Technical Memorandum

WESTFIELD RIVER WATERSHED 2006
DWM WATER QUALITY MONITORING DATA

October 2012

Massachusetts Department of Environmental Protection
Division of Watershed Management
DWM Control Number CN 233.1

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
Richard K. Sullivan Jr., Secretary
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
Kenneth L. Kimmell, Commissioner
BUREAU OF RESOURCE PROTECTION
Bethany Card, Assistant Commissioner
DIVISION OF WATERSHED MANAGEMENT

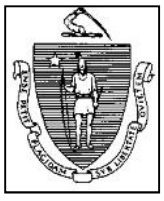


Table of Contents

List of Tables and Figures

Appendices

Introduction

The purpose of this technical memorandum is to publish water quality data collected in the Westfield River Watershed as part of the Massachusetts Department of Environmental Protection (MassDEP), Division of Watershed Management (DWM) programmatic monitoring (MassDEP 2005a). The Westfield River Watershed water quality surveys were conducted between the months of May and October in 2006. Water quality samples were analyzed for nutrients and other conventional pollutants, bacteria (fecal coliform and *E. coli*), as well as dissolved oxygen and other field measurements. The aquatic macroinvertebrate and fish community data are published in separate technical memoranda.

Project Objectives

The 2006 surveys of the Westfield River Watershed focused on obtaining information to meet the following objectives (MassDEP 2006a):

- determine the water quality and biological health of rivers/streams within the watershed that were not assessed in the 2001 Water Quality Assessment Report and increase coverage to rivers/streams that have never before been assessed by conducting assessments based on biological (aquatic macroinvertebrates, fish, bacteria) communities.
- provide biological and habitat data to document the status of benthic and fish communities over time (trend monitoring); provide biological, habitat, and dissolved oxygen, temperature, and chemical data to DWM's Environmental Monitoring and Assessment Program to be used in making Aquatic Life and Aesthetics use assessments required by Section 305(b) of the Clean Water Act; provide data for other informational needs of Massachusetts regulatory agencies.
- provide quality-assured fecal coliform and *E. coli* data for the purpose of assessing Primary and Secondary Contact Recreational uses in rivers/streams.
- provide quality-assured data to DWM's Total Maximum Daily Load Program to assist with TMDL development.

Additional information regarding project objectives may be found in: *Westfield River Watershed Sampling and Analysis Plan 2006* (MassDEP 2006b).

Sampling Plan

Rivers/Streams

Water quality surveys were conducted a total of five times (weeks of May 8, June 12, July 24, August 28 and October 2). Grab samples for total phosphorus, total nitrogen, ammonia nitrogen, total suspended solids (TSS), color and turbidity were collected at a total of nine (9) stations along with in-situ multi-probe measurements for temperature, dissolved oxygen, % oxygen saturation, pH, specific conductance, and total dissolved solids. The Wall Experiment Station (WES) conducted the analysis of all water quality samples for nutrients (total phosphorus, total nitrogen, ammonia nitrogen). Samples for bacterial analysis (fecal coliform and *E. coli*) were obtained from these nine sites plus twenty-seven (27) additional locations. Samples for hardness were collected at four (4) stations on two of the water quality surveys. Continuous temperature and dissolved oxygen monitoring with unattended probes was carried out at ten (10) sites. These unattended probes were deployed during the months of June, July, and August on Friday of the weeks preceding the water sampling surveys for that month and retrieved 3 – 5 days later. Finally, long-term temperature-only data loggers were deployed at six (6) sites (MassDEP 2006a).

Lakes

Four lakes in the Westfield River Watershed were sampled to provide baseline information for lakes and data for TMDL development. The lakes surveyed were Windsor Pond (Windsor), Buck Pond (Westfield), Pequot Pond (Southampton/Westfield) and Horse Pond (Westfield). Grab samples for total phosphorus, turbidity, chlorophyll a, and color were collected from the deep-hole station(s) of the lakes on three occasions between July 26 and September 12. Temperature, dissolved oxygen, % oxygen saturation, pH, specific conductance and total dissolved solids profiles were also collected from the deep-hole station(s) using multi-probe meters. Secchi disk transparency depths were also recorded at these stations. Aquatic macrophyte coverage was mapped on one occasion for each lake during this period (MassDEP 2006a).

Table 1 and Figure 1 provide details and locations of the 2006 sampling sites. Additional information regarding the sampling design may be found in *Westfield River Watershed Sampling and Analysis Plan 2006* (MassDEP 2006b).

Quality Assurance (QA) and Quality Control (QC)

Quality assurance and quality control procedures used in collecting samples and measurements were consistent with the prevailing DWM protocols that are described in CN 1.21 - Sample Collection Techniques for DWM Surface Water Quality Monitoring (MassDEP 2004a), CN 4.21 - Water Quality Multiprobe Data Collection (MassDEP 2005b) and CN 4.4 - Multi-probe Deployments for Unattended Logging (MassDEP 2004b).

The DWM quality assurance and database management staff reviewed lab data reports and all multi-probe data. The data were validated and finalized per data validation procedures outlined in CN 56.15 - DWM Water Quality Data Validation Process (Summary) (MassDEP 2012a). All water quality sample data were validated by reviewing QC sample results, analytical holding time compliance, QC sample frequency and related ancillary data/documentation (at a minimum). A complete summary of the data review process for all 2006 DWM data is provided in CN 300.0 – Water Quality Data Validation Report for Year 2006 Project Data (MassDEP 2012b). Appendix 1 of this technical memorandum contains definitions for all data qualifiers.

Field and Analytical Methods

Procedures used for water quality sampling and sample handling are described in CN 1.21 - Sample Collection Techniques for DWM Surface Water Quality Monitoring (MassDEP 2004a). The Wall Experiment Station (WES) supplied all sample bottles and field preservatives, which were prepared according to the WES Laboratory Quality Assurance Plan and Standard Operating Procedures (MassDEP 2001). Procedures used for multi-probe calibration and deployment are described in CN 4.21 - Water Quality Multiprobe Data Collection (MassDEP 2005b) and CN 4.4 - Multi-probe Deployments for Unattended Logging (MassDEP 2004b).

Concurrent with the collection of water quality samples, site characteristics and sampling conditions were recorded on DWM field sheets. Riparian vegetation, observed uses (e.g. swimming, boating, fishing), potential pollution sources, the presence/absence of objectionable deposits (trash, debris and scum), the extent of periphyton/algae/aquatic plant growth within the sampling reach, and sampling conditions were all noted at each station.

Table 1. MassDEP DWM 2006 Westfield River Watershed Sampling Station Descriptions and Sampling Parameters

Station ID (Google Map)	Unique ID	Segment	Waterbody	Site Description	Latitude	Longitude	Attended multiprobe	Nutrients, Color, Turbidity	Hardness	*E. coli* Bacteria	Deployed Multiprobe	Temperature Probe	Chlorophyll a
WBWF00.3	W1455	MA32-01	West Branch Westfield River	[approximately 0.1 mile downstream from Route 112 bridge, Huntington (approximately 0.1 mile upstream of Huntington POTW discharge)]	42.233191	-72.878189				X			
MBWF04.0	W0263	MA32-02	Middle Branch Westfield River	[Kinne Brook Road bridge, Chester]	42.301926	-72.904658				X		X	
MBWF00.4	W0264	MA32-03	Middle Branch Westfield River	[Goss Hill Road bridge, Huntington]	42.258769	-72.872402				X	X		
WRBST2	W1419	MA32-04	Westfield River	[west off Route 112 (approximately 225 feet upstream of Route 66 intersection), Huntington]	42.276717	-72.864638				X		X	
WSFR23.5	W0221	MA32-05	Westfield River	[Route 20, at roadside park downstream from confluence with West Branch Westfield River, Huntington]	42.225688	-72.870732	X	X	X	X		X	
WSFR13.0	W1463	MA32-05	Westfield River	[north of Shepard Street and the Whitney Playground, Westfield]	42.130837	-72.754349	X	X	X	X			
WSFR10.6	W1464	MA32-05	Westfield River	[north of Ascutney Avenue, Westfield]	42.116525	-72.724356	X	X	X	X		X	
CT02	W0474	MA32-07	Westfield River	[Route 147 bridge, Agawam/West Springfield]	42.090028	-72.626865	X	X		X	X		
CT02A	W1607	MA32-07	Westfield River	[west of River Street, approximately 1300 feet (1/4 mile) upstream from the Route 147 bridge crossing, West Springfield/Agawam]	42.092742	-72.629664	X				X		
WSFR08.3	W1465	MA32-06	Westfield River	[south off Route 20 (just downstream from USGS gage #01183500), Westfield (near the West Springfield/Agawam/Westfield border)]	42.106327	-72.697770	X	X		X			

Table 1. MassDEP DWM 2006 Westfield River Watershed Sampling Station Descriptions and Sampling Parameters

Station ID (Google Map)	Unique ID	Segment	Waterbody	Site Description	Latitude	Longitude	Attended multiprobe	Nutrients, Color, Turbidity	Hardness	*E. coli* Bacteria	Deployed Multiprobe	Temperature Probe	Chlorophyll a
LITR06.8	W1462	MA32-36	Little River	[Northwest Road bridge, Westfield]	42.130364	-72.822661				X			
LITR00.1	W0808	MA32-08	Little River	[Route 20 bridge, Westfield]	42.116647	-72.733666				X			
PDMB00.1	W0805	MA32-09	Powdermill Brook	[off Union Street (brook emerges from concrete culvert), Westfield]	42.114405	-72.714241	X	X		X			
GDBR00.4	W0266	MA32-10	Glendale Brook	[Clark Wright Road bridge, Middlefield]	42.349539	-72.967411				X	X		
MEDB00.1	W1466	MA32-11	Meadow Brook	[approximately 500 feet downstream from Nash Road, Cummington]	42.462270	-72.889180				X	X		
MEDB00.3	W1606	MA32-11	Meadow Brook	[Stage Road, Cummington]	42.476243	-72.890872	X				X		
SWFT01.3	W1467	MA32-12	Swift River	[Shaw Road bridge, Goshen]	42.455729	-72.850032				X	X		
WBWC00.1	W0271	MA32-13	West Falls Branch	[Ireland Street bridge, Chesterfield]	42.400926	-72.876264				X		X	
WATS00.1	W0269	MA32-14	Watts Stream	[Prentice Road bridge, Worthington]	42.369945	-72.913731				X	X		
WRDS03.9	W1449	MA32-15	Wards Stream	[Buffington Hill Road bridge, Worthington]	42.410958	-72.939534	X	X	X	X	X		
LRWT03.0	W1450	MA32-16	Little River	[Ireland Street South bridge, Worthington]	42.343354	-72.889984				X		X	
DPOB00.8	W1451	MA32-17	Depot Brook	[Lower Valley Road bridge crossing south of Lower Sargent Road, Washington]	42.343653	-73.089080				X			

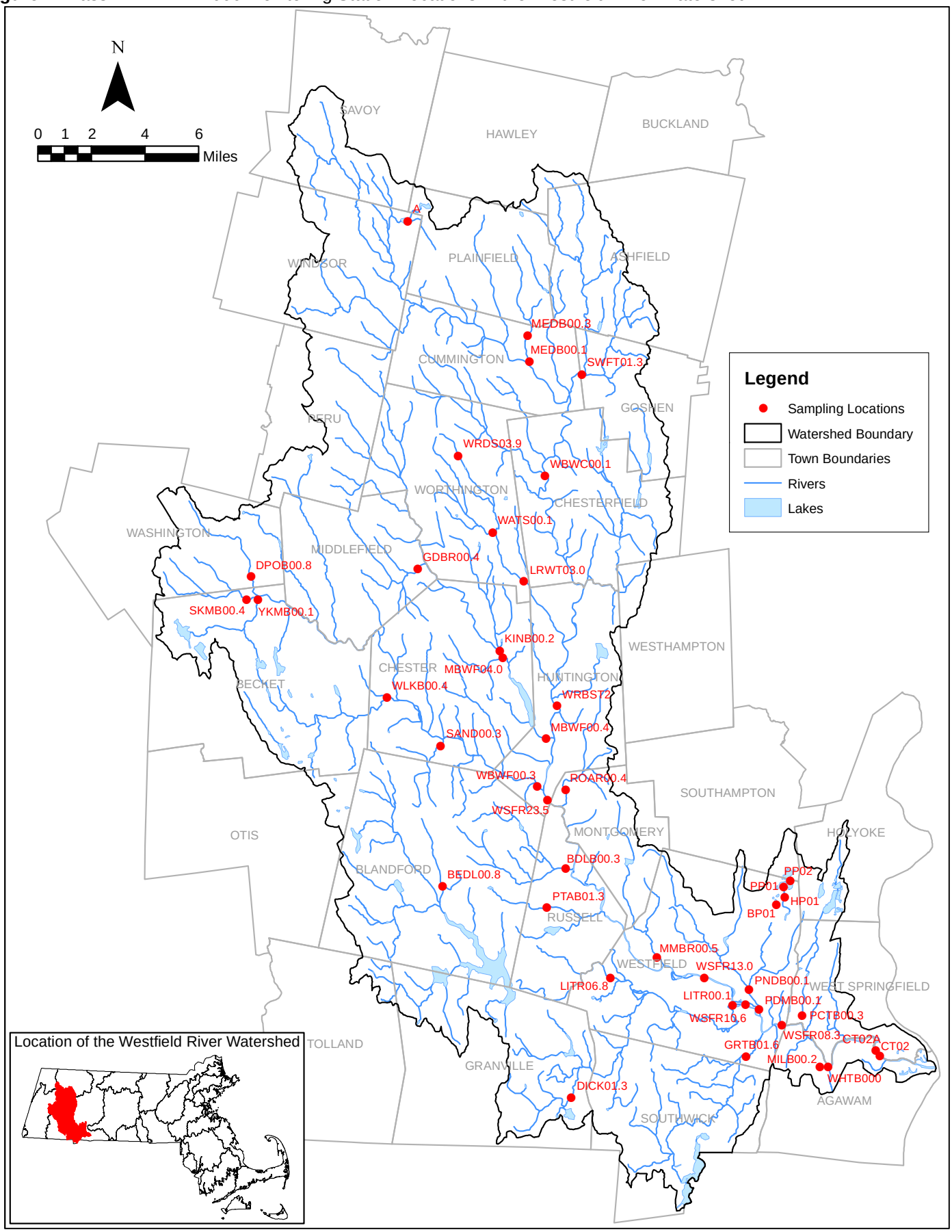
Table 1. MassDEP DWM 2006 Westfield River Watershed Sampling Station Descriptions and Sampling Parameters

Station ID (Google Map)	Unique ID	Segment	Waterbody	Site Description	Latitude	Longitude	Attended multiprobe	Nutrients, Color, Turbidity	Hardness	*E. coli* Bacteria	Deployed Multiprobe	Temperature Probe	Chlorophyll a
SKMB00.4	W0257	MA32-18	Shaker Mill Brook	[Lovers Lane bridge, Becket]	42.330943	-73.091713	X	X		X			
YKMB00.1	W1452	MA32-19	Yokum Brook	[Prentice Place bridge, Becket]	42.330798	-73.083518				X			
WLKB00.4	W0254	MA32-20	Walker Brook	[Hampden Street bridge,Chester]	42.279506	-72.988198				X			
BDLB00.3	W1453	MA32-21	Bradley Brook	[Old Westfield Road bridge, Russell]	42.189154	-72.856148				X			
PTAB01.3	W1454	MA32-22	Potash Brook	[Route 23 bridge crossing between General Knox Road and Dickinson Hill Road, Russell]	42.167341	-72.869787				X			
MMBR00.5	W0812	MA32-23	Moose Meadow Brook	[bridge on private farm road, access off Pochassic Road (downstream of powerlines), Westfield]	42.141525	-72.788882	X	X		X	X		
PNDB00.1	W0236	MA32-24	Pond Brook	[Union Street bridge, Westfield]	42.124671	-72.722077				X	X		
GRTB01.6	W1456	MA32-25	Great Brook	[Shaker Road bridge nearest Canal Drive, Westfield]	42.088635	-72.723301				X			
MILB00.2	W0228	MA32-27	Miller Brook	[Robinson State Park entrance road bridge, Agawam]	42.084009	-72.669901				X			
WHTB000	W0229	MA32-28	White Brook	[Robinson State Park entrance road bridge, Agawam]	42.083636	-72.663743				X			
PCTB00.3	W0230	MA32-29	Paucatuck Brook	[Sikes Avenue bridge, West Springfield]	42.111182	-72.683156				X			
ROAR00.4	W1457	MA32-30	Roaring Brook	[second Carrington Road bridge crossing above mouth of river, Montgomery]	42.231292	-72.857699				X			

Table 1. MassDEP DWM 2006 Westfield River Watershed Sampling Station Descriptions and Sampling Parameters

Station ID (Google Map)	Unique ID	Segment	Waterbody	Site Description	Latitude	Longitude	Attended multiprobe	Nutrients, Color, Turbidity	Hardness	*E. coli* Bacteria	Deployed Multiprobe	Temperature Probe	Chlorophyll a
SAND00.3	W1458	MA32-31	Sanderson Brook	[Sanderson Brook Road bridge nearest Route 20, Chester]	42.254183	-72.948699				X			
KINB00.2	W1459	MA32-32	Kinne Brook	[west off Kinney Brook Road approximately 0.1 mile from the confluence with the Middle Branch Westfield River, Chester]	42.306040	-72.906705				X	X		
BEDL00.8	W1460	MA32-33	Bedlam Brook	[Route 23 bridge, Blandford]	42.178012	-72.945610				X			
DICK01.3	W1461	MA32-34	Dickinson Brook	[Sodom Street bridge, Granville]	42.065310	-72.849645				X			
PP01	W1750	MA32055	Pequot Pond	[approximate center of southern lobe, Westfield]	42.180627	-72.697997	X	X					X
PP02	W1751	MA32055	Pequot Pond	[deep hole, Southampton/Westfield]	42.184201	-72.693372	X	X					X
A	W1293	MA32076	Windsor Pond	[deep hole, Windsor]	42.537010	-72.979364	X	X					X
HP01	W1749	MA32043	Horse Pond	[deep hole, Westfield]	42.175339	-72.697127	X	X					X
BP01	W1752	MA32012	Buck Pond	[deep hole, Westfield]	42.170953	-72.703211	X	X					X

Figure 1. MassDEP DWM 2006 Monitoring Station Locations in the Westfield River Watershed



Survey Conditions

Precipitation and stream discharge data were analyzed to estimate hydrological conditions during the 2006 water quality surveys in the Westfield River Watershed. Precipitation data collected during the survey period in 2006 were downloaded from the National Oceanic and Atmospheric Administration (NOAA), National Climatic Data Center (NCDC) for the Worthington (GHCND:USC00199972), Westfield Barnes Municipal Airport (GHCND:USW00014775), and Ashfield (GHCND:USC00190213) weather stations (NOAA 2012). The precipitation totals on the water quality survey dates and the five days prior to the survey dates were extracted from the records. In addition, the monthly precipitation totals for 2006 and the twenty year monthly averages for the three weather stations were downloaded to determine if precipitation amounts in 2006 were above or below normal (Table 2).

Table 2. Total monthly precipitation in 2006 at weather stations in the Westfield River Watershed. The twenty year monthly average precipitation totals for those stations are in parentheses.

Month	Worthington	Westfield Barnes Municipal Airport	Ashfield
January	7.08 (3.85)	5.37 (3.26)	5.76 (3.64)
February	2.36 (3.82)	1.74 (2.83)	1.96 (3.52)
March	0.76 (4.39)	0.71 (4.10)	0.64 (4.42)
April	4.33 (4.55)	3.33 (4.37)	3.48 (4.70)
May	8.15 (5.02)	6.04 (4.44)	6.74 (4.68)
June	7.89 (4.81)	6.36 (4.35)	5.33 (4.48)
July	3.00 (4.17)	1.90 (4.09)	2.81 (4.22)
August	4.88 (3.62)	4.54 (4.16)	4.04 (4.24)
September	3.43 (4.02)	2.98 (4.49)	2.91 (4.34)
October	7.43 (5.45)	7.26 (4.75)	6.08 (4.81)
November	5.56 (4.66)	4.96 (4.12)	4.46 (4.50)
December	2.53 (4.61)	1.99 (3.43)	2.19 (4.18)

Stream discharge data from three real-time United States Geological Survey (USGS) stream gage stations (Table 3) were downloaded from the USGS (USGS 2012a). In addition, the 7Q10 for each gage station were downloaded from the USGS web site and included in Table 3 (USGS 2012b). The entire period of record for the stations were downloaded and the average daily discharge values on the water quality survey dates and the five days prior to the survey dates were extracted from these records. The percent of time that the average daily discharge on the extracted dates were equaled or exceeded during the entire period of record for the gage was calculated to put the discharge value into historical perspective. The precipitation and discharge data are summarized and presented in Table 4.

Table 3. USGS gage stations used to estimate the hydrological conditions in the Westfield River Watershed during the DWM's 2006 water quality surveys and the estimated 7Q10 flows for each gage. (USGS 2012a) (USGS 2012b).

Station Name	Latitude Longitude	Period of Record	7Q10 (cfs)	Remarks
01179500 Westfield River at Knightville	42° 17'16" 72° 51' 53"	1909 to 1990 1995 to present	10.9	Flow regulated by Knightville reservoir since 1941.
01181000 West Branch Westfield River at Huntington	42° 14'14" 72° 53'46"	1935 to present	5.6	Prior to 1950, some diurnal fluctuation at low flow caused by small mill upstream.
01183500 Westfield River near Westfield	42° 06'24" 72° 41'58"	1914 to present	77.3	Flow regulated by Borden Brook Reservoir, Cobble Mountain Reservoir since 1931, Knightville Reservoir since 1941, and Littleville Lake since 1965. High flow slightly affected by retarding reservoirs since 1963. Diversion from Little River for municipal supply of Springfield.

Table 4. The precipitation totals (inches) and daily average discharge (cubic feet per second) for five days prior to and each DWM 2006 Westfield River Watershed survey date (USGS 2012a) (NOAA 2012).

Note: The percent of time that the daily average discharge was equaled or exceeded over the entire period of record at each stream gage are also provided (percent exceeded). Shaded dates indicate the deployment of multiprobes and large bold dates indicate collection of water samples.

	Precipitation			Discharge (Percent Exceeded)		
Date	Worthington	Westfield Barnes Municipal Airport	Ashfield	01179500 Westfield River at Knightville	01181000 West Branch Westfield River at Huntington	01183500 Westfield River near Westfield
05/03/06	0.21	0.35	0.41	261 (36)	162 (34)	678 (43)
05/04/06	0.18	0.00	0.00	344 (28)	164 (34)	816 (36)
05/05/06	0.00	0.00	0.00	267 (36)	133 (41)	696 (42)
05/06/06	0.00	0.00	0.00	220 (42)	114 (47)	576 (49)
05/07/06	0.00	0.00	0.00	198 (46)	103 (50)	517 (54)
05/08/06	0.00	0.00	0.00	182 (49)	95 (53)	475 (57)
05/09/06	0.00	0.11	0.13	171 (51)	91 (54)	444 (59)
05/10/06	0.12	0.03	0.02	179 (49)	94 (53)	447 (59)
06/04/06	1.02	0.04	0.05	1330 (5)	740 (4)	2800 (7)
06/05/06	0.01	0.00	0.00	1450 (4)	393 (12)	2940 (6)
06/06/06	0.00	0.00	0.01	586 (15)	282 (19)	1760 (14)
06/07/06	0.12	0.95	1.19	549 (17)	375 (13)	1630 (15)
06/08/06	0.98	0.08	0.14	1280 (5)	596 (6)	2920 (6)
06/09/06	0.11	0.08	0.01	1160 (6)	405 (12)	2570 (8)
06/10/06	0.09	0.23	0.03	716 (12)	316 (16)	2010 (11)
06/11/06	0.00	0.00	0.00	550 (16)	254 (21)	1460 (18)

Table 4. The precipitation totals (inches) and daily average discharge (cubic feet per second) for five days prior to and each DWM 2006 Westfield River Watershed survey date (USGS 2012a) (NOAA 2012).

Note: The percent of time that the daily average discharge was equaled or exceeded over the entire period of record at each stream gage are also provided (percent exceeded). Shaded dates indicate the deployment of multiprobes and large bold dates indicate collection of water samples.

	Precipitation			Discharge (Percent Exceeded)		
Date	Worthington	Westfield Barnes Municipal Airport	Ashfield	01179500 Westfield River at Knightville	01181000 West Branch Westfield River at Huntington	01183500 Westfield River near Westfield
06/12/06	0.00	0.00	0.00	438 (21)	206 (27)	1190 (23)
06/13/06	0.00	0.00	0.00	374 (25)	175 (31)	1060 (27)
06/14/06	0.08	0.09	0.13	362 (26)	179 (31)	891 (33)
07/16/06	0.00	0.00	0.00	144 (57)	61 (66)	402 (63)
07/17/06	0.00	0.00	0.00	118 (63)	50 (71)	457 (58)
07/18/06	0.00	0.00	0.00	98 (69)	44 (74)	533 (52)
07/19/06	0.00	0.00	0.00	83 (73)	38 (77)	339 (69)
07/20/06	0.00	0.00	0.00	73 (76)	33 (80)	253 (78)
07/21/06	0.00	0.00	0.01	68 (78)	31 (81)	274 (75)
07/22/06	0.00	0.20	0.55	68 (78)	33 (80)	262 (77)
07/23/06	0.47	0.07	0.02	171 (51)	82 (58)	350 (68)
07/24/06	0.00	0.01	0.00	141 (58)	58 (67)	385 (65)
07/25/06	0.00	0.00	0.00	99 (68)	42 (75)	344 (69)
07/26/06	0.00	0.14	0.02	79 (74)	35 (79)	436 (60)
08/20/06	1.98	1.82	1.67	271 (35)	81 (58)	326 (70)
08/21/06	0.01	0.00	0.00	205 (45)	73 (61)	564 (50)
08/22/06	0.00	0.00	0.00	101 (68)	36 (78)	319 (71)
08/23/06	0.00	0.00	0.00	63 (80)	24 (86)	221 (82)
08/24/06	0.00	0.18	0.00	46 (86)	19 (90)	179 (88)
08/25/06	0.12	0.33	0.59	45 (87)	35 (79)	172 (89)
08/26/06	0.58	0.12	0.05	97 (69)	61 (66)	237 (80)
08/27/06	0.00	1.06	0.50	90 (71)	65 (64)	325 (70)
08/28/06	0.65	0.00	0.03	166 (52)	110 (48)	435 (60)
08/29/06	0.02	0.32	0.29	131 (60)	74 (61)	400 (63)
08/30/06	0.39	0.01	0.02	152 (55)	96 (52)	395 (64)
09/28/06	0.00	0.00	0.00	55 (83)	27 (84)	218 (82)
09/29/06	0.46	1.07	0.48	67 (78)	33 (80)	398 (64)
09/30/06	0.08	0.00	0.00	111 (65)	54 (69)	352 (68)
10/01/06	0.01	1.92	1.11	164 (53)	67 (64)	594 (48)
10/02/06	1.11	0.01	0.01	400 (24)	145 (38)	912 (32)
10/03/06	0.00	0.00	0.00	207 (44)	83 (57)	631 (46)
10/04/06	0.00	0.22	0.08	146 (57)	66 (64)	493 (55)

Station Observations

Station observations were recorded on field sheets for each survey by a DWM investigator. Station observations are described below in Table 5 for each sampling event (MassDEP 2006c).

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
BDLB00.3	W1453	05/09/06	None	Clear	Clear	N	N	S	N	N	No		No	
BDLB00.3	W1453	06/13/06	None	Clear	Clear	N	N	N	N	N	No		No	
BDLB00.3	W1453	07/25/06	Musty	Clear	Light Yellow	N	N	M	N	N	No		No	
BDLB00.3	W1453	08/29/06	Musty	Clear	Clear	N	N	M	N	N	No		No	
BDLB00.3	W1453	10/03/06	Musty	Clear	Clear	N	M	N	N	N	No		Yes	road sign
BEDL00.8	W1460	05/09/06	None	Clear	Clear	N	S	S	N	N	No		Yes	trash, small amount of litter
BEDL00.8	W1460	06/13/06	None	Clear	Clear	N	N	M	N	S	No		Yes	trash slight amount, bottles cans mostly
BEDL00.8	W1460	07/25/06	Musty	Clear	Light Yellow	N	N	S	N	N	No		No	
BEDL00.8	W1460	08/29/06	Musty	Clear	Clear	N	S	N	N	S	No		No	
BEDL00.8	W1460	10/03/06	None	Clear	Clear	N	N	S	N	VD	No		No	
CT02	W0474	05/09/06	None	Clear	Clear	N	N	N	N	N	No		No	
CT02	W0474	05/10/06	None	Clear	Clear	N	S	N	N	N	No		Yes	trash, dead fish on bottom, some litter.
CT02	W0474	06/09/06	None	Slightly Turbid	Clear	Not Applicable – Probe Deploy Field Sheet								

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
CT02	W0474	06/13/06	Musty	Highly Turbid	Brownish	N	U	U	U	U	No		No	
CT02	W0474	06/14/06	NR	Clear	Clear	N	U	U	U	U	No		Yes	some slight trash
CT02	W0474	07/21/06	U	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
CT02	W0474	07/25/06	Musty	Clear	Clear	N	M	M	N	N	No		No	
CT02	W0474	07/25/06	Musty	Clear	Clear	N	M	M	N	N	No		No	
CT02	W0474	08/25/06	U	Clear	Light Yellow	Not Applicable – Probe Deploy Field Sheet								
CT02	W0474	08/29/06	Musty	Slightly Turbid	Light Yellow	N	S	S	N	N	No		No	
CT02	W0474	08/30/06	None	Clear	Clear	N	N	M	N	N	No		Yes	slight amount of trash
CT02	W0474	10/03/06	Musty	Moderately Turbid	Brownish	N	M	M	N	N	No		No	
CT02	W0474	10/04/06	Effluent	Clear	Light Yellow	N	N	S	N	N	No		Yes	slight amount of trash
DICK01.3	W1461	05/09/06	Sulfide	Clear	Clear	S	N	N	S	N	No		No	
DICK01.3	W1461	06/13/06	None	Slightly Turbid	Brownish	N	M	N	N	N	No		No	
DICK01.3	W1461	07/25/06	None	Slightly Turbid	Brownish	S	S	N	N	N	No		No	
DICK01.3	W1461	08/29/06	None	Slightly Turbid	Light Yellow	N	U	U	U	U	No		No	
DICK01.3	W1461	10/03/06	None	Clear	Clear	S	M	N	D	N	No		No	
DPOB00.8	W1451	05/09/06	NR	Clear	Clear	N	S	N	N	N	No		No	
DPOB00.8	W1451	06/13/06	None	Clear	Clear	N	N	S	N	S	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
DPOB00.8	W1451	07/25/06	None	Clear	Light Yellow	N	N	N	N	S	No		No	
DPOB00.8	W1451	08/29/06	None	Clear	Light Yellow	N	N	D	N	N	No		No	
DPOB00.8	W1451	10/03/06	None	Clear	Clear	N	N	N	N	D	No		No	
GDBR00.4	W0266	05/09/06	None	Clear	Clear	N	M	N	N	S	No		No	
GDBR00.4	W0266	06/09/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
GDBR00.4	W0266	06/13/06	None	Clear	Clear	N	M	N	N	M	No		No	
GDBR00.4	W0266	07/21/06	None	Moderately Turbid	Clear	Not Applicable – Probe Deploy Field Sheet								
GDBR00.4	W0266	07/25/06	NR	Moderately Turbid	NR	S	N	M	N	N	No		No	
GDBR00.4	W0266	08/25/06	Musty	Moderately Turbid	NR	Not Applicable – Probe Deploy Field Sheet								
GDBR00.4	W0266	08/29/06	Musty	Slightly Turbid	Grayish	N	N	N	N	M	No		No	
GDBR00.4	W0266	10/03/06	None	Slightly Turbid	Clear	N	N	N	N	D	No		No	
GRTB01.6	W1456	05/09/06	Musty	Clear	Clear	N	S	N	N	N	No		No	
GRTB01.6	W1456	06/13/06	None	Slightly Turbid	Brownish	N	M	N	N	N	No		No	
GRTB01.6	W1456	07/25/06	Musty	Slightly Turbid	Clear	N	N	S	N	N	No		No	
GRTB01.6	W1456	08/29/06	None	Clear	Light Yellow	N	M	M	N	M	No		No	
GRTB01.6	W1456	10/03/06	None	Slightly Turbid	Light Yellow	N	N	M	N	N	No		No	
KINB00.2	W1459	05/09/06	None	Clear	Clear	N	N	D	N	N	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
KINB00.2	W1459	06/09/06	None	Clear	Light Yellow	Not Applicable – Probe Deploy Field Sheet								
KINB00.2	W1459	06/13/06	None	Clear	Clear	N	N	S	N	N	No		No	
KINB00.2	W1459	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
KINB00.2	W1459	07/25/06	None	Clear	Clear	N	N	S	N	N	No		No	
KINB00.2	W1459	08/25/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
KINB00.2	W1459	08/29/06	None	Clear	Clear	N	N	S	N	N	No		No	
KINB00.2	W1459	10/03/06	None	Slightly Turbid	Clear	N	N	D	N	N	No		No	
LITR00.1	W0808	05/09/06	None	Clear	Light Yellow	N	N	S	N	N	No		No	
LITR00.1	W0808	06/13/06	None	Clear	Clear	N	M	N	N	N	No		No	
LITR00.1	W0808	07/25/06	None	Clear	Clear	N	N	S	N	D	No		Yes	slight amount of trash
LITR00.1	W0808	08/29/06	None	Clear	Clear	NR	M	M	N	N	No		No	
LITR00.1	W0808	10/03/06	Musty	Clear	Clear	N	N	M	N	N	No		No	
LITR06.8	W1462	04/25/06	None	Clear	Clear	N	D	M	N	N	Yes	foam bubbles on surface	No	
LITR06.8	W1462	05/09/06	NR	Clear	Clear	N	N	D	N	N	No		No	
LITR06.8	W1462	06/13/06	None	Clear	NR	N	S	N	N	N	No		No	
LITR06.8	W1462	08/29/06	Raw sewage	NR	NR	NR	D	D	N	D	No		No	
LITR06.8	W1462	10/03/06	Musty	Clear	Clear	U	U	U	U	U	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
LRWT03.0	W1450	05/09/06	None	Clear	NR	NR	N	VD	D	N	No		No	
LRWT03.0	W1450	06/13/06	None	Slightly Turbid	Grayish	N	N	N	N	N	No		No	
LRWT03.0	W1450	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
LRWT03.0	W1450	07/25/06	None	Clear	Clear	S	N	N	N	N	No		No	
LRWT03.0	W1450	08/29/06	None	Clear	Clear	N	N	M	N	N	No		No	
LRWT03.0	W1450	10/03/06	None	Clear	Clear	N	N	M	N	S	No		No	
MBWF00.4	W0264	05/09/06	None	Clear	Clear	N	N	D	N	N	No		Yes	trash, some metal miscellaneous
MBWF00.4	W0264	06/09/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
MBWF00.4	W0264	06/13/06	Musty	Slightly Turbid	Brownish	N	N	N	N	N	No		No	
MBWF00.4	W0264	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
MBWF00.4	W0264	07/25/06	None	Clear	Clear	M	S	S	N	N	No		No	
MBWF00.4	W0264	08/25/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
MBWF00.4	W0264	08/29/06	None	Clear	Clear	N	N	S	N	N	No		No	
MBWF00.4	W0264	10/03/06	None	Clear	Clear	N	N	N	N	N	No		No	
MBWF04.0	W0263	05/09/06	None	Clear	Clear	N	N	S	S	N	No		No	
MBWF04.0	W0263	06/13/06	None	Clear	Clear	N	S	M	N	N	No		No	
MBWF04.0	W0263	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
MBWF04.0	W0263	07/25/06	None	Clear	Clear	S	N	M	N	N	No		No	
MBWF04.0	W0263	08/29/06	None	Clear	Clear	N	N	D	N	N	No		No	
MBWF04.0	W0263	10/03/06	None	Clear	Clear	N	N	M	N	N	No		No	
MEDB00.1	W1466	05/09/06	None	Clear	Clear	N	N	S	N	S	No		No	
MEDB00.1	W1466	06/13/06	None	Clear	Clear	N	N	N	N	N	No		No	
MEDB00.1	W1466	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
MEDB00.1	W1466	07/25/06	None	Slightly Turbid	Clear	S	N	N	N	N	Yes	foam	No	
MEDB00.1	W1466	08/25/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
MEDB00.1	W1466	08/29/06	None	Slightly Turbid	Clear	N	N	S	N	N	No		No	
MEDB00.1	W1466	10/03/06	None	Clear	Clear	N	N	M	N	S	No		No	
MILB00.2	W0228	05/09/06	None	Clear	Clear	N	N	N	M	N	No		No	
MILB00.2	W0228	06/13/06	Musty	Clear	Clear	N	M	N	N	S	No		No	
MILB00.2	W0228	07/25/06	None	Clear	Clear	N	N	N	N	N	No		No	
MILB00.2	W0228	08/29/06	None	Clear	Clear	N	N	N	N	N	No		No	
MILB00.2	W0228	10/03/06	Musty	Clear	Clear	N	N	N	N	S	No		No	
MMBR00.5	W0812	05/09/06	None	Clear	Clear	N	N	N	N	N	No		Yes	trash, refrigerator
MMBR00.5	W0812	05/10/06	None	Clear	Clear	N	N	N	N	N	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
MMBR00.5	W0812	06/09/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
MMBR00.5	W0812	06/13/06	None	Clear	Rusty	N	S	N	N	N	No		No	
MMBR00.5	W0812	06/14/06	None	Clear	Brownish	N	N	N	N	N	No		No	
MMBR00.5	W0812	07/21/06	None	Moderately Turbid	Clear	Not Applicable – Probe Deploy Field Sheet								
MMBR00.5	W0812	07/25/06	None	Slightly Turbid	Light Yellow	N	S	N	N	N	No		No	
MMBR00.5	W0812	07/25/06	None	Slightly Turbid	Brownish	NR	N	M	N	N	No		No	
MMBR00.5	W0812	08/25/06	Musty	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
MMBR00.5	W0812	08/29/06	None	Clear	Light Yellow	N	N	S	N	N	No		No	
MMBR00.5	W0812	08/30/06	None	Slightly Turbid	Brownish	N	N	M	N	N	No		No	
MMBR00.5	W0812	10/03/06	None	Slightly Turbid	Light Yellow	S	N	N	N	N	No		No	
MMBR00.5	W0812	10/04/06	None	Clear	Light Yellow	N	N	N	N	N	No		Yes	large organic particles in water column
PCTB00.3	W0230	05/09/06	NR	Clear	Clear	N	N	S	N	N	No		No	
PCTB00.3	W0230	06/13/06	Fishy	Slightly Turbid	Brownish	N	VD	VD	N	S	No		No	
PCTB00.3	W0230	07/25/06	None	Clear	Clear	N	S	N	N	N	No		No	
PCTB00.3	W0230	08/29/06	None	Clear	Light Yellow	N	S	D	N	N	No		No	
PCTB00.3	W0230	10/03/06	Musty	Clear	Clear	N	M	S	N	N	No		No	
PDMB00.1	W0805	05/09/06	None	Clear	Clear	N	S	N	N	N	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
PDMB00.1	W0805	05/10/06	Musty	Slightly Turbid	Brownish	N	N	N	N	N	No		Yes	trash
PDMB00.1	W0805	06/13/06	None	Moderately Turbid	Brownish	N	D	N	N	S	No		No	
PDMB00.1	W0805	06/14/06	None	Slightly Turbid	Brownish	N	N	N	N	N	No		No	
PDMB00.1	W0805	07/25/06	None	Slightly Turbid	Clear	N	N	N	N	N	No		No	
PDMB00.1	W0805	07/25/06	NR	Slightly Turbid	Clear	N	U	U	U	U	No		No	
PDMB00.1	W0805	08/29/06	None	Clear	Clear	N	N	N	N	N	No		Yes	trash, lumber
PDMB00.1	W0805	08/30/06	None	Slightly Turbid	Brownish	N	U	U	U	U	Yes	slight foam	Yes	trash
PDMB00.1	W0805	10/03/06	Musty	Slightly Turbid	Clear	U	U	U	U	U	No		No	
PDMB00.1	W0805	10/04/06	Musty	Clear	Light Yellow	N	N	N	N	S	Yes	foam	Yes	trash
PNDB00.1	W0236	05/08/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
PNDB00.1	W0236	05/09/06	None	Clear	Light Yellow	N	S	N	N	N	No		No	
PNDB00.1	W0236	06/09/06	None	Clear	Light Yellow	Not Applicable – Probe Deploy Field Sheet								
PNDB00.1	W0236	06/13/06	None	Clear	Brownish	N	N	N	D	N	No		No	
PNDB00.1	W0236	07/21/06	None	NR	Clear	Not Applicable – Probe Deploy Field Sheet								
PNDB00.1	W0236	07/25/06	None	Clear	Clear	N	M	N	N	M	No		No	
PNDB00.1	W0236	08/25/06	None	Slightly Turbid	Clear	Not Applicable – Probe Deploy Field Sheet								
PNDB00.1	W0236	08/29/06	None	Slightly Turbid	Brownish	N	N	N	N	N	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	Unique ID	Date	Odor	Water Clarity	Color	Aquatic Plants	Filamentous Algae	Film Algae	Loose Floc	Moss	Floating Scum	Floating Scum Comments	Objectionable Deposits	Objectionable Deposit Comments
PNDB00.1	W0236	10/03/06	Musty	Clear	Clear	S	N	S	N	S	No		No	
PTAB01.3	W1454	05/09/06	None	Clear	Clear	N	N	S	N	N	No		No	
PTAB01.3	W1454	06/13/06	None	Clear	Clear	N	S	S	N	S	No		No	
PTAB01.3	W1454	07/25/06	Musty	Clear	Light Yellow	N	N	M	N	N	No		No	
PTAB01.3	W1454	08/29/06	Musty	Clear	Clear	N	N	S	N	N	No		No	
PTAB01.3	W1454	10/03/06	None	Clear	Clear	N	N	N	N	N	No		No	
ROAR00.4	W1457	05/09/06	None	Clear	Clear	N	S	S	N	N	No		No	
ROAR00.4	W1457	06/13/06	None	Clear	Clear	N	D	M	N	S	No		No	
ROAR00.4	W1457	07/25/06	Musty	Clear	Clear	N	N	N	N	N	No		No	
ROAR00.4	W1457	08/29/06	None	Clear	Clear	N	N	S	N	S	No		No	
ROAR00.4	W1457	10/03/06	None	Clear	Clear	N	N	D	N	M	No		No	
SAND00.3	W1458	05/09/06	None	Clear	Clear	N	N	S	N	N	No		No	
SAND00.3	W1458	06/13/06	None	Clear	Clear	N	S	S	N	S	No		Yes	electrical cord fallen off pole into water
SAND00.3	W1458	07/25/06	Musty	Clear	Clear	N	N	M	N	M	No		No	
SAND00.3	W1458	08/29/06	None	Clear	Clear	N	N	N	N	N	No		No	
SAND00.3	W1458	10/03/06	None	Clear	Clear	N	N	S	N	VD	No		No	
SKMB00.4	W0257	05/09/06	None	Clear	Clear	N	N	N	N	N	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
SKMB00.4	W0257	05/10/06	None	Clear	Clear	N	N	N	N	S	No		No	
SKMB00.4	W0257	06/13/06	None	Clear	Clear	N	S	S	N	S	No		No	
SKMB00.4	W0257	06/14/06	None	Clear	Clear	N	S	N	N	M	No		No	
SKMB00.4	W0257	07/25/06	None	Clear	Light Yellow	N	N	N	N	S	No		No	
SKMB00.4	W0257	08/29/06	Musty	Clear	Light Yellow	N	N	M	N	N	No		No	
SKMB00.4	W0257	10/03/06	None	Clear	Light Yellow	N	N	M	N	N	No		No	
SWFT01.3	W1467	05/09/06	None	Clear	Clear	N	N	N	N	N	No		No	
SWFT01.3	W1467	06/09/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
SWFT01.3	W1467	06/13/06	None	Clear	Brownish	N	N	N	N	N	No		No	
SWFT01.3	W1467	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
SWFT01.3	W1467	07/25/06	None	Clear	Clear	S	N	N	N	N	No		No	
SWFT01.3	W1467	08/25/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
SWFT01.3	W1467	08/29/06	None	Clear	Clear	N	N	M	N	N	No		No	
SWFT01.3	W1467	10/03/06	None	Clear	Clear	N	N	S	N	N	No		No	
WATS00.1	W0269	05/09/06	None	Clear	Clear	N	N	S	N	S	No		No	
WATS00.1	W0269	06/09/06	NR	NR	NR	Not Applicable – Probe Deploy Field Sheet								
WATS00.1	W0269	06/13/06	None	Slightly Turbid	Clear	N	S	N	N	S	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
WATS00.1	W0269	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
WATS00.1	W0269	07/25/06	None	Clear	Clear	N	N	N	N	N	No		No	
WATS00.1	W0269	08/25/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
WATS00.1	W0269	08/29/06	None	Clear	Clear	N	N	N	N	N	No		No	
WATS00.1	W0269	10/03/06	None	Clear	Clear	N	N	N	N	S	No		Yes	creosote dripping down bridge abutment
WBWC00.1	W0271	05/09/06	None	Clear	Clear	N	N	N	N	N	No		No	
WBWC00.1	W0271	06/13/06	Musty	Clear	Clear	N	M	N	N	N	No		No	
WBWC00.1	W0271	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
WBWC00.1	W0271	07/25/06	None	Clear	Clear	S	N	N	N	N	No		No	
WBWC00.1	W0271	08/29/06	None	Clear	Clear	N	N	S	N	N	No		No	
WBWC00.1	W0271	10/03/06	None	Clear	Clear	N	S	S	N	N	No		No	
WBWF00.3	W1455	05/09/06	Chlorine	Clear	Clear	N	N	M	N	N	No		No	
WBWF00.3	W1455	06/13/06	None	Clear	Clear	N	N	M	N	N	Yes	small floating bubbles resembling soap	No	
WBWF00.3	W1455	07/25/06	Musty	Clear	Light Yellow	N	D	N	N	N	No		No	
WBWF00.3	W1455	08/29/06	None	Clear	Light Yellow	N	N	M	S	N	No		No	
WBWF00.3	W1455	10/03/06	None	Clear	Clear	N	N	D	N	N	No		No	
WHTB000	W0229	05/09/06	Musty	Clear	Clear	N	N	N	N	N	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
WHTB000	W0229	06/13/06	Musty	Clear	Clear	D	M	N	N	S	No		No	
WHTB000	W0229	07/25/06	Sulfide	Clear	Clear	N	N	N	N	N	No		No	
WHTB000	W0229	08/29/06	Musty	Clear	Clear	N	N	N	N	N	No		No	
WHTB000	W0229	10/03/06	Musty	Clear	Clear	N	N	N	S	S	No		No	
WLKB00.4	W0254	05/09/06	None	Clear	Clear	N	N	S	N	N	No		No	
WLKB00.4	W0254	06/13/06	None	Clear	Clear	N	M	M	N	N	No		No	
WLKB00.4	W0254	07/25/06	None	Clear	Light Yellow	N	N	N	N	N	No		No	
WLKB00.4	W0254	08/29/06	Musty	Clear	Light Yellow	N	N	S	N	N	No		No	
WLKB00.4	W0254	10/03/06	Musty	Clear	Clear	N	N	D	N	N	No		No	
WRBST2	W1419	05/09/06	None	Clear	Clear	N	N	N	M	N	No		No	
WRBST2	W1419	06/13/06	None	Slightly Turbid	Dark Tan	N	N	M	N	N	No		Yes	trash
WRBST2	W1419	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
WRBST2	W1419	07/25/06	None	Clear	Clear	S	N	N	N	N	No		No	
WRBST2	W1419	08/29/06	None	Clear	Clear	N	N	M	N	N	No		No	
WRBST2	W1419	10/03/06	None	Slightly Turbid	Clear	N	N	M	N	N	No		Yes	trash, door knob in water
WRDS03.9	W1449	05/09/06	None	Clear	Clear	N	N	M	N	S	No		No	
WRDS03.9	W1449	05/10/06	None	Clear	Clear	N	N	S	N	M	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
WRDS03.9	W1449	06/09/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
WRDS03.9	W1449	06/13/06	Musty	Clear	Clear	N	N	N	N	M	No		No	
WRDS03.9	W1449	06/14/06	None	Clear	Clear	N	N	N	N	M	No		No	
WRDS03.9	W1449	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
WRDS03.9	W1449	07/25/06	None	Clear	Clear	S	N	S	N	N	No		No	
WRDS03.9	W1449	08/25/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
WRDS03.9	W1449	08/29/06	None	Clear	Clear	N	N	M	N	N	No		No	
WRDS03.9	W1449	08/30/06	None	Clear	Clear	N	N	N	N	S	No		No	
WRDS03.9	W1449	10/03/06	None	Clear	Clear	N	N	M	N	M	No		No	
WRDS03.9	W1449	10/04/06	Musty	Clear	Clear	N	N	N	N	D	No		No	
WSFR08.3	W1465	05/09/06	None	Clear	Light Yellow	N	N	N	N	N	No		No	
WSFR08.3	W1465	05/10/06	None	Clear	Clear	N	D	M	N	N	Yes	slight oily sheen, pollen/dust blankets	Yes	some trash
WSFR08.3	W1465	06/13/06	None	Clear	Brownish	N	S	N	D	N	No		No	
WSFR08.3	W1465	06/14/06	None	Clear	Clear	N	N	N	N	N	No		No	
WSFR08.3	W1465	07/25/06	Fishy	Slightly Turbid	Light Yellow	S	S	S	N	N	No		Yes	trash
WSFR08.3	W1465	07/25/06	Musty	Clear	Clear	N	N	N	N	N	No		No	
WSFR08.3	W1465	08/29/06	Musty	Clear	NR	N	D	D	N	N	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
WSFR08.3	W1465	08/30/06	None	Clear	Clear	N	N	M	N	N	No		No	
WSFR08.3	W1465	10/03/06	None	Slightly Turbid	Brownish	N	S	D	N	N	No		No	
WSFR08.3	W1465	10/04/06	None	Clear	Clear	N	N	S	M	N	Yes	slight foam	No	
WSFR10.6	W1464	05/09/06	Fishy	Slightly Turbid	Clear	N	M	N	N	N	No		No	
WSFR10.6	W1464	05/10/06	Fishy	Slightly Turbid	Green	N	M	N	N	N	No		Yes	construction debris in river
WSFR10.6	W1464	06/13/06	Musty	Moderately Turbid	Brownish	N	S	N	N	N	No		No	
WSFR10.6	W1464	06/14/06	None	Clear	Brownish	N	N	N	N	N	No		Yes	construction debris embedded in banks
WSFR10.6	W1464	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
WSFR10.6	W1464	07/25/06	None	Slightly Turbid	Clear	N	N	S	N	N	No		Yes	construction debris (bricks, cinderblocks)
WSFR10.6	W1464	07/25/06	Musty	Clear	Clear	N	N	N	N	N	No		Yes	construction debris
WSFR10.6	W1464	08/29/06	None	Slightly Turbid	Light Yellow	N	U	U	U	U	No		No	
WSFR10.6	W1464	08/30/06	None	Clear	Clear	N	N	M	N	N	Yes	slight foam	Yes	construction debris everywhere along bank
WSFR10.6	W1464	10/03/06	Musty	Slightly Turbid	Brownish	U	N	S	N	N	No		No	
WSFR10.6	W1464	10/04/06	Effluent	Clear	Light Yellow	N	N	N	N	N	Yes	foam in eddy	Yes	construction debris (bricks, concrete, asphalt) in bank
WSFR13.0	W1463	05/09/06	None	Clear	Green	N	N	N	N	N	No		No	
WSFR13.0	W1463	05/10/06	None	Clear	Clear	N	N	N	N	N	No		No	
WSFR13.0	W1463	06/13/06	Musty	Clear	Rusty	N	N	N	N	N	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
WSFR13.0	W1463	06/14/06	None	Clear	Brownish	N	N	N	N	N	No		No	
WSFR13.0	W1463	07/25/06	None	Slightly Turbid	Light Yellow	N	N	S	N	N	No		No	
WSFR13.0	W1463	07/25/06	None	Clear	Clear	N	S	M	N	N	Yes	pollen / dust blanket, foam	No	
WSFR13.0	W1463	08/29/06	Manure	Clear	Clear	S	N	N	N	N	No		Yes	trash, bathing beach, pet walking, picnic area
WSFR13.0	W1463	08/30/06	None	Clear	Clear	N	N	S	N	N	No		Yes	trash and pet waste
WSFR13.0	W1463	10/03/06	Musty	Clear	Light Yellow	N	N	N	M	N	No		No	
WSFR13.0	W1463	10/04/06	None	Clear	Light Yellow	N	N	N	N	N	Yes	slight foam	Yes	slight amount of trash
WSFR23.5	W0221	05/09/06	None	Clear	Clear	N	M	M	N	N	No		No	
WSFR23.5	W0221	05/10/06	None	Clear	Clear	N	M	M	N	N	No		Yes	slight amount of trash
WSFR23.5	W0221	06/13/06	None	Clear	Clear	N	M	S	N	N	No		No	
WSFR23.5	W0221	06/14/06	None	Clear	Brownish	N	N	D	N	N	No		No	
WSFR23.5	W0221	07/21/06	None	Clear	Clear	Not Applicable – Probe Deploy Field Sheet								
WSFR23.5	W0221	07/25/06	None	Slightly Turbid	Light Yellow	N	S	M	N	N	No		Yes	trash
WSFR23.5	W0221	07/25/06	Musty	Clear	Light Yellow	N	N	D	N	N	No		No	
WSFR23.5	W0221	08/29/06	Fishy	Clear	Light Yellow	N	N	M	N	N	No		No	
WSFR23.5	W0221	08/30/06	None	Clear	Clear	N	N	M	N	N	No		No	
WSFR23.5	W0221	10/03/06	Effluent	Clear	Light Yellow	N	N	D	N	N	No		No	

Table 5. 2006 Field observations from MassDEP DWM Westfield River Watershed river surveys.
(S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

						Areal Density								
Station ID	**Unique ID**	**Date**	**Odor**	**Water Clarity**	**Color**	**Aquatic Plants**	**Filamentous Algae**	**Film Algae**	**Loose Floc**	**Moss**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposit Comments**
WSFR23.5	W0221	10/04/06	None	Clear	Clear	N	N	M	N	N	No		No	
YKMB00.1	W1452	05/09/06	None	Clear	Clear	N	N	S	N	N	No		No	
YKMB00.1	W1452	06/13/06	None	Clear	Clear	N	S	S	N	N	No		No	
YKMB00.1	W1452	07/25/06	None	Clear	Light Yellow	N	N	N	N	N	No		No	
YKMB00.1	W1452	08/29/06	None	Clear	Light Yellow	N	N	N	N	N	No		No	
YKMB00.1	W1452	10/03/06	None	Clear	Clear	N	N	N	N	N	No		No	

Table 6. 2006 Field observations from MassDEP DWM Westfield River Watershed lake surveys.

S=sparse (0-25%), M=moderate (25-50%), D=dense (50-75%), VD=very dense (75-100%), N=none, U=unobservable, NR=not recorded) (MassDEP 2006c)

								Aquatic Plants							
Station ID	**Unique ID**	**Date**	**Odor**	**Clarity**	**Color**	**Secchi (meters)**	**Algae**	**Emergent**	**Floating**	**Submerged**	**Overall Density**	**Floating Scum**	**Floating Scum Comments**	**Objectionable Deposits**	**Objectionable Deposits Comments**
A	W1293	07/26/06	None	Clear	Light Yellow	3.5	N	N	N	N	N	No		No	
A	W1293	08/31/06	None	Slightly Turbid	Light Yellow	3.9	S	N	N	N	N	No		No	
A	W1293	09/12/06	None	Slightly Turbid	Light Yellow	3.2	S	N	N	N	N	No		No	
BP01	W1752	07/26/06	None	Slightly Turbid	Light Yellow	2.3	S	N	N	N	S	Yes	oily sheens, algal mat	No	
BP01	W1752	08/31/06	None	NR	NR	2.3	S	N	N	N	N	No		No	
BP01	W1752	09/12/06	None	Slightly Turbid	Green	2.0	S	N	N	N	N	No		No	
HP01	W1749	07/26/06	Sulfide	Slightly Turbid	Light Yellow	3.0	S	N	M	D	D	No		Yes	trash
HP01	W1749	08/31/06	None	Slightly Turbid	Green	2.7	M	N	S	S	S	No		No	
HP01	W1749	09/12/06	None	Slightly Turbid	Green	2.8	S	N	S	S	M	No		No	
PP01	W1750	07/26/06	Musty	Slightly Turbid	Light Yellow	2.4	N	N	N	N	N	No		Yes	trash on shore
PP01	W1750	08/31/06	None	Slightly Turbid	Green	2.0	M	N	N	N	N	No		No	
PP01	W1750	09/12/06	None	Moderately Turbid	Green	1.6	D	N	N	N	N	No		No	
PP02	W1751	07/26/06	None	Slightly Turbid	Light Yellow	3.0	N	N	N	N	N	No		Yes	trash
PP02	W1751	08/31/06	None	Slightly Turbid	Green	2.0	D	N	N	N	N	No		No	
PP02	W1751	09/12/06	None	Moderately Turbid	Green	1.4	D	N	N	N	N	No		No	

Water Quality Data

All MassDEP DWM water quality data are managed and maintained in the Water Quality Data Access Database (WQD). Tables 7 – 12 below provide the 2006 Westfield River Watershed water quality data. The procedures used to accept, accept with qualification or censor data are based on the DWM Standard Operating Procedures (SOP) for data validation and usability (MassDEP 2012a), and are in addition to separate quality assurance activities and laboratory validation steps undertaken by the WES. Definitions for the data qualifiers are provided in Appendix 1.

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
BDLB00.3	W1453	05/09/06	12:22	32-0289	*E. coli*	CFU/100mL	40	e
BDLB00.3	W1453	06/13/06	12:35	32-0374	*E. coli*	CFU/100mL	52	e
BDLB00.3	W1453	07/25/06	11:45	32-0511	*E. coli*	CFU/100mL	268	e
BDLB00.3	W1453	08/29/06	12:00	32-0543	*E. coli*	CFU/100mL	212	
BDLB00.3	W1453	10/03/06	11:45	32-0658	*E. coli*	CFU/100mL	36	e
BDLB00.3	W1453	05/09/06	12:22	32-0289	Fecal Coliforms	CFU/100mL	20	e
BDLB00.3	W1453	06/13/06	12:35	32-0374	Fecal Coliforms	CFU/100mL	14	e
BDLB00.3	W1453	07/25/06	11:45	32-0511	Fecal Coliforms	CFU/100mL	240	e
BDLB00.3	W1453	08/29/06	12:00	32-0543	Fecal Coliforms	CFU/100mL	240	
BDLB00.3	W1453	10/03/06	11:45	32-0658	Fecal Coliforms	CFU/100mL	25	e
BEDL00.8	W1460	05/09/06	12:43	32-0290	*E. coli*	CFU/100mL	<20	
BEDL00.8	W1460	06/13/06	12:55	32-0375	*E. coli*	CFU/100mL	8	e
BEDL00.8	W1460	07/25/06	12:04	32-0512	*E. coli*	CFU/100mL	16	e
BEDL00.8	W1460	08/29/06	11:33	32-0544	*E. coli*	CFU/100mL	56	
BEDL00.8	W1460	10/03/06	12:02	32-0659	*E. coli*	CFU/100mL	12	e
BEDL00.8	W1460	05/09/06	12:43	32-0290	Fecal Coliforms	CFU/100mL	<20	
BEDL00.8	W1460	06/13/06	12:55	32-0375	Fecal Coliforms	CFU/100mL	6	e
BEDL00.8	W1460	07/25/06	12:04	32-0512	Fecal Coliforms	CFU/100mL	6	e
BEDL00.8	W1460	08/29/06	11:33	32-0544	Fecal Coliforms	CFU/100mL	110	
BEDL00.8	W1460	10/03/06	12:02	32-0659	Fecal Coliforms	CFU/100mL	<5	e
CT02	W0474	05/09/06	10:40	32-0251	*E. coli*	CFU/100mL	40	
CT02	W0474	06/13/06	12:44	32-0378	*E. coli*	CFU/100mL	92	e
CT02	W0474	07/25/06	9:45	32-0515	*E. coli*	CFU/100mL	28	
CT02	W0474	08/29/06	12:06	32-0555	*E. coli*	CFU/100mL	120	
CT02	W0474	10/03/06	9:36	32-0633	*E. coli*	CFU/100mL	36	
CT02	W0474	05/09/06	10:40	32-0251	Fecal Coliforms	CFU/100mL	80	
CT02	W0474	06/13/06	12:44	32-0378	Fecal Coliforms	CFU/100mL	78	e
CT02	W0474	07/25/06	9:45	32-0515	Fecal Coliforms	CFU/100mL	72	
CT02	W0474	08/29/06	12:06	32-0555	Fecal Coliforms	CFU/100mL	230	
CT02	W0474	10/03/06	9:36	32-0633	Fecal Coliforms	CFU/100mL	325	
CT02	W0474	05/10/06	9:45	32-0292	Ammonia-N	mg/L	0.16	
CT02	W0474	06/14/06	9:03	32-0402	Ammonia-N	mg/L	0.06	
CT02	W0474	07/25/06	9:45	32-0470	Ammonia-N	mg/L	0.02	
CT02	W0474	08/30/06	10:33	32-0575	Ammonia-N	mg/L	0.05	
CT02	W0474	10/04/06	10:40	32-0674	Ammonia-N	mg/L	<0.02	
CT02	W0474	06/14/06	9:03	32-0402	Total Nitrogen	mg/L	0.49	
CT02	W0474	07/25/06	9:45	32-0470	Total Nitrogen	mg/L	0.67	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
CT02	W0474	08/30/06	10:33	32-0575	Total Nitrogen	mg/L	0.66	
CT02	W0474	10/04/06	10:40	32-0674	Total Nitrogen	mg/L	0.55	
CT02	W0474	05/10/06	9:45	32-0292	Total Phosphorus	mg/L	0.058	
CT02	W0474	06/14/06	9:03	32-0402	Total Phosphorus	mg/L	0.013	
CT02	W0474	07/25/06	9:45	32-0470	Total Phosphorus	mg/L	0.010	
CT02	W0474	08/30/06	10:33	32-0575	Total Phosphorus	mg/L	0.011	
CT02	W0474	10/04/06	10:40	32-0674	Total Phosphorus	mg/L	0.019	
CT02	W0474	05/10/06	9:45	32-0292	Suspended Solids	mg/L	1.2	
CT02	W0474	06/14/06	9:03	32-0402	Suspended Solids	mg/L	1.7	
CT02	W0474	07/25/06	9:45	32-0470	Suspended Solids	mg/L	<1.0	
CT02	W0474	08/30/06	10:33	32-0575	Suspended Solids	mg/L	<1.0	
CT02	W0474	10/04/06	10:40	32-0674	Suspended Solids	mg/L	2.6	
CT02	W0474	05/10/06	9:45	32-0292	Turbidity	NTU	1.0	
CT02	W0474	06/14/06	9:03	32-0402	Turbidity	NTU	0.7	
CT02	W0474	07/25/06	9:45	32-0470	Turbidity	NTU	0.7	
CT02	W0474	08/30/06	10:33	32-0575	Turbidity	NTU	0.8	b
CT02	W0474	06/14/06	9:03	32-0402	True color	PCU	<15	
CT02	W0474	07/25/06	9:45	32-0470	True color	PCU	<15	
CT02	W0474	08/30/06	10:33	32-0575	True color	PCU	15	h
CT02	W0474	05/10/06	9:45	32-0292	Apparent color	PCU	<15	
CT02	W0474	06/14/06	9:03	32-0402	Apparent color	PCU	<15	
CT02	W0474	07/25/06	9:45	32-0470	Apparent color	PCU	<15	
CT02	W0474	08/30/06	10:33	32-0575	Apparent color	PCU	18	h
DICK01.3	W1461	05/09/06	10:00	32-0250	*E. coli*	CFU/100mL	<20	
DICK01.3	W1461	06/13/06	11:00	32-0377	*E. coli*	CFU/100mL	48	e
DICK01.3	W1461	07/25/06	**	32-0514	*E. coli*	CFU/100mL	136	e
DICK01.3	W1461	08/29/06	10:21	32-0549	*E. coli*	CFU/100mL	316	e
DICK01.3	W1461	10/03/06	10:57	32-0632	*E. coli*	CFU/100mL	132	e
DICK01.3	W1461	05/09/06	10:00	32-0250	Fecal Coliforms	CFU/100mL	20	
DICK01.3	W1461	06/13/06	11:00	32-0377	Fecal Coliforms	CFU/100mL	44	e
DICK01.3	W1461	07/25/06	**	32-0514	Fecal Coliforms	CFU/100mL	130	e
DICK01.3	W1461	08/29/06	10:21	32-0549	Fecal Coliforms	CFU/100mL	120	e
DICK01.3	W1461	10/03/06	10:57	32-0632	Fecal Coliforms	CFU/100mL	110	e
DPOB00.8	W1451	05/09/06	10:05	32-0279	*E. coli*	CFU/100mL	<20	
DPOB00.8	W1451	06/13/06	10:11	32-0364	*E. coli*	CFU/100mL	120	e
DPOB00.8	W1451	07/25/06	9:27	32-0502	*E. coli*	CFU/100mL	32	
DPOB00.8	W1451	08/29/06	9:42	32-0532	*E. coli*	CFU/100mL	52	
DPOB00.8	W1451	10/03/06	9:31	32-0648	*E. coli*	CFU/100mL	4	
DPOB00.8	W1451	05/09/06	10:05	32-0279	Fecal Coliforms	CFU/100mL	100	
DPOB00.8	W1451	06/13/06	10:11	32-0364	Fecal Coliforms	CFU/100mL	80	e
DPOB00.8	W1451	07/25/06	9:27	32-0502	Fecal Coliforms	CFU/100mL	60	
DPOB00.8	W1451	08/29/06	9:42	32-0532	Fecal Coliforms	CFU/100mL	100	
DPOB00.8	W1451	10/03/06	9:31	32-0648	Fecal Coliforms	CFU/100mL	40	
GDBR00.4	W0266	05/09/06	12:47	32-0278	*E. coli*	CFU/100mL	<20	
GDBR00.4	W0266	06/13/06	12:33	32-0363	*E. coli*	CFU/100mL	4	
GDBR00.4	W0266	07/25/06	13:09	32-0501	*E. coli*	CFU/100mL	232	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
GDBR00.4	W0266	08/29/06	12:14	32-0574	*E. coli*	CFU/100mL	184	e
GDBR00.4	W0266	10/03/06	12:26	32-0673	*E. coli*	CFU/100mL	8	
GDBR00.4	W0266	05/09/06	12:47	32-0278	Fecal Coliforms	CFU/100mL	<20	
GDBR00.4	W0266	06/13/06	12:33	32-0363	Fecal Coliforms	CFU/100mL	14	
GDBR00.4	W0266	07/25/06	13:09	32-0501	Fecal Coliforms	CFU/100mL	240	
GDBR00.4	W0266	08/29/06	12:14	32-0574	Fecal Coliforms	CFU/100mL	160	e
GDBR00.4	W0266	10/03/06	12:26	32-0673	Fecal Coliforms	CFU/100mL	10	
GRTB01.6	W1456	05/09/06	11:20	32-0254	*E. coli*	CFU/100mL	20	e
GRTB01.6	W1456	06/13/06	**	32-0381	*E. coli*	CFU/100mL	44	
GRTB01.6	W1456	07/25/06	10:42	32-0518	*E. coli*	CFU/100mL	160	
GRTB01.6	W1456	08/29/06	11:25	32-0552	*E. coli*	CFU/100mL	204	e
GRTB01.6	W1456	10/03/06	10:12	32-0636	*E. coli*	CFU/100mL	436	
GRTB01.6	W1456	05/09/06	11:20	32-0254	Fecal Coliforms	CFU/100mL	<20	e
GRTB01.6	W1456	06/13/06	**	32-0381	Fecal Coliforms	CFU/100mL	70	
GRTB01.6	W1456	07/25/06	10:42	32-0518	Fecal Coliforms	CFU/100mL	200	
GRTB01.6	W1456	08/29/06	11:25	32-0552	Fecal Coliforms	CFU/100mL	200	e
GRTB01.6	W1456	10/03/06	10:12	32-0636	Fecal Coliforms	CFU/100mL	455	
KINB00.2	W1459	05/09/06	12:29	32-0277	*E. coli*	CFU/100mL	40	
KINB00.2	W1459	06/13/06	12:10	32-0362	*E. coli*	CFU/100mL	8	
KINB00.2	W1459	07/25/06	12:42	32-0500	*E. coli*	CFU/100mL	32	
KINB00.2	W1459	08/29/06	11:55	32-0573	*E. coli*	CFU/100mL	140	
KINB00.2	W1459	10/03/06	12:06	32-0672	*E. coli*	CFU/100mL	16	
KINB00.2	W1459	05/09/06	12:29	32-0277	Fecal Coliforms	CFU/100mL	40	
KINB00.2	W1459	06/13/06	12:10	32-0362	Fecal Coliforms	CFU/100mL	16	
KINB00.2	W1459	07/25/06	12:42	32-0500	Fecal Coliforms	CFU/100mL	75	
KINB00.2	W1459	08/29/06	11:55	32-0573	Fecal Coliforms	CFU/100mL	140	
KINB00.2	W1459	10/03/06	12:06	32-0672	Fecal Coliforms	CFU/100mL	35	
LITR00.1	W0808	05/09/06	11:45	32-0256	*E. coli*	CFU/100mL	20	
LITR00.1	W0808	06/13/06	11:29	32-0383	*E. coli*	CFU/100mL	80	
LITR00.1	W0808	07/25/06	11:12	32-0520	*E. coli*	CFU/100mL	156	
LITR00.1	W0808	08/29/06	10:58	32-0550	*E. coli*	CFU/100mL	832	
LITR00.1	W0808	10/03/06	10:35	32-0638	*E. coli*	CFU/100mL	224	e
LITR00.1	W0808	05/09/06	11:45	32-0256	Fecal Coliforms	CFU/100mL	80	
LITR00.1	W0808	06/13/06	11:29	32-0383	Fecal Coliforms	CFU/100mL	150	
LITR00.1	W0808	07/25/06	11:12	32-0520	Fecal Coliforms	CFU/100mL	280	
LITR00.1	W0808	08/29/06	10:58	32-0550	Fecal Coliforms	CFU/100mL	880	
LITR00.1	W0808	10/03/06	10:35	32-0638	Fecal Coliforms	CFU/100mL	195	e
LITR06.8	W1462	05/09/06	14:00	32-0263	*E. coli*	CFU/100mL	<20	
LITR06.8	W1462	06/13/06	10:24	32-0392	*E. coli*	CFU/100mL	32	e
LITR06.8	W1462	07/25/06	**	32-0529	*E. coli*	CFU/100mL	64	
LITR06.8	W1462	08/29/06	9:47	32-0548	*E. coli*	CFU/100mL	176	
LITR06.8	W1462	10/03/06	11:24	32-0647	*E. coli*	CFU/100mL	4	
LITR06.8	W1462	05/09/06	14:00	32-0263	Fecal Coliforms	CFU/100mL	<20	
LITR06.8	W1462	06/13/06	10:24	32-0392	Fecal Coliforms	CFU/100mL	30	e
LITR06.8	W1462	07/25/06	**	32-0529	Fecal Coliforms	CFU/100mL	98	
LITR06.8	W1462	08/29/06	9:47	32-0548	Fecal Coliforms	CFU/100mL	210	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
LITR06.8	W1462	10/03/06	11:24	32-0647	Fecal Coliforms	CFU/100mL	10	
LRWT03.0	W1450	05/09/06	11:30	32-0273	*E. coli*	CFU/100mL	<20	
LRWT03.0	W1450	06/13/06	10:05	32-0358	*E. coli*	CFU/100mL	16	
LRWT03.0	W1450	07/25/06	11:34	32-0494	*E. coli*	CFU/100mL	12	
LRWT03.0	W1450	08/29/06	10:53	32-0569	*E. coli*	CFU/100mL	44	
LRWT03.0	W1450	10/03/06	11:00	32-0668	*E. coli*	CFU/100mL	44	
LRWT03.0	W1450	05/09/06	11:30	32-0273	Fecal Coliforms	CFU/100mL	<20	
LRWT03.0	W1450	06/13/06	10:05	32-0358	Fecal Coliforms	CFU/100mL	32	
LRWT03.0	W1450	07/25/06	11:34	32-0494	Fecal Coliforms	CFU/100mL	52	
LRWT03.0	W1450	08/29/06	10:53	32-0569	Fecal Coliforms	CFU/100mL	70	
LRWT03.0	W1450	10/03/06	11:00	32-0668	Fecal Coliforms	CFU/100mL	55	
MBWF00.4	W0264	05/09/06	11:54	32-0275	*E. coli*	CFU/100mL	<20	
MBWF00.4	W0264	06/13/06	13:00	32-0360	*E. coli*	CFU/100mL	<4	
MBWF00.4	W0264	07/25/06	12:01	32-0498	*E. coli*	CFU/100mL	4	
MBWF00.4	W0264	08/29/06	11:23	32-0571	*E. coli*	CFU/100mL	64	e
MBWF00.4	W0264	10/03/06	11:37	32-0670	*E. coli*	CFU/100mL	<4	
MBWF00.4	W0264	05/09/06	11:54	32-0275	Fecal Coliforms	CFU/100mL	<20	
MBWF00.4	W0264	06/13/06	13:00	32-0360	Fecal Coliforms	CFU/100mL	<2	
MBWF00.4	W0264	07/25/06	12:01	32-0498	Fecal Coliforms	CFU/100mL	10	
MBWF00.4	W0264	08/29/06	11:23	32-0571	Fecal Coliforms	CFU/100mL	20	e
MBWF00.4	W0264	10/03/06	11:37	32-0670	Fecal Coliforms	CFU/100mL	10	
MBWF04.0	W0263	05/09/06	12:20	32-0276	*E. coli*	CFU/100mL	20	
MBWF04.0	W0263	06/13/06	12:17	32-0361	*E. coli*	CFU/100mL	32	e
MBWF04.0	W0263	07/25/06	12:28	32-0499	*E. coli*	CFU/100mL	20	e
MBWF04.0	W0263	08/29/06	11:46	32-0572	*E. coli*	CFU/100mL	32	e
MBWF04.0	W0263	10/03/06	11:58	32-0671	*E. coli*	CFU/100mL	8	
MBWF04.0	W0263	05/09/06	12:20	32-0276	Fecal Coliforms	CFU/100mL	40	
MBWF04.0	W0263	06/13/06	12:17	32-0361	Fecal Coliforms	CFU/100mL	4	e
MBWF04.0	W0263	07/25/06	12:28	32-0499	Fecal Coliforms	CFU/100mL	18	e
MBWF04.0	W0263	08/29/06	11:46	32-0572	Fecal Coliforms	CFU/100mL	30	e
MBWF04.0	W0263	10/03/06	11:58	32-0671	Fecal Coliforms	CFU/100mL	10	
MEDB00.1	W1466	05/09/06	10:24	32-0267	*E. coli*	CFU/100mL	<20	
MEDB00.1	W1466	06/13/06	11:04	32-0352	*E. coli*	CFU/100mL	36	
MEDB00.1	W1466	07/25/06	9:49	32-0491	*E. coli*	CFU/100mL	2240	a, e
MEDB00.1	W1466	08/29/06	9:55	32-0563	*E. coli*	CFU/100mL	128	e
MEDB00.1	W1466	10/03/06	10:06	32-0662	*E. coli*	CFU/100mL	68	
MEDB00.1	W1466	05/09/06	10:24	32-0267	Fecal Coliforms	CFU/100mL	40	
MEDB00.1	W1466	06/13/06	11:04	32-0352	Fecal Coliforms	CFU/100mL	38	
MEDB00.1	W1466	07/25/06	9:49	32-0491	Fecal Coliforms	CFU/100mL	436	a, e
MEDB00.1	W1466	08/29/06	9:55	32-0563	Fecal Coliforms	CFU/100mL	120	e
MEDB00.1	W1466	10/03/06	10:06	32-0662	Fecal Coliforms	CFU/100mL	115	
MILB00.2	W0228	05/09/06	11:00	32-0253	*E. coli*	CFU/100mL	<20	
MILB00.2	W0228	06/13/06	12:27	32-0380	*E. coli*	CFU/100mL	204	
MILB00.2	W0228	07/25/06	10:17	32-0517	*E. coli*	CFU/100mL	1000	
MILB00.2	W0228	08/29/06	11:44	32-0553	*E. coli*	CFU/100mL	108	
MILB00.2	W0228	10/03/06	9:53	32-0635	*E. coli*	CFU/100mL	192	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
MILB00.2	W0228	05/09/06	11:00	32-0253	Fecal Coliforms	CFU/100mL	<20	
MILB00.2	W0228	06/13/06	12:27	32-0380	Fecal Coliforms	CFU/100mL	320	
MILB00.2	W0228	07/25/06	10:17	32-0517	Fecal Coliforms	CFU/100mL	1340	
MILB00.2	W0228	08/29/06	11:44	32-0553	Fecal Coliforms	CFU/100mL	340	
MILB00.2	W0228	10/03/06	9:53	32-0635	Fecal Coliforms	CFU/100mL	225	
MMBR00.5	W0812	05/09/06	13:05	32-0261	*E. coli*	CFU/100mL	540	
MMBR00.5	W0812	06/13/06	9:22	32-0390	*E. coli*	CFU/100mL	440	
MMBR00.5	W0812	07/25/06	12:50	32-0527	*E. coli*	CFU/100mL	1770	a, e
MMBR00.5	W0812	08/29/06	8:53	32-0546	*E. coli*	CFU/100mL	2750	
MMBR00.5	W0812	10/03/06	12:32	32-0645	*E. coli*	CFU/100mL	2760	e
MMBR00.5	W0812	05/09/06	13:05	32-0261	Fecal Coliforms	CFU/100mL	660	
MMBR00.5	W0812	06/13/06	9:22	32-0390	Fecal Coliforms	CFU/100mL	2100	
MMBR00.5	W0812	07/25/06	12:50	32-0527	Fecal Coliforms	CFU/100mL	318	a, e
MMBR00.5	W0812	08/29/06	8:53	32-0546	Fecal Coliforms	CFU/100mL	6040	
MMBR00.5	W0812	10/03/06	12:32	32-0645	Fecal Coliforms	CFU/100mL	2190	e
MMBR00.5	W0812	05/10/06	11:58	32-0296	Ammonia-N	mg/L	<0.02	
MMBR00.5	W0812	06/14/06	11:08	32-0406	Ammonia-N	mg/L	0.03	
MMBR00.5	W0812	07/25/06	12:28	32-0478	Ammonia-N	mg/L	0.06	
MMBR00.5	W0812	08/30/06	9:04	32-0579	Ammonia-N	mg/L	0.10	
MMBR00.5	W0812	10/04/06	9:17	32-0678	Ammonia-N	mg/L	0.05	
MMBR00.5	W0812	06/14/06	11:08	32-0406	Total Nitrogen	mg/L	0.56	
MMBR00.5	W0812	07/25/06	12:28	32-0478	Total Nitrogen	mg/L	1.2	
MMBR00.5	W0812	08/30/06	9:04	32-0579	Total Nitrogen	mg/L	1.1	
MMBR00.5	W0812	10/04/06	9:17	32-0678	Total Nitrogen	mg/L	0.84	
MMBR00.5	W0812	05/10/06	11:58	32-0296	Total Phosphorus	mg/L	0.013	
MMBR00.5	W0812	06/14/06	11:08	32-0406	Total Phosphorus	mg/L	0.019	
MMBR00.5	W0812	07/25/06	12:28	32-0478	Total Phosphorus	mg/L	0.057	
MMBR00.5	W0812	08/30/06	9:04	32-0579	Total Phosphorus	mg/L	0.084	
MMBR00.5	W0812	10/04/06	9:17	32-0678	Total Phosphorus	mg/L	0.039	
MMBR00.5	W0812	05/10/06	11:58	32-0296	Suspended Solids	mg/L	<1.0	
MMBR00.5	W0812	06/14/06	11:08	32-0406	Suspended Solids	mg/L	1.4	
MMBR00.5	W0812	07/25/06	12:28	32-0478	Suspended Solids	mg/L	**	
MMBR00.5	W0812	08/30/06	9:04	32-0579	Suspended Solids	mg/L	4.4	
MMBR00.5	W0812	10/04/06	9:17	32-0678	Suspended Solids	mg/L	1.6	
MMBR00.5	W0812	05/10/06	11:58	32-0296	Turbidity	NTU	1.6	
MMBR00.5	W0812	06/14/06	11:08	32-0406	Turbidity	NTU	1.1	
MMBR00.5	W0812	07/25/06	12:28	32-0478	Turbidity	NTU	2.3	
MMBR00.5	W0812	08/30/06	9:04	32-0579	Turbidity	NTU	3.4	b, h
MMBR00.5	W0812	06/14/06	11:08	32-0406	True color	PCU	16	
MMBR00.5	W0812	07/25/06	12:28	32-0478	True color	PCU	22	
MMBR00.5	W0812	08/30/06	9:04	32-0579	True color	PCU	29	h
MMBR00.5	W0812	05/10/06	11:58	32-0296	Apparent color	PCU	<15	
MMBR00.5	W0812	06/14/06	11:08	32-0406	Apparent color	PCU	22	
MMBR00.5	W0812	07/25/06	12:28	32-0478	Apparent color	PCU	28	
MMBR00.5	W0812	08/30/06	9:04	32-0579	Apparent color	PCU	35	h
PCTB00.3	W0230	05/09/06	12:15	32-0258	*E. coli*	CFU/100mL	180	e

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
PCTB00.3	W0230	06/13/06	13:02	32-0385	*E. coli*	CFU/100mL	4	
PCTB00.3	W0230	07/25/06	11:50	32-0522	*E. coli*	CFU/100mL	40	
PCTB00.3	W0230	08/29/06	12:28	32-0556	*E. coli*	CFU/100mL	3070	
PCTB00.3	W0230	10/03/06	9:14	32-0640	*E. coli*	CFU/100mL	72	e
PCTB00.3	W0230	05/09/06	12:15	32-0258	Fecal Coliforms	CFU/100mL	110	e
PCTB00.3	W0230	06/13/06	13:02	32-0385	Fecal Coliforms	CFU/100mL	60	
PCTB00.3	W0230	07/25/06	11:50	32-0522	Fecal Coliforms	CFU/100mL	120	
PCTB00.3	W0230	08/29/06	12:28	32-0556	Fecal Coliforms	CFU/100mL	5840	
PCTB00.3	W0230	10/03/06	9:14	32-0640	Fecal Coliforms	CFU/100mL	70	e
PDMB00.1	W0805	05/09/06	12:30	32-0259	*E. coli*	CFU/100mL	60	e
PDMB00.1	W0805	06/13/06	13:25	32-0386	*E. coli*	CFU/100mL	76	
PDMB00.1	W0805	07/25/06	12:03	32-0523	*E. coli*	CFU/100mL	96	
PDMB00.1	W0805	08/29/06	12:55	32-0558	*E. coli*	CFU/100mL	216	
PDMB00.1	W0805	10/03/06	9:00	32-0641	*E. coli*	CFU/100mL	576	e
PDMB00.1	W0805	05/09/06	12:30	32-0259	Fecal Coliforms	CFU/100mL	20	e
PDMB00.1	W0805	06/13/06	13:25	32-0386	Fecal Coliforms	CFU/100mL	160	
PDMB00.1	W0805	07/25/06	12:03	32-0523	Fecal Coliforms	CFU/100mL	200	
PDMB00.1	W0805	08/29/06	12:55	32-0558	Fecal Coliforms	CFU/100mL	290	
PDMB00.1	W0805	10/03/06	9:00	32-0641	Fecal Coliforms	CFU/100mL	260	e
PDMB00.1	W0805	05/10/06	11:03	32-0294	Ammonia-N	mg/L	0.03	
PDMB00.1	W0805	06/14/06	10:00	32-0404	Ammonia-N	mg/L	0.06	
PDMB00.1	W0805	07/25/06	8:49	32-0474	Ammonia-N	mg/L	0.02	
PDMB00.1	W0805	08/30/06	9:35	32-0577	Ammonia-N	mg/L	0.05	
PDMB00.1	W0805	10/04/06	9:50	32-0676	Ammonia-N	mg/L	0.04	
PDMB00.1	W0805	06/14/06	10:00	32-0404	Total Nitrogen	mg/L	1.3	
PDMB00.1	W0805	07/25/06	8:49	32-0474	Total Nitrogen	mg/L	1.3	
PDMB00.1	W0805	08/30/06	9:35	32-0577	Total Nitrogen	mg/L	1.1	
PDMB00.1	W0805	10/04/06	9:50	32-0676	Total Nitrogen	mg/L	1.2	
PDMB00.1	W0805	05/10/06	11:03	32-0294	Total Phosphorus	mg/L	0.016	
PDMB00.1	W0805	06/14/06	10:00	32-0404	Total Phosphorus	mg/L	0.024	
PDMB00.1	W0805	07/25/06	8:49	32-0474	Total Phosphorus	mg/L	0.020	
PDMB00.1	W0805	08/30/06	9:35	32-0577	Total Phosphorus	mg/L	0.020	
PDMB00.1	W0805	10/04/06	9:50	32-0676	Total Phosphorus	mg/L	0.018	
PDMB00.1	W0805	05/10/06	11:03	32-0294	Suspended Solids	mg/L	3.9	
PDMB00.1	W0805	06/14/06	10:00	32-0404	Suspended Solids	mg/L	4.7	
PDMB00.1	W0805	07/25/06	8:49	32-0474	Suspended Solids	mg/L	3.7	
PDMB00.1	W0805	08/30/06	9:35	32-0577	Suspended Solids	mg/L	2.8	
PDMB00.1	W0805	10/04/06	9:50	32-0676	Suspended Solids	mg/L	2.5	
PDMB00.1	W0805	05/10/06	11:03	32-0294	Turbidity	NTU	1.8	
PDMB00.1	W0805	06/14/06	10:00	32-0404	Turbidity	NTU	2.4	
PDMB00.1	W0805	07/25/06	8:49	32-0474	Turbidity	NTU	2.9	
PDMB00.1	W0805	08/30/06	9:35	32-0577	Turbidity	NTU	2.2	b, h
PDMB00.1	W0805	06/14/06	10:00	32-0404	True color	PCU	<15	
PDMB00.1	W0805	07/25/06	8:49	32-0474	True color	PCU	<15	
PDMB00.1	W0805	08/30/06	9:35	32-0577	True color	PCU	17	h
PDMB00.1	W0805	05/10/06	11:03	32-0294	Apparent color	PCU	20	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
PDMB00.1	W0805	06/14/06	10:00	32-0404	Apparent color	PCU	17	
PDMB00.1	W0805	07/25/06	8:49	32-0474	Apparent color	PCU	15	
PDMB00.1	W0805	08/30/06	9:35	32-0577	Apparent color	PCU	23	h
PNDB00.1	W0236	05/09/06	12:45	32-0260	*E. coli*	CFU/100mL	<20	
PNDB00.1	W0236	06/13/06	13:32	32-0387	*E. coli*	CFU/100mL	<4	
PNDB00.1	W0236	07/25/06	12:20	32-0524	*E. coli*	CFU/100mL	32	e
PNDB00.1	W0236	08/29/06	13:05	32-0559	*E. coli*	CFU/100mL	172	
PNDB00.1	W0236	10/03/06	8:51	32-0642	*E. coli*	CFU/100mL	60	e
PNDB00.1	W0236	05/09/06	12:45	32-0260	Fecal Coliforms	CFU/100mL	20	d
PNDB00.1	W0236	06/13/06	13:32	32-0387	Fecal Coliforms	CFU/100mL	50	
PNDB00.1	W0236	07/25/06	12:20	32-0524	Fecal Coliforms	CFU/100mL	20	e
PNDB00.1	W0236	08/29/06	13:05	32-0559	Fecal Coliforms	CFU/100mL	330	
PNDB00.1	W0236	10/03/06	8:51	32-0642	Fecal Coliforms	CFU/100mL	50	e
PTAB01.3	W1454	05/09/06	12:58	32-0291	*E. coli*	CFU/100mL	<20	
PTAB01.3	W1454	06/13/06	13:10	32-0376	*E. coli*	CFU/100mL	4	
PTAB01.3	W1454	07/25/06	12:21	32-0513	*E. coli*	CFU/100mL	68	
PTAB01.3	W1454	08/29/06	11:47	32-0545	*E. coli*	CFU/100mL	144	
PTAB01.3	W1454	10/03/06	12:14	32-0660	*E. coli*	CFU/100mL	40	
PTAB01.3	W1454	05/09/06	12:58	32-0291	Fecal Coliforms	CFU/100mL	<20	
PTAB01.3	W1454	06/13/06	13:10	32-0376	Fecal Coliforms	CFU/100mL	10	
PTAB01.3	W1454	07/25/06	12:21	32-0513	Fecal Coliforms	CFU/100mL	160	
PTAB01.3	W1454	08/29/06	11:47	32-0545	Fecal Coliforms	CFU/100mL	170	
PTAB01.3	W1454	10/03/06	12:14	32-0660	Fecal Coliforms	CFU/100mL	55	
ROAR00.4	W1457	05/09/06	12:07	32-0288	*E. coli*	CFU/100mL	<20	
ROAR00.4	W1457	06/13/06	12:18	32-0373	*E. coli*	CFU/100mL	<4	
ROAR00.4	W1457	07/25/06	11:31	32-0510	*E. coli*	CFU/100mL	12	
ROAR00.4	W1457	08/29/06	12:15	32-0542	*E. coli*	CFU/100mL	68	
ROAR00.4	W1457	10/03/06	11:32	32-0657	*E. coli*	CFU/100mL	16	
ROAR00.4	W1457	05/09/06	12:07	32-0288	Fecal Coliforms	CFU/100mL	<20	
ROAR00.4	W1457	06/13/06	12:18	32-0373	Fecal Coliforms	CFU/100mL	<2	
ROAR00.4	W1457	07/25/06	11:31	32-0510	Fecal Coliforms	CFU/100mL	40	
ROAR00.4	W1457	08/29/06	12:15	32-0542	Fecal Coliforms	CFU/100mL	70	
ROAR00.4	W1457	10/03/06	11:32	32-0657	Fecal Coliforms	CFU/100mL	30	
SAND00.3	W1458	05/09/06	11:12	32-0283	*E. coli*	CFU/100mL	<20	
SAND00.3	W1458	06/13/06	11:16	32-0368	*E. coli*	CFU/100mL	<4	
SAND00.3	W1458	07/25/06	10:40	32-0505	*E. coli*	CFU/100mL	<4	
SAND00.3	W1458	08/29/06	10:49	32-0537	*E. coli*	CFU/100mL	8	
SAND00.3	W1458	10/03/06	10:45	32-0652	*E. coli*	CFU/100mL	<4	
SAND00.3	W1458	05/09/06	11:12	32-0283	Fecal Coliforms	CFU/100mL	<20	
SAND00.3	W1458	06/13/06	11:16	32-0368	Fecal Coliforms	CFU/100mL	16	
SAND00.3	W1458	07/25/06	10:40	32-0505	Fecal Coliforms	CFU/100mL	4	
SAND00.3	W1458	08/29/06	10:49	32-0537	Fecal Coliforms	CFU/100mL	20	
SAND00.3	W1458	10/03/06	10:45	32-0652	Fecal Coliforms	CFU/100mL	20	
SKMB00.4	W0257	05/09/06	10:30	32-0280	*E. coli*	CFU/100mL	<20	
SKMB00.4	W0257	06/13/06	10:25	32-0365	*E. coli*	CFU/100mL	8	e
SKMB00.4	W0257	07/25/06	9:41	32-0488	*E. coli*	CFU/100mL	<4	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
SKMB00.4	W0257	08/29/06	9:55	32-0533	*E. coli*	CFU/100mL	36	e
SKMB00.4	W0257	10/03/06	9:44	32-0649	*E. coli*	CFU/100mL	16	e
SKMB00.4	W0257	05/09/06	10:30	32-0280	Fecal Coliforms	CFU/100mL	<20	
SKMB00.4	W0257	06/13/06	10:25	32-0365	Fecal Coliforms	CFU/100mL	6	e
SKMB00.4	W0257	07/25/06	9:41	32-0488	Fecal Coliforms	CFU/100mL	20	
SKMB00.4	W0257	08/29/06	9:55	32-0533	Fecal Coliforms	CFU/100mL	20	e
SKMB00.4	W0257	10/03/06	9:44	32-0649	Fecal Coliforms	CFU/100mL	5	e
SKMB00.4	W0257	05/10/06	14:50	32-0302	Ammonia-N	mg/L	<0.02	
SKMB00.4	W0257	06/14/06	12:55	32-0412	Ammonia-N	mg/L	<0.02	
SKMB00.4	W0257	07/25/06	9:41	32-0488	Ammonia-N	mg/L	<0.02	
SKMB00.4	W0257	08/29/06	9:55	32-0533	Ammonia-N	mg/L	<0.02	
SKMB00.4	W0257	10/03/06	9:44	32-0649	Ammonia-N	mg/L	<0.02	
SKMB00.4	W0257	06/14/06	12:55	32-0412	Total Nitrogen	mg/L	0.15	
SKMB00.4	W0257	07/25/06	9:41	32-0488	Total Nitrogen	mg/L	0.13	
SKMB00.4	W0257	08/29/06	9:55	32-0533	Total Nitrogen	mg/L	0.23	
SKMB00.4	W0257	10/03/06	9:44	32-0649	Total Nitrogen	mg/L	0.18	
SKMB00.4	W0257	05/10/06	14:50	32-0302	Total Phosphorus	mg/L	<0.005	
SKMB00.4	W0257	06/14/06	12:55	32-0412	Total Phosphorus	mg/L	<0.005	
SKMB00.4	W0257	07/25/06	9:41	32-0488	Total Phosphorus	mg/L	0.009	
SKMB00.4	W0257	08/29/06	9:55	32-0533	Total Phosphorus	mg/L	0.007	
SKMB00.4	W0257	10/03/06	9:44	32-0649	Total Phosphorus	mg/L	0.005	
SKMB00.4	W0257	05/10/06	14:50	32-0302	Suspended Solids	mg/L	<1.0	
SKMB00.4	W0257	06/14/06	12:55	32-0412	Suspended Solids	mg/L	<1.0	
SKMB00.4	W0257	07/25/06	9:41	32-0488	Suspended Solids	mg/L	<1.0	
SKMB00.4	W0257	08/29/06	9:55	32-0533	Suspended Solids	mg/L	<1.0	h
SKMB00.4	W0257	10/03/06	9:44	32-0649	Suspended Solids	mg/L	<1.0	h
SKMB00.4	W0257	05/10/06	14:50	32-0302	Turbidity	NTU	<0.5	
SKMB00.4	W0257	06/14/06	12:55	32-0412	Turbidity	NTU	<0.5	
SKMB00.4	W0257	07/25/06	9:41	32-0488	Turbidity	NTU	<0.5	
SKMB00.4	W0257	08/29/06	9:55	32-0533	Turbidity	NTU	##	h
SKMB00.4	W0257	06/14/06	12:55	32-0412	True color	PCU	<15	
SKMB00.4	W0257	07/25/06	9:41	32-0488	True color	PCU	19	
SKMB00.4	W0257	08/29/06	9:55	32-0533	True color	PCU	27	h
SKMB00.4	W0257	05/10/06	14:50	32-0302	Apparent color	PCU	<15	
SKMB00.4	W0257	06/14/06	12:55	32-0412	Apparent color	PCU	<15	
SKMB00.4	W0257	07/25/06	9:41	32-0488	Apparent color	PCU	20	
SKMB00.4	W0257	08/29/06	9:55	32-0533	Apparent color	PCU	33	h
SPPO	W1605	07/25/06	12:45	32-0413	Ammonia-N	mg/L	0.09	
SPPO	W1605	07/25/06	12:45	32-0413	Total Nitrogen	mg/L	1.4	
SPPO	W1605	07/25/06	12:45	32-0413	Total Phosphorus	mg/L	0.035	
SPPO	W1605	07/25/06	12:45	32-0413	Suspended Solids	mg/L	1.8	
SPPO	W1605	07/25/06	12:45	32-0413	Turbidity	NTU	0.9	
SPPO	W1605	07/25/06	12:45	32-0413	True color	PCU	<15	
SPPO	W1605	07/25/06	12:45	32-0413	Apparent color	PCU	15	
SWFT01.3	W1467	05/09/06	10:11	32-0266	*E. coli*	CFU/100mL	<20	
SWFT01.3	W1467	06/13/06	10:47	32-0351	*E. coli*	CFU/100mL	24	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
SWFT01.3	W1467	07/25/06	9:28	32-0490	*E. coli*	CFU/100mL	40	
SWFT01.3	W1467	08/29/06	9:35	32-0562	*E. coli*	CFU/100mL	24	e
SWFT01.3	W1467	10/03/06	9:50	32-0661	*E. coli*	CFU/100mL	32	
SWFT01.3	W1467	05/09/06	10:11	32-0266	Fecal Coliforms	CFU/100mL	<20	
SWFT01.3	W1467	06/13/06	10:47	32-0351	Fecal Coliforms	CFU/100mL	30	
SWFT01.3	W1467	07/25/06	9:28	32-0490	Fecal Coliforms	CFU/100mL	48	
SWFT01.3	W1467	08/29/06	9:35	32-0562	Fecal Coliforms	CFU/100mL	10	e
SWFT01.3	W1467	10/03/06	9:50	32-0661	Fecal Coliforms	CFU/100mL	50	
WATS00.1	W0269	05/09/06	11:20	32-0272	*E. coli*	CFU/100mL	<20	
WATS00.1	W0269	06/13/06	11:52	32-0357	*E. coli*	CFU/100mL	16	
WATS00.1	W0269	07/25/06	11:20	32-0493	*E. coli*	CFU/100mL	20	
WATS00.1	W0269	08/29/06	10:41	32-0568	*E. coli*	CFU/100mL	44	e
WATS00.1	W0269	10/03/06	10:50	32-0667	*E. coli*	CFU/100mL	48	e
WATS00.1	W0269	05/09/06	11:20	32-0272	Fecal Coliforms	CFU/100mL	<20	
WATS00.1	W0269	06/13/06	11:52	32-0357	Fecal Coliforms	CFU/100mL	16	
WATS00.1	W0269	07/25/06	11:20	32-0493	Fecal Coliforms	CFU/100mL	24	
WATS00.1	W0269	08/29/06	10:41	32-0568	Fecal Coliforms	CFU/100mL	30	e
WATS00.1	W0269	10/03/06	10:50	32-0667	Fecal Coliforms	CFU/100mL	45	e
WBWC00.1	W0271	05/09/06	10:45	32-0270	*E. coli*	CFU/100mL	<20	
WBWC00.1	W0271	06/13/06	10:25	32-0355	*E. coli*	CFU/100mL	8	
WBWC00.1	W0271	07/25/06	10:35	32-0492	*E. coli*	CFU/100mL	8	
WBWC00.1	W0271	08/29/06	10:14	32-0566	*E. coli*	CFU/100mL	8	
WBWC00.1	W0271	10/03/06	10:22	32-0665	*E. coli*	CFU/100mL	8	e
WBWC00.1	W0271	05/09/06	10:45	32-0270	Fecal Coliforms	CFU/100mL	40	
WBWC00.1	W0271	06/13/06	10:25	32-0355	Fecal Coliforms	CFU/100mL	14	
WBWC00.1	W0271	07/25/06	10:35	32-0492	Fecal Coliforms	CFU/100mL	20	
WBWC00.1	W0271	08/29/06	10:14	32-0566	Fecal Coliforms	CFU/100mL	10	
WBWC00.1	W0271	10/03/06	10:22	32-0665	Fecal Coliforms	CFU/100mL	5	e
WBWF00.3	W1455	05/09/06	11:30	32-0284	*E. coli*	CFU/100mL	<20	
WBWF00.3	W1455	06/13/06	11:33	32-0369	*E. coli*	CFU/100mL	<4	
WBWF00.3	W1455	07/25/06	10:55	32-0506	*E. coli*	CFU/100mL	28	
WBWF00.3	W1455	08/29/06	11:00	32-0538	*E. coli*	CFU/100mL	68	e
WBWF00.3	W1455	10/03/06	11:00	32-0653	*E. coli*	CFU/100mL	28	
WBWF00.3	W1455	05/09/06	11:30	32-0284	Fecal Coliforms	CFU/100mL	<20	
WBWF00.3	W1455	06/13/06	11:33	32-0369	Fecal Coliforms	CFU/100mL	40	
WBWF00.3	W1455	07/25/06	10:55	32-0506	Fecal Coliforms	CFU/100mL	40	
WBWF00.3	W1455	08/29/06	11:00	32-0538	Fecal Coliforms	CFU/100mL	50	e
WBWF00.3	W1455	10/03/06	11:00	32-0653	Fecal Coliforms	CFU/100mL	35	
WHTB000	W0229	05/09/06	10:54	32-0252	*E. coli*	CFU/100mL	100	e
WHTB000	W0229	06/13/06	12:22	32-0379	*E. coli*	CFU/100mL	32	
WHTB000	W0229	07/25/06	10:05	32-0516	*E. coli*	CFU/100mL	396	
WHTB000	W0229	08/29/06	11:50	32-0554	*E. coli*	CFU/100mL	576	
WHTB000	W0229	10/03/06	9:48	32-0634	*E. coli*	CFU/100mL	164	
WHTB000	W0229	05/09/06	10:54	32-0252	Fecal Coliforms	CFU/100mL	80	e
WHTB000	W0229	06/13/06	12:22	32-0379	Fecal Coliforms	CFU/100mL	50	
WHTB000	W0229	07/25/06	10:05	32-0516	Fecal Coliforms	CFU/100mL	560	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
WHTB000	W0229	08/29/06	11:50	32-0554	Fecal Coliforms	CFU/100mL	580	
WHTB000	W0229	10/03/06	9:48	32-0634	Fecal Coliforms	CFU/100mL	220	
WLKB00.4	W0254	05/09/06	11:00	32-0282	*E. coli*	CFU/100mL	<20	
WLKB00.4	W0254	06/13/06	11:02	32-0367	*E. coli*	CFU/100mL	16	e
WLKB00.4	W0254	07/25/06	10:30	32-0504	*E. coli*	CFU/100mL	112	
WLKB00.4	W0254	08/29/06	10:33	32-0536	*E. coli*	CFU/100mL	16	
WLKB00.4	W0254	10/03/06	10:35	32-0651	*E. coli*	CFU/100mL	16	e
WLKB00.4	W0254	05/09/06	11:00	32-0282	Fecal Coliforms	CFU/100mL	<20	
WLKB00.4	W0254	06/13/06	11:02	32-0367	Fecal Coliforms	CFU/100mL	10	e
WLKB00.4	W0254	07/25/06	10:30	32-0504	Fecal Coliforms	CFU/100mL	180	
WLKB00.4	W0254	08/29/06	10:33	32-0536	Fecal Coliforms	CFU/100mL	20	
WLKB00.4	W0254	10/03/06	10:35	32-0651	Fecal Coliforms	CFU/100mL	5	e
WRBST2	W1419	05/09/06	11:42	32-0274	*E. coli*	CFU/100mL	<20	
WRBST2	W1419	06/13/06	9:45	32-0359	*E. coli*	CFU/100mL	12	
WRBST2	W1419	07/25/06	11:50	32-0495	*E. coli*	CFU/100mL	8	
WRBST2	W1419	08/29/06	11:07	32-0570	*E. coli*	CFU/100mL	56	e
WRBST2	W1419	10/03/06	11:14	32-0669	*E. coli*	CFU/100mL	32	
WRBST2	W1419	05/09/06	11:42	32-0274	Fecal Coliforms	CFU/100mL	120	
WRBST2	W1419	06/13/06	9:45	32-0359	Fecal Coliforms	CFU/100mL	14	
WRBST2	W1419	07/25/06	11:50	32-0495	Fecal Coliforms	CFU/100mL	22	
WRBST2	W1419	08/29/06	11:07	32-0570	Fecal Coliforms	CFU/100mL	30	e
WRBST2	W1419	10/03/06	11:14	32-0669	Fecal Coliforms	CFU/100mL	50	
WRDS03.9	W1449	05/09/06	11:05	32-0271	*E. coli*	CFU/100mL	<20	
WRDS03.9	W1449	06/13/06	11:41	32-0356	*E. coli*	CFU/100mL	16	e
WRDS03.9	W1449	07/25/06	10:55	32-0486	*E. coli*	CFU/100mL	12	
WRDS03.9	W1449	08/29/06	10:29	32-0567	*E. coli*	CFU/100mL	108	e
WRDS03.9	W1449	10/03/06	10:36	32-0666	*E. coli*	CFU/100mL	8	e
WRDS03.9	W1449	05/09/06	11:05	32-0271	Fecal Coliforms	CFU/100mL	100	
WRDS03.9	W1449	06/13/06	11:41	32-0356	Fecal Coliforms	CFU/100mL	14	e
WRDS03.9	W1449	07/25/06	10:55	32-0486	Fecal Coliforms	CFU/100mL	14	
WRDS03.9	W1449	08/29/06	10:29	32-0567	Fecal Coliforms	CFU/100mL	90	e
WRDS03.9	W1449	10/03/06	10:36	32-0666	Fecal Coliforms	CFU/100mL	5	e
WRDS03.9	W1449	05/10/06	14:03	32-0301	Ammonia-N	mg/L	<0.02	
WRDS03.9	W1449	06/14/06	12:03	32-0411	Ammonia-N	mg/L	<0.02	
WRDS03.9	W1449	07/25/06	10:55	32-0486	Ammonia-N	mg/L	<0.02	
WRDS03.9	W1449	08/30/06	13:55	32-0584	Ammonia-N	mg/L	<0.02	
WRDS03.9	W1449	10/04/06	13:12	32-0683	Ammonia-N	mg/L	<0.02	
WRDS03.9	W1449	05/10/06	14:03	32-0301	Nitrate/Nitrite-N	mg/L	0.22	
WRDS03.9	W1449	06/14/06	12:03	32-0411	Total Nitrogen	mg/L	0.25	
WRDS03.9	W1449	07/25/06	10:55	32-0486	Total Nitrogen	mg/L	0.47	
WRDS03.9	W1449	08/30/06	13:55	32-0584	Total Nitrogen	mg/L	0.42	
WRDS03.9	W1449	10/04/06	13:12	32-0683	Total Nitrogen	mg/L	0.57	
WRDS03.9	W1449	05/10/06	14:03	32-0301	Total Phosphorus	mg/L	0.005	
WRDS03.9	W1449	06/14/06	12:03	32-0411	Total Phosphorus	mg/L	0.006	
WRDS03.9	W1449	07/25/06	10:55	32-0486	Total Phosphorus	mg/L	0.006	
WRDS03.9	W1449	08/30/06	13:55	32-0584	Total Phosphorus	mg/L	0.006	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
WRDS03.9	W1449	10/04/06	13:12	32-0683	Total Phosphorus	mg/L	0.005	
WRDS03.9	W1449	05/10/06	14:03	32-0301	Suspended Solids	mg/L	<1.0	
WRDS03.9	W1449	06/14/06	12:03	32-0411	Suspended Solids	mg/L	<1.0	
WRDS03.9	W1449	07/25/06	10:55	32-0486	Suspended Solids	mg/L	<1.0	
WRDS03.9	W1449	08/30/06	13:55	32-0584	Suspended Solids	mg/L	<1.0	
WRDS03.9	W1449	10/04/06	13:12	32-0683	Suspended Solids	mg/L	<1.0	
WRDS03.9	W1449	05/10/06	14:03	32-0301	Turbidity	NTU	1.1	
WRDS03.9	W1449	06/14/06	12:03	32-0411	Turbidity	NTU	0.8	
WRDS03.9	W1449	07/25/06	10:55	32-0486	Turbidity	NTU	1.0	
WRDS03.9	W1449	08/30/06	13:55	32-0584	Turbidity	NTU	1.1	b
WRDS03.9	W1449	06/14/06	12:03	32-0411	True color	PCU	<15	
WRDS03.9	W1449	07/25/06	10:55	32-0486	True color	PCU	21	
WRDS03.9	W1449	08/30/06	13:55	32-0584	True color	PCU	18	h
WRDS03.9	W1449	05/10/06	14:03	32-0301	Apparent color	PCU	15	
WRDS03.9	W1449	06/14/06	12:03	32-0411	Apparent color	PCU	<15	
WRDS03.9	W1449	07/25/06	10:55	32-0486	Apparent color	PCU	25	
WRDS03.9	W1449	08/30/06	13:55	32-0584	Apparent color	PCU	26	h
WRDS03.9	W1449	08/30/06	13:55	32-0584	Hardness	mg/L	##	h
WRDS03.9	W1449	08/30/06	13:55	32-0584	Hardness	mg/L CaCO3	28	
WSFR08.3	W1465	05/09/06	12:05	32-0257	*E. coli*	CFU/100mL	100	
WSFR08.3	W1465	06/13/06	13:11	32-0384	*E. coli*	CFU/100mL	40	
WSFR08.3	W1465	07/25/06	11:25	32-0521	*E. coli*	CFU/100mL	68	
WSFR08.3	W1465	08/29/06	12:42	32-0557	*E. coli*	CFU/100mL	140	
WSFR08.3	W1465	10/03/06	9:07	32-0639	*E. coli*	CFU/100mL	232	
WSFR08.3	W1465	05/09/06	12:05	32-0257	Fecal Coliforms	CFU/100mL	200	
WSFR08.3	W1465	06/13/06	13:11	32-0384	Fecal Coliforms	CFU/100mL	70	
WSFR08.3	W1465	07/25/06	11:25	32-0521	Fecal Coliforms	CFU/100mL	134	
WSFR08.3	W1465	08/29/06	12:42	32-0557	Fecal Coliforms	CFU/100mL	210	
WSFR08.3	W1465	10/03/06	9:07	32-0639	Fecal Coliforms	CFU/100mL	275	
WSFR08.3	W1465	05/10/06	10:30	32-0293	Ammonia-N	mg/L	0.12	
WSFR08.3	W1465	06/14/06	9:38	32-0403	Ammonia-N	mg/L	0.06	
WSFR08.3	W1465	07/25/06	9:07	32-0472	Ammonia-N	mg/L	0.07	
WSFR08.3	W1465	08/30/06	9:56	32-0576	Ammonia-N	mg/L	0.09	
WSFR08.3	W1465	10/04/06	10:10	32-0675	Ammonia-N	mg/L	0.02	
WSFR08.3	W1465	06/14/06	9:38	32-0403	Total Nitrogen	mg/L	0.47	
WSFR08.3	W1465	07/25/06	9:07	32-0472	Total Nitrogen	mg/L	0.76	
WSFR08.3	W1465	08/30/06	9:56	32-0576	Total Nitrogen	mg/L	0.64	
WSFR08.3	W1465	10/04/06	10:10	32-0675	Total Nitrogen	mg/L	0.51	
WSFR08.3	W1465	05/10/06	10:30	32-0293	Total Phosphorus	mg/L	0.046	
WSFR08.3	W1465	06/14/06	9:38	32-0403	Total Phosphorus	mg/L	0.010	
WSFR08.3	W1465	07/25/06	9:07	32-0472	Total Phosphorus	mg/L	0.010	
WSFR08.3	W1465	08/30/06	9:56	32-0576	Total Phosphorus	mg/L	0.013	
WSFR08.3	W1465	10/04/06	10:10	32-0675	Total Phosphorus	mg/L	0.017	
WSFR08.3	W1465	05/10/06	10:30	32-0293	Suspended Solids	mg/L	<1.0	
WSFR08.3	W1465	06/14/06	9:38	32-0403	Suspended Solids	mg/L	1.5	
WSFR08.3	W1465	07/25/06	9:07	32-0472	Suspended Solids	mg/L	<1.0	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
WSFR08.3	W1465	08/30/06	9:56	32-0576	Suspended Solids	mg/L	1.8	
WSFR08.3	W1465	10/04/06	10:10	32-0675	Suspended Solids	mg/L	1.6	
WSFR08.3	W1465	05/10/06	10:30	32-0293	Turbidity	NTU	1.5	
WSFR08.3	W1465	06/14/06	9:38	32-0403	Turbidity	NTU	0.8	
WSFR08.3	W1465	07/25/06	9:07	32-0472	Turbidity	NTU	0.8	
WSFR08.3	W1465	08/30/06	9:56	32-0576	Turbidity	NTU	1.1	b, h
WSFR08.3	W1465	06/14/06	9:38	32-0403	True color	PCU	<15	
WSFR08.3	W1465	07/25/06	9:07	32-0472	True color	PCU	<15	
WSFR08.3	W1465	08/30/06	9:56	32-0576	True color	PCU	<15	h
WSFR08.3	W1465	05/10/06	10:30	32-0293	Apparent color	PCU	<15	
WSFR08.3	W1465	06/14/06	9:38	32-0403	Apparent color	PCU	<15	
WSFR08.3	W1465	07/25/06	9:07	32-0472	Apparent color	PCU	<15	
WSFR08.3	W1465	08/30/06	9:56	32-0576	Apparent color	PCU	<15	h
WSFR10.6	W1464	05/09/06	11:35	32-0255	*E. coli*	CFU/100mL	20	
WSFR10.6	W1464	06/13/06	11:41	32-0382	*E. coli*	CFU/100mL	68	
WSFR10.6	W1464	07/25/06	11:00	32-0519	*E. coli*	CFU/100mL	168	
WSFR10.6	W1464	08/29/06	11:09	32-0551	*E. coli*	CFU/100mL	164	
WSFR10.6	W1464	10/03/06	10:27	32-0637	*E. coli*	CFU/100mL	216	
WSFR10.6	W1464	05/09/06	11:35	32-0255	Fecal Coliforms	CFU/100mL	20	
WSFR10.6	W1464	06/13/06	11:41	32-0382	Fecal Coliforms	CFU/100mL	100	
WSFR10.6	W1464	07/25/06	11:00	32-0519	Fecal Coliforms	CFU/100mL	220	
WSFR10.6	W1464	08/29/06	11:09	32-0551	Fecal Coliforms	CFU/100mL	250	
WSFR10.6	W1464	10/03/06	10:27	32-0637	Fecal Coliforms	CFU/100mL	335	
WSFR10.6	W1464	05/10/06	11:22	32-0295	Ammonia-N	mg/L	0.35	
WSFR10.6	W1464	06/14/06	10:22	32-0405	Ammonia-N	mg/L	0.10	
WSFR10.6	W1464	07/25/06	10:17	32-0476	Ammonia-N	mg/L	0.16	
WSFR10.6	W1464	08/30/06	11:07	32-0578	Ammonia-N	mg/L	0.20	
WSFR10.6	W1464	10/04/06	11:20	32-0677	Ammonia-N	mg/L	0.02	
WSFR10.6	W1464	06/14/06	10:22	32-0405	Total Nitrogen	mg/L	0.48	
WSFR10.6	W1464	07/25/06	10:17	32-0476	Total Nitrogen	mg/L	0.87	
WSFR10.6	W1464	08/30/06	11:07	32-0578	Total Nitrogen	mg/L	0.70	
WSFR10.6	W1464	10/04/06	11:20	32-0677	Total Nitrogen	mg/L	0.54	
WSFR10.6	W1464	05/10/06	11:22	32-0295	Total Phosphorus	mg/L	0.11	
WSFR10.6	W1464	06/14/06	10:22	32-0405	Total Phosphorus	mg/L	0.011	
WSFR10.6	W1464	07/25/06	10:17	32-0476	Total Phosphorus	mg/L	0.009	
WSFR10.6	W1464	08/30/06	11:07	32-0578	Total Phosphorus	mg/L	0.012	
WSFR10.6	W1464	10/04/06	11:20	32-0677	Total Phosphorus	mg/L	0.019	
WSFR10.6	W1464	05/10/06	11:22	32-0295	Suspended Solids	mg/L	<1.0	
WSFR10.6	W1464	06/14/06	10:22	32-0405	Suspended Solids	mg/L	1.5	
WSFR10.6	W1464	07/25/06	10:17	32-0476	Suspended Solids	mg/L	<1.0	
WSFR10.6	W1464	08/30/06	11:07	32-0578	Suspended Solids	mg/L	<1.0	
WSFR10.6	W1464	10/04/06	11:20	32-0677	Suspended Solids	mg/L	1.0	
WSFR10.6	W1464	05/10/06	11:22	32-0295	Turbidity	NTU	1.4	
WSFR10.6	W1464	06/14/06	10:22	32-0405	Turbidity	NTU	1.1	
WSFR10.6	W1464	07/25/06	10:17	32-0476	Turbidity	NTU	0.6	
WSFR10.6	W1464	08/30/06	11:07	32-0578	Turbidity	NTU	0.6	b

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
WSFR10.6	W1464	06/14/06	10:22	32-0405	True color	PCU	<15	
WSFR10.6	W1464	07/25/06	10:17	32-0476	True color	PCU	<15	
WSFR10.6	W1464	08/30/06	11:07	32-0578	True color	PCU	16	h
WSFR10.6	W1464	05/10/06	11:22	32-0295	Apparent color	PCU	<15	
WSFR10.6	W1464	06/14/06	10:22	32-0405	Apparent color	PCU	<15	
WSFR10.6	W1464	07/25/06	10:17	32-0476	Apparent color	PCU	<15	
WSFR10.6	W1464	08/30/06	11:07	32-0578	Apparent color	PCU	19	h
WSFR10.6	W1464	08/30/06	11:07	32-0578	Hardness	mg/L CaCO3	29	
WSFR10.6	W1464	08/30/06	11:07	32-0578	Hardness	mg/L	##	h
WSFR13.0	W1463	05/09/06	13:25	32-0262	*E. coli*	CFU/100mL	500	
WSFR13.0	W1463	06/13/06	9:38	32-0391	*E. coli*	CFU/100mL	100	
WSFR13.0	W1463	07/25/06	13:08	32-0528	*E. coli*	CFU/100mL	28	
WSFR13.0	W1463	08/29/06	9:13	32-0547	*E. coli*	CFU/100mL	76	
WSFR13.0	W1463	10/03/06	11:45	32-0646	*E. coli*	CFU/100mL	204	e
WSFR13.0	W1463	05/09/06	13:25	32-0262	Fecal Coliforms	CFU/100mL	23200	
WSFR13.0	W1463	06/13/06	9:38	32-0391	Fecal Coliforms	CFU/100mL	150	
WSFR13.0	W1463	07/25/06	13:08	32-0528	Fecal Coliforms	CFU/100mL	70	
WSFR13.0	W1463	08/29/06	9:13	32-0547	Fecal Coliforms	CFU/100mL	110	
WSFR13.0	W1463	10/03/06	11:45	32-0646	Fecal Coliforms	CFU/100mL	155	e
WSFR13.0	W1463	05/10/06	12:48	32-0297	Ammonia-N	mg/L	<0.02	
WSFR13.0	W1463	06/14/06	14:18	32-0407	Ammonia-N	mg/L	<0.02	
WSFR13.0	W1463	07/25/06	10:45	32-0480	Ammonia-N	mg/L	<0.02	
WSFR13.0	W1463	08/30/06	11:45	32-0580	Ammonia-N	mg/L	<0.02	
WSFR13.0	W1463	10/04/06	11:50	32-0679	Ammonia-N	mg/L	<0.02	
WSFR13.0	W1463	06/14/06	14:18	32-0407	Total Nitrogen	mg/L	0.25	
WSFR13.0	W1463	07/25/06	10:45	32-0480	Total Nitrogen	mg/L	0.34	
WSFR13.0	W1463	08/30/06	11:45	32-0580	Total Nitrogen	mg/L	0.33	
WSFR13.0	W1463	10/04/06	11:50	32-0679	Total Nitrogen	mg/L	0.31	
WSFR13.0	W1463	05/10/06	12:48	32-0297	Total Phosphorus	mg/L	0.008	
WSFR13.0	W1463	06/14/06	14:18	32-0407	Total Phosphorus	mg/L	0.006	
WSFR13.0	W1463	07/25/06	10:45	32-0480	Total Phosphorus	mg/L	0.006	
WSFR13.0	W1463	08/30/06	11:45	32-0580	Total Phosphorus	mg/L	0.008	
WSFR13.0	W1463	10/04/06	11:50	32-0679	Total Phosphorus	mg/L	0.015	
WSFR13.0	W1463	05/10/06	12:48	32-0297	Suspended Solids	mg/L	<1.0	
WSFR13.0	W1463	06/14/06	14:18	32-0407	Suspended Solids	mg/L	1.2	
WSFR13.0	W1463	07/25/06	10:45	32-0480	Suspended Solids	mg/L	<1.0	
WSFR13.0	W1463	08/30/06	11:45	32-0580	Suspended Solids	mg/L	1.0	
WSFR13.0	W1463	10/04/06	11:50	32-0679	Suspended Solids	mg/L	<1.0	
WSFR13.0	W1463	05/10/06	12:48	32-0297	Turbidity	NTU	0.6	
WSFR13.0	W1463	06/14/06	14:18	32-0407	Turbidity	NTU	0.8	
WSFR13.0	W1463	07/25/06	10:45	32-0480	Turbidity	NTU	0.5	
WSFR13.0	W1463	08/30/06	11:45	32-0580	Turbidity	NTU	0.8	b
WSFR13.0	W1463	06/14/06	14:18	32-0407	True color	PCU	<15	
WSFR13.0	W1463	07/25/06	10:45	32-0480	True color	PCU	<15	
WSFR13.0	W1463	08/30/06	11:45	32-0580	True color	PCU	15	h
WSFR13.0	W1463	05/10/06	12:48	32-0297	Apparent color	PCU	<15	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
WSFR13.0	W1463	06/14/06	14:18	32-0407	Apparent color	PCU	<15	
WSFR13.0	W1463	07/25/06	10:45	32-0480	Apparent color	PCU	15	
WSFR13.0	W1463	08/30/06	11:45	32-0580	Apparent color	PCU	23	h
WSFR13.0	W1463	08/30/06	11:45	32-0580	Hardness	mg/L CaCO3	27	
WSFR13.0	W1463	08/30/06	11:45	32-0580	Hardness	mg/L	##	h
WSFR23.5	W0221	05/09/06	11:46	32-0287	*E. coli*	CFU/100mL	<20	
WSFR23.5	W0221	06/13/06	11:52	32-0372	*E. coli*	CFU/100mL	8	
WSFR23.5	W0221	07/25/06	11:07	32-0509	*E. coli*	CFU/100mL	20	
WSFR23.5	W0221	08/29/06	11:10	32-0541	*E. coli*	CFU/100mL	32	
WSFR23.5	W0221	10/03/06	11:10	32-0656	*E. coli*	CFU/100mL	24	
WSFR23.5	W0221	05/09/06	11:46	32-0287	Fecal Coliforms	CFU/100mL	100	
WSFR23.5	W0221	06/13/06	11:52	32-0372	Fecal Coliforms	CFU/100mL	18	
WSFR23.5	W0221	07/25/06	11:07	32-0509	Fecal Coliforms	CFU/100mL	62	
WSFR23.5	W0221	08/29/06	11:10	32-0541	Fecal Coliforms	CFU/100mL	70	
WSFR23.5	W0221	10/03/06	11:10	32-0656	Fecal Coliforms	CFU/100mL	40	
WSFR23.5	W0221	05/10/06	13:21	32-0298	Ammonia-N	mg/L	<0.02	
WSFR23.5	W0221	06/14/06	13:40	32-0408	Ammonia-N	mg/L	<0.02	
WSFR23.5	W0221	07/25/06	11:47	32-0482	Ammonia-N	mg/L	<0.02	
WSFR23.5	W0221	08/30/06	12:35	32-0581	Ammonia-N	mg/L	<0.02	
WSFR23.5	W0221	10/04/06	12:25	32-0680	Ammonia-N	mg/L	<0.02	
WSFR23.5	W0221	06/14/06	13:40	32-0408	Total Nitrogen	mg/L	0.18	
WSFR23.5	W0221	07/25/06	11:47	32-0482	Total Nitrogen	mg/L	0.19	
WSFR23.5	W0221	08/30/06	12:35	32-0581	Total Nitrogen	mg/L	0.22	
WSFR23.5	W0221	10/04/06	12:25	32-0680	Total Nitrogen	mg/L	0.18	
WSFR23.5	W0221	05/10/06	13:21	32-0298	Total Phosphorus	mg/L	0.005	
WSFR23.5	W0221	06/14/06	13:40	32-0408	Total Phosphorus	mg/L	0.005	
WSFR23.5	W0221	07/25/06	11:47	32-0482	Total Phosphorus	mg/L	0.005	
WSFR23.5	W0221	08/30/06	12:35	32-0581	Total Phosphorus	mg/L	0.007	
WSFR23.5	W0221	10/04/06	12:25	32-0680	Total Phosphorus	mg/L	0.006	
WSFR23.5	W0221	05/10/06	13:21	32-0298	Suspended Solids	mg/L	<1.0	
WSFR23.5	W0221	06/14/06	13:40	32-0408	Suspended Solids	mg/L	1.2	
WSFR23.5	W0221	07/25/06	11:47	32-0482	Suspended Solids	mg/L	<1.0	
WSFR23.5	W0221	08/30/06	12:35	32-0581	Suspended Solids	mg/L	2.0	
WSFR23.5	W0221	10/04/06	12:25	32-0680	Suspended Solids	mg/L	1.0	
WSFR23.5	W0221	05/10/06	13:21	32-0298	Turbidity	NTU	0.5	
WSFR23.5	W0221	06/14/06	13:40	32-0408	Turbidity	NTU	0.9	d
WSFR23.5	W0221	07/25/06	11:47	32-0482	Turbidity	NTU	0.5	
WSFR23.5	W0221	08/30/06	12:35	32-0581	Turbidity	NTU	0.9	b
WSFR23.5	W0221	06/14/06	13:40	32-0408	True color	PCU	<15	
WSFR23.5	W0221	07/25/06	11:47	32-0482	True color	PCU	<15	
WSFR23.5	W0221	08/30/06	12:35	32-0581	True color	PCU	15	h
WSFR23.5	W0221	05/10/06	13:21	32-0298	Apparent color	PCU	<15	
WSFR23.5	W0221	06/14/06	13:40	32-0408	Apparent color	PCU	<15	
WSFR23.5	W0221	07/25/06	11:47	32-0482	Apparent color	PCU	<15	
WSFR23.5	W0221	08/30/06	12:35	32-0581	Apparent color	PCU	22	h
WSFR23.5	W0221	08/30/06	12:35	32-0581	Hardness	mg/L CaCO3	25	

Table 7. 2006 MassDEP DWM Westfield River Watershed water quality data - rivers.

Station ID	Unique ID	Date	Time	OWMID	Analyte	Units	Result	Data Qualifiers
WSFR23.5	W0221	08/30/06	12:35	32-0581	Hardness	mg/L	##	h
YKMB00.1	W1452	05/09/06	10:35	32-0281	*E. coli*	CFU/100mL	<20	
YKMB00.1	W1452	06/13/06	10:35	32-0366	*E. coli*	CFU/100mL	20	e
YKMB00.1	W1452	07/25/06	10:10	32-0503	*E. coli*	CFU/100mL	20	
YKMB00.1	W1452	08/29/06	10:14	32-0535	*E. coli*	CFU/100mL	24	
YKMB00.1	W1452	10/03/06	10:12	32-0650	*E. coli*	CFU/100mL	12	
YKMB00.1	W1452	05/09/06	10:35	32-0281	Fecal Coliforms	CFU/100mL	80	
YKMB00.1	W1452	06/13/06	10:35	32-0366	Fecal Coliforms	CFU/100mL	16	e
YKMB00.1	W1452	07/25/06	10:10	32-0503	Fecal Coliforms	CFU/100mL	78	
YKMB00.1	W1452	08/29/06	10:14	32-0535	Fecal Coliforms	CFU/100mL	80	
YKMB00.1	W1452	10/03/06	10:12	32-0650	Fecal Coliforms	CFU/100mL	15	

Table 8. Geometric mean* of the 2006 *E. coli* results for each DWM river sampling station.

Station ID	Unique ID	Sample Count	Geometric Mean (CFU/100 ml)
BDLB00.3	W1453	5	84
BEDL00.8	W1460	5	18
CT02	W0474	5	54
DICK01.3	W1461	5	89
DPOB00.8	W1451	5	28
GDBR00.4	W0266	5	31
GRTB01.6	W1456	5	105
KINB00.2	W1459	5	30
LITR00.1	W0808	5	136
LITR06.8	W1462	5	31
LRWT03.0	W1450	5	24
MBWF00.4	W0264	5	10
MBWF04.0	W0263	5	20
MEDB00.1	W1466	5	107
MILB00.2	W0228	5	153
MMBR00.5	W0812	5	1261
PCTB00.3	W0230	5	91
PDMB00.1	W0805	5	140
PNDB00.1	W0236	5	31
PTAB01.3	W1454	5	32
ROAR00.4	W1457	5	16
SAND00.3	W1458	5	6
SKMB00.4	W0257	5	13
SWFT01.3	W1467	5	27

Table 8. Geometric mean* of the 2006 *E. coli* results for each DWM river sampling station.

Station ID	Unique ID	Sample Count	Geometric Mean (CFU/100 ml)
WATS00.1	W0269	5	27
WBWC00.1	W0271	5	10
WBWF00.3	W1455	5	21
WHTB000	W0229	5	164
WLKB00.4	W0254	5	25
WRBST2	W1419	5	20
WRDS03.9	W1449	5	20
WSFR08.3	W1465	5	98
WSFR10.6	W1464	5	96
WSFR13.0	W1463	5	117
WSFR23.5	W0221	5	19
YKMB00.1	W1452	5	19

*The detection limit was used in the geometric mean calculation if the result was below the detection limit. Results from duplicate samples were removed before completing the geometric mean calculation.

Table 9. 2006 MassDEP DWM Westfield River Watershed water quality data - lake.

Station ID	Unique ID	OWMID	Date	Time	Relative Sample Depth	Analyte	Units	Result	Data Qualifiers
A	W1293	LB-3711	07/26/06	11:08	Surface	Apparent color	PCU	<15	
A	W1293	LB-3761	08/31/06	12:00	Surface	Apparent color	PCU	25	
A	W1293	LB-3716	07/26/06	12:50	--	chlorophyll a	mg/m3	6.1	
A	W1293	LB-3766	08/31/06	12:40	--	chlorophyll a	mg/m3	3.5	
A	W1293	LB-3856	09/12/06	10:34	--	chlorophyll a	mg/m3	3.9	h
A	W1293	LB-3711	07/26/06	11:08	Surface	Total Phosphorus	mg/L	0.007	d
A	W1293	LB-3712	07/26/06	11:38	Near bottom	Total Phosphorus	mg/L	0.010	
A	W1293	LB-3761	08/31/06	12:00	Surface	Total Phosphorus	mg/L	0.005	b
A	W1293	LB-3762	08/31/06	12:10	Near bottom	Total Phosphorus	mg/L	0.011	b
A	W1293	LB-3851	09/12/06	10:05	Surface	Total Phosphorus	mg/L	0.006	
A	W1293	LB-3852	09/12/06	10:15	Near bottom	Total Phosphorus	mg/L	0.010	
A	W1293	LB-3711	07/26/06	11:08	Surface	True color	PCU	<15	
A	W1293	LB-3761	08/31/06	12:00	Surface	True color	PCU	24	
A	W1293	LB-3711	07/26/06	11:08	Surface	Turbidity	NTU	0.8	
A	W1293	LB-3761	08/31/06	12:00	Surface	Turbidity	NTU	1.5	
BP01	W1752	LB-3701	07/26/06	16:00	Surface	Apparent color	PCU	19	
BP01	W1752	LB-3801	08/31/06	14:15	Surface	Apparent color	PCU	30	
BP01	W1752	LB-3703	07/26/06	16:40	--	chlorophyll a	mg/m3	27.2	m
BP01	W1752	LB-3803	08/31/06	14:32	--	chlorophyll a	mg/m3	34.6	
BP01	W1752	LB-3893	09/12/06	13:58	--	chlorophyll a	mg/m3	13.8	h
BP01	W1752	LB-3701	07/26/06	16:00	Surface	Total Phosphorus	mg/L	0.016	
BP01	W1752	LB-3702	07/26/06	16:45	Near bottom	Total Phosphorus	mg/L	0.20	

Table 9. 2006 MassDEP DWM Westfield River Watershed water quality data - lake.

Station ID	Unique ID	OWMID	Date	Time	Relative Sample Depth	Analyte	Units	Result	Data Qualifiers
BP01	W1752	LB-3801	08/31/06	14:15	Surface	Total Phosphorus	mg/L	0.019	
BP01	W1752	LB-3802	08/31/06	14:21	Near bottom	Total Phosphorus	mg/L	0.080	
BP01	W1752	LB-3891	09/12/06	13:42	Surface	Total Phosphorus	mg/L	0.018	
BP01	W1752	LB-3892	09/12/06	13:50	Near bottom	Total Phosphorus	mg/L	0.042	
BP01	W1752	LB-3701	07/26/06	16:00	Surface	True color	PCU	16	
BP01	W1752	LB-3801	08/31/06	14:15	Surface	True color	PCU	21	
BP01	W1752	LB-3701	07/26/06	16:00	Surface	Turbidity	NTU	1.2	
BP01	W1752	LB-3801	08/31/06	14:15	Surface	Turbidity	NTU	1.6	
HP01	W1749	LB-3691	07/26/06	13:29	Surface	Apparent color	PCU	27	
HP01	W1749	LB-3791	08/31/06	12:39	Surface	Apparent color	PCU	31	
HP01	W1749	LB-3693	07/26/06	13:48	--	chlorophyll a	mg/m3	25.7	
HP01	W1749	LB-3793	08/31/06	12:58	--	chlorophyll a	mg/m3	3.2	
HP01	W1749	LB-3883	09/12/06	12:20	--	chlorophyll a	mg/m3	4.5	h
HP01	W1749	LB-3691	07/26/06	13:29	Surface	Total Phosphorus	mg/L	0.021	
HP01	W1749	LB-3692	07/26/06	13:44	Near bottom	Total Phosphorus	mg/L	0.023	
HP01	W1749	LB-3791	08/31/06	12:39	Surface	Total Phosphorus	mg/L	0.011	
HP01	W1749	LB-3792	08/31/06	12:50	Near bottom	Total Phosphorus	mg/L	0.011	
HP01	W1749	LB-3881	09/12/06	11:59	Surface	Total Phosphorus	mg/L	0.016	
HP01	W1749	LB-3882	09/12/06	12:08	Near bottom	Total Phosphorus	mg/L	0.021	
HP01	W1749	LB-3691	07/26/06	13:29	Surface	True color	PCU	<15	
HP01	W1749	LB-3791	08/31/06	12:39	Surface	True color	PCU	22	
HP01	W1749	LB-3691	07/26/06	13:29	Surface	Turbidity	NTU	2.1	
HP01	W1749	LB-3791	08/31/06	12:39	Surface	Turbidity	NTU	1.2	
PP01	W1750	LB-3671	07/26/06	9:20	Surface	Apparent color	PCU	<15	
PP01	W1750	LB-3771	08/31/06	11:43	Surface	Apparent color	PCU	17	
PP01	W1750	LB-3674	07/26/06	10:24	--	chlorophyll a	mg/m3	31.4	
PP01	W1750	LB-3776	08/31/06	11:58	--	chlorophyll a	mg/m3	14.8	
PP01	W1750	LB-3866	09/12/06	10:57	--	chlorophyll a	mg/m3	28.1	h
PP01	W1750	LB-3673	07/26/06	8:52	Near bottom	Total Phosphorus	mg/L	0.036	
PP01	W1750	LB-3671	07/26/06	9:20	Surface	Total Phosphorus	mg/L	0.017	
PP01	W1750	LB-3771	08/31/06	11:43	Surface	Total Phosphorus	mg/L	0.019	
PP01	W1750	LB-3772	08/31/06	11:47	Near bottom	Total Phosphorus	mg/L	0.054	
PP01	W1750	LB-3861	09/12/06	10:34	Surface	Total Phosphorus	mg/L	0.021	
PP01	W1750	LB-3862	09/12/06	10:44	Near bottom	Total Phosphorus	mg/L	0.032	
PP01	W1750	LB-3671	07/26/06	9:20	Surface	True color	PCU	<15	
PP01	W1750	LB-3771	08/31/06	11:43	Surface	True color	PCU	<15	
PP01	W1750	LB-3671	07/26/06	9:20	Surface	Turbidity	NTU	2.9	
PP01	W1750	LB-3771	08/31/06	11:43	Surface	Turbidity	NTU	4.4	
PP02	W1751	LB-3681	07/26/06	11:36	Surface	Apparent color	PCU	<15	
PP02	W1751	LB-3781	08/31/06	10:25	Surface	Apparent color	PCU	19	
PP02	W1751	LB-3683	07/26/06	12:20	--	chlorophyll a	mg/m3	24.0	
PP02	W1751	LB-3783	08/31/06	10:55	--	chlorophyll a	mg/m3	21.9	
PP02	W1751	LB-3873	09/12/06	10:09	--	chlorophyll a	mg/m3	35.0	h
PP02	W1751	LB-3681	07/26/06	11:36	Surface	Total Phosphorus	mg/L	0.019	

Table 9. 2006 MassDEP DWM Westfield River Watershed water quality data - lake.

Station ID	Unique ID	OWMID	Date	Time	Relative Sample Depth	Analyte	Units	Result	Data Qualifiers
PP02	W1751	LB-3682	07/26/06	12:33	Near bottom	Total Phosphorus	mg/L	0.038	
PP02	W1751	LB-3781	08/31/06	10:25	Surface	Total Phosphorus	mg/L	0.020	
PP02	W1751	LB-3782	08/31/06	10:41	Near bottom	Total Phosphorus	mg/L	0.35	
PP02	W1751	LB-3871	09/12/06	9:23	Surface	Total Phosphorus	mg/L	0.025	
PP02	W1751	LB-3872	09/12/06	9:45	Near bottom	Total Phosphorus	mg/L	0.30	
PP02	W1751	LB-3681	07/26/06	11:36	Surface	True color	PCU	<15	
PP02	W1751	LB-3781	08/31/06	10:25	Surface	True color	PCU	<15	
PP02	W1751	LB-3681	07/26/06	11:36	Surface	Turbidity	NTU	2.6	
PP02	W1751	LB-3781	08/31/06	10:25	Surface	Turbidity	NTU	5.6	

Table 10. 2006 MassDEP DWM Westfield River Watershed attended multi-probe data – rivers and lakes.

Station ID	Unique ID	OWMID	Date	Time	Sample Depth (meters)	Depth Qualifiers	Temperature (deg. C)	Temperature Qualifiers	pH (SU)	pH Qualifiers	Specific Conductivity (µS/cm)	Specific Conductivity Qualifiers	Total Dissolved Solids (mg/l)	Total Dissolved Solids Qualifiers	Dissolved Oxygen (mg/l)	Dissolved Oxygen Qualifiers	Dissolved Oxygen Saturation (%)	Dissolved Oxygen Saturation Qualifiers
CT02	W0474	32-0303	05/10/06	9:59	0.3		13.1		7.4	i	144		94		10.8		103	
CT02	W0474	32-0322	06/09/06	9:41	0.6		14.1		--		--		--		10.0		100	
CT02	W0474	32-0323	06/14/06	9:12	0.9		17.7		--		--		--		9.0		96	
CT02	W0474	32-0393	06/14/06	9:08	2.2		17.6		7.1		111		72		9.7		101	
CT02	W0474	32-0438	07/21/06	8:08	0.4		24.6		--		--		--		7.7		94	
CT02	W0474	32-0471	07/25/06	9:47	0.6		22.7		7.8		162		105		9.0		104	
CT02	W0474	32-0439	07/26/06	10:41	--		23.9		--		--		--		8.7		104	
CT02	W0474	32-0594	08/25/06	9:03	0.5		22.0		--		--		--		8.2	i	95	i
CT02	W0474	32-0585	08/30/06	10:38	0.3		18.3		7.7		152		99		9.9		105	
CT02	W0474	32-0595	08/30/06	9:17	--		18.1		--		--		--		##	i	##	i
CT02	W0474	32-0623	10/04/06	10:47	0.7		14.6		7.4		124		81		10.7		105	
CT02A	W1607	32-0316	05/08/06	16:48	--		16.3		--		--		--		9.5	i	98	i
CT02A	W1607	32-0317	05/10/06	10:30	--		13.2		--		--		--		10.3		100	
GDBR00.4	W0266	32-0337	06/09/06	12:49	0.0	i	13.0		--		--		--		8.8		85	
GDBR00.4	W0266	32-0338	06/14/06	12:37	0.2		16.0		--		--		--		8.6		89	
GDBR00.4	W0266	32-0453	07/21/06	13:31	0.2		22.5		--		--		--		5.6		66	
GDBR00.4	W0266	32-0454	07/26/06	13:48	--		22.3		--		--		--		6.1		71	
GDBR00.4	W0266	32-0609	08/25/06	11:52	0.2		17.8		--		--		--		6.6	i	70	i
GDBR00.4	W0266	32-0610	08/30/06	14:34	--		17.3		--		--		--		##	i	##	i
KINB00.2	W1459	32-0334	06/09/06	12:20	0.3		13.3		--		--		--		9.4		92	
KINB00.2	W1459	32-0335	06/14/06	12:02	0.4		14.5		--		--		--		9.5		95	
KINB00.2	W1459	32-0450	07/21/06	12:05	0.2		20.7		--		--		--		8.1		92	
KINB00.2	W1459	32-0451	07/26/06	13:20	--		20.6		--		--		--		8.2		92	

Table 10. 2006 MassDEP DWM Westfield River Watershed attended multi-probe data – rivers and lakes.

Station ID	Unique ID	OWMID	Date	Time	Sample Depth (meters)	Depth Qualifiers	Temperature (deg. C)	Temperature Qualifiers	pH (SU)	pH Qualifiers	Specific Conductivity (µS/cm)	Specific Conductivity Qualifiers	Total Dissolved Solids (mg/l)	Total Dissolved Solids Qualifiers	Dissolved Oxygen (mg/l)	Dissolved Oxygen Qualifiers	Dissolved Oxygen Saturation (%)	Dissolved Oxygen Saturation Qualifiers
KINB00.2	W1459	32-0606	08/25/06	11:24	0.3		17.3		--		--		--		8.4	i	89	i
KINB00.2	W1459	32-0607	08/30/06	14:08	--		17.3		--		--		--		##	i	##	i
LRWT03.0	W1450	32-0434	07/21/06	15:22	--		22.7	s	--		--		--		--		--	
LRWT03.0	W1450	32-0435	10/02/06	10:25	--		11.4	s	--		--		--		--		--	
MBWF00.4	W0264	32-0331	06/09/06	11:34	0.3		14.3		--		--		--		9.8		97	
MBWF00.4	W0264	32-0332	06/14/06	11:31	0.1		18.6		--		--		--		8.9		97	
MBWF00.4	W0264	32-0447	07/21/06	10:30	0.1		26.1		--		--		--		7.7		97	
MBWF00.4	W0264	32-0448	07/26/06	12:51	--		27.4		--		--		--		7.7		99	
MBWF00.4	W0264	32-0603	08/25/06	10:51	0.1		21.9		--		--		--		8.2	i	95	i
MBWF00.4	W0264	32-0604	08/30/06	13:38	--		23.3		--		--		--		##	i	##	i
MBWF04.0	W0263	32-0428	07/21/06	12:36	--		22.9	s	--		--		--		--		--	
MBWF04.0	W0263	32-0429	10/02/06	11:30	--		11.7	s	--		--		--		--		--	
MEDB00.1	W1466	32-0462	07/21/06	16:02	0.3		22.7		--		--		--		7.8		92	
MEDB00.1	W1466	32-0463	07/26/06	15:43	--		21.0		--		--		--		8.2		93	
MEDB00.1	W1466	32-0618	08/25/06	13:55	0.1		15.8		--		--		--		8.8	i	90	i
MEDB00.1	W1466	32-0619	08/30/06	15:54	--		17.7		--		--		--		##	i	##	i
MEDB00.3	W1606	32-0346	06/09/06	14:37	0.4		13.2		--		--		--		8.5		83	
MEDB00.3	W1606	32-0347	06/14/06	14:43	0.3		15.0		--		--		--		8.9		89	
MMBR00.5	W0812	32-0307	05/10/06	12:04	0.4		11.5		7.1	i	103		67		11.5		105	
MMBR00.5	W0812	32-0328	06/09/06	10:50	0.5		14.8		--		--		--		9.5		96	
MMBR00.5	W0812	32-0329	06/14/06	10:49	0.3		17.1		--		--		--		9.2		97	
MMBR00.5	W0812	32-0397	06/14/06	11:14	0.8		17.1		7.0		104		67		10.1		105	
MMBR00.5	W0812	32-0444	07/21/06	9:49	0.1		21.0		--		--		--		7.7		88	

Table 10. 2006 MassDEP DWM Westfield River Watershed attended multi-probe data – rivers and lakes.

Station ID	Unique ID	OWMID	Date	Time	Sample Depth (meters)	Depth Qualifiers	Temperature (deg. C)	Temperature Qualifiers	pH (SU)	pH Qualifiers	Specific Conductivity (µS/cm)	Specific Conductivity Qualifiers	Total Dissolved Solids (mg/l)	Total Dissolved Solids Qualifiers	Dissolved Oxygen (mg/l)	Dissolved Oxygen Qualifiers	Dissolved Oxygen Saturation (%)	Dissolved Oxygen Saturation Qualifiers
MMBR00.5	W0812	32-0479	07/25/06	12:36	0.3		22.3		7.0		146		95		8.5		98	
MMBR00.5	W0812	32-0445	07/26/06	12:11	--		22.7		--		--		--		7.8		92	
MMBR00.5	W0812	32-0600	08/25/06	10:13	0.1		17.5		--		--		--		7.3	i	77	i
MMBR00.5	W0812	32-0589	08/30/06	9:09	0.1		16.9		6.7		100	u	65	u	8.9		92	
MMBR00.5	W0812	32-0601	08/30/06	12:59	--		19.1		--		--		--		##	i	##	i
MMBR00.5	W0812	32-0627	10/04/06	9:25	0.6		14.0		6.9		114		74		10.2		99	
PDMB00.1	W0805	32-0305	05/10/06	11:04	0.2		11.9		7.4	i	274		178		10.8		100	
PDMB00.1	W0805	32-0395	06/14/06	10:04	0.8		16.4		7.3		260		169		9.6		98	
PDMB00.1	W0805	32-0475	07/25/06	8:51	0.3		17.7		7.5		293		191		9.3		97	
PDMB00.1	W0805	32-0587	08/30/06	9:41	0.1		15.7		7.4		286		186		9.0		91	
PDMB00.1	W0805	32-0625	10/04/06	9:56	0.7		13.4		7.4		278		181		10.0		96	
PNDB00.1	W0236	32-0313	05/08/06	9:53	--		12.8		--		--		--		10.1	i	96	i
PNDB00.1	W0236	32-0314	05/10/06	11:02	--		12.5		--		--		--		10.5		101	
PNDB00.1	W0236	32-0325	06/09/06	10:25	0.2		15.3		--		--		--		9.5		97	
PNDB00.1	W0236	32-0326	06/14/06	10:18	0.2		18.8		--		--		--		9.0		98	
PNDB00.1	W0236	32-0441	07/21/06	8:51	0.3		22.3		--		--		--		8.2		96	
PNDB00.1	W0236	32-0442	07/26/06	11:35	--		21.8		--		--		--		8.6		99	
PNDB00.1	W0236	32-0597	08/25/06	9:48	0.1		18.6		--		--		--		8.8	i	95	i
PNDB00.1	W0236	32-0598	08/30/06	12:32	--		17.8		--		--		--		##	i	##	i
SKMB00.4	W0257	32-0311	05/10/06	14:54	0.3		10.1		7.2	i	57		37		11.2		100	
SKMB00.4	W0257	32-0401	06/14/06	13:00	0.4		15.3		7.3		53		35		10.1		101	
SKMB00.4	W0257	32-0489	07/25/06	10:01	0.1		17.0		7.5		64		41		9.5		98	
SKMB00.4	W0257	32-0534	08/29/06	10:04	##	i	16.1		7.2		59		38		9.4		95	

Table 10. 2006 MassDEP DWM Westfield River Watershed attended multi-probe data – rivers and lakes.

Station ID	Unique ID	OWMID	Date	Time	Sample Depth (meters)	Depth Qualifiers	Temperature (deg. C)	Temperature Qualifiers	pH (SU)	pH Qualifiers	Specific Conductivity (µS/cm)	Specific Conductivity Qualifiers	Total Dissolved Solids (mg/l)	Total Dissolved Solids Qualifiers	Dissolved Oxygen (mg/l)	Dissolved Oxygen Qualifiers	Dissolved Oxygen Saturation (%)	Dissolved Oxygen Saturation Qualifiers
SKMB00.4	W0257	32-0631	10/03/06	10:00	0.2		10.3		7.1		53		35		11.2		100	
SWFT01.3	W1467	32-0349	06/09/06	15:04	0.3		13.4		--		--		--		9.2		90	
SWFT01.3	W1467	32-0350	06/14/06	15:10	0.1		16.4		--		--		--		8.9		92	
SWFT01.3	W1467	32-0465	07/21/06	16:42	0.1		23.6		--		--		--		7.7		92	
SWFT01.3	W1467	32-0466	07/26/06	16:08	--		21.9		--		--		--		7.8		90	
SWFT01.3	W1467	32-0621	08/25/06	14:19	0.1		16.5		--		--		--		8.8	i	91	i
SWFT01.3	W1467	32-0622	08/30/06	16:17	--		18.0		--		--		--		##	i	##	i
WATS00.1	W0269	32-0343	06/09/06	13:50	0.3		12.3		--		--		--		9.5		90	
WATS00.1	W0269	32-0344	06/14/06	13:41	0.1		14.1		--		--		--		9.5		93	
WATS00.1	W0269	32-0459	07/21/06	15:04	0.1		19.5		--		--		--		8.4		93	
WATS00.1	W0269	32-0460	07/26/06	14:50	--		18.9		--		--		--		8.6		94	
WATS00.1	W0269	32-0615	08/25/06	13:18	0.1		15.0		--		--		--		9.2	i	92	i
WATS00.1	W0269	32-0616	08/30/06	15:23	--		16.2		--		--		--		##	i	##	i
WBWC00.1	W0271	32-0431	07/21/06	14:36	--		20.3	s	--		--		--		--		--	
WBWC00.1	W0271	32-0432	10/02/06	10:55	--		10.7	s	--		--		--		--		--	
WRBST2	W1419	32-0422	07/21/06	10:57	--		23.5	s	--		--		--		--		--	
WRBST2	W1419	32-0423	10/02/06	10:00	--		11.9	s	--		--		--		--		--	
WRDS03.9	W1449	32-0310	05/10/06	14:08	0.1		10.8		7.2	i	68		44		11.0		99	
WRDS03.9	W1449	32-0340	06/09/06	13:30	0.3		13.2		--		--		--		9.0		88	
WRDS03.9	W1449	32-0400	06/14/06	12:09	0.1		16.6		7.2		59		39		9.8		100	
WRDS03.9	W1449	32-0341	06/14/06	13:15	0.2		16.6		--		--		--		8.7		90	
WRDS03.9	W1449	32-0456	07/21/06	14:08	0.0	i	21.8		--		--		--		7.7		89	
WRDS03.9	W1449	32-0487	07/25/06	11:01	0.1		19.2		7.0		77		49		8.4		92	

Table 10. 2006 MassDEP DWM Westfield River Watershed attended multi-probe data – rivers and lakes.

Station ID	Unique ID	OWMID	Date	Time	Sample Depth (meters)	Depth Qualifiers	Temperature (deg. C)	Temperature Qualifiers	pH (SU)	pH Qualifiers	Specific Conductivity (µS/cm)	Specific Conductivity Qualifiers	Total Dissolved Solids (mg/l)	Total Dissolved Solids Qualifiers	Dissolved Oxygen (mg/l)	Dissolved Oxygen Qualifiers	Dissolved Oxygen Saturation (%)	Dissolved Oxygen Saturation Qualifiers
WRDS03.9	W1449	32-0457	07/26/06	14:29	--		21.6		--		--		--		7.8		89	
WRDS03.9	W1449	32-0612	08/25/06	12:35	0.1		15.3		--		--		--		8.7	i	88	i
WRDS03.9	W1449	32-0592	08/30/06	14:06	0.1		17.9		7.4		80		52		8.9		94	
WRDS03.9	W1449	32-0613	08/30/06	15:05	--		17.9		--		--		--		##	i	##	i
WRDS03.9	W1449	32-0630	10/04/06	13:24	##	i	15.1		7.3		77		50		9.8		98	
WSFR08.3	W1465	32-0304	05/10/06	10:39	0.4		12.8		7.3	i	149		97		10.6		100	
WSFR08.3	W1465	32-0394	06/14/06	9:44	0.7		16.9		7.2		126		82		9.7		100	
WSFR08.3	W1465	32-0473	07/25/06	9:17	0.5		21.9		7.3		159		103		8.0		91	
WSFR08.3	W1465	32-0586	08/30/06	10:03	0.3		17.9		7.3		140		91		8.8		93	
WSFR08.3	W1465	32-0624	10/04/06	10:17	0.7		13.7		7.2		115		74		10.4		100	
WSFR10.6	W1464	32-0306	05/10/06	11:29	0.5		12.8		7.2	i	123		80		11.0		104	
WSFR10.6	W1464	32-0396	06/14/06	10:27	0.7		17.8		7.2		99		64		10.0		105	
WSFR10.6	W1464	32-0419	07/21/06	9:17	--		24.5	s	--		--		--		--		--	
WSFR10.6	W1464	32-0477	07/25/06	10:26	0.8		21.9		7.3		140		91		8.7		100	
WSFR10.6	W1464	32-0588	08/30/06	11:16	0.5		18.5		7.4		129		84		9.5		101	
WSFR10.6	W1464	32-0420	10/02/06	9:05	--		12.7	s	--		--		--		--		--	
WSFR10.6	W1464	32-0626	10/04/06	11:32	0.6		13.8		7.2		108		70		11.0		106	
WSFR13.0	W1463	32-0308	05/10/06	12:54	0.7		12.7		7.2	i	106		69		11.1		105	
WSFR13.0	W1463	32-0398	06/14/06	14:27	0.8		18.6		7.2		85		56		10.0		107	
WSFR13.0	W1463	32-0481	07/25/06	10:53	0.8		22.4		7.5		112		73		9.2		106	
WSFR13.0	W1463	32-0590	08/30/06	11:48	0.5		18.8		7.5		110		71		9.8		106	
WSFR13.0	W1463	32-0628	10/04/06	11:57	0.6		14.8		7.3		87		57		10.9		107	
WSFR23.5	W0221	32-0309	05/10/06	13:26	0.1		11.8		7.4	i	93		61		11.6		107	

Table 10. 2006 MassDEP DWM Westfield River Watershed attended multi-probe data – rivers and lakes.

Station ID	Unique ID	OWMID	Date	Time	Sample Depth (meters)	Depth Qualifiers	Temperature (deg. C)	Temperature Qualifiers	pH (SU)	pH Qualifiers	Specific Conductivity (µS/cm)	Specific Conductivity Qualifiers	Total Dissolved Solids (mg/l)	Total Dissolved Solids Qualifiers	Dissolved Oxygen (mg/l)	Dissolved Oxygen Qualifiers	Dissolved Oxygen Saturation (%)	Dissolved Oxygen Saturation Qualifiers
WSFR23.5	W0221	32-0399	06/14/06	13:46	0.2		18.0		7.5		83		54		10.2		108	
WSFR23.5	W0221	32-0425	07/21/06	11:32	--		24.4	s	--		--		--		--		--	
WSFR23.5	W0221	32-0485	07/25/06	11:54	0.2		22.9		8.3		104		67		9.6		112	
WSFR23.5	W0221	32-0591	08/30/06	12:43	0.3		19.6		8.0		96		62		9.8		107	
WSFR23.5	W0221	32-0426	10/02/06	9:40	--		12.1	s	--		--		--		--		--	
WSFR23.5	W0221	32-0629	10/04/06	12:31	0.5		15.5		7.8		82		53		11.0		110	
A	W1293	LB-3710	07/26/06	11:43	0.5		25.5		7.0		43		27		7.2		89	
A	W1293	LB-3710	07/26/06	11:50	1.5		25.2	m	7.1	m	43	m	27	m	7.1	u, m	88	u, m
A	W1293	LB-3710	07/26/06	11:54	2.0		24.7		7.1		43		27		6.7		82	
A	W1293	LB-3710	07/26/06	11:58	3.0		22.6	m	7.0	m	41	m	26	m	7.5	u, m	89	u, m
A	W1293	LB-3710	07/26/06	12:02	3.5		18.6	m	6.3	m	38	m	24	m	4.8	m	52	m
A	W1293	LB-3710	07/26/06	12:05	4.0		16.6	m	6.1	m	37	m	24	m	5.1	m	53	m
A	W1293	LB-3710	07/26/06	12:09	4.5		14.7	m	6.1	m	37	m	23	m	5.0	m	50	m
A	W1293	LB-3710	07/26/06	12:13	6.0		10.8		5.9		36		23		4.6		42	
A	W1293	LB-3710	07/26/06	12:27	8.0		7.9	m	5.8	m	38	m	24	m	3.3	m	28	m
A	W1293	LB-3710	07/26/06	12:17	10.0		6.7		5.7		40		26		2.2		18	
A	W1293	LB-3710	07/26/06	12:21	13.5		6.3	m	5.7	m	42	m	27	m	1.0	m	8	m
A	W1293	LB-3760	08/31/06	11:49	0.6		19.8		7.2		48		31		8.5		93	
A	W1293	LB-3760	08/31/06	11:57	3.1		19.4		7.0		47		31		7.9		86	
A	W1293	LB-3760	08/31/06	12:04	3.8		19.0		6.8		47		30		6.9		75	
A	W1293	LB-3760	08/31/06	12:16	4.5		17.8		6.4		46		30		5.0		53	
A	W1293	LB-3760	08/31/06	12:24	5.3		13.7		6.0		41		27		2.8		27	

Table 10. 2006 MassDEP DWM Westfield River Watershed attended multi-probe data – rivers and lakes.

Station ID	Unique ID	OWMID	Date	Time	Sample Depth (meters)	Depth Qualifiers	Temperature (deg. C)	Temperature Qualifiers	pH (SU)	pH Qualifiers	Specific Conductivity (µS/cm)	Specific Conductivity Qualifiers	Total Dissolved Solids (mg/l)	Total Dissolved Solids Qualifiers	Dissolved Oxygen (mg/l)	Dissolved Oxygen Qualifiers	Dissolved Oxygen Saturation (%)	Dissolved Oxygen Saturation Qualifiers
A	W1293	LB-3760	08/31/06	12:35	6.0		11.8		6.0		41		27		2.8		25	
A	W1293	LB-3760	08/31/06	12:45	7.1		9.0		6.0		43		28		1.5		13	
A	W1293	LB-3760	08/31/06	12:54	9.2		7.0		6.1		46		30		0.5		4	
A	W1293	LB-3760	08/31/06	13:00	11.1		6.6		6.1		47		31		<0.2		<2	
A	W1293	LB-3760	08/31/06	13:06	14.0		6.4		6.2		50		32		<0.2		<2	
A	W1293	LB-3850	09/12/06	9:59	0.5		17.8		7.6		47		30		9.1		95	
A	W1293	LB-3850	09/12/06	10:10	3.2		17.6		7.7		47		30		9.1		95	
A	W1293	LB-3850	09/12/06	10:19	4.1		17.2		7.4		47		30		8.4		87	
A	W1293	LB-3850	09/12/06	10:29	4.8		16.5		6.9		46		30		6.6		68	
A	W1293	LB-3850	09/12/06	10:26	5.1		15.9		6.8		45		29		5.7	u	57	u
A	W1293	LB-3850	09/12/06	10:39	5.1		16.1		6.7		45		29		5.7		58	
A	W1293	LB-3850	09/12/06	10:49	5.7		13.5	u	6.3		41		27		1.7		16	
A	W1293	LB-3850	09/12/06	10:57	8.1		8.0		6.1		43		28		0.8		7	
A	W1293	LB-3850	09/12/06	11:03	11.2		6.6		6.2		47		31		<0.2		<2	
A	W1293	LB-3850	09/12/06	11:11	14.2		6.5		6.3		49		32		<0.2		<2	
BP01	W1752	LB-3700	07/26/06	15:51	0.5		26.3		6.7		138		90		6.1	i	75	i
BP01	W1752	LB-3700	07/26/06	15:57	1.5		25.2		6.4		136		89		2.7	i	32	i
BP01	W1752	LB-3700	07/26/06	16:03	2.6		22.0		6.4		137		89		0.3	i	3	i
BP01	W1752	LB-3700	07/26/06	16:08	3.5		15.6		6.6		137		89		2.5	u, i	25	u, i
BP01	W1752	LB-3700	07/26/06	16:13	4.5		12.0		6.5		146		95		<0.2	i	<2	i
BP01	W1752	LB-3700	07/26/06	16:19	5.5		9.2		7.2		281		182		<0.2	i	<2	i
BP01	W1752	LB-3700	07/26/06	16:24	6.0		8.9		7.2		356		231		<0.2	i	<2	i
BP01	W1752	LB-3800	08/31/06	14:12	0.5		21.6		6.7		130		83		6.1		70	

Table 10. 2006 MassDEP DWM Westfield River Watershed attended multi-probe data – rivers and lakes.

Station ID	Unique ID	OWMID	Date	Time	Sample Depth (meters)	Depth Qualifiers	Temperature (deg. C)	Temperature Qualifiers	pH (SU)	pH Qualifiers	Specific Conductivity (µS/cm)	Specific Conductivity Qualifiers	Total Dissolved Solids (mg/l)	Total Dissolved Solids Qualifiers	Dissolved Oxygen (mg/l)	Dissolved Oxygen Qualifiers	Dissolved Oxygen Saturation (%)	Dissolved Oxygen Saturation Qualifiers
BP01	W1752	LB-3800	08/31/06	14:18	1.5		21.3		6.6		130		83		5.5		62	
BP01	W1752	LB-3800	08/31/06	14:23	2.5		20.5		6.4		130		83		3.1		35	
BP01	W1752	LB-3800	08/31/06	14:28	3.5		19.2	u	6.2		132		84		<0.2		<2	
BP01	W1752	LB-3800	08/31/06	14:34	4.0		17.4		6.3		132		84		0.7		7	
BP01	W1752	LB-3800	08/31/06	14:39	5.0		12.3		6.3		166		106		<0.2		<2	
BP01	W1752	LB-3800	08/31/06	14:44	5.5		10.4		7.0		304		195		<0.2		<2	
BP01	W1752	LB-3890	09/12/06	13:44	0.5		20.6		7.0		136		88		6.7		75	
BP01	W1752	LB-3890	09/12/06	13:48	1.0		20.3		7.0		136		88		6.7		74	
BP01	W1752	LB-3890	09/12/06	13:53	2.0		19.1		6.9		135		88		5.2		56	
BP01	W1752	LB-3890	09/12/06	13:58	3.0		18.8		6.8		135		88		4.9		53	
BP01	W1752	LB-3890	09/12/06	14:03	4.0		17.4		6.6		134		87		0.3		3	
BP01	W1752	LB-3890	09/12/06	14:09	5.0		13.4		6.8		170		111		<0.2		<2	
BP01	W1752	LB-3890	09/12/06	14:16	5.5		11.0		7.5		303		197		<0.2		<2	
HP01	W1749	LB-3690	07/26/06	13:32	0.5		27.2	m	8.1	m	194	m	126	m	9.6	m, i	120	m, i
HP01	W1749	LB-3690	07/26/06	13:38	1.6		26.6		6.9		197		128		4.6	u, i	57	u, i
HP01	W1749	LB-3690	07/26/06	13:43	2.2		24.8		6.5		222		144		<0.2	i	<2	i
HP01	W1749	LB-3790	08/31/06	12:47	0.5		21.6		6.9		192		123		4.4		51	
HP01	W1749	LB-3790	08/31/06	12:55	1.5		21.4		6.9		192		123		4.7		54	
HP01	W1749	LB-3790	08/31/06	13:01	2.0		21.2		6.9		193		123		5.0		57	
HP01	W1749	LB-3880	09/12/06	11:59	0.5		20.4		7.5		195		126		7.6		84	
HP01	W1749	LB-3880	09/12/06	12:04	1.0		20.2		7.5		195		127		7.7		85	
HP01	W1749	LB-3880	09/12/06	12:12	2.0		19.8		7.5		194		126		7.5		83	
HP01	W1749	LB-3880	09/12/06	12:27	2.5		19.9		7.1		196		128		5.2	u	57	u

Table 10. 2006 MassDEP DWM Westfield River Watershed attended multi-probe data – rivers and lakes.

Station ID	Unique ID	OWMID	Date	Time	Sample Depth (meters)	Depth Qualifiers	Temperature (deg. C)	Temperature Qualifiers	pH (SU)	pH Qualifiers	Specific Conductivity (µS/cm)	Specific Conductivity Qualifiers	Total Dissolved Solids (mg/l)	Total Dissolved Solids Qualifiers	Dissolved Oxygen (mg/l)	Dissolved Oxygen Qualifiers	Dissolved Oxygen Saturation (%)	Dissolved Oxygen Saturation Qualifiers
PP01	W1750	LB-3670	07/26/06	9:30	0.5		26.8		7.9		201		131		8.2	i	102	i
PP01	W1750	LB-3670	07/26/06	9:37	1.6		26.6		7.9		201		130		8.2	i	103	i
PP01	W1750	LB-3670	07/26/06	9:41	2.5		26.4		7.5		201		130		7.0	i	87	i
PP01	W1750	LB-3670	07/26/06	9:49	3.6		23.7		6.8		214		139		<0.2	i	2	i
PP01	W1750	LB-3670	07/26/06	9:56	4.5		19.9		6.9		214		139		<0.2	i	<2	i
PP01	W1750	LB-3670	07/26/06	10:03	5.5		17.3		7.3		264		172		<0.2	i	<2	i
PP01	W1750	LB-3770	08/31/06	11:38	0.5		22.2		7.3		200		128		6.2		71	
PP01	W1750	LB-3770	08/31/06	11:45	1.6		22.2		7.2		200		128		6.1		70	
PP01	W1750	LB-3770	08/31/06	11:51	2.5		22.2		7.2		200		128		6.0		69	
PP01	W1750	LB-3770	08/31/06	11:56	3.5		21.9		6.9		201		129		1.9	u	22	u
PP01	W1750	LB-3770	08/31/06	12:02	4.1		21.7		6.9		201		129		2.7	u	31	u
PP01	W1750	LB-3770	08/31/06	12:07	4.5		21.4		6.8		206		132		<0.2		<2	
PP01	W1750	LB-3770	08/31/06	12:13	5.5		19.1		7.1		317		203		<0.2		<2	
PP01	W1750	LB-3860	09/12/06	10:38	0.5		20.8		8.1		204		132		8.8		98	
PP01	W1750	LB-3860	09/12/06	10:42	1.0		20.7		8.1		203		132		8.8		98	
PP01	W1750	LB-3860	09/12/06	10:47	2.0		20.6		8.2		204		132		9.1		102	
PP01	W1750	LB-3860	09/12/06	10:52	3.0		20.6		8.2		204		132		9.0		100	
PP01	W1750	LB-3860	09/12/06	11:01	4.0		20.3		7.4		206		134		3.8	u	42	u
PP01	W1750	LB-3860	09/12/06	11:07	5.0		20.0		7.2		218		142		<0.2		<2	
PP01	W1750	LB-3860	09/12/06	11:13	5.5		19.5		7.5		259		168		<0.2		<2	
PP02	W1751	LB-3680	07/26/06	11:21	0.5		27.4		7.9		200		130		8.6	i	109	i
PP02	W1751	LB-3680	07/26/06	11:26	1.5		26.8		7.8		200		130		8.4	i	105	i
PP02	W1751	LB-3680	07/26/06	11:32	2.5		26.8		7.7		200		130		8.2	i	102	i

Table 10. 2006 MassDEP DWM Westfield River Watershed attended multi-probe data – rivers and lakes.

Station ID	Unique ID	OWMID	Date	Time	Sample Depth (meters)	Depth Qualifiers	Temperature (deg. C)	Temperature Qualifiers	pH (SU)	pH Qualifiers	Specific Conductivity (µS/cm)	Specific Conductivity Qualifiers	Total Dissolved Solids (mg/l)	Total Dissolved Solids Qualifiers	Dissolved Oxygen (mg/l)	Dissolved Oxygen Qualifiers	Dissolved Oxygen Saturation (%)	Dissolved Oxygen Saturation Qualifiers
PP02	W1751	LB-3680	07/26/06	11:38	3.5		23.5		6.9		203		132		3.3	i	39	i
PP02	W1751	LB-3680	07/26/06	11:42	4.5		19.2	u	6.8		207		135		0.6	u, i	7	u, i
PP02	W1751	LB-3680	07/26/06	11:47	5.5		16.3		6.8		211		137		<0.2	i	<2	i
PP02	W1751	LB-3680	07/26/06	11:56	6.5		14.6		6.9		230		150		<0.2	i	<2	i
PP02	W1751	LB-3680	07/26/06	12:01	7.6		12.7		7.0		248		161		<0.2	i	<2	i
PP02	W1751	LB-3680	07/26/06	12:07	8.5		11.7		7.2		294		191		<0.2	i	<2	i
PP02	W1751	LB-3780	08/31/06	10:31	0.5		21.7		7.1		199		128		5.7		66	
PP02	W1751	LB-3780	08/31/06	10:36	1.5		21.7		7.1		200		128		5.7		65	
PP02	W1751	LB-3780	08/31/06	10:42	2.5		21.7		7.1		200		128		5.6		64	
PP02	W1751	LB-3780	08/31/06	10:49	3.4		21.7		7.1		201		129		5.2		60	
PP02	W1751	LB-3780	08/31/06	10:55	4.5		21.5		6.9		202		129		2.6	u	29	u
PP02	W1751	LB-3780	08/31/06	11:02	4.9		20.4		6.7		214		137		<0.2		<2	
PP02	W1751	LB-3780	08/31/06	11:08	5.5		17.4		6.8		235		150		<0.2		<2	
PP02	W1751	LB-3780	08/31/06	11:14	6.5		14.7		6.9		254		162		<0.2		<2	
PP02	W1751	LB-3780	08/31/06	11:20	8.5		12.5		6.8		307		197		<0.2		<2	
PP02	W1751	LB-3870	09/12/06	9:25	0.5		20.3		8.0		204		132		9.0		100	
PP02	W1751	LB-3870	09/12/06	9:30	1.0		20.3		8.0		204		132		9.0		100	
PP02	W1751	LB-3870	09/12/06	9:37	2.0		20.3		8.0		204		133		8.9		99	
PP02	W1751	LB-3870	09/12/06	9:42	3.0		20.3		8.0		204		133		8.8		98	
PP02	W1751	LB-3870	09/12/06	9:46	4.0		20.3		8.0		204		133		8.8		97	
PP02	W1751	LB-3870	09/12/06	9:56	5.0		19.0	u	7.2		220		143		0.3		4	
PP02	W1751	LB-3870	09/12/06	10:04	6.0		16.2		7.3		262		171		<0.2		<2	
PP02	W1751	LB-3870	09/12/06	10:09	7.0		13.7		7.3		285		185		<0.2		<2	

Table 11. 2006 MassDEP DWM Westfield River Watershed unattended probes dissolved oxygen data - rivers.

Station ID	Unique ID	OWMID	Start Date	Deployment Duration (Hours)	Average (mg/L)	Minimum (mg/L)	Amount of Time < 5.0 mg/L (Hours)	Percentage of Time < 5.0 mg/L (Hours)	Amount of Time < 6.0 mg/L (Hours)	Percentage of Time < 6.0 mg/L (%)	Average (%)	Minimum (%)	Maximum (%)
CT02	W0474	32-0321	06/09/06	0.0	--	--	--	--	--	--	--	--	--
CT02	W0474	32-0437	07/21/06	121.5	8.2	7.2	0.0	0.0	0.0	0.0	99	87	115
CT02	W0474	32-0593	08/25/06	120.0	8.7	7.9	0.0	0.0	0.0	0.0	96	88	106
CT02A	W1607	32-0312	05/08/06	41.5	10.2	9.8	0.0	0.0	0.0	0.0	100	95	108
GDBR00.4	W0266	32-0336	06/09/06	119.8	8.7	7.4	0.0	0.0	0.0	0.0	86	76	93
GDBR00.4	W0266	32-0452	07/21/06	120.0	6.2	5.4	0.0	0.0	37.0	30.8	71	62	78
GDBR00.4	W0266	32-0608	08/25/06	122.3	7.7	6.4	0.0	0.0	0.0	0.0	79	68	93
KINB00.2	W1459	32-0333	06/09/06	119.3	9.7	8.7	0.0	0.0	0.0	0.0	96	94	99
KINB00.2	W1459	32-0449	07/21/06	121.0	8.2	7.7	0.0	0.0	0.0	0.0	92	89	96
KINB00.2	W1459	32-0605	08/25/06	122.5	9.1	8.8	0.0	0.0	0.0	0.0	95	92	97
MBWF00.4	W0264	32-0330	06/09/06	119.5	9.5	8.8	0.0	0.0	0.0	0.0	97	95	100
MBWF00.4	W0264	32-0446	07/21/06	122.3	7.6	7.1	0.0	0.0	0.0	0.0	94	90	102
MBWF00.4	W0264	32-0602	08/25/06	122.5	8.1	7.9	0.0	0.0	0.0	0.0	93	91	99
MEDB00.1	W1466	32-0461	07/21/06	119.5	8.4	7.7	0.0	0.0	0.0	0.0	92	88	98
MEDB00.1	W1466	32-0617	08/25/06	121.8	9.0	8.5	0.0	0.0	0.0	0.0	91	89	95
MEDB00.3	W1606	32-0345	06/09/06	120.0	8.2	6.8	0.0	0.0	0.0	0.0	80	67	96
MMBR00.5	W0812	32-0327	06/09/06	119.8	9.4	8.5	0.0	0.0	0.0	0.0	95	89	101
MMBR00.5	W0812	32-0443	07/21/06	122.0	7.0	4.0	0.9	0.7	4.9	4.0	80	45	95
MMBR00.5	W0812	32-0599	08/25/06	122.5	7.3	4.6	1.1	0.9	4.9	4.0	76	48	86
PNDB00.1	W0236	32-0315	05/08/06	48.8	9.8	8.9	0.0	0.0	0.0	0.0	96	90	102
PNDB00.1	W0236	32-0324	06/09/06	119.8	9.2	8.4	0.0	0.0	0.0	0.0	98	95	101
PNDB00.1	W0236	32-0440	07/21/06	122.5	8.1	7.4	0.0	0.0	0.0	0.0	94	90	97
PNDB00.1	W0236	32-0596	08/25/06	122.5	8.9	8.6	0.0	0.0	0.0	0.0	94	90	97
SWFT01.3	W1467	32-0348	06/09/06	120.0	9.5	8.9	0.0	0.0	0.0	0.0	95	93	99
SWFT01.3	W1467	32-0464	07/21/06	119.0	8.3	7.5	0.0	0.0	0.0	0.0	93	89	98
SWFT01.3	W1467	32-0620	08/25/06	121.8	8.8	8.4	0.0	0.0	0.0	0.0	90	88	94

Table 11. 2006 MassDEP DWM Westfield River Watershed unattended probes dissolved oxygen data - rivers.

Station ID	Unique ID	OWMID	Start Date	Deployment Duration (Hours)	Average (mg/L)	Minimum (mg/L)	Amount of Time < 5.0 mg/L (Hours)	Percentage of Time < 5.0 mg/L (Hours)	Amount of Time < 6.0 mg/L (Hours)	Percentage of Time < 6.0 mg/L (%)	Average (%)	Minimum (%)	Maximum (%)
WATS00.1	W0269	32-0342	06/09/06	119.8	10.0	9.4	0.0	0.0	0.0	0.0	95	94	97
WATS00.1	W0269	32-0458	07/21/06	119.5	8.5	8.1	0.0	0.0	0.0	0.0	91	89	94
WATS00.1	W0269	32-0614	08/25/06	122.0	9.3	8.9	0.0	0.0	0.0	0.0	93	91	95
WRDS03.9	W1449	32-0339	06/09/06	119.5	9.2	8.0	0.0	0.0	0.0	0.0	90	86	94
WRDS03.9	W1449	32-0455	07/21/06	120.0	7.9	7.2	0.0	0.0	0.0	0.0	88	80	93
WRDS03.9	W1449	32-0611	08/25/06	122.3	8.7	8.2	0.0	0.0	0.0	0.0	88	85	92

Table 12. 2006 MassDEP DWM Westfield River Watershed unattended probes temperature data – rivers.

Station ID	Unique ID	OWMID	Start Date	Deployment Duration (Hours)	Average (deg. C)	Maximum (deg. C)	Mean of the Daily Maximum (deg. C)	Amount of Time > 20 deg. C (Hours)	Percentage of Time > 20 deg. C (%)	Amount of Time > 28.3 deg. C (Hours)	Percentage of Time > 28.3 deg. C (%)
CT02	W0474	32-0321	06/09/06	119.3	15.8	18.7	16.8	0.0	0.0	0.0	0.0
CT02	W0474	32-0437	07/21/06	121.5	24.1	27.3	25.1	121.5	100.0	0.0	0.0
CT02	W0474	32-0593	08/25/06	120.0	19.4	22.0	19.9	40.3	33.6	0.0	0.0
CT02A	W1607	32-0312	05/08/06	41.5	14.2	16.3	14.7	0.0	0.0	0.0	0.0
GDBR00.4	W0266	32-0336	06/09/06	119.8	13.8	19.6	16.1	0.0	0.0	0.0	0.0
GDBR00.4	W0266	32-0452	07/21/06	120.0	20.8	23.4	21.7	90.6	75.5	0.0	0.0
GDBR00.4	W0266	32-0608	08/25/06	122.3	16.0	17.7	16.7	0.0	0.0	0.0	0.0
KINB00.2	W1459	32-0333	06/09/06	119.3	13.9	17.7	16.3	0.0	0.0	0.0	0.0
KINB00.2	W1459	32-0449	07/21/06	121.0	20.0	22.0	20.9	65.5	54.1	0.0	0.0
KINB00.2	W1459	32-0605	08/25/06	122.5	16.4	17.5	17.1	0.0	0.0	0.0	0.0
LRWT03.0	W1450	32-0433	07/21/06	1746.8	17.5	25.8	18.7	454.2	26.0	0.0	0.0
MBWF00.4	W0264	32-0330	06/09/06	119.5	15.7	19.0	16.7	0.0	0.0	0.0	0.0
MBWF00.4	W0264	32-0446	07/21/06	122.3	25.5	28.9	26.9	122.3	100.0	1.8	1.5
MBWF00.4	W0264	32-0602	08/25/06	122.5	21.4	23.3	22.0	122.5	100.0	0.0	0.0
MBWF04.0	W0263	32-0427	07/21/06	1750.5	18.1	28.3	20.0	575.6	32.9	0.0	0.0
MEDB00.1	W1466	32-0461	07/21/06	119.5	19.4	23.0	20.6	38.7	32.4	0.0	0.0
MEDB00.1	W1466	32-0617	08/25/06	121.8	15.4	17.8	15.9	0.0	0.0	0.0	0.0
MEDB00.3	W1606	32-0345	06/09/06	120.0	13.3	16.7	15.0	0.0	0.0	0.0	0.0
MMBR00.5	W0812	32-0327	06/09/06	119.8	15.0	19.2	16.9	0.0	0.0	0.0	0.0
MMBR00.5	W0812	32-0443	07/21/06	122.0	20.7	25.4	22.7	84.0	68.9	0.0	0.0
MMBR00.5	W0812	32-0599	08/25/06	122.5	17.1	18.9	18.0	0.0	0.0	0.0	0.0
PNDB00.1	W0236	32-0315	05/08/06	48.8	14.3	18.5	14.7	0.0	0.0	0.0	0.0
PNDB00.1	W0236	32-0324	06/09/06	119.8	17.1	21.9	19.2	11.2	9.4	0.0	0.0
PNDB00.1	W0236	32-0440	07/21/06	122.5	21.9	25.8	23.3	109.9	89.7	0.0	0.0

Table 12. 2006 MassDEP DWM Westfield River Watershed unattended probes temperature data – rivers.

Station ID	Unique ID	OWMID	Start Date	Deployment Duration (Hours)	Average (deg. C)	Maximum (deg. C)	Mean of the Daily Maximum (deg. C)	Amount of Time > 20 deg. C (Hours)	Percentage of Time > 20 deg. C (%)	Amount of Time > 28.3 deg. C (Hours)	Percentage of Time > 28.3 deg. C (%)
PNDB00.1	W0236	32-0596	08/25/06	122.5	17.3	18.6	18.2	0.0	0.0	0.0	0.0
SWFT01.3	W1467	32-0348	06/09/06	120.0	14.3	17.2	15.2	0.0	0.0	0.0	0.0
SWFT01.3	W1467	32-0464	07/21/06	119.0	20.2	23.6	21.4	74.3	62.5	0.0	0.0
SWFT01.3	W1467	32-0620	08/25/06	121.8	16.0	18.1	16.5	0.0	0.0	0.0	0.0
WATS00.1	W0269	32-0342	06/09/06	119.8	12.2	14.6	13.2	0.0	0.0	0.0	0.0
WATS00.1	W0269	32-0458	07/21/06	119.5	17.7	19.5	18.4	0.0	0.0	0.0	0.0
WATS00.1	W0269	32-0614	08/25/06	122.0	14.7	16.2	15.2	0.0	0.0	0.0	0.0
WBWC00.1	W0271	32-0430	07/21/06	1748.0	15.8	23.4	16.8	176.4	10.1	0.0	0.0
WRBST2	W1419	32-0421	07/21/06	1750.8	19.7	31.2	22.0	775.5	44.3	29.3	1.7
WRDS03.9	W1449	32-0339	06/09/06	119.5	13.9	17.9	15.5	0.0	0.0	0.0	0.0
WRDS03.9	W1449	32-0455	07/21/06	120.0	19.5	22.1	20.7	44.0	36.7	0.0	0.0
WRDS03.9	W1449	32-0611	08/25/06	122.3	15.6	18.1	16.2	0.0	0.0	0.0	0.0
WSFR10.6	W1464	32-0418	07/21/06	1751.5	20.5	27.9	21.6	933.7	53.3	0.0	0.0
WSFR23.5	W0221	32-0424	07/21/06	1749.8	19.9	30.1	21.7	812.9	46.5	16.1	0.9

References

MassDEP. 2001. *Laboratory Quality Assurance Plan and Standard Operating Procedures*. Massachusetts Department of Environmental Protection, Division of Environmental Analysis, Senator William X. Wall Experiment Station. Lawrence, MA.

MassDEP. 2004a. CN 1.21 - *Sample Collection Techniques for DWM Surface Water Quality Monitoring SOP.* December 2004. Massachusetts Department of Environmental Protection, Division of Watershed Management. Worcester, MA.

MassDEP 2004b. CN 4.4 - *Multi-probe Deployments for Unattended Logging Data Collection*. November 2004. Massachusetts Department of Environmental Protection, Division of Watershed Management. Worcester, MA.

MassDEP. 2005a. CN 225.0 - *QUALITY ASSURANCE PROGRAM PLAN, Surface Water Monitoring & Assessment, MassDEP-Division of Watershed Management, 2005-2009*. April 2005. Massachusetts Department of Environmental Protection, Division of Watershed Management. Worcester, MA.

MassDEP. 2005b. CN 4.21 - *Water Quality Multiprobe Data Collection*. September 2005. Massachusetts Department of Environmental Protection, Division of Watershed Management. Worcester, MA.

MassDEP. 2006a. CN 277.0 – 2006 DWM Environmental Monitoring Overview. April 2007. Massachusetts Department of Environmental Protection, Division of Watershed Management. Worcester, MA.

MassDEP. 2006b. CN 233.0 - *Westfield River Watershed Sampling and Analysis Plan 2006*. March 2006. Massachusetts Department of Environmental Protection, Division of Watershed Management. Worcester, MA.

MassDEP. 2006c. Open File. DWM Water quality river fieldsheets 2006. Massachusetts Department of Environmental Protection, Division of Watershed Management. Worcester, MA.

MassDEP. 2012a. CN 56.15 - *DWM Water Quality Data Validation Process (Summary).* May 2012. Massachusetts Department of Environmental Protection, Division of Watershed Management. Worcester, MA.

MassDEP. 2012b. CN 300.0 – WATER QUALITY *DATA VALIDATION REPORT for Year 2006 Project Data.* August 2012. Massachusetts Department of Environmental Protection, Division of Watershed Management. Worcester, MA.

NOAA. 2012. [Online]. *Precipitation Data.* September 2012. National Oceanic and Atmospheric Administration, National Climatic Data Center. Asheville, NC. http://www.ncdc.noaa.gov/oa/ncdc.html

USGS. 2012a. [Online]. *Discharge Data from Real-time Gage Stations.* September 2012. United States Geological Service. Reston, VA. http://www.usgs.gov/

USGS. 2012b. [Online]. *USGS Station Statistics.* October 2012. United States Geological Service. Reston, VA. http://water.usgs.gov/osw/streamstats/

APPENDIX 1: 2006 DATA SYMBOLS AND QUALIFIERS

Excerpted from: Water Quality Data Validation Report for Year 2006 Project Data (CN 300.0)

The following data qualifiers or symbols are used in the MADEP/DWM WQD database for qualified and censored water quality and multi-probe data. Decisions regarding censoring vs. qualification for specific, problematic data are made based on a thorough review of all pertinent information related to the data.

General Symbols (applicable to all types):

" ## " = Censored data (i.e., data that has been discarded for some reason).

" ** " = Missing data (i.e., data that should have been reported).

" -- " = No data (i.e., data not taken/not required)

" ^^ " = No data due to no water

Multi-probe-specific Qualifiers:

" i " = inaccurate readings from Multi-probe likely; may be due to significant pre-survey calibration problems, post-survey checks outside typical acceptance ranges for the low ionic and deionized water checks, lack of calibration of the depth sensor prior to use, or to checks against laboratory analyses. Where documentation on unit pre-calibration is lacking, but SOPs at the time of sampling dictated pre-calibration prior to use, then data are considered potentially inaccurate.

" m " = method not followed; one or more protocols contained in the DWM Multi-probe SOP not followed, i.e., operator error (e.g., less than 3 readings per station (rivers) or per depth (lakes), or instrument failure not allowing method to be implemented.

" s " = field sheet recorded data were used to accept data, not data electronically recorded in the Multi-probe surveyor unit, due to operator error or equipment failure.

" u " = unstable readings, due to lack of sufficient equilibration time prior to final readings, non-representative location, highly-variable water quality conditions, etc. See Section 4.1 for acceptance criteria.

" c " = greater than calibration standard used for pre-calibration, or outside the acceptable range about the calibration standard. Typically used for conductivity (>718, 1,413, 2,760, 6,668 or 12,900 uS/cm) or turbidity (>10, 20 or 40 NTU). It can also be used for TDS and Salinity calculations based on qualified ("c") conductivity data, or that the calculation was not possible due to censored conductivity data (TDS and Salinity are calculated values and entirely based on conductivity reading). See Section 4.1 for acceptance criteria.

" r " = data not representative of actual field conditions.

" t " = tidal conditions

Sample-Specific Qualifiers:

" a " = accuracy as estimated at WES Lab via matrix spikes, PT sample recoveries, internal check standards and lab-fortified blanks did not meet project data quality objectives identified for program or in QAPP.

“ b ” = blank Contamination in lab reagent blanks and/or field blank samples (indicating possible bias high and false positives).

“ d ” = precision of field duplicates (as RPD) did not meet project data quality objectives identified for program or in QAPP. Batched samples may also be affected.

“ e ” = not theoretically possible. Specifically, used for bacteria data where colonies per unit volume for e-coli bacteria > fecal coliform bacteria, for lake Secchi and station depth data where a specific Secchi depth is greater than the reported station depth, and for other incongruous or conflicting results.

“ f ” = frequency of quality control duplicates did not meet data quality objectives identified for program or in QAPP.

“ h ” = holding time violation (usually indicating possible bias low)

“ j ” = ‘estimated’ value; used for lab-related issues where certain lab QC criteria are not met and re-testing is not possible (as identified by the WES lab only). Also used to report sample data where the sample concentration is less than the ‘reporting’ limit or RDL and greater than the method detection limit or MDL (mdl< x <rdl). Also used to note where values have been reported at levels less than the mdl.

“ m ” = method SOP not followed, only partially implemented or not implemented at all, due to complications with sample matrix (e.g., sediment in sample, floc formation), lab error (e.g., cross-contamination between samples), additional steps taken by the lab to deal with matrix complications, lost/unanalyzed samples, and missing data.

“ p ” = samples not preserved per SOP or analytical method requirements.

“ r ” = samples collected may not be representative of actual field conditions, including the possibility of “outlier” data and flow-limited conditions (e.g., pooled).

“ t ” = tidal conditions