

APPENDIX A
PERMIT AND REGULATION LOG

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Fort Detrick Environmental Permits and Registrations

Permit Name	Permit Number	Expiration Date	Issuing Agency	Permit Application Notes
Discharge Permit (Wastewater Treatment Plant)	State Discharge Permit No. 08-DP-2527 NPDES Permit No. MD0020877	30-Nov-14	MDE	
General Discharge Permit for Storm Water Associated with Industrial Activities	State Discharge Permit No. 02-SW NPDES Permit No. MDR	30-Nov-07	MDE	10/6/08 NOTE - This permit remains active until MDE initiates renewal process.
Notice of Intent (NOI) received and accepted by MDE for Area A (02SW0124), Area B (02SW1226), and Area C (02SW1227)				
General Permit for Construction Activities	State Permit Discharge No. 09 GP General NPDES Permit No. MDR10	31-Dec-13	MDE	10/6/08 NOTE - Interim permit will remain active until MDE initiates renewal process.
NPDES General Permit for Discharges from Small Municipal Separate Storm Water Sewer Systems	General Discharge Permit No. 05-SF-5501	12-Nov-09	MDE	
NPDES General Permit for Discharges from Small Municipal Separate Storm Water Sewer Systems Notice of Intent	General NPDES Permit No. 055501			
MDE NOI Approval	MDE NOI Approval			
Municipal Landfill Refuse Disposal Permit	2005-WMF-0327	10-Jul-10	MDE	
Bldg 568 Water Appropriation Permit	FR1943G101 (06)	1-Apr-11	MDE	
WTP Water Appropriation Permit	FR43S001 (02)	1-Mar-12	MDE	
Oil Operations Permit	2008-OPT-3190	12-Mar-13	MDE	
Incinerator Refuse Disposal Permit	2005-WIN-0341	29-Jun-10	MDE	
Sewage Sludge Utilization Permit	2009-SLD-5092	19-Oct-14	MDE	
Sewage Sludge Utilization Permit - UTAH	2008-STR-4556	4-Mar-14	MDE	
Title V Part 70 Air Operating Permit	24-021-00131	31-Mar-14	MDE	GENERAL NOTE - Renewal application is due to MDE no later than 6 months prior to permit expiration.

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ENVIRONMENTAL ASSESSMENT – REAL PROPERTY MASTER PLAN FOR ARMY-CONTROLLED LAND
 AT AREAS A AND C OF FORT DETRICK IN FREDERICK COUNTY, MARYLAND
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Fort Detrick Environmental Permits and Registrations (cont'd)

Permit Name	Permit Number	Expiration Date	Issuing Agency	Permit Application Notes
Title V Part 70 Air Operating : Revisions	See Permit 24-021-00131	See Permit No. 24-021-00131	See Permit No. 24-021-00131	See Permit No. 24-021-00131
Application - Part 70 Permit Application for Renewal	N/A	N/A	MDE	
EPA HW ID Number - Area A	MD8211620267	Indefinite	EPA	
EPA HW ID Number - Area B	MD4211600958	Indefinite	EPA	
General permit for discharge from tanks, pipes, and other liquid containment structures at facilities other than oil terminals.	General Discharge Permit No. 06HT General NPDES Permit No. MDG67	16-Feb-11	MDE	Application due to MDE no later than 60 days prior to expiration.
NOI - Area A, Area B, and Wastewater Treatment Plant in Area C	NOI Registration No. and response letter from MDE Permit 06HT: NPDES Permit No. MDG67			
MWC permit to Construct	Construction Permit No. 121-00131-2-0049 & 0050	COMAR 26.11.02.04B	MDE	
Fort Detrick Tank Certificates	Underground Storage Tank Fac. Cert of Registration	N/A	MDE	
Soil Conditioners to be registered in MD for 2007	N/A	31-Jan-09	MD Department of Agriculture	Automatic renewal. MDA initiates the renewal process.
MDE Special Med. Waste Number	SMW000008461	N/A	MDE	N/A
Toxic Materials Permit for Larval Mosquito Control	TMP-07-210	30-Oct-11	MDE	
Groundwater Discharge Permit for WTP Sludge Infiltration Basin	06-DP-3557	30-Sep-12	MDE	Application due to MDE no later than one year prior to expiration.
Permit to Stock Fish in Maryland Waters	Authority: NRA 4-11A-02 and 4-602	31-Dec-08	DNR	10/6/08 NOTE - FMWR has responsibility, but EMO will track this permit.
State Water Appropriation Permit Bldg.1425	FR2008G004 (03)	1-May-10	MDE	Permit for John C. Grimburg construction company for Fort Detrick site

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ENVIRONMENTAL ASSESSMENT – REAL PROPERTY MASTER PLAN FOR ARMY-CONTROLLED LAND
AT AREAS A AND C OF FORT DETRICK IN FREDERICK COUNTY, MARYLAND
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Fort Detrick Environmental Permits and Registrations (cont'd)

Permit Name	Permit Number	Expiration Date	Issuing Agency	Permit Application Notes
Discharge Permit for SSP Construction Dewatering	08-DP3638 NPDES Permit MD0070319	19-Jun-13	MDE	
Water Appropriation permit for SSP Construction Dewatering	FR2008G004 (04)	1-Jun-10	MDE	Permit for John C. Grimburg construction company for Fort Detrick site
Wastewater Treatment Plant Upgrade Construction Permit	9-25-1090	11-Sept-12	MDE	

Source: Benson, 2009

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APPENDIX B
FORESTATION REQUIREMENT BY PROJECT

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Forestation Requirement by Project

Project Status	Project	Completion Date	Project Total GSF	Total Impervious Area	Total Disturbed Area	Forestation Requirement
				Square Feet	Square Feet	Acres
Complete	Central Utility Plant	Apr-08	68,000	135,251	270,502	0.93
Complete	Defense Medical Logistics Center	Aug-09	130,243	135,331	182,000	0.63
Approved	NIAID IRF	Apr-09	144,000	151,000	302,000	1.04
Approved	DHS NBACC	Oct-08	158,000	80,000	160,000	0.55
Approved	WWTP Sanitary Flow Structure	Apr-10	205			
Approved	NCMI Addition	FY2010	12,798	12,798	110,000	0.38
Approved	Signal Battalion Bldg 1671/1678 Parking Lot	FY2010	97,126	97,126	127,126	0.44
Approved	VA CBOC	Oct-10	16,500	71,000	136,000	0.47
Approved	Parking Addition for Bldg 1507	FY2011	83,294	83,294	125,730	0.43
Approved	WWTP Repairs	FY2011				
Approved	USAMRIID SSP	FY2011	20,892	8,437	16,874	
Approved	Joint Bio-Medical RDA Management Center (CBMS and Navy)	Jan-11	22,200	75,775	148,369	0.51
Approved	WSOC	FY2011	27,244	46,095	256,418	0.88
Approved	NMBDRL	FY2011	37,660	18,168	234,326	0.81
Approved	SETS	FY2011	33,700	52,000	268,924	0.93
Approved	NIBC Security Fencing and Equipment	FY2014				
Approved	USAMRIID Stage I	FY2014	835,390	395,840	836,518	2.88
Approved	Potomac Pipeline Interconnect	FY2014				
Approved	Research Acquisition Building	FY2018	33,500	22,000	163,551	0.56
Approved	ReSOC	FY2018	95,608	200,000	325,000	1.12

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Forestation Requirement by Project (cont'd)

Project Status	Project	Completion Date	Project Total GSF	Total Impervious Area	Total Disturbed Area	Forestation Requirement
				Square Feet	Square Feet	Acres
Approved	SJA	FY2018	19,300	51,623	87,183	0.30
Approved	USAMRIID Stage II	TBD	376,488	135,483	360,813	1.24
Approved	New Parking Lot Adjacent to Supplemental Water Storage	TBD	135,000	114,325	198,540	0.68
Approved	Community Park Plan	FY2017	662,112	391,600	663,500	2.28
TOTAL APPROVED PROJECTS			3,009,260	2,277,146	4,973,374	17.06
Proposed	Golf Driving Range	May-10	312,485	1,800	3,600	
Proposed	NAF Youth Center	FY2011	19,875	70,744	157,480	0.54
Proposed	MC4 Logistics Addition for Bldg 1545	FY2011	600			
Proposed	Auditorium and Training Center Expansion	FY2011	28,625		112,108	0.39
Proposed	NIBC Truck Inspection Station and Road	FY2011	54,808	67,681	136,371	0.47
Proposed	NCMI Renovation	FY2011				
Proposed	Veterans Drive Extension, Segment 1(USDA-NMBDRL)	FY2011	88,000	88,000	81,000	0.28
			(Forested land disturbed)		95,000	4.36
Proposed	Sultan Drive Realignment	FY2013	45,291	45,291	185,000	0.64
Proposed	USDA Lab and Greenhouse Renovation (Bldg 374)	FY2011				
Proposed	Information Services Facility (NEC) Expansion	FY2013	11,300	53,813	121,250	0.42
Proposed	Supplemental Water Storage	FY2012	5,027	5,027	180,462	0.62
Proposed	Nallin Farm Gate/Campus Drive Extension	FY2011	238,000	224,700	449,400	1.55
Proposed	WTP Repair	FY2011	4,000	3,900	7,800	
Proposed	Emergency Services Center	FY2011	42,000	83,623	190,250	0.66
Proposed	Nallin Farm Gate Visitor's Center	FY2012	6,000	54,710	90,373	0.31
Proposed	Education and Conference Center (CAC) Replacement	FY2013	22,250	36,266	88,244	0.30
Proposed	Convert Bldg. 1504 to FMWR Craft Shops Center	FY2013	20,130			

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Forestation Requirement by Project (cont'd)

Project Status	Project	Completion Date	Project Total GSF	Total Impervious Area	Total Disturbed Area	Forestation Requirement
				Square Feet	Square Feet	Acres
Proposed	Consolidated Logistics Facility	FY2013	82,000	454,898	650,730	2.24
Proposed	Outdoor Swimming Pool	FY2012	7,995	76,148	109,836	0.38
Proposed	Veteran's Drive Extension, Segment 3 (Navy Way - Campus Cir)	FY2013	38,000	38,000	76,000	0.26
Proposed	NIBC ACP - 9	FY2012	2,550			
Proposed	NIBC Hazardous Material Handling Facility	FY2014	13,100	13,100	24,550	
Proposed	Veterans Drive Extension, Segment 2 (NEC Bypass)	FY2014	48,500	48,500	97,000	0.33
Proposed	NIBC Green	FY2018	207,000	57,606	223,000	0.77
Proposed	Veteran's Drive Extension, Segment 4 (Ditto widening)	FY2018	42,600	42,600	85,200	0.29
TOTAL PROPOSED PROJECTS FORESTATION			1,340,136	1,466,407	3,164,654	14.81
TOTAL FORESTATION FOR APPROVED AND PROPOSED PROJECTS			4,349,396	3,743,553	8,138,028	31.87

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APPENDIX C

PROJECTED ANNUAL UTILITY CONSUMPTION BY PROJECT

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Approved Projects Estimated Annual Utility Consumption and Waste Generation

Project Status	Project	Project Total GSF	Utility Usage			Wastes		
			Water	Electricity	Steam	Wastewater Estimate	Municipal	Medical
			gallons	kWh	pounds	gallons	pounds	pounds
CURRENT INSTALLATION BASELINE FY 2009 (a)			408,334,000	178,554,375	319,128,524	225,847,000	4,242,000	1,397,750
Complete	Central Utility Plant (b)	68,000	20,000,000	1,000,000		18,000,000	56,440	
Complete	Defense Medical Logistics Center (c) (d)	130,243	3,256,075	4,428,262		1,953,645	108,102	
Approved	NIAID IRF (f)	144,000	10,368,000	8,496,000	42,768,000	6,480,000	120,960	50,400
Approved	DHS NBACC (f)	158,000	11,376,000	9,322,000	46,926,000	7,110,000	132,720	55,300
Approved	WWTP Sanitary Flow Structure (e)							
Approved	NCMI Addition (d)	12,798	319,950	435,132		191,970	10,622	
Approved	Signal Battalion Bldg 1671/1678 Parking Lot (e)							
Approved	VA CBOC (g)	16,500	577,500	478,500		346,500	20,130	825
Approved	Parking Addition for Bldg 1507 (e)							
Approved	WWTP Repairs (e)							
Approved	USAMRIID SSP (h)	20,892	19,444,786	119,375		9,265,000	17,340	
Approved	Joint Bio-Medical RDA Management Center (d)	22,200	555,000	754,800		333,000	18,426	
Approved	WSOC (d)	27,244	681,100	926,296		408,660	22,613	
Approved	NMBDRL (f)	37,660	2,711,520	2,221,940	11,185,020	1,694,700	31,634	13,181

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ENVIRONMENTAL ASSESSMENT – REAL PROPERTY MASTER PLAN FOR ARMY-CONTROLLED LAND AT AREAS A AND C OF FORT DETRICK IN FREDERICK COUNTY, MARYLAND
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Approved Projects Estimated Annual Utility Consumption and Waste Generation (cont'd)

Project Status	Project	Project Total GSF	Utility Usage			Wastes		
			Water	Electricity	Steam	Wastewater Estimate	Municipal	Medical
			gallons	kWh	pounds	gallons	pounds	pounds
Approved	SETS (d)	33,700	842,500	1,145,800		505,500	27,971	
Approved	NIBC Security Fencing (e)							
Approved	USAMRIID Stage I (f)	835,390	60,148,080	49,288,010	248,110,830	37,592,550	701,728	292,387
Approved	Potomac Pipeline Interconnect (i)	n/a		110,000				
Approved	Research Acquisition Building (d)	33,500	837,500	1,139,000		502,500	27,805	
Approved	ReSOC (d)	95,608	2,390,200	3,250,672		1,434,120	79,355	
Approved	SJA (d)	19,300	482,500	656,200		289,500	16,019	
Approved	USAMRIID Stage II (f)	376,488	27,107,136	22,212,792	111,816,936	16,941,960	316,250	131,771
Approved	New Parking Lot Adjacent to Supplemental Water Storage (e)							
Approved	Community Park Plan (e)							
TOTAL APPROVED PROJECTS		2,031,523	161,097,847	105,984,779	460,806,786	103,049,605	1,708,114	543,863

a) Baseline data from Energy Performance Data FY 09 (Potter, 2009).

b) Projections from previous NEPA documentation (USAG, 2005a).

c) DMLC utility consumption and wastes generation were not included in the current installation baseline for FY 2009 because this building became operational during August 2009. Utility consumption and wastes generation metered data were lacking and incomplete due to building occupancy for only part of FY 2009. Current administrative metrics were applied to the building gsf to determine utility consumption and wastes generation.

d) Projections based on administrative metrics for water (25 gal/gsf), electric (34 kWh/gsf), wastewater (15 gal/gsf), and municipal waste (0.83 lbs/gsf) were developed by summing administrative billing data for FY 2009 for each utility or waste, and dividing by the total administrative building gsf (Hockensmith, 2010a). Steam is not required in administrative operations; therefore, no metrics were developed for steam consumption in administrative buildings.

e) Non-applicable utility usage and wastes generation are indicated by shaded cells in the table.

f) Projections based on laboratory metrics for water (72 gal/gsf), electric (59 kWh/gsf), wastewater (45 gal/gsf), municipal waste (0.84 lbs/gsf), and medical waste (0.35 lbs/gsf) were developed by summing laboratory billing data for FY 2009 for each utility or waste, and dividing by the total laboratory building gsf (Hockensmith, 2010a). Steam metrics were developed by summing estimated laboratory consumption or generation for FY 2009 and then dividing by the total laboratory building gsf (Hockensmith, 2010b).

g) Projections for CBOC were estimated using metrics developed from billing data from the Installation's Health Clinic (Hockensmith, 2010a; 2010b). The metrics for the health clinic were water (35 gal/gsf), electric (29 kWh/gsf), wastewater (21 gal/gsf), municipal waste (1.22 lbs/gsf), and medical (0.05 lbs/gsf).

h) Projections from USAMRIID Sterilization Plant DoD Form 1391, project number 59215.

i) Projections from Potomac Pipeline EA (USAG, 2009b).

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Approved Buildings to be Demolished Estimated Annual Utility Consumption and Waste Generation

Project Status	Project	Project Total GSF	Utility Usage			Wastes		
			Water	Electricity	Steam	Wastewater Estimate	Municipal	Medical
			gallons	kWh	pounds	gallons	pounds	pounds
CURRENT INSTALLATION BASELINE FY 2009 (a)			408,334,000	178,554,375	319,128,524	225,847,000	4,242,000	1,397,750
Approved	503 (c)	-5,040	-126,000	-171,360		-75,600	-4,183	
Approved	504 (c)	-10,504	-262,600	-357,136		-157,560	-8,718	
Approved	505 (c)	-3,937	-98,425	-133,858		-59,055	-3,268	
Approved	515 (c)	-243	-6,075	-8,262		-3,645	-202	
Approved	521 (c)	-10,738	-268,450	-365,092		-161,070	-8,913	
Approved	525 (c)	-6,424	-160,600	-218,416		-96,360	-5,332	
Approved	722 (c)	-9,687	-242,175	-329,358		-145,305	-8,040	
Approved	817 (c)	-9,130	-228,250	-310,420		-136,950	-7,578	
Approved	818 (c)	-2,027	-50,675	-68,918		-30,405	-1,682	
Approved	820 (c)	-7,696	-192,400	-261,664		-115,440	-6,388	
Approved	901 (c)	-9,663	-241,575	-328,542		-144,945	-8,020	
Approved	917 (b)	-2,802	-70,050	-95,268		-42,030	-2,326	
Approved	1109 (b)	N/A						
Approved	1110 (b)	N/A						
Approved	1110A (b)	-492						
Approved	1114 (b)	N/A						
Approved	1116 (b)	N/A						
Approved	1117 (b)	N/A						
Approved	1408 (d)(e)	-16,340	-783,371	-964,060	-4,852,980	-735,300	-13,726	-5,719
Approved	1412 (d)(e)	-73,920	-10,899,000	-4,361,280	-21,954,240	-3,326,400	-62,093	-25,872
Approved	1413 (d)	-150	-10,800	-8,850	-44,550	-6,750	-126	-53
Approved	1414 (c)	-2,643	-66,075	-89,862		-39,645	-2,194	

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Approved Buildings to be Demolished Estimated Annual Utility Consumption and Waste Generation (cont'd)

Project Status	Project	Project Total GSF	Utility Usage			Wastes		
			Water	Electricity	Steam	Wastewater Estimate	Municipal	Medical
			gallons	kWh	pounds	gallons	pounds	pounds
Approved	1415 (c)	-139	-3,475	-4,726		-2,085	-115	
Approved	1420 (c)	-728	-18,200	-24,752		-10,920	-604	
Approved	1423 (c)	-41,812	-1,045,300	-1,421,608		-627,180	-34,704	
Approved	1425 (50%) Existing USAMRIID (d) (e)	-250,000	-10,794,300	-14,750,000	-74,250,000	-11,250,000	-210,000	-87,500
Approved	1432 (c)	-12,480	-312,000	-424,320		-187,200	-10,358	
Approved	1685 (c)	-16,277	-406,925	-553,418		-244,155	-13,510	
Approved	1686 (c)	-14,033	-350,825	-477,122		-210,495	-11,647	
Approved	1687 (c)	-1,920	-48,000	-65,280		-28,800	-1,594	
Approved	1689 (c)	-1,800	-45,000	-61,200		-27,000	-1,494	
Approved	1692 (c)	-5,319	-132,975	-180,846		-79,785	-4,415	
TOTAL APPROVED BUILDINGS TO BE DEMOLISHED		-515,944	-26,863,521	-26,035,618	-101,101,770	-17,944,080	-431,230	-119,144

a) Baseline data from Energy Performance Data FY 09 (Potter, 2009).

b) Non-applicable utility usage and wastes generation are indicated by shaded cells in the table.

c) Projections based on administrative metrics for water (25 gal/gsf), electric (34 kWh/gsf), wastewater (15 gal/gsf), and municipal waste (0.83 lbs/gsf) were developed by summing administrative billing data for FY 2009 for each utility or waste, and dividing by the total administrative building gsf (Hockensmith, 2010a). Steam is not required in administrative operations; therefore, no metrics were developed for steam consumption in administrative buildings.

d) Projections based on laboratory metrics for water (72 gal/gsf), electric (59 kWh/gsf), wastewater (45 gal/gsf), municipal waste (0.84 lbs/gsf), and medical waste (0.35 lbs/gsf) were developed by summing laboratory billing data for FY 2009 for each utility or waste, and dividing by the total laboratory building gsf (Hockensmith, 2010a). Steam metrics were developed by summing estimated laboratory consumption or generation for FY 2009 and then dividing by the total laboratory building gsf (Hockensmith, 2010b).

e) Water consumption numbers for existing building from DIS Utility Workbook (Hockensmith, 2010a).

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Proposed Projects Estimated Annual Utility Consumption and Waste Generation

Project Status	Project	Project Total GSF	Utility Usage			Wastes		
			Water	Electricity	Steam	Wastewater Estimate	Municipal	Medical
			gallons	kWh	pounds	gallons	pounds	pounds
CURRENT INSTALLATION BASELINE FY 2009 (a)			408,334,000	178,554,375	319,128,524	225,847,000	4,242,000	1,397,750
Proposed	Golf Driving Range (b)							
Proposed	NAF Youth Center (c)	19,875	496,875	675,750		298,125	16,496	
Proposed	MC4 Logistics Addition for Bldg 1545 (c)	600	15,000	20,400		9,000	498	
Proposed	Auditorium and Training Center Expansion (c)	28,625	715,625	973,250		429,375	23,759	
Proposed	NIBC Truck Inspection Station and Road (d)	54,808	108,550	232,000		108,550	45,491	
Proposed	NCMI Renovation (b)							
Proposed	Veterans Drive Extension, Segment 1 (USDA-NMBDRL) (b)							
Proposed	USDA Lab and Greenhouse Renovation (Bldg 374) (b)							
Proposed	Information Services Facility (NEC) Expansion (c)	11,300	282,500	384,200		169,500	9,379	
Proposed	Supplemental Water Storage (b)							
Proposed	Nallin Farm Gate/Campus Drive Extension (e)	238,000	108,550	232,000		108,550	197,540	
Proposed	WTP Repair (b)	4,000						
Proposed	Emergency Services Center (c)	42,000	1,050,000	1,428,000		630,000	34,860	
Proposed	Nallin Farm Gate Visitors Center (c)	6,000	150,000	204,000		90,000	4,980	
Proposed	Education and Conference Center (CAC) Replacement (c)	22,250	556,250	756,500		333,750	18,468	
Proposed	Convert Bldg. 1504 to FMWR Craft Shops Center (b)							
Proposed	Consolidated Logistics Facility (c)	82,000	2,050,000	2,788,000		1,230,000	68,060	
Proposed	Outdoor Swimming Pool (c) (f)	7,995	1,970,584	271,830		1,970,584	6,636	

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ENVIRONMENTAL ASSESSMENT – REAL PROPERTY MASTER PLAN FOR ARMY-CONTROLLED LAND
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18 MARCH 2010

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Proposed Projects Estimated Annual Utility Consumption and Waste Generation (cont'd)

Project Status	Project	Project Total GSF	Utility Usage			Wastes		
			Water	Electricity	Steam	Wastewater Estimate	Municipal	Medical
			gallons	kWh	pounds	gallons	pounds	pounds
Proposed	Veteran's Drive Extension, Segment 3 (Navy Way - Campus Cir) (b)							
Proposed	NIBC ACP-9 (b) (c)	2,550		86,700				
Proposed	NIBC Hazardous Material Handling Facility (c)	13,100	327,500	445,400		196,500	10,873	
Proposed	Veterans Drive Extension, Segment 2 (NEC Bypass) (b)							
Proposed	NIBC Green (b)							
Proposed	Veteran's Drive Extension, Segment 4 (Ditto widening) (b)							
Proposed	Sultan Drive Realignment (b)							
TOTAL PROPOSED PROJECTS		533,103	7,831,434	8,498,030	0	5,573,934	437,039	0

- a) Baseline data from Energy Performance Data FY 09 (Potter, 2009).
- b) Non-applicable utility usage and wastes generation are indicated by shaded cells in the table.
- c) Projections based on administrative metrics for water (25 gal/gsf), electric (34 kWh/gsf), wastewater (15 gal/gsf), and municipal waste (0.83 lbs/gsf) were developed by summing administrative billing data for FY 2009 for each utility or waste, and dividing by the total administrative building gsf (Hockensmith, 2010a). Steam is not required in administrative operations; therefore, no metrics were developed for steam consumption in administrative buildings.
- d) Projections from NIBC Truck Inspection Station and Road DoD Form 1391, project number 67948.
- e) Projections from Nallin Boundary Gate DoD Form 1391, project number 61401.
- f) Projections for water consumption for the Outdoor Swimming Pool based on sizing of pool in DoD Form 1391, project number 73386.

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Proposed Buildings to be Demolished Estimated Annual Utility Consumption and Waste Generation

Project Status	Project	Project Total GSF	Utility Usage			Wastes		
			Water	Electricity	Steam	Wastewater Estimate	Municipal	Medical
			gallons	kWh	pounds	gallons	pounds	pounds
CURRENT INSTALLATION BASELINE FY 2009 (a)			408,334,000	178,554,375	319,128,524	225,847,000	4,242,000	1,397,750
Proposed	100 (b)	-5,320	-133,000	-180,880		-79,800	-4,416	
Proposed	243 (b)	-6,529	-163,225	-221,986		-97,935	-5,419	
Proposed	258 (b)	-2,122	-53,050	-72,148		-31,830	-1,761	
Proposed	259 (b)	-2,122	-53,050	-72,148		-31,830	-1,761	
Proposed	261 (b)	-2,263	-56,575	-76,942		-33,945	-1,878	
Proposed	262 (b)	-1,124	-28,100	-38,216		-16,860	-933	
Proposed	263 (b)	-14,786	-369,650	-502,724		-221,790	-12,272	
Proposed	264 (b)	-189	-4,725	-6,426		-2,835	-157	
Proposed	276 (b)	-602	-15,050	-20,468		-9,030	-500	
Proposed	611 (b)	-5,888	-147,200	-200,192		-88,320	-4,887	
Proposed	718 (b)	-10,449	-261,225	-355,266		-156,735	-8,673	
Proposed	725 (c)							
Proposed	832 (c)							
Proposed	839 (b)	-5,746	-143,650	-195,364		-86,190	-4,769	
Proposed	903 (b)	-2,000	-50,000	-68,000		-30,000	-1,660	
Proposed	904 (b)	-2,000	-50,000	-68,000		-30,000	-1,660	
Proposed	910 (b)	-1,071	-26,775	-36,414		-16,065	-889	
Proposed	915 (b)	-5,412	-135,300	-184,008		-81,180	-4,492	
Proposed	940 (b)	-112	-2,800	-3,808		-1,680	-93	
Proposed	941 (b)	-1,183	-29,575	-40,222		-17,745	-982	

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Proposed Buildings to be Demolished Estimated Annual Utility Consumption and Waste Generation (cont'd)

Project Status	Project	Project Total GSF	Utility Usage			Wastes		
			Water	Electricity	Steam	Wastewater Estimate	Municipal	Medical
			gallons	kWh	pounds	gallons	pounds	pounds
Proposed	1530 (b) (d)	-2,400	-60,000	-81,600	0	-36,000	-1,992	0
Proposed	1531 (b) (d)	-2,400	-60,000	-81,600	0	-36,000	-1,992	0
TOTAL PROPOSED BUILDINGS TO BE DEMOLISHED		-73,718	-1,842,950	-2,506,412	0	-1,105,770	-61,186	0

a) Baseline data from Energy Performance Data FY 09 (Potter, 2009).

b) Projections based on administrative metrics for water (25 gal/gsf), electric (34 kWh/gsf), wastewater (15 gal/gsf), and municipal waste (0.83 lbs/gsf) were developed by summing administrative billing data for FY 2009 for each utility or waste, and dividing by the total administrative building gsf (Hockensmith, 2010a). Steam is not required in administrative operations; therefore, no metrics were developed for steam consumption in administrative buildings.

c) Non-applicable utility usage and wastes generation are indicated by shaded cells in the table.

d) These buildings are portable trailers and will be reassigned for other use on the Installation rather than be demolished. Future use of these trailers is unknown at this time. Utilities and wastes are deducted due to the decommissioning of these trailers.

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APPENDIX D
FORT DETRICK VEGETATIVE SPECIES

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Natural and Introduced Vegetative Species at Fort Detrick, MD

Alder	Red Mulberry
American Arborvitae	Northern Catalpa
American Elm	Northern Red Oak
American Holly	Norway Maple
Beech	Oriental Spruce
Bitternut Hickory	Persimmon
Black Cherry/Wild Cherry	Pin Oak
Black Locust	Pine
Black Walnut	Raspberry
Blackberry	Red Maple
Blue Spruce	Red Pine
Box Elder	Sassafras
Callery Pear	Scarlet Oak
Canadian Hemlock	Scotch Pine
Cherry	Siberian Elm
Chestnut Oak	Silver Maple
Cottonwood	Southern Magnolia
Crabapple	Spruce
Crimean Linden	Sugar Maple
Cutleaf Crabapple	Sweetgum
Eastern Redcedar	Sycamore
European White Birch	Sycamore Maple
Flowering Dogwood	Tea Crabapple
Gingko	Thornless Honeylocust
Hackberry	Tree of Heaven
Honeylocust	Tuliptree
Honeysuckle	Upright American Elm
Inkberry	Virginia Pine
Japanese Flowering Crabapple	Washington Hawthorn
Japanese Scholar Tree	White Ash
Larch	White Oak
Littleleaf Linden	White Pine
Loblolly Pine	White Spruce
Lombardy Poplar	Wild Rose
London Planetree	Willow
Magnolia	Yellow Buckeye
Mimosa	Zumi Crabapple

Source: USAG, 2001

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APPENDIX E
FORT DETRICK BIRD SPECIES

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Bird Species Observed in Frederick County

Red-throated Loon	Red-shouldered Hawk	Great Black-backed Gull	White-breasted Nuthatch	Ovenbird
Common Loon	Broad-winged Hawk	Caspian Tern	Brown Creeper	Northern Waterthrush
Pied-billed Grebe	Red-tailed Hawk	Common Tern	Carolina Wren	Louisiana Waterthrush
Horned Grebe	Rough-legged Hawk	Forster's Tern	Bewick's Wren	Kentucky Warbler
Red-necked Grebe	Golden Eagle	Black Tern	House Wren	Connecticut Warbler
Eared Grebe	American Kestrel	Rock Dove	Winter Wren	Mourning Warbler
Double-crested Cormorant	Merlin	Passenger Pigeon	Sedge Wren	Common Yellowthroat
Anhinga	Peregrine Falcon	Mourning Dove	Marsh Wren	Hooded Warbler
American Bittern	Gyrfalcon	Black-billed Cuckoo	Golden-crowned Kinglet	Wilson's Warbler
Least Bittern	Ring-necked Pheasant	Yellow-billed Cuckoo	Ruby-crowned Kinglet	Canada Warbler
Great Blue Heron	Ruffed Grouse	Barn Owl	Blue-gray Gnatcatcher	Yellow-breasted Chat
Great Egret	Wild Turkey	Eastern Screech-Owl	Eastern Bluebird	Summer Tanager
Snowy Egret	Northern Bobwhite	Great Horned Owl	Veery	Scarlet Tanager
Little Blue Heron	King Rail	Snowy Owl	Gray-cheeked Thrush	Northern Cardinal
Tricolored Heron	Virginia Rail	Barred Owl	Bicknell's Thrush	Rose-breasted Grosbeak
Cattle Egret	Sora	Long-eared Owl	Swainson's Thrush	Blue Grosbeak
Green Heron	Common Moorhen	Short-eared Owl	Hermit Thrush	Indigo Bunting
Black-crowned Night-Heron	American Coot	Northern Saw-whet Owl	Wood Thrush	Dickcissel
Yellow-crowned Night-Heron	Limpkin	Common Nighthawk	American Robin	Eastern Towhee
Nelson's Sharp-tailed Sparrow	Sandhill Crane	Chuck-will's-widow	Gray Catbird	American Tree Sparrow
Glossy Ibis	Black-bellied Plover	Whip-poor-will	Northern Mockingbird	Chipping Sparrow
Wood Stork	American Golden-Plover	Chimney Swift	Brown Thrasher	Clay-colored Sparrow
Tundra Swan	Semipalmated Plover	Ruby-throated Hummingbird	American Pipit	Field Sparrow
Greater White-fronted Goose	Killdeer	Rufous Hummingbird	Cedar Waxwing	Vesper Sparrow
Snow Goose	Greater Yellowlegs	Belted Kingfisher	Northern Shrike	Lark Sparrow
Canada Goose	Lesser Yellowlegs	Red-headed Woodpecker	Loggerhead Shrike	Savannah Sparrow
Wood Duck	Solitary Sandpiper	Red-bellied Woodpecker	European Starling	Grasshopper Sparrow
Green-winged Teal	Willet	Yellow-bellied Sapsucker	White-eyed Vireo	Henslow's Sparrow
American Black Duck	Spotted Sandpiper	Downy Woodpecker	Blue-headed Vireo	White Ibis

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Bird Species Observed in Frederick County (cont'd)

Mallard	Upland Sandpiper	Hairy Woodpecker	Yellow-throated Vireo	Fox Sparrow
Northern Pintail	Whimbrel	Northern "Yellow-shafted" Flicker	Warbling Vireo	Song Sparrow
Blue-winged Teal	Marbled Godwit	Pileated Woodpecker	Philadelphia Vireo	Lincoln's Sparrow
Northern Shoveler	Ruddy Turnstone	Olive-sided Flycatcher	Red-eyed Vireo	Swamp Sparrow
Gadwall	Sanderling	Eastern Wood-Pewee	Blue-winged Warbler	White-throated Sparrow
American Wigeon	Semipalmated Sandpiper	Yellow-bellied Flycatcher	Golden-winged Warbler	White-crowned Sparrow
Canvasback	Western Sandpiper	Acadian Flycatcher	Tennessee Warbler	Dark-eyed Junco
Redhead	Least Sandpiper	Alder Flycatcher	Orange-crowned Warbler	Lapland Longspur
Ring-necked Duck	White-rumped Sandpiper	Willow Flycatcher	Nashville Warbler	Snow Bunting
Greater Scaup	Baird's Sandpiper	Least Flycatcher	Northern Parula	Bobolink
Lesser Scaup	Pectoral Sandpiper	Eastern Phoebe	Yellow Warbler	Red-winged Blackbird
Oldsquaw	Red-breasted Merganser	Great Crested Flycatcher	Chestnut-sided Warbler	Eastern Meadowlark
Black Scoter	Stilt Sandpiper	Eastern Kingbird	Magnolia Warbler	Yellow-headed Blackbird
Surf Scoter	Buff-breasted Sandpiper	Scissor-tailed Flycatcher	Cape May Warbler	Rusty Blackbird
White-winged Scoter	Short-billed Dowitcher	Horned Lark	Black-throated Blue Warbler	Brewer's Blackbird
Common Goldeneye	Long-billed Dowitcher	Purple Martin	Yellow-rumped "Myrtle" Warbler	Common Grackle
Bufflehead	Common Snipe	Tree Swallow	Black-throated Green Warbler	Brown-headed Cowbird
Hooded Merganser	American Woodcock	Northern Rough-winged Swallow	Blackburnian Warbler	Orchard Oriole
Common Merganser	Wilson's Phalarope	Bank Swallow	Yellow-throated Warbler	Baltimore Oriole
Dunlin	Red-necked Phalarope	Cliff Swallow	Pine Warbler	Pine Grosbeak
Ruddy Duck	Red Phalarope	Barn Swallow	Prairie Warbler	Purple Finch
Black Vulture	Laughing Gull	Blue Jay	Palm Warbler	House Finch
Turkey Vulture	Bonaparte's Gull	American Crow	Bay-breasted Warbler	Red Crossbill
Osprey	Ring-billed Gull	Fish Crow	Blackpoll Warbler	White-winged Crossbill
Bald Eagle	Herring Gull	Common Raven	Cerulean Warbler	Common Redpoll
Northern Harrier	Thayer's Gull	Black-capped Chickadee	Black-and-white Warbler	Pine Siskin
Sharp-shinned Hawk	Iceland "Kumlien's" Gull	Carolina Chickadee	American Redstart	American Goldfinch
Cooper's Hawk	Lesser Black-backed Gull	Tufted Titmouse	Prothonotary Warbler	Evening Grosbeak
Northern Goshawk	Glaucous Gull	Red-breasted Nuthatch	Worm-eating Warbler	House Sparrow

Source: Maryland Ornithological Society, Inc. 2003

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APPENDIX F
FORT DETRICK MAMMAL SPECIES

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Mammal Species Potentially Inhabiting Fort Detrick, MD

Beaver	Northern Flying Squirrel
Big Brown Bat	Northern Water Shrew
Boreal Redback Vole	Norway Rat
Coyote	Opossum
Deer Mouse	Pine Vole
Eastern Chipmunk	Pygmy Shrew
Eastern Cottontail	Raccoon
Eastern Harvest Mouse	Red Bat
Eastern Mole	Red Fox
Eastern Pipistrel	Red Squirrel
Eastern Woodrat	River Otter
Evening Bat	Seminole Bat
Fox Squirrel	Shorttail Shrew
Gray Fox	Shorttail Weasel
Gray Squirrel	Silver-haired Bat
Hairytail Mole	Small-footed Bat
Hoary Bat	Smoky Shrew
House Mouse	Snowshoe Hare
Keen Bat	Southern Bog Lemming
Least Shrew	Southern Flying Squirrel
Least Weasel	Spotted Skunk
Little Brown Bat	Starnose Mole
Longtail Shrew	Striped Skunk
Longtail Weasel	Western Big-eared Bat
Masked Shrew	White-footed Mouse
Meadow Jumping Mouse	White-tailed Deer
Meadow Vole	Woodchuck
Mink	Woodland Jumping Mouse
Muskrat	

Source: USAG, 1997b

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APPENDIX G

**PESTICIDE USE AND ASSOCIATED TARGETS & PESTICIDE
INVENTORY**

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Pesticides Approved Under the IPMP

Pesticide/Herbicide	EPA Number	Application/Pest
Altosid XR	2724-421-64833	Mosquitoes
Catalyst	2724-450	Fleas
Copper Sulfate	1278-5	Filamentous Algae
DIMILIN (Diflubenzuron)	37100-7-400	Gypsy Moths
Diuron 80	19713-274	Tree of Heaven, undesirable weeds and grasses
Drione Dust	4816-353	Ants, Bees, Wasps, American Cockroaches
Fumitoxin	5857-1-ZA	Woodchucks
InTice	73079-1	Ants
Maxforce (ants)	64248-10	Ants
Maxforce (bait paste)	64248-5	American Cockroaches
Maxforce (bait stations)	64248-12	American Cockroaches
Maxforce (bait stations)	6428-11	German Cockroaches
Maxforce (carpenter ant)	64248-21	Carpenter Ants
Merit	3125-451	Ants
PT 565 Pyrethrin	499-182	German Cockroaches
Precor, IGR	2724-352-50809	Fleas
Rodeo	524-343	Common Reed, Tree of Heaven, undesirable weeds and grasses
Ro-Pel	45735-2	Whitetail deer
RoundUp Pro (Glyphosate)	524-475	Tree of Heaven, undesirable weeds and grasses
Sevin 80 S	264-316	Bagworms
Talstar One	279-3206	Ants, Carpenter Ants, Bagworms, Bees, Wasps, Fleas, Gypsy Moths, Mites, ornamental shrub insect pests
Tempo SC Ultra	3125-498	Ants, Bagworms, American Cockroaches, German Cockroaches, Mites, ornamental shrub insect pests
Termidor SC	7969-210	Subterranean Termites
Trimec	2217-543	Tree of Heaven, undesirable weeds and grasses
Wasp Freeze (PT 515)	449-362	Bees, Wasps
Whit-270	499-147	American Cockroaches
Whit-565	499-310	American Cockroaches

Source: USAG, 2006c

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Pesticide Inventory for Building 122 (16 December 2009)

Pesticide/Herbicide	EPA Number	Total Quantity
Wasp Freeze	449-362	170.5 oz
Tempo SC	3125-498	180 ml
ULD BP-300	499-450	1 gal
4-Poster "tickicide"	39039-12	1.25 gal
Talstar One	279-3206	16 oz
RoundUp Pro	524-475	7 gal
Trimec	2217-543	2.75 gal
Rodeo	62719-324	2 gal
Coppersulfate	1278-5	175 lbs
Merit	432-1328-72112	120 lbs
Karmex XP	1812-362	40 lbs
Fumitoxin	72959	6.6 lbs
Tempo dust	432-1373	1.25 lbs
Wasp & Hornet Killer	10807-196-54326	121.5 oz
ZP Rodent Bait AG	12455-17	50 lbs

USDA FDWSRU Chemical Inventory for Building 122 (14 December 2009)

Description	Size	Unit of Measure
Ant Shield	16.0	Oz
Ant Stop	16.0	Oz
Benlate	2.0	Lb
Bug Getta	2.0	Lb
Bugstop	1.0	Gal
Folicur 3.6	400.0	MI
Folicur 3.6	1.5	L
Fulex Nicotine Fumigator	6.0	Oz
Furadan 5G	150.0	Gm
Gramoxone Extra	2.5	Gal
Greenshield, Whitmire PT-2000	1.0	Gal
Hot Pepper Wax	1.0	Pt
Marathon 1% Granular	5.0	Lb
Mesurool 75W	2.0	Lb
Pramitol 25E	2.5	Gal
Progibb	1.0	Qt
Stinger	0.5	Gal
Tilt	1.0	Gal

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APPENDIX H
RECORD OF NON APPLICABILITY

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**RECORD OF NON-APPLICABILITY
CLEAN AIR ACT GENERAL CONFORMITY**

10 March 2010

Project/Action: REAL PROPERTY MASTER PLAN FOR ARMY-CONTROLLED LAND AT
AREAS A AND C OF FORT DETRICK IN FREDERICK COUNTY, MARYLAND

General Conformity under the Clean Air Act, Section 176, has been evaluated for the project/
action identified above according to the requirements of 40 CFR 93.150 through 93.160, using
the design data and plans that have been completed to date. The requirements of this rule are
not applicable to this project/action because:

1. The project/action is considered exempt under 40 CFR 93.153(c)(2)(xii) which states: The
requirements of this subpart shall not apply to the following Federal Actions: (2) Actions
which would result in no emissions increase or an increase in emissions that is clearly de
minimis: (xii) Planning, studies and provision of technical assistance.

RC 3/10/2010

ROBERT P. CRAIG, P.E.
Chief, Environmental Management Office
U.S. Army Garrison

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