

**APPENDIX H
SUMMARY OF WMA REGISTRATION AND PERMITTING
AND NPDES PERMITTING INFORMATION
CONNECTICUT RIVER BASIN**

Table H1. Water Management Act registration and permits in the Connecticut River Watershed.

Registration#	Permit	Water Supply System Name	Registered Volume (MGD)	Registered Withdrawal (Days)	Permitted Volume (MGD)	Permit Withdrawal (Days)	Segment	PWSID
10600802	9P10600801	Amherst DPW Water Division	3.34	365	1.21	365	MA34-27 subwatershed: five wells - 01G, 02G, 04G, 05G, 06G, and one inactive 07G MA34006 (01S -Atkins Reservoir) MA34-35 (02S -Amythest Brook Hawley Hill Intake)	1008000
	9P10619202	Australis Aquaculture, LLC	NA	NA	0.41	365	MA34-02 (Well #1)	
	9P10602401	Belchertown Water District	NA	NA	0.4	365	MA34-27 subwatershed (05G Daigle Well)	1024000
	9P010602901	Bernardston Fire & Water District	NA	NA	0.17	365	MA34-33 (03G Sugarhouse Well)	1029000
	9P210633701	Chang Farms, Inc	NA	NA	0.15	365	MA34-04 (onsite wellfield)	
10600502		Crestview Country Club	0.06	184	0	184	MA34-05 (Wells #1, 2, 3 and country club pond)	
	9P2010602902	Crumpin Fox Club	NA	NA	0.08	210	MA34-33 (well #1 and a pond)	
10628904		Delta Sand And Gravel, Inc.	0.11	365	NA	NA	MA34-09	
10611705		Earle M. Parsons & Sons, Inc.	1.03	90	NA	NA	MA34-04 (01S Connecticut River)	
	9P210621702	East Northfield Water Company	NA	NA	0.14	365	MA34-01 (01S Grandin Reservoir)	1217001
10608701	9P210608701	Easthampton Water Department	3.31	365	0	365	MA34-11 (07G Maloney Well) MA34-18 (04G Hedrick Street , 08G Nonotuck Park, 05G Pines Well, and 09G Well #9)	1087000
	9P210608501	Elmcrest Country Club	NA	NA	0.226	183	Tributary to Scantic River in CT	
10632501		Fountain Plating Co, Inc.	0.12	365	NA	NA	Tributary to MA34-05 (FP Well #1 and #2)	
	9P210621703	Four Star Farms, Inc.	NA	NA	0.167	150	MA34-02 (01S)	
10628902	9P210628901	Great Swamp Farm, Inc.	0.21	365	0.39	365	Subwatershed of MA34-25 (S3, S4, Podick Brook)	
10611702	9P210611701	Hadley Water Department	0.79	365	0.13	365	Subwatershed of MA34-04(01G and 02G Mt. Warner wells) MA34-27 (03G and 04G Callahan wells)	1117002
10612702		Hatfield Water Department	0.35	365	NA	NA	Tributary to MA34-24 (01S)	1127000

Registration#	Permit	Water Supply System Name	Registered Volume (MGD)	Registered Withdrawal (Days)	Permitted Volume (MGD)	Permit Withdrawal (Days)	Segment	PWSID
							Running Gutter Brook Reservoir, 01G Running Gutter Brook Well, 02G Omasta Well)	
10613701		Hazen Paper Company	0.13	365	NA	NA	MA34-05 (01G, 02G, and 03G Wells near 3 rd level canal Holyoke)	
10600803		Hickory Ridge Country Club	0.06	184	NA	NA	MA34-27 (surface withdrawal Fort River)	
10613708		Holyoke Gas & Electric Department	0.61	365	NA	NA	MA34-05 (Intake #01 and #02)	
10613711		Holyoke Water Works	8.04	365	NA	NA	MA34-18 (02G Pequot Well) MA34089, and MA34101	1137000
10627501		Intelicoat Technologies	0.2	365	NA	NA	Tributary to MA34-05 (01G Well#1)	
	9P210627502	Ledges Golf Club	NA	NA	0.89	214	MA34-04 (Connecticut River Intake)	
10615902		Longmeadow Country Club	0.1	184	NA	NA	MA34-21 (Longmeadow Country Club Pond)	
10606102		Mckinstry Market Garden	0.1	92	NA	NA	MA34-04 (Connecticut River Surface supply)	
10628903		Mohawk Trout Hatchery	1.44	365	NA	NA	Tributary subwatershed to MA34-04 (Well)	
10613712		Mt Tom Generating Company, LLC.	113.6	365	NA	NA	MA34-04 (Connecticut River intake)	
	9P210612001	New Hampden Country Club	NA	NA	0.135	365	Tributary to MA34-30 (Unlined irrigation ponds, greenhouse well, maintenance shed well, clubhouse well, caretakers well)	1120008 for clubhouse well
10621401	9P210621401	Northampton Department Of Public Works	3.96	365	0.84	365	Tributaries to MA34-28 (01G and 02G), MA34056 (01S), MA34059 (03S), tributary system to MA34-24 (04S), and MA34076 (02S emergency only)	1214000
10607401		Nourse Farms, Inc.	0.2	184	NA	NA	MA34-04 (five surface withdrawals Long Plain Road, Home Pump #2, Home Pump #3, Field Farm #4, and MAGDYZ #6 and one well Dripline #1)	
	9P10613701	Open Square Properties, LLC.	NA	NA	0.235	365	MA34-05 (Well 1A Holyoke	

Registration#	Permit	Water Supply System Name	Registered Volume (MGD)	Registered Withdrawal (Days)	Permitted Volume (MGD)	Permit Withdrawal (Days)	Segment	PWSID
							Canals)	
10613706		Sonoco Products Company	0.85	365	NA	NA	MA34-05 (Sonoco Intake Holyoke Canals)	
10607402		South Deerfield Water District	0.65	365	NA	NA	Tributary to MA34-24 (01S Roaring Brook Dam and 02S Whately Reservoir) and MA34-04 (01G Sugarloaf Street Wellfield)	1074001
10627502		South Hadley Fire District 2 Water Dept.	0.68	365	NA	NA	MA34-04 (04G Dry Brook well and 05G Dry Brook Backup Well which is currently inactive), MA34-07 (Elmer Brook Dug well 03G is an emergency source)	1275001
10627602		Southampton Country Club	0.1	180	NA	NA	MA34-17 (Moose Brook Pumphouse)	
	9P210627601	Southampton Water Department	NA	NA	0.36	365	MA34-11 (Glendale Well 01G and replacement 02G)	1276000
10619203		Southworth Paper Company	0.88	365	NA	NA	MA34-03	
10628901		Sunderland National Salmon Station	0.28	365	NA	NA	MA34-25 (Wells #1, 2, and 3)	
10628907	9P210628902	Sunderland State Fish Hatchery	2.79	365	0	365	Tributary to MA34-04 (Sunderland Hatchery Well and Well #2 and Bitzer Hatchery Well)	
10628905		Sunderland Water District	0.24	365	NA	NA	Tributary to MA34-04 (Ralicki Well 01G and Sawmill Brook Reservoir) and MA34-09 (Hubbard Well 02G)	1289000
10600501		Tuckahoe Turf Farm	0.07	153	NA	NA	Tributary to Connecticut River in Connecticut (five surface water withdrawals)	
10619201	9P10619201	Turners Falls Fire District	1.04	365	0.14	365	MA34070 (Lake Pleasant 02S and Hannegan Brook Well 03G) MA34028 (Green Pond 03S) MA34-41 (Well Station 01G and Gravel Pack Well #2 02G)	1192000
10615901		Twin Hills Country Club	0.1	184	NA	NA	MA34-21 subwatershed (no source identified in database)	
	9P210628101	Veterans & Franconia Golf Courses	NA	NA	0.2	210	Upstream MA34073 (Pecousic Brook withdrawal)	

Registration#	Permit	Water Supply System Name	Registered Volume (MGD)	Registered Withdrawal (Days)	Permitted Volume (MGD)	Permit Withdrawal (Days)	Segment	PWSID
							Upstream MA34099 (South Branch Mill River withdrawal)	
	9P201061610 1	Westover Municipal Golf Course	NA	NA	0.12	210	MA34-19 (Wade Pond)	
	9P210633901	Wilbraham Water Department	NA	NA	0.864	365	Upstream MA34052 (Well #1)	1339000
10634001		Williamsburg Water Department	0.2	365	NA	NA	MA34-38 (South Street Wells #1 and #2)	1340000

Notes: NA=Not Applicable

One voluntary registrant Wyckoff Country Club, Inc. V10613705

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Table H2. NPDES permittees in the Connecticut River Watershed.

PERMITTEE	NPDES #	SEGMENT
Town of Agawam	MA0101320	34-05
The Town of Agawam permit (MA0101320 issued in September 1995) to discharge combined sewer overflows via Outfall #012 (Leonard Street Overflow) to the Connecticut River was terminated by EPA in September 2000.		
Agri-Mark, Inc.	MA0029327	Tributary to MA34-05
Agri-Mark, Inc. in West Springfield (MA0029327 issued in May 2004) to discharge 0.12 MGD process wastewater via Outfall 001 to Bagg Brook, a tributary to the Connecticut River. The facility is engaged in the manufacturing of heavy cream, condensed milk, nonfat dry milk, and butter. The discharge is from process condensate water.		
Town of Amherst	MAG640046	Tributary to MA34-35
The Town of Amherst is authorized (MAG640046 issued January 2001) to discharge 0.048 MGD (average monthly and daily maximum) of effluent from the Centennial Water Treatment Plant to Harris Brook (mistakenly identified as Amethyst Brook in the permit). The total residual chlorine (TRC) limit is 0.74 mg/L average monthly and 1.0 mg/L daily maximum. One modified acute and chronic whole effluent toxicity test using <i>C. dubia</i> was required and conducted in June 2001. No acute toxicity was detected but the CNOEC result was 50% effluent. Survival of <i>C. dubia</i> exposed (7-day) to water collected from Harris Brook just downstream from the intake reservoir on Harris Brook was 100%. Hardness of the river water was 10 mg/L.		
Town of Amherst	MA0100218	MA34-04
The Town of Amherst is authorized (MA0100218 issued in September 2006) to discharge from the Amherst Wastewater Treatment Plant a flow of 7.1 MGD (average monthly) of treated effluent via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is $LC_{50} \geq 50\%$ effluent using <i>C. dubia</i> as a test species on a biannual basis. The TRC limit is 1.00 mg/L (daily maximum) between 1 April and 31 October. Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and June 2007 ranged from <0.075 to 29 mg/L (n=11) while TRC concentrations ranged from <0.02 to 0.09 mg/L (n=12).		
Australis Aquaculture, LLC	MA0110264	MA34-02
Australis Aquaculture, LLC is authorized (MA0110264 issued in September 2003) to discharge from the facility at 15 Industrial Boulevard in Turner Falls an average monthly and daily maximum flow of 0.3 MGD of treated effluent from the indoor farming facility currently for <i>Australis barramundi</i> via Outfall #001 to the Deep Hole of the Connecticut River (until relocation and termination of the discharge, or expiration of the permit). (This permit was formerly issued to Mass Fin Tech, LLC and prior to that Aqua Partners Technologies, LLC). The TRC limit is 0.01 mg/L average monthly and 0.019 mg/L daily maximum. The total phosphorus limit is 0.2 mg/L average monthly. The permit also authorizes this discharge via Outfall #002 to the Connecticut River (following relocation and the termination of the discharge from "Deep Hole").		
Town of Belchertown Department of Public Works	MA0102148	MA34-06
The Town of Belchertown Department of Public Works is authorized (MA0102148 issued in December 2005) to discharge from the Belchertown Water Reclamation Facility a flow of 1.0 MGD average monthly of treated effluent via Outfall #001 to Lampson Brook. The facility's whole effluent toxicity limits are $LC_{50} \geq 100\%$ and C-NOEC $\geq 94\%$ effluent using <i>C. dubia</i> as a test species on a quarterly basis. The total phosphorus limit is 0.25 mg/L average monthly. Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and August 2007 ranged from <0.01 to 1.70 mg/L (n=32). Total Residual Chlorine (TRC) concentrations reported during the same time period were <0.05 mg/L (n=32).		
Berkshire Electric Cable Co.	MA0032832	MA34-28
Berkshire Electric Cable Co. is authorized to discharge contact and non-contact cooling water from their facility in Leeds 0.017MGD (daily maximum) via Outfall #001 into a swamp area adjacent to the Mill River.. Stormwater flows into Fire Pond, which is also adjacent to the Mill River. It should be noted that Berkshire installed a closed loop contact cooling water system so that it no longer discharges industrial wastewater according to a letter received June 2007. The TRC concentration reported in the whole effluent toxicity report in June 2004 was <0.05 mg/L (n=1).		

PERMITTEE Bioshelters, Inc.	NPDES # MA0110281	SEGMENT Tributary to MA34-25
Bioshelters, Inc. is authorized (MA0110281 issued in December 2002) to discharge from their facility in Amherst a maximum daily flow of 0.0864 MGD of fish culture effluent via Outfall #001 to Great Swamp to an unnamed tributary of the Mill River Hadley. The facility is engaged in farming of Tilapia (capacity to produce 6000,000 lbs annually). The facility raises fish and hydroponic produce in a recirculation aquaculture and hydroponic system. The wastewater from the fish is used to grow plants, and plants are used to clean the water for the fish. Water is supplied to the facility by an on-site well.		

PERMITTEE Boston and Maine Corporation	NPDES # MA0000272	SEGMENT Tributary to MA34-04
Boston and Maine Corporation (B&M) is authorized to discharge from the East Deerfield Rail Yard facility (NPDES # MA0000272 issued September 2005 and modified with an effective date of 1 July 2006) for the discharge of stormwater and process wastewater treated by a Dissolved Air Flotation system via Outfall #004 to an unnamed brook to the Connecticut River. The flow limit is 0.015 MGD average monthly and 0.045 MGD daily maximum. The facility is required to submit the results of modified acute and chronic whole effluent toxicity tests conducted once a year in March with both <i>C. dubia</i> and <i>P. promelas</i> on grab samples of the discharge. No acute whole effluent toxicity was detected by either test species in March 2006 or 2007 (i.e., LC ₅₀ >100% effluent). Some chronic toxicity was detected (CNOEC = 50% effluent to <i>P. promelas</i> in 2006 and CNOEC = 50% effluent to <i>C. dubia</i> in 2007). Survival of both test organisms exposed to river water collected in the unnamed tributary downstream from the 004 discharge was ≥80%. Dilution water sampling location will be corrected to a site upstream from the discharge in subsequent whole effluent toxicity tests. A Stormwater Pollution Prevention Plan (SWPPP) that includes monitoring requirements is also an integral part of this permit.		

PERMITTEE Chang Farms, Inc.	NPDES # MA0040207	SEGMENT MA34-04
Chang Farms, Inc. is authorized (MA0040207 issued in September 2006) to discharge from their facility in Whately a monthly average flow of 0.15 MGD of treated effluent via Outfall #001 to the Connecticut River. The farm is an agricultural enterprise that produces bean sprouts in different varieties for the retail market. Water is drawn from an on-site wellfield for irrigation (including sprout soaking), washing sprout plants, and equipment cleaning. On average 0.12 MGD is used to irrigate and wash/rinse harvested plants and an average of 0.03 MGD is used to clean and sanitize process equipment. The facility's whole effluent toxicity limit is LC ₅₀ ≥ 50% effluent using <i>C. dubia</i> as a test species on a biannual basis. The TRC limit is 1.0mg/L (monthly average and daily maximum) year round. The permit authorizes this discharge via Outfall 002 to Sugarloaf Brook, a tributary to the Connecticut River, until the direct discharge to the river via Outfall 001 is completed. The permittee agreed to install a UV disinfection system to treat coliform bacteria in the effluent. The TRC monitoring is required because of cleaning products.		

PERMITTEE City of Chicopee	NPDES # MA0101508	SEGMENT MA34-05
<p>The City of Chicopee is authorized (MA0101508 issued in May 2005) to discharge from the Chicopee Water Pollution Control Facility an average monthly flow of 15.5 MGD of treatment plant effluent via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is LC₅₀ ≥ 100% effluent using <i>P. promelas</i> as a test species on a quarterly basis. The TRC limit between 1 April and 31 October is 0.89 and 1.0 mg/L (average monthly and daily maximum limits, respectively). Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and September 2007 ranged from 0.04 to 24mg/L (n=31) (note most measurements were >10 mg/L) while TRC concentrations ranged from <0.05 to 2.2 mg/L (n=32) although there was only one reported exceedance of the TRC limit. It should also be noted that construction was completed for the facility's "Secondary Bypass Disinfection Facility" in mid 2006. The permit also authorizes the discharge of stormwater/wastewater via combined sewer overflows during wet weather via nine outfalls to the Connecticut River as follows:</p> <ul style="list-style-type: none"> 001 Britton Street in front of house #171 (30" pipe). Fairview sewer separation (32 Million Gallons/Year) in construction to be completed in 2009. 003 Power line right of way south of James Street (30" pipe) 004 Riverview Place Sewage Pumping Station (21" pipe) 005 Leslie Street Sewage Pumping Station (36" pipe) 006 Call Street Sewage Pumping Station (60" pipe) 007-I Jones Ferry Road Sewage Pumping Station (70X69 rectangle). Major project in construction to be completed in 2009 - 173 Million Gallons/Year. 007-II Jones Ferry Road Sewage Pumping Station (36" pipe) 008 Easement south of Jones Ferry Road Sewage (48" pipe) 009 Paderewski Street Sewage Pumping Station (60" pipe). This discharge was eliminated in late 2006. 		

PERMITTEE Commonwealth of Massachusetts Division of Fisheries and Wildlife	NPDES # MA0110035	SEGMENT Tributary to MA34-04
<p>The Massachusetts Division of Fisheries and Wildlife is authorized (MA0110035 issued in September 2007) to discharge from the Sunderland State Fish Hatchery a flow of 1.17 MGD average monthly and 1.68 daily maximum of treated effluent via Outfall #001 to Russellville Brook, a tributary to the Connecticut River. The facility's whole effluent toxicity limits are $LC_{50} \geq 100\%$ and $C\text{-NOEC} \geq 100\%$ effluent using <i>C. dubia</i> as a test species on a quarterly basis when formalin is used. These monitoring requirements were also a condition of the prior permit. The facility has reportedly not used formalin since 1993, so they have not conducted any whole effluent toxicity tests.</p>		

PERMITTEE Commonwealth of Massachusetts Division of Fisheries and Wildlife	NPDES # MA0110051	SEGMENT Tributary to MA34-04
<p>The Massachusetts Division of Fisheries and Wildlife is authorized (MA0110051 issued in December 2001) to discharge from the Montague (Bitzer) State Fish Hatchery a flow of 1.4 MGD average monthly and 1.55 daily maximum of treated effluent via Outfall #001 to an unnamed tributary of the Connecticut River. The facility's whole effluent toxicity limits are $LC_{50} \geq 100\%$ and $C\text{-NOEC} \geq 100\%$ effluent using <i>C. dubia</i> as a test species on a quarterly basis when formalin is used. The facility has reportedly not used formalin for the last 15 years, so they have not conducted any whole effluent toxicity tests.</p>		

PERMITTEE Consolidated Edison Energy of Massachusetts, Inc. (CEEMI)	NPDES # MA0004707	SEGMENT MA34-05
<p>CEEMI is authorized (MA0004707 issued in November 2004) to discharge the following from the West Springfield Station (coal/oil fired power plant) to the Connecticut River:</p> <p>Outfall #001: 1.1 MGD daily maximum of once through cooling water for the two combustion turbine generator (CTG) unit's lube oil cooling systems combined with the CTG's sandfilter backwash water. The maximum daily temperature shall not exceed 91°F, and the temperature rise from the inlet shall not exceed 20°F.</p> <p>Outfall #002A: 69 MGD of once through condenser cooling water for Unit 3 steam turbine generator combined with Unit 3's sandfilter backwash water and the hydrogen booster pumps cooling water from 15 April to 31 October. The maximum daily temperature shall not exceed 112°F, and the temperature rise from the inlet shall not exceed 37°F. The TRC limit is 0.13 and 0.2 mg/L (average monthly and daily maximum, respectively during chlorination events).</p> <p>Outfall #002B: 69 MGD of once through condenser cooling water for Unit 3 steam turbine generator combined with Unit 3's sandfilter backwash water and the hydrogen booster pumps cooling water from 1 November to 14 April. The maximum daily temperature shall not exceed 100°F, and the temperature rise from the inlet shall not exceed 48°F. The TRC limit is 0.13 and 0.2 mg/L (average monthly and daily maximum, respectively during chlorination events).</p> <p>Outfall #005: intake screen wash.</p> <p>Outfall #006: stormwater from electric control room roof drains and yard areas (including parking lot,</p> <p>Outfall #010: CTG's sandfilter backwash water, and</p> <p>Outfall #020: Unit 3's sandfilter backwash water.</p> <p>Annual reports must be submitted detailing hourly intake and discharge temperature monitoring, net heat load, amount of water discharged. Biological and thermal monitoring studies to evaluate the effects of West Springfield Station's discharge on the balanced, indigenous population of shellfish, fish and wildlife in an on the Connecticut River and the effectiveness of location, design, construction, and capacity of the cooling water intake structure to minimize adverse environmental effects are also required. Ichthyoplankton (fish eggs and larvae) occurrence and abundance of species entrained and in a transect of the Connecticut River upstream from the Station, and finfish occurrence and abundance of species impinged</p>		

PERMITTEE Town of Deerfield	NPDES # MA0101648	SEGMENT MA34-04
<p>The Town of Deerfield is authorized (MA0101648 issued in January 2007) to discharge from the South Deerfield Wastewater Treatment Plant a flow of 0.85 MGD average monthly of treated effluent via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is $LC_{50} \geq 50\%$ effluent using <i>C. dubia</i> as a test species on a biannual basis. The TRC limit between 1 April and 31 October is 1.0 mg/L (daily maximum). (These same limits and monitoring requirements were in the August 2000 permit.)</p> <p>Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and September 2007 ranged from <0.1 to 9.6 mg/L while TRC concentrations were all <0.050 mg/L (n=16).</p>		

PERMITTEE Town of Easthampton	NPDES # MA0101478	SEGMENT MA34-04
<p>The Town of Easthampton is authorized (MA0101478 issued in September 2007) to discharge from the Easthampton Wastewater Treatment Plant (WWTP) a flow of 3.8 MGD average monthly of treated sanitary and industrial wastewater via Outfall #001 and #002 to the Connecticut River and the Manhan River, respectively. In the recently issued permit the facility's whole effluent toxicity limits are as follows:</p> <p>Outfall 001: $LC_{50} \geq 50\%$ effluent using <i>C. dubia</i> in June and September. The TRC limit between 1 April and 30</p>		

November is 1.0 mg/L (average monthly and daily maximum).

Outfall 002: $LC_{50} \geq 100\%$ effluent and CNOEC report only using *C. dubia* in March and December. The TRC limit between 1 April and 30 November is 0.05 mg/L (average monthly and daily maximum).

Ammonia-nitrogen concentrations reported for Outfall 001 in the whole effluent toxicity reports submitted between June 2000 and December 2006 ranged from 0.462 to 19mg/L (n=15), while TRC concentrations were ≤ 0.32 mg/L (n=15). According to the fact sheet of the NPDES permit "The main effluent pipe is approximately 2.1 miles long and discharges to the Connecticut River by gravity. The outfall is located near shore, just downstream of the confluence of the Connecticut and Manhan Rivers. During periods when discharge flows exceed the capacity of Outfall #001, flow is discharged to the Manhan River through Outfall #002. The hydraulic capacity of Outfall #001 varies based on the hydraulic regime in the Connecticut River. For example, the permittee estimates that the peak capacity is 3.1 MGD at normal river level (101 ft.), 2.7 MGD at the ten-year flood level and 1.2 MGD at the 50-year flood level (124 ft.)...during the summer months with no discharges from Outfall #002, the maximum daily flows (as opposed to the peak capacities listed above), as measured by the plant's influent flow meter, are about 2 MGD, indicating that the maximum daily flow capacity of Outfall #001 at normal river stage is about 2 MGD".

PERMITTEE	NPDES #	SEGMENT
FirstLight Hydro Generating Company	MA0035521	MA34-03
Cabot Station (hydropower project): The FirstLight Hydro Generating Company (formerly the NE Hydro Generating Company and the Northeast Generation Company (NGC) is authorized (MA0035521 issued in September 1996) to discharge from the Cabot Station, sump pump discharge via Outfall #001; groundwater drain pipe discharge via Outfall #002; transformer cooling pit discharge via Outfall #003; six pit drain discharge via Outfall #004; three floor drain discharge via Outfall #005; two sump discharges via Outfall #006; and generator water seal leakage via Outfall #007 to the Connecticut River.		

PERMITTEE	NPDES #	SEGMENT
FirstLight Hydro Generating Company	MA0035530	MA34-02
Northfield Mountain Station (a pump storage hydropower project): The FirstLight Hydro Generating Company (formerly the NE Hydro Generating Company and the Northeast Generation Company - NGC) is authorized (MA0035530 issued in September 1996) to discharge the following from the Northfield Mountain Station to the Connecticut River: Outfall #001: floor and associated drain water; Outfall #002: non-contact cooling water in heat exchanger for transformer, bearing cooling, liquid rheostat cooling, oil coolers, and generator coolers.		

PERMITTEE	NPDES #	SEGMENT
Town of Hadley	MA0100099	MA34-04
The Town of Hadley is authorized (MA0100099 issued in April 2006) to discharge from the Hadley Wastewater Treatment Plant (WWTP) a flow of 0.54 MGD average monthly of treated effluent via Outfall #001 to the Connecticut River. The facility's acute whole effluent toxicity limit is $LC_{50} \geq 50\%$ effluent using <i>C. dubia</i> as a test species on a biannual basis. The TRC limit between 1 April and 31 October is 1.0 mg/L daily maximum. Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and June 2006 ranged from <0.1 to 13 mg/L (n=12) while TRC concentrations were all <0.05 mg/L (n=12).		

PERMITTEE	NPDES #	SEGMENT
Hampden Papers, Inc.	MAG250881	MA34-05
Hampden Papers, Inc. is authorized (MAG250881 issued September 2000) to discharge 0.22 MGD (maximum daily) of non-contact cooling water via Outfalls 002 and 003 to the Connecticut River. The facility reports the maximum daily temperature doesn't exceed 79°C while pH is in the range of 7.3 to 7.9 SU. The source of water for the facility is municipal. TRC concentrations in the discharge ranged from 0.24 to 1.0 mg/L according to DMRs submitted in 2007.		

PERMITTEE	NPDES #	SEGMENT
Town of Hatfield	MA0101290	MA34-04
The Town of Hatfield is authorized (MA0101290 issued in April 2006) to discharge from the Hatfield Wastewater Treatment Plant a flow of 0.5 MGD average monthly of treated effluent via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is $LC_{50} \geq 50\%$ effluent using <i>C. dubia</i> as a test species on a biannual basis. The TRC limit between 1 April and 31 October is 1.0 mg/L (daily maximum). Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between May 2001 and October 2006 ranged from 5.2 to 45 mg/L (n=12) while TRC concentrations ranged from 0.01 to 0.42 mg/L (n=12).		

PERMITTEE	NPDES #	SEGMENT
Hazen Paper Company	MAG250872	MA34-05
Hazen Paper Company is authorized (MAG250872 issued September 2000) to discharge an average monthly flow of 0.258 MGD of non-contact cooling water via Outfall #001 and 0.09 MGD of non-contact cooling water via Outfall #002 to the Connecticut River. The facility DMR reports for 2007 that the maximum daily temperature didn't exceed 71.2°C while pH was in the range of 7.5 to 7.9 SU. The source of water for the facility is four private wells.		

PERMITTEE Hercules, Inc.	NPDES # MAG250848	SEGMENT MA34-05
Hercules, Inc. is authorized (MAG250848 issued in January 2001) to discharge 0.2 MGD (maximum daily) of non-contact cooling water to the Connecticut River via Outfall 001. The facility reports the maximum daily temperature doesn't exceed 77°C while pH is in the range of 7.1 to 8.2 SU. The source of water for the facility is municipal. TRC concentrations in the discharge ranged from 0.49 to 0.56 mg/L according to DMRs submitted in 2007.		

PERMITTEE City of Holyoke	NPDES # MA0101630	SEGMENT MA34-05, MA34-04
<p>The City of Holyoke is authorized (MA0101630 issued in September 2000) to discharge treated effluent from the Holyoke Department of Public Works an average monthly flow of 17.5 MGD via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is $LC_{50} \geq 100\%$ effluent using <i>C. dubia</i> as a test species on a quarterly basis. The TRC limit between 1 April and 31 October 31 is 0.74 and 1.00 mg/L (average monthly and daily maximum, respectively). Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and September 2007 ranged from 1.13 to 12.7 mg/L (n=29).</p> <p>The permit also authorizes the discharge of stormwater/wastewater via combined sewer overflows during wet weather into the Connecticut River and the Holyoke Canal as described below:</p> <p>Connecticut River upstream from the Holyoke Dam (Segment MA34-04)</p> <ul style="list-style-type: none"> Outfall 021: River Terrace. Note this discharge reduced to 28 Million Gallons/year from 58 MGY by the Green Brook Separation Project completed late 2001/early 2002. Outfall 020: Cleveland Street. Outfall 023: Jefferson Street to a "dingle" at this site, which doesn't appear to reach the Connecticut River. Outfall 019: Yale Street. Outfall 018: Walnut Street <p>Combined sewer overflows to the Connecticut River downstream from the Holyoke Dam (Segment MA34-05)</p> <ul style="list-style-type: none"> Outfall 014: Mosher Street. Note this outfall was eliminated in 2005. The Mosher Street Sewer Separation Project eliminated an estimated 31 Million Gallons/year. Outfall 013: Appleton Street. Outfall 011: Jackson Street Outfall 009: Berkshire Street. The Berkshire Street Screening and Disinfection Facility Project was completed in October 2007 (treating an estimated 270 Million Gallons/year). Outfall 008: Springdale Park. Outfall 007: Northampton Street/Glen Street. Outfall 003: Jones Ferry Road Outfall 002: Providence Hospital <p>Combined sewer overflows to the Holyoke Canal:</p> <ul style="list-style-type: none"> Outfall 016: Front Street/Appleton Street - First Level Canal 		

PERMITTEE Holyoke Gas and Electric Department (HG&E)	NPDES # MA0001520, MA0035866, MA0035882, MA0035874, MA0035564	SEGMENT Holyoke Canal System to MA34-05
<p>The Holyoke Gas & Electric Department (HG&E) is authorized (MA0001520 issued in December 2005) to discharge the following from the Cabot Street Station (gas/oil fired power plant) to the Holyoke Canal System:</p> <p>Outfall #001 - 10.8 MGD average monthly and 23.0 MGD daily maximum of condenser cooling water from Units 6, 8, and 9, the maximum daily temperature shall not exceed 102°F, and the temperature rise from the inlet shall not exceed 30°F. The permit also requires that a modified acute and chronic whole effluent toxicity test be conducted once during the permit cycle using both <i>C. dubia</i> and <i>P. promelas</i> as test species. The facility operates a full depth fish excluder system (FES) located near the headgates of the canal system to minimize impacts from the cooling water intake structure (CWIS). The permit also requires rotation and inspection of the CWIS intake screens and reports to the Department in the event of a fish kill/impingement event. Thermal sampling in the canal and Connecticut River in July/August during a four-hour period of electricity production on one day was also required.</p> <p>Outfall #002 – 0.025 MGD average monthly (0.1 MGD daily maximum) of neutralization tank wastewater.</p> <p>The permit also authorizes the discharge of two internal outfalls (004 and 005) to outfalls 001 and/04 002.</p> <p>HG&E is also authorized (MA0035564, MA0035882, MA0035866, and MA0035874 issued September 1996) to discharge from four stations (hydropower projects) to the Holyoke Canal. These permits were transferred to HG&E from Holyoke Water Power Company in December 2001.</p> <p><u>Riverside Station:</u> Outfall #001 bearing cooling water, Outfall #002 flood water pump, Outfall #004 sump pump, and Outfall #005 bearing cooling water for Unit 7.</p> <p><u>Hadley Falls Station:</u> Outfall #002 generator cooler for Unit 1, Outfall #003 thrust bearing oil cooler, Outfall #004 wheel pit sump, Outfall #005 station service pump for Unit 1, Outfall #006 dewatering sump, Outfall #007 wheel pit sump with oil/water separator, and Outfall #008 generator cooler for Unit 2.</p> <p><u>Chemical Station:</u> Outfall #001 turbine bearing cooling water.</p> <p><u>Boatlock Station:</u> Outfall #001 bearing cooling water, and Outfall #002 thrust bearing cooling water.</p> <p>Note: there are two additional stations, Skinner and Beebe-Holbrook, with unpermitted waterwheels prior to the Riverside Station which should be permitted.</p>		

PERMITTEE Intelicoat Technologies, LLC	NPDES # MAG250968	SEGMENT MA34-05
Intelicoat Technologies, LLC in South Hadley is authorized (MAG250968 issued June 2001 formerly permitted to Rexam Image Products) to discharge 0.082 MGD average monthly of non-contact cooling water to Buttery Brook. The source of water for the facility is the Water Department Fire District 1. The facility conducted modified acute and chronic toxicity tests on two flow weighted composite samples of their ten outfalls (reported as Outfall 001 "upstream" and Outfall 002 "downstream"). No acute or chronic toxicity to <i>C. dubia</i> was detected in the tests conducted in July 2001. Survival of <i>C. dubia</i> exposed (7-day) to water collected from Buttery Brook was 100%.		

PERMITTEE JP Elastomerics Corporation	NPDES # MA0001503	SEGMENT MA34-15
JPS Elastomerics – Stevens Urethane, Hampshire Plant MA0001503 issued September 2004 for the discharge of contact and non-contact cooling water via Outfall #001 a wetland to Wilton Brook. The flow limit is 0.020 MGD daily maximum. The facility was required to conduct a whole effluent toxicity test in September (limits are LC ₅₀ ≥ 100% and C-NOEC ≥ 100% effluent) using <i>C. dubia</i> as a test species. The TRC limit is 0.011 mg/L average monthly and 0.019 mg/L daily maximum.		

PERMITTEE Town of Montague	NPDES # MA0100137	SEGMENT MA34-04, MA34-03
The Town of Montague is authorized (MA0100137 issued in November 2000) to discharge from the Montague Water Pollution Control Facility a flow of 1.83 MGD average monthly of treated effluent via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is LC ₅₀ ≥ 50% effluent using <i>C. dubia</i> as a test species on a quarterly basis. The TRC limit between April 1 and October 31 is 1.0 mg/L daily maximum. The maximum TRC measurement reported in the whole effluent toxicity reports between August 2000 and September 2006 was 0.15 mg/L (n=15). Ammonia-nitrogen concentrations in the effluent during this time ranged from 0.16 to 2.9 mg/L (n=15). The facility also has two regulators that remain. Outfall #01 is located near Greenfield Road. Outfall #02 reportedly discharges to the Connecticut River Segment MA34-03 and receives overflows from two regulator structures located in Avenue A and at 7 th and L Streets in Turners Falls. A long-term CSO control plan was approved in March 2005. Work should be completed by the end of 2008 which will reduce or eliminate the CSO discharges.		

PERMITTEE Mt. Tom Generating Company, LLC	NPDES # MA0005339	SEGMENT MA34-04
The Mt. Tom Generating Company, LLC is authorized (MA0005339 issued in September 1992) (formerly permitted to the Holyoke Water Power Company prior to 1 November 2006) to discharge the following to the Connecticut River from the Mt. Tom Station (coal fired power plant): Outfall #001 - 133.2 MGD average monthly/daily maximum for two pump operation, or 70.0 MGD average monthly/ daily maximum for one pump operation of once through cooling water with a maximum total residual oxidant (TRO) of 0.15 mg/L (both chlorine and bromine are used for biofouling) when in use, and a maximum temperature of 39°C(102°F). The temperature rise from the inlet during two pump operation shall not exceed 11.1°C(20°F) and during one pump operation shall not exceed 17.7°C(32°F). Outfall #002 - 0.216 MGD average monthly (0.36 MGD daily maximum) of wastewater treatment plant effluent; Outfalls #003, 004, 007, and 009A – stormwater runoff; Outfall #005 - 0.71 MGD (normal) daily maximum or 1.074 MGD (with intermittent fire pump uses) daily maximum of screen wash and service water tank overflow; Outfall #006 - 0.144 MGD daily maximum reflecting pool overflow; Outfalls #008 and #009 – 0.25 MGD average monthly (0.30 MGD daily maximum) bottom ash transport water; Outfalls #010 and #011 - 1.0 MGD average monthly (1.2 MGD daily maximum) fly ash transport water No biological monitoring was required in the permit other than to report any unusual numbers (twice the average) of fish impinged on the intake.		

PERMITTEE City of Northampton	NPDES # MA0101818	SEGMENT MA34-04
The City of Northampton is authorized (MA0101818 issued in May 2002) to discharge from the Northampton Wastewater Treatment Plant a flow of 8.6 MGD average monthly of treated effluent via Outfall #001 to the Connecticut River and #002 to the Mill River bed when the Connecticut River is in high flow stage. The facility's whole effluent toxicity limit is LC ₅₀ ≥ 50% effluent using <i>C. dubia</i> as a test species on a biannual basis. The TRC limit between 1 April and 31 October is 1.0 mg/L average monthly and daily maximum. Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between November 2000 and September 2007 ranged from 0.81 to 23 mg/L (n=15) while TRC concentrations ranged from <0.02 to 0.39 mg/L (n=14).		

PERMITTEE City of Northampton	NPDES # MAG640034	SEGMENT MA34056
The City of Northampton is authorized (MAG640034 issued in May 2003) to discharge from the Northampton Water Treatment Facility 0.82 MGD average monthly of treated filter backwash water as supernate overflow from settling lagoons into Mountain Street Reservoir. This facility was supposed to go on-line in August 2005.		

PERMITTEE Town of Northfield	NPDES # MA0100200	SEGMENT MA34-01
The Town of Northfield is authorized (MA0100200 issued in May 2002) to discharge from the Town of Northfield Wastewater Treatment Facility a flow of 0.275 MGD average monthly of treated effluent via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is $LC_{50} \geq 50\%$ effluent using <i>C. dubia</i> as a test species on a biannual basis (testing required in May and August each year). The Total Residual Chlorine (TRC) limit between 1 April and 31 October is 1.0 mg/L (both average monthly and daily maximum). Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and August 2007 ranged from <0.100 mg/L to 21.400 mg/L (n=15). TRC concentrations reported in the whole effluent toxicity reports between August 2000 and August 2007 are <0.050 mg/L to 0.360 mg/L (n=15).		

PERMITTEE Northfield Mount Hermon School	NPDES # MA0032573	SEGMENT MA34-02
The Northfield Mount Hermon School is authorized (MA0032573 issued in September 2005) to discharge from their facility in Gill a flow of 0.45 MGD average monthly of treated effluent via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is $LC_{50} \geq 50\%$ effluent using <i>C. dubia</i> as a test species on an annual basis. The TRC limit between 1 April and 31 October is 1.0 mg/L average monthly and daily maximum. Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and September 2007 ranged from 0.47 to 21mg/L (n=14) while TRC concentrations ranged from 0.02 to 0.42 mg/L (n=14).		

PERMITTEE Omniglow Corporation	NPDES # MAG250010	SEGMENT MA34-05
Omniglow Corporation of West Springfield is authorized (MAG250010 issued February 2001) to discharge 500 gallons per day of non-contact cooling water to the Connecticut River. The source of water for the facility is municipal.		

PERMITTEE Pro Corporation - PMC	NPDES # MAG250741	SEGMENT MA34-28
Pro Corporation – PMC of Florence is authorized (MAG250741 issued November 2002) to discharge 0.108 MGD of non-contact cooling water to Mill River - Northampton. The source of water for the facility is municipal.		

PERMITTEE Raytor Compounds, Inc.	NPDES # MAG250960	SEGMENT MA34-28
Raytor Compounds, Inc. (formerly Perstorp Compounds, Inc.) in Florence is authorized (NPDES permit #MAG250960 issued January 2006) to discharge 0.05 MGD (daily maximum) of non-contact cooling water to Mill River - Northampton. The source of water for the facility is municipal or an on-site well.		

PERMITTEE Red Wing Meadow Trout Hatchery	NPDES # MA0027880	SEGMENT MA34-41
The Red Wing Meadow Trout Hatchery was authorized (MA0027880 issued in April 2002) to discharge from the facility a flow of 1.44 MGD daily maximum of treated effluent via Outfall #001 to Sawmill River. The facility's whole effluent toxicity limits are $LC_{50} \geq 100\%$ and $C\text{-NOEC} \geq 50\%$ effluent using <i>C. dubia</i> as a test species on a quarterly basis when formalin is used. The limit for TRC is 0.022 and 0.038 mg/L (average monthly and daily maximum, respectively). According to EPA the permit was terminated in January 2005 because the facility went out of business.		

PERMITTEE South Deerfield Water Supply District	NPDES # MAG640005	SEGMENT Tributary to MA34-24
South Deerfield Water Supply District (MAG640005 issued April 2002) discharges approximately 0.04 MGD of effluent from the Roaring Brook Reservoir Water Treatment Facility to the Roaring Brook Reservoir outlet stream a tributary to the Mill River - Hatfield. Because of their low dilution factor, the facility was required to conduct a whole effluent toxicity test using <i>C. dubia</i> in September 2002.		

PERMITTEE Town of South Hadley	NPDES # MA0100455	SEGMENT MA34-05, MA34-19
<p>The Town of South Hadley is authorized (MA0100455 issued in June 2006) to discharge from the South Hadley Wastewater Treatment Plant (WWTP) a average monthly flow of 4.2 MGD of treated effluent via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is $LC_{50} \geq 50\%$ effluent using <i>C. dubia</i> as a test species on a biannual basis. The TRC limit between 1 April and 31 October is 1.0 mg/L average monthly and 1 daily maximum. The facility is also authorized to discharge stormwater/wastewater from combined sewer overflows during wet weather via Outfall 004 at Main Street South Hadley to the Connecticut River, from Outfall 010 at the Stonybrook Pump Station to Stony Brook (MA34-19), and via Outfall 012 at Gaylord Street to Buttery Brook. Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and September 2007 ranged from 0.45 to 31.7 mg/L (n=15) while TRC concentrations ranged from <0.02 to 0.28 mg/L (n=15).</p>		

PERMITTEE Southworth Company Turners Falls Mill	NPDES # MA0005011	SEGMENT MA34-03
<p>The Southworth Company Turner Falls Mill (formerly Esleek Manufacturing Company, Inc.) is authorized (MA0005011 issued in September 2007) to discharge from their Turner Falls Mill facility on Canal Street. The permit authorizes the discharge of treated process wastewater to the Turners Falls Power Canal via Outfall #001 and power generation water (pass through from the Turners Falls Power Canal) and non-contact cooling water via Outfall #002 to the Connecticut River. The new permit requires quarterly whole effluent toxicity testing ($LC_{50} \geq 50\%$ effluent limit) using <i>C. dubia</i> as a test species on the treated process wastewater discharge. The prior permit required testing three times per year with an $LC_{50} \geq 50\%$ effluent limit and a chronic report only requirement. Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between July 2000 and October 2007 ranged from <0.1 to 4.7 mg/L (n=25) while TRC concentrations ranged from 0.02 to 0.08 mg/L (n=26) with only one measurement >0.05 mg/L. The new permit requires that Best Technology Available for Cooling Water Intake Structure (CWIS) be implemented to minimize adverse environmental effects, all live fish and other aquatic organisms impinged, entrained, or trapped on or in the CWIS shall be returned to the power canal or Connecticut River by means to maximize their survival. Additionally, a CWIS Monitoring Program shall be implemented and an Annual CWIS Biological Monitoring Report shall be submitted to EPA and MassDEP.</p>		

PERMITTEE Springfield Water and Sewer Commission	NPDES # MA0101613	SEGMENT MA34-05
<p>The Springfield Water and Sewer Commission is authorized (MA0101613 issued in December 2000) to discharge an average monthly of 67 MGD of treated effluent from the Regional Waste Water Treatment Facility via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is $LC_{50} \geq 100\%$ effluent using <i>C. dubia</i> as a test species on a quarterly basis. The TRC limit between 1 April and 31 October is 0.22 mg/L average monthly and 0.38 mg/L average weekly. Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and September 2007 ranged from <0.1 to 2.8 mg/L (n=28).</p>		

PERMITTEE Springfield Water and Sewer Commission	NPDES # MA0103331	SEGMENT MA34-29/34-05
<p>The Springfield Water and Sewer Commission is authorized (MA0103331 issued in June 2003) to discharge from their facility, combined sewer overflow discharges to the following receiving waters: Connecticut River (MA34-05) outfalls: #007 (Rowland Street), #008 (Washburn Street), #010 (Clinton Street), #011 (Liberty Street), #012 (Worthington Street), #013 (Bridge Street), #014 (Elm Street), #015 (Union Street), #016 (York Street), #018 (Longhill Street), and #049 (Springfield Street). The North End sewer separation project (CSOs 007 and 049) to eliminate an estimated 65 Million Gallon/year is currently in the design phase and is anticipated to be completed in 2011. Mill River- Springfield (MA34-29) outfalls: #017 (Fort Pleasant Ave. and Blake Hill), #019 (Mill, Orange, and Locust Streets), #024 (Rifle and Central Streets), #025 (Allen and Oakland Streets), #045 (Fort Pleasant Avenue), #046 (Belmont Street), and #048 (Allen and Rifle Streets). Mill River Project completed in December 2003 eliminating an estimated 60 Million Gallons/Year.</p>		

PERMITTEE Town of Sunderland	NPDES # MA0101079	SEGMENT MA34-04
<p>The Town of Sunderland is authorized (MA0101079 issued in June 2006) to discharge from the Sunderland Wastewater Treatment Plant (WWTP) a flow of 0.5 MGD average monthly of treated effluent via Outfall #001 to the Connecticut River. The facility's whole effluent toxicity limit is $LC_{50} \geq 50\%$ effluent using <i>Pimephales promelas</i> as a test species on a biannual basis. The TRC limit between 1 April and 31 October is 1.0 mg/L (daily maximum). Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and September 2007 ranged from 0.37 to 23mg/L (n=15) while TRC concentrations ranged from <0.05 to 0.6 mg/L (n=15).</p>		

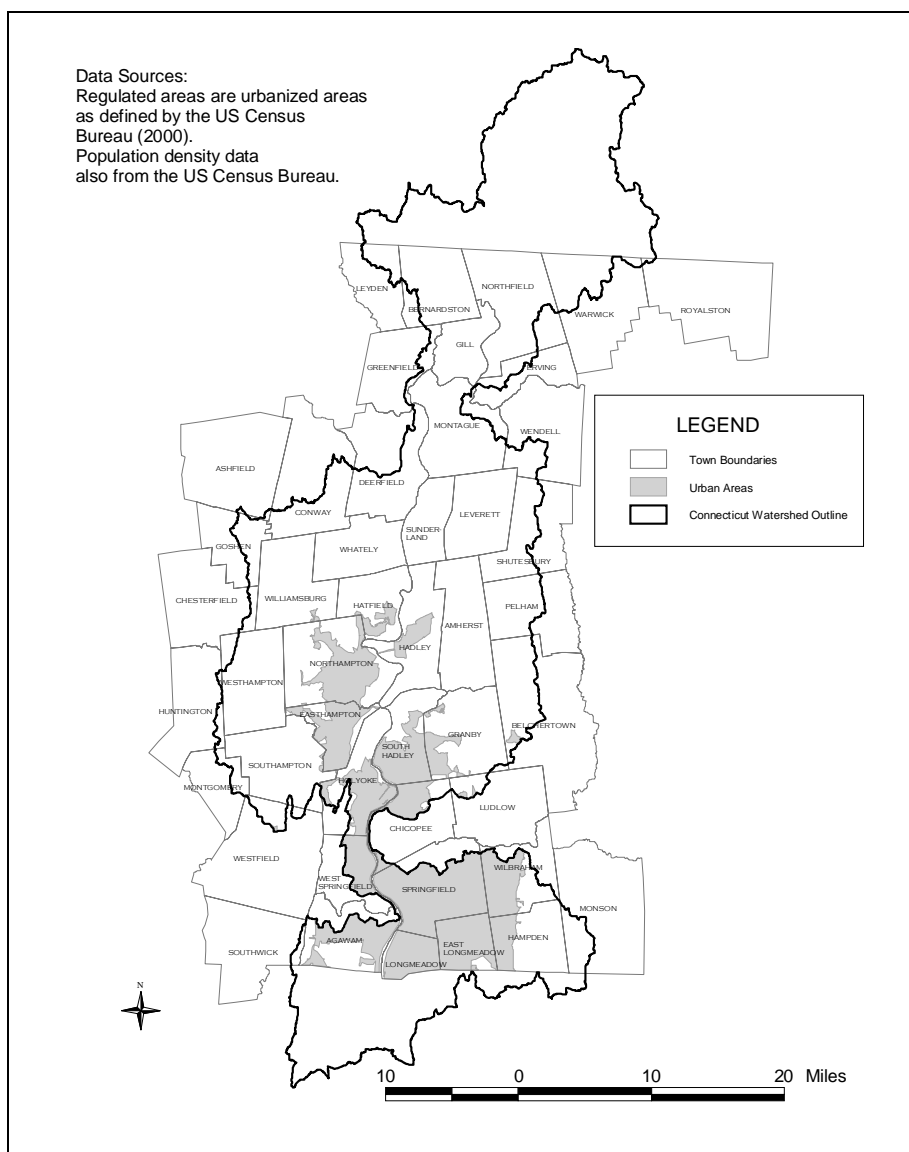
PERMITTEE University of Massachusetts	NPDES # MA0032689	SEGMENT Tributary to MA34-27
<p>The University of Massachusetts is authorized (MA0032689 issued in December 2003) to discharge from the Coal Storage and Handling Facility a flow of 50 GPM daily maximum of stormwater treatment of runoff from coal pile via Outfall #001 to Taylor Brook. The facility is required to update and implement their stormwater pollution prevention plan (SWPPP). Ammonia-nitrogen concentrations reported in the whole effluent toxicity reports between August 2000 and April 2005 ranged from <0.01 mg/L to 0.260 mg/L (n=15). TRC concentrations ranged from <0.020 to 0.12 mg/L (n=15), however only one measurement was above the minimum quantification level of 0.05 mg/L.</p> <p><u>Ambient</u></p> <p>The University of Massachusetts staff collected water approximately 100 yards above where the ditch runs into Taylor Brook, which flows into Fort River, for use as dilution water in the facility's whole effluent toxicity tests. Between August 2000 and April 2005, survival of <i>C. dubia</i> exposed (48 hours) to Taylor Brook ranged from 90 to 100% (n=15). Between August 2000 and April 2005, survival of <i>P. promelas</i> exposed (48 hours) to the Taylor Brook water ranged from 98 to 100% (n=15). Hardness ranged from 25 to 80mg/L (n=15).</p>		

STORMWATER

The NPDES Phase II General Permit program requires NPDES permit coverage for stormwater discharges from small municipal separate storm sewer systems (MS4s), and construction activity disturbing one acre or more of land in a mapped "urbanized area" defined and delineated by the US Bureau of Census in 2000

<http://www.epa.gov/npdes/pubs/fact2-2.pdf>. Large and medium MS4s (populations over 100,000) were permitted during Phase I of the NPDES stormwater program. Under EPA's Phase II Program, the definition of "municipal" includes Massachusetts communities, U.S. military installations, state or federal owned facilities such as

hospitals, prison complexes, state colleges or universities and state highways. An MS4 is a system that: discharges at one or more point sources; is a separate storm sewer system (not designed to carry combined stormwater and sanitary waste water); is operated by a public body; discharges to the Waters of the United States or to another MS4; and, is located in an "Urbanized Area". The NPDES Phase II General Permit requires operators of regulated MS4s to develop and implement a stormwater management program that prevents harmful pollutants from being washed or dumped directly into the storm sewer system which is subsequently discharged into local waterbodies. The NPDES Stormwater Phase II General Permit requires operators of regulated small municipal separate storm sewer systems (MS4s) to develop a stormwater management program that prevents harmful pollutants from being washed or dumped directly into the storm sewer system, and then discharged into local waterbodies. Certain Massachusetts communities were automatically designated (either in full or part) by the Phase II rule based on the urbanized area delineations from the 2000 U.S. Census.



As a result of the census mapping, 19 communities in the Connecticut River Watershed were located either totally or partially in the regulated Urbanized Area (see Table H5). All of these communities applied to EPA and MassDEP for coverage under the Phase II stormwater general permit, issued on 1 May 2003, with the exception of the Town of Williamsburg, which received a waiver of the Phase II stormwater requirements on May 16, 2003 since the area subject to jurisdiction has a population under 1,000 and otherwise satisfies the criteria identified at 40 CFR 123.35(d) 1. Municipalities that are totally regulated must implement the requirements of the Phase II permit in the entire town, while communities that are partially regulated need to comply with the Phase II permit only in the mapped Urbanized Areas. Phase II stormwater general permits will expire on 1 May 2008 (Domizio 2004). For detailed community maps see <http://www.epa.gov/region01/npdes/stormwater/ma.html>.

Table H5. NPDES Phase II stormwater permit information for the Connecticut River Watershed communities.

Community	Permit #	Permit Issued	Mapped Regulatory area in community
Agawam	MAR041001	8/22/2003	Partial
Belchertown	MAR041002	9/12/2003	Partial
Chicopee	MAR041003	9/4/2003	Partial
EastLongmeadow	MAR041005	10/16/2003	Partial
Easthampton	MAR041110	9/12/2003	Partial
Granby	MAR041007	10/2/2003	Partial
Hadley	MAR041008	9/3/2003	Partial
Hampden	MAR041009	9/12/2003	Partial
Hatfield	MAR041010	9/15/2003	Partial
Holyoke	MAR041011	10/2/2003	Partial
Longmeadow	MAR041013	10/31/2003	Total
Ludlow	MAR041014	10/16/2003	Partial
Northampton	MAR041016	9/12/2003	Partial
South Hadley	MAR041020	9/19/2003	Partial
Southampton	MAR041021	10/3/2003	Partial
Springfield	MAR041023	9/12/2003	Total
West Springfield	MAR041024	9/18/2003	Total
Wilbraham	MAR041025	10/7/2003	Partial
Williamsburg	waiver10		

Information about other general stormwater NPDES permittees are available online at:
<http://cfpub.epa.gov/npdes/stormwater/noi/noisearch.cfm>.

LITERATURE CITED

Domizio, L. 2004. *Stormwater permitting information Phase II Communities*. Massachusetts Department of Environmental Protection, Division of Watershed Management, Worcester, MA. Personal Communication.