

**Appendix A8. Reconstructed (simulated) monthly mean concentrations of tetrachloroethylene (PCE), trichloroethylene (TCE), *trans*-1,2-dichloroethylene (1,2-tDCE), vinyl chloride (VC), and benzene in finished water distributed to Holcomb Boulevard family housing areas, Hadnot Point–Holcomb Boulevard study area, U.S. Marine Corps Base Camp Lejeune, North Carolina, 1972–1985**

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**Table A8.1.** Reconstructed (simulated) monthly mean tetrachloroethylene (PCE) concentrations in finished water distributed to Holcomb Boulevard family housing areas for interconnection events, Hadnot Point–Holcomb Boulevard study area, U.S. Marine Corps Base Camp Lejeune, North Carolina, 1972–1985.<sup>1</sup>

[PP, Paradise Point; MP, Midway Park; BM, Berkeley Manor; WV, Watkins Village; —, not applicable; concentration in micrograms per liter (µg/L)]

Month	²1972				1973				1974				1975				1976			
	PP	MP	BM	³WV	PP	MP	BM	³WV	PP	MP	BM	³WV	PP	MP	BM	³WV	PP	MP	BM	³WV
Jan.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Feb.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Mar.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Apr.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
May	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
June	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
July	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Aug.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Sept.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Oct.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Nov.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Dec.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Month	1977				1978				1979				1980				1981			
	PP	MP	BM	³WV	PP	MP	BM	³WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV
Jan.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1
May	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
June	0	0	0	—	0	1	2	2	0	0	0	0	0	0	1	1	0	0	0	0
July	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sept.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Month	1982				1983				1984				¹1985				1986			
	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV
Jan.	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2				
Feb.	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3				
Mar.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Apr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
May	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0				
June	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0				
July	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0				
Aug.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Sept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Oct.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Nov.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Dec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

<sup>1</sup> Derived from multiplying monthly mean concentrations in finished water from the Hadnot Point water treatment plant (Appendix A7) by average percentage (unrounded) of Hadnot Point water distributed through Booster Pump 742 (Table A20); current maximum contaminant level (MCL) for PCE is 5 µg/L

<sup>2</sup> Prior to June 1972 when Holcomb Boulevard water treatment plant came online, 100 percent of Hadnot Point water was delivered to Holcomb Boulevard family housing areas (see Appendix A7 for January–May 1972)

<sup>3</sup> Watkins Village housing was not built and occupied until about 1978 (Faye et al. 2010), and the first documented interconnection occurs during May 1978 (U.S. Marine Corps Camp Lejeune Water Documents CLW #7023, #7031, and #7033)

<sup>4</sup> For period of January 28–February 4, 1985, booster pump 742 operated continuously due to shutdown of Holcomb Boulevard water treatment plant; this continuous event is not included in the Markov Chain analysis

**Table A8.2.** Reconstructed (simulated) monthly mean trichloroethylene (TCE) concentrations in finished water distributed to Holcomb Boulevard family housing areas for interconnection events, Hadnot Point–Holcomb Boulevard study area, U.S. Marine Corps Base Camp Lejeune, North Carolina, 1972–1985.<sup>1</sup>

[PP, Paradise Point; MP, Midway Park; BM, Berkeley Manor; WV, Watkins Village; —, not applicable; concentration in micrograms per liter (µg/L)]

Month	<sup>2</sup> 1972				1973				1974				1975				1976			
	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV
Jan.	22	22	22	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Feb.	21	21	21	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Mar.	17	17	17	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Apr.	24	24	24	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
May	19	19	19	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
June	19	19	19	—	0	0	1	—	0	0	0	—	0	0	0	—	1	2	3	—
July	1	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Aug.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Sept.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Oct.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Nov.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Dec.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Month	1977				1978				1979				1980				1981			
	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV
Jan.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr.	0	1	2	—	0	0	0	0	0	1	2	1	0	0	0	0	0	4	39	28
May	1	1	3	—	0	2	6	4	0	1	3	2	0	0	0	0	0	4	13	10
June	1	2	3	—	3	23	51	38	0	2	6	4	2	8	17	13	0	4	10	7
July	1	2	3	—	0	0	1	1	0	1	4	2	0	0	0	0	0	2	4	3
Aug.	1	2	4	—	0	0	0	0	0	2	5	3	0	0	0	0	0	2	6	4
Sept.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Month	1982				1983				1984				<sup>4</sup> 1985				1986			
	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV
Jan.	0	0	0	0	0	0	0	0	0	0	0	0	34	31	32	34				
Feb.	0	0	0	0	0	0	0	0	0	0	0	0	66	53	54	56				
Mar.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Apr.	0	3	9	7	0	0	0	0	0	2	5	3	0	0	0	0				
May	1	6	20	13	1	5	14	10	0	0	0	0	0	0	0	0				
June	0	4	10	7	0	0	2	2	0	0	0	0	0	0	0	0				
July	0	4	12	8	0	0	3	2	0	0	0	0	0	0	0	0				
Aug.	1	3	6	4	0	2	5	3	0	0	0	0	0	0	0	0				
Sept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Oct.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Nov.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Dec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

<sup>1</sup> Derived from multiplying monthly mean concentrations in finished water from the Hadnot Point water treatment plant (Appendix A7) by average percentage (unrounded) of Hadnot Point water distributed through Booster Pump 742 (Table A20); current maximum contaminant level (MCL) for PCE is 5 µg/L

<sup>2</sup> Prior to June 1972 when Holcomb Boulevard water treatment plant came online, 100 percent of Hadnot Point water was delivered to Holcomb Boulevard family housing areas (see Appendix A7 for January–May 1972)

<sup>3</sup> Watkins Village housing was not built and occupied until about 1978 (Faye et al. 2010), and the first documented interconnection occurs during May 1978 (U.S. Marine Corps Camp Lejeune Water Documents CLW #7023, #7031, and #7033)

<sup>4</sup> For period of January 28–February 4, 1985, booster pump 742 operated continuously due to shutdown of Holcomb Boulevard water treatment plant; this continuous event is not included in the Markov Chain analysis

**Table A8.3.** Reconstructed (simulated) monthly mean *trans*-1,2-dichloroethylene (1,2-tDCE) concentrations in finished water distributed to Holcomb Boulevard family housing areas for interconnection events, Hadnot Point–Holcomb Boulevard study area, U.S. Marine Corps Base Camp Lejeune, North Carolina, 1972–1985.<sup>1</sup>

[PP, Paradise Point; MP, Midway Park; BM, Berkeley Manor; WV, Watkins Village; —, not applicable; concentration in micrograms per liter (µg/L)]

Month	<sup>2</sup> 1972				1973				1974				1975				1976			
	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV
Jan.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Feb.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Mar.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Apr.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
May	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
June	0	0	0	—	0	1	1	—	0	0	0	—	0	0	0	—	0	1	2	—
July	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Aug.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Sept.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Oct.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Nov.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Dec.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Month	1977				1978				1979				1980				1981			
	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV
Jan.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr.	0	1	1	—	0	0	0	0	0	1	1	1	0	0	0	0	0	2	16	12
May	0	1	1	—	0	1	3	2	0	0	1	1	0	0	0	0	0	2	6	4
June	0	1	1	—	2	10	22	17	0	1	3	2	1	3	7	5	0	2	4	3
July	0	1	2	—	0	0	0	0	0	0	1	1	0	0	0	0	0	1	2	1
Aug.	0	1	2	—	0	0	0	0	0	1	2	1	0	0	0	0	0	1	3	2
Sept.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Month	1982				1983				1984				<sup>4</sup> 1985				1986			
	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV
Jan.	0	0	0	0	0	0	0	0	0	0	0	0	17	16	16	17				
Feb.	0	0	0	0	0	0	0	0	0	0	0	0	33	27	27	28				
Mar.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Apr.	0	2	4	3	0	0	0	0	0	1	2	2	0	0	0	0				
May	0	3	10	7	0	3	8	5	0	0	0	0	0	0	0	0				
June	0	2	6	4	0	0	1	1	0	0	0	0	0	0	0	0				
July	0	2	6	4	0	0	2	1	0	0	0	0	0	0	0	0				
Aug.	0	2	3	2	0	1	3	2	0	0	0	0	0	0	0	0				
Sept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Oct.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Nov.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Dec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

<sup>1</sup> Derived from multiplying monthly mean concentrations in finished water from the Hadnot Point water treatment plant (Appendix A7) by average percentage (unrounded) of Hadnot Point water distributed through Booster Pump 742 (Table A20); current maximum contaminant level (MCL) for PCE is 5 µg/L

<sup>2</sup> Prior to June 1972 when Holcomb Boulevard water treatment plant came online, 100 percent of Hadnot Point water was delivered to Holcomb Boulevard family housing areas (see Appendix A7 for January–May 1972)

<sup>3</sup> Watkins Village housing was not built and occupied until about 1978 (Faye et al. 2010), and the first documented interconnection occurs during May 1978 (U.S. Marine Corps Camp Lejeune Water Documents CLW #7023, #7031, and #7033)

<sup>4</sup> For period of January 28–February 4, 1985, booster pump 742 operated continuously due to shutdown of Holcomb Boulevard water treatment plant; this continuous event is not included in the Markov Chain analysis

**Table A8.4.** Reconstructed (simulated) monthly mean vinyl chloride (VC) concentrations in finished water distributed to Holcomb Boulevard family housing areas for interconnection events, Hadnot Point–Holcomb Boulevard study area, U.S. Marine Corps Base Camp Lejeune, North Carolina, 1972–1985.<sup>1</sup>

[PP, Paradise Point; MP, Midway Park; BM, Berkeley Manor; WV, Watkins Village; —, not applicable; concentration in micrograms per liter (µg/L)]

Month	<sup>2</sup> 1972				1973				1974				1975				1976			
	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV
Jan.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Feb.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Mar.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Apr.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
May	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
June	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
July	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Aug.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Sept.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Oct.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Nov.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Dec.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Month	1977				1978				1979				1980				1981			
	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	<sup>3</sup> WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV
Jan.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2
May	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
June	0	0	0	—	0	1	3	2	0	0	0	0	0	1	1	1	0	0	1	0
July	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sept.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Month	1982				1983				1984				<sup>4</sup> 1985				1986			
	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV
Jan.	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3				
Feb.	0	0	0	0	0	0	0	0	0	0	0	0	6	5	5	5				
Mar.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Apr.	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0				
May	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0				
June	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0				
July	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0				
Aug.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Sept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Oct.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Nov.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Dec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

<sup>1</sup> Derived from multiplying monthly mean concentrations in finished water from the Hadnot Point water treatment plant (Appendix A7) by average percentage (unrounded) of Hadnot Point water distributed through Booster Pump 742 (Table A20); current maximum contaminant level (MCL) for PCE is 5 µg/L

<sup>2</sup> Prior to June 1972 when Holcomb Boulevard water treatment plant came online, 100 percent of Hadnot Point water was delivered to Holcomb Boulevard family housing areas (see Appendix A7 for January–May 1972)

<sup>3</sup> Watkins Village housing was not built and occupied until about 1978 (Faye et al. 2010), and the first documented interconnection occurs during May 1978 (U.S. Marine Corps Camp Lejeune Water Documents CLW #7023, #7031, and #7033)

<sup>4</sup> For period of January 28–February 4, 1985, booster pump 742 operated continuously due to shutdown of Holcomb Boulevard water treatment plant; this continuous event is not included in the Markov Chain analysis

**Table A8.5.** Reconstructed (simulated) monthly mean benzene concentrations in finished water distributed to Holcomb Boulevard family housing areas for interconnection events, Hadnot Point–Holcomb Boulevard study area, U.S. Marine Corps Base Camp Lejeune, North Carolina, 1972–1985.<sup>1</sup>

[PP, Paradise Point; MP, Midway Park; BM, Berkeley Manor; WV, Watkins Village; —, not applicable; concentration in micrograms per liter (µg/L)]

Month	²1972				1973				1974				1975				1976			
	PP	MP	BM	³WV	PP	MP	BM	³WV	PP	MP	BM	³WV	PP	MP	BM	³WV	PP	MP	BM	³WV
Jan.	3	3	3	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Feb.	3	3	3	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Mar.	2	2	2	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Apr.	3	3	3	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
May	3	3	3	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
June	3	3	3	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
July	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Aug.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Sept.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Oct.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Nov.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Dec.	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—	0	0	0	—
Month	1977				1978				1979				1980				1981			
	PP	MP	BM	³WV	PP	MP	BM	³WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV
Jan.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mar.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
May	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	—	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sept.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oct.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec.	0	0	0	—	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Month	1982				1983				1984				⁴1985				1986			
	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV	PP	MP	BM	WV
Jan.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Feb.	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1				
Mar.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Apr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
June	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
July	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Aug.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Sept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Oct.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Nov.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Dec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

<sup>1</sup> Derived from multiplying monthly mean concentrations in finished water from the Hadnot Point water treatment plant (Appendix A7) by average percentage (unrounded) of Hadnot Point water distributed through Booster Pump 742 (Table A20); current maximum contaminant level (MCL) for PCE is 5 µg/L<sup>2</sup> Prior to June 1972 when Holcomb Boulevard water treatment plant came online, 100 percent of Hadnot Point water was delivered to Holcomb Boulevard family housing areas (see Appendix A7 for January–May 1972)<sup>3</sup> Watkins Village housing was not built and occupied until about 1978 (Faye et al. 2010), and the first documented interconnection occurs during May 1978 (U.S. Marine Corps Camp Lejeune Water Documents CLW #7023, #7031, and #7033)<sup>4</sup> For period of January 28–February 4, 1985, booster pump 742 operated continuously due to shutdown of Holcomb Boulevard water treatment plant; this continuous event is not included in the Markov Chain analysis