattlesnake, and monkshood would occur, but none of these T&amp;E species are currently present.</p> <p>A bald eagle nest is present at CRJMTC, but not within the CIS footprint or regulated buffer distances. Impacts would be negligible.</p> <p>The baseline construction schedule impacts would be minor but may affect the NLEB and habitats for other T&amp;E species. If a deployment decision is made and this site is selected, consultations with applicable regulatory agencies (i.e., USFWS, USACE) would be held to discuss the need for and development of mitigation options, as appropriate.</p> <p>Vegetation: The CRJMTC Site footprint consists of 1,184 acres; 1,027 acres would be cleared (548 forested acres, 251 shrubland acres, 200 herbaceous (grassland) acres, 2 evergreen plantation acres, and 26 landscaped acres.</p> <p>Habitat loss and conversion: Loss of forested, shrub, and herbaceous vegetation alliances to maintained turf grass areas. Localized wetland and vegetation composition change from changes in hydrology/filling.</p> <p>Birds, Wildlife, Fish, and Reptiles: Direct impacts due to displacement, indirect impacts due to loss of breeding and foraging habitat.</p>	<p>The NLEB has been previously identified in the FTD CIS footprint but none have been captured since 2011. The Indiana bats are present at FTD in the cantonment area and roost within 5 miles FTD, but are not known to roost in the FTD CIS footprint. However, due to their general presence at FTD, adverse indirect impacts for these two bat species would result from loss of roost habitat and forage. To reduce impacts, seasonal restrictions on tree removal would be implemented to practical extent possible. Therefore, the impacts would be minor.</p> <p>The baseline construction schedule impacts would be minor but may affect the NLEB and Indiana bat. If a deployment decision is made and this site is selected, consultations with applicable regulatory agencies (i.e., USFWS, USACE) would be held to discuss the need for and development of mitigation options, as appropriate.</p> <p>Vegetation: The FTD Site footprint consists of 1,200 acres; 977 acres would be cleared (523 forested acres, 14 shrubland acres, 256 herbaceous (grassland) acres, 146 evergreen plantation acres, 18 landscaped acres, and 20 non-vegetated acres.</p> <p>Habitat loss and conversion: Loss of forested, shrub, and herbaceous vegetation alliances to maintained turf grass areas. Localized wetland and vegetation composition change from changes in hydrology/filling.</p> <p>Birds, Wildlife, Fish, and Reptiles: Direct impacts due to displacement, indirect impacts due to loss of breeding and foraging habitat.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<p>Potential Mitigation: <i>Other Species</i></p>	<p>BMPs would be implemented to address impacts would consist of practices such as clearing in non-nesting or breeding periods to practical extent and managing erosion/sedimentation. In addition to the BMPs, the military readiness exemption for birds covered by the MBTA would be invoked for the CIS project, as needed, because although takes of individual birds may occur within the CIS footprint, the overall population of species (e.g., the cerulean warbler) would not be adversely affected.</p> <p>Overall impacts to other species are likely to be minor.</p> <p>Because overall impacts to other species would be minor, no mitigation measures (compensatory, offsetting activities, or otherwise) were identified.</p>	<p>Similar to FCTC Site 1, impacts would be minor and addressed through implementation of BMPs. In addition to the BMPs, the military readiness exemption for birds covered by the MBTA would be invoked for the CIS project, as needed, because although takes of individual birds may occur within the CIS footprint, the overall population of species (e.g., the cerulean warbler) would not be adversely affected.</p> <p>Overall impacts to other species are likely to be minor.</p> <p>Because overall impacts to other species would be minor, no mitigation measures (compensatory, offsetting activities, or otherwise) were identified.</p>	<p>BMPs would be implemented to address impacts and would consist of practices such as clearing in non-nesting or breeding periods to practical extent and managing erosion/sedimentation. In addition to the BMPs, the military readiness exemption for birds covered by the MBTA would be invoked for the CIS project, as needed, because although takes of individual birds may occur within the CIS footprint, the overall population of species (e.g., the cerulean warbler) would not be adversely affected.</p> <p>Overall impacts to other species are likely to be minor.</p> <p>Because overall impacts to other species would be minor, no mitigation measures (compensatory, offsetting activities, or otherwise) were identified.</p>	<p>BMPs would be implemented to address impacts and would consist of practices such as clearing in non-nesting or breeding periods to practical extent and managing erosion/sedimentation. In addition to the BMPs, the military readiness exemption for birds covered by the MBTA would be invoked for the CIS project, as needed, because although takes of individual birds may occur within the CIS footprint, the overall population of species (e.g., the cerulean warbler) would not be adversely affected.</p> <p>Overall impacts to other species are likely to be minor.</p> <p>Because overall impacts to other species would be minor, no mitigation measures (compensatory, offsetting activities, or otherwise) were identified.</p>
<p><b>Construction: Expedited Schedule</b> Impacts: <i>T&amp;E Species</i></p> <p>Potential Mitigation: <i>T&amp;E Species</i></p> <p>Impacts: <i>Other Species</i></p>	<p>Impacts would be intensified, as compared to the baseline schedule, due to the compressed schedule and diminished allowances for timing efforts (e.g., clearing efforts during nesting/breeding seasons). Therefore, moderate impacts are likely. However, because no T&amp;E species are present in the FCTC Site 1 footprint, the expedited construction schedule impacts may affect, but not likely adversely affect the NLEB or other potential T&amp;E species.</p> <p>Although some habitats may be lost, no T&amp;E species are present in the FCTC Site 1 footprint. Therefore, because the expedited construction schedule impacts would be moderate and may affect, but would not likely adversely affect the NLEB or other potential T&amp;E species, no mitigation would occur.</p> <p>Impacts from the expedited schedule for species other than T&amp;E species (vegetation, habitat conversion, birds, wildlife, fish, and reptiles) would be similar to those defined for baseline schedule; however, due to the compressed schedule there would be an increased intensity and diminished allowances for timing efforts would occur (e.g., clearing efforts during nesting/breeding seasons). Overall, only moderate impacts would occur.</p>	<p>Similar to FCTC Site 1, impacts would be intensified, as compared to the baseline schedule, due to the compressed schedule and diminished allowances for timing efforts (e.g., clearing efforts during nesting/breeding seasons). Therefore, moderate impacts are likely. However, because no T&amp;E species are present in the FCTC Site 2 footprint, the expedited construction schedule impacts may affect, but not likely adversely affect the NLEB or other potential T&amp;E species.</p> <p>Although some habitats may be lost, no T&amp;E species are present in the FCTC Site 2 footprint. Therefore, because the expedited construction schedule impacts would be moderate and may affect, but would not likely adversely affect the NLEB or other potential T&amp;E species, no mitigation would occur.</p> <p>Impacts from the expedited schedule for species other than T&amp;E species (vegetation, habitat conversion, birds, wildlife, fish, and reptiles) would be similar to those defined for the expedited baseline schedule for FCTC Site 1. As with FCTC Site 1, due compressed schedule for FCTC Site 2, there would be an increased intensity and diminished allowances for timing efforts would occur (e.g., clearing efforts during nesting/breeding seasons). Overall, only moderate impacts would occur.</p>	<p>Impacts would be intensified, as compared to the baseline schedule, due to the compressed schedule and diminished allowances for timing efforts (e.g., clearing efforts during nesting/breeding seasons, cutting of trees for bats). Because of the diminished allowance for timing efforts, the expedited construction schedule the NLEB may be affected (major and significant impact). However, the expedited construction schedule impacts may affect, but not likely adversely affect other T&amp;E species because they are not present in the CRJMTC footprint.</p> <p>Due to the likely impacts to the NLEB (major and significant impact), consultation with USFWS would be conducted to determine if additional conservation measures would be required. A take permit would be obtained as necessary.</p> <p>Impacts from the expedited schedule for species other than T&amp;E species (vegetation, habitat conversion, birds, wildlife, fish, and reptiles) would be similar to those defined for baseline schedule; however, due to the compressed schedule there would be an increased intensity and diminished allowances for timing efforts would occur (e.g., clearing efforts during nesting/breeding seasons). Overall, only moderate impacts would occur.</p>	<p>Impacts would be intensified, as compared to the baseline schedule, due to the compressed schedule and diminished allowances for timing efforts (e.g., clearing efforts during nesting/breeding seasons, cutting of trees for bats). Because of the diminished allowance for timing efforts, the expedited construction schedule the NLEB and Indiana bat may be affected (major and significant impact).</p> <p>Due to the likely impacts to the NLEB and Indiana bat (major and significant impact), consultation with USFWS would be conducted to determine if additional conservation measures would be required. A take permit would be obtained as necessary.</p> <p>Impacts from the expedited schedule for species other than T&amp;E species (vegetation, habitat conversion, birds, wildlife, fish, and reptiles) would be similar to those defined for baseline schedule; however, due to the compressed schedule there would be an increased intensity and diminished allowances for timing efforts would occur (e.g., clearing efforts during nesting/breeding seasons). Overall, only moderate impacts would occur.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<p><u>Potential Mitigation:</u> <i>Other Species</i></p>	<p>Lighting and noise impacts may also be intensified due to more work being provided during nighttime hours, but efforts to minimize lighting to specific work areas and limit the more noise-intense construction activities would be implemented to reduce additional impacts during nighttime hours to reduce impacts to wildlife and birds.</p> <p>Other than timing efforts, other BMPs would still be able to be implemented to address some impacts. Although takes of individual birds may occur within the CIS footprint, the overall population of species (e.g., the cerulean warbler) would not be adversely affected and the military readiness exemption for birds covered by the MBTA would be invoked, as needed.</p> <p>No mitigation measures (compensatory, offsetting activities, or otherwise) would be required for other species.</p>	<p>Lighting and noise impacts may also be intensified due to more work being provided during nighttime hours, but efforts to minimize lighting to specific work areas and limit the more noise-intense construction activities would be implemented to reduce additional impacts during nighttime hours to reduce impacts to wildlife and birds.</p> <p>Other than timing efforts, other BMPs would still be able to be implemented to address some impacts. Although takes of individual birds may occur within the CIS footprint, the overall population of species (e.g., the cerulean warbler) would not be adversely affected and the military readiness exemption for birds covered by the MBTA would be invoked, as needed.</p> <p>No mitigation measures (compensatory, offsetting activities, or otherwise) would be required for other species.</p>	<p>Lighting and noise impacts may also be intensified due to more work being provided during nighttime hours, but efforts to minimize lighting to specific work areas and limit the more noise-intense construction activities would be implemented to reduce additional impacts during nighttime hours to reduce impacts to wildlife and birds.</p> <p>Other than timing efforts, other BMPs would still be able to be implemented to address some impacts. Although takes of individual birds may occur within the CIS footprint, the overall population of species (e.g., the cerulean warbler) would not be adversely affected and the military readiness exemption for birds covered by the MBTA would be invoked, as needed.</p> <p>No mitigation measures (compensatory, offsetting activities, or otherwise) would be required for other species.</p>	<p>Lighting and noise impacts may also be intensified due to more work being provided during nighttime hours, but efforts to minimize lighting to specific work areas and limit the more noise-intense construction activities would be implemented to reduce additional impacts during nighttime hours to reduce impacts to wildlife and birds.</p> <p>Other than timing efforts, other BMPs would still be able to be implemented to address some impacts. Although takes of individual birds may occur within the CIS footprint, the overall population of species (e.g., the cerulean warbler) would not be adversely affected and the military readiness exemption for birds covered by the MBTA would be invoked, as needed.</p> <p>No mitigation measures (compensatory, offsetting activities, or otherwise) would be required for other species.</p>
<p><b>Operation:</b> <u>Impacts</u></p> <p><u>Potential Mitigation</u></p>	<p>Impacts for maintenance activities would primarily be attributed to maintenance of landscape, mowing, application of herbicides, or similar activities. BMPs would be implemented to address impacts (e.g., product application management, spill cleanup provisions), and any impacts would be minor.</p> <p>Impacts for operations would primarily be attributed to facility and security lighting and some noise due to the impacts from backup power generation equipment. Impacts from lighting would be minimized by the use of fully recessed lighting that directs lighting downward. Noise impacts would occur during temporary back-up situations (power outages or during test and maintenance activities).</p> <p>Overall, these impacts would be minor. No mitigation measures (compensatory, offsetting activities, or otherwise) were identified.</p>	<p>Impacts for maintenance activities would primarily be attributed to maintenance of landscape, mowing, application of herbicides, or similar activities. BMPs would be implemented to address impacts (e.g., product application management, spill cleanup provisions), and any impacts would be minor.</p> <p>Impacts for operations would primarily be attributed to facility and security lighting and some noise due to the impacts from backup power generation equipment. Impacts from lighting would be minimized by the use of fully recessed lighting that directs lighting downward. Noise impacts would occur during temporary back-up situations (power outages or during test and maintenance activities).</p> <p>Overall, these impacts would be minor. No mitigation measures (compensatory, offsetting activities, or otherwise) were identified.</p>	<p>Impacts for maintenance activities would primarily be attributed to maintenance of landscape, mowing, application of herbicides, or similar activities. BMPs would be implemented to address impacts (e.g., product application management, spill cleanup provisions), and any impacts would be minor.</p> <p>Impacts for operations would primarily be attributed to facility and security lighting and some noise due to the impacts from backup power generation equipment. Impacts from lighting would be minimized by the use of fully recessed lighting that directs lighting downward. Noise impacts would occur during temporary back-up situations (power outages or during test and maintenance activities).</p> <p>Overall, these impacts would be minor. No mitigation measures (compensatory, offsetting activities, or otherwise) were identified.</p>	<p>Impacts for maintenance activities would primarily be attributed to maintenance of landscape, mowing, application of herbicides, or similar activities. BMPs would be implemented to address impacts (e.g., product application management, spill cleanup provisions), and any impacts would be minor.</p> <p>Impacts for operations would primarily be attributed to facility and security lighting and some noise due to the impacts from backup power generation equipment. Impacts from lighting would be minimized by the use of fully recessed lighting that directs lighting downward. Noise impacts would occur during temporary back-up situations (power outages or during test and maintenance activities).</p> <p>Overall, these impacts would be minor. No mitigation measures (compensatory, offsetting activities, or otherwise) were identified.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<b>CULTURAL RESOURCES</b>				
<p><b>Construction:</b> <i>Baseline Schedule</i> <u>Impacts</u></p> <p><u>Potential Mitigation</u></p>	<p>No historic properties identified in APE; therefore, there would be no impacts.</p> <p>No mitigation would be required.</p>	<p>No historic properties identified in APE; therefore, there would be no impacts.</p> <p>No mitigation would be required.</p>	<p>No historic properties identified in APE; therefore, there would be no impacts.</p> <p>No mitigation would be required.</p>	<p>Several potential areas of suspected prehistoric and historic and archaeological sites are within the FTD CIS footprint. Therefore, adverse (moderate/major) impacts may occur. Also, due to revision to the FTD CIS footprint, an additional 340 acres not previously surveyed for historic properties, is also located within the FTD CIS footprint.</p> <p>Prior to implementation of any mitigation, an evaluation of the sites and additional surveys (approximately 340 acres) to determine eligibility for inclusion on the NRHP would need to be completed. Although it is policy of FTD cultural resources program to leave archeological properties in-situ, alternative mitigation could consist of the following options or combination thereof:</p> <ol style="list-style-type: none"> <li>1. Review of data in partnership with Tribes and SHPO and selection of a portion of sites for data recovery.</li> <li>2. Monitoring of remaining sites during ground disturbance activities.</li> <li>3. Development and implementation of regional educational outreach curriculum in partnership with Tribes.</li> </ol>
<p><b>Construction:</b> <i>Expedited Schedule</i> <u>Impacts</u></p> <p><u>Potential Mitigation</u></p>	<p>No historic properties identified in APE; therefore, there would be no impacts.</p> <p>No mitigation would be required.</p>	<p>No historic properties identified in APE; therefore, there would be no impacts.</p> <p>Similar to FCTC Site 1, no mitigation would be required.</p>	<p>No historic properties identified in APE; therefore, there would be no impacts.</p> <p>No mitigation would be required.</p>	<p>Impacts (adverse [moderate/major]) would be similar to baseline schedule, but the implementation of the surveys and evaluation for NRHP eligibility would need to be conducted in an expedited manner.</p> <p>Mitigation would be similar to those listed for the baseline schedule, but would be required to be conducted in an expedited manner.</p>
<p><b>Operation:</b> <u>Impacts</u></p> <p><u>Potential Mitigation</u></p>	<p>No (negligible) impacts would occur.</p> <p>No mitigation would be required.</p>	<p>No (negligible) impacts would occur.</p> <p>Similar to FCTC Site 1, no mitigation would be required.</p>	<p>No (negligible) impacts would occur.</p> <p>No mitigation would be required.</p>	<p>No (negligible) impacts would occur.</p> <p>No mitigation would be required.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<b>ENVIRONMENTAL JUSTICE</b>				
<p><b>Construction:</b> <i>Baseline Schedule</i> <u>Impacts</u></p> <p>No areas are present within the near vicinity of FCTC Site 1 that qualifies as minority or low-income areas. Thus, any negative impacts on minority or lower populations would be negligible.</p> <p>Use of construction-related BMPs to address impacts on other resources would also minimize community health impacts.</p> <p><u>Potential Mitigation</u></p> <p>Because no disproportionate environmental justice or community health impacts would occur, no mitigation would be required.</p>	<p>No areas are present within the near vicinity of FCTC Site 1 that qualifies as minority or low-income areas. Thus, any negative impacts on minority or lower populations would be negligible.</p> <p>Use of construction-related BMPs to address impacts on other resources would also minimize community health impacts.</p> <p>Because no disproportionate environmental justice or community health impacts would occur, no mitigation would be required.</p>	<p>Similar to FCTC Site 1, negligible and no negative environmental justice impacts are anticipated from FCTC Site 2 construction activities.</p> <p>Similar to FCTC Site 1, because no disproportionate environmental justice or community health impacts are anticipated for FCTC Site 2, no mitigation would be required.</p>	<p>No areas are present within the near vicinity of the CRJMTC CIS footprint that qualifies as minority or low-income areas. Thus, any negative impacts on minority or lower populations would be negligible.</p> <p>Although AOCs are currently present in the CIS footprint, soil remedial efforts are planned to be completed prior to start of construction activities. Therefore, community health concerns related to existing contamination would be negligible.</p> <p>Use of construction-related BMPs to reduce impacts on other resources would also minimize community health impacts.</p> <p>Because no disproportionate environmental justice or community health impacts would occur, no mitigation would be required.</p>	<p>No areas are present within the near vicinity of the FTD CIS footprint 1 that qualify as minority or low-income areas. Thus, any negative impacts on minority or lower populations would be negligible.</p> <p>Use of construction-related BMPs to reduce impacts on other resources would also minimize community health impacts.</p> <p>The CIS footprint at FTD would result in the closure of NY 3A and traffic would have to use NY 3 through towns of Herrings and Carhage. Neither of these towns or areas along this route qualifies as minority or low-income areas. Therefore, impacts on minority or low-income populations from this reroute activity would be negligible.</p> <p>Because no disproportionate environmental justice or community health impacts would occur, no mitigation would be required.</p>
<p><b>Construction:</b> <i>Expedited Schedule</i> <u>Impacts</u></p> <p>Although impacts would occur at a greater intensity because of the compressed schedule, due to the lack of minority or low income areas within the vicinity of the FCTC Site 1 footprint, no negative (negligible) environmental justice impacts related to the expedited construction schedule would be anticipated.</p> <p><u>Potential Mitigation</u></p> <p>No mitigation would be required.</p>	<p>Although impacts would occur at a greater intensity because of the compressed schedule, due to the lack of minority or low income areas within the vicinity of the FCTC Site 1 footprint, no negative (negligible) environmental justice impacts related to the expedited construction schedule would be anticipated.</p> <p>No mitigation would be required.</p>	<p>Similar to FCTC Site 1, no negative (negligible) environmental justice impacts would occur for FCTC Site 2 expedited construction activities.</p> <p>Similar to FCTC Site 1, no mitigation would be required.</p>	<p>Although impacts would occur faster and with greater intensity because of the compressed schedule, due to the lack of minority or low income areas within the vicinity of the CRJMTC CIS footprint, no negative (negligible) environmental justice impacts related to the expedited construction schedule would occur.</p> <p>No mitigation would be required.</p>	<p>Although impacts would occur faster and with greater intensity because of the compressed schedule, due to the lack of minority or low income areas within the vicinity of the FTD CIS footprint, no negative (negligible) environmental justice impacts related to the expedited construction schedule would occur.</p> <p>No mitigation would be required.</p>
<p><b>Operation:</b> <u>Impacts</u></p> <p>Because no areas that qualify as minority or low income are present within the vicinity of the FCTC Site 1 footprint, no disproportionate or negative (negligible) environmental justice impacts would occur.</p> <p><u>Potential Mitigation</u></p> <p>No mitigation would be required.</p>	<p>Because no areas that qualify as minority or low income are present within the vicinity of the FCTC Site 1 footprint, no disproportionate or negative (negligible) environmental justice impacts would occur.</p> <p>No mitigation would be required.</p>	<p>Similar to FCTC Site 1, no negative (negligible) environmental justice impacts would occur for FCTC Site 2 operations.</p> <p>Similar to FCTC Site 1, no mitigation would be required.</p>	<p>Because no areas that qualify as minority or low income are present within the vicinity of the CRJMTC CIS footprint, no disproportionate or negative (negligible) environmental justice impacts would occur.</p> <p>No mitigation would be required.</p>	<p>Because no areas that qualify as minority or low income are present within the vicinity of the FTD CIS footprint, no disproportionate or negative (negligible) environmental justice impacts would occur.</p> <p>No mitigation would be required.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<b>GEOLOGY AND SOILS</b>				
<p><b>Construction: Baseline Schedule Impacts</b></p> <p><b>Potential Mitigation</b></p>	<p>Impacts to geology and soils would occur from substantial land clearing (961 acres) and large quantities of topography grading (potential estimate of 10 to 15 MCY cut; 10 to 15 MCY fill), construction activities would be limited to soils, rather than both soil and rock (bedrock depth greater than 100 ft bgs), and groundwater depths are typically greater than 50 ft bgs indicating dewatering would only be required in the deep excavations.</p> <p>BMPs would be used to reduce the potential for soil erosion during construction. BMPs recommended would include reduction of slopes, partial grading streets, and pads minimizing clearing areas, frequent watering of graded areas and the use of soil stabilizers, and revegetation of slopes where applicable during construction.</p> <p>Overall, with the implementation of BMPs, minor impacts to geology and soils could occur during construction activities.</p> <p>Because the overall construction impacts for soil and geology at FCTC Site 1 would be minor, no mitigation would be required.</p>	<p>Impacts to geology and soils would occur from substantial land clearing (932 acres, slightly smaller than FCTC Site 1) and large quantities of topography grading (potential estimate of 15 to 20 MCY cut; 15 to 20 MCY fill, larger than FCTC Site 1), construction activities would be limited to soils, rather than both soil and rock (bedrock depth greater than 100 ft bgs), and groundwater depths are typically less than 50 ft bgs indicating dewatering would likely be required for shallow and deep excavations.</p> <p>BMPs would be used to reduce the potential for soil erosion during construction. BMPs recommended would include reduction of slopes, partial grading streets, and pads minimizing clearing areas, frequent watering of graded areas and the use of soil stabilizers, and revegetation of slopes where applicable during construction. It should be noted that due to shallower groundwater depth at FCTC Site 2 versus FCTC Site 1, enhanced dewatering techniques including sumps and pumps might be required for shallow excavations.</p> <p>Overall, with the implementation of BMPs, minor to moderate impacts to geology and soils could occur during construction activities.</p> <p>Because the overall construction impacts for soil and geology at FCTC Site 2 would be minor to moderate, no mitigation would be required.</p>	<p>Impacts to geology and soils would occur from substantial land clearing (1,027 acres) and large quantities of topography grading (potential estimate of 15 to 20 MCY cut; 15 to 20 MCY fill), construction activities would occur in soil and rock (bedrock typically less than 25 ft bgs), and groundwater depths are typically less than 20 ft bgs indicating dewatering would be required for shallow and deep excavations.</p> <p>BMPs would be used to reduce the potential for soil erosion during construction. BMPs recommended would include reduction of slopes, partial grading streets, and pads minimizing clearing areas, frequent watering of graded areas and the use of soil stabilizers, and revegetation of slopes where applicable during construction.</p> <p>Soil remedial work within AOCs would be completed prior to CIS construction; however, contaminated groundwater could be encountered during dewatering.</p> <p>Overall, with the implementation of BMPs, moderate impacts to geology and soils could occur during construction activities.</p> <p>Because the overall construction impacts for geology and soils would be moderate, no mitigations would be required. However, due to the presence of the AOCs, groundwater encountered during construction activities would need to be characterized to determine whether or not treatment would be required prior to discharge, and if required, treated.</p>	<p>Impacts to geology and soils would occur from substantial land clearing (977 acres) and large quantities of topography grading (potential estimate of 10 to 15 MCY cut; 10 to 15 MCY fill), construction activities would occur in soil and rock (bedrock typically greater than 60 ft bgs), and groundwater depths are typically less than 20 ft bgs indicating dewatering would be required for shallow and deep excavations.</p> <p>BMPs would be used to reduce the potential for soil erosion during construction. BMPs recommended would include reduction of slopes, partial grading streets, and pads minimizing clearing areas, frequent watering of graded areas and the use of soil stabilizers, and revegetation of slopes where applicable during construction.</p> <p>Overall, with the implementation of BMPs, minor to moderate impacts to geology and soils could occur during construction activities.</p> <p>Because the overall construction impacts for soil and geology at FTD would be minor to moderate, no mitigation would be required.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<p><b>Construction:</b> <i>Expedited Schedule</i> <u>Impacts</u></p> <p><u>Potential Mitigation</u></p>	<p>Impacts to geology and soils would be similar to those defined for the baseline schedule. However, minor to moderate impacts would occur due to the potential for larger expansions of cleared and disturbed areas at one time and higher volumes of soil being managed during the shortened schedule.</p> <p>BMPs would need to be more aggressively implemented.</p> <p>The overall impacts for soil and geology at FCTC Site 1 would be minor to moderate; therefore, no mitigation would be required.</p>	<p>Impacts to geology and soils would be similar to those defined for the baseline schedule. Minor to moderate impacts would occur due to the potential for larger expansions of cleared and disturbed areas at one time and higher volumes of soil being managed during the shortened schedule.</p> <p>BMPs would need to be more aggressively implemented.</p> <p>The overall impacts for soil and geology at FCTC Site 2 would be minor to moderate; therefore, no mitigation would be required.</p>	<p>Impacts to geology and soils would be similar to those defined for the baseline schedule. Moderate impacts would occur due to the potential for larger expansions of cleared and disturbed areas at one time and higher volumes of soil and dewatering liquids being managed during the shortened schedule.</p> <p>BMPs would need to be more aggressively implemented.</p> <p>The volume of potentially contaminated groundwater encountered from dewatering could increase during the shortened schedule.</p> <p>The overall impacts for soil and geology at the CRJMTC CIS footprint would be moderate; therefore, no mitigation would be required.</p> <p>Due to the presence of the AOCs, groundwater encountered during construction activities would need to be characterized to determine whether or not treatment would be required prior to discharge, and if required, treated.</p>	<p>The type of impacts to geology and soils would be similar to those defined for the baseline schedule. Moderate impacts would increase due to the potential for larger expansions of cleared and disturbed areas at one time and higher volumes of soil and dewatering liquids being managed during the shortened schedule.</p> <p>BMPs would need to be more aggressively implemented.</p> <p>The overall impacts for soil and geology at the FTD CIS footprint would be moderate; therefore, no mitigation would be required.</p>
<p><b>Operation:</b> <u>Impacts</u></p> <p><u>Potential Mitigation</u></p>	<p>Primary impacts would be related to erosion control which would be minimized through use of BMPs.</p> <p>There would be negligible impacts for geology and soils; therefore, no mitigation would be required.</p>	<p>Primary impacts would be related to erosion control which would be minimized through use of BMPs.</p> <p>There would be negligible impacts for geology and soils; therefore, no mitigation would be required.</p>	<p>Primary impacts would be related to erosion control which would be minimized through use of BMPs.</p> <p>There would be negligible impacts for geology and soils; therefore, no mitigation would be required.</p>	<p>Primary impacts would be related to erosion control which would be minimized through use of BMPs.</p> <p>There would be negligible impacts for geology and soils; therefore, no mitigation would be required.</p>
<b>HAZARDOUS MATERIALS/HAZARDOUS WASTE</b>				
<p><b>Construction:</b> <i>Baseline Schedule</i> <u>Impacts</u></p>	<p>Construction activities would use/generate limited construction-related hazardous materials/hazardous waste (HM/HW) that would be addressed through implementation of HazCom and Hazardous Waste HazWst programs and plans established by the construction contractor and coordinated with existing FCTC plans and policies. Therefore, negligible impacts would occur.</p>	<p>Impacts would be similar to those defined for FCTC Site 1 (negligible impacts).</p>	<p>Construction activities would use/generate limited construction-related HM/HW that would be addressed through implementation of HazCom and HazWst programs and plans established by the construction contractor and coordinated with existing CRJMTC plans and policies. Therefore, negligible impacts would occur.</p>	<p>Construction activities would use/generate limited construction-related HM/HW that would be addressed through implementation of HazCom and HazWst programs and plans established by the construction contractor and coordinated with existing FTD plans and policies. Therefore, negligible impacts would occur.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	Soil remedial work within AOCs would be completed prior to construction actions to protect workers and the environment; however, contaminated groundwater could be encountered during dewatering. This impact would be moderate.  No mitigation would be required for construction HW/HW related activities for the deployment of the CIS, other than those potentially associated with groundwater characterization and treatment, if required, during dewatering activities.	No mitigation would be required.
<b>Construction: Expedited Schedule Impacts</b>  <u>Potential Mitigation</u>	Similar to the baseline schedule, limited construction HM/HW use/generated during the expedited schedule would be minimized to negligible impacts by implementation of contractor and FCTC HazCom/HazWst programs, plans, and BMPs.  No mitigation would be required.	Impacts would be similar to those defined for FCTC Site 1 (negligible impacts).  Similar to FCTC Site 1, no mitigation would be required.	Similar to the baseline schedule, limited construction HM/HW use/generated during the expedited schedule would be minimized to negligible impacts by implementation of contractor and CRJMTC HazCom/HazWst programs, plans, and BMPs. The amounts of potentially contaminated groundwater from dewatering in a shorter timeframe could increase. These impacts would be moderate.  No mitigation would be required for general HM/HW impacts.  Groundwater from dewatering would need to be characterized and treated, if required.	Similar to the baseline schedule, limited construction HM/HW use/generated during the expedited schedule would be minimized to negligible impacts by implementation of contractor and FTD HazCom/HazWst programs, plans, and BMPs.  No mitigation would be required.
<b>Operation: Impacts</b>  <u>Potential Mitigation</u>	New hazardous materials would be introduced to the site, including additional fuel, small quantities of interceptor (KV device) fuel [hydrazine and oxidizer (nitrogen tetroxide)] and small quantities of ordnance. The potential for accidental release and exposure of toxic materials onsite would be minimized to negligible impacts by the implementation of newly developed CIS HazCom/HazWst plans and programs and coordination with FCTC plans and policies currently in place.  No mitigation would be required.	Impacts would be similar to those defined for FCTC Site 1 (negligible impacts).  Similar to FCTC Site 1, no mitigation would be required.	New hazardous materials would be introduced to the site, including additional fuel, small quantities of interceptor (KV device) fuel [hydrazine and oxidizer (nitrogen tetroxide)] and small quantities of ordnance. The potential for accidental release and exposure of toxic materials onsite would be minimized to negligible impacts with the implementation of CIS HazCom/HazWst Plans and programs and coordination with CRJMTC plans and policies currently in place.  No mitigation would be required.	New hazardous materials would be introduced to the site, including additional fuel, small quantities of interceptor (KV device) fuel [(hydrazine and oxidizer (nitrogen tetroxide))] and small quantities of ordnance. The potential for accidental release and exposure of toxic materials onsite would be minimized to negligible impacts with the implementation of CIS HazCom/HazWst Plans and programs and coordination with FTD plans and policies currently in place.  No mitigation would be required.

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTTC Site	FTD Site
<b>HEALTH AND SAFETY</b>				
<p><b>Construction: Baseline Schedule Impacts</b></p>	<p>Minor hazards inherent to general construction activities would be addressed by preparation and implementation of health and safety planning documentation (safety plans and job hazard assessments) and training.</p> <p>The perceived low risk for onsite construction personnel of encountering unexploded ordnance would be addressed through unexploded ordnance awareness training.</p> <p>Hazards related to the offsite and onsite transportation of materials would be addressed through preparation and implementation of transportation safety procedures, training, and adherence to DOT regulations and requirements.</p>	<p>Minor hazards would be similar to those defined for FCTC Site 1.</p>	<p>Minor hazards inherent to general construction activities would be addressed by preparation and implementation of health and safety planning documentation (safety plans and job hazard assessments) and training.</p> <p>The perceived low risk for onsite construction personnel of encountering unexploded ordnance would be addressed through unexploded ordnance awareness training.</p> <p>Hazards related to the offsite and onsite transportation of materials would be addressed through preparation and implementation of transportation safety procedures, training, and adherence to DOT regulations and requirements.</p> <p>Minor safety hazards due to the potential presences of MEC and UXO would be addressed by the standard practice of performing a UXO survey and removal prior to start of construction.</p>	<p>Minor hazards inherent to general construction activities would be addressed by preparation and implementation of health and safety planning documentation (safety plans and job hazard assessments) and training.</p> <p>The perceived low risk for onsite construction personnel of encountering unexploded ordnance would be addressed through unexploded ordnance awareness training.</p> <p>Hazards related to the offsite and onsite transportation of materials would be addressed through preparation and implementation of transportation safety procedures, training, and adherence to DOT regulations and requirements.</p>
<p><u>Potential Mitigation</u></p>	<p>Health and safety impacts would be addressed through common safety practices; therefore, no mitigation would be required.</p>	<p>Health and safety impacts would be addressed through common safety practices; therefore, no mitigation would be required.</p>	<p>Health and safety impacts would be addressed through common safety practices; therefore, no mitigation would be required.</p>	<p>Health and safety impacts would be addressed through common safety practices; therefore, no mitigation would be required.</p>
<p><b>Construction: Expedited Schedule Impacts</b></p>	<p>Enhanced, but minor, health and safety impacts would occur for implementation of the expedited construction schedules due to the increased number of personnel onsite, longer working hours, and night work. Similar to the baseline schedule, these issues would be addressed by the implementation of common and some enhanced health and safety practices.</p>	<p>Similar to FCTC Site 1, enhanced, but minor, health and safety impacts would occur for implementation of the expedited construction schedules and be addressed by the implementation of common and some enhanced health and safety practices.</p>	<p>Enhanced health and safety issues would occur for implementation of the expedited construction schedules due to the increased number of personnel onsite, longer working hours, and night work. Similar to the baseline schedule, these issues would be addressed by the implementation of common and some enhanced health and safety practices.</p>	<p>Enhanced, but minor, health and safety impacts would occur for implementation of the expedited construction schedules due to the increased number of personnel onsite, longer working hours, and night work. Similar to the baseline schedule, these issues would be addressed by the implementation of common and some enhanced health and safety practices.</p>
<p><u>Potential Mitigation</u></p>	<p>No mitigation would be required.</p>	<p>Similar to FCTC Site 1, no mitigation would be required.</p>	<p>No mitigation would be required.</p>	<p>No mitigation would be required.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<p><b>Operation:</b> <u>Impacts</u></p> <p>Overall, minor impacts would occur.</p> <p>Increased emergency services may be required. Final facility design would provide requirements and the need for enhanced emergency services and adequate fire protection.</p> <p>Additional small explosive risk would be related to GBI functions. This risk would be addressed during the facility design by placing the facilities at appropriate explosive safety arcs.</p> <p><u>Potential Mitigation</u></p> <p>Other than the potential need to enhance emergency services, no mitigation would be required.</p>	<p>Overall, minor impacts would occur.</p> <p>Increased emergency services may be required. Final facility design would provide requirements and the need for enhanced emergency services and adequate fire protection.</p> <p>Additional small explosive risk would be related to GBI functions. This risk would be addressed during the facility design by placing the facilities at appropriate explosive safety arcs.</p> <p>Other than the potential need to enhance emergency services, no mitigation would be required.</p>	<p>Overall, minor impacts would occur.</p> <p>Increased emergency services may be required. Final facility design would provide requirements and the need for enhanced emergency services and adequate fire protection.</p> <p>Additional small explosive risk would be related to GBI functions. This risk would be addressed during the facility design by placing the facilities at appropriate explosive safety arcs.</p> <p>Other than the potential need to enhance emergency services, no mitigation would be required.</p>	<p>Overall, minor impacts would occur.</p> <p>Increased emergency services may be required. Final facility design would provide requirements and the need for enhanced emergency services and adequate fire protection.</p> <p>Portions of George Road and Newton Falls Road cross the keep out areas.</p> <p>Additional small explosive risk would be related to GBI functions. This risk would be addressed during the facility design by placing the facilities at appropriate explosive safety arcs.</p> <p>Other than the potential need to enhance emergency services, no mitigation would be required.</p> <p>Risks analyses would need to be performed by the installation to determine the need for and types of institutional controls that might be required to ensure safety and security along the roads that cross the keep out areas.</p>	<p>Overall, minor impacts would occur.</p> <p>Increased emergency services may be required. Final facility design would provide requirements and the need for enhanced emergency services and adequate fire protection.</p> <p>Additional small explosive risk would be related to GBI functions. This risk would be addressed during the facility design by placing the facilities at appropriate explosive safety arcs.</p> <p>Other than the potential need to enhance emergency services, no mitigation would be required.</p>
<b>LAND USE</b>				
<p><b>Construction:</b> <i>Baseline Schedule</i> <u>Impacts</u></p> <p>Impacts to regional land use plans (land use conversion and recreation) would be minor.</p> <p>There would be some conflicts with the INRMP from loss of some training areas (including 7.62 mm firing range and slight impacts for the 5.56 mm firing range activities), and some reduction in recreation lands. However, the 7.62 mm range activities and portions of the 5.56 mm firing range activities would move to an existing range at another MIARNG facility with adequate training capability for the increased training (no perceived impacts). The CIS impacts would be compatible and consistent with the overall land use designation for FCTC (military/training) and secondary recreational use on FCTC. Overall impacts would be minor.</p> <p><u>Potential Mitigation</u></p> <p>No mitigation would be required.</p>	<p>Impacts to regional land use plans (land use conversion and recreation) would be minor.</p> <p>There would be some conflicts with the INRMP from loss of some training areas (including 7.62 mm firing range and slight impacts for the 5.56 mm firing range activities), and some reduction in recreation lands. However, the 7.62 mm range activities and portions of the 5.56 mm firing range activities would move to an existing range at another MIARNG facility with adequate training capability for the increased training (no perceived impacts). The CIS impacts would be compatible and consistent with the overall land use designation for FCTC (military/training) and secondary recreational use on FCTC. Overall impacts would be minor.</p> <p>No mitigation would be required.</p>	<p>Similar to FCTC Site 1, impacts to regional land use plans (land use conversion and recreation) would be minor.</p> <p>Similar to FCTC Site 1 for site land use, conflicts with INRMP, from loss of some training areas and reduction in recreation lands. For FCTC Site 2, there would not be any training loss impacts from relocating the 7.62 mm firing range (not in FCTC Site 2 footprint). However, similar to FCTC Site 1 for the remaining conflicts identified, overall impacts would be minor due to the compatibility with overall land use designation (military/training) and secondary recreational use.</p> <p>Similar to FCTC Site 1, no mitigation would be required.</p>	<p>Impacts to regional land use (recreation) would be minor.</p> <p>There would be some possible conflicts with existing INRMP due to training land loss. However, the INRMP would be revised, as needed, to support the military mission (including the CIS). Several facilities would be relocated from within the CRJMTC CIS footprint to other locations at CRJMTC. However, land use for the CIS within CRJMTC would be compatible with overall CRJMTC land use designation (military/training). No impacts were noted for designed relocation facility areas. Overall impacts would be minor.</p> <p>No mitigation would be required.</p>	<p>Impacts to regional land use would be minor (no conflicts with regional plans, minor land conversion; transportation impacts are addressed under Transportation resource).</p> <p>There would be some possible minor conflicts with INRMP (loss of training area and natural resources) and areas for recreational use. Concern also with impact for closure and rerouting of Highway 3A traffic; however, this would probably not impact land use designations. Land use for the CIS would be compatible with overall FTD land use designation (military/training). Recreation use is secondary. Available land versus land use losses would be minor. Overall impacts would be minor.</p> <p>No mitigation would be required.</p>

<b>Impacts/ Potential Mitigation</b>	<b>FCTC Site 1</b>	<b>FCTC Site 2</b>	<b>CRJMTC Site</b>	<b>FTD Site</b>
<b>Construction: Expedited Schedule Impacts</b>	Similar to the baseline schedule, regional and site land use impacts would be minor.	Similar to the FCTC Site 1 expedited schedule and the FCTC Site 2 baseline schedule impact, regional and site land use impacts would be minor.	Similar to the baseline schedule, regional and site land use impacts would be minor.	Similar to the baseline schedule, regional and site land use impacts would be minor.
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	No mitigation would be required.	No mitigation would be required.
<b>Operation: Impacts</b>	Conflicts with regional and site land use impacts would be minor (primarily secondary recreation loss).	Similar to FCTC Site 1, conflicts with regional land use plans would be minor (land use conversion and recreation).	Conflicts with regional and site land use impacts would be minor (primarily secondary recreation loss).	Conflicts for regional and site land use impacts would be minor (primarily to closure/traffic rerouting of Hwy 3A traffic and secondary recreation loss).
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	No mitigation would be required.	No mitigation would be required.
<b>NOISE</b>				
<b>Construction: Baseline Schedule Impacts</b>	Background sound levels were at or above established standards.  Construction impact results were determined based on a worst-case qualitative assessment of sound level increases to potential receptors from construction versus background levels. The potential increase determined for FCTC Site 1 to the nearest receptor would be unnoticed to intrusive (minor/moderate); whereas the furthest of the next three receptors would be unnoticed (negligible impacts). These impacts are conservative and would be addressed by BMPs.  Standard noise-reducing BMPs would consist of using vibratory versus pile-driving equipment, use of equipment with mufflers/silencers and techniques, such as limiting construction times, especially at nighttime.  BMPs would address noise to minor impacts.	Results would be similar to FCTC Site 1 (minor/moderate impacts), except noise at the closest receptor would be unnoticed to objectionable.          Similar to FCTC Site 1, BMPs would address noise to minor impacts.	Background sound levels were at or above established standards.  Construction impact results were determined based on a worst-case qualitative assessment of sound level increases to potential receptors from construction versus background levels. The potential increase determined for the CRJMTC CIS footprint to the nearest receptor would be tolerable to objectionable (moderate impacts); whereas the furthest of the next three receptors would be unnoticed (negligible impacts). These impacts are conservative and would be addressed by BMPs.  Standard noise-reducing BMPs would consist of using vibratory versus pile-driving equipment, use of equipment with mufflers/silencers and techniques, such as limiting construction times, especially at nighttime.  BMPs would address noise to minor/moderate impacts.	Background sound levels were at or above established standards.  Construction impact results were determined based on a worst-case qualitative assessment of sound level increases to potential receptor at site from construction versus background levels. The potential increase determined for the FTD CIS footprint to the nearest receptor would be tolerable to objectionable (moderate impacts); whereas the furthest of the next four receptors would be unnoticed (negligible impacts). These impacts are conservative and would be reduced by BMPs.  Standard noise-reducing BMPs would consist of using vibratory versus pile-driving equipment, use of equipment with mufflers/silencers and techniques, such as limiting construction times, especially at nighttime.  BMPs would address noise to minor/moderate impacts.
<u>Potential Mitigation</u>	No mitigation would be required.	No mitigation would be required.	No mitigation would be required.	No mitigation would be required.
<b>Construction: Expedited Schedule Impacts</b>	Daytime results would be similar to baseline schedule.	Results would be similar to FCTC Site 1 with the noise at the closest receptor being unnoticed to objectionable (minor to moderate).	Daytime results would be similar to baseline schedule.	Daytime results would be similar to baseline schedule.

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<u>Potential Mitigation</u>	<p>Qualitative impact results were also determined for nighttime work. The nighttime background levels were typically less than established standards.</p> <p>The potential nighttime increase to the nearest receptor would be intrusive to objectionable (moderate impacts); whereas the furthest of the next three receptors would be intrusive (minor impacts). These impacts are conservative and would be addressed by BMPs.</p> <p>BMPs would be similar to baseline schedule, with limiting the noisier activities to daytime hours as much as possible.</p> <p>BMPs would address noise impacts to minor/moderate.</p>	<p>Similar to FCTC Site 1, BMPs would address noise to minor/moderate impacts.</p>	<p>Qualitative impact results were also determined for nighttime work. The nighttime background levels were typically less than established standards.</p> <p>The potential nighttime increase to the nearest receptor would be objectionable to very objectionable/intolerable (moderate/major impacts); whereas the furthest of the next three receptors would be intrusive (minor impacts). These impacts are conservative and would be addressed by BMPs.</p> <p>BMPs would be similar to baseline schedule, with limiting the noisier activities to daytime hours as much as possible.</p> <p>BMPs would address noise to minor/moderate impacts.</p>	<p>Qualitative impact results were also determined for nighttime work. The nighttime background levels were typically less than established standards.</p> <p>The potential nighttime increase to the nearest receptor would be objectionable to very objectionable (moderate impacts); whereas the furthest of the next four receptors would be intrusive (minor impacts). These impacts are conservative and would be addressed by BMPs.</p> <p>BMPs would be similar to baseline schedule, with limiting the noisier activities to daytime hours as much as possible.</p> <p>BMPs would address noise to minor/moderate impacts.</p>
<u>Operation: Impacts</u>	<p>Operation impact results were determined based on a worst-case qualitative assessment of sound level increases to potential receptors (operation to background). Background values were based on day/night averages which were less than established standards. The potential increase to the nearest and farthest receptors would be unnoticed (no increase). Although noise impacts would be negligible, they would be further reduced by BMPs.</p> <p>Standard noise reducing BMPs measures would consist of using mufflers/silencers for air handling/exhaust (power plant) stacks.</p> <p>Overall noise impacts from operations would be negligible.</p>	<p>Results would be similar to FCTC Site 1, with negligible impacts (unnoticeable).</p> <p>Overall noise impacts from operations would be negligible.</p>	<p>Operation impact results were determined based on a worst-case qualitative assessment of sound level increases to potential receptors (operation to background). Background values were based on day/night averages which were less than established standards. The potential increase to the nearest and the farthest receptors would be unnoticed (no increase). Although noise impacts would be negligible, they would be further reduced by BMPs.</p> <p>Standard noise reducing BMPs measures would consist of using mufflers/silencers for air handling/exhaust (power plant) stacks.</p> <p>Overall noise impacts from operations would be negligible.</p>	<p>Operation impact results were determined based on a worst-case qualitative assessment of sound level increases to potential receptors (operation to background). Background values were based on day/night averages which were less than established standards. The potential increase to the nearest and farthest receptors would be unnoticed (no increase). Although noise impacts would be negligible, they would be further reduced by BMPs.</p> <p>Standard noise reducing BMPs measures would consist of using mufflers/silencers for air handling/exhaust (power plant) stacks.</p> <p>Overall noise impacts from operations would be negligible.</p>
<u>Potential Mitigation</u>	No mitigation would be required.	No mitigation would be required.	No mitigation would be required.	No mitigation would be required.

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<b>SOCIOECONOMICS</b>				
<p><b>Construction: Baseline Schedule Impacts</b></p>	<p>The following moderate and positive economic impacts would occur:</p> <ul style="list-style-type: none"> <li>• Approximately 400 to 600 construction (direct) jobs would be provided throughout the construction period.</li> <li>• An estimated total positive (increase) sales tax revenue of approximately \$0.925 million per year would occur during the construction period.</li> </ul> <p>Based on modelled results, the following moderate and positive economic impacts would occur:</p> <ul style="list-style-type: none"> <li>• The estimated increase in total value added of \$193 million for the entire project.</li> <li>• Approximately 2,008 indirect jobs would be created during the construction period.</li> </ul> <p>Some short-term, moderate negative impact on traffic would occur during peak construction months. See Transportation for more information on traffic impacts and potential mitigations.</p> <p>Although health care facilities are present, pre-existing concerns with healthcare access would be increased resulting in additional minor negative impacts.</p> <p>No negative impacts to education services would occur.</p> <p>Impacts to emergency preparedness services would be minor.</p> <p>Overall moderate and largely positive socioeconomic construction impacts would occur.</p>	<p>Impacts would be similar to FCTC Site 1, overall moderate and largely positive.</p>	<p>The following major (due to the depressed economies in the surrounding counties) and positive economic impacts would occur:</p> <ul style="list-style-type: none"> <li>• Approximately 400 to 600 construction (direct) jobs would be provided throughout the construction period.</li> <li>• An estimated total positive (increase) sales tax revenue up to approximately \$0.9 million per year would occur during the construction period.</li> </ul> <p>Based on modelled results, the following major and positive economic impacts would occur:</p> <ul style="list-style-type: none"> <li>• The estimated increase in total value added would be \$224 million for the entire project.</li> <li>• Approximately 2,351 indirect jobs would be created during the construction period.</li> </ul> <p>Some short-term, minor/moderate negative impact on traffic would occur during peak construction months. See Transportation for more information on traffic impacts and potential mitigations.</p> <p>Although health care facilities are present, pre-existing concerns with healthcare access would be increased resulting in additional minor negative impacts.</p> <p>No negative impacts to education services would occur.</p> <p>Impacts to emergency preparedness services would be minor.</p> <p>Overall major (due to the depressed economies in the surrounding counties) and largely positive socioeconomic construction impacts would occur.</p>	<p>The following moderate and positive economic impacts would occur:</p> <ul style="list-style-type: none"> <li>• Approximately 400 to 600 construction (direct) jobs would be provided throughout the construction period.</li> <li>• An estimated total positive (increase) sales tax revenue of \$1.1 million per year would occur during the construction period.</li> </ul> <p>Based on modelled results, the following moderate and positive economic impacts would occur:</p> <ul style="list-style-type: none"> <li>• The estimated increase in total value added of \$190 million for the entire project.</li> <li>• Approximately 1,836 indirect jobs would be created during the construction period.</li> </ul> <p>Some short-term, minor/moderate negative impact on traffic would occur during peak construction months. See Transportation for more information on traffic impacts and potential mitigations.</p> <p>Although health care facilities are present, pre-existing concerns with healthcare access would be increased resulting in additional minor negative impacts.</p> <p>No negative impacts to education services would occur.</p> <p>Impacts to emergency preparedness services would be minor.</p> <p>Overall moderate and largely positive socioeconomic construction impacts would occur.</p>
<p><b>Potential Mitigation</b></p>	<p>No mitigation would be required.</p>	<p>Similar to FCTC Site 1, no mitigation would be required.</p>	<p>No mitigation would be required.</p>	<p>No mitigation would be required.</p>
<p><b>Construction: Expedited Schedule Impacts</b></p>	<p>Similar to baseline construction, overall moderate and largely positive impacts would occur.</p>	<p>Impacts would be similar to FCTC Site 1, overall moderate and largely positive.</p>	<p>Similar to baseline construction, overall major (due to the depressed economies in the surrounding counties) and largely positive impacts would occur.</p>	<p>Similar to baseline construction, overall moderate and largely positive impacts would occur.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
	<p>The following moderate and positive economic impact and differences from the baseline schedule would occur:</p> <ul style="list-style-type: none"> <li>The number of construction jobs would be approximately double, 800 to 1200 construction (direct) jobs, throughout the construction period.</li> <li>The estimated total positive (increase) tax revenue on an annual basis would double.</li> </ul> <p>Based on modelled results the following moderate and positive economic impacts and differences from the baseline construction schedule would occur:</p> <ul style="list-style-type: none"> <li>The estimated total value would remain the same (based on project, not schedule duration).</li> <li>The number of indirect jobs (which are based on project, not schedule duration) created would remain the same.</li> </ul> <p>Additional around-the-clock traffic concerns would occur. See Transportation for more information on traffic impacts and potential mitigations.</p> <p>In comparison with the baseline schedule changes, additional minor negative impact to pre-existing healthcare concerns; additional, but minor, negative impact to education services; and additional negative, but up to moderate, impact on emergency preparedness services would occur.</p>		<p>The following major and positive economic impact and differences from the baseline schedule would occur:</p> <ul style="list-style-type: none"> <li>The number of construction jobs would be approximately double, 800 to 1200 construction (direct) jobs, throughout the construction period.</li> <li>The estimated total positive (increase) tax revenue on an annual basis would double.</li> </ul> <p>Based on modelled results the following major and positive economic impacts would occur:</p> <ul style="list-style-type: none"> <li>The estimated total value would remain the same (based on project, not schedule duration).</li> <li>The number of indirect jobs (which are based on project, not schedule duration) created would remain the same.</li> </ul> <p>Additional around-the-clock traffic concerns would occur. See Transportation for more information on traffic impacts and potential mitigations.</p> <p>In comparison with the baseline schedule changes, additional minor negative impact to pre-existing healthcare concerns; additional, but minor, negative impact to education services; and additional negative, but up to moderate, impact on emergency preparedness services would occur.</p>	<p>The following economic moderate and positive impact and differences from the baseline schedule would occur:</p> <ul style="list-style-type: none"> <li>The number of construction jobs would be approximately double, 800 to 1200 construction (direct) jobs, throughout the construction period.</li> <li>The estimated total positive (increase) tax revenue on an annual basis would double.</li> </ul> <p>Based on modelled results the following moderate and positive economic impacts and differences from the baseline construction schedule would occur:</p> <ul style="list-style-type: none"> <li>The estimated total value would remain the same (based on project, not schedule duration).</li> <li>The number of indirect jobs (which are based on project, not schedule duration) created would remain the same.</li> </ul> <p>Additional around-the-clock traffic concerns would occur. See Transportation for more information on traffic impacts and potential mitigations.</p> <p>In comparison with the baseline schedule changes, additional minor negative impact to pre-existing healthcare concerns; additional, but minor, negative impact to education services; and additional negative, but up to moderate, impact on emergency preparedness services would occur.</p>
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	No mitigation would be required.	No mitigation would be required.
<b>Operation:</b> <u>Impacts</u>	<p>The following moderate and positive economic impacts would be incurred:</p> <ul style="list-style-type: none"> <li>Approximately 650 to 850 operations (direct) jobs would be provided.</li> <li>The estimated total positive (increase) sales tax revenue would be approximately \$1.4 million per year.</li> </ul>	Similar to FCTC Site 1, overall moderate and largely positive impacts would occur.	<p>The following major (due to the depressed economies in the surrounding counties) and positive economic impacts would be incurred:</p> <ul style="list-style-type: none"> <li>Approximately 650 to 850 operations (direct) jobs would be provided.</li> <li>The estimated total positive (increase) sales tax revenue would be approximately \$1.35 million per year.</li> </ul>	<p>The following moderate and positive economic impacts would be incurred:</p> <ul style="list-style-type: none"> <li>Approximately 650 to 850 operations (direct) jobs would be provided.</li> <li>The estimated total positive (increase) sales tax revenue would be \$1.65 million per year.</li> </ul>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<p><u>Potential Mitigation</u></p>	<p>Based on modelled results, the following moderate and positive economic impacts would occur:</p> <ul style="list-style-type: none"> <li>The estimated increase in total value added would be \$29 million for each year of operation.</li> <li>Approximately 416 indirect jobs would be created in a year during operations (above operating staff).</li> </ul> <p>An increase in the daily traffic could result in major impacts. See Transportation for more information on traffic impacts and potential mitigations.</p> <p>Although health care facilities are present, pre-existing concerns with healthcare access would be increased resulting in additional minor negative impacts.</p> <p>No negative impact to education services would occur.</p> <p>Negative impacts on emergency preparedness and response services would be minor.</p> <p>Overall moderate and largely positive socioeconomic operation impacts would occur.</p> <p>No mitigation would be required.</p>	<p>Similar to FCTC Site 1, no mitigation would be required.</p>	<p>Based on modelled results, the following major (due to the depressed economies in the surrounding counties) and positive economic impacts would occur:</p> <ul style="list-style-type: none"> <li>The estimated increase in total value added would be \$27 million for each year of operation.</li> <li>Approximately 340 indirect jobs would be created in a year during operations (above operating staff).</li> </ul> <p>An increase in the daily traffic could result in major impacts. See Transportation for more information on traffic impacts and potential mitigations.</p> <p>Although health care facilities are present, pre-existing concerns with healthcare access would be increased resulting in additional minor negative impacts.</p> <p>No negative impact to education services would occur.</p> <p>Negative impacts on emergency preparedness and response services would be minor.</p> <p>Overall major and largely positive socioeconomic operation impacts would occur.</p> <p>No mitigation would be required.</p>	<p>Based on modelled results, the following moderate and positive economic impacts would occur:</p> <ul style="list-style-type: none"> <li>The estimated increase in total value added would be \$27 million for each year of operation.</li> <li>Approximately 340 indirect jobs would be created in a year during operations (above operating staff).</li> </ul> <p>An increase in the daily traffic could result in minor/moderate impacts. See Transportation for more information on traffic impacts and potential mitigations.</p> <p>Although health care facilities are present, pre-existing concerns with healthcare access would be increased resulting in additional minor negative impacts.</p> <p>A very slight impact to education services would occur.</p> <p>Negative impacts on emergency preparedness and response services would be minor.</p> <p>Overall moderate and largely positive socioeconomic operation impacts would occur.</p> <p>No mitigation would be required.</p>
<b>TRANSPORTATION</b>				
<p><b>Construction:</b> <u>Baseline Schedule Impacts</u></p>	<p>Negligible impacts for heavy haul of equipment would occur. Suitable ports, over-road routes, and airfields have been identified.</p> <p>Several state highways, interstates, and roads are available to address traffic to/from the CIS. Based on the assessment of additional traffic, major delays would occur for traffic exiting I-94 at Exit 92 as traffic turns to travel on I-94BL/M 37 (backup down the off ramp) during peak hours of traffic.</p>	<p>Similar to FCTC Site 1, negligible impacts are expected for heavy haul traffic.</p> <p>Several state highways, interstates, and roads are available to address traffic to/from the CIS. Based on the assessment of additional traffic, minor impacts would occur due to the slight decrease in the level of service, for traffic exiting I-94 at Exit 88 as traffic turns to travel on 40th Street.</p>	<p>Negligible impacts for heavy haul of equipment would occur. Suitable ports, over-road routes, and airfields have been identified.</p> <p>Several state highways, interstates, and roads are available to address traffic to/from the CIS. Based on the assessment of additional traffic, minor impacts would occur due to the decreases in the level of service during peak hours.</p>	<p>Negligible impacts for heavy haul of equipment would occur. Suitable ports, over-road routes, and airfields have been identified.</p> <p>The location of CIS footprint would result in the closure of NY 3A. Rerouting of traffic to NY 3 would occur, which would increase travel time through the area.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<p><u>Potential Mitigation</u></p>	<p>To improve peak traffic to moderate impacts, practices such as staggered work shift could be implemented.</p> <p>Minor impacts would occur due to road improvements and new road construction within FCTC Site 1.</p> <p>Overall, impacts to transportation would be major based on its current status with no additional modifications.</p> <p>No mitigation would be required for heavy haul transport.</p> <p>An access permit would require a traffic impact study be conducted. Traffic signals at the ramp termini of I-94 WB and EB off ramps at I-94BL/M 37 would be required to facilitate the movement of traffic through these intersections. In addition, staggered work shifts not to coincide with existing peak hour traffic could also be considered to lessen impacts.</p> <p>Modifications to the existing traffic signals (phasings and timings) at the I-94BL/M 37 and CIS gate and Columbia Avenue/Skyline Drive would be required. MDOT has acknowledged that these potential or other modifications would minimize the impacts. Implementation of these or other potential modifications could reduce the impacts from major to moderate.</p>	<p>Practices such as staggered work shift could be implemented to address peak traffic impacts.</p> <p>Minor impacts would occur due to road improvements and new road construction within FCTC Site 2.</p> <p>Overall, impacts to transportation would be minor.</p> <p>No mitigation would be required for heavy haul transport.</p> <p>Once the new tight diamond interchange improvements are completed and traffic flow is normalized at the I-94 and 40<sup>th</sup> Street interchange, a traffic impact study would be required to re-assess the CIS-generated traffic at this interchange. Results of that study may require additional mitigation such as the addition of a traffic light or dedicated turn lane at the 40<sup>th</sup> Street and CIS Gate intersection. In addition, staggered work shifts not to coincide with existing peak hour traffic could also be considered to lessen impacts.</p> <p>The scheduled improvements to 40<sup>th</sup> Street due to the new interchange project at Exit 88 should be extended north a few hundred feet to the CIS gate location off of 40<sup>th</sup> Street.</p>	<p>Practices such as staggered work shift could be implemented to address peak traffic impacts.</p> <p>Minor impacts would occur due to road improvements and new road construction within CRJMTC.</p> <p>Overall, impacts to transportation would be minor.</p> <p>No mitigation would be required for heavy haul transport.</p> <p>An access permit would require a traffic impact study be conducted. Results of that study may require additional mitigation such as the addition of a traffic light or dedicated turn lane. In addition, staggered work shifts not to coincide with existing peak hour traffic could also be considered to lessen impacts.</p>	<p>Several state highways, interstates, and roads are available to address traffic to/from the CIS (including consideration of closing NY 3A). Based on the assessment of additional traffic, moderate decreases in the level of services would occur for two lane highways, but would not drop below acceptable design levels. In addition, there would be major impacts to motorists within the Village of Carthage at the signalized intersection of School Street (North and South) and NY 3/126 (State Street) during the evening peak traffic hour.</p> <p>Practices such as staggered work shift could be implemented to address peak traffic impacts.</p> <p>Minor impacts would occur due to required modifications and improvements to onsite FTD roads (removal of some existing roundabouts for equipment delivery, and upgrades to roads) within the CIS footprint.</p> <p>Overall, impacts to transportation would be moderate/major.</p> <p>No mitigation would be required for heavy haul transport.</p> <p>An access permit would require a traffic impact study be conducted. Results of that study may require additional mitigation such as the addition of a traffic light.</p> <p>The signal timing at the School Street (North and South) and NY 3/126 (State Street) would require modification. Consideration of a dedicated left turn lane for N. School Street south bound traffic, along with protected phasing, could be another mitigation option. Staggered work shifts could also be considered. In addition, staggered work shifts not to coincide with existing peak hour traffic could also be considered to lessen impacts.</p>

<b>Impacts/ Potential Mitigation</b>	<b>FCTC Site 1</b>	<b>FCTC Site 2</b>	<b>CRJMTC Site</b>	<b>FTD Site</b>
	No mitigation would be required for existing road improvements or new road construction within FCTC Site 1.	No mitigation would be required for existing road improvements or new road improvements within FCTC Site 2.	No mitigation would be required for existing road improvements or new road construction within CRJMTC.	No mitigation would be required for upgrades and modifications of existing roads within FTD.
<b>Construction: <i>Expedited Schedule</i> <u>Impacts</u></b>	For the expedited schedule, two shifts with similar personnel and a staggered 2-hour transition period between shifts was assumed. The overall impacts would be similar to the baseline schedule impacts (major).	For the expedited schedule, two shifts with similar personnel and a staggered 2-hour transition period between shifts was assumed. The overall impacts would be similar to the baseline schedule impacts (minor).	For the expedited schedule, two shifts with similar personnel and a staggered 2-hour transition period between shifts was assumed. The overall impacts would be similar to the baseline schedule impacts (minor).	For the expedited schedule, two shifts with similar personnel and a staggered 2-hour transition period between shifts was assumed. The overall impacts would be similar to the baseline schedule impacts (moderate/major).
<u>Potential Mitigation</u>	Mitigation similar to the baseline construction schedule would occur.	Mitigation similar to the baseline construction schedule would occur.	Mitigation similar to the baseline construction schedule would occur.	Mitigation similar to the baseline construction schedule would occur.
<b>Operation: <u>Impacts</u></b>	For operations, three shifts with higher personnel for the first (normal daytime shift) and lower personnel for the next two shifts were assumed. With these assumed conditions, major delays would occur for those exiting I-94 at Exit 92 similar to the baseline construction schedule for roads around FCTC Site 1.	For operations, three shifts with higher personnel for the first (normal daytime shift) and lower personnel for the next two shifts were assumed. With these assumed conditions, minor impacts, similar to the baseline construction schedule for roads around FCTC Site 2, would occur.	For operations, three shifts with higher personnel for the first (normal daytime shift) and lower personnel for the next two shifts were assumed. With these assumed conditions, minor impacts, similar to the baseline construction schedule for roads around CRJMTC, would occur.	For operations, three shifts with higher personnel for the first (normal daytime shift) and lower personnel for the next two shifts were assumed. With these assumed conditions, moderate impacts would occur on the two-lane highways, but not below acceptable design levels. In addition, there would be major impacts to motorists within the Village of Carthage at the signalized intersection of School Street (North and South) and NY 3/126 (State Street) during the evening peak hour.
<u>Potential Mitigation</u>	Mitigation similar to the baseline construction schedule would occur.	Similar to FCTC Site 1, mitigation similar to the baseline construction schedule would occur.	Mitigation similar to the baseline construction schedule would occur.	Mitigation similar to the baseline construction schedule would occur.
<b>UTILITIES</b>				
<b>Construction: <i>Baseline Schedule</i> <u>Impacts</u></b>	Utility services are available from commercial sources or through the construction contractor; therefore, negligible impacts would occur.	Similar to FCTC Site 1, negligible impacts would occur.	Utility services are available from commercial sources or through the construction contractor; therefore, negligible impacts would occur.  To avoid potential impacts, onsite groundwater water sources would be avoided due to the potential need to treat contaminated water near AOCs.	Utility services are available from commercial sources or through the construction contractor; therefore, negligible impacts would occur.  Potential negligible to minor impacts would occur due to running service lines from long distances. However, impacts would be minimized by using pre-developed road right-of-ways.
<u>Potential Mitigation</u>	No mitigation would be required.	Similar to FCTC Site 1, no mitigation would be required.	No mitigation would be required.	No mitigation would be required.

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<b>Construction: Expedited Schedule Impacts</b>  <u>Potential Mitigation</u>	Similar to the baseline schedule, negligible impacts would occur.  No mitigation would be required.	Similar to FCTC Site 1, and baseline schedule, negligible impacts would occur.  Similar to FCTC Site 1 and baseline schedule, no mitigation would be required.	Similar to the baseline schedule, negligible impacts would occur.  No mitigation would be required.	Similar to the baseline schedule, negligible to minor impacts would occur.  No mitigation would be required.
<b>Operation: Impacts</b>  <u>Potential Mitigation</u>	Utility services are available from commercial sources. An onsite groundwater aquifer source is also available and a supply facility would be developed for emergency situations. Overall negligible to minor impacts would occur.  No mitigation would be required.	Similar to FCTC Site 1, negligible to minor impacts would occur.  Similar to FCTC Site 1, no mitigation would be required.	Utility services are available from commercial sources, negligible impacts would occur.  For emergency/backup water sources, contaminated groundwater may be encountered from AOCs. Minor to moderate impacts could occur, but would be minimized to minor with methods consisting of an evaluation of well location/placement and cased well installation.  No mitigation would be required for utilities used for routine operations. However, the potential impact from contaminated groundwater would need to be addressed by the evaluation and location of groundwater well, installation of cased wells, and/or treatment if required.	Utility services are available from commercial sources. An onsite groundwater aquifer source is also available and a supply facility would be developed for emergency situations. Overall negligible to minor impacts would occur.  No mitigation would be required.
<b>WATER RESOURCES</b>				
<b>Construction: Baseline Schedule Impacts: Surface Water/ Streams</b>	Other than wetlands (addressed separately), there are limited surface water bodies in the CIS footprint.	Similar to FCTC Site 1, limited surface water in CIS footprint.	Surface water identified in the CIS footprint consists of wetlands (addressed separately), several ponds, and approximately 5.2 miles of unnamed streams.  The approximate 5.2 miles of unnamed streams consists of: 1.3 miles of perennial streams (continuous flow throughout year), 1.6 miles of intermittent streams (flows during wet seasons), and 2.3 miles of ephemeral streams (flows briefly after rainfall).	Surface water identified in the CIS footprint consists of wetlands (addressed separately) and approximately 5.5 miles of streams.  The approximate 5.5 linear miles of streams consist of 1.2 linear miles of perennial (continuous flowing) named streams (West Branch Black Creek) and 4.3 linear miles of intermittent streams (flows during wet seasons). However, of the 5.5 linear stream miles, 1.7 linear miles are within Riverine wetlands (included in the Wetlands Resource). Therefore, only 3.8 linear stream miles are considered impacted as a water resource.

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<p><i>Groundwater</i></p> <p><u>Potential Mitigation:</u> <i>Surface Water/ Streams</i></p> <p><i>Groundwater</i></p>	<p>Minor other surface water impacts would result from:</p> <ul style="list-style-type: none"> <li>• Clearing, grading, and addition of fill could affect surface water hydrology and artificially divert stream flows.</li> <li>• Disturbance of land would result in soil erosion and sedimentation.</li> <li>• Inadvertent releases of construction pollutants could impact surface water quality.</li> </ul> <p>BMPs would address these minor impacts through the development and implementation of a SWPPP, SPCC Plan, and associated BMPs.</p> <p>Some short-term, but minor impacts to site hydrology from dewatering during installation of deeper excavations and foundations would occur. Techniques would be implemented to minimize dewatering withdrawal such as installation of liners, concrete plugs/columns or cementation.</p> <p>Based on site-specific modeling of groundwater hydrology impacts, only negligible to minor impacts on Prairie Fens and associated wetland complexes are expected from CIS construction and operations due to interconnection through groundwater flow.</p> <p>Minor storm water, sedimentation/erosion, and pollutant impacts to surface water would be addressed through implementation of BMPs; therefore, no mitigation would be required.</p> <p>Minor dewatering impacts to groundwater would be addressed by standard techniques to reduce water withdrawals. Therefore, no mitigation would be required.</p>	<p>Similar to FCTC Site 1, minor impacts to other surface water would occur at FCTC Site 2. These impacts would be addressed through implementation of BMPs.</p> <p>Similar to FCTC Site 1, minor impacts to groundwater would occur. These impacts would be addressed through implementation standard dewatering minimization techniques.</p> <p>Based on site-specific modeling of groundwater hydrology impacts, only negligible to minor impacts on Prairie Fens and associated wetland complexes are expected from CIS construction and operations due to interconnection through groundwater flow.</p> <p>Similar to FCTC Site 1, Minor storm water, sedimentation/erosion and pollutant impacts to surface water would be addressed through implementation of BMPs; therefore, no mitigation would be required.</p> <p>Similar to FCTC Site 1, implement techniques to limit dewatering quantities would be provided; therefore, no mitigation would be required.</p>	<p>Major (significant) impacts to surface water hydrology would occur due to modifications of streams that traverse the CRJMTC CIS footprint.</p> <p>Minor other surface water impacts would occur due to soil erosion and sedimentation and inadvertent pollutants. BMPs would address these minimal impacts through development and implementation of SWPPP and SPCC plans.</p> <p>Some short-term, but minor impacts to site hydrology from dewatering during both shallow and deeper excavations and foundations would occur. Techniques would be implemented to minimize dewatering withdrawal such as installation of liners, concrete plugs/columns or cementation.</p> <p>Due the presence of AOCs within the CIS footprint, contaminated groundwater may be encountered. Therefore, moderate impacts could occur.</p> <p>Major (significant) impacts to surface water hydrology would be analyzed during facility design and mitigation options such as rerouting the streams could be implemented.</p> <p>Minor storm water, sedimentation/erosion, and pollutant impacts to surface water would be addressed through implementation of BMPs; therefore, no mitigation would be required to address these impacts.</p> <p>Due to AOCs, groundwater generated during dewatering activities would need to be characterized, and then treated as needed.</p>	<p>Major (significant) impacts to surface water hydrology would occur due to modifications (rerouting, enclosing, and/or filling) of surface water streams that traverse the FTD CIS footprint. Modification may not only have major hydrologic impacts to wetlands and other surface water bodies, it may also affect wildlife and plant habitats.</p> <p>Minor other surface water impacts would occur due to soil erosion and sedimentation and inadvertent pollutants. BMPs would address these minimal impacts through development and implementation of SWPPP and SPCC plans.</p> <p>Some short-term, but minor impacts to site hydrology from dewatering during both shallow and deeper excavations and foundations would occur. Techniques would be implemented to minimize dewatering withdrawal such as installation of liners, concrete plugs/columns or cementation.</p> <p>Major (significant) impacts to surface water hydrology would be analyzed during facility design and mitigation options such as routing major tributaries below ground or around the CIS footprint to downgradient discharge points would be further evaluated during the design for implementation.</p> <p>Minor storm water, sedimentation/erosion, and pollutant impacts to surface water would be addressed through implementation of BMPs; therefore, no mitigation would be required to address these impacts.</p> <p>Minor dewatering impacts to groundwater would be addressed by standard techniques to reduce water withdrawals. Therefore, no mitigation would be required.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<p><b>Construction:</b> <i>Expedited Schedule Impact:</i> <i>Surface Water/Streams</i></p> <p><i>Groundwater</i></p> <p><u>Potential Mitigation:</u> <i>Surface Water/Streams and Groundwater</i></p>	<p>Impacts would be similar to those defined for the baseline schedule, but would be intensified. However, by addressing impacts with BMPs in a more aggressive manner, impacts would be minor.</p> <p>Impacts would be similar to baseline schedule, with some increased intensity in quantities of dewatering generated. Impacts would remain minor through implementation of dewatering minimization techniques.</p> <p>Similar to baseline schedule, no mitigation would be required.</p>	<p>Similar to FCTC Site 1 and the baseline schedule, impacts would be slightly increased, but would remain minor through implementation of BMPs.</p> <p>Similar to FCTC Site 1 and the baseline schedule, impacts would be slightly increased, but would remain minor through implementation dewatering minimization techniques</p> <p>Similar to FCTC Site 1 and the baseline schedule, no mitigation would be required.</p>	<p>Major (significant) impacts to surface water hydrology, similar to the baseline schedule would occur and would require mitigation.</p> <p>Other surface water impacts, due to erosion, sedimentation, and inadvertent pollutants, would be similar to those defined for the baseline schedule, but would be intensified. However, by addressing impacts with BMPs in a more aggressive manner, impacts would be minor.</p> <p>Groundwater generated, especially near AOCs, would need to be characterized, and disposed or treated as needed.</p> <p>Mitigations would be similar to baseline schedule.</p>	<p>Major (significant) impacts to surface water hydrology, similar to the baseline schedule would occur and would require mitigation.</p> <p>Other surface water impacts would be similar to those defined for the baseline schedule, but would be intensified. However, by addressing impacts with BMPs in a more aggressive manner, impacts would be minor.</p> <p>Clearing and grading (erosion/sedimentation control) constraints of 5 acres would need to be addressed.</p> <p>Impacts would be similar to baseline schedule, with some increased intensity in quantities of dewatering generated. Impacts would remain minor through implementation of dewatering minimization techniques</p> <p>Mitigations would be similar to baseline schedule.</p>
<p><b>Operation:</b> <u>Impacts:</u> <i>Surface Water/Streams</i></p> <p><i>Groundwater</i></p> <p><u>Potential Mitigation:</u> <i>Surface Water/Streams</i></p> <p><i>Groundwater</i></p>	<p>Minor impacts would occur due to storm water runoff (site and impervious surfaces), soil erosion and sedimentation, and from operational pollutants. BMPs would address these impacts through development and implementation of SWPPP and SPCC plans.</p> <p>Groundwater would be withdrawn and used as an alternative water source and/or as an emergency backup water source. Impacts for this use are discussed under the Utilities resource section.</p> <p>No mitigation would be required.</p> <p>Groundwater mitigation related to groundwater sources used for utilities is discussed under the Utilities resource section.</p>	<p>Similar impact to FCTC Site 1, minor impacts would occur.</p> <p>Groundwater would be withdrawn and used as an alternative water source and/or as an emergency backup water source. Impacts for this use are discussed under the Utilities resource section.</p> <p>Similar to FCTC Site 1, no mitigation would be required.</p> <p>Similar to FCTC Site 1, groundwater mitigation related to groundwater sources used for utilities is discussed under the Utilities resource section.</p>	<p>Minor impacts would occur due to storm water runoff (site and impervious surfaces), soil erosion and sedimentation, and from operational pollutants. BMPs would address these impacts through development and implementation of SWPPP and SPCC plans.</p> <p>Groundwater would be withdrawn and used as an alternative water source and/or as an emergency backup water source. Impacts for this use are discussed under the Utilities resource section.</p> <p>No mitigation would be required.</p> <p>Groundwater mitigation related to groundwater sources used for utilities is discussed under the Utilities resource section.</p>	<p>Minor impacts would occur due to storm water runoff (site and impervious surfaces), soil erosion and sedimentation, and from operational pollutants. BMPs would address these impacts through development and implementation of SWPPP and SPCC plans.</p> <p>Groundwater would be withdrawn and used as an alternative water source and/or as an emergency backup water source. Impacts for this use are discussed under the Utilities resource section.</p> <p>No mitigation would be required.</p> <p>Groundwater mitigation related to groundwater sources used for utilities is discussed under the Utilities resource section.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<b>WETLANDS</b>				
<p><b>Construction: Baseline Schedule Impacts</b></p>	<p>Permanent major (significant) direct impact from filling, draining, and trenching would result in the loss of approximately 11 acres of wetlands within the CIS footprint. No high quality fens or wetlands are located in the FCTC Site 1 footprint.</p> <p>Some permanent indirect hydrologic connection to wetlands would lower the quality as a natural feature. Vegetation changes/quality changes from filling degraded or introduction of invasive species.</p> <p>Some temporal indirect impacts could occur from erosion/sedimentation to wetlands outside the footprint. These impacts would be addressed by BMPS such as soil erosion and sediment control devices.</p>	<p>Permanent major (significant) direct impact from filling, draining, and trenching would result in the loss of approximately 48 acres within the CIS footprint. Some wetlands in the footprint are part of fen complex; however, two of three fens are low quality fens.</p> <p>Some permanent indirect impacts to wetlands would occur by changes by erosion/sedimentation, changes in hydrology, and permanent vegetation changes. Potentially major impacts would occur to an estimated 54 acres.</p> <p>Some temporal indirect impacts could occur from erosion/sedimentation to wetlands outside the footprint. These impacts would be addressed by BMPS such as soil erosion and sediment control devices</p>	<p>Permanent major (significant) direct impact from filling, draining, and trenching would result in the loss of approximately 19.3 acres within the CIS footprint consisting of: Category 3 (high quality) -11.16 acres; Category 2/modified Category 2 - 7.56 acres; and Category1 (lowest quality) - 0.6 acres.</p> <p>Some permanent indirect impacts to wetlands the CIS footprint would occur from changes by erosion/sedimentation, changes in hydrology, and permanent vegetation changes. Permanent major impacts would occur to approximately 1 acre.</p> <p>Some temporal indirect impacts could occur from erosion/sedimentation to wetlands outside the footprint. These impacts would be addressed by BMPs such as soil erosion and sediment control devices and buffered for impacts by other large wetlands. These potential impacts would be negligible to minor and short-term.</p>	<p>Permanent major (significant) direct impact from filling, draining, and trenching would result in the loss of approximately 25 acres within the CIS footprint consisting of both high quality wetlands and lower quality wetlands associated with disturbed areas (training areas, timber harvest locations, and roadsides). Includes Riverine wetlands associated with 1.7 linear miles of streams.</p> <p>Some permanent indirect impacts to wetlands would occur by changes by erosion/sedimentation, changes in hydrology, and permanent vegetation changes. Potentially major impacts would occur to an estimated 60 acres.</p> <p>Some temporal indirect impacts could occur from erosion/sedimentation (downstream of the footprint) and hydrology changes (upgradient of the footprint) to wetlands outside the footprint. These impacts would be addressed by BMPs such as soil erosion and sediment control devices and buffered for impacts by other large wetlands. These potential impacts would be minor and short-term.</p> <p>Substantial efforts were made during the site consolidation activities to avoid and minimize wetland losses.</p>
<p><b>Potential Mitigation</b></p>	<p>Unavoidable wetland impacts in Michigan of greater than 5 acres of wetlands is considered essential to conservation of state's natural resource would require mitigation to replace lost wetland acreage and wetland functions.</p> <p>Mitigation for wetland loss could consist of the following or combined thereof: wetland creation in off-installation uplands, purchase of mitigation bank credits or in-lieu fee program benefits).</p>	<p>Similar mitigation to FCTC Site 1 would be required, with exception that some of the portions of the FCTC Site 2 wetlands would have a higher quality; therefore, would require a higher mitigation ratio than FCTC Site 1 wetlands.</p>	<p>Unavoidable wetland impacts in Ohio of greater than 1 acre would require mitigation to replace lost wetland acreage and wetland functions.</p> <p>Mitigation for wetland loss could consist of onsite mitigation for value and function and offsite mitigation provided in the same watershed, or through banking sites (in-lieu fee program) which is available and the preferred option by CRJMTC.</p>	<p>Unavoidable wetland impacts in New York of greater than 1 acre would require mitigation to replace lost wetland acreage and wetland functions.</p> <p>For the Riverine wetlands that encompass 1.7 linear miles of streams, major (significant) impacts to surface water hydrology would be analyzed during facility design and mitigation options such as routing major tributaries below ground or around the CIS footprint to downgradient discharge points, or splitting the site into two sites enclosed by a security fence (leaving the existing streams in place), would be further evaluated during the design for implementation.</p>

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
	The specific types and amount of mitigation would not be determined until a CIS deployment decision is made and a permit application under Section 404 and the Michigan water quality certification process under Section 401 are initiated. Based on correspondence from MDEQ, an anticipated mitigation ratio of 1:1.5 may be expected for the FCTC Site 1 wetlands.	The specific types and amount of mitigation would not be determined until a CIS deployment decision is made and a permit application under Section 404 and the Michigan water quality certification process under Section 401 are initiated. Based on correspondence from MDEQ, due to the higher quality of FCTC Site 2 wetlands, an anticipated mitigation ratio of 1:5 may be expected for some of the FCTC Site 2 wetlands.	The specific types and amount of mitigation would not be determined until a CIS deployment decision is made and permit application processes under Sections 404 and 401 (and, if required, the Ohio Isolated Wetlands Permit Program) are initiated.	Mitigation for wetland loss could consist of onsite mitigation for value and function and offsite mitigation provided in the same watershed, or through banking sites (in-lieu fee program) which is the preferred option. Currently, only FTD has a wetland mitigation bank for this watershed although an in-lieu fee program sponsored by others may be a viable option, which is available and the preferred option by FTD.  The specific types and amount of mitigation would not be determined until a CIS deployment decision is made and permit application processes under Sections 404 and 401 are initiated.
<b>Construction: Expedited Schedule Impacts</b>	Similar major (significant) impacts to the baseline schedule would occur with the potential for higher intensive impacts, earlier loss of wetland habitat and groundwater flow, and higher degree of sedimentation to manage due to the compressed schedule.	Similar major (significant) impacts to baseline schedule would occur with the potential for higher intensive impacts, earlier loss of wetland habitat and groundwater flow, and higher degree of sedimentation to manage due to the compressed schedule.	Similar major (significant) impacts to the baseline schedule would occur with the potential for higher intensive impacts. Earlier loss of wetland habitat and groundwater flow, and higher degree of sedimentation to manage due to the compressed schedule.	Similar major (significant) impacts to the baseline schedule would occur with the potential for higher intensive impacts, earlier loss of wetland habitat and groundwater flow, and higher degree of sedimentation to manage due to the compressed schedule.
<u>Potential Mitigation</u>	BMPs would need to be implemented more aggressively.  Mitigation similar to the baseline schedule would be required.	BMPs would need to be implemented more aggressively.  Mitigation similar to FCTC Site 1 and the FCTC 2 baseline schedule would be required.	BMPs would need to be implemented more aggressively.  Mitigation similar to the baseline schedule would be required.	BMPs would need to be implemented more aggressively.  Mitigation similar to the baseline schedule would be required.
<b>Operation: Impacts</b>	Limited impacts would occur, other than the potential for erosion and sedimentation of wetland areas adjacent to the CIS footprint. However, these impacts would be temporary and short-term and addressed by erosion control BMPs. Therefore, impacts would be negligible.	Similar to FCTC Site 1, negligible impacts would occur.	Limited impacts would occur, other than the potential for erosion and sedimentation of wetland areas adjacent to the CIS footprint. However, these impacts would be temporary and short-term and addressed by erosion control BMPs. Therefore, impacts would be negligible.	Limited impacts would occur, other than the potential for erosion and sedimentation of wetland areas adjacent to the CIS footprint. However, these impacts would be temporary and short-term and addressed by erosion control BMPs. Therefore, impacts would be negligible.
<u>Potential Mitigation</u>	No compensatory mitigation would be required.	Similar to FCTC Site 1, no compensatory mitigation would be required.	No compensatory mitigation would be required.	No compensatory mitigation would be required.
<b>VISUAL/AESTHETICS</b>				
<b>Construction: Baseline Schedule Impacts:</b>	Overall minor to moderate impacts would occur.	Overall minor to moderate impacts would occur.	Overall minor to moderate impacts would occur.	Overall moderate impacts would occur.
<i>Daylight</i>	Offsite minor to moderate visual impacts would occur from utilities installation and increased traffic; with a slight potential for heavily screened glimpses of structure construction.	Offsite minor to moderate visual impacts would occur from utilities installation and increased traffic. Low potential for visible changes to water views offsite.	Offsite minor to moderate visual impacts would occur from utilities installation and increase traffic.	Offsite visual impacts would occur from utilities installation and greatly increase traffic at the west CIS entrance (moderate impact).

Impacts/ Potential Mitigation	FCTC Site 1	FCTC Site 2	CRJMTC Site	FTD Site
<p><i>Night View/Skyglow</i></p> <p>Minor to moderate onsite impacts would occur due to forest removal and clearing, and potential for fugitive dust.</p> <p>Minor impacts would occur because construction would mainly be during the daytime. Greater potential for skyglow and visibility of heavily screened lighting impact during winter season when lighting needed at start and end of each day.</p> <p><b>Potential Mitigation:</b> <i>Daylight</i></p> <p>Maintaining a forest buffer; limiting tree removal.</p> <p><i>Night View/Skyglow</i></p> <p>No mitigation. Minimization measures could include fully recessed lighting and use of lighting only when, where, and for duration needed.</p>	<p>Minor to moderate onsite impacts would occur due to forest removal and clearing, and potential for fugitive dust.</p> <p>Minor impacts would occur because construction would mainly be during the daytime. Greater potential for skyglow and visibility of heavily screened lighting impact during winter season when lighting needed at start and end of each day.</p> <p>Maintaining a forest buffer; limiting tree removal.</p> <p>No mitigation. Minimization measures could include fully recessed lighting and use of lighting only when, where, and for duration needed.</p>	<p>Minor to moderate onsite impacts would occur due to forest removal and clearing, and potential for fugitive dust.</p> <p>Minor impacts would occur because construction would mainly be during the daytime. Greater periods of lighting extending into darkness possible because of the greater cut and fill required. Greater potential for skyglow and visibility of heavily screened lighting impact during winter season when lighting needed at start and end of each day.</p> <p>Maintaining a forest buffer; limiting tree removal.</p> <p>No mitigation would be required. Minimization measures could include fully recessed lighting and use of lighting only when, where, and for duration needed.</p>	<p>Minor to moderate onsite impacts would occur due to forest removal and clearing, and potential for fugitive dust.</p> <p>Minor impacts would occur because construction would mainly be during the daytime. Greater potential for skyglow and visibility of heavily screened lighting impact during winter season when lighting needed at start and end of each day.</p> <p>Maintaining a forest buffer; limiting tree removal.</p> <p>No mitigation would be required. Minimization measures could include fully recessed lighting and use of lighting only when, where, and for duration needed.</p>	<p>Moderate onsite impacts would occur due to forest removal and clearing, and potential for fugitive dust.</p> <p>Moderate impacts would occur because of the lack of screening from several residences outside the west boundary and the contrast between existing and construction lighting conditions.</p> <p>Maintaining a forest buffer in existing forested areas; planting of vegetated screening area, if practicable, near the west CIS entrance.</p> <p>Minimization measures could include fully recessed lighting and lighting only when, where, and for duration needed. Vegetated screening area, if practicable, would also mitigate lighting impacts to nearby residences.</p>
<p><b>Construction:</b> <i>Expedited Schedule</i> <u>Impacts:</u> <i>Daylight and</i> <i>Night View/Skyglow</i></p> <p>Moderate impacts would occur with the greater intensity of construction activities and vehicle traffic from the compressed/expedited schedule and more skyglow from use of construction lighting all night, every night.</p> <p><u>Potential Mitigation:</u> <i>Daylight and</i> <i>Night View/Skyglow</i></p> <p>No mitigation would be required. Minimization measures could include fully recessed lighting and downward directed construction lighting.</p>	<p>Moderate impacts would occur with the greater intensity of construction activities and vehicle traffic from the compressed/expedited schedule and more skyglow from use of construction lighting all night, every night.</p> <p>No mitigation would be required. Minimization measures could include fully recessed lighting and downward directed construction lighting.</p>	<p>Similar to FCTC Site 1, moderate impacts, with greater potential for observable skyglow at FCRA.</p> <p>Similar to FCTC Site 1, no mitigation would be required.</p>	<p>Moderate impacts would occur with the greater intensity of construction activities and vehicle traffic from the compressed/expedited schedule and more skyglow from use of construction lighting all night, every night..</p> <p>No mitigation would be required. Minimization measures could include fully recessed lighting and downward directed construction lighting.</p>	<p>Moderate impacts would occur similar to the baseline schedule with increased intensity of construction activities and vehicle traffic from the compressed/expedited schedule and more directly observable lighting and skyglow (at residences outside west CIS boundary) from use of construction lighting all night, every night.</p> <p>Planting vegetated screening area, if practicable, near the west CIS entrance would mitigate day and night impacts with the exception of skyglow. Skyglow minimization measures would be the same as for the baseline schedule.</p>
<p><b>Operation:</b> <u>Impacts:</u> <i>Daylight</i></p> <p>Overall negligible to minor impacts would occur.</p> <p>Negligible impacts would occur.</p> <p><i>Night View/Skyglow</i></p> <p>Operation and facility lighting impacts would be negligible; minor skyglow would be created.</p>	<p>Overall negligible to minor impacts would occur.</p> <p>Negligible impacts would occur.</p> <p>Operation and facility lighting impacts would be negligible; minor skyglow would be created.</p>	<p>Overall negligible to minor impacts would occur.</p> <p>Negligible impacts would occur.</p> <p>Similar to FCTC Site 1 negligible to minor impacts would occur. Operation and facility lighting would create a greater potential for observable skyglow at FCRA.</p>	<p>Overall negligible to minor impacts would occur.</p> <p>Negligible impacts would occur.</p> <p>Operation and facility lighting impacts would be negligible; minor skyglow would be created.</p>	<p>Overall minor to moderate impacts would occur.</p> <p>Minor impacts would occur.</p> <p>Operation and facility lighting impacts would be similar to construction and would be a moderate increase in lighting levels compared to those that existed before construction.</p>

<b>Impacts/ Potential Mitigation</b>	<b>FCTC Site 1</b>	<b>FCTC Site 2</b>	<b>CRJMTC Site</b>	<b>FTD Site</b>
<u>Potential Mitigation:</u> <i>Daylight</i>	No mitigation would be required.			
<i>Night View/Skyglow</i>	Fully recessed light fixtures that direct all light downward. Positioning of facilities in the design phase to minimize offsite light pollution.	Fully recessed light fixtures that direct all light downward. Positioning of facilities in the design phase to minimize offsite light pollution.	Fully recessed light fixtures that direct all light downward. Positioning of facilities in the design phase to minimize offsite light pollution.	Consideration of planting of vegetated screening area, if practicable, near the west CIS entrance. Fully recessed light fixtures that direct all light downward. Positioning of facilities in the design phase to minimize offsite light pollution.

**This page intentionally left blank.**