Appendix C: Selected Pathogen Methods

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SAM 2017 — Appendix C: Selected Pathogen Methods

Not all methods have been evaluated for each pathogen/sample type/environmental matrix combination in Appendix C. Each laboratory using these methods must operate a formal quality assurance program and, at a minimum, analyze appropriate quality control (QC) samples (Section 7.1.2). Also, if required, a modification or an appropriate replacement method may be warranted for a specific pathogen/sample type/environmental matrix or a combination thereof. Additionally, the SAM Pathogen primary and alternate points of contact should be consulted for additional guidance (Section 4.0, Points of Contact).

The fitness of a method for an intended use is related to site-specific data quality objectives (DQOs) for a particular environmental remediation activity. These selected pathogen methods have been assigned tiers (below) to indicate a level of method usability for the specific analyte and sample type. The assigned tiers pertain only to technical aspects of method usability, and do not pertain to aspects such as cost, equipment availability, and sample throughput. Assigned usability tiers are indicated next to each method or method combination throughout this appendix.

Tier I: The method was developed for the pathogen and sample type. The method has been evaluated by multiple laboratories, a detailed protocol has been developed, and suitable QC measures and checks are provided. (Examples: EPA Method 1623.1 [Cryptosporidium in drinking water]; Standard Methods 9260 E [Shigella culture method])

Tier II: The pathogen is not the target of the method, and the method has been evaluated by one or more laboratories. The available data and/or information indicate that additional testing and/or modifications will likely be needed. (Example: Cunningham et al. 2010. [Shigella molecular method])

Tier III: The pathogen is not the target of the method but the method is for the specific sample type and the pathogen is similar to the target of the method (i.e. vegetative bacteria, spore-forming bacteria, virus or protozoan). Data and expert opinion suggest, however, that the method(s) may be applicable with modifications. (Example: EPA Yersinia pestis protocol for Salmonella enterica serovar Typhi [S . Typhi] in post decontamination waste water.)

***Notes* :**
Samples should not be stored indefinitely, and should be processed and analyzed as soon as possible upon receipt.

If viability determinations are needed (e.g., for post decontamination phase samples), a viability-based procedure (such as culture) should be used. Rapid analysis techniques (such as PCR, immunoassays) without culture are preferred for determination of the extent and magnitude of contamination (e.g., for site characterization phase samples). Please see Figure 7-1.

Column headings are defined in Section 7.0.

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)		Soil		Drinking Water		Post Decontamination Waste Water	
Bacteria												
Bacillus anthracis [Anthrax]	NA	Sample Preparation	EPA *Bacillus anthracis* (BA) Protocol (EPA/600/R-12/577)	I	EPA BA Protocol (EPA/600/R-12/577)	I	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	II	EPA BA Protocol (EPA/600/R-12/577)	I	EPA BA Protocol (EPA/600/R-12/577)	I
	Culture	Analytical Technique	EPA BA Protocol (EPA/600/R-12/577)	I	EPA BA Protocol (EPA/600/R-12/577)	I	EPA BA Protocol (EPA/600/R-12/577)	I	EPA BA Protocol (EPA/600/R-12/577)	I	EPA BA Protocol (EPA/600/R-12/577)	I
	Real-time PCR/ RV-PCR											
Brucella spp. (*B. abortus, B. melitensis, B. suis*) [Brucellosis]	NA	Sample Preparation	EPA *Yersinia pestis* (YP) Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III
	Culture	Analytical Technique	ASM Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Brucella* species	I	ASM Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Brucella* species	I	ASM Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Brucella* species	I	ASM Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Brucella* species	I	ASM Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Brucella* species	I
	Real-time PCR	Analytical Technique	Hinić *et al* . 2008. J. Microbiol. Methods. 75(2): 375-378	II	Hinić *et al* . 2008. J. Microbiol. Methods. 75(2): 375-378	II	Hinić *et al* . 2008. J. Microbiol. Methods. 75(2): 375-378	II	Hinić *et al* . 2008. J. Microbiol. Methods. 75(2): 375-378	II	Hinić *et al* . 2008. J. Microbiol. Methods. 75(2): 375-378	II

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)		Soil		Drinking Water		Post Decontamination Waste Water	
Burkholderia mallei [Glanders] and *Burkholderia pseudomallei* [Melioidosis]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Limmathurotsakul *et al*. 2013. PLoS Negl. Trop. Dis. 7(3): e2105	II	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III
	Culture	Analytical Technique	ASM Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Burkholderia mallei* and *B. pseudomallei*	I	ASM Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Burkholderia mallei* and *B. pseudomallei*	I	ASM Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Burkholderia mallei* and *B. pseudomallei*	I	ASM Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Burkholderia mallei* and *B. pseudomallei*	I	ASM Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Burkholderia mallei* and *B. pseudomallei*	I
	Real-time PCR	Analytical Technique	Tomaso *et al*. 2006. Clin. Chem. 52(2): 307-310 and Novak *et al*. 2006. J. Clin. Microbiol. 44(1): 85-90	II	Tomaso *et al*. 2006. Clin. Chem. 52(2): 307-310 and Novak *et al*. 2006. J. Clin. Microbiol. 44(1): 85-90	II	Tomaso *et al*. 2006. Clin. Chem. 52(2): 307-310 and Novak *et al*. 2006. J. Clin. Microbiol. 44(1): 85-90	II	Tomaso *et al*. 2006. Clin. Chem. 52(2): 307-310 and Novak *et al*. 2006. J. Clin. Microbiol. 44(1): 85-90	II	Tomaso *et al*. 2006. Clin. Chem. 52(2): 307-310 and Novak *et al*. 2006. J. Clin. Microbiol. 44(1): 85-90	II
Campylobacter jejuni [Campylobacteriosis]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III
	Culture	Analytical Technique	ISO 17995	I	ISO 17995	I	ISO 17995	I	ISO 17995	I	ISO 17995	I
	Real-time PCR	Analytical Technique	Cunningham *et al*. 2010. J. Clin. Microbiol. 48(8): 2929-2933	II	Cunningham *et al*. 2010. J. Clin. Microbiol. 48(8): 2929-2933	II	Cunningham *et al*. 2010. J. Clin. Microbiol. 48(8): 2929-2933	II	Cunningham *et al*. 2010. J. Clin. Microbiol. 48(8): 2929-2933	II	Cunningham *et al*. 2010. J. Clin. Microbiol. 48(8): 2929-2933	II
Chlamydophila psittaci (formerly known as *Chlamydia psittaci*) [Psittacosis]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III
	Tissue culture	Analytical Technique	Madico *et al*. 2000. J. Clin. Microbiol. 38(3): 1085-1093	II	Madico *et al*. 2000. J. Clin. Microbiol. 38(3): 1085-1093	II	Madico *et al*. 2000. J. Clin. Microbiol. 38(3): 1085-1093	II	Madico *et al*. 2000. J. Clin. Microbiol. 38(3): 1085-1093	II	Madico *et al*. 2000. J. Clin. Microbiol. 38(3): 1085-1093	II
	PCR											

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		**Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)**		**Soil**		**Drinking Water**		**Post Decontamination Waste Water**	
Coxiella burnetii [Q-fever]	NA	Sample Preparation	EPA BA Protocol (EPA/600/R-12/577)	III	Hodges *et al*. 2010. J. Microbiol. Methods. 81(2): 141-146 or Rose *et al*. 2011. Appl. Environ. Microbiol. 77(23): 8355-8359 or EPA BA Protocol (EPA/600/R-12/577)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA and CDC Ultrafiltration (UF) Report (EPA 600/R-11/103)	III	EPA and CDC UF Report (EPA 600/R-11/103)	III
	Tissue Culture	Analytical Technique	Raoult *et al*. 1991. Antimicrob. Agents Chemother. 35(10): 2070-2077	II	Raoult *et al*. 1991. Antimicrob. Agents Chemother. 35(10): 2070-2077	II	Raoult *et al*. 1991. Antimicrob. Agents Chemother. 35(10): 2070-2077	II	Raoult *et al*. 1991. Antimicrob. Agents Chemother. 35(10): 2070-2077	II	Raoult *et al*. 1991. Antimicrob. Agents Chemother. 35(10): 2070-2077	II
	Real-time PCR	Analytical Technique	Panning *et al*. 2008. BMC Microbiol. 8:77	II	Panning *et al*. 2008. BMC Microbiol. 8:77	II	Panning *et al*. 2008. BMC Microbiol. 8:77	II	Panning *et al*. 2008. BMC Microbiol. 8:77	II	Panning *et al*. 2008. BMC Microbiol. 8:77	II
Escherichia coli O157:H7	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA *Eschericia coli* O157:H7 (EC) Protocol (EPA/600/R-10/056) or EPA YP Protocol (EPA/600/R-16/109)	I/III	EPA YP Protocol (EPA/600/R-16/109)	III
	Culture	Analytical Technique	EPA EC Protocol (EPA/600/R-10/056)	I	EPA EC Protocol (EPA/600/R-10/056)	I	EPA EC Protocol (EPA/600/R-10/056)	I	EPA EC Protocol (EPA/600/R-10/056)	I	EPA EC Protocol (EPA/600/R-10/056)	I
	Real-time PCR	Analytical Technique	Sen *et al*. 2011. Environ. Sci. Technol. 45(7): 2250-2256	II	Sen *et al*. 2011. Environ. Sci. Technol. 45(7): 2250-2256	II	Sen *et al*. 2011. Environ. Sci. Technol. 45(7): 2250-2256	II	Sen *et al*. 2011. Environ. Sci. Technol. 45(7): 2250-2256	II	Sen *et al*. 2011. Environ. Sci. Technol. 45(7): 2250-2256	II
Francisella tularensis [Tularemia]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III
	Culture	Analytical Technique	CDC, ASM and APHL: Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Francisella tularensis*	I	CDC, ASM and APHL: Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Francisella tularensis*	I	CDC, ASM and APHL: Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Francisella tularensis*	I	CDC, ASM and APHL: Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Francisella tularensis*	I	CDC, ASM and APHL: Sentinel Level Clinical Microbiology Laboratory Guidelines for Suspected Agents of Bioterrorism and Emerging Infectious Diseases: *Francisella tularensis*	I
	Real-time PCR	Analytical Technique	Versage *et al*. 2003. J. Clin. Microbiol. 41(12): 5492–5499	II	Versage *et al*. 2003. J. Clin. Microbiol. 41(12): 5492–5499	II	Versage *et al*. 2003. J. Clin. Microbiol. 41(12): 5492–5499	II	Versage *et al*. 2003. J. Clin. Microbiol. 41(12): 5492–5499	II	Versage *et al*. 2003. J. Clin. Microbiol. 41(12): 5492–5499	II

Pathogen(s) [Disease]	**Analytical Technique**	**Method Type**	**Analytical Method**									
			Aerosol (growth media, filter, liquid)		**Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)**		**Soil**		**Drinking Water**		**Post Decontamination Waste Water**	
Legionella [Legionellosis]	NA	Sample Preparation	US DHHS. 2005. Procedures for the Recovery of *Legionella* from the Environment	I	Kozak *et al*. 2013. Identification of *Legionella* in the Environment. Methods Mol. Biol. 954: 3-25	I	Kozak *et al*. 2013. Identification of *Legionella* in the Environment. Methods Mol. Biol. 954: 3-25	I	Kozak *et al*. 2013. Identification of *Legionella* in the Environment. Methods Mol. Biol. 954: 3-25	I	Kozak *et al*. 2013. Identification of *Legionella* in the Environment. Methods Mol. Biol. 954: 3-25	I
	Culture	Analytical Technique	Kozak *et al*. 2013. Identification of *Legionella* in the Environment. Methods Mol. Biol. 954: 3-25	I	Kozak *et al*. 2013. Identification of *Legionella* in the Environment. Methods Mol. Biol. 954: 3-25	I	Kozak *et al*. 2013. Identification of *Legionella* in the Environment. Methods Mol. Biol. 954: 3-25	I	Kozak *et al*. 2013. Identification of *Legionella* in the Environment. Methods Mol. Biol. 954: 3-25	I	Kozak *et al*. 2013. Identification of *Legionella* in the Environment. Methods Mol. Biol. 954: 3-25	I
	Real-time PCR	Analytical Technique	Benitez and Winchell. 2013. J. Clin. Microbiol. 51(1): 348-351	II	Benitez and Winchell. 2013. J. Clin. Microbiol. 51(1): 348-351	II	Benitez and Winchell. 2013. J. Clin. Microbiol. 51(1): 348-351	II	Benitez and Winchell. 2013. J. Clin. Microbiol. 51(1): 348-351	II	Benitez and Winchell. 2013. J. Clin. Microbiol. 51(1): 348-351	II
Leptospira [Leptospirosis]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III
	Culture	Analytical Technique	Standard Method 9260 I: *Leptospira*	I	Standard Method 9260 I: *Leptospira*	I	Standard Method 9260 I: *Leptospira*	I	Standard Method 9260 I: *Leptospira*	I	Standard Method 9260 I: *Leptospira*	I
	Real-time PCR	Analytical Technique	Palaniappan *et al*. 2005. Mol. Cell Probes. 19(2): 111-117	II	Palaniappan *et al*. 2005. Mol. Cell Probes. 19(2): 111-117	II	Palaniappan *et al*. 2005. Mol. Cell Probes. 19(2): 111-117	II	Palaniappan *et al*. 2005. Mol. Cell Probes. 19(2): 111-117	II	Palaniappan *et al*. 2005. Mol. Cell Probes. 19(2): 111-117	II
Listeria monocytogenes [Listeriosis]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III
	Culture	Analytical Technique	Hitchins *et al*. 2003. Bacteriological Analytical Manual Online	I	Hitchins *et al.* 2003. Bacteriological Analytical Manual Online	I	Hitchins *et al.* 2003. Bacteriological Analytical Manual Online	I	Hitchins *et al.* 2003. Bacteriological Analytical Manual Online	I	Hitchins *et al.* 2003. Bacteriological Analytical Manual Online	I
	Real-time PCR	Analytical Technique	USDA, FSIS. 2009. Microbiology Laboratory Guidebook MLG 8A.04	I	USDA, FSIS. 2009. Microbiology Laboratory Guidebook MLG 8A.04	I	USDA, FSIS. 2009. Microbiology Laboratory Guidebook MLG 8A.04	I	USDA, FSIS. 2009. Microbiology Laboratory Guidebook MLG 8A.04	I	USDA, FSIS. 2009. Microbiology Laboratory Guidebook MLG 8A.04	I

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		**Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)**		**Soil**		**Drinking Water**		**Post Decontamination Waste Water**	
Non-typhoidal *Salmonella* (Not applicable to *S.* Typhi) [Salmonellosis]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	EPA Method 1682 (EPA-821-R-06-14)	I	EPA Method 1200 (EPA 817-R-12-004) or Standard Method 9260 B: *Salmonella* or EPA YP Protocol (EPA/600/R-16/109)	I/I/III	EPA Method 1200 (EPA 817-R-12-004) or EPA Method 1682 (EPA-821-R-06-14) or Standard Method 9260 B: *Salmonella* or EPA YP Protocol (EPA/600/R-16/109)	I/I/I/III
	Culture	Analytical Technique	EPA Method 1682 (EPA-821-R-06-14) or EPA Method 1200 (EPA 817-R-12-004)	I	EPA Method 1682 (EPA-821-R-06-14) or EPA Method 1200 (EPA 817-R-12-004)	I	EPA Method 1682 (EPA-821-R-06-14) or EPA Method 1200 (EPA 817-R-12-004)	I	EPA Method 1682 (EPA-821-R-06-14) or EPA Method 1200 (EPA 817-R-12-004)	I	EPA Method 1682 (EPA-821-R-06-14) or EPA Method 1200 (EPA 817-R-12-004)	I
	Real-time PCR	Analytical Technique	Jyoti *et al*. 2011. Environ. Sci. Technol. 45(20): 8996-9002	II	Jyoti *et al*. 2011. Environ. Sci. Technol. 45(20): 8996-9002	II	Jyoti *et al*. 2011. Environ. Sci. Technol. 45(20): 8996-9002	II	Jyoti *et al*. 2011. Environ. Sci. Technol. 45(20): 8996-9002	II	Jyoti *et al*. 2011. Environ. Sci. Technol. 45(20): 8996-9002	II
Salmonella Typhi [Typhoid fever]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA *Salmonella* Typhi (ST) Protocol (EPA 600/R-10/133) or Standard Method 9260 B: *Salmonella* or EPA YP Protocol (EPA/600/R-16/109)	I/I/III	Standard Method 9260 B: *Salmonella* or EPA YP Protocol (EPA/600/R-16/109)	I/III
	Culture	Analytical Technique	EPA ST Protocol (EPA 600/R-10/133)	I	EPA ST Protocol (EPA 600/R-10/133)	I	EPA ST Protocol (EPA 600/R-10/133)	I	EPA ST Protocol (EPA 600/R-10/133)	I	EPA ST Protocol (EPA 600/R-10/133)	I
	Real-time PCR	Analytical Technique	CDC Laboratory Assay	I	CDC Laboratory Assay	I	CDC Laboratory Assay	I	CDC Laboratory Assay	I	CDC Laboratory Assay	I
Shigella spp. [Shigellosis]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III
	Culture	Analytical Technique	Standard Method 9260 E: *Shigella*	I	Standard Method 9260 E: *Shigella*	I	Standard Method 9260 E: *Shigella*	I	Standard Method 9260 E: *Shigella*	I	Standard Method 9260 E: *Shigella*	I
	Real-time PCR	Analytical Technique	Cunningham *et al*. 2010. J. Clin. Microbiol. 48(8): 2929-2933	II	Cunningham *et al*. 2010. J. Clin. Microbiol. 48(8): 2929-2933	II	Cunningham *et al*. 2010. J. Clin. Microbiol. 48(8): 2929-2933	II	Cunningham *et al*. 2010. J. Clin. Microbiol. 48(8): 2929-2933	II	Cunningham *et al*. 2010. J. Clin. Microbiol. 48(8): 2929-2933	II

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		**Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)**		**Soil**		**Drinking Water**		**Post Decontamination Waste Water**	
Staphylococcus aureus	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III
	Culture	Analytical Technique	Standard Method 9213 B: *Staphylococcus aureus*	I	Standard Method 9213 B: *Staphylococcus aureus*	I	Standard Method 9213 B: *Staphylococcus aureus*	I	Standard Method 9213 B: *Staphylococcus aureus*	I	Standard Method 9213 B: *Staphylococcus aureus*	I
	Real-time PCR	Analytical Technique	Chiang *et al*. 2007. J. Food Prot. 70(12): 2855-2859	II	Chiang *et al*. 2007. J. Food Prot. 70(12): 2855-2859	II	Chiang *et al*. 2007. J. Food Prot. 70(12): 2855-2859	II	Chiang *et al*. 2007. J. Food Prot. 70(12): 2855-2859	II	Chiang *et al*. 2007. J. Food Prot. 70(12): 2855-2859	II
Vibrio cholerae [Cholera]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	III	EPA YP Protocol (EPA/600/R-16/109)	III	Silvestri et al. 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA *Vibrio cholerae* (VC) Protocol (EPA 600/R-10/139) or EPA YP Protocol (EPA/600/R-16/109)	I/III	EPA VC Protocol (EPA 600/R-10/139) or EPA YP Protocol (EPA/600/R-16/109)	I/III
	Culture	Analytical Technique	EPA VC Protocol (EPA 600/R-10/139)	I	EPA VC Protocol (EPA 600/R-10/139)	I	EPA VC Protocol (EPA 600/R-10/139)	I	EPA VC Protocol (EPA 600/R-10/139)	I	EPA VC Protocol (EPA 600/R-10/139)	I
	Real-time PCR	Analytical Technique	Blackstone *et al*. 2007. J. Microbiol. Methods. 68(2): 254-259	II	Blackstone *et al*. 2007. J. Microbiol. Methods. 68(2): 254-259	II	Blackstone *et al*. 2007. J. Microbiol. Methods. 68(2): 254-259	II	Blackstone *et al*. 2007. J. Microbiol. Methods. 68(2): 254-259	II	Blackstone *et al*. 2007. J. Microbiol. Methods. 68(2): 254-259	II
Yersinia pestis [Plague]	NA	Sample Preparation	EPA YP Protocol (EPA/600/R-16/109)	I	EPA YP Protocol (EPA/600/R-16/109)	I	Silvestri *et al.* 2016. J. of Microbiol. Methods. 130: 6-13	III	EPA YP Protocol (EPA/600/R-16/109)	I	EPA YP Protocol (EPA/600/R-16/109)	I
	Culture	Analytical Technique	EPA YP Protocol (EPA/600/R-16/109)	I	EPA YP Protocol (EPA/600/R-16/109)	I	EPA YP Protocol (EPA/600/R-16/109)	I	EPA YP Protocol (EPA/600/R-16/109)	I	EPA YP Protocol (EPA/600/R-16/109)	I
	Real-time PCR/ RV-PCR											

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)		Soil		Drinking Water		Post Decontamination Waste Water	
Viruses												
Adenoviruses: Enteric and non-enteric (A-F)	NA	Sample Preparation	Cao *et al*. 2011. J. Environ. Monit. 13: 3321-3328 (NIOSH biosampler)	**III**	Park *et al*. 2015. Appl. Environ. Microbiol. 81(17): 5987-5992	**III**	Williamson *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3119-3125	**III**	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	**III**	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	**III**
	Tissue Culture	Analytical Technique	Boczek *et al.* 2016. J. Microbiol. Methods. 122: 43-49 or Green and Loewenstein. 2005. Curr. Protoc. Microbiol. 14C.1.1-14C.1.19	**II**	Boczek *et al.* 2016. J. Microbiol. Methods. 122: 43-49 or Green and Loewenstein. 2005. Curr. Protoc. Microbiol. 14C.1.1-14C.1.19	**II**	Boczek *et al.* 2016. J. Microbiol. Methods. 122: 43-49 or Green and Loewenstein. 2005. Curr. Protoc. Microbiol. 14C.1.1-14C.1.19	**II**	Boczek *et al.* 2016. J. Microbiol. Methods. 122: 43-49 or Green and Loewenstein. 2005. Curr. Protoc. Microbiol. 14C.1.1-14C.1.19	**II**	Boczek *et al.* 2016. J. Microbiol. Methods. 122: 43-49 or Green and Loewenstein. 2005. Curr. Protoc. Microbiol. 14C.1.1-14C.1.19	**II**
	Real-time PCR	Analytical Technique	Jothikumar *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3131-3136	**II**	Jothikumar *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3131-3136	**II**	Jothikumar *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3131-3136	**II**	Jothikumar *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3131-3136	**II**	Jothikumar *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3131-3136	**II**
Astroviruses	NA	Sample Preparation	Cao *et al*. 2011. J. Environ. Monit. 13: 3321-3328 (NIOSH biosampler)	**III**	Park *et al*. 2015. Appl. Environ. Microbiol. 81(17): 5987-5992	**III**	Williamson *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3119-3125	**III**	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	**III**	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	**III**
	Integrated Cell Culture	Analytical Technique	Grimm *et al*. 2004. Can. J. Microbiol. 50(4): 269-278	**II**	Grimm *et al*. 2004. Can. J. Microbiol. 50(4): 269-278	**II**	Grimm *et al*. 2004. Can. J. Microbiol. 50(4): 269-278	**II**	Grimm *et al*. 2004. Can. J. Microbiol. 50(4): 269-278	**II**	Grimm *et al*. 2004. Can. J. Microbiol. 50(4): 269-278	**II**
	Real-time reverse transcription-PCR											
Caliciviruses: Noroviruses	NA	Sample Preparation	Cao *et al*. 2011. J. Environ. Monit. 13: 3321-3328 (NIOSH biosampler)	**III**	Park *et al*. 2015. Appl. Environ. Microbiol. 81(17): 5987-5992	**III**	Williamson *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3119-3125	**III**	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	**III/I**	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	**III/I**
	Real-time reverse transcription-PCR	Analytical Technique	EPA Method 1615 (EPA/600/R-10/181)	**I**	EPA Method 1615 (EPA/600/R-10/181)	**I**	EPA Method 1615 (EPA/600/R-10/181)	**I**	EPA Method 1615 (EPA/600/R-10/181)	**I**	EPA Method 1615 (EPA/600/R-10/181)	**I**

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)		Soil		Drinking Water		Post Decontamination Waste Water	
Caliciviruses: Sapovirus	NA	Sample Preparation	Cao *et al*. 2011. J. Environ. Monit. 13: 3321-3328 (NIOSH biosampler)	III	Park *et al*. 2015. Appl. Environ. Microbiol. 81(17): 5987-5992	III	Williamson *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3119-3125	III	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	III	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	III
	Tissue Culture	Analytical Technique	Parwani *et al*. 1991. Arch. Virol. 120(1-2): 115-122	II	Parwani *et al*. 1991. Arch. Virol. 120(1-2): 115-122	II	Parwani *et al*. 1991. Arch. Virol. 120(1-2): 115-122	II	Parwani *et al*. 1991. Arch. Virol. 120(1-2): 115-122	II	Parwani *et al*. 1991. Arch. Virol. 120(1-2): 115-122	II
	Real-time reverse transcription-PCR	Analytical Technique	Oka *et al*. 2006. J. Med. Virol. 78(10): 1347-1353	II	Oka *et al*. 2006. J. Med. Virol. 78(10): 1347-1353	II	Oka *et al*. 2006. J. Med. Virol. 78(10): 1347-1353	II	Oka *et al*. 2006. J. Med. Virol. 78(10): 1347-1353	II	Oka *et al*. 2006. J. Med. Virol. 78(10): 1347-1353	II
Coronaviruses: SARS-associated human coronavirus	NA	Sample Preparation	Cao et al. 2011. J. Environ. Monit. 13: 3321-3328 (NIOSH biosampler)	III	Park *et al*. 2015. Appl. Environ. Microbiol. 81(17): 5987-5992	III	Williamson *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3119-3125	III	EPA and CDC UF Report (EPA 600/R-11/103)	III	EPA and CDC UF Report (EPA 600/R-11/103)	III
	Tissue Culture	Analytical Technique	Pagat *et al*. 2007. Applied Biosafety 12(2): 100-108	II	Pagat *et al*. 2007. Applied Biosafety 12(2): 100-108	II	Pagat *et al*. 2007. Applied Biosafety 12(2): 100-108	II	Pagat *et al*. 2007. Applied Biosafety 12(2): 100-108	II	Pagat *et al*. 2007. Applied Biosafety 12(2): 100-108	II
	Reverse transcription-PCR	Analytical Technique	Adachi *et al*. 2004. J. Virol. Methods. 122(1): 29-36	II	Adachi *et al*. 2004. J. Virol. Methods. 122(1): 29-36	II	Adachi *et al*. 2004. J. Virol. Methods. 122(1): 29-36	II	Adachi *et al*. 2004. J. Virol. Methods. 122(1): 29-36	II	Adachi *et al*. 2004. J. Virol. Methods. 122(1): 29-36	II
Hepatitis E virus (HEV)	NA	Sample Preparation	Cao *et al*. 2011. J. Environ. Monit. 13: 3321-3328 (NIOSH biosampler)	III	Park *et al*. 2015. Appl. Environ. Microbiol. 81(17): 5987-5992	III	Williamson *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3119-3125	III	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	III	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	III
	Tissue Culture	Analytical Technique	Zaki *et al*. 2009. FEMS Immunol. Med. Mic. 56: 73-79	II	Zaki *et al*. 2009. FEMS Immunol. Med. Mic. 56: 73-79	II	Zaki *et al*. 2009. FEMS Immunol. Med. Mic. 56: 73-79	II	Zaki *et al*. 2009. FEMS Immunol. Med. Mic. 56: 73-79	II	Zaki *et al*. 2009. FEMS Immunol. Med. Mic. 56: 73-79	II
	Real-time reverse transcription-PCR	Analytical Technique	Jothikumar *et al*. 2006. J. Virol. Methods. 131(1): 65-71	II	Jothikumar *et al*. 2006. J. Virol. Methods. 131(1): 65-71	II	Jothikumar *et al*. 2006. J. Virol. Methods. 131(1): 65-71	II	Jothikumar *et al*. 2006. J. Virol. Methods. 131(1): 65-71	II	Jothikumar *et al*. 2006. J. Virol. Methods. 131(1): 65-71	II
Influenza H5N1 virus	NA	Sample Preparation	Hermann *et al*. 2006. Appl. Environ. Microbiol. 72(7): 4811-4818	III	Park *et al*. 2015. Appl. Environ. Microbiol. 81(17): 5987-5992	III	Williamson *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3119-3125	III	EPA and CDC UF Report (EPA 600/R-11/103)	III	EPA and CDC UF Report (EPA 600/R-11/103)	III
	Tissue Culture	Analytical Technique	Krauss *et al*. 2012. Influeza Virus Isolation. Methods Mol. Biol. 865: 11-24	II	Krauss *et al*. 2012. Influeza Virus Isolation. Methods Mol. Biol. 865: 11-24	II	Krauss *et al*. 2012. Influeza Virus Isolation. Methods Mol. Biol. 865: 11-24	II	Krauss *et al*. 2012. Influeza Virus Isolation. Methods Mol. Biol. 865: 11-24	II	Krauss *et al*. 2012. Influeza Virus Isolation. Methods Mol. Biol. 865: 11-24	II
	Real-time reverse transcription-PCR	Analytical Technique	Ng *et al*. 2005. Emerg. Infect. Dis. 11(8): 1303-1305	II	Ng *et al*. 2005. Emerg. Infect. Dis. 11(8): 1303-1305	II	Ng *et al*. 2005. Emerg. Infect. Dis. 11(8): 1303-1305	II	Ng *et al*. 2005. Emerg. Infect. Dis. 11(8): 1303-1305	II	Ng *et al*. 2005. Emerg. Infect. Dis. 11(8): 1303-1305	II

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)		Soil		Drinking Water		Post Decontamination Waste Water	
Picornaviruses: Enteroviruses	NA	Sample Preparation	Cao *et al*. 2011. J. Environ. Monit. 13: 3321-3328 (NIOSH biosampler)	III	Park *et al*. 2015. Appl. Environ. Microbiol. 81(17): 5987-5992	III	Williamson *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3119-3125	III	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	III/I	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	III/I
	Tissue Culture	Analytical Technique	EPA Method 1615 (EPA/600/R-10/181)	I	EPA Method 1615 (EPA/600/R-10/181)	I	EPA Method 1615 (EPA/600/R-10/181)	I	EPA Method 1615 (EPA/600/R-10/181)	I	EPA Method 1615 (EPA/600/R-10/181)	I
	Reverse transcription-PCR											
Picornaviruses: Hepatitis A virus (HAV)	NA	Sample Preparation	Cao *et al*. 2011. J. Environ. Monit. 13: 3321-3328 (NIOSH biosampler)	III	Park *et al*. 2015. Appl. Environ. Microbiol. 81(17): 5987-5992	III	Williamson *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3119-3125	III	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	III	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	III
	Integrated Cell Culture	Analytical Technique	Hyeon *et al*. 2011. J. Food Prot. 74(10):1756-1761	II	Hyeon *et al*. 2011. J. Food Prot. 74(10):1756-1761	II	Hyeon *et al*. 2011. J. Food Prot. 74(10):1756-1761	II	Hyeon *et al*. 2011. J. Food Prot. 74(10):1756-1761	II	Hyeon *et al*. 2011. J. Food Prot. 74(10):1756-1761	II
	Real-time Reverse Transcription-PCR											
Reoviruses: Rotavirus (Group A)	NA	Sample Preparation	Cao *et al*. 2011. J. Environ. Monit. 13: 3321-3328 (NIOSH biosampler)	III	Park *et al*. 2015. Appl. Environ. Microbiol. 81(17): 5987-5992	III	Williamson *et al*. 2005. Appl. Environ. Microbiol. 71(6): 3119-3125	III	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	III	EPA and CDC UF Report (EPA 600/R-11/103) or EPA Method 1615 (EPA/600/R-10/181)	III
	Tissue Culture	Analytical Technique	EPA Method 1615 (EPA/600/R-10/181)	III	EPA Method 1615 (EPA/600/R-10/181)	III	EPA Method 1615 (EPA/600/R-10/181)	III	EPA Method 1615 (EPA/600/R-10/181)	III	EPA Method 1615 (EPA/600/R-10/181)	III
	Real-time reverse transcription-PCR	Analytical Technique	Jothikumar *et al*. 2009. J. Virol. Methods. 155(2): 126-131	II	Jothikumar *et al*. 2009. J. Virol. Methods. 155(2): 126-131	II	Jothikumar *et al*. 2009. J. Virol. Methods. 155(2): 126-131	II	Jothikumar *et al*. 2009. J. Virol. Methods. 155(2): 126-131	II	Jothikumar *et al*. 2009. J. Virol. Methods. 155(2): 126-131	II

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)		Soil		Drinking Water		Post Decontamination Waste Water	
Protozoa												
Cryptosporidium spp. [Cryptosporidiosis]	NA	Sample Preparation	EPA BA Protocol (EPA/600/R-12/577)	III	Hodges *et al*. 2010. J. Microbiol. Methods. 81(2): 141-146 or Rose *et al*. 2011. Appl. Environ. Microbiol. 77(23): 8355-8359 or EPA BA Protocol (EPA/600/R-12/577)	III	Liang and Keeley. 2011. Appl. Environ. Microbiol. 77(18): 6476-6485	II	EPA Method 1622 (EPA 815-R-05-001) or EPA Method 1623.1 (EPA 816-R-12-001) or EPA and CDC UF Report (EPA 600/R-11/103)	I	EPA Method 1622 (EPA 815-R-05-001) or EPA Method 1623.1 (EPA 816-R-12-001) or EPA and CDC UF Report (EPA 600/R-11/103)	I
	Cell Culture Immunofluorescence Procedure	Analytical Technique	Bukhari *et al*. 2007. Can. J. Microbiol. 53(5): 656-663	II	Bukhari *et al*. 2007. Can. J. Microbiol. 53(5): 656-663	II	Bukhari *et al*. 2007. Can. J. Microbiol. 53(5): 656-663	II	Bukhari *et al*. 2007. Can. J. Microbiol. 53(5): 656-663	II	Bukhari *et al*. 2007. Can. J. Microbiol. 53(5): 656-663	II
	IMS/FA	Analytical Technique	EPA Method 1622 (EPA 815-R-05-001) or EPA Method 1623.1 (EPA 816-R-12-001)	I	EPA Method 1622 (EPA 815-R-05-001) or EPA Method 1623.1 (EPA 816-R-12-001)	I	EPA Method 1622 (EPA 815-R-05-001) or EPA Method 1623.1 (EPA 816-R-12-001)	I	EPA Method 1622 (EPA 815-R-05-001) or EPA Method 1623.1 (EPA 816-R-12-001)	I	EPA Method 1622 (EPA 815-R-05-001) or EPA Method 1623.1 (EPA 816-R-12-001)	I
	Real-time PCR	Analytical Technique	Guy *et al*. 2003. Appl. Environ. Microbiol. 69(9): 5178-5185 and Jiang *et al*. 2005. Appl. Environ. Microbiol. 71(3): 1135-1141	II	Guy *et al*. 2003. Appl. Environ. Microbiol. 69(9): 5178-5185 and Jiang *et al*. 2005. Appl. Environ. Microbiol. 71(3): 1135-1141	II	Guy *et al*. 2003. Appl. Environ. Microbiol. 69(9): 5178-5185 and Jiang *et al*. 2005. Appl. Environ. Microbiol. 71(3): 1135-1141	II	Guy *et al*. 2003. Appl. Environ. Microbiol. 69(9): 5178-5185 and Jiang *et al*. 2005. Appl. Environ. Microbiol. 71(3): 1135-1141	II	Guy *et al*. 2003. Appl. Environ. Microbiol. 69(9): 5178-5185 and Jiang *et al*. 2005. Appl. Environ. Microbiol. 71(3): 1135-1141	II
Entamoeba histolytica	NA	Sample Preparation	EPA BA Protocol (EPA/600/R-12/577)	III	Hodges *et al*. 2010. J. Microbiol. Methods. 81(2): 141-146 or Rose *et al*. 2011. Appl. Environ. Microbiol. 77(23): 8355-8359 or EPA BA Protocol (EPA/600/R-12/577)	III	Liang and Keeley. 2011. Appl. Environ. Microbiol. 77(18): 6476-6485	III	EPA and CDC UF Report (EPA 600/R-11/103)	III	EPA and CDC UF Report (EPA 600/R-11/103)	III
	Cell Culture	Analytical Technique	Stringert *et al*. 1972. J Parasitol. 58(2): 306-310	II	Stringert *et al*. 1972. J Parasitol. 58(2): 306-310	II	Stringert *et al*. 1972. J Parasitol. 58(2): 306-310	II	Stringert *et al*. 1972. J Parasitol. 58(2): 306-310	II	Stringert *et al*. 1972. J Parasitol. 58(2): 306-310	II
	Real-time PCR	Analytical Technique	Roy *et al*. 2005. J. Clin. Microbiol. 43(5): 2168-2172	II	Roy *et al*. 2005. J. Clin. Microbiol. 43(5): 2168-2172	II	Roy *et al*. 2005. J. Clin. Microbiol. 43(5): 2168-2172	II	Roy *et al*. 2005. J. Clin. Microbiol. 43(5): 2168-2172	II	Roy *et al*. 2005. J. Clin. Microbiol. 43(5): 2168-2172	II

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)		Soil		Drinking Water		Post Decontamination Waste Water	
Giardia spp. [Giardiasis]	NA	Sample Preparation	EPA BA Protocol (EPA/600/R-12/577)	III	Hodges *et al*. 2010. J. Microbiol. Methods. 81(2): 141-146 or Rose *et al*. 2011. Appl. Environ. Microbiol. 77(23): 8355-8359 or EPA BA Protocol (EPA/600/R-12/577)	III	Liang and Keeley. 2011. Appl. Environ. Microbiol. 77(18): 6476-6485	III	EPA Method 1623.1 (EPA 816-R-12-001) or EPA and CDC UF Report (EPA 600/R-11/103)	I	EPA Method 1623.1 (EPA 816-R-12-001) or EPA and CDC UF Report (EPA 600/R-11/103)	I
	Cell Culture	Analytical Technique	Keister. 1983. T. Roy. Soc. Trop. Med. H. 77(4): 487-488	II	Keister. 1983. T. Roy. Soc. Trop. Med. H. 77(4): 487-488	II	Keister. 1983. T. Roy. Soc. Trop. Med. H. 77(4): 487-488	II	Keister. 1983. T. Roy. Soc. Trop. Med. H. 77(4): 487-488	II	Keister. 1983. T. Roy. Soc. Trop. Med. H. 77(4): 487-488	II
	IMS/FA	Analytical Technique	EPA Method 1623.1 (EPA 816-R-12-001)	I	EPA Method 1623.1 (EPA 816-R-12-001)	I	EPA Method 1623.1 (EPA 816-R-12-001)	I	EPA Method 1623.1 (EPA 816-R-12-001)	I	EPA Method 1623.1 (EPA 816-R-12-001)	I
	Real-time PCR	Analytical Technique	Guy *et al*. 2003. Appl. Environ. Microbiol. 69(9): 5178-5185	II	Guy *et al*. 2003. Appl. Environ. Microbiol. 69(9): 5178-5185	II	Guy *et al*. 2003. Appl. Environ. Microbiol. 69(9): 5178-5185	II	Guy *et al*. 2003. Appl. Environ. Microbiol. 69(9): 5178-5185	II	Guy *et al*. 2003. Appl. Environ. Microbiol. 69(9): 5178-5185	II
Naegleria fowleri [Naegleriasis]	NA	Sample Preparation	EPA BA Protocol (EPA/600/R-12/577)	III	Hodges *et al*. 2010. J. Microbiol. Methods. 81(2): 141-146 or Rose *et al*. 2011. Appl. Environ. Microbiol. 77(23): 8355-8359 or EPA BA Protocol (EPA/600/R-12/577)	III	Mull *et al*. 2013. J. Parasitol. Res. 2013: 1-8	II	Cope *et al*. 2015. Clin. Infect. Dis. 60(8): e36-42 or EPA and CDC UF Report (EPA 600/R-11/103)	II/III	Cope *et al*. 2015. Clin. Infect. Dis. 60(8): e36-42 or EPA and CDC UF Report (EPA 600/R-11/103)	II/III
	Cell Culture	Analytical Technique	Mull *et al*. 2013. J. Parasitol. Res. 2013: 1-8	II	Mull *et al*. 2013. J. Parasitol. Res. 2013: 1-8	II	Mull *et al*. 2013. J. Parasitol. Res. 2013: 1-8	II	Mull *et al*. 2013. J. Parasitol. Res. 2013: 1-8	II	Mull *et al*. 2013. J. Parasitol. Res. 2013: 1-8	II
	Real-time PCR											

Pathogen(s) [Disease]	Analytical Technique	Method Type	Analytical Method									
			Aerosol (growth media, filter, liquid)		**Particulate (swabs, wipes, Sponge-Sticks, vacuum socks and filters)**		**Soil**		**Drinking Water**		**Post Decontamination Waste Water**	
Toxoplasma gondii [Toxoplasmosis]	NA	Sample Preparation	EPA BA Protocol (EPA/600/R-12/577)	III	Hodges *et al*. 2010. J. Microbiol. Methods. 81(2): 141-146 or Rose *et al*. 2011. Appl. Environ. Microbiol. 77(23): 8355-8359 or EPA BA Protocol (EPA/600/R-12/577)	III	Liang and Keeley. 2011. Appl. Environ. Microbiol. 77(18): 6476–6485	III	Villegas *et al*. 2010. J. Microbiol. Methods. 81(3): 219-225 or EPA Method 1623.1 (EPA 816-R-12-001)	II/III	Villegas *et al*. 2010. J. Microbiol. Methods. 81(3): 219-225 or EPA Method 1623.1 (EPA 816-R-12-001)	II/III
	Cell Culture	Analytical Technique	Villegas *et al*. 2010. J. Microbiol. Methods. 81(3): 219-225	II	Villegas *et al*. 2010. J. Microbiol. Methods. 81(3): 219-225	II	Villegas *et al*. 2010. J. Microbiol. Methods. 81(3): 219-225	II	Villegas *et al*. 2010. J. Microbiol. Methods. 81(3): 219-225	II	Villegas *et al*. 2010. J. Microbiol. Methods. 81(3): 219-225	II
	Real-time PCR	Analytical Technique	Yang *et al*. 2009. Appl. Environ. Microbiology. 75(11): 3477-3483	II	Yang *et al*. 2009. Appl. Environ. Microbiology. 75(11): 3477-3483	II	Yang *et al*. 2009. Appl. Environ. Microbiology. 75(11): 3477-3483	II	Yang *et al*. 2009. Appl. Environ. Microbiology. 75(11): 3477-3483	II	Yang *et al*. 2009. Appl. Environ. Microbiology. 75(11): 3477-3483	II
Helminths												
Baylisascaris procyonis [Raccoon roundworm infection]	NA	Sample Preparation	EPA BA Protocol (EPA/600/R-12/577)	III	Hodges *et al*. 2010. J. Microbiol. Methods. 81(2): 141-146 or Rose *et al*. 2011. Appl. Environ. Microbiol. 77(23): 8355-8359 or EPA BA Protocol (EPA/600/R-12/577)	III	Liang and Keeley. 2011. Appl. Environ. Microbiol. 77(18): 6476-6485	III	EPA and CDC UF Report (EPA 600/R-11/103) or Gatcombe *et al*. 2010. Parasitol. Res. 106: 499-504	III/II	EPA and CDC UF Report (EPA 600/R-11/103) or Gatcombe *et al*. 2010. Parasitol. Res. 106: 499-504	III/II
	Real-time PCR	Analytical Technique	Gatcombe *et al*. 2010. Parasitol. Res. 106: 499-504	II	Gatcombe *et al*. 2010. Parasitol. Res. 106: 499-504	II	Gatcombe *et al*. 2010. Parasitol. Res. 106: 499-504	II	Gatcombe *et al*. 2010. Parasitol. Res. 106: 499-504	II	Gatcombe *et al*. 2010. Parasitol. Res. 106: 499-504	II
	Embryonation of Eggs and Microscopy	Analytical Technique	Control of Pathogens and Vector Attraction in Sewage Sludge (EPA/625/R-92/013)	II	Control of Pathogens and Vector Attraction in Sewage Sludge (EPA/625/R-92/013)	II	Control of Pathogens and Vector Attraction in Sewage Sludge (EPA/625/R-92/013)	II	Control of Pathogens and Vector Attraction in Sewage Sludge (EPA/625/R-92/013)	II	Control of Pathogens and Vector Attraction in Sewage Sludge (EPA/625/R-92/013)	II